

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3047770

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
KATHY MCEWEN	10/01/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	IRIDESCENT NETWORKS INC
<b>Street Address:</b>	7809 LA GUARDIA DRIVE
<b>City:</b>	PLANO
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	75025
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Patent Number:</b>	7639612
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	4692316778
<b>Email:</b>	kathy@iridescentnetworks.com
<b>Correspondent Name:</b>	KATHY MCEWEN
<b>Address Line 1:</b>	7809 LA GUARDIA DRIVE
<b>Address Line 4:</b>	PLANO, TEXAS 75025
<b>NAME OF SUBMITTER:</b>	KATHY MCEWEN
<b>SIGNATURE:</b>	/KathyMcEwen/
<b>DATE SIGNED:</b>	10/01/2014
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 1</b>	
source=PatentAssignOct2014001#page1.tif	

## ASSIGNMENT

Whereas, Kathy McEwen, the inventor of the Patent, an individual, residing at 7809 La Guardia Drive, Plano Texas 75025 ("Assignor"), is owner of the United States Patent Number: 7,639,612 B2 (the "Patent"), dated May 2, 2007, titled System and Method of providing bandwidth on demand (the "Invention"), for which United States Application was filed on May 2, 2007 (Serial No. 11/743,470) and issued as United States Patent No. 7,639,612 on December 29, 2009 (the "Issued Patent"); and

Whereas, Iridescent Networks Inc. a Texas corporation located at 7809 La Guardia Drive, Plano, Texas 75025 ("Assignee"), desires to acquire the entire right, title, and interest in the Issued Patent.

Now, therefore, for good and valuable consideration, Assignor, by these presents does hereby assign and transfer unto Assignee, its successors, assigns and legal representatives the full and exclusive right to the Issued Patent in the United States and the entire right, title and interest in the invention, Issued Patent and to any and all patents which may be granted therefor and/or therefrom in the United States. Patentee hereby authorizes and requests the Commissioner of Patents and Trademarks to issue all patents for the invention, or patents resulting therefrom, insofar as Patentee's interest is concerned, to Assignee, of the entire right, title and interest in and to the same, for its sole use and benefit; and for the use and benefit of its legal representatives, to the full end of the term for which said patent(s) may be granted, as fully and entirely as the same would have been held by the Patentee had this assignment not been made.


Assignor also assigns to Assignee, its successors, assigns and legal representatives the full and exclusive right, title and interest to the Invention disclosed in said Issued Patent throughout the world, including the right to file applications and obtain patents, utility models, industrial models, and designs for the Invention in the Assignee's own name throughout the world, including all rights of priority, all rights to publish cautionary notices reserving ownership of the Invention and all rights to register the Invention in appropriate registries, all foreign rights arising from pre-grant publication of the Issued Patent; and Assignor further agrees to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in Assignee, its successors, assigns and legal representatives.

Assignor further agrees to: (a) cooperate with Assignee in the protection of the patent rights and prosecution and protection of foreign counterparts; (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer; and (c) perform such other acts as Assignee lawfully may request to obtain or maintain the Patent and any and all applications and registrations for the invention in any and all countries.

Date: Oct 1st, 2014

  
Kathy McEwen.

On this <sup>1st</sup> day of <sup>Oct</sup> ~~May~~ 2014, before me the undersigned Notary Public, personally appeared Kathy McEwen, ASSIGNOR, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same. WITNESS my hand and official seal in Plano, Texas County of Collin on the date set forth in this certificate.

  
Notary Public

Commission Expires: 2/22/2017



## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT2848500

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
IRIDESCENT NETWORKS	05/02/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	KATHY MCEWEN
<b>Street Address:</b>	7809 LA GUARDIA DRIVE
<b>City:</b>	PLANO
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	75025
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Patent Number:</b>	7639612
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	4692316778
<b>Email:</b>	KATHY@IRIDESCENTNETWORKS.COM
<b>Correspondent Name:</b>	KATHY MCEWEN
<b>Address Line 1:</b>	7809 LA GUARDIA DRIVE
<b>Address Line 4:</b>	PLANO, TEXAS 75025
<b>NAME OF SUBMITTER:</b>	KATHY MCEWEN
<b>SIGNATURE:</b>	/KathyMcEwen8/
<b>DATE SIGNED:</b>	05/09/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).
<b>Total Attachments: 1</b>	
source=IridescentIPRAssignment-May2-2014#page1.tif	

## ASSIGNMENT

Whereas, Iridescent Networks Inc. a Texas corporation, located at 7809 La Guardia Drive, Plano Texas 75025 ("Assignor"), is owner of the United States Patent Number: 7,639,612 B2 (the "Patent"), dated May 2, 2007, titled System and Method of providing bandwidth on demand (the "Invention"), for which United States Application was filed on May 2, 2007 (Serial No. 11/743,470) and issued as United States Patent No. 7,639,612 on December 29, 2009 (the "Issued Patent"); and

Whereas, Kathy McEwen, the inventor of the Patent, an individual residing at 7809 La Guardia Drive, Plano, Texas 75025 ("Assignee"), who filed US Provisional Patent Application No. 60/796660, which was later filed and granted as the Patent, desires to acquire the entire right, title, and interest in the Issued Patent and any patents, reissues, substitutions, continuations, continuations-in-part, and extensions of said Issued Patent.

Now, therefore, for good and valuable consideration, Assignor, by these presents does hereby assign and transfer unto Assignee, its successors, assigns and legal representatives the full and exclusive right to the Issued Patent in the United States and the entire right, title and interest in the invention, Issued Patent and to any and all patents which may be granted therefor and/or therefrom in the United States, to all divisions, reissues, substitutions, continuations, continuations-in-part, and extensions of said Invention and Issued Patent. <sup>Assignee</sup> ~~Patentee~~ hereby authorizes <sup>Ken</sup> and requests the Commissioner of Patents and Trademarks to issue all patents for the Invention, or patents resulting therefrom, insofar as <sup>Assignee's</sup> ~~Patentee's~~ interest is concerned, to Assignee, of the entire right, title and interest in and to the same, for its sole use and benefit; and for the use and benefit of its legal representatives, to the full end of the term for which said patent(s) may be granted, as fully and entirely as the same would have been held by the <sup>Assignee</sup> ~~Patentee~~ had this assignment not been made.

Assignor also assigns to Assignee, its successors, assigns and legal representatives the full and exclusive right, title and interest to the Invention disclosed in said Issued Patent throughout the world, including the right to file applications and obtain patents, utility models, industrial models, and designs for the Invention in the Assignee's own name throughout the world, including all rights of priority, all rights to publish cautionary notices reserving ownership of the Invention and all rights to register the Invention in appropriate registries, all foreign rights arising from pre-grant publication of the Issued Patent; and Assignor further agrees to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in Assignee, its successors, assigns and legal representatives.

Assignor further agrees to: (a) cooperate with Assignee in the protection of the patent rights and prosecution and protection of foreign counterparts; (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer; and (c) perform such other acts as Assignee lawfully may request to obtain or maintain the Patent and any and all applications and registrations for the invention in any and all countries.

Date: May 2<sup>nd</sup>, 2014



Kathy McEwen, CEO, Iridescent Networks Inc.

On this 2<sup>nd</sup> day of May 2014, before me the undersigned Notary Public, personally appeared Kathy McEwen, CEO, Iridescent Networks, ASSIGNOR, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same. WITNESS my hand and official seal in Plano, Texas County of Collin on the date set forth in this certificate.

  
Notary Public

Commission Expires: 2/22/2017





UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/743,470	05/02/2007	Kathy McEwen	

Kathy McEwen  
7809 La Guardia Drive  
Plano, TX 75025

**CONFIRMATION NO. 6891**  
**POA ACCEPTANCE LETTER**



OC000000063439077\*

Date Mailed: 08/26/2013

**NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 08/16/2013.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/dtvernon/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/743,470	05/02/2007	Kathy McEwen	IRID-29.481

25883  
HOWISON & ARNOTT, L.L.P.  
P.O. BOX 741715  
DALLAS, TX 75374-1715

**CONFIRMATION NO. 6891**  
**POWER OF ATTORNEY NOTICE**



OC000000063438807

Date Mailed: 08/26/2013

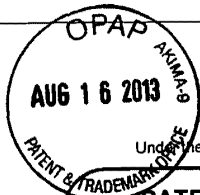
**NOTICE REGARDING CHANGE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 08/16/2013.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/dtvernon/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



# 11/ 743470

1FW

PTO/SB/81A (12-08)

Approved for use through 11/30/2011. OMB 0651-0035

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**PATENT - POWER OF ATTORNEY  
OR  
REVOCATION OF POWER OF ATTORNEY  
WITH A NEW POWER OF ATTORNEY  
AND  
CHANGE OF CORRESPONDENCE ADDRESS**

Patent Number	7, 639,612
Issue Date	Dec 29, 2009
First Named Inventor	Kathy McEwen
Title	System and Method of Providing Bandwidth on Demand
Attorney Docket Number	

I hereby revoke all previous powers of attorney given in the above-identified patent.

☐ A Power of Attorney is submitted herewith.

OR

☐ I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

OR

☐ I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

Practitioner(s) Name	Registration Number
Kathy McEwen	

Please recognize or change the correspondence address for the above-identified patent to:

☐ The address associated with the above-mentioned Customer Number.

OR

☐ The address associated with Customer Number:

OR

<input checked="" type="checkbox"/> Firm or Individual Name	Kathy McEwen				
Address	7809 La Guardia Drive, Plano, Texas, USA 75025				
City	Plano	State	TX	Zip	75025
Country	USA				
Telephone	1-469-231-6778	Email	kathy@iridescentnetworks.com		

I am the:

☒ Inventor, having ownership of the patent.

OR

☐ Patent owner.

Statement under 37 CFR 3.73(b) (Form PTO/SB/96) submitted herewith or filed on \_\_\_\_\_

**SIGNATURE of Inventor or Patent Owner**

Signature		Date	July 2, 2013
Name	Kathy McEwen	Telephone	1-469-231-6778
Title and Company	CEO, Iridescent Networks Inc		

**NOTE:** Signatures of all the inventors or patent owners of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☒ \*Total of 2 forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.



# Iridescent Networks

7809 La Guardia Dr,  
Plano, Texas. 75025

July 2<sup>nd</sup>, 2013

Dear Madam/Sir,

Please find 2 forms 81A Revocation of power of Attorney. The patents were originally filed by our attorney:

Howison & Arnott, L.L.P.  
P.O. Box 741715  
Dallas, Texas 75374-1715

and we wish to take control of maintenance of our 2 USA patents.

I hope we have filled the forms in sufficiently please contact us if not and you need confirmation or for us to resend the forms.


## Contact

Kathy McEwen,  
7809 La Guardia Dr,  
Plano, Tx 75025

[Kathy@iridescentnetworks.com](mailto:Kathy@iridescentnetworks.com)  
Mobile 1-469-231-6778

Best regards,

  
Kathy

<b>Issue Classification</b> 	<b>Application/Control No.</b> 11743470	<b>Applicant(s)/Patent Under Reexamination</b> MCEWEN, KATHY
	<b>Examiner</b> Hooman Houshmand	<b>Art Unit</b> 2465

ORIGINAL						INTERNATIONAL CLASSIFICATION																
CLASS		SUBCLASS				CLAIMED					NON-CLAIMED											
370		231				G	0	1	R	31 / 08 (2006.0)												
CROSS REFERENCE(S)																						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)																					
370	395.21																					

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant <input type="checkbox"/> CPA <input type="checkbox"/> T.D. <input type="checkbox"/> R.1.47															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
-	1	-	17	11	33										
-	2	-	18	12	34										
-	3	-	19	13	35										
-	4	-	20	-	36										
-	5	-	21	-	37										
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-	9	3	25	-	41										
-	10	4	26	-	42										
-	11	5	27	-	43										
-	12	6	28	-	44										
-	13	7	29												
-	14	8	30												
-	15	9	31												
-	16	10	32												

/Hooman Houshmand/ Examiner.Art Unit 2465  (Assistant Examiner)	Oct 5, 09 (Date)	<b>Total Claims Allowed:</b> 13	
/JAYANTI K PATEL/ Supervisory Patent Examiner.Art Unit 2465  (Primary Examiner)	01/12/2010 (Date)	O.G. Print Claim(s) 22	O.G. Print Figure 7



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/743,470	12/29/2009	7639612	IRID-29.481	6891
25883	7590	12/09/2009		
HOWISON & ARNOTT, L.L.P. P.O. BOX 741715 DALLAS, TX 75374-1715				

## ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

### **Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)** (application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Kathy McEwen, Plano, TX;



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/743,470	05/02/2007	Kathy McEwen	IRID-29.481

**CONFIRMATION NO. 6891**

**POA ACCEPTANCE LETTER**



OC000000038960301

25883  
HOWISON & ARNOTT, L.L.P.  
P.O. BOX 741715  
DALLAS, TX 75374-1715

Date Mailed: 11/25/2009

**NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 11/16/2009.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/fbrown,iii/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
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P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/743,470	05/02/2007	Kathy McEwen	683592-0004

20594  
AKIN GUMP STRAUSS HAUER & FELD, LLP  
P O BOX 688  
DALLAS, TX 75313-0688

**CONFIRMATION NO. 6891**  
**POWER OF ATTORNEY NOTICE**



OC000000038960241

Date Mailed: 11/25/2009

**NOTICE REGARDING CHANGE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 11/16/2009.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/fbrown,iii/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE**  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**  
 or **Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

20594

7590

10/19/2009

AKIN GUMP STRAUSS HAUER & FELD, LLP  
 P O BOX 688  
 DALLAS, TX 75313-0688

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/743,470	05/02/2007	Kathy McEwen	683592-0004	6891

TITLE OF INVENTION: SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	01/19/2010
EXAMINER	ART UNIT	CLASS-SUBCLASS				
HOUSHMAND, HOOMAN	2465	370-389000				

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☒ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☒ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 HOWISON & ARNOTT, L.L.P.

2 \_\_\_\_\_

3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☒ Issue Fee

☒ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

☐ A check is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 200780 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Timothy F. Bliss Reg. #50925/

Date November 16, 2009

Typed or printed name TIMOTHY F. BLISS

Registration No. 50,925

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/28/2009 21:04 9723121561

POSTAL CONNECTION

PAGE 04/04

IRID-29,481

PATENT

**SUPPLEMENTAL DECLARATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention, design or discovery entitled

**SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND**

the specification of which was filed on May 2, 2007 as Application Serial No. 11/743,470;

I have reviewed and understand the contents of the above-identified specification, including the claims as originally filed and as amended in the amendments filed on November 4, 2008 and July 22, 2009; and

I acknowledge my duty to disclose information of which I am aware which is material to the examination of this application in accordance with 37 C.F.R. § 1.56 (a).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issue thereon.

Full name of the Sole Inventor: **KATHY MCEWEN**

Inventor's Signature: *Kathy McEwen*

Date: Oct 28, 2009

Residence (City, State): **PLANO, TEXAS**

Citizenship: Canadian

Post Office Address: **7809 LaGuardia Drive, Plano, Texas 75025**

**SUPPLEMENTAL DECLARATION**  
**S/N 11/743,470**

1

10/28/2009 21:04 9723121561

POSTAL CONNECTION

PAGE 02/04

PTO/SB/01 (01-09)

Approved for use through 11/30/2011. OMB 0661-0035  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>POWER OF ATTORNEY OR REVOCATION OF POWER OF ATTORNEY WITH A NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS</b>	<b>Application Number</b>	11/743,470
	<b>Filing Date</b>	2007-05-02
	<b>First Named Inventor</b>	KATHY MCEWEN
	<b>Title</b>	SYSTEM AND METHOD OF PROVIDIN
	<b>Art Unit</b>	2465
	<b>Examiner Name</b>	HOOMAN HOUSHMAND
	<b>Attorney Docket Number</b>	IRID-29,481

I hereby revoke all previous powers of attorney given in the above-identified application.

☐ A Power of Attorney is submitted herewith.

OR

☒ I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

25883

OR

☐ I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

Practitioner(s) Name	Registration Number

Please recognize or change the correspondence address for the above-identified application to:

☒ The address associated with the above-mentioned Customer Number.

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the:

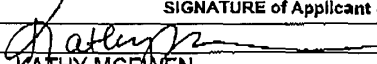
☒ Applicant/Inventor.

OR

☐ Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) (Form PTO/SB/98) submitted herewith or filed on \_\_\_\_\_

## SIGNATURE of Applicant or Assignee of Record

Signature		Date	Oct. 28, 2009
Name	KATHY MCEWEN	Telephone	469-231-6778
Title and Company	CEO Iridescent Networks		

**NOTE:** Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.☒ \*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal				
<b>Application Number:</b>		11743470		
<b>Filing Date:</b>		02-May-2007		
<b>Title of Invention:</b>		SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND		
<b>First Named Inventor/Applicant Name:</b>		Kathy McEwen		
<b>Filer:</b>		Timothy Frank Bliss/Suzie Guthrie		
<b>Attorney Docket Number:</b>		683592-0004		
Filed as Small Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
Utility Appl issue fee	2501	1	755	755
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Extension-of-Time:</b>				
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>1055</b>

Electronic Acknowledgement Receipt	
<b>EFS ID:</b>	6458765
<b>Application Number:</b>	11743470
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	6891
<b>Title of Invention:</b>	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND
<b>First Named Inventor/Applicant Name:</b>	Kathy McEwen
<b>Customer Number:</b>	20594
<b>Filer:</b>	Timothy Frank Bliss
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	683592-0004
<b>Receipt Date:</b>	16-NOV-2009
<b>Filing Date:</b>	02-MAY-2007
<b>Time Stamp:</b>	16:52:51
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$1055
RAM confirmation Number	3309
Deposit Account	200780
Authorized User	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Issue Fee Payment (PTO-85B)	IRI29481ISSFEE.pdf	1740750 0a437414528fa8525c60052048ec67f978a51fe3	no	1
<b>Warnings:</b>					
<b>Information:</b>					
2	Oath or Declaration filed	IRI29481SuppDec.pdf	53334 336fe62275a231998c2e96c3e9a6f04f7eda6ff	no	1
<b>Warnings:</b>					
<b>Information:</b>					
3	Miscellaneous Incoming Letter	IRI29481RevPOA.pdf	82037 41e6fdc1b74f8b53fc5c05afe616818c0159fe8b	no	1
<b>Warnings:</b>					
<b>Information:</b>					
4	Fee Worksheet (PTO-875)	fee-info.pdf	32163 4b42348e6806626c609c26225b4910af1ac031b5	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			1908284		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

20594 7590 10/19/2009

AKIN GUMP STRAUSS HAUER & FELD, LLP  
P O BOX 688  
DALLAS, TX 75313-0688

EXAMINER	
HOUSHMAND, HOOMAN	
ART UNIT	PAPER NUMBER

2465

DATE MAILED: 10/19/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

11/743,470 05/02/2007 Kathy McEwen 683592-0004 6891

TITLE OF INVENTION: SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	01/19/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

20594 7590 10/19/2009

AKIN GUMP STRAUSS HAUER & FELD, LLP  
P O BOX 688  
DALLAS, TX 75313-0688

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

11/743,470	05/02/2007	Kathy McEwen	683592-0004	6891
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TITLE OF INVENTION: SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional	YES	\$755	\$300	\$0	\$1055	01/19/2010
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EXAMINER	ART UNIT	CLASS-SUBCLASS
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HOUSHMAND, HOOMAN	2465	370-389000
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1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_

3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☐ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

☐ A check is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/743,470	05/02/2007	Kathy McEwen	683592-0004	6891
20594	7590	10/19/2009		
AKIN GUMP STRAUSS HAUER & FELD, LLP P O BOX 688 DALLAS, TX 75313-0688				
			EXAMINER HOUSHMAND, HOOMAN	
			ART UNIT	PAPER NUMBER
			2465	
DATE MAILED: 10/19/2009				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	11/743,470	MCEWEN, KATHY	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hooman Houshmand	2465	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 07/22/2009.
2. ☒ The allowed claim(s) is/are 22 and 24-35.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

<b>Attachment(s)</b> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date ____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other ____
---	---

	/Jayanti K. Patel/ Supervisory Patent Examiner, Art Unit 2465
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### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Timothy F. Bliss on October 5, 2009.

#### **In the claims:**

Claims 23, 36-40, 41-44 have been canceled.

**Claim 22** has been amended as follows: Starting with the last period in the last sentence of the claim, the following text has been added:

[[.]] ;

and

receiving, by the controller, a notification from the portal that traffic on the connection has exceeded an authorized limit;

determining, by the controller, whether the connection should be terminated or allowed to continue; and

instructing the portal, by the controller, whether to terminate or allow the connection to continue based on the step of determining.

(Canceled) **Claim 23**

**Claim 24** has been amended as follows: on the first line of the claim; "*claim 23*" has been replaced with -- claim 22 --.

(Canceled) **Claims 36-40**

(Canceled) **Claims 41-44**

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hooman Houshmand whose telephone number is (571) 270-1817. The examiner can normally be reached on Monday - Friday 8am - 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. H./  
Examiner, Art Unit 2465

/Jayanti K. Patel/  
Supervisory Patent Examiner, Art Unit 2465

## EAST Search History

## EAST Search History (Prior Art)


Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	((KATHY) near2 (MCEWEN)). INV.	US-PGPUB; USPAT	OR	ON	2009/10/05 16:00
L3	3733	(370/229,231,395.21).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/10/05 16:01
L4	36271	codec	US-PGPUB; USPAT	SAME	ON	2009/10/05 16:07
L5	327007	bandwidth	US-PGPUB; USPAT	OR	ON	2009/10/05 16:07
L6	190	3 4 5	US-PGPUB; USPAT	AND	ON	2009/10/05 16:15
L7	3542	4 5	US-PGPUB; USPAT	SAME	ON	2009/10/05 16:15
L8	81	3 7	US-PGPUB; USPAT	AND	ON	2009/10/05 16:15
L9	126	control\$3 (QoS OR (quality WITH service)) portal	US-PGPUB; USPAT	SAME	ON	2009/10/05 16:18
L10	119858	("370").CLAS.	US-PGPUB; USPAT	OR	OFF	2009/10/05 16:19
L11	43	9 10	US-PGPUB; USPAT	AND	ON	2009/10/05 16:19
L15	231	negotiat\$3 reserve resource	US-PGPUB; USPAT	SAME	ON	2009/10/05 16:21
L16	85	15 10	US-PGPUB; USPAT	AND	ON	2009/10/05 16:21
L17	62541	end\$1point	US-PGPUB; USPAT	OR	ON	2009/10/05 16:23
L20	125	7 17	US-PGPUB; USPAT	SAME	ON	2009/10/05 16:24

L21	89	20 10	US-PGPUB; USPAT	AND	ON	2009/10/05 16:25
L22	467	control\$3 portal (limit OR max OR maximum)	US-PGPUB; USPAT	SAME	ON	2009/10/05 16:26
L23	30	22 10	US-PGPUB; USPAT	AND	ON	2009/10/05 16:27

**EAST Search History (Interference)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	0	((KATHY) near2 (MCEWEN)).INV.	USPAT; UPAD	OR	ON	2009/10/05 16:00


**10/ 5/ 2009 4:28:03 PM**
**C:\ Documents and Settings\ hhoushmand\ My Documents\ EAST\ Workspaces\ 11743470  
 \ 11743470.wsp**

<b>Issue Classification</b> 	<b>Application/Control No.</b> 11743470	<b>Applicant(s)/Patent Under Reexamination</b> MCEWEN, KATHY
	<b>Examiner</b> Hooman Houshmand	<b>Art Unit</b> 2465

ORIGINAL						INTERNATIONAL CLASSIFICATION														
CLASS		SUBCLASS				CLAIMED					NON-CLAIMED									
370		231				G	0	1	R	31 / 08 (2006.01.01)										
<b>CROSS REFERENCE(S)</b>																				
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)																			
370	395.21																			

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant <input type="checkbox"/> CPA <input type="checkbox"/> T.D. <input type="checkbox"/> R.1.47															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
-	1	-	17	11	33										
-	2	-	18	12	34										
-	3	-	19	13	35										
-	4	-	20	-	36										
-	5	-	21	-	37										
-	6	1	22	-	38										
-	7	-	23	-	39										
-	8	2	24	-	40										
-	9	3	25	-	41										
-	10	4	26	-	42										
-	11	5	27	-	43										
-	12	6	28	-	44										
-	13	7	29												
-	14	8	30												
-	15	9	31												
-	16	10	32												

/Hooman Houshmand/ Examiner.Art Unit 2465 (Assistant Examiner)	Oct 5, 09 (Date)	<b>Total Claims Allowed:</b> 13	
(Primary Examiner)	(Date)	O.G. Print Claim(s) 22	O.G. Print Figure 7

<b>Search Notes</b>  	<b>Application/Control No.</b>  11743470	<b>Applicant(s)/Patent Under Reexamination</b>  MCEWEN, KATHY
	<b>Examiner</b>  Hooman Houshmand	<b>Art Unit</b>  2465

SEARCHED			
Class	Subclass	Date	Examiner
370	229, 231,395.21 (text search only)	10/5/2009	HH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST, NPL	10/5/2009	HH
Inventorship search completed in eDAN	10/5/2009	HH

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
370	229, 231,395.21 (see attached search history printout)	10/5/2009	HH

	/JAYANTI K PATEL/ Supervisory Patent Examiner, Art Unit 2465
--	---

**EAST Search History****EAST Search History (Interference)**

<b>Ref #</b>	<b>Hits</b>	<b>Search Query</b>	<b>DBs</b>	<b>Default Operator</b>	<b>Plurals</b>	<b>Time Stamp</b>
L2	0	((KATHY) near2 (MCEWEN)). INV.	USPAT; UPAD	OR	ON	2009/10/05 16:00
L24	43	(370/229,231,395.21).CCLS.	UPAD	OR	OFF	2009/10/05 16:51
L25	17736	codec	USPAT; UPAD	SAME	ON	2009/10/05 16:51
L26	190753	bandwidth	USPAT; UPAD	OR	ON	2009/10/05 16:52
L27	75	(25 26).clm.	USPAT; UPAD	SAME	ON	2009/10/05 16:52
L28	65	control\$3 (QoS OR (quality WITH service)) portal	USPAT; UPAD	SAME	ON	2009/10/05 16:54
L29	3	L28.clm.	USPAT; UPAD	SAME	ON	2009/10/05 16:54
L30	130	negotiat\$3 reserve resource	USPAT; UPAD	SAME	ON	2009/10/05 16:58
L31	5	L30.clm.	USPAT; UPAD	SAME	ON	2009/10/05 16:58
L32	31541	end\$1point	USPAT; UPAD	OR	ON	2009/10/05 16:58
L33	4408	L32.clm.	USPAT; UPAD	SAME	ON	2009/10/05 16:59
L35	5	L32 L24	USPAT; UPAD	AND	ON	2009/10/05 17:00
L36	251	control\$3 portal (limit OR max OR maximum)	USPAT; UPAD	SAME	ON	2009/10/05 17:01
L37	17	L36.clm.	USPAT; UPAD	SAME	ON	2009/10/05 17:02

**10/ 5/ 2009 5:02:32 PM**

**C:\ Documents and Settings\ hhoushmand\ My Documents\ EAST\ Workspaces\ 11743470  
 \ 11743470.wsp**

# **REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL** **(Submitted Only via EFS-Web)**

Application Number	11743470	Filing Date	2007-05-02	Docket Number (if applicable)	IRID-29,481	Art Unit	2419
First Named Inventor	KATHY MCEWEN			Examiner Name	HOOMAN HOUSHMAND		

**This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.**

Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

## **SUBMISSION REQUIRED UNDER 37 CFR 1.114**

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_

☐ Other \_\_\_\_\_

☒ Enclosed

☒ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other \_\_\_\_\_

## **MISCELLANEOUS**

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months \_\_\_\_\_  
 (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other \_\_\_\_\_

## **FEES**

**The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**

☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to  
 Deposit Account No 200780

## **SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED**

☒ Patent Practitioner Signature

☐ Applicant Signature

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (06-09)

Approved for use through 07/31/2009. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/Timothy F. Bliss Reg. #50925/	Date (YYYY-MM-DD)	2009-07-22
Name	TIMOTHY F. BLISS	Registration Number	50925

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Under the paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)</b> <b>FY 2009</b> <i>(Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).)</i>		Docket Number (Optional)																									
Application Number 11/743,470		Filed 2007-05-02																									
For SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND																											
Art Unit 2419		Examiner HOUSHMAND, HOOMAN																									
<p>This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.</p> <p>The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%; text-align: center;"><u>Fee</u></th> <th style="width: 15%; text-align: center;"><u>Small Entity Fee</u></th> <th style="width: 30%;"></th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> One month (37 CFR 1.17(a)(1))</td> <td style="text-align: center;">\$130</td> <td style="text-align: center;">\$65</td> <td>\$ _____</td> </tr> <tr> <td><input type="checkbox"/> Two months (37 CFR 1.17(a)(2))</td> <td style="text-align: center;">\$490</td> <td style="text-align: center;">\$245</td> <td>\$ _____</td> </tr> <tr> <td><input checked="" type="checkbox"/> Three months (37 CFR 1.17(a)(3))</td> <td style="text-align: center;">\$1110</td> <td style="text-align: center;">\$555</td> <td>\$ <u>555</u></td> </tr> <tr> <td><input type="checkbox"/> Four months (37 CFR 1.17(a)(4))</td> <td style="text-align: center;">\$1730</td> <td style="text-align: center;">\$865</td> <td>\$ _____</td> </tr> <tr> <td><input type="checkbox"/> Five months (37 CFR 1.17(a)(5))</td> <td style="text-align: center;">\$2350</td> <td style="text-align: center;">\$1175</td> <td>\$ _____</td> </tr> </tbody> </table> <p><input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.</p> <p><input type="checkbox"/> A check in the amount of the fee is enclosed.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account.</p> <p><input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number <u>20-0780/IRID-29,481</u>.</p> <p><b>WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</b></p> <p>I am the <input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96).</p> <p><input type="checkbox"/> attorney or agent of record. Registration Number _____</p> <p><input checked="" type="checkbox"/> attorney or agent under 37 CFR 1.34. <u>50,925</u> Registration number if acting under 37 CFR 1.34 _____</p> <p><u>/Timothy F. Bliss Reg. #50925/</u> <u>2009-07-22</u> Signature Date</p> <p><u>TIMOTHY F. BLISS</u> <u>972-479-0462</u> Typed or printed name Telephone Number</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.</p> <p><input checked="" type="checkbox"/> Total of <u>1</u> forms are submitted.</p>					<u>Fee</u>	<u>Small Entity Fee</u>		<input type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$130	\$65	\$ _____	<input type="checkbox"/> Two months (37 CFR 1.17(a)(2))	\$490	\$245	\$ _____	<input checked="" type="checkbox"/> Three months (37 CFR 1.17(a)(3))	\$1110	\$555	\$ <u>555</u>	<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$1730	\$865	\$ _____	<input type="checkbox"/> Five months (37 CFR 1.17(a)(5))	\$2350	\$1175	\$ _____
	<u>Fee</u>	<u>Small Entity Fee</u>																									
<input type="checkbox"/> One month (37 CFR 1.17(a)(1))	\$130	\$65	\$ _____																								
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<input type="checkbox"/> Four months (37 CFR 1.17(a)(4))	\$1730	\$865	\$ _____																								
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This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal				
<b>Application Number:</b>		11743470		
<b>Filing Date:</b>		02-May-2007		
<b>Title of Invention:</b>		SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND		
<b>First Named Inventor/Applicant Name:</b>		Kathy McEwen		
<b>Filer:</b>		Timothy Frank Bliss/BETH PIEROTTI		
<b>Attorney Docket Number:</b>		683592-0004		
Filed as Small Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
Claims in excess of 20	2202	2	26	52
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 3 months with \$0 paid	2253	1	555	555
<b>Miscellaneous:</b>				
Request for continued examination	2801	1	405	405
<b>Total in USD (\$)</b>				<b>1012</b>

Electronic Acknowledgement Receipt	
<b>EFS ID:</b>	5749655
<b>Application Number:</b>	11743470
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	6891
<b>Title of Invention:</b>	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND
<b>First Named Inventor/Applicant Name:</b>	Kathy McEwen
<b>Customer Number:</b>	20594
<b>Filer:</b>	Timothy Frank Bliss/BETH PIEROTTI
<b>Filer Authorized By:</b>	Timothy Frank Bliss
<b>Attorney Docket Number:</b>	683592-0004
<b>Receipt Date:</b>	22-JUL-2009
<b>Filing Date:</b>	02-MAY-2007
<b>Time Stamp:</b>	16:00:15
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 1012
RAM confirmation Number	2336
Deposit Account	200780
Authorized User	
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File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		IRI29481AMDAF.pdf	124634	yes	12
			02226a5cf3f5d236278111728de781d9994435b6		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment After Final		1	1	
	Claims		2	6	
	Applicant Arguments/Remarks Made in an Amendment		7	12	
Warnings:					
Information:					
2	Request for Continued Examination (RCE)	IRI29481RCE.pdf	777539	no	3
			e063781049af16c5cd086f8a515172d2f6cce31cd		
Warnings:					
Information:					
3	Extension of Time	IRI29481EXTN.pdf	321915	no	2
			d9330df8001711fe60ab393d4be68ae6fbfb4f1		
Warnings:					
Information:					
4	Fee Worksheet (PTO-875)	fee-info.pdf	34006	no	2
			bd24067da4adb52f52a27a50c889115c2e183db6		
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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: McEWEN, Kathy  
Serial No.: 11/743,470  
Confirmation No.: 6891  
Filed: May 2, 2007  
Group: 2419  
Examiner: HOUSHMAND, Hooman  
For: SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON  
DEMAND

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**AMENDMENT AND RESPONSE TO OFFICE ACTION**

This communication is responsive to the Examiner's Office Action mailed January 22, 2009. Applicant is submitting herewith a Request for Continued Examination. Reconsideration is respectfully requested.

**Amendments to the Claims** are reflected in the listing of claims beginning on page 2 of this paper.

**Remarks/Arguments** begin on page 7 of this paper.

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Atty. Dkt. No. IRID-29,481

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### **In the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-21. (Canceled)

22. (New) A method for providing bandwidth on demand comprising:

receiving, by a controller positioned in a network, a request for a high quality of service connection supporting any one of a plurality of one-way and two-way traffic types between an originating end-point and a terminating end-point, wherein the request comes from the  
5 originating end-point and includes at least one of a requested amount of bandwidth and a codec;

determining, by the controller, whether the originating end-point is authorized to use the requested amount of bandwidth or the codec and whether the terminating end-point can be reached by the controller;

directing, by the controller, a portal that is positioned in the network and physically  
10 separate from the controller to allocate local port resources of the portal for the connection;

negotiating, by the controller, to reserve far-end resources for the terminating end-point;  
and

providing, by the controller to the portal, routing instructions for traffic corresponding to the connection so that the traffic is directed by the portal based only on the routing instructions  
15 provided by the controller, wherein the portal does not perform any independent routing on the traffic, and wherein the connection extending from the originating end-point to the terminating end-point is provided by a dedicated bearer path that includes a required route supported by the portal and dynamically provisioned by the controller, and wherein control paths for the connection are supported only between each of the originating and terminating end-points and  
20 the controller and between the portal and the controller.

23. (New) The method of claim 22 further comprising:

receiving, by the controller, a notification from the portal that traffic on the connection has exceeded an authorized limit;

determining, by the controller, whether the connection should be terminated or allowed to  
5 continue; and

### **AMENDMENT AND RESPONSE**

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instructing the portal, by the controller, whether to terminate or allow the connection to continue based on the step of determining.

24. (New) The method of claim 23 wherein, if the connection is allowed to continue, the instructing includes a pre-set time limit.

25. (New) The method of claim 22 wherein the controller is associated with a single class of service and wherein a service type of the request identifies the request as being of the single class of service and the request is routed to the controller based on the service type.

26. (New) The method of claim 22 wherein the request is received by the controller based on signaling from a user to the controller.

27. (New) The method of claim 26 wherein the request is received from the user via one of a directory request, an Internet Protocol address, and a web page.

28. (New) The method of claim 22 further comprising:  
identifying, by the controller, billing information of a user corresponding to the request for a high quality of service connection; and  
charging the user for the connection.

29. (New) The method of claim 28 wherein the charging may be based on at least one of a service type, an elapsed period of time, a codec type, and an amount of bandwidth used.

30. (New) The method of claim 22 wherein determining whether the originating end-point is authorized is based on information in a subscriber database.

31. (New) The method of claim 22 wherein the negotiating, by the controller, to reserve far-end resources on the terminating end-point includes negotiating with another controller associated with the terminating end-point.

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32. (New) The method of claim 22 wherein the negotiating, by the controller, to reserve far-end resources for the terminating end-point includes negotiating directly with the terminating end-point.

33. (New) The method of claim 22 wherein the negotiating, by the controller, to reserve far-end resources for the terminating end-point includes negotiating a video codec for use with the connection to avoid video codec conversion between the originating and terminating end-points.

34. (New) The method of claim 22 wherein the connection is a point-to-point connection between only the originating and terminating end-points.

35. (New) The method of claim 22 wherein the connection is a point-to-multipoint connection between one of the originating and terminating end-points and the other of the originating and terminating end-points and at least one other end-point.

36. (New) A method for providing bandwidth on demand comprising:

receiving, by a portal in a network from a physically separate controller in the network via a control path, instructions to allocate local port resources for a high quality of service connection, wherein the instructions include real-time authorization of a user for the connection;

5 receiving, by the portal from the controller, routing information for traffic corresponding to the connection, wherein the routing information identifies a required route and wherein the portal does not perform additional routing;

routing, by the portal, traffic corresponding to the connection based on the routing instructions;

10 identifying, by the portal, that the traffic corresponding to the connection has exceeded an allowed amount of traffic;

notifying the controller, by the portal, of the exceeded allowed amount of traffic; and

receiving, by the portal from the controller, an instruction on handling the allowed amount of traffic that has been exceeded.

37. (New) The method of claim 36 further comprising terminating the connection, by the

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portal, based on the instruction received from the controller.

38. (New) The method of claim 36 further comprising allowing the connection to continue until a pre-set time limit is reached based on the instruction received from the controller.

39. (New) The method of claim 36 further comprising discarding, by the portal, any received packets corresponding to a user not authorized by the controller.

40. (New) The method of claim 36 further comprising notifying the controller, by the portal, if traffic corresponding to the connection is no longer received.

41. (New) A method for providing bandwidth on demand comprising:

receiving, by a controller positioned in a network, a request for a high quality of service connection between an originating end-point and a terminating end-point, wherein the request includes at least one of a requested amount of bandwidth and a video codec;

5 determining, by the controller, whether the originating end-point is authorized to use the requested amount of bandwidth or the video codec;

communicating, by the controller, with the originating and terminating end-points to ensure that the connection is free from video codec conversion;

10 directing, by the controller, one of a plurality of portals that is positioned in the network nearest to the originating end-point and physically separate from the controller to allocate local port resources of the portal for the connection; and

15 sending, by the controller to the portal, routing instructions for the connection, wherein traffic for the connection is routed by the portal based only on the routing instructions, and wherein the connection extending from the originating end-point to the terminating end-point is provided by a dedicated bearer path that includes a required route supported by the portal and dynamically provisioned by the controller, and wherein control paths for the connection are supported between each of the originating and terminating end-points and the controller and between the portal and the controller.

42. (New) The method of claim 41 further comprising negotiating, by the controller, to

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reserve far-end resources on the terminating end-point.

43. (New) The method of claim 42 wherein the negotiating is performed with one of another controller associated with the terminating end-point or directly with the terminating end-point.

44. (New) The method of claim 41 further comprising:

receiving, by the controller, a notification from the portal that traffic on the connection has exceeded an authorized limit; and

instructing the portal, by the controller, whether to terminate or allow the connection to  
5 continue.

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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number <b>11/743,470</b>		Filing Date <b>05/02/2007</b>		<input type="checkbox"/> To be Mailed					
<b>APPLICATION AS FILED – PART I</b>														
(Column 1)			(Column 2)			SMALL ENTITY <input checked="" type="checkbox"/>		OR		OTHER THAN SMALL ENTITY				
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)			RATE (\$)	FEE (\$)						
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A				N/A							
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (j), or (m))	N/A	N/A	N/A				N/A							
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A				N/A							
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$	=			X \$	=						
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$	=			X \$	=						
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).													
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))														
* If the difference in column 1 is less than zero, enter "0" in column 2.														
<b>APPLICATION AS AMENDED – PART II</b>										TOTAL				
(Column 1)			(Column 2)			(Column 3)			SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
<b>AMENDMENT</b>	<b>07/22/2009</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)				
	Total (37 CFR 1.16(i))	* 23	Minus	** 21	= 2	X \$26 =	52	OR	X \$	=				
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X \$110 =	0	OR	X \$	=				
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))							OR						
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR						
						TOTAL ADD'L FEE	52	OR	TOTAL ADD'L FEE					
(Column 1)			(Column 2)			(Column 3)			SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
<b>AMENDMENT</b>		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)				
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$	=	OR	X \$	=				
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$	=	OR	X \$	=				
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))							OR						
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR						
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE					
<p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p>														

Legal Instrument Examiner:  
/BRENDA WEBB/

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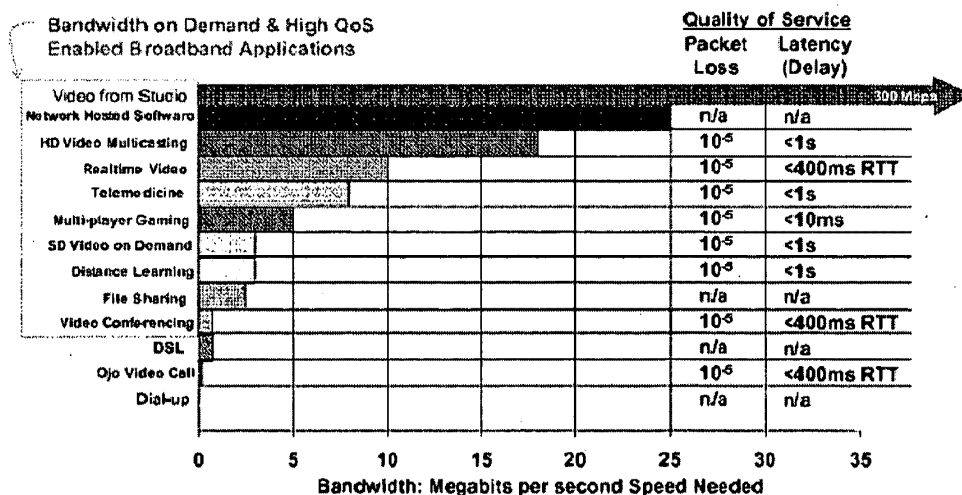
## REMARKS

Applicant has carefully reviewed the Office Action dated January 22, 2009. Applicant has canceled all previous claims 1-21 and added new claims 22-44. Reconsideration and favorable action is respectfully requested. As described below, Applicant has reviewed the Examiner's various rejections under §§ 112 and 103 and has attempted to address the previous rejections as they relate to the newly added claims.

### Rejections under § 112

Applicant submits that many of the previous rejections under § 112 have been rendered moot and are not addressed herein as they are based on language no longer present in the claims. Accordingly, Applicant submits that the § 112 rejections as detailed in paragraphs 4-7 and 10-13 of the Final Office action are now moot. However, the rejection of the phrase "high quality and low latency" as detailed in paragraph 8 of the Final Office action is addressed below.

Applicant's current claims include the phrase "high quality of service connection" and Applicant submits that the current language is supported by the specification. More specifically, Applicant references Fig. 3 of the disclosure, which is reproduced below for convenience:



**Figure 3**

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As illustrated by the boxed set of applications on the left side of Fig. 3, high QoS (quality of service) may be viewed in the present application as having speeds varying from approximately 1-300 megabits per second, packet loss requirements that are typically about  $10^{-5}$ , and latency requirements that are typically less than one second. These are commonly used parameters and, as illustrated in Fig. 3, often vary somewhat based on the type of application. For example, video conferencing may be possible with the listed parameters, while HD video multicasting typically has more stringent requirements in order to be acceptable. As the specification states in paragraph [0006] with respect to Fig. 3:

The services that may be delivered on broadband are many, ranging from real-time critical applications for communication purposes: video calling, multi-player gaming, telemedicine, television studio broadcast interviews, and high-definition news multicasting to name a few. These examples and a few others are listed in FIG. 3. These real time critical applications are very sensitive to any delay and for any that may include video or gaming frames, very sensitive to any variance in the delay. Applications which include video are also sensitive to any packets (or frames) which may be lost in the transmission (0.0001% packet loss is the preferred quality for video transmission).

Accordingly, Applicant submits that the term “high quality of service connection” is supported by the various connection parameters illustrated for high quality of service enabled bandwidth applications in Fig. 3.

#### **Rejections under § 103**

Applicant submits that many of the previous rejections under § 103 have been rendered moot due to the cancellation of the previous claims and the addition of new claims that contain elements that have not yet been examined. However, Applicant will attempt to generally address some of the concerns raised in the Final Office action as they may relate to the new claims.

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The Final Office action appears to rely largely on Ooghe to disclose a control system (Final Office action, page 6, lines 5-7) and on Khakzar to disclose instructing a bearer platform (Final Office action, page 6, lines 8-14). These were combined with additional references to render obvious various elements of canceled claims 1-21. However, as will be described below, Applicant submits that the combination of Ooghe, Khakzar, and the other references cited in the Final Office action fail to teach or suggest each element of the newly added claims.

As a preliminary matter, Applicant notes that much of the cited art is clearly directed to access networks and other connections that are not end-to-end. For example, Ooghe is “applicable to access networks across which virtual connections have been provisioned to meet traffic and QoS requirements.” (Ooghe, Abstract, lines 1-3) Similarly, Khakzar “concerns a method of controlling an access network (AN) ....” (Khakzar, Abstract, lines 1-2) The Final Office action even states that “[i]t would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.” (Emphasis added) (Final Office action, page 6, lines 14-16)

However, Applicant’s claimed invention is directed to end-to-end connection management (i.e., between an originating end-point and a terminating end-point) with a controller that provides “end-to-end quality assurance.” (Specification, para. [0031]) For example, “[t]he Controller 712 accepts requests from an originating end-point to access the network with a high quality connection dynamically. The Controller 712 then negotiates across the network with the terminating end-point(s) to set up the connection, and ensures interoperability of service type (if used) and video codec type, and quality bandwidth reservation end-to-end.” (Specification, para. [0033])

Applicant notes that an “end-point” as used in the specification refers to both an originating point and a terminating point relative to the entire connection (e.g., end-to-end). (See, e.g., Specification, paras. [0033] and [0038]) In other words, the terms “originating end-point” and “terminating end-point” as used in the claims do not refer to intermediate points in a connection (e.g., network nodes or elements supporting the connection such as the controller and portal) but rather to the two sides engaged in the connection.

New claims 22-35

Applicant submits that new claim 22 is allowable over the cited art. More specifically, claim 22 recites functionality for establishing a connection between an originating end-point and a terminating end-point that is provided by a controller that is physically separate from a portal that is used to support the connection. To this end, claim 22 recites in part “determining, by the controller, whether the originating end-point is authorized to use the requested amount of bandwidth or the codec and whether the terminating end-point can be reached by the controller; negotiating, by the controller, to reserve far-end resources for the terminating end-point; and providing, by the controller to the portal, routing instructions for traffic corresponding to the connection so that traffic is directed by the portal based only on the routing instructions provided by the controller, wherein the portal does not perform any independent routing on the traffic, and wherein the connection extending from the originating end-point to the terminating end-point is provided by a dedicated bearer path that includes a required route supported by the portal and dynamically provisioned by the controller, and wherein signal paths for the connection are supported only between each of the originating and terminating end-points and the controller and between the portal and the controller.”

Applicant submits that the cited art, taken separately or in combination, fails to teach or suggest the above recited elements of claim 22, including the recited relationship between the controller and the portal in establishing and maintaining an end-to-end connection. Dependent claims 23-35 depend from and further limit independent claim 22 and are therefore allowable for the same reasons described above with respect to claim 22. In addition, each of claims 23-35 also provide additional patentable subject matter when combined with independent claim 22 and are allowable for this reason as well.

New claims 36-40

Applicant submits that new claim 36 is allowable over the cited art. More specifically, claim 36 recites functionality provided by a portal that is physically separate from a controller that provides instructions to the portal.

More specifically, claim 36 recites in part “receiving, by a portal in a network from a physically separate controller in the network via a control path, instructions to allocate local port

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resources for a high quality of service connection, wherein the instructions include real-time authorization of a user for the connection; receiving, by the portal from the controller, routing information for traffic corresponding to the connection, wherein the routing information identifies a required route and wherein the portal does not perform additional routing; routing, by the portal, traffic corresponding to the connection based on the routing instructions; identifying, by the portal, that the traffic corresponding to the connection has exceeded an allowed amount of traffic; notifying the controller, by the portal, of the exceeded allowed amount of traffic; and receiving, by the portal from the controller, instructions on handling the allowed amount of traffic that has been exceeded.”

Applicant submits that the cited art, taken separately or in combination, fails to teach or suggest the above recited elements of claim 36, including the recited relationship between the portal and the controller. Dependent claims 37-40 depend from and further limit independent claim 36 and are therefore allowable for the same reasons described above with respect to claim 36. In addition, each of claims 37-40 also provide additional patentable subject matter when combined with independent claim 36 and are allowable for this reason as well.

#### New claims 41-44

Applicant submits that new claim 41 is allowable over the cited art. More specifically, claim 41 recites functionality for establishing a connection between an originating end-point and a terminating end-point that is provided by a controller that is physically separate from a portal that is used to support the connection. More specifically, claim 41 recites in part “directing, by the controller, one of a plurality of portals that is positioned in the network nearest to the originating end-point and physically separate from the controller to allocate local port resources of the portal for the connection; and sending, by the controller to the portal, routing instructions for the connection, wherein traffic for the connection is routed by the portal based only on the routing instructions, and wherein the connection extending from the originating end-point to the terminating end-point is provided by a dedicated bearer path that includes a required route supported by the portal and dynamically provisioned by the controller, and wherein control paths for the connection are supported between each of the originating and terminating end-points and the controller and between the portal and the controller.”

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Applicant submits that the cited art, taken separately or in combination, fails to teach or suggest the above recited elements of claim 41, including the recited relationship between the controller and the portal. Dependent claims 42-44 depend from and further limit independent claim 41 and are therefore allowable for the same reasons described above with respect to claim 41. In addition, each of claims 42-44 also provide additional patentable subject matter when combined with independent claim 41 and are allowable for this reason as well.

**Conclusion**

Applicant has now made an earnest attempt in order to place this case in condition for allowance. For the reasons stated above, Applicant respectfully requests full allowance of the claims as amended. Please charge any additional fees or deficiencies in fees or credit any overpayment to Deposit Account No. 20-0780/IRID-29,481 of HOWISON & ARNOTT, L.L.P.

Respectfully submitted,  
HOWISON & ARNOTT, L.L.P.  
Attorneys for Applicant

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July 22, 2009

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	Filing Date	5/2/2007
	First Named Inventor	Kathy McEwen
	Art Unit	2619
	Examiner Name	Houshmand, H.
	Attorney Docket Number	683592-1001, 1002, 0004

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Signature 

Typed or Printed Name Ruben C. DeLeon

Date 3/20/2009 Telephone 214-459-3425

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ \*Total of \_\_\_\_\_ forms are submitted.

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<b>CHANGE OF CORRESPONDENCE ADDRESS Application</b>  Address to: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	11/743,470
	Filing Date	5/2/2007
	First Named Inventor	Kathy McEwen
	Art Unit	2619
	Examiner Name	Houshmand, H.
	Attorney Docket Number	683592-1001

Please change the Correspondence Address for the above-identified patent application to:

☒ The address associated with Customer Number: 85043

**OR**

☐ Firm or Individual Name

Address

City State Zip

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This form cannot be used to change the data associated with a Customer Number. To change the data associated with an existing Customer Number use "Request for Customer Number Data Change" (PTO/SB/124).

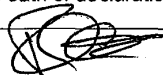
I am the:

☐ Applicant/Inventor

☐ Assignee of record of the entire interest. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

☒ Attorney or agent of record. Registration Number 37,812

☐ Registered practitioner named in the application transmittal letter in an application without an executed oath or declaration. See 37 CFR 1.33(a)(1). Registration Number \_\_\_\_\_

Signature 

Typed or Printed Name Ruben C. DeLeon

Date 3/20/2009 Telephone 214-459-3425

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ \*Total of 1 forms are submitted.

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Electronic Acknowledgement Receipt	
<b>EFS ID:</b>	5259380
<b>Application Number:</b>	11743470
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	6891
<b>Title of Invention:</b>	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND
<b>First Named Inventor/Applicant Name:</b>	Kathy McEwen
<b>Customer Number:</b>	20594
<b>Filer:</b>	Ruben C. DeLeon
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	683592-0004
<b>Receipt Date:</b>	01-MAY-2009
<b>Filing Date:</b>	02-MAY-2007
<b>Time Stamp:</b>	13:48:01
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Change of Address	ChangeofAddress032009.pdf	54858 605ee0ccca6814f67dde24595e1bfca0aad084b2	no	1

### Warnings:

### Information:

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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

MAY 01 2009

PTO/SB/122 (11-08)  
Approved for use through 11/30/2011. OMB 0651-0035  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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	Filing Date	5/2/2007
	First Named Inventor	Kathy McEwen
	Art Unit	2619
	Examiner Name	Houshmand, H.
	Attorney Docket Number	683592-1001

Please change the Correspondence Address for the above-identified patent application to:

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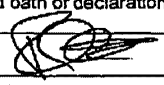
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☐ Applicant/Inventor

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Signature 

Typed or Printed Name Ruben C. DeLeon

Date 5/20/2009 Telephone 214-459-3425

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UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/743,470	05/02/2007	Kathy McEwen	683592-0004	6891
20594 7590 04/27/2009 AKIN GUMP STRAUSS HAUER & FELD, LLP P O BOX 688 DALLAS, TX 75313-0688			EXAMINER HOUSHMAND, HOOMAN	
			ART UNIT 2419	PAPER NUMBER
			MAIL DATE 04/27/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



Electronic Acknowledgement Receipt	
<b>EFS ID:</b>	5160089
<b>Application Number:</b>	11743470
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	6891
<b>Title of Invention:</b>	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND
<b>First Named Inventor/Applicant Name:</b>	Kathy McEwen
<b>Customer Number:</b>	20594
<b>Filer:</b>	Ruben C. DeLeon
<b>Filer Authorized By:</b>	
<b>Attorney Docket Number:</b>	683592-0004
<b>Receipt Date:</b>	15-APR-2009
<b>Filing Date:</b>	02-MAY-2007
<b>Time Stamp:</b>	16:25:31
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	no
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**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Oath or Declaration filed	McEwenPowerofAttorneysigned.pdf	157577 14bc19191dc8b08a579276672dbd954bb57a32a2	no	3

**Warnings:**

**Information:**

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**DECLARATION FOR PATENT APPLICATION, POWER OF  
ATTORNEY & DESIGNATION OF CORRESPONDENCE ADDRESS**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed and for which a patent is sought on the invention entitled:

**IMPROVED SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND**

the specification of which (check one):

☒ is attached hereto.  
\_\_\_\_\_ was filed on \_\_\_\_\_ as U.S. or PCT Serial No. \_\_\_\_\_  
and was amended on \_\_\_\_\_ (if applicable). I understand that the filing date and/or serial number may be unknown at the time this document is executed and that the attorney of record may complete this information on my behalf before filing.

I hereby state that I have reviewed and understand the contents of the above-identified specification including the claims, as amended by any amendment referred to above.

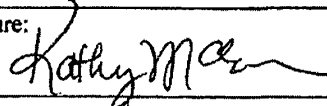
I acknowledge the duty to disclose information that is material to patentability as defined in accordance with 37 CFR §1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

**PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION AND  
ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119(a)-(d)**

I hereby claim foreign priority benefits under 35 U.S.C. §119 or 365(b) of any foreign application(s) for patent or inventor's or plant breeder's rights certificate(s), 365(a) of any PCT International application which designed at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's or plant breeder's rights certificate(s), or any PCT International application having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
Number	Country	Day/Month/Year Filed	Yes	No

I hereby declare that all statements made herein on my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under 18 USC §1001 and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Full Name of First Inventor: Kathy McEwen	
Inventor's Signature: 	Date: April 9, 2009
Residence:	7809 LaGuardia Drive, Plano, TX 75025
Citizenship:	United States of America
Post Office Address:	Same as above

Full Name of Second Inventor:	
Inventor's Signature:	Date:
Residence:	
Citizenship:	
Post Office Address:	

**CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)**  
(35 U.S.C. § 119(e))

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

Provisional Application Number	Filing Date
60/796,660	5/2/2006

**CLAIM FOR BENEFIT OF EARLIER US/PCT APPLICATION(S)**  
**UNDER 35 U.S.C. § 120**

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s), or § 365(c) of any PCT International application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. §112; I acknowledge the duty to disclose material information to patentability as defined in 37 CFR §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

Application No.	Filing Date	Patented, Pending, Abandoned

**Power of Attorney:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the United States Patent & Trademark Office connected therewith under:

Customer No.: 85043

jointly, and each of them severally, my attorneys at law/patent agent(s), with full power of substitution, delegation and revocation, to prosecute this application and any continuations, divisions, reissues, and reexaminations thereof, to receive the patent(s), to transact all business in the United States Patent and Trademark Office connected therewith and to act on my behalf before the competent International Authorities in connection with any and all international applications filed.

**Send Correspondence to:**

The address associated with Customer No. 85043, currently:

Firm Name:	DELEON LAW GROUP PC
Address:	100 Crescent Court, Suite 700 Dallas, TX 75201
Facsimile:	(214) 459-3101
Direct Telephone Calls to (name and telephone number): Ruben C. DeLeon at 214-459-3424	

# Fax

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To:	USPTO	From:	Ruben C. DeLeon
Fax:	(571) 273-8300	Fax:	(480) 247-5300
Phone:	800-786-9199	Phone:	214-459-3424

---

Date: 04/09/2009

Subject: Change of Address for Attorney of Record on Patent App 11/743,470

**Comments:**

This was originally sent in on March 20, 2009. Please make sure Ruben C. DeLeon's contact information is updated for the above patent application number. Please contact me if you

PAGE 1/2 \* RCVD AT 4/9/2009 11:46:34 AM [Eastern Daylight Time] \* SVR:USPTO-EFAX-5/28 \* DNIS:2738300 \* CSID: \* DURATION (mm-ss):00-54

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>CHANGE OF CORRESPONDENCE ADDRESS Application</b>  Address to: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	11/743,470
	Filing Date	5/2/2007
	First Named Inventor	Kathy McEwen
	Art Unit	2619
	Examiner Name	Houshmand, H.
	Attorney Docket Number	683592-1001

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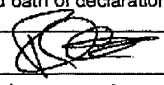
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☐ Assignee of record of the entire interest.  
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☒ Attorney or agent of record. Registration Number 37,812

☐ Registered practitioner named in the application transmittal letter in an application without an executed oath or declaration. See 37 CFR 1.33(a)(1). Registration Number \_\_\_\_\_

Signature 

Typed or Printed Name Ruben C. DeLeon

Date 3/20/2009 Telephone 214-459-3425

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 1 forms are submitted.

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	Attorney Docket Number	683592-1001

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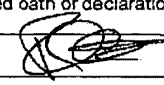
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United States Patent and Trademark Office  
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Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/743,470	05/02/2007	Kathy McEwen	683592-0004	6891
20594 7590 01/22/2009 AKIN GUMP STRAUSS HAUER & FELD, LLP P O BOX 688 DALLAS, TX 75313-0688			EXAMINER HOUSHMAND, HOOMAN	
			ART UNIT 2419	PAPER NUMBER
			MAIL DATE 01/22/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	11/743,470	MCEWEN, KATHY	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hooman Houshmand	2419	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 11/04/2008.

2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-21 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All    b) ☐ Some \* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Response to Amendment***

1. Claims 1-2, 10-11, 14, 17 have been amended. Claims 1-21 are pending.
2. The objections to the specification and the drawings have been withdrawn because of the amendments to the specification and the drawings.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-9, 10-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
5. The new limitation (claim 1 lines 14-15; claim 10 lines 29-30 the last two lines of the claim) "*at least a portion of the reserved resources is outside of the Internet and delivers video in real-time*" was not described in the original disclosure.
6. The new limitations (claim 10 lines 6, 12-13, 22-30) "a video content identification number", (lines 12-13) "*determining whether the requester is authentic or not allowed by having the network apply an authentication test on the requester before granting the*

*requester access to the network”, (lines 22-30) “determining whether the request will be approved or denied based on source address, destination address, codec type, content identification number, service type, requester profile information, network resources occupancy, link occupancy, server occupancy, wherein if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified quality from the source address to the destination address, until either the user or the network owner determines to terminate the connection in real-time, upon which real-time billing records may be generated recording available usage information or real-time intervention by a pre-paid billing solution and wherein at least a portion of the reserved resources is outside of the Internet and delivers video in real-time”* were not described in the original disclosure.

7. Claims 1-9, 10-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

8. The limitation (Claim 1 line 9, and claim 10 line 9) *“high quality and low latency bandwidth”* was not adequately described in the specification.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-9, 10-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. The new limitation (claim 1 lines 14-15; claim 10 lines 29-30 the last two lines of the claim) "*at least a portion of the reserved resources is outside of the Internet and delivers video in real-time*" is unclear.

12. The new limitations (claim 10 lines 6, 12-13, 22-30) "a video content identification number", (lines 12-13) "*determining whether the requester is authentic or not allowed by having the network apply an authentication test on the requester before granting the requester access to the network*", (lines 22-30) "*determining whether the request will be approved or denied based on source address, destination address, codec type, content identification number, service type, requester profile information, network resources occupancy, link occupancy, server occupancy, wherein if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified quality from the source address to the destination address, until either the user or the network owner determines to terminate the connection in real-time, upon which real-time billing records may be generated recording available usage information or real-time intervention by a pre-paid billing solution and wherein at least a portion of the reserved resources is outside of the Internet and delivers video in real-time*" are unclear.

13. The limitation (claim 10 second line from the end of the claim) "*intervention by a pre-paid billing solution*" is unclear. It is unclear what *intervention* refers to.

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1-2 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe (20050276218), in view of Khakzar (US 5781623), further in view of Cheng (US 20020150094), further in view of Rawlins (US 20020191539), and further in view of Higgins (US 5953350 A).

**Claim 1.** Ooghe teaches *sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type* ([0117] video V requires a bandwidth with a QoS for a period of time T. The service provider VOD requests the access resource controller ARC via the core network whether it can be granted those resources for the subscriber), *the request includes a source address and a destination address* ([0079] cross-reference table associating the identifier of an ATM virtual channel with the IP address of the subscriber to which that virtual channel relates); *determining whether the request will be approved or denied* ([0117] whether it can be granted those resources for the subscriber), *admission* ([0029] Connection Admission Control); *and reserving resources for a transmission of information of the specified bandwidth, which is managed and monitored by the controller for the specified time from the source address to the destination address*

([0012] bandwidth and the QoS required for a connection are negotiated at connection establishment time. network reserves the appropriate resources for the connection, [0026] a static amount of bandwidth continuously available during the connection lifetime).

Ooghe teaches *a control system* ([0117] service provider requests the access resource controller), but does not explicitly teach *the control system instructing a bearer platform*.

In the same field of endeavor, Khakzar discloses *instructing a bearer platform* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit). The combination of the teachings of Khakzar and Ooghe discloses *the control system instructing a bearer platform*.

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

Ooghe does not explicitly teach *managed by remote platform*.

In the same field of endeavor, Cheng discloses *managed by remote platform* ([0008] multicast communications. audio/video conferencing, data distribution from surveillance platforms, command distribution from leaders/commanders, information

sharing within peer group and between peer groups, real-time control of remote platforms and database/server replications for fault tolerance).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Cheng with Ooghe to control an access network.

Ooghe does not explicitly teach *point-to-point and point-to-multipoint connections*.

In the same field of endeavor, Rawlins discloses *point-to-point and point-to-multipoint connections* ([0025] QoS signaling protocol on the control plane of network devices that is utilized to request resources, requests resources for a unidirectional flow, operate with unicast and multicast routing protocols to ensure QoS, decides the downstream interface on policy and admission control for QoS).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Rawlins with Ooghe to control the network.

Ooghe does not explicitly teach *a portion of the reserved resources is outside of the Internet and delivers video in real-time*.

In the same field of endeavor, Higgins discloses (14:64- 15:12 Transferring the sheer quantities data associated with video across the Internet, is time consuming and renders the transmission of high quality, real-time video impossible. the user to employ the connectivity of the Internet to browse for remote video sources and, when a suitable remote source is located, open a point-to-point isochronous user information path of

guaranteed bandwidth and characteristics between the user's controlling client and the controlled client containing the video source for transmission of the video source to the user in real time and outside the Internet) *a portion of the reserved resources is outside of the Internet and delivers video in real-time.*

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Higgins with Ooghe to guarantee bandwidth.

**Claim 2.** Ooghe further teaches *at least one of the following: a service ([0016] quality of service, [0017- 0026] differentiated service categories) type, a video code type or a voice codec type and the codec type determines an amount of bandwidth required for the user ([0026] video streaming or Voice over IP).*

16. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Khakzar, further in view of Cheng, further in view of Rawlins, further in view of Higgins, and further in view of Gaddis (US 5457681).

**Claim 3.** Ooghe further teaches *request is sent ([0117] service provider requests the access resource controller via the core network whether it can be granted those resources for the subscriber), but does not explicitly teach request is sent to a portal.*

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames). The combination of the teachings of Gaddis with Ooghe discloses *request is sent to a portal*.

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

17. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Khakzar, further in view of Cheng, further in view of Rawlins, further in view of Higgins, further in view of Gaddis, and further in view of Justen (US 20060187831).

**Claim 4.** Ooghe teaches *a controller* ([0117] service provider requests the access resource controller), but does not explicitly teach *instructing the portal by a controller*.

In the same field of endeavor, Justen discloses *instructing the portal by a controller* ([0012], [0046- 0049] controller module executes portal software, FIG. 9, FIG. 10 portal controller module).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Justen with Ooghe to remotely monitor and control a target location.

18. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Khakzar, further in view of Cheng, further in view of Rawlins, further in view of

Higgins, further in view of Gaddis, further in view of Justen, and further in view of Henry (US 20040151153).

**Claim 5.** Ooghe does not explicitly teach *a plurality of portals*.

In the same field of endeavor, Henry teaches *a plurality of portals* ([0011] each link comprises a plurality of portals).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Henry with Ooghe to manage resources of a link in a communication network.

19. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Khakzar, further in view of Cheng, further in view of Rawlins, further in view of Higgins, further in view of Gaddis, further in view of Justen, and further in view of Litzenberger (US 5835497).

**Claim 6.** Ooghe further teaches *plurality of I/O ports* ([0076] plurality of physical Input/Output ports), *signaling* ([0076] electrical signal of a subscriber line), *session* ([0079] subscriber session), *routing* ([0123] data packets are routed through the core network), *bandwidth* ([0127] bandwidth required), *quality* ([0041] quality of service), *management* ([0075] signaling planes and the management planes terminating at or relayed across any of its physical ports, hardware components for those planes to operate), *admission* ([0029] connection Admission Control).

Ooghe does not explicitly teach *billing function*.

In the same field of endeavor, Litzenberger discloses *billing function* (1:55-60 back-office systems, billing platform, network management platform, fraud management platform).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Litzenberger with Ooghe to keep track of services provided to customers.

20. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Khakzar, further in view of Cheng, further in view of Rawlins, further in view of Higgins, further in view of Gaddis, and further in view of Justen.

**Claim 7.** Ooghe further teaches *I/O ports* ([0076] plurality of physical Input/Output ports).

Ooghe does not explicitly teach *bearer connections, a switching matrix and a portal connectivity processing element*.

In the same field of endeavor, Khakzar discloses *bearer connections, a switching matrix and a portal connectivity processing element* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

21. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Khakzar, further in view of Cheng, further in view of Rawlins, further in view of Higgins, further in view of Gaddis, further in view of Justen, and further in view of Goshen (US 20070002897).

**Claim 8.** Ooghe teaches *a controller* ([0117] service provider requests the access resource controller).

Ooghe does not explicitly teach *interconnecting content service to the controller and the portal*.

In the same field of endeavor, Goshen discloses *content service* ([0009] providing of content).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Goshen with Ooghe to manage bandwidth allocation.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

The combination of teachings of Gaddis, Ooghe and Goshen discloses *interconnecting content service to the controller and the portal*.

22. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Khakzar, further in view of Cheng, further in view of Rawlins, further in view of Higgins, further in view of Gaddis, further in view of Justen, and further in view of Litzenberger.

**Claim 9.** Ooghe teaches *a controller* ([0117] service provider requests the access resource controller).

Ooghe does not explicitly teach *interconnecting back-office provisioning, billing and element management systems to the controller and portal*.

In the same field of endeavor, Litzenberger discloses *back-office provisioning, billing and element management systems* (1:55-60 back-office systems, billing platform, network management platform, fraud management platform).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Litzenberger with Ooghe to keep track of services provided to customers.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

The combination of teachings of Gaddis, Litzenberger and Ooghe discloses *interconnecting back-office provisioning, billing and element management systems to the controller and portal.*

23. Claims 10-13, 15 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Litzenberger, further in view of Khakzar, further in view of Cheng, further in view of Rawlins (US 20020191539), further in view of Pillai (US 20030133552), and further in view of Higgins.

**Claim 10.** Ooghe teaches *sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type* ([0117] video V requires a bandwidth with a QoS for a period of time T. The service provider VOD requests the access resource controller ARC via the core network whether it can be granted those resources for the subscriber), *the request also includes a source address and a destination address* ([0079] cross-reference table associating the identifier of an ATM virtual channel with the IP address of the subscriber to which that virtual channel relates); *admission* ([0029] Connection Admission Control); and

*determining whether the request will be approved or denied* ([0117] whether it can be granted those resources for the subscriber), *if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified quality from the source address to the destination address* ([0012] The connection-oriented mode of operation allows the network to check whether enough resources are available for a connection and then to commit some Quality of Service for that connection. bandwidth and the QoS required for a connection are negotiated at connection establishment time. network can reserve therefrom the appropriate resources for this connection).

Ooghe does not explicitly teach *generating billing records*.

In the same field of endeavor, Litzenberger discloses *generating billing records* (1:55-60 back-office systems, billing platform, network management platform, fraud management platform).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Litzenberger with Ooghe to keep track of services provided to customers.

Ooghe teaches *a control system* ([0117] service provider requests the access resource controller), but does not explicitly teach *the control system instructing a bearer platform*.

In the same field of endeavor, Khakzar discloses *instructing a bearer platform* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port

units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit). The combination of the teachings of Khakzar and Ooghe discloses *the control system instructing a bearer platform*.

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

Ooghe does not explicitly teach *managed by remote platform*.

In the same field of endeavor, Cheng discloses *managed by remote platform* ([0008] multicast communications. audio/video conferencing, data distribution from surveillance platforms, command distribution from leaders/commanders, information sharing within peer group and between peer groups, real-time control of remote platforms and database/server replications for fault tolerance).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Cheng with Ooghe to control an access network.

Ooghe does not explicitly teach *point-to-point and point-to-multipoint connections*.

In the same field of endeavor, Rawlins discloses *point-to-point and point-to-multipoint connections* ([0025] QoS signaling protocol on the control plane of network devices that is utilized to request resources, requests resources for a unidirectional flow,

operate with unicast and multicast routing protocols to ensure QoS, decides the downstream interface on policy and admission control for QoS).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Rawlins with Ooghe to control the network.

Ooghe does not explicitly teach *network terminates the connection in real-time, real-time intervention by a pre-paid billing solution*.

In the same field of endeavor, Pillai discloses *network terminates the connection in real-time, real-time intervention by a pre-paid billing solution* ([0023] In prepaid services the customer pays in advances for a designated quantum of resources. network elements coordinate with different provisioning and user support systems to dynamically monitor resource consumption in real-time; once the designated levels of resource use are exceeded, the network elements terminate ongoing connections. the network elements and databases are configured with the latest data on the residual resources, remaining voice call minutes or remaining MB of data packet available to each user).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Pillai with Ooghe to control the network.

Ooghe does not explicitly teach *a portion of the reserved resources is outside of the Internet and delivers video in real-time*.

In the same field of endeavor, Higgins discloses (14:64- 15:12 Transferring the sheer quantities data associated with video across the Internet, is time consuming and renders the transmission of high quality, real-time video impossible. the user to employ the connectivity of the Internet to browse for remote video sources and, when a suitable remote source is located, open a point-to-point isochronous user information path of guaranteed bandwidth and characteristics between the user's controlling client and the controlled client containing the video source for transmission of the video source to the user in real time and outside the Internet) *a portion of the reserved resources is outside of the Internet and delivers video in real-time.*

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Higgins with Ooghe to guarantee bandwidth.

**Claim 11.** Ooghe further teaches *at least one of the following: a service ([0016] quality of service, [0017- 0026] differentiated service categories) type, a video code type and a voice codec type and the codec type determines an amount of bandwidth required for the user ([0026] video streaming or Voice over IP).*

**Claim 12.** Ooghe further teaches *plurality of I/O ports ([0076] plurality of physical Input/Output ports), signaling ([0076] electrical signal of a subscriber line), session ([0079] subscriber session), routing ([0123] data packets are routed through the core network), bandwidth ([0127] bandwidth required), quality ([0041] quality of service),*

*management* ([0075] signaling planes and the management planes terminating at or relayed across any of its physical ports, hardware components for those planes to operate), *admission* ([0029] connection Admission Control).

**Claim 13.** Ooghe further teaches *I/O ports* ([0076] plurality of physical Input/Output ports).

Ooghe does not explicitly teach *bearer connections, a switching matrix and a portal connectivity processing element*.

In the same field of endeavor, Khakzar discloses *bearer connections, a switching matrix and a portal connectivity processing element* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

**Claim 15.** Ooghe teaches *a control system* ([0117] service provider requests the access resource controller).

Ooghe does not explicitly teach *interconnecting back-office provisioning, billing and element management systems to the control system and the bearer platform*.

In the same field of endeavor, Litzenberger discloses *back-office provisioning, billing and element management systems* (1:55-60 back-office systems, billing platform, network management platform, fraud management platform).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Litzenberger with Ooghe to keep track of services provided to customers.

In the same field of endeavor, Khakzar discloses *a bearer platform* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

The combination of the teachings of Khakzar, Litzenberger and Ooghe discloses *interconnecting back-office provisioning, billing and element management systems to the control system and the bearer platform*.

24. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Litzenberger, further in view of Khakzar, further in view of Cheng, further in view of Rawlins, further in view of Pillai, further in view of Higgins, further in view of Goshen, and further in view of Gaddis.

**Claim 14.** Ooghe teaches *a controller* ([0117] service provider requests the access resource controller).

Ooghe does not explicitly teach *interconnecting content service to the controller and a portal*.

In the same field of endeavor, Goshen discloses *content service* ([0009] providing of content)

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Goshen with Ooghe to managing bandwidth allocation.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

The combination of teachings of Gaddis, Ooghe and Goshen discloses *interconnecting content service to the controller and the portal*.

25. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Gaddis.

**Claim 16.** Ooghe teaches *sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type* ([0117] video V requires a bandwidth with a QoS for a period of time T. service provider VOD requests the access resource controller ARC via the core network whether it can be granted those resources for the subscriber), *the request also includes a source address and a destination address* ([0079] cross-reference table associating the identifier of an ATM virtual channel with the IP address of the subscriber to which that virtual channel relates), and determining whether the request will be approved or denied ([0117] whether it can be granted those resources for the subscriber), *if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified time from the source address to the destination address* ([0012] The connection-oriented mode of operation allows the network to check whether enough resources are available for a connection and then to commit some Quality of Service for that connection. bandwidth and the QoS required for a connection are negotiated at connection establishment time. network can reserve therefrom the appropriate resources for this connection).

Ooghe teaches *a control system* ([0117] service provider VOD requests the access resource controller ARC via the core network), but does not explicitly teach *the control system includes a portal*.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames). The combination of the teachings of Gaddis and Ooghe discloses *the control system includes a portal*.

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

**Claim 17.** Ooghe further teaches *at least one of the following: a service* ([0016] quality of service, [0017- 0026] differentiated service categories) *type, a video code type or a voice codec type and the codec type determines an amount of bandwidth required for the user* ([0026] video streaming or Voice over IP).

**Claim 18.** Ooghe further teaches *plurality of I/O ports* ([0076] plurality of physical Input/Output ports), *signaling* ([0076] electrical signal of a subscriber line), *session* ([0079] subscriber session), *routing* ([0123] data packets are routed through the core network), *bandwidth* ([0127] bandwidth required), *quality* ([0041] quality of service), *management* ([0075] signaling planes and the management planes terminating at or relayed across any of its physical ports, hardware components for those planes to operate), *admission* ([0029] Connection Admission Control).

26. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Gaddis, and further in view of Khakzar.

**Claim 19.** Ooghe further teaches *I/O ports* ([0076] plurality of physical Input/Output ports).

Ooghe does not explicitly teach *bearer connections, a switching matrix and a portal connectivity processing element*.

In the same field of endeavor, Khakzar discloses *bearer connections, a switching matrix and a portal connectivity processing element* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

27. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Gaddis, and further in view of Goshen.

**Claim 20.** Ooghe teaches *a controller* ([0117] service provider requests the access resource controller).

Ooghe does not explicitly teach *interconnecting content service to the controller and the portal*.

In the same field of endeavor, Goshen discloses *content service* ([0009] providing of content)

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Goshen with Ooghe to managing bandwidth allocation.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

The combination of teachings of Gaddis, Ooghe and Goshen discloses *interconnecting content service to the controller and the portal*.

28. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Gaddis, and further in view of Litzenberger.

**Claim 21.** Ooghe teaches *a controller* ([0117] service provider requests the access resource controller).

Ooghe does not explicitly teach *interconnecting back-office provisioning, billing and element management systems to the controller and portal*.

In the same field of endeavor, Litzenberger discloses *back-office provisioning, billing and element management systems* (1:55-60 back-office systems, billing platform, network management platform, fraud management platform).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Litzenberger with Ooghe to keep track of services provided to customers.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

The combination of teachings of Gaddis, Litzenberger and Ooghe discloses *interconnecting back-office provisioning, billing and element management systems to the controller and portal*.

### ***Response to Arguments***

29. Applicant's arguments with respect to amended claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hooman Houshmand whose telephone number is (571)270-1817. The examiner can normally be reached on Monday - Friday 8am - 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2419

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. H./

Examiner, Art Unit 2419

/Hassan Kizou/

Supervisory Patent Examiner, Art Unit 2419

<b>Notice of References Cited</b>	Application/Control No. 11/743,470	Applicant(s)/Patent Under Reexamination MCEWEN, KATHY	
	Examiner Hooman Houshmand	Art Unit 2419	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-5,953,350 A	09-1999	Higgins, Ronald D.	370/524
*	B	US-2001/0056578 A1	12-2001	Hwang et al.	725/98
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			


**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**


*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<p align="center"><b><i>Index of Claims</i></b></p> 	<b>Application/Control No.</b> 11743470	<b>Applicant(s)/Patent Under Reexamination</b> MCEWEN, KATHY
	<b>Examiner</b> Hooman Houshmand	<b>Art Unit</b> 2419

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant				<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47	
CLAIM		DATE							
Final	Original	07/16/2008	01/09/2009						
	1	✓	✓						
	2	✓	✓						
	3	✓	✓						
	4	✓	✓						
	5	✓	✓						
	6	✓	✓						
	7	✓	✓						
	8	✓	✓						
	9	✓	✓						
	10	✓	✓						
	11	✓	✓						
	12	✓	✓						
	13	✓	✓						
	14	✓	✓						
	15	✓	✓						
	16	✓	✓						
	17	✓	✓						
	18	✓	✓						
	19	✓	✓						
	20	✓	✓						
	21	✓	✓						

<b>Search Notes</b> 	<b>Application/Control No.</b> 11743470	<b>Applicant(s)/Patent Under Reexamination</b> MCEWEN, KATHY
	<b>Examiner</b> Hooman Houshmand	<b>Art Unit</b> 2419

SEARCHED			
Class	Subclass	Date	Examiner
370	229,395.21 (text search only)	1/4/2009	HH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST, NPL	1/4/2009	HH
Inventorship search completed in eDAN	1/4/2009	HH

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2817	(370/229,395.21).CCLS	US-PGPUB; USPAT	OR	OFF	2009/01/11 19:14
L2	2491	control\$3 remote platform	US-PGPUB; USPAT	WITH	ON	2009/01/11 19:17
L3	2	2 1	US-PGPUB; USPAT	AND	ON	2009/01/11 19:18
L4	395	bandwidth\$on\$demand	US-PGPUB; USPAT	OR	ON	2009/01/11 19:19
L5	13	4 1	US-PGPUB; USPAT	AND	ON	2009/01/11 19:20
L6	116231	source AND address AND destination	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/01/11 19:22
L7	395	bandwidth\$on\$demand	US-PGPUB; USPAT	OR	ON	2009/01/11 19:22
L8	32453	codec	US-PGPUB; USPAT	SAME	ON	2009/01/11 19:22
L9	8	L7 L8 L6	US-PGPUB; USPAT	AND	ON	2009/01/11 19:22
L10	201	request (quality OR QoS) (time OR duration) (bandwidth OR codec )	US-PGPUB; USPAT	WITH	ON	2009/01/11 19:23
L11	81	source address destination address portal	US-PGPUB; USPAT	SAME	ON	2009/01/11 19:23
L12	1	L10 L11	US-PGPUB; USPAT	SAME	ON	2009/01/11 19:23
L14	4	(subscriber data function) AND (session management function) AND (routing bandwidth admission) AND (quality QoS)	US-PGPUB; USPAT	SAME	ON	2009/01/11 19:26
L15	35	port bearer (connection OR connectivity ) switching matrix	US-PGPUB; USPAT	SAME	ON	2009/01/11 19:26
L16	69	content service controller portal	US-PGPUB; USPAT	SAME	ON	2009/01/11 19:26
L17	31	back\$office bill\$3 manage \$4	US-PGPUB; USPAT	WITH	ON	2009/01/11 19:27
L18	2491	control\$3 remote platform	US-PGPUB; USPAT	WITH	ON	2009/01/11 19:28

L19	118	L18 and "370".clas.	US-PGPUB; USPAT	WITH	ON	2009/01/11 19:28
L20	3	control\$3 remote platform admission	US-PGPUB; USPAT	WITH	ON	2009/01/11 19:29
L21	74	(point\$to\$point OR unicast) (point\$to \$multipoint OR multicast) admission	US-PGPUB; USPAT	SAME	ON	2009/01/11 19:30
L22	3	user network terminate connection real\$time pre \$paid	US-PGPUB; USPAT	SAME	ON	2009/01/11 19:30
L23	787	"portals" controller	US-PGPUB; USPAT	WITH	ON	2009/01/11 19:31
L24	84	L23 and "370".clas.	US-PGPUB; USPAT	WITH	ON	2009/01/11 19:31
L25	332	plurality portals	US-PGPUB; USPAT	NEAR	OFF	2009/01/11 19:31
L26	19	L25 and "370".clas.	US-PGPUB; USPAT	WITH	ON	2009/01/11 19:31
L27	8	(outside WITH Internet) (video WITH real\$time)	US-PGPUB; USPAT	SAME	ON	2009/01/11 19:32
L28	2	(outside WITH Internet) (video WITH real\$time)	US-PGPUB; USPAT	WITH	ON	2009/01/11 19:32
L29	1	((KATHY) near2 (MCEWEN)).INV.	US-PGPUB; USPAT	OR	ON	2009/01/11 19:33

1/11/2009 7:34:12 PM

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\11743470.wsp

Electronic Acknowledgement Receipt	
<b>EFS ID:</b>	4230318
<b>Application Number:</b>	11743470
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	6891
<b>Title of Invention:</b>	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND
<b>First Named Inventor/Applicant Name:</b>	Kathy McEwen
<b>Customer Number:</b>	20594
<b>Filer:</b>	Michael A. O Neil/Marsha Green
<b>Filer Authorized By:</b>	Michael A. O Neil
<b>Attorney Docket Number:</b>	683592-0004
<b>Receipt Date:</b>	04-NOV-2008
<b>Filing Date:</b>	02-MAY-2007
<b>Time Stamp:</b>	16:00:36
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	no
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**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	683592-1001Response110408.pdf	1500451 7f94bb51e9ad327f3afe0bdf93dd8640b6c32170	no	12

**Warnings:**

**Information:**

2	Drawings-only black and white line drawings	683592-1001REVISEDDRAWING S110408.pdf	953412  55293f7106a7e1869d6efd5b3b0851bb2a1 7c97c	no	4
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			2453863		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

ATTORNEY DOCKET NO  
683592-1001

PATENT  
U.S. Ser. No. 11/743,470

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Kathy McEwen  
Serial No.: 11/743,470  
Filed: May 5, 2007  
Title: SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND  
Confirm No.: 6891  
Art Unit: 2619  
Examiner: Hooman Houshand

Commissioner for Patents  
Alexandria, VA 22313-1450

Dear Sirs:

**AMENDMENT AND RESPONSE TO OFFICE ACTION**

In response to the Official Action mailed August 5, 2008, Applicant respectfully requests that the Examiner reconsider the rejection of the specification, drawings, and claims in view of the following amendments thereto, and the comments set forth below.

Amendments to the Specification begin on Page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims, which begin on Page 6 of this paper.

Amendments to the Drawings begin on Page 9 of this paper and original sheets are attached to this response following Page 12.

Remarks/Arguments begin on Page 10 of this paper.

0

### Amendments to the Specification

All amendments are shown with deleted text struckthrough or double bracketed and new text underlined.

Please replace paragraph [0034] with the following:

[0034] Instead of trying to introduce a new class of service type for each additional high quality service and content provider at the access edge (See Figure 6), one class of service type is introduced to cover all high quality services (See Figure 7). Then all traffic requesting this service type is routed to an access Controller [714] 712 and [716] Portal 714 for handling. Alternatively, if the broadband access provider does not want to provision a specific class of service for the Controller and Portal for handling, a consumer may signal directly to the Controller and Portal.

Please replace paragraph [0035] with the following:

[0035] Now referring to Figure 8, when one dynamic video or bandwidth user wants to connect to another, they simply dial a directory number or IP address or web page to request a connection on demand. The Controller [700] 800 will receive the request, including bandwidth required and if video, a video codec type and a service type tag (if applicable) for billing purposes, and determine from its embedded subscriber database whether the user is authorized to use the bandwidth, video type and service or not, how to bill them, and whether the destination party can be reached.

Please replace paragraph [0036] with the following:

[0036] The Controller [700] 800 and Portal [702] 802 are interconnected to each other and to content providers. The Controller [700] 800 and Portal [702] 802 also interconnect consumers, businesses and/or content providers. The control signaling connects using protocols directly to

consumers, businesses, and/or content providers. The bearer between consumers, businesses, and/or content providers is connected through the Portal platforms [702] 802.

Please replace paragraph [0037] with the following:

[0037] In order to ensure quality, the Controller [700] 800 inter-works with network protocols to dynamically provision a dedicated path, including required route and bandwidth, on demand through the network. The Controller [700] 800 directs its associated Portal platform [702] 802 to allocate local port resources, and then signals any destination party's Controller to reserve far-end resources.

Please replace paragraph [0038] with the following:

[0038] The Controller [700] 800 enables each bandwidth on demand user, originator and terminator, to negotiate with the network. The negotiation includes information elements necessary to ensure an end-to-end video connection free from video codec conversion in the core if possible. This avoids interoperability issues between user systems, and enables all application end-points to communicate freely.

Please replace paragraph [0039] with the following:

[0039] Now referring to Figure 9, the Controller [700] 900 and Portals [702] 1102 can be physically located in the same location or in separate locations. The Controller [700] 900 communicates and controls the portals [702] 1102 via a link - the distance from the Controller [700] 900 to the Portals [702] 1102 can be close or very far. This allows network owners to optimize transmission utilization to keep high bandwidth traffic closest to the user, while centralizing routing, maintenance, operations and control functions in a single regional location.

Please replace paragraph [0040] with the following:

[0040] The invention takes distributed switching control concepts from the low-bandwidth voice domain, and extends them to the variable-bandwidth packet routing domain. Moreover, the Portal [702] 902 is under the direct management of the Controller [700] 900. It only accepts traffic on its ports when authorized by the Controller [700] 900 in real-time, and notifies the Controller [700] 900 if a user's traffic terminates or exceeds allowance. The Portal [702] 902 does not perform new routing on any packet, and only acts on the information provided by the controller [700] 900. If any packets are received on any port at the Portal [702] 902, which are arriving from a user that has not been authorized to use it, then those packets are discarded without prejudice. If an authorized user should exceed the limit authorized, the Controller [700] 900 is informed, and an alarm is raised. The Controller [700] 900 determines whether the user who is exceeding their limit should be disconnected, or allowed to continue, and instructs the Portal [702] 902 according to a pre-set time limit. The Controller [700] 900 contains a completely integrated bandwidth/portal admission control, routing and element management solution, which tracks, manages, and bills for all usage (Controller [700] 900 plus its subordinate Portals [702] 902). Furthermore, the maximum limit of Portals [702] 902 to Controller [700] 900 is determined based on the aggregate subscriber usage capacity across all Portals [700] 902.

Please replace paragraph [0041] with the following:

[0041] Now referring to Figure 10, the Controller [700] 1000 and Portals [702] 1002 serve the access networks at the access locations, which are near consumers, businesses, and/or near to content providers. The Controller [700] 1000 and Portal [702] 1002 interconnect to each other and any other platforms, which could be via existing IP/MPLS routers or multiplexing equipment or other transport connection mechanisms. The consumers 1004, 1006 are connected directly to the Controller [700] 1000 and Portal [702] 1002 across the access. Content providers, back-office provisioning, billing and element management systems interconnect to the Controller [700] 1000 and Portals [702] 1002. The best-effort internet is bypassed completely for any high quality broadband connections. In addition, all provisioning, element management and routing is managed at the Controller [700] 1000, and is visible via a remote connection. Furthermore, the Controller supports flexible charging arrangements that can be based on any combination of or

single element of service type, time elapsed, codec type and bandwidth used on the network; and this can be billed for either after the session has terminated, or in real-time through a pre-paid billing mechanism which allows for termination of the session at any time based on available credit(s). Originating and terminating party records are issued, or both, including information about route used for transport charging purposes. If users are connecting across regions, states, nations or carriers, the information is recorded for billing purposes.

Please replace paragraph [0042] with the following:

[0042] Now referring to figure 11, a Controller [700] 1100 and Portal [702] 1102 serve the access networks at the access locations 1104. The Controller [700] 1100 and Portal [702] 1102 interconnect to each other and any other platforms 1106, which could be via existing IP/MPLS routers 1108 and/or multiplexing equipment and/or any other transport mechanisms. In addition, the consumers 1110, businesses 1112 and/or content providers 1114 are connected, for control signaling via path 1116 and via path 1118 for bearer path, directly to the Controller [700] 1100 and Portal [702] 1102 across the access domain. The Controller [700] 1100 includes I/O ports 1120, 1122, and 1124 connecting a signaling/security function 1126 to a message distribution function 1128 that handles distributing all control signaling to the subscriber data function 1130, session management function 1132, routing/bandwidth admission and quality assurance management function 1134, and handles all functions including billing/OA&M 1136, necessary for the broadband services to be dynamically connected and managed with quality. The Portal [702] 1102 includes I/O ports 1138 on line cards 1140 for the bearer connections, a switching matrix 1142 and a portal connectivity processing element 1144. The content services 1114 interconnects to the Controller [700] 1100 and Portal [702] 1102. The backoffice provisioning, billing and element management systems 1132 interconnect to the Controller [700] 1100 and Portal [702] 1102. The best-effort Internet 1146 is bypassed completely for any high quality broadband connections.

### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

All claims currently being amended are shown with deleted text struckthrough or double bracketed and new text underlined. Additionally, the status of each claim is indicated in parenthetical expression following the claim number.

Claims 1 - 21 remain in this application.

Claims 1, 2, 10, 11, 14 and 17 are being amended.

1. (Amended) A method of providing bandwidth on demand to an end user, the method comprising:

sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type, wherein the request also includes a source address and a destination address; and

determining whether the request will be approved or denied, wherein if the request is approved, instructing a bearer platform, by the control system, in setting up dynamic bandwidth connections, wherein the bearer platform responds to controller designated bearer port and route selection decisions to deliver high quality and low latency bandwidth connections point-to-point and point-to-multipoint and wherein the bearer port is ~~tightly~~ controlled by a remote platform such that all ingress and ~~agrees egress~~ traffic bandwidth admission is managed by the remote platform; and reserving resources for a transmission of information of the specified bandwidth, which is managed and monitored by the controller for the specified time from the source address to the destination address and wherein at least a portion of the reserved resources is outside of the Internet and delivers video in real-time.

2. (Amended) The method of claim 1 wherein the request also includes at least one of the following a service type, a bandwidth amount, a video [code] ~~codec~~ type [and] or a voice codec type and wherein the ~~video codec type, the voice codec type and bandwidth amount determine~~ determine an amount of bandwidth required for the user.

3. The method of claim 1 wherein the request is sent to a portal.

4. The method of claim 3 further including instructing the portal by a controller.

5. The method of claim 4 further including a plurality of portals.

6 The method of claim 4 further including connecting a plurality of I/O ports to a signaling/security function to a message distribution function that handles distributing all control signaling to a subscriber data function, a session management function, billing function and a routing/bandwidth admission and quality assurance management function.

7. The method of claim 4 wherein the portal includes I/O ports on line cards for the bearer connections, a switching matrix and a portal connectivity processing element.

8. The method of claim 4 further including interconnecting a content services device to the controller and the portal.

9. The method of claim 4 further including interconnecting back-office provisioning, billing and element management systems to the controller and portal.

10. (Amended) A method of providing bandwidth on demand to an end user, the method comprising

sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type, to be determined by the user ~~upon termination~~, wherein the request also includes a source address, ~~[[and]]~~ a destination address and a video content identification number;

instructing a bearer platform, by the control system, in setting up dynamic bandwidth connections, wherein the bearer platform makes a bearer port and route selection decisions to deliver high quality and low latency bandwidth connections point-to-point and point-to-multipoint and wherein the bearer port is ~~tightly~~ controlled by a remote platform such that all ingress and ~~agrees~~ egress traffic bandwidth admission is managed by the remote platform;

determining whether the requester is authentic or not allowed by having the network apply an authentication test on the requester before granting the requester access to the network;  
and

~~—determining whether the request will be approved or denied, wherein if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified quality from the source address to the destination address, until either the user or the network owner determines to terminate the connection in real-time, upon which real-time billing records may be generated recording available usage information or real-time intervention by a pre-paid billing solution.~~

determining whether the request will be approved or denied based on source address, destination address, codec type, content identification number, service type, requester profile information, network resources occupancy, link occupancy, server occupancy, wherein if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified quality from the source address to the destination address, until either the user or the network owner determines to terminate the connection in real-time, upon which real-time billing records may be generated recording available usage information or real-time intervention by a pre-paid billing solution and wherein at least a portion of the reserved resources is outside of the Internet and delivers video in real-time.

11. (Amended) The method of claim 10 wherein the request also includes at least one of the following a service type, a bandwidth amount, a video code type [and] or a voice codec type and wherein the codec type and the bandwidth amount determine[s] an amount of bandwidth required for the user

12. The method of claim 10 wherein the control system includes a plurality of I/O ports connected to a signaling/security function to a message distribution function that handles distributing all control signaling to a subscriber data function, a session management function and a routing/bandwidth admission and quality assurance management function.

13. The method of claim 10 wherein the bearer platform includes I/O ports on line cards for the bearer connections, a switching matrix and a portal connectivity processing element

14. (Amended) The method of claim 10 further including interconnecting a content services device to the controller and [the] a portal.

15. The method of claim 10 further including interconnecting back-office provisioning, billing and element management systems to the control system and the bearer platform.

16. A method of providing bandwidth on demand to an end user, the method comprising sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type, wherein the request also includes a source address and a destination address, wherein the control system includes a controller and a portal; and determining whether the request will be approved or denied, wherein if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified time from the source address to the destination address.

17. (Amended) The method of claim 16 wherein the request also includes at least one of the following a service type, a bandwidth amount, a video codec type [and] or a voice codec type and wherein the codec type and the bandwidth amount determine[s] an amount of bandwidth required for the user.

18. The method of claim 16 further including connecting a plurality of I/O ports to a signaling/security function to a message distribution function that handles distributing all control signaling to a subscriber data function, a session management function and a routing/bandwidth admission and quality assurance management function.

19. The method of claim 16 wherein the portal includes I/O ports on line cards for the bearer connections, a switching matrix and a portal connectivity processing element.

20. The method of claim 16 further including interconnecting a content services device to the controller and the portal.

21. The method of claim 16 further including interconnecting back-office provisioning, billing and element management systems to the controller and portal.

ATTORNEY DOCKET NO  
683592-1001

PATENT  
U.S. Ser. No. 11/743,470

**Amendments to the Drawings**

Please amend attached figures 8-11.

**Remarks/Arguments**

In response to the Office Action mailed August 5, 2008, Applicants respectfully request that the Examiner reconsider the objections to the specification and drawings and the rejections of the remaining claims.

Claims 1-21 are pending. Claim 1, 2, 10, 11, 14 and 17 have been amended.

The Examiner objected to the drawings. Applicant respectfully submits that the drawings have now been corrected are enclosed.

The Examiner objected to the specification. Applicant has amended the specification to clarify and more accurately describe the invention.

The Examiner objected to the claims because Applicant included wherein clauses. Applicant respectfully traverses the Examiner's objections. Applicant respectfully submits that each wherein clause further limits the claim and is therefore compliant with MPEP 2111.04.

Claims 1-15 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Specifically, Applicant has amended claims 1, 2, 10, 11 and 14 and respectfully submits that claims 1-15 are now compliant with 35 U.S.C. § 112, second paragraph. However, to the extent that the amendments do not address the Examiner's objections, Applicant respectfully submits that the meaning of the claims would be understood by a person skilled in the art.

Claims 1-15 stand rejected under 35 U.S.C. § 112, first paragraph as the specification does not enable a person skilled in the art to use the invention within the scope of these claims. Again, Applicant has amended claims 1 and 10 and respectfully submits that claims 1-15 are now compliant with 35 U.S.C. § 112, first paragraph.

Claims 1-2 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ooghe (20050276218) in view of Khakzar (US 5,781,623), Cheng (US 20020150094) and Rawlins (US 200201919539). Applicants respectfully traverse these rejections.

Claim 1 recites: "A method of providing bandwidth on demand to an end user, the method comprising: sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type, wherein the request also includes a source address and a destination address; and determining whether the

request will be approved or denied, wherein if the request is approved, instructing a bearer platform, by the control system, in setting up dynamic bandwidth connections, wherein the bearer platform responds to controller designated bearer port and route selection decisions to deliver high quality and low latency bandwidth connections point-to-point and point-to-multipoint and wherein the bearer port is controlled by a remote platform such that all ingress and egress traffic bandwidth admission is managed by the remote platform; and reserving resources for a transmission of information of the specified bandwidth, which is managed and monitored by the controller for the specified time from the source address to the destination address and wherein at least a portion of the reserved resources is outside of the Internet and delivers video in real-time.”

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP 2143.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). MPEP 2143.

Applicant respectfully submits that there is no suggestion or motivation to modify or combine the references cited by the Examiner to achieve the advantageous results of the invention as recited in claim 1. Ooghe, Khakzar, Cheng and Rawlins, separately and in combination, fail to teach or suggest reserving resources outside of the Internet to deliver video in real-time as recited in independent claim 1. In addition, the cited art does not teach or suggest authentication for video services as recited by claim 1. Consequently, applicant respectfully submits that a prima facie case of obviousness has not been established.

For at least the reasons above, applicant respectfully submits that the rejection of claim 1 under 35 U.S.C. § 103(a) has been overcome and requests that the rejection of claim 1 be withdrawn. Further, since claim 2 is dependent claims of claim 1, claim 2 is also patentable over the cited art for at least the same reasons.

Claims 3-21 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Ooghe in view of other cited art. Applicants respectfully traverse these rejections.

As stated before, Ooghe and the other cited art does not teach or suggest reserving resources outside of the Internet to deliver video in real-time as recited in independent claim 1. In addition, Ooghe and the other cited art does not teach or suggest reserving resources outside of the Internet to deliver video in real-time as recited in independent claim 10. Moreover, Ooghe and the cited art does not teach or suggest authentication for video services as recited by independent claims 1 and 10. Therefore claims 1 and 10 are patentable over the cited art.

Further, since claims 3-9 are dependent on claim 1, claims 3-9 are not taught or suggested by the cited art for at least the same reasons as claim 1. In addition, since claims 11-21 are dependent on claim 10, claims 11-21 are also patentable over the cited art for at least the same reasons as claim 10.

No new matter has been added. Applicants respectfully submit that the Claims as they now stand are patentably distinct over the art cited during the prosecution thereof.

With the addition of no new claims, no additional filing fees are due. However, the Director is hereby authorized to charge any fees or credit any overpayment to Deposit Account Number 50-0856 of Michael A. O'Neil, PC.

If the Examiner has any questions or comments concerning this paper or the present application in general, the Examiner is invited to call the undersigned at 214-739-0088, ext. 8.

Respectfully submitted,

Date: 11/04/2008

/Ruben C. DeLeon/

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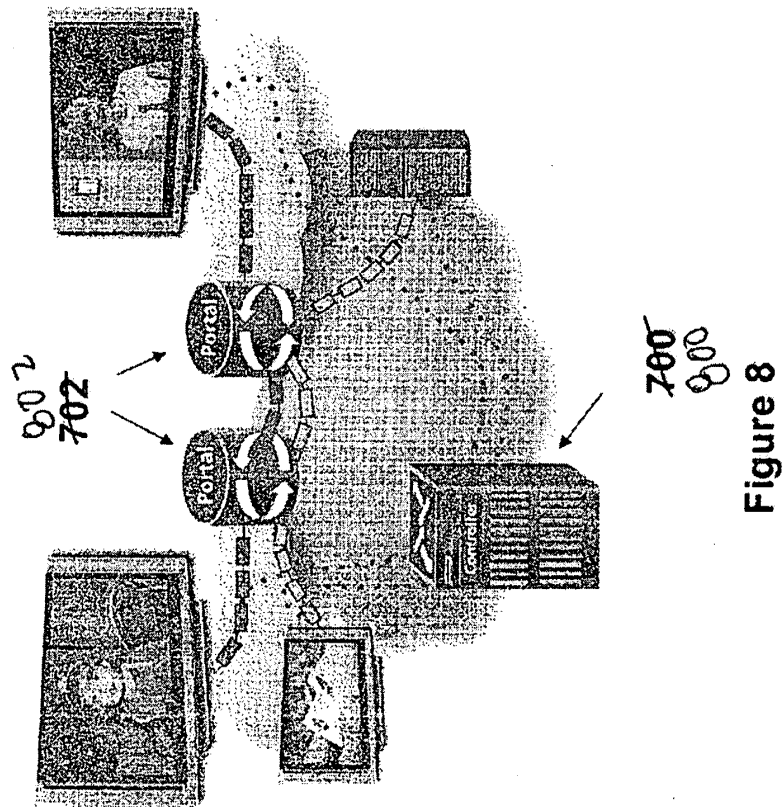


Figure 8

West -#5910435v1

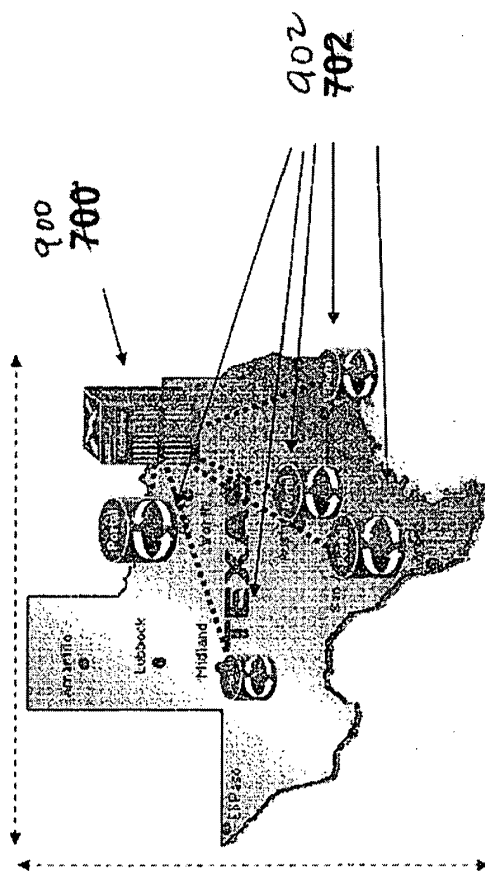


Figure 9

West -#5810435v1

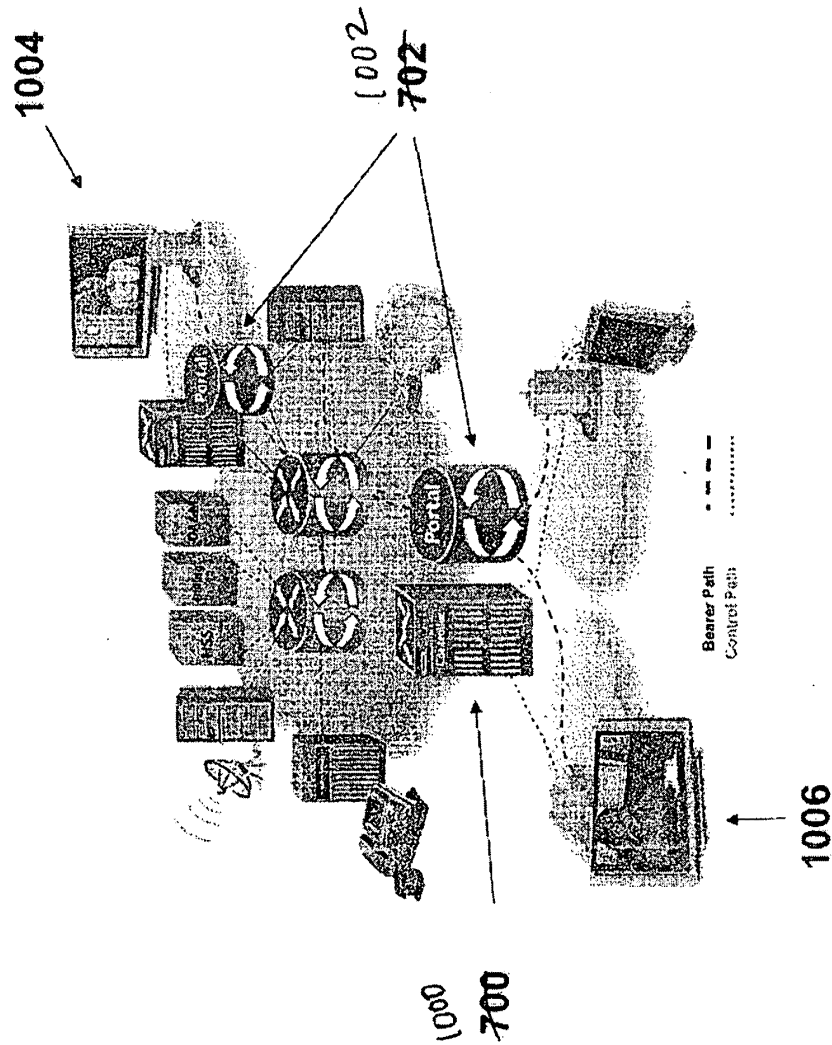
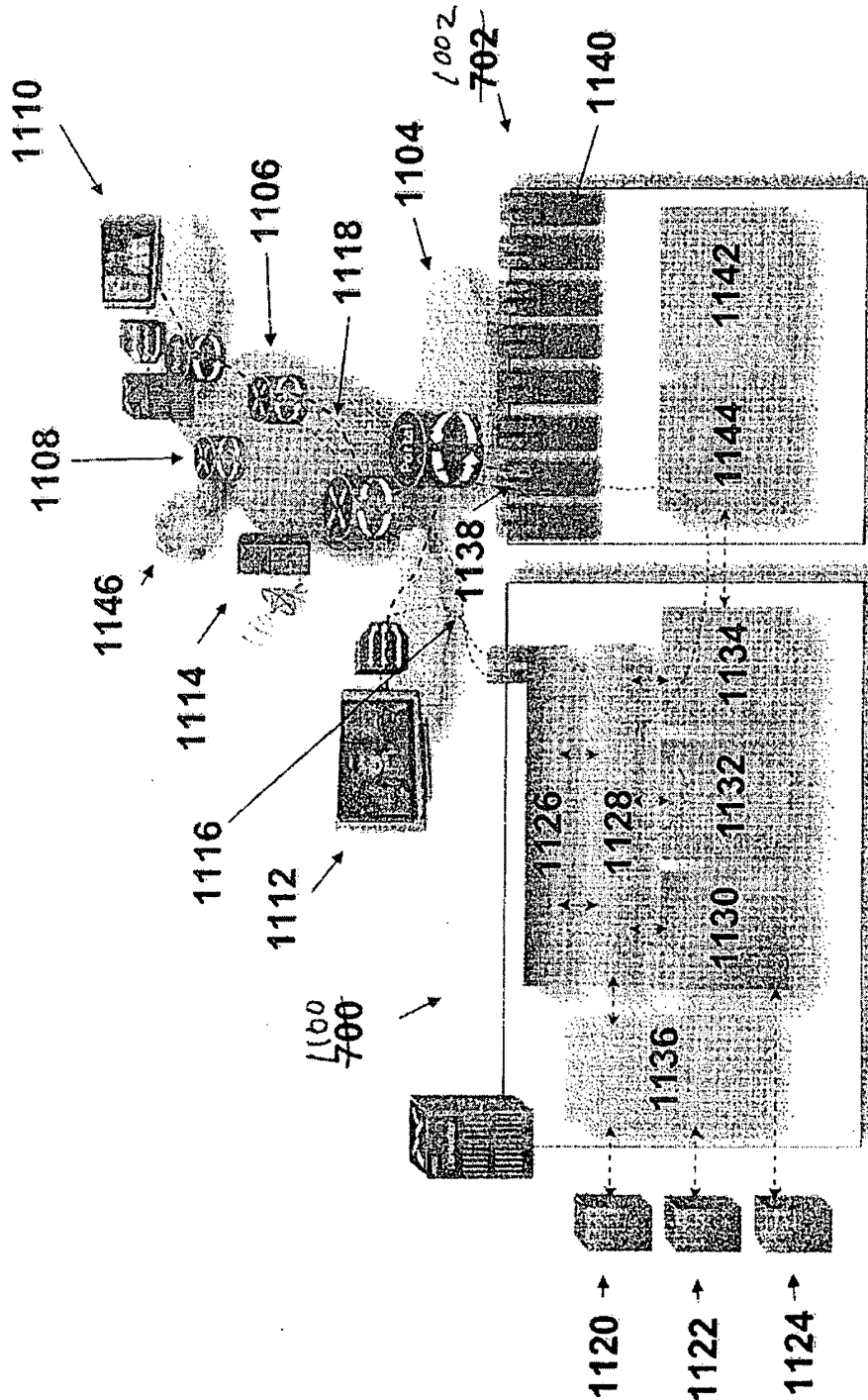


Figure 10

West-45910435v1



## Figure 11

West -#5910435v1

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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number <b>11/743,470</b>		Filing Date <b>05/02/2007</b>		<input type="checkbox"/> To be Mailed					
<b>APPLICATION AS FILED – PART I</b>														
(Column 1)			(Column 2)			SMALL ENTITY <input checked="" type="checkbox"/>		OR		OTHER THAN SMALL ENTITY				
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)							
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A								
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A								
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A								
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$	=		X \$	=							
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$	=		X \$	=							
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).													
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))														
* If the difference in column 1 is less than zero, enter "0" in column 2.														
<b>APPLICATION AS AMENDED – PART II</b>														
(Column 1)			(Column 2)			(Column 3)			SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
<b>AMENDMENT</b>	<b>11/04/2008</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)				
	Total (37 CFR 1.16(i))	* 21	Minus	** 21	= 0	X \$26 =	0		X \$ =					
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X \$110 =	0		X \$ =					
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))													
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))													
						TOTAL ADD'L FEE	0		TOTAL ADD'L FEE					
<b>AMENDMENT</b>		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)				
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =			X \$ =					
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =			X \$ =					
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))													
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))													
						TOTAL ADD'L FEE			TOTAL ADD'L FEE					
<p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p>												<p>Legal Instrument Examiner: /DIANIECE JACOBS/</p>		

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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<b>EFS ID:</b>	4036993
<b>Application Number:</b>	11743470
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	6891
<b>Title of Invention:</b>	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND
<b>First Named Inventor/Applicant Name:</b>	Kathy McEwen
<b>Customer Number:</b>	20594
<b>Filer:</b>	Michael A. O Neil/marsha green
<b>Filer Authorized By:</b>	Michael A. O Neil
<b>Attorney Docket Number:</b>	683592-0004
<b>Receipt Date:</b>	30-SEP-2008
<b>Filing Date:</b>	02-MAY-2007
<b>Time Stamp:</b>	18:26:52
<b>Application Type:</b>	Utility under 35 USC 111(a)

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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Change of Address	683592-1001ChangeofAddress.pdf	142029 24b6b7dd9667096095e300c4e510bd919324fcd4	no	1
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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

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If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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Application Number	11/743,470
Filing Date	5/02/2007
First Named Inventor	Kathy McEwen
Art Unit	2619
Examiner Name	Hooman Houshmand
Attorney Docket Number	683592-1001

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Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).☒ Attorney or agent of record. Registration Number 37,712☐ Registered practitioner named in the application transmittal letter in an application without an executed oath or declaration. See 37 CFR 1.33(a)(1). Registration Number \_\_\_\_\_

Signature /Ruben C. DeLeon/

Typed or Printed  
Name Ruben C. DeLeon

Date September 30, 2008

Telephone 214-739-0088, ext. 8

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 1 forms are submitted.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/743,470	05/02/2007	Kathy McEwen	683592-0004	6891
20594 7590 08/05/2008 AKIN GUMP STRAUSS HAUER & FELD, LLP P O BOX 688 DALLAS, TX 75313-0688			EXAMINER HOUSHMAND, HOOMAN	
			ART UNIT 2619	PAPER NUMBER
			MAIL DATE 08/05/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "714 (figure 7)" and "702 (figure 8)" have both been used to designate Portal. In addition, other reference characters appear to be designating the same item (e.g. Controller 712 and 700). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "702 (figures 7 and 8)" has been used to designate both Video (figure 7) and Portal (figure 8). In addition, other reference characters appear to be designating multiple items (e.g. element 700). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if

only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following: Pages 10-11 Paragraph 40, the last line states: all Portals 700. However, the previous line states: Portals 702. Two reference characters, 700 and 702, have been used to designate Portal.

### ***Claim Objections***

4. Claims 1-3, 7, 10-13, 16-17, 19 are objected to because of the following: *wherein* clauses have been utilized. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. "wherein" clauses may raise a question as to the limiting effect of the language in a claim. (see MPEP 2111.04)

5. Claims 1 (line 10) and 10 (line 9) are objected to because of the following: "*ingress and agrees traffic*" is recited, it appears *ingress and egress* were intended.

6. Claims 2, 11 and 17 are objected to because of the following: The claim recites *at least one of the following*; however, AND is used to separate the limitations - expected OR. It is unclear what each individual limitation is.

7. Claims 14 is objected to because of the following: The claim recites *the portal* which lacks antecedent basis.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-9, 10-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 10 line 3 recites *to be determined by the user upon termination*. It is unclear what *upon termination* refers to.

11. Claim 10 line 14 recites *intervention by a pre-paid billing solution*. It is unclear what *intervention* refers to.

12. Claim 1 line 9, and claim 10 line 8 recite *tightly controlled*. It is unclear what this limitation is.

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claims 1-9, 10-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the invention.

15. Claim 1 line 8, and claim 10 line 7 recite *deliver high quality and low latency bandwidth*. The specification does not adequately describe how *high quality and low latency* are determined.

***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe (20050276218), in view of Khakzar (US 5781623), Cheng (US 20020150094), Rawlins (US 20020191539).

Claim 1. (best understood) Ooghe teaches *sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type* ([0117] video V requires a bandwidth with a QoS for a period of time T. The service provider VOD requests the access resource controller ARC via the core network whether it can be granted those resources for the subscriber), *the request includes a source address and a destination address* ([0079] cross-reference table associating the identifier of an ATM virtual channel with the IP address of the

subscriber to which that virtual channel relates); *determining whether the request will be approved or denied* ([0117] whether it can be granted those resources for the subscriber), *admission* ([0029] Connection Admission Control); *and reserving resources for a transmission of information of the specified bandwidth, which is managed and monitored by the controller for the specified time from the source address to the destination address* ([0012] bandwidth and the QoS required for a connection are negotiated at connection establishment time. network reserves the appropriate resources for the connection, [0026] a static amount of bandwidth continuously available during the connection lifetime).

Ooghe teaches *a control system* ([0117] service provider requests the access resource controller), but may not explicitly teach *the control system instructing a bearer platform*. In the same field of endeavor, Khakzar discloses *instructing a bearer platform* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit). The combination of the teachings of Khakzar and Ooghe discloses *the control system instructing a bearer platform*.

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

Ooghe may not explicitly teach *managed by remote platform*.

In the same field of endeavor, Cheng discloses *managed by remote platform* ([0008] multicast communications. audio/video conferencing, data distribution from surveillance platforms, command distribution from leaders/commanders, information sharing within peer group and between peer groups, real-time control of remote platforms and database/server replications for fault tolerance).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Cheng with Ooghe to control an access network.

Ooghe may not explicitly teach *point-to-point and point-to-multipoint connections*.

In the same field of endeavor, Rawlins discloses *point-to-point and point-to-multipoint connections* ([0025] QoS signaling protocol on the control plane of network devices that is utilized to request resources, requests resources for a unidirectional flow, operate with unicast and multicast routing protocols to ensure QoS, decides the downstream interface on policy and admission control for QoS).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Rawlins with Ooghe to control the network.

Claim 2. Ooghe further teaches *at least one of the following: a service* ([0016] quality of service, [0017- 0026] differentiated service categories) *type, a video code type and a voice codec type and the codec type determines an amount of bandwidth required for the user* ([0026] video streaming or Voice over IP).

18. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, Khakzar, Cheng, Rawlins, in view of Gaddis (US 5457681).

Claim 3. Ooghe further teaches *request is sent* ([0117] service provider requests the access resource controller via the core network whether it can be granted those resources for the subscriber), but may not explicitly teach *request is sent to a portal*. In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames). The combination of the teachings of Gaddis with Ooghe discloses *request is sent to a portal*.

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

19. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, Khakzar, Cheng, Rawlins, Gaddis, in view of Justen (US 20060187831).

Claim 4. Ooghe teaches *a controller* ([0117] service provider requests the access resource controller), but may not explicitly teach *instructing the portal by a controller*. In the same field of endeavor, Justen discloses *instructing the portal by a controller* ([0012], [0046- 0049] controller module executes portal software, FIG. 9, FIG. 10 portal controller module).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Justen with Ooghe to remotely monitor and control a target location.

20. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, Khakzar, Cheng, Rawlins, Gaddis, Justen, in view of Henry (US 20040151153).

Claim 5. Ooghe may not explicitly teach *a plurality of portals*.

In the same field of endeavor, Henry teaches *a plurality of portals* ([0011] each link comprises a plurality of portals).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Henry with Ooghe to manage resources of a link in a communication network.

21. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe , Khakzar , Cheng , Rawlins, Gaddis , Justen, in view of Litzenberger (US 5835497).

Claim 6. Ooghe further teaches *plurality of I/O ports* ([0076] plurality of physical Input/Output ports), *signaling* ([0076] electrical signal of a subscriber line), *session* ([0079] subscriber session), *routing* ([0123] data packets are routed through the core network), *bandwidth* ([0127] bandwidth required), *quality* ([0041] quality of service), *management* ([0075] signaling planes and the management planes terminating at or

relayed across any of its physical ports, hardware components for those planes to operate), *admission* ([0029] connection Admission Control).

Ooghe may not explicitly teach *billing function*.

In the same field of endeavor, Litzenberger discloses *billing function* (1:55-60 back-office systems, billing platform, network management platform, fraud management platform).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Litzenberger with Ooghe to keep track of services provided to customers.

22. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, Khakzar, Cheng, Rawlins, Gaddis, Justen.

Claim 7. Ooghe further teaches *I/O ports* ([0076] plurality of physical Input/Output ports).

Ooghe may not explicitly teach *bearer connections, a switching matrix and a portal connectivity processing element*.

In the same field of endeavor, Khakzar discloses *bearer connections, a switching matrix and a portal connectivity processing element* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer

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channel of the interface unit. switching such connections through the switching network is controlled by the control unit).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

23. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe , Khakzar , Cheng , Rawlins, Gaddis , Justen, in view of Goshen (US 20070002897).

Claim 8. Ooghe teaches *a controller* ([0117] service provider requests the access resource controller).

Ooghe may not explicitly teach *interconnecting content service to the controller and the portal*.

In the same field of endeavor, Goshen discloses *content service* ([0009] providing of content).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Goshen with Ooghe to manage bandwidth allocation.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

The combination of teachings of Gaddis, Ooghe and Goshen discloses *interconnecting content service to the controller and the portal*.

24. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, Khakzar, Cheng, Rawlins, Gaddis, Justen, in view of Litzenberger.

Claim 9. Ooghe teaches *a controller* ([0117] service provider requests the access resource controller).

Ooghe may not explicitly teach *interconnecting back-office provisioning, billing and element management systems to the controller and portal*.

In the same field of endeavor, Litzenberger discloses *back-office provisioning, billing and element management systems* (1:55-60 back-office systems, billing platform, network management platform, fraud management platform).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Litzenberger with Ooghe to keep track of services provided to customers.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

The combination of teachings of Gaddis, Litzenberger and Ooghe discloses *interconnecting back-office provisioning, billing and element management systems to the controller and portal.*

25. Claims 10-13, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Litzenberger, Khakzar, Cheng, Rawlins (US 20020191539), Pillai (US 20030133552).

Claim 10. (best understood) Ooghe teaches *sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type* ([0117] video V requires a bandwidth with a QoS for a period of time T. The service provider VOD requests the access resource controller ARC via the core network whether it can be granted those resources for the subscriber), *the request also includes a source address and a destination address* ([0079] cross-reference table associating the identifier of an ATM virtual channel with the IP address of the subscriber to which that virtual channel relates); *admission* ([0029] Connection Admission Control); *and determining whether the request will be approved or denied* ([0117] whether it can be granted those resources for the subscriber), *if the request is approved, reserving resources for a transmission of information of the specified*

*bandwidth for the specified quality from the source address to the destination address*

([0012] The connection-oriented mode of operation allows the network to check whether enough resources are available for a connection and then to commit some Quality of Service for that connection. bandwidth and the QoS required for a connection are negotiated at connection establishment time. network can reserve therefrom the appropriate resources for this connection).

Ooghe may not explicitly teach *generating billing records*.

In the same field of endeavor, Litzenberger discloses *generating billing records* (1:55-60 back-office systems, billing platform, network management platform, fraud management platform).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Litzenberger with Ooghe to keep track of services provided to customers.

Ooghe teaches *a control system* ([0117] service provider requests the access resource controller), but may not explicitly teach *the control system instructing a bearer platform*.

In the same field of endeavor, Khakzar discloses *instructing a bearer platform* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit). The combination of the teachings of Khakzar and Ooghe discloses *the control system instructing a bearer platform*.

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

Ooghe may not explicitly teach *managed by remote platform*.

In the same field of endeavor, Cheng discloses *managed by remote platform* ([0008] multicast communications, audio/video conferencing, data distribution from surveillance platforms, command distribution from leaders/commanders, information sharing within peer group and between peer groups, real-time control of remote platforms and database/server replications for fault tolerance).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Cheng with Ooghe to control an access network.

Ooghe may not explicitly teach *point-to-point and point-to-multipoint connections*.

In the same field of endeavor, Rawlins discloses *point-to-point and point-to-multipoint connections* ([0025] QoS signaling protocol on the control plane of network devices that is utilized to request resources, requests resources for a unidirectional flow, operate with unicast and multicast routing protocols to ensure QoS, decides the downstream interface on policy and admission control for QoS).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Rawlins with Ooghe to control the network.

Ooghe may not explicitly teach *network terminates the connection in real-time, real-time intervention by a pre-paid billing solution*.

In the same field of endeavor, Pillai discloses *network terminates the connection in real-time, real-time intervention by a pre-paid billing solution* ([0023] In prepaid services the customer pays in advances for a designated quantum of resources. network elements coordinate with different provisioning and user support systems to dynamically monitor resource consumption in real-time; once the designated levels of resource use are exceeded, the network elements terminate ongoing connections. the network elements and databases are configured with the latest data on the residual resources, remaining voice call minutes or remaining MB of data packet available to each user).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Pillai with Ooghe to control the network.

Claim 11. Ooghe further teaches *at least one of the following: a service* ([0016] quality of service, [0017- 0026] differentiated service categories) *type, a video code type and a voice codec type and the codec type determines an amount of bandwidth required for the user* ([0026] video streaming or Voice over IP).

Claim 12. Ooghe further teaches *plurality of I/O ports* ([0076] plurality of physical Input/Output ports), *signaling* ([0076] electrical signal of a subscriber line), *session* ([0079] subscriber session), *routing* ([0123] data packets are routed through the core

network), *bandwidth* ([0127] bandwidth required), *quality* ([0041] quality of service), *management* ([0075] signaling planes and the management planes terminating at or relayed across any of its physical ports, hardware components for those planes to operate), *admission* ([0029] connection Admission Control).

Claim 13. Ooghe further teaches *I/O ports* ([0076] plurality of physical Input/Output ports).

Ooghe may not explicitly teach *bearer connections, a switching matrix and a portal connectivity processing element*.

In the same field of endeavor, Khakzar discloses *bearer connections, a switching matrix and a portal connectivity processing element* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

Claim 15. Ooghe teaches *a control system* ([0117] service provider requests the access resource controller).

Ooghe may not explicitly teach *interconnecting back-office provisioning, billing and element management systems to the control system and the bearer platform*.

In the same field of endeavor, Litzenberger discloses *back-office provisioning, billing and element management systems* (1:55-60 back-office systems, billing platform, network management platform, fraud management platform).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Litzenberger with Ooghe to keep track of services provided to customers.

In the same field of endeavor, Khakzar discloses *a bearer platform* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

The combination of the teachings of Khakzar, Litzenberger and Ooghe discloses *interconnecting back-office provisioning, billing and element management systems to the control system and the bearer platform*.

26. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, Litzenberger, Khakzar, Cheng, Rawlins, Pillai, in view of Goshen, Gaddis.

Claim 14. Ooghe teaches *a controller* ([0117] service provider requests the access resource controller).

Ooghe may not explicitly teach *interconnecting content service to the controller and the portal*.

In the same field of endeavor, Goshen discloses *content service* ([0009] providing of content)

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Goshen with Ooghe to managing bandwidth allocation.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

The combination of teachings of Gaddis, Ooghe and Goshen discloses *interconnecting content service to the controller and the portal*.

27. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, in view of Gaddis.

Claim 16. Ooghe teaches *sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type* ([0117] video V requires a bandwidth with a QoS for a period of time T. service provider VOD requests the access resource controller ARC via the core network whether it can be granted those resources for the subscriber), *the request also includes a source address and a destination address* ([0079] cross-reference table associating the identifier of an ATM virtual channel with the IP address of the subscriber to which that virtual channel relates), and determining whether the request will be approved or denied ([0117] whether it can be granted those resources for the subscriber), *if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified time from the source address to the destination address* ([0012] The connection-oriented mode of operation allows the network to check whether enough resources are available for a connection and then to commit some Quality of Service for that connection. bandwidth and the QoS required for a connection are negotiated at connection establishment time. network can reserve therefrom the appropriate resources for this connection).

Ooghe teaches *a control system* ([0117] service provider VOD requests the access resource controller ARC via the core network), but may not explicitly teach *the control system includes a portal*.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames). The combination of the teachings of Gaddis and Ooghe discloses *the control system includes a portal*.

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

Claim 17. Ooghe further teaches *at least one of the following: a service* ([0016] quality of service, [0017- 0026] differentiated service categories) *type, a video code type and a voice codec type and the codec type determines an amount of bandwidth required for the user* ([0026] video streaming or Voice over IP).

Claim 18. Ooghe further teaches *plurality of I/O ports* ([0076] plurality of physical Input/Output ports), *signaling* ([0076] electrical signal of a subscriber line), *session* ([0079] subscriber session), *routing* ([0123] data packets are routed through the core network), *bandwidth* ([0127] bandwidth required), *quality* ([0041] quality of service), *management* ([0075] signaling planes and the management planes terminating at or relayed across any of its physical ports, hardware components for those planes to operate), *admission* ([0029] Connection Admission Control).

28. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, Gaddis, in view of Khakzar.

Claim 19. Ooghe further teaches *I/O ports* ([0076] plurality of physical Input/Output ports).

Ooghe may not explicitly teach *bearer connections, a switching matrix and a portal connectivity processing element*.

In the same field of endeavor, Khakzar discloses *bearer connections, a switching matrix and a portal connectivity processing element* (4:40-45 switching network contains a matrix structure and its construction is similar to a cross-connect. this makes it possible to couple the bearer channels of the user port units with each other, or with a bearer channel of the interface unit. switching such connections through the switching network is controlled by the control unit).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Khakzar with Ooghe to control an access network.

29. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, Gaddis, in view of Goshen.

Claim 20. Ooghe teaches *a controller* ([0117] service provider requests the access resource controller).

Ooghe may not explicitly teach *interconnecting content service to the controller and the portal*.

In the same field of endeavor, Goshen discloses *content service* ([0009] providing of content)

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Goshen with Ooghe to managing bandwidth allocation.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

The combination of teachings of Gaddis, Ooghe and Goshen discloses *interconnecting content service to the controller and the portal*.

30. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ooghe, Gaddis, in view of Litzenberger.

Claim 21. Ooghe teaches *a controller* ([0117] service provider requests the access resource controller).

Ooghe may not explicitly teach *interconnecting back-office provisioning, billing and element management systems to the controller and portal*.

In the same field of endeavor, Litzenberger discloses *back-office provisioning, billing and element management systems* (1:55-60 back-office systems, billing platform, network management platform, fraud management platform).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Litzenberger with Ooghe to keep track of services provided to customers.

In the same field of endeavor, Gaddis discloses *a portal* (11:63-12:35 portal filters incoming frames).

It would have been obvious to a person having ordinary skill in the art, at the time that the invention was made, to combine the teachings of Gaddis with Ooghe to permit transparent interconnection between network segments.

The combination of teachings of Gaddis, Litzenberger and Ooghe discloses *interconnecting back-office provisioning, billing and element management systems to the controller and portal*.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hooman Houshmand whose telephone number is (571)270-1817. The examiner can normally be reached on Monday - Friday 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. H./  
Examiner, Art Unit 2619

/Hassan Kizou/  
Supervisory Patent Examiner, Art Unit 2619

<b>Notice of References Cited</b>	Application/Control No. 11/743,470	Applicant(s)/Patent Under Reexamination MCEWEN, KATHY	
	Examiner Hooman Houshmand	Art Unit 2619	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-5,835,497	11-1998	Litzenberger et al.	370/522
*	B	US-2007/0002897	01-2007	GOSHEN et al.	370/468
*	C	US-5,781,623	07-1998	Khakzar, Karim	379/230
*	D	US-5,457,681	10-1995	Gaddis et al.	370/402
*	E	US-2005/0276218	12-2005	Ooghe et al.	370/229
*	F	US-2003/0133552	07-2003	Pillai et al.	379/114.2
*	G	US-2002/0191539	12-2002	Rawlins et al.	370/229
*	H	US-2002/0150094	10-2002	Cheng et al.	370/389
*	I	US-2004/0151153	08-2004	Henry et al.	370/346
*	J	US-2006/0187831	08-2006	Justen, Jarmo	370/229
	K	US-			
	L	US-			
	M	US-			


**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**


*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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	V	
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	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<p align="center"><b>Index of Claims</b></p> 	<b>Application/Control No.</b> 11743470	<b>Applicant(s)/Patent Under Reexamination</b> MCEWEN, KATHY
	<b>Examiner</b> Hooman Houshmand	<b>Art Unit</b> 2619

✓	<b>Rejected</b>	-	<b>Cancelled</b>	N	<b>Non-Elected</b>	A	<b>Appeal</b>
=	<b>Allowed</b>	÷	<b>Restricted</b>	I	<b>Interference</b>	O	<b>Objected</b>

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant			<input type="checkbox"/> CPA			<input type="checkbox"/> T.D.			<input type="checkbox"/> R.1.47			
CLAIM			DATE									
Final	Original	07/16/2008										
	1	✓										
	2	✓										
	3	✓										
	4	✓										
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	20	✓										
	21	✓										

<b>Search Notes</b>  	<b>Application/Control No.</b>  11743470	<b>Applicant(s)/Patent Under Reexamination</b>  MCEWEN, KATHY
	<b>Examiner</b>  Hooman Houshmand	<b>Art Unit</b>  2619

SEARCHED			
Class	Subclass	Date	Examiner
370	229,395.21 (text search only)	7/14/2008	HH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST, NPL	7/14/2008	HH
Inventorship search completed in eDAN	7/14/2008	HH

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner



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## BIB DATA SHEET

CONFIRMATION NO. 6891

<b>SERIAL NUMBER</b> 11/743,470	<b>FILING or 371(c) DATE</b> 05/02/2007 <b>RULE</b>	<b>CLASS</b> 370	<b>GROUP ART UNIT</b> 2619	<b>ATTORNEY DOCKET NO.</b> 683592-0004		
<b>APPLICANTS</b> Kathy McEwen, Plano, TX; <b>** CONTINUING DATA *****</b> This appln claims benefit of 60/796,660 05/02/2006 <b>** FOREIGN APPLICATIONS *****</b> <b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED *** SMALL ENTITY **</b> 05/25/2007						
Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input type="checkbox"/> No Verified and /HOOMAN Acknowledged HOUSHMAND/ Examiner's Signature		<input type="checkbox"/> Met after Allowance Initials	<b>STATE OR COUNTRY</b> TX	<b>SHEETS DRAWINGS</b> 11	<b>TOTAL CLAIMS</b> 21	<b>INDEPENDENT CLAIMS</b> 3
<b>ADDRESS</b> AKIN GUMP STRAUSS HAUSER & FELD, LLP P O BOX 688 DALLAS, TX 75313-0688 UNITED STATES						
<b>TITLE</b> SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND						
<b>FILING FEE RECEIVED</b> 450	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit			

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2683	(370/229,395.21).CQLS	US-PGPUB; USPAT	OR	OFF	2008/07/22 14:23
L2	2343	control\$3 remote platform	US-PGPUB; USPAT	WITH	ON	2008/07/22 14:24
L3	2	L2 and 1	US-PGPUB; USPAT	WITH	ON	2008/07/22 14:24
L4	386	bandwidth\$on\$demand	US-PGPUB; USPAT	OR	ON	2008/07/22 14:28
L5	13	L4 and 1	US-PGPUB; USPAT	WITH	ON	2008/07/22 14:28
S11	1	((KATHY) near2 (MCEWEN)).INV.	US-PGPUB; USPAT	OR	ON	2008/07/14 15:16
S14	108204	source AND address AND destination	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/15 11:31
S17	386	bandwidth\$on\$demand	US-PGPUB; USPAT	OR	ON	2008/07/15 11:32
S18	2978	bandwidth codec	US-PGPUB; USPAT	SAME	ON	2008/07/15 11:32
S19	36041	source address destination	US-PGPUB; USPAT	SAME	ON	2008/07/15 11:33
S21	29903	codec	US-PGPUB; USPAT	SAME	ON	2008/07/15 11:33
S25	7	S17 S21 S14	US-PGPUB; USPAT	AND	ON	2008/07/15 11:39
S26	168	request (quality OR QoS) (time OR duration) (bandwidth OR codec )	US-PGPUB; USPAT	WITH	ON	2008/07/15 11:51
S30	73	source address destination address portal	US-PGPUB; USPAT	SAME	ON	2008/07/15 12:01
S31	1	S26 S30	US-PGPUB; USPAT	SAME	ON	2008/07/15 12:01
S41	4	(subscriber data function) AND (session management function) AND (routing bandwidth admission) AND (quality QoS)	US-PGPUB; USPAT	SAME	ON	2008/07/15 13:36
S48	35	port bearer (connection OR connectivity ) switching matrix	US-PGPUB; USPAT	SAME	ON	2008/07/15 14:37

S54	56	content service controller portal	US-PGPUB; USPAT	SAME	ON	2008/07/15 15:08
S57	27	back\$office bill\$3 manage \$4	US-PGPUB; USPAT	WITH	ON	2008/07/15 15:46
S66	2338	control\$3 remote platform	US-PGPUB; USPAT	WITH	ON	2008/07/16 11:50
S69	109	S66 and "370".clas.	US-PGPUB; USPAT	WITH	ON	2008/07/16 11:51
S70	3	control\$3 remote platform admission	US-PGPUB; USPAT	WITH	ON	2008/07/16 11:51
S76	72	(point\$to\$point OR unicast) (point\$to \$multipoint OR multicast) admission	US-PGPUB; USPAT	SAME	ON	2008/07/16 13:28
S79	3	user network terminate connection real\$time pre \$paid	US-PGPUB; USPAT	SAME	ON	2008/07/16 13:42
S80	720	"portals" controller	US-PGPUB; USPAT	WITH	ON	2008/07/16 14:23
S81	74	S80 and "370".clas.	US-PGPUB; USPAT	WITH	ON	2008/07/16 14:23
S88	311	plurality portals	US-PGPUB; USPAT	NEAR	OFF	2008/07/16 14:40
S89	18	S88 and "370".clas.	US-PGPUB; USPAT	WITH	ON	2008/07/16 14:41

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\ 11743470.wsp

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	11743470	11743470 - GAU: 2619
	Filing Date	2007-05-02	
	First Named Inventor	Kathy McEwen	
	Art Unit	2616	
	Examiner Name	HOUSHMAND, HOOMAN	
	Attorney Docket Number	683592-0003	

1	Information Sciences Institute, "INTERNET PROTOCOL DARPA INTERNET PROGRAM PROTOCOL SPECIFICATION", prepared for Defense Advanced Research Projects Agency Information Processing Techniques Office, September 1981	<input type="checkbox"/>
2	D. Awduche, J. Malcolm, J. Agogbua, M. O'Dell, J. McManus, UUNET (MCI Worldcom), "NETWORK WORKING GROUP REQUEST FOR COMMENTS: 2702 Category: Informational, "Requirements for Traffic Engineering Over MPLS", September 1999"	<input type="checkbox"/>
3	S. Yasukawa, Ed., NTT, NETWORK WORKING GROUP REQUEST FOR COMMENTS: 4461 Category: Informational, "Signaling Requirements for Point-to-Multipoint Traffic-Engineered MPLS Label Switched Paths (LSPs)", April 2006	<input type="checkbox"/>
4	D. Awduche, Movaz Networks, Inc., L. Berger, D. Gan, Juniper Networks, Inc., T. Li, Procket Networks, Inc., V. Srinivasan, Cosine Communications, Inc., G. Swallow, Cisco Systems, Inc., NETWORK WORKING GROUP REQUEST FOR COMMENTS: 3209 Category: Standards Track, "RSVP-TE: Extensions to RSVP for LSP Tunnels", December 2001	<input type="checkbox"/>

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#### EXAMINER SIGNATURE

Examiner Signature	/Hooman Houshmand/	Date Considered	07/28/2008
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	11743470
	Filing Date	2007-05-02
	First Named Inventor	Kathy McEwen
	Art Unit	2616
	Examiner Name	HOUSHMAND, HOOMAN
	Attorney Docket Number	683592-0003

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		11743470
	Filing Date		2007-05-02
	First Named Inventor	Kathy McEwen	
	Art Unit	2616	
	Examiner Name	HOUSHMAND, HOOMAN	
	Attorney Docket Number	683592-0003	

1	Information Sciences Institute, "INTERNET PROTOCOL DARPA INTERNET PROGRAM PROTOCOL SPECIFICATION", prepared for Defense Advanced Research Projects Agency Information Processing Techniques Office, September 1981	<input type="checkbox"/>
2	D. Awduche, J. Malcolm, J. Agogbua, M. O'Dell, J. McManus, UUNET (MCI Worldcom), "NETWORK WORKING GROUP REQUEST FOR COMMENTS: 2702 Category: Informational, "Requirements for Traffic Engineering Over MPLS", September 1999"	<input type="checkbox"/>
3	S. Yasukawa, Ed., NTT, NETWORK WORKING GROUP REQUEST FOR COMMENTS: 4461 Category: Informational, "Signaling Requirements for Point-to-Multipoint Traffic-Engineered MPLS Label Switched Paths (LSPs)", April 2006	<input type="checkbox"/>
4	D. Awduche, Movaz Networks, Inc., L. Berger, D. Gan, Juniper Networks, Inc., T. Li, Procket Networks, Inc., V. Srinivasan, Cosine Communications, Inc., G. Swallow, Cisco Systems, Inc., NETWORK WORKING GROUP REQUEST FOR COMMENTS: 3209 Category: Standards Track, "RSVP-TE: Extensions to RSVP for LSP Tunnels", December 2001	<input type="checkbox"/>

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<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	11743470
	Filing Date	2007-05-02
	First Named Inventor	Kathy McEwen
	Art Unit	2616
	Examiner Name	HOUSHMAND, HOOMAN
	Attorney Docket Number	683592-0003

### CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

☒ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ None

### SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Sanford E. Warren, Jr./	Date (YYYY-MM-DD)	2008-07-23
Name/Print	Sanford E. Warren, Jr.	Registration Number	33219

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The information provided by you in this form will be subject to the following routine uses:

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt	
<b>EFS ID:</b>	3662454
<b>Application Number:</b>	11743470
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	6891
<b>Title of Invention:</b>	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND
<b>First Named Inventor/Applicant Name:</b>	Kathy McEwen
<b>Customer Number:</b>	20594
<b>Filer:</b>	Sanford E. Warren/Karen Thiesse
<b>Filer Authorized By:</b>	Sanford E. Warren
<b>Attorney Docket Number:</b>	683592-0004
<b>Receipt Date:</b>	23-JUL-2008
<b>Filing Date:</b>	02-MAY-2007
<b>Time Stamp:</b>	12:50:48
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Filed	US_IDS_Form__SB_08a.pdf	771790 ce8056541651a7177c41882175247dd31684de39	no	4

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3	NPL Documents	2702.pdf	1755997 0d0a50187cd5d91f975026e343c805d1dc7581ca	no	28
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5	NPL Documents	RFC_3209_RSVP_TE.pdf	3076714 334e0f00c4073fc91fda7c33160cee93d026d8d	no	57
<b>Warnings:</b>					
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<b>Total Files Size (in bytes):</b>			8200994		
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APPLICATION NUMBER	FILING OR 371(c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/743,470	05/02/2007	Kathy McEwen	683592-0003

**CONFIRMATION NO. 6891**

20594  
AKIN GUMP STRAUSS HAUER & FELD, LLP  
P O BOX 688  
DALLAS, TX75313-0688

**Title:** SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND

**Publication No.** US-2007-0258361-A1

**Publication Date:** 11/08/2007

**NOTICE OF PUBLICATION OF APPLICATION**

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at [www.uspto.gov](http://www.uspto.gov). The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
11/743,470	05/02/2007	2616	450	683592-0003	21	3

CONFIRMATION NO. 6891

20594  
AKIN GUMP STRAUSS HAUSER & FELD, LLP  
P O BOX 688  
DALLAS, TX 75313-0688

FILING RECEIPT

Date Mailed: 05/25/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Kathy McEwen, Plano, TX;

**Power of Attorney:** The patent practitioners associated with Customer Number 20594

**Domestic Priority data as claimed by applicant**

This appln claims benefit of 60/796,660 05/02/2006

**Foreign Applications**

**If Required, Foreign Filing License Granted:** 05/25/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US11/743,470**

**Projected Publication Date:** 11/08/2007

**Non-Publication Request:** No

**Early Publication Request:** No

\*\* SMALL ENTITY \*\*

**Title**

SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND

**Preliminary Class**

370

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Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

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#### Title 37, Code of Federal Regulations, 5.11 & 5.15

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<b>Application Data Sheet 37 CFR 1.76</b>		<b>Attorney Docket Number</b>	683592-0003
		<b>Application Number</b>	
<b>Title of Invention</b>	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND		
<p>The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.</p> <p>This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.</p>			

**Secrecy Order 37 CFR 5.2**

- ☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

**Applicant Information:**

<b>Applicant 1</b>					<b>Remove</b>
<b>Applicant Authority</b>		<input checked="" type="radio"/> Inventor		<input type="radio"/> Legal Representative under 35 U.S.C. 117	<input type="radio"/> Party of Interest under 35 U.S.C. 118
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>		<b>Suffix</b>
	Kathy		McEwen		
<b>Residence Information (Select One)</b> <input checked="" type="radio"/> US Residency <input type="radio"/> Non US Residency <input type="radio"/> Active US Military Service					
<b>City</b>	Plano	<b>State/Province</b>	TX	<b>Country of Residence i</b>	US
<b>Citizenship under 37 CFR 1.41(b) i</b>		CA			
<b>Mailing Address of Applicant:</b>					
<b>Address 1</b>		7809 La Guardia Drive			
<b>Address 2</b>					
<b>City</b>	Plano	<b>State/Province</b>	TX		
<b>Postal Code</b>	75025	<b>Country i</b>	US		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the <b>Add</b> button.					
<b>Add</b>					

**Correspondence Information:**

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
<input type="checkbox"/> An Address is being provided for the correspondence information of this application.			
<b>Customer Number</b>	20594		
<b>Email Address</b>	trademarkdallas@akingump.com	<b>Add Email</b>	<b>Remove Email</b>

**Application Information:**

<b>Title of the Invention</b>	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND		
<b>Attorney Docket Number</b>	683592-0003	<b>Small Entity Status Claimed</b> <input checked="" type="checkbox"/>	
<b>Application Type</b>	Nonprovisional		
<b>Subject Matter</b>	Utility		
<b>Suggested Class (if any)</b>		<b>Sub Class (if any)</b>	
<b>Suggested Technology Center (if any)</b>			
<b>Total Number of Drawing Sheets (if any)</b>	11	<b>Suggested Figure for Publication (if any)</b>	1

<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	683592-0003
		Application Number	
Title of Invention	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND		

**Publication Information:**

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not been and will not be the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing.

**Representative Information:**

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.

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	Ruben	C.	DeLeon		

Registration Number 37812

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**Domestic Priority Information:**

This section allows for the applicant to claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c). Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.

Prior Application Status	Pending	<input type="button" value="Remove"/>	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	non provisional of	60796660	2006-05-02

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		Application Number	
Title of Invention	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND		

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**Signature:**

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<b>Signature</b>	/Ruben C. DeLeon/		Date (YYYY-MM-DD)	2007-05-02
First Name	Ruben	Last Name	DeLeon	Registration Number
				37812

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**SYSTEM AND METHOD OF  
PROVIDING BANDWIDTH ON DEMAND**

**CROSS-REFERENCE TO RELATED APPLICATIONS**

[0001] This application claims priority to and benefit of U.S. Provisional Application Serial No. 60/796,660, filed May 2, 2006, entitled: IMPROVED SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND, by inventor Kathy McEwen [Attorney Docket No. 683592-0002].

**BACKGROUND OF THE INVENTION**

[0002] The present invention generally relates to communications systems, and specifically to an improved system and method of providing guaranteed bandwidth on demand for an end user and/or enterprise.

[0003] Internet protocol (IP) networks were designed to handle any traffic, on any port, at any time. The goal was to utilize as many computing platforms as were available across a consortium of universities, governments and industries willing to share information (Reference IETF RFC 791 Internet Protocol Darpa Internet Program Protocol Specification, September 1981).

[0004] With these goals in mind, each of the computing platforms, or routers, were originally designed to be ad-hoc in nature. That is, they broadcast on each of their ports, the routing and cost to send a packet to itself. Each manufacturer of these routers defined their own concept of cost and its associated value. As a result of IP's original design goals, the path that a packet takes from origin to destination is completely unpredictable. In the example in Figure 1, a user is attempting to send IP video packets streaming from a source **100** to a destination **102**, but

the originator can not predict nor control how those packets will be transported across an IP network **104**, nor can the originator even assume that all the packets streamed through the network **104** will take the same path to reach the destination **102**. An IP router can not plan how a packet (or stream of packets) will reach its destination, nor can routers plan how many other routers will transmit the packet. It takes, on average, anywhere from 10 to 20 or more routers to send a packet across the internet today.

[0005] Now referring to Figure 2, every router stops each incoming packet to determine whether it is allowed, its class of service, how to route it, and then, because they are processing so many unpredictable packet sizes/rates, they must queue the packets at both the ingress **200** and egress **202** ports, and possibly even at the internal switching matrix **204**. A typical IP router architecture includes packet switching matrices **204**, intelligent routing processors **206**, and large memory queues at the ingress **200** (incoming) and egress **202** (outgoing) ports, as well as at a centralized interconnect level to move packets from one ingress port card to a different egress port card. With so much queuing and processing on each packet, packets may be lost or delayed beyond video services quality tolerance.

[0006] The services that may be delivered on broadband are many, ranging from real-time critical applications for communication purposes: video calling, multi-player gaming, telemedicine, television studio broadcast interviews, and high-definition news multicasting to name a few. These examples and a few others are listed in Figure 3. These real time critical applications are very sensitive to any delay and for any that may include video or gaming frames, very sensitive to any variance in the delay. Applications which include video are also sensitive to any packets (or frames) which may be lost in the transmission (0.0001% packet loss is the preferred quality for video transmission).

[0007] Multi-Protocol Label Switching (MPLS) was developed to overcome some of the traffic engineering constraints of the IP protocols. MPLS allows operators to engineer a core network that aggregates traffic from IP, ATM, Frame Relay or even time-division voice domains, across a common packet core network. MPLS network operators can pre-define label switch paths, and ensure that virtual private network traffic is delivered on specific routes to achieve guaranteed quality of service levels (See IETF RFC 2702, Requirements for Traffic Engineering over MPLS).

[0008] MPLS standards have expanded to include point-to-multipoint multicasting (Reference IETF 4461: Signaling Requirements for Point-to-Multipoint Traffic-Engineered MPLS Label Switched Paths (LSPs)), and resource reservation protocols (Reference IETF RFC 3209, RSVP-TE: Extensions to RSVP for LSP Tunnels and RFC 4420) that dynamically utilize bandwidth across the core thus enabling less expensive transport for video broadcast traffic. The multicasting protocol enables construction of a distribution tree that replicates packets only at the branch points, rather than from the origination point. Now referring to Figure 4, a stream of packets can begin at a single source point in the IP domain, and traverse across an MPLS packet network starting at a point **400**, following a controlled path to a specific router at point **402**, bypassing any un-necessary MPLS routers like point **404**. The Originating MPLS Router can utilize the point-to-multipoint multicasting capabilities of MPLS, to instruct MPLS Router **402** to multicast the traffic to another user connected to MPLS Router **406**. MPLS also expanded to include a Fast-Reroute method, which allows for a 50 millisecond route recovery in the event of a link failure, comparable to that of optical SONET networks. These attributes make MPLS the technology of choice for core network video transport today.

[0009] However, MPLS does not readily extend to the customer premises locations, as its focus has been on core packet transport aggregation, enabling controlled routing and quality of assurance through the packet transport. Also, MPLS was developed around the concept of delivering enterprise virtual private networking; thus much of the protocols and methods of packet quality assurance in MPLS require the utilization of a virtual Local Area Network (LAN).

[0010] Although IP Multimedia Subsystem (IMS) standard protocols evolved to try to address handling real-time multimedia streams across the IP packet domain, these standards have largely focused on enabling the streaming services as an overlay solution across existing IP network domains, without addressing any changes to the IP or MPLS routing architectures. Quality assurance requires managing the services end to end, from customer access point to access point. In addition, IMS standards were intended to be access agnostic, so the customer premises access point standards have been separately handled by various wireless (CDMA, GSM, UMTS, WiFi, WiMax, etc.) and wireline (Cable, DSL and Fiber, etc.) access standards.

[0011] Recently, focus for broadband applications has moved away from IMS to an evolution of these protocols within the 3GPP organization called TISPAN (Telecommunications & Internet Converged Services and Protocols for Advanced Networking). TISPAN intends to include methods for handling resource allocation and quality assurance, but again does not address the elements that sit within the customer premises to network access domain, leaving those up to the other standards bodies governing the various access types.

[0012] For the current broadband services deployments taking place, broadband network operators are utilizing mechanisms like the IEEE 802.1p bit marking to differentiate the service classes, and route traffic accordingly. Now referring to Figure 5, the current services, comprising legacy public switched voice **500**, video **502** and best-effort internet **504** access are

served by existing network components, interconnected to the access networks via ATM, IP or IP/MPLS routers **506** and/or optical multiplexing solutions **508**. Consumers and/or enterprises **510** connect via an access network **512**, broadband or narrowband, to the services domain through access network equipment such as DSL Access Multiplexors (DSLAMs), Fiber Optic Access (such as Optical Line Terminals-OLTs) and various other access technologies. Services are delivered with assurance by interconnecting to the consumers via the broadband access network utilizing technologies such as IEEE 802.1 p bit defined service types. There are 8 p bits to differentiate service type - thus only 8 service classes. This is insufficient to cover a multitude of service offerings that may all require high quality broadband connections.

[0013] Today, the only quality video transport with assurance that operators can use are dedicated line, virtual private networking services. Each new service that requires a high quality packet transport requires a separate virtual private network. This does not allow for dynamic bandwidth allocation and utilization - thus it does not economically scale across multiple services or across multiple users. An example of is illustrated in Figure 6.

[0014] Video transmission requires compression in order to effectively utilize the available broadband bandwidth across packet domains. Currently there are numerous different methods for encoding the video, some standardized and some are proprietary. Many existing video communication solutions today utilize proprietary mechanisms, which are incompatible across multi-vendor and access domains. Additionally, the video compression methods vary greatly in the bandwidth they require to transport the video in real-time - some solutions are as low as 64 kbps up to 300 Mbps. The bandwidth required can vary based on the codec type and the quality type compressed within the codec type. For example, MPEG-4 (Motion Picture

Experts Group-4) defines methods to combine and encode video with sound and text, including the encoding of Standard Definition and High Definition.

[0015] Therefore, what is needed is an improved method and system of delivering guaranteed high bandwidth applications to an end user and/or enterprise end to end.

#### **SUMMARY OF THE INVENTION**

[0016] The invention follows the access and core network standards, while combining the missing elements necessary to build a public switched visual network. The invention enables access providers to offer end-to-end high quality visual communications services by dynamically utilizing network bandwidth and resources, to offer many services to end users. In addition, the invention enables the aforementioned services to be billed in real-time.

[0017] Therefore, in accordance with the previous summary, objects, features and advantages of the present disclosure will become apparent to a person of the ordinary skill in the art from the subsequent description and the appended claims taken in conjunction with the accompanying drawings.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

[0018] Figure 1 is a diagram representing IP Routing In-efficiencies;

[0019] Figure 2 is a diagram of a typical IP Router Architecture;

[0020] Figure 3 is a diagram of Sample Broadband Applications Quality Requirements;

[0021] Figure 4 is a diagram of MPLS Traffic Engineering and Point to Multipoint Multicasting;

[0022] Figure 5 is a diagram of a Broadband Access Network;

[0023] Figure 6 is a diagram of Multiple Services Offered with Quality across Broadband Network Domains;

[0024] Figure 7 is a diagram of a Controller and Portal Solution in the Access Network;

[0025] Figure 8 is a diagram of a Controller and Portal Solution;

[0026] Figure 9 is a diagram of a Controller and Portal Distributed Deployment;

[0027] Figure 10 is a diagram of a Controller and Portal End-to-End Network Solution;  
and

[0028] Figure 11 is a diagram of a Controller and Portal Architectural Solution.

#### **DETAILED DESCRIPTION**

[0029] The present disclosure can be described by the embodiments given below. It is understood, however, that the embodiments below are not necessarily limitations to the present disclosure, but are used to describe a typical implementation of the invention.

[0030] The present invention provides an improved unique system and method of providing bandwidth on demand for an end user and/or enterprise. It is understood, however, that the following disclosure provides many different embodiments, or examples, for implementing different features of the invention. Specific examples of components, signals, messages, protocols, and arrangements are described below to simplify the present disclosure. These are, of course, merely examples and are not intended to limit the invention from that described in the claims. Well known elements are presented without detailed description in order not to obscure the present invention in unnecessary detail. For the most part, details unnecessary to obtain a complete understanding of the present invention have been omitted inasmuch as such details are within the skills of persons of ordinary skill in the relevant art.

Details regarding control circuitry described herein are omitted, as such control circuits are within the skills of persons of ordinary skill in the relevant art.

[0031] The invention involves taking a distributed approach to handling bearer packets, with a physically separated controller and managed portal platform. The Controller handles signaling, routing, dynamic bandwidth admission control, codec (video and/or voice) negotiation, end-to-end quality assurance, session management, subscriber data, billing, provisioning and associated operational functions. The Portal handles the packet bearer transport with the admission control and routing instructions given by the separate physical Controller. The invention fits at the access and/or in the core network. Connections can be made between consumers, enterprises and/or content providers. For example, consumer to business, business to consumer, consumer to consumer, business to business, consumer to content provider, business to content provider, content provider to consumer, content provider to business, and content provider to content provider.

[0032] Now referring to Figure 7, the current services, comprising legacy public switched voice **700**, video **702** and best-effort internet access **704** will continue to be served by the existing network components, interconnected to the access networks **706** as they are today via ATM, IP or IP/MPLS routers **708** and optical multiplexing solutions **710**. The Controller **712** and Portal **714** are introduced at the central office **716**, in similar locations as edge IP/MPLS aggregation routers **708**. The Controller **712** and Portal **714** delivers high quality bandwidth on demand services **705**. For example, video and gaming applications, can interconnect to the consumers **718** via the access network **706**.

[0033] The Controller **712** accepts requests from an originating end-point to access the network with a high quality connection dynamically. The Controller **712** then negotiates across

the network with the terminating end-point(s) to set up the connection, and ensures interoperability of service type (if used) and video codec type, and quality bandwidth reservation end-to-end.

[0034] Instead of trying to introduce a new class of service type for each additional high quality service and content provider at the access edge (See Figure 6), one class of service type is introduced to cover all high quality services (See Figure 7). Then all traffic requesting this service type is routed to an access Controller **714** and **716** Portal for handling. Alternatively, if the broadband access provider does not want to provision a specific class of service for the Controller and Portal for handling, a consumer may signal directly to the Controller and Portal.

[0035] Now referring to Figure 8, when one dynamic video or bandwidth user wants to connect to another, they simply dial a directory number or IP address or web page to request a connection on demand. The Controller **700** will receive the request, including bandwidth required and if video, a video codec type and a service type tag (if applicable) for billing purposes, and determine from its embedded subscriber database whether the user is authorized to use the bandwidth, video type and service or not, how to bill them, and whether the destination party can be reached.

[0036] The Controller **700** and Portal **702** are interconnected to each other and to content providers. The Controller **700** and Portal **702** also interconnect consumers, businesses and/or content providers. The control signaling connects using protocols directly to consumers, businesses, and/or content providers. The bearer between consumers, businesses, and/or content providers is connected through the Portal platforms **702**.

[0037] In order to ensure quality, the Controller **700** inter-works with network protocols to dynamically provision a dedicated path, including required route and bandwidth, on demand

through the network. The Controller **700** directs its associated Portal platform **702** to allocate local port resources, and then signals any destination party's Controller to reserve far-end resources.

[0038] The Controller **700** enables each bandwidth on demand user, originator and terminator, to negotiate with the network. The negotiation includes information elements necessary to ensure an end-to-end video connection free from video codec conversion in the core if possible. This avoids interoperability issues between user systems, and enables all application end-points to communicate freely.

[0039] Now referring to Figure 9, the Controller **700** and Portals **702** can be physically located in the same location or in separate locations. The Controller **700** communicates and controls the portals **702** via a link - the distance from the Controller **700** to the Portals **702** can be close or very far. This allows network owners to optimize transmission utilization to keep high bandwidth traffic closest to the user, while centralizing routing, maintenance, operations and control functions in a single regional location.

[0040] The invention takes distributed switching control concepts from the low-bandwidth voice domain, and extends them to the variable-bandwidth packet routing domain. Moreover, the Portal **702** is under the direct management of the Controller **700**. It only accepts traffic on its ports when authorized by the Controller **700** in real-time, and notifies the Controller **700** if a user's traffic terminates or exceeds allowance. The Portal **702** does not perform new routing on any packet, and only acts on the information provided by the controller **700**. If any packets are received on any port at the Portal **702**, which are arriving from a user that has not been authorized to use it, then those packets are discarded without prejudice. If an authorized user should exceed the limit authorized, the Controller **700** is informed, and an alarm is raised. The

Controller **700** determines whether the user who is exceeding their limit should be disconnected, or allowed to continue, and instructs the Portal **702** according to a pre-set time limit. The Controller **700** contains a completely integrated bandwidth/portal admission control, routing and element management solution, which tracks, manages, and bills for all usage (Controller **700** plus its subordinate Portals **702**). Furthermore, the maximum limit of Portals **702** to Controller **700** is determined based on the aggregate subscriber usage capacity across all Portals **700**.

[0041] Now referring to Figure 10, the Controller **700** and Portals **702** serve the access networks at the access locations, which are near consumers, businesses, and/or near to content providers. The Controller **700** and Portal **702** interconnect to each other and any other platforms, which could be via existing IP/MPLS routers or multiplexing equipment or other transport connection mechanisms. The consumers **1004**, **1006** are connected directly to the Controller **700** and Portal **702** across the access. Content providers, back-office provisioning, billing and element management systems interconnect to the Controller **700** and Portals **702**. The best-effort internet is bypassed completely for any high quality broadband connections. In addition, all provisioning, element management and routing is managed at the Controller **700**, and is visible via a remote connection. Furthermore, the Controller supports flexible charging arrangements that can be based on any combination of or single element of service type, time elapsed, codec type and bandwidth used on the network; and this can be billed for either after the session has terminated, or in real-time through a pre-paid billing mechanism which allows for termination of the session at any time based on available credit(s). Originating and terminating party records are issued, or both, including information about route used for transport charging purposes. If users are connecting across regions, states, nations or carriers, the information is recorded for billing purposes.

[0042] Now referring to figure 11, a Controller **700** and Portal **702** serve the access networks at the access locations **1104**. The Controller **700** and Portal **702** interconnect to each other and any other platforms **1106**, which could be via existing IP/MPLS routers **1108** and/or multiplexing equipment and/or any other transport mechanisms. In addition, the consumers **1110**, businesses **1112** and or content providers **1114** are connected, for control signaling via path **1116** and via path **1118** for bearer path, directly to the Controller **700** and Portal **702** across the access domain. The Controller **700** includes I/O ports **1120**, **1122**, and **1124** connecting a signaling/security function **1126** to a message distribution function **1128** that handles distributing all control signaling to the subscriber data function **1130**, session management function **1132**, routing/bandwidth admission and quality assurance management function **1134**, and handles all functions including billing/OA&M **1136**, necessary for the broadband services to be dynamically connected and managed with quality. The Portal **702** includes I/O ports **1138** on line cards **1140** for the bearer connections, a switching matrix **1142** and a portal connectivity processing element **1144**. The content services **1114** interconnects to the Controller **700** and Portal **702**. The back-office provisioning, billing and element management systems **1132** interconnect to the Controller **700** and Portal **702**. The best-effort internet **1146** is bypassed completely for any high quality broadband connections.

[0043] The previous description of the disclosed embodiments is provided to enable those skilled in the art to make or use the present invention. Various modifications to these embodiments will be readily apparent to those skilled in the art and generic principles defined herein may be applied to other embodiments without departing from the spirit or scope of the invention. Thus, the present invention is not intended to be limited to the embodiments shown

herein but is to be accorded the widest scope consistent with the principles and novel features disclosed herein.

**WHAT IS CLAIMED IS:**

1. A method of providing bandwidth on demand to an end user, the method comprising:  
  
    sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type, wherein the request also includes a source address and a destination address; and  
  
    determining whether the request will be approved or denied, wherein if the request is approved, instructing a bearer platform, by the control system, in setting up dynamic bandwidth connections, wherein the bearer platform responds to controller designated bearer port and route selection decisions to deliver high quality and low latency bandwidth connections point-to-point and point-to-multipoint and wherein the bearer port is tightly controlled by a remote platform such that all ingress and agrees traffic bandwidth admission is managed by the remote platform; and reserving resources for a transmission of information of the specified bandwidth, which is managed and monitored by the controller for the specified time from the source address to the destination address.
2. The method of claim 1 wherein the request also includes at least one of the following: a service type, a video code type and a voice codec type and wherein the codec type determines an amount of bandwidth required for the user.
3. The method of claim 1 wherein the request is sent to a portal.
4. The method of claim 3 further including instructing the portal by a controller.
5. The method of claim 4 further including a plurality of portals.
6. The method of claim 4 further including connecting a plurality of I/O ports to a signaling/security function to a message distribution function that handles distributing all control

signaling to a subscriber data function, a session management function, billing function and a routing/bandwidth admission and quality assurance management function.

7. The method of claim 4 wherein the portal includes I/O ports on line cards for the bearer connections, a switching matrix and a portal connectivity processing element.

8. The method of claim 4 further including interconnecting a content services device to the controller and the portal.

9. The method of claim 4 further including interconnecting back-office provisioning, billing and element management systems to the controller and portal.

10. A method of providing bandwidth on demand to an end user, the method comprising:

    sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type, to be determined by the user upon termination, wherein the request also includes a source address and a destination address;

    instructing a bearer platform, by the control system, in setting up dynamic bandwidth connections, wherein the bearer platform makes a bearer port and route selection decisions to deliver high quality and low latency bandwidth connections point-to-point and point-to-multipoint and wherein the bearer port is tightly controlled by a remote platform such that all ingress and agrees traffic bandwidth admission is managed by the remote platform; and

    determining whether the request will be approved or denied, wherein if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified quality from the source address to the destination address, until either the user or the network owner determines to terminate the connection in real-time, upon which real-time billing records may be generated recording available usage information or real-time intervention by a pre-paid billing solution.

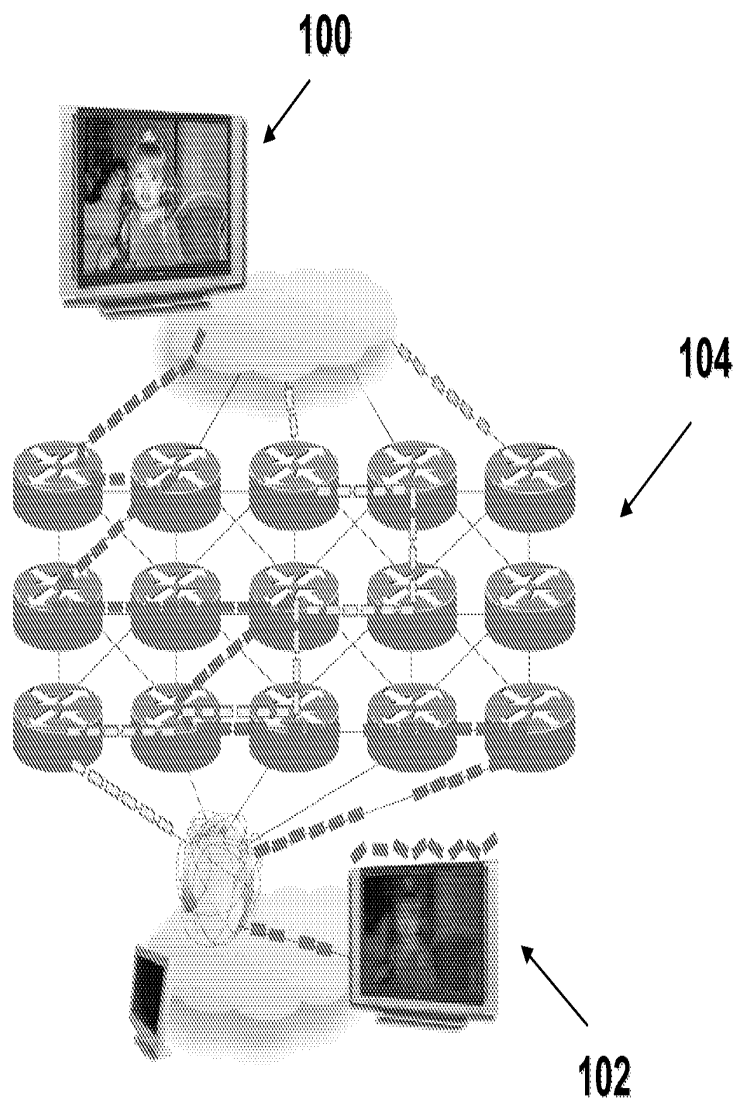
11. The method of claim 10 wherein the request also includes at least one of the following: a service type, a video code type and a voice codec type and wherein the codec type determines an amount of bandwidth required for the user.
12. The method of claim 10 wherein the control system includes a plurality of I/O ports connected to a signaling/security function to a message distribution function that handles distributing all control signaling to a subscriber data function, a session management function and a routing/bandwidth admission and quality assurance management function.
13. The method of claim 10 wherein the bearer platform includes I/O ports on line cards for the bearer connections, a switching matrix and a portal connectivity processing element.
14. The method of claim 10 further including interconnecting a content services device to the controller and the portal.
15. The method of claim 10 further including interconnecting back-office provisioning, billing and element management systems to the control system and the bearer platform.
16. A method of providing bandwidth on demand to an end user, the method comprising:
  - sending a request for the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type, wherein the request also includes a source address and a destination address, wherein the control system includes a controller and a portal; and
  - determining whether the request will be approved or denied, wherein if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified time from the source address to the destination address.

17. The method of claim 16 wherein the request also includes at least one of the following: a service type, a video code type and a voice codec type and wherein the codec type determines an amount of bandwidth required for the user.
18. The method of claim 16 further including connecting a plurality of I/O ports to a signaling/security function to a message distribution function that handles distributing all control signaling to a subscriber data function, a session management function and a routing/bandwidth admission and quality assurance management function.
19. The method of claim 16 wherein the portal includes I/O ports on line cards for the bearer connections, a switching matrix and a portal connectivity processing element.
20. The method of claim 16 further including interconnecting a content services device to the controller and the portal.
21. The method of claim 16 further including interconnecting back-office provisioning, billing and element management systems to the controller and portal.

**SYSTEM AND METHOD OF  
PROVIDING BANDWIDTH ON DEMAND**

**ABSTRACT**

An improved system and method of providing bandwidth on demand for an end user and/or enterprise is disclosed. The method includes: sending a request from the user to a control system for a quality of connection service for a specific time limit and either a specific bandwidth or a codec type, wherein the request also includes a source address and a destination address, optional service type and optional video and/or voice codec negotiation; and determining whether the request will be approved or denied, wherein if the request is approved, reserving resources for a transmission of information of the specified bandwidth for the specified time from the source address to the destination address.



**Figure 1**

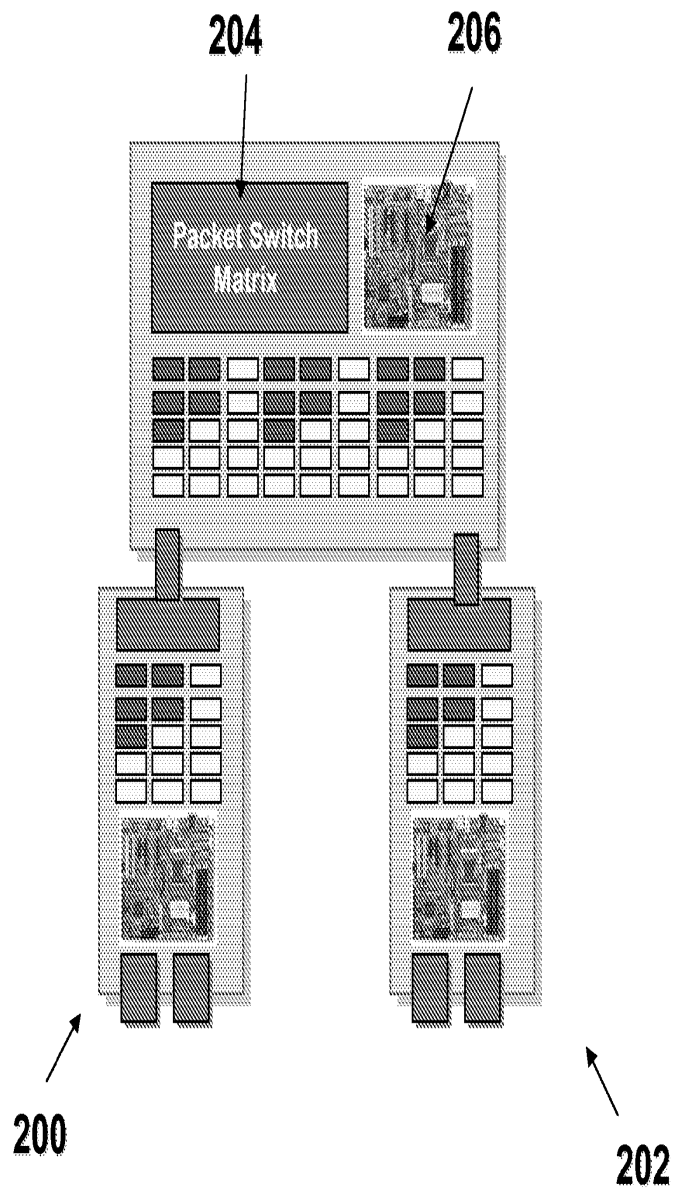
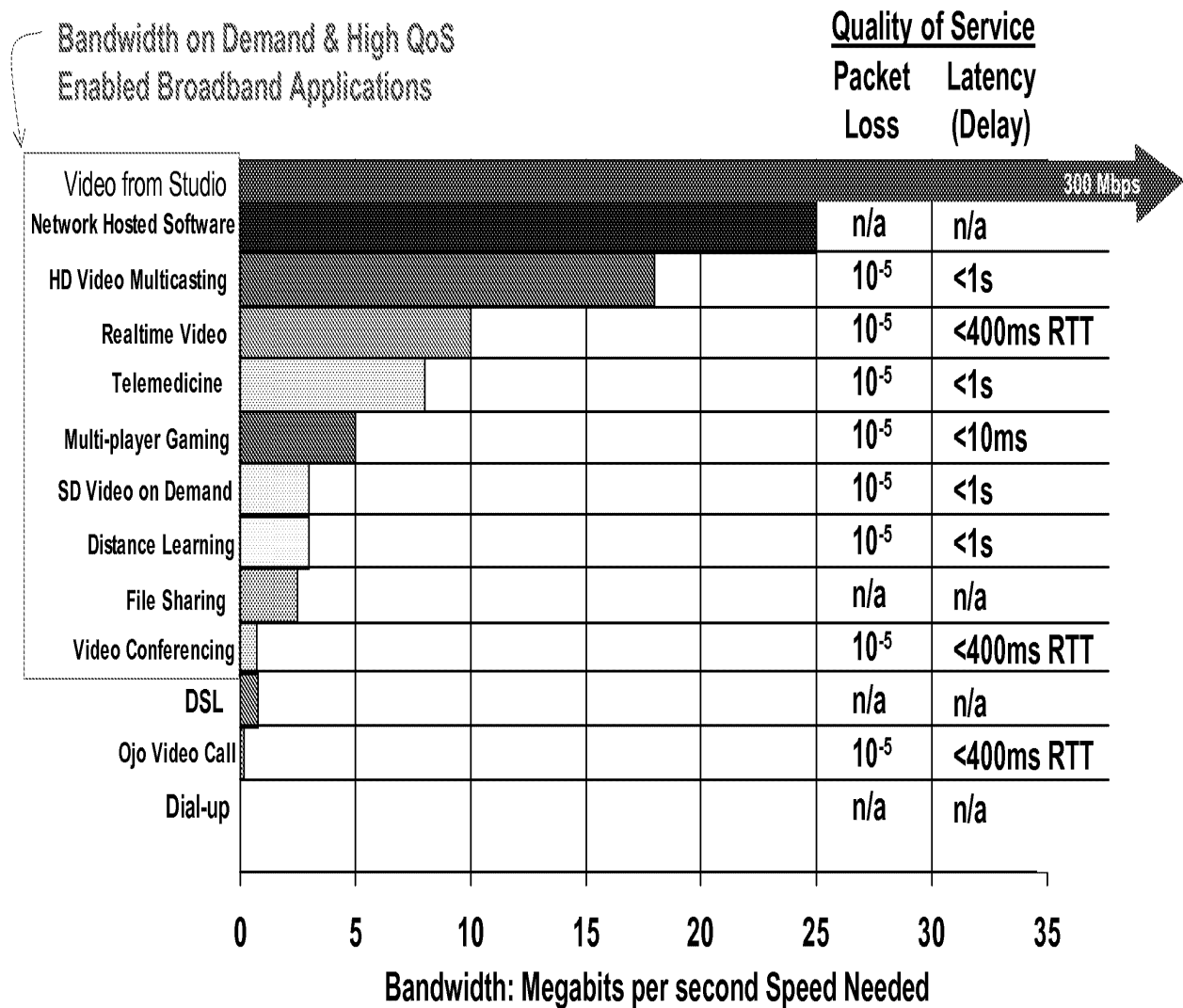


Figure 2



**Figure 3**

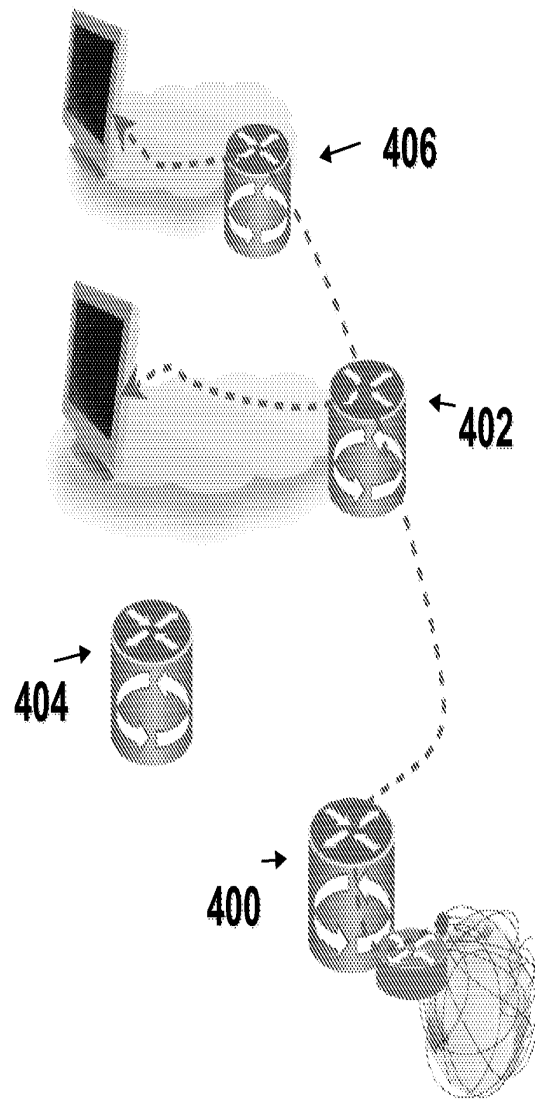


Figure 4

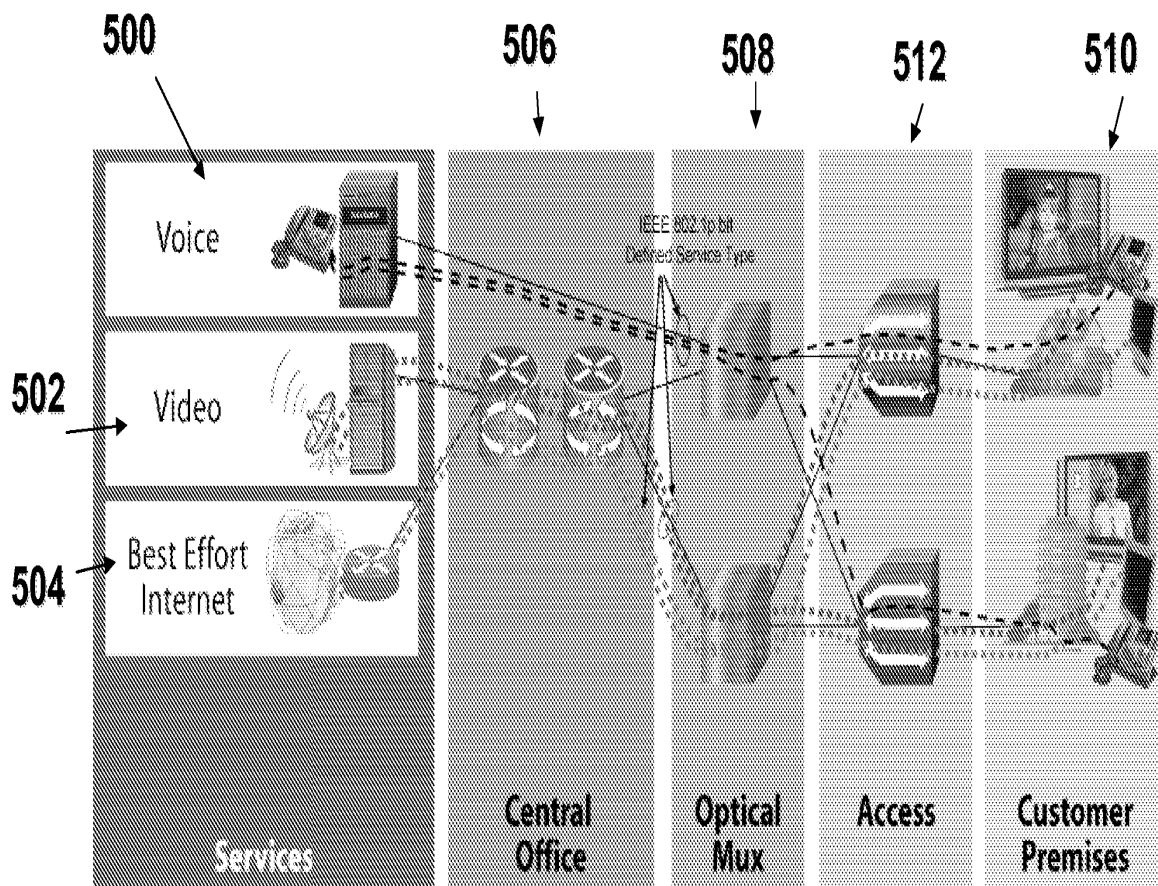


Figure 5

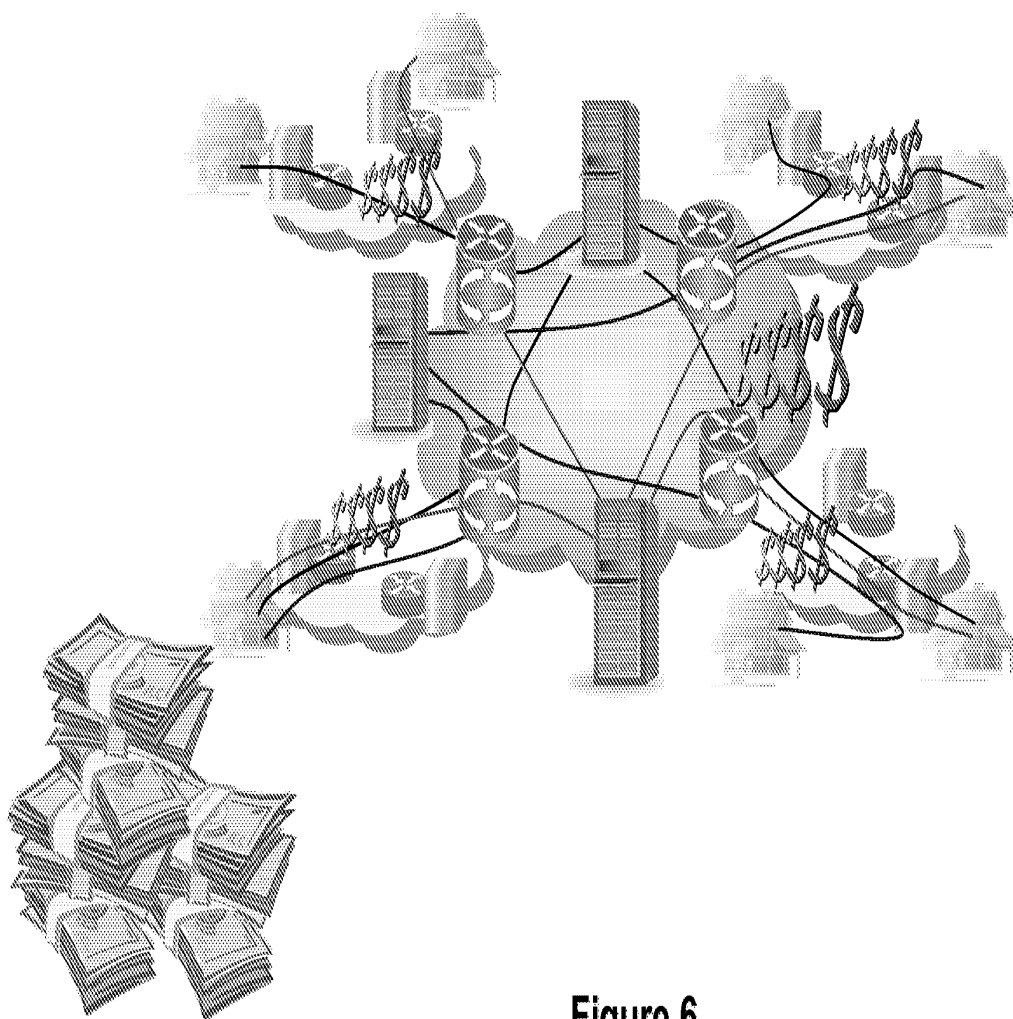


Figure 6

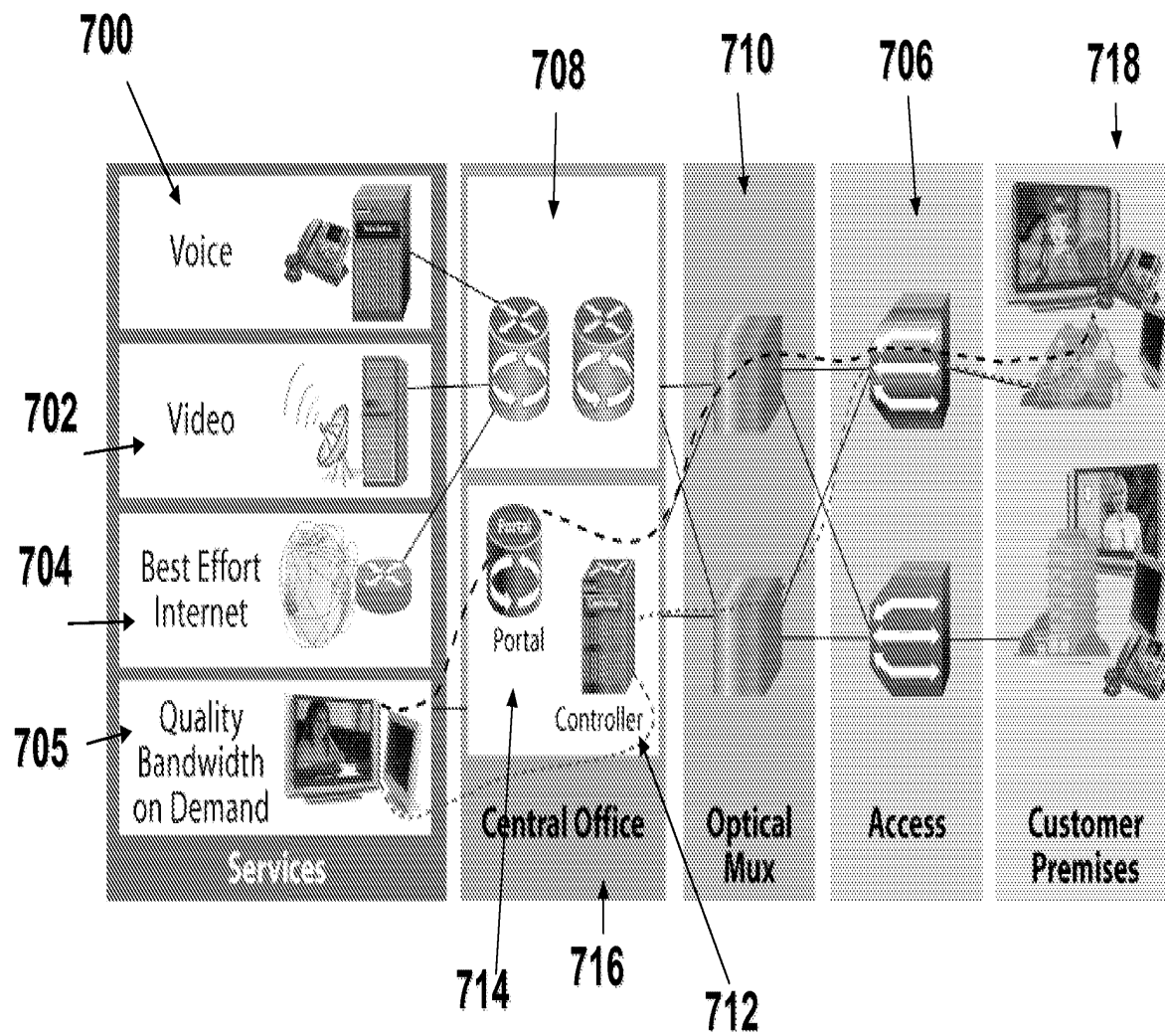


Figure 7

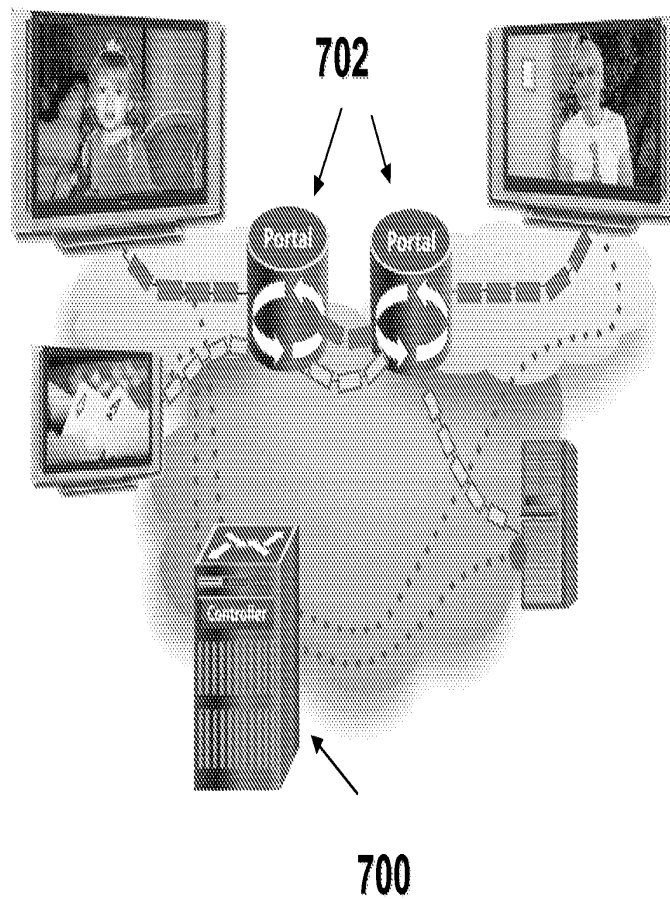


Figure 8

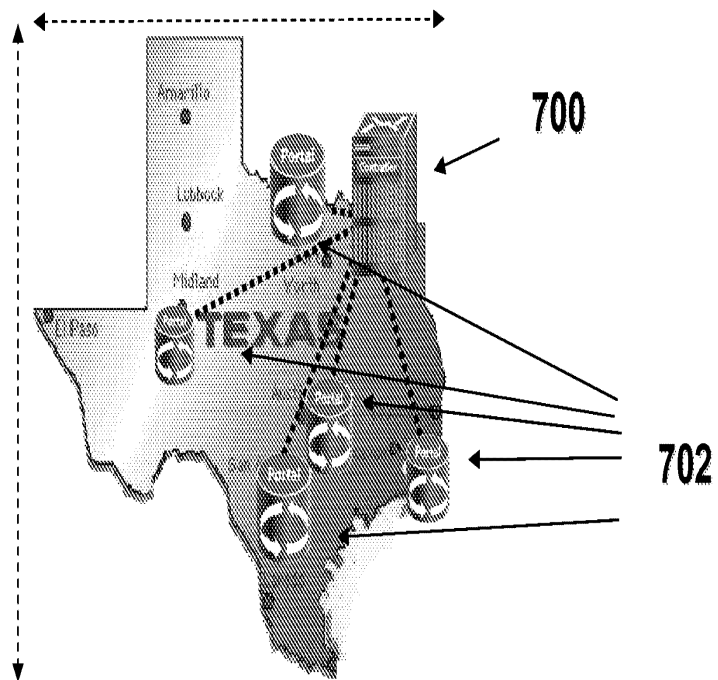


Figure 9

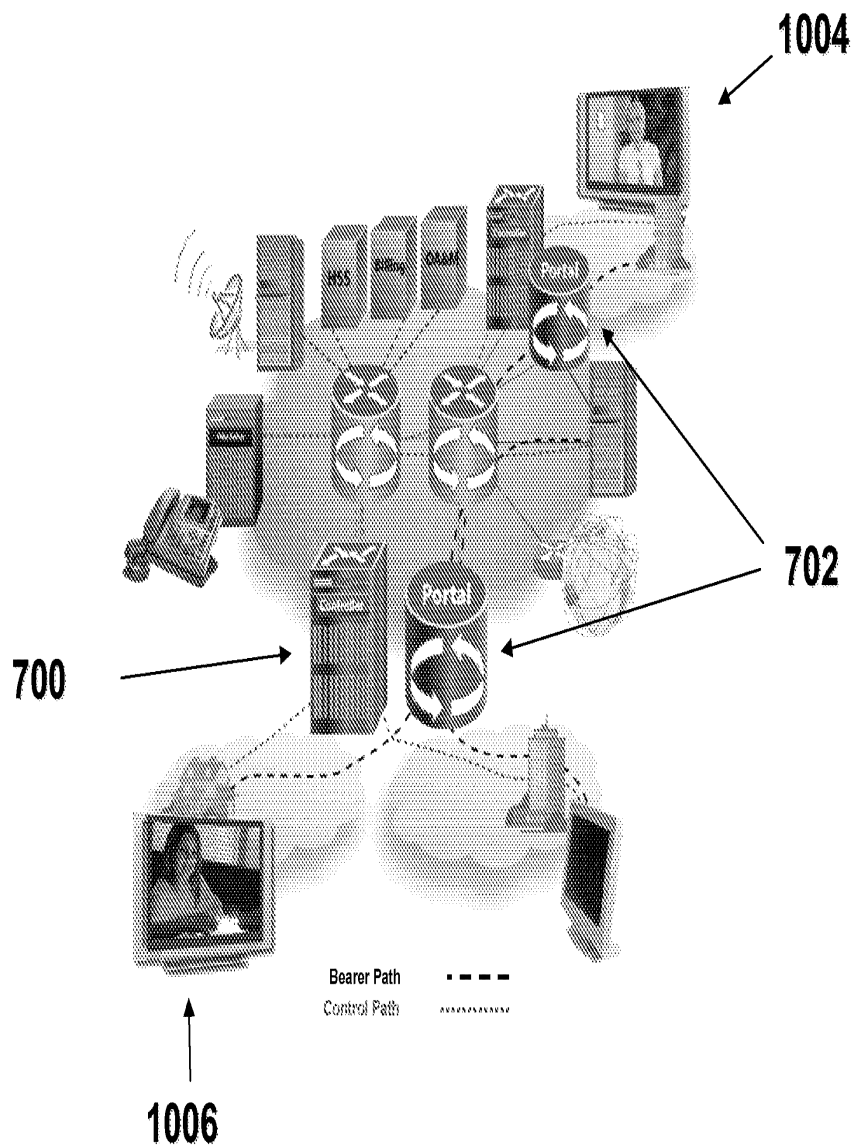
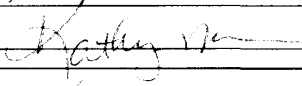


Figure 10



**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN  
APPLICATION DATA SHEET (37 CFR 1.76)**

<b>Title of Invention</b>	<b>SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND</b>
<p>As the below named inventor(s), I/we declare that:</p> <p>This declaration is directed to:</p> <p><input checked="" type="checkbox"/> The attached application, or</p> <p><input type="checkbox"/> Application No. _____ filed on _____</p> <p><input type="checkbox"/> As amended on _____ (if applicable);</p> <p>I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought.</p> <p>I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;</p> <p>I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT International filing date of the continuation-in-part application.</p> <p style="text-align: center;"><b>WARNING:</b></p> <p>Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.</p> <p>All statements made herein of my/own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.</p>	
<b>FULL NAME OF INVENTOR(S)</b>	
Inventor one: <u>Kathy McEwen</u>	
Signature: <u></u> Citizen of: <u>Canada</u>	
Inventor two: _____	
Signature: _____ Citizen of: _____	
<input type="checkbox"/> Additional inventors or a legal representative are being named on _____ additional form(s) attached hereto.	

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**  
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

<b>POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM</b>	<b>Application Number</b>	
	<b>Filing Date</b>	herewith
	<b>First Named Inventor</b>	Kathy McEwen
	<b>Title</b>	S&M..PROVIDING BANDWIDTH ON DEMAND
	<b>Art Unit</b>	
	<b>Examiner Name</b>	
	<b>Attorney Docket Number</b>	683592-0003

I hereby revoke all previous powers of attorney given in the above-identified application.

I hereby appoint:

☒ Practitioners associated with the Customer Number: 20594

OR

☐ Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

☒ The address associated with the above-mentioned Customer Number:

OR

☐ The address associated with Customer Number:

☐ Firm or Individual Name: AKIN GUMP STRAUSS HAUER & FELD LLP

Address:

City: State: Zip:

Country:

Telephone: Email:

I am the:

☒ Applicant/Inventor.

☐ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

**SIGNATURE of Applicant or Assignee of Record**

Signature	<i>Kathy McEwen</i>	Date	May 2, 2007
Name	Kathy McEwen	Telephone	469 231 6778
Title and Company			

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required. see below.

☒ \*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		SYSTEM AND METHOD OF PROVIDING BANDWITH ON DEMAND		
First Named Inventor/Applicant Name:		Kathy McEwen		
Filer:		Ruben C. DeLeon/Seana Montgomery		
Attorney Docket Number:		683592.0003		
Filed as Large Entity				
<b>Utility Filing Fees</b>				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
Utility application filing	1011	1	300	300
Utility Search Fee	1111	1	500	500
Utility Examination Fee	1311	1	200	200
<b>Pages:</b>				
<b>Claims:</b>				
Claims in excess of 20	1202	1	50	50
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Patent-Appeals-and-Interference:</b>				
Post-Allowance-and-Post-Issuance:				
<b>Extension-of-Time:</b>				
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>1050</b>

Electronic Acknowledgement Receipt	
<b>EFS ID:</b>	1738376
<b>Application Number:</b>	11743470
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	6891
<b>Title of Invention:</b>	SYSTEM AND METHOD OF PROVIDING BANDWITH ON DEMAND
<b>First Named Inventor/Applicant Name:</b>	Kathy McEwen
<b>Customer Number:</b>	20594
<b>Filer:</b>	Ruben C. DeLeon/Seana Montgomery
<b>Filer Authorized By:</b>	Ruben C. DeLeon
<b>Attorney Docket Number:</b>	683592.0003
<b>Receipt Date:</b>	02-MAY-2007
<b>Filing Date:</b>	
<b>Time Stamp:</b>	16:52:16
<b>Application Type:</b>	Utility

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	Iridescent_683592_NON_PR OV_ADS_Application_Data _Sheet.pdf	977386	no	4

### Warnings:

Information:					
2		IRIDESCENT_683592_PAT ENT_BANDWIDTH_ON_DE MAND.pdf	1595947	yes	18
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	13	
	Claims		14	17	
	Abstract		18	18	
Warnings:					
Information:					
3	Drawings	Iridescent_683592_Revised_ Pat_Drawings_Bandwidth_O n_demand.pdf	1394564	no	11
Warnings:					
Information:					
4	Oath or Declaration filed	Iridescent_683592_Declarati on.pdf	2500971	no	1
Warnings:					
Information:					
5	Power of Attorney	Iridescent_683592_POA.pdf	2088048	no	1
Warnings:					
Information:					
6	Fee Worksheet (PTO-06)	fee-info.pdf	8483	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			8565399		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

VIA EFS

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:	:	
Kathy McEwen	:	
	:	
Conf. No.: 6891	:	Group Art Unit: None yet
	:	
Appln. No.: 11/743,470	:	
Filing Date: May 2, 2007	:	Attorney Docket No.: 683592-0003
	:	
Title: SYSTEM AND METHOD OF	:	
PROVIDING BANDWIDTH ON	:	
DEMAND	:	

**PATENT FEES DUE FOR NON-PROVISIONAL FILING**

This miscellaneous communication is submitted to address the issue of fees due in the current application. Upon filing the subject application the fees calculate were based on a large entity status. At the point of submission the Applicant status could not be changed, and as such, no fees were paid with the initial patent filing. Upon the suggestion of the U.S. Patent and Trademark Office's Electronic Business Center, attorneys for Applicant logged out of the EFS system without making payment, and logged back into the EFS system on the same day (i.e., May 2, 2007) to make payment of all fees associated with filing a basic utility application under the claim of small entity status.

Fees that will be accompanying this communication are in the amount of \$450, which includes all fees due for filing a basic utility application with a small entity status, namely, Basic Filing Fees, Utility Search Fees, Utility Examination Fees, and fees due for claims in excess of 20. Payment of the aforementioned fees will complete all requirements for a patent application filing.

Should any questions arise in this matter, The Office of Initial Patent Examination is invited to contact the undersigned.

Respectfully submitted,

5/02/2007  
Date

By: /Ruben C. DeLeon/  
Ruben C. DeLeon, Reg. No. 37,812  
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Email: trademarkdallas@akingump.com

Electronic Patent Application Fee Transmittal				
Application Number:		11743470		
Filing Date:				
Title of Invention:		SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND		
First Named Inventor/Applicant Name:		Kathy McEwen		
Filer:		Ruben C. DeLeon/Seana Montgomery		
Attorney Docket Number:		683592-0003		
Filed as Small Entity				
<b>Utility Filing Fees</b>				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
Utility filing Fee (Electronic filing)	4011	1	75	75
Utility Search Fee	2111	1	250	250
Utility Examination Fee	2311	1	100	100
<b>Pages:</b>				
<b>Claims:</b>				
Claims in excess of 20	2202	1	25	25
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Patent-Appeals-and-Interference:</b>				
Post-Allowance-and-Post-Issuance:				
<b>Extension-of-Time:</b>				
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>450</b>

Electronic Acknowledgement Receipt	
<b>EFS ID:</b>	1738881
<b>Application Number:</b>	11743470
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	6891
<b>Title of Invention:</b>	SYSTEM AND METHOD OF PROVIDING BANDWIDTH ON DEMAND
<b>First Named Inventor/Applicant Name:</b>	Kathy McEwen
<b>Customer Number:</b>	20594
<b>Filer:</b>	Ruben C. DeLeon/Seana Montgomery
<b>Filer Authorized By:</b>	Ruben C. DeLeon
<b>Attorney Docket Number:</b>	683592-0003
<b>Receipt Date:</b>	02-MAY-2007
<b>Filing Date:</b>	
<b>Time Stamp:</b>	18:07:42
<b>Application Type:</b>	Utility

### Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	\$450
RAM confirmation Number	900
Deposit Account	010657
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	IRIDESCENT_683592_miscellaneous_correspondence_re_payment_of_patent_related_fees.pdf	68733	no	2
Warnings:					
Information:					
2	Fee Worksheet (PTO-06)	fee-info.pdf	8508	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			77241		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

5/2/07

PTO/SB/06 (12-04)

Approved for use through 7/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					<b>11/743,470</b>	
<b>APPLICATION AS FILED – PART I</b>						
(Column 1)		(Column 2)			(Column 3)	
FOR	NUMBER FILED	NUMBER EXTRA				
BASIC FEE (37 CFR 1.16(a), (b), or (c))						
SEARCH FEE (37 CFR 1.16(k), (l), or (m))						
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))						
TOTAL CLAIMS (37 CFR 1.16(i))	21	minus 20 =		1		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 =				
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j)) -						
* If the difference in column 1 is less than zero, enter "0" in column 2.						
<b>APPLICATION AS AMENDED – PART II</b>						
(Column 1)		(Column 2)			(Column 3)	
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA			
Total (37 CFR 1.16(i))	*	Minus **	=			
Independent (37 CFR 1.16(h))	*	Minus ***	=			
Application Size Fee (37 CFR 1.16(s))						
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
(Column 1)		(Column 2)			(Column 3)	
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA			
Total (37 CFR 1.16(i))	*	Minus **	=			
Independent (37 CFR 1.16(h))	*	Minus ***	=			
Application Size Fee (37 CFR 1.16(s))						
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".						
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.						

SMALL ENTITY	
RATE (\$)	FEE (\$)
	75
	250
	100
X 25=	25
X 100=	
N/A	
TOTAL	450

OTHER THAN SMALL ENTITY	
RATE (\$)	FEE (\$)
X 50=	
X 200=	
N/A	
TOTAL	

SMALL ENTITY	
RATE (\$)	ADDITIONAL FEE (\$)
X =	
X =	
N/A	
TOTAL	
ADD'T FEE	

OTHER THAN SMALL ENTITY	
RATE (\$)	ADDITIONAL FEE (\$)
X =	
X =	
N/A	
TOTAL	
ADD'T FEE	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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