

## PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT
CONVEYING PARTY DATA	
Name	Execution Date
Bytemobile, Inc.	12/22/2011
RECEIVING PARTY DATA	
Name:	Partners for Growth III, L.P.
Street Address:	150 Pacific Avenue
City:	San Francisco
State/Country:	CALIFORNIA
Postal Code:	94111
PROPERTY NUMBERS Total: 39	
Property Type	Number
Patent Number:	7099273
Patent Number:	7024460
Patent Number:	7031314
Patent Number:	7444418
Patent Number:	7316353
Application Number:	10871905
Application Number:	11432951
Application Number:	11439003
Application Number:	11439009
Application Number:	11439068
Application Number:	11439330
Application Number:	11636033
Patent Number:	7987285
Patent Number:	7987243
Application Number:	12328679

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Application Number:	12368260
Patent Number:	7991904
Application Number:	12580212
Application Number:	12751951
Application Number:	61369513
Application Number:	61495949
Application Number:	61495951
Application Number:	61495952
PCT Number:	US0814027
PCT Number:	US0813430
PCT Number:	US1002762
PCT Number:	US1000988
PCT Number:	US1000302
PCT Number:	US1000959
Patent Number:	7586871
Patent Number:	6496520
Patent Number:	6166729
Application Number:	09619038
Patent Number:	7209474
Patent Number:	8009694
Patent Number:	7512694
Patent Number:	7315544
Patent Number:	6795859
Patent Number:	7616559

#### CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	PFG3-BYTEMOBILE
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NAME OF SUBMITTER:	Benjamin Greenspan
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**PATENT**  
**REEL: 027438 FRAME: 0617**

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PATENT COLLATERAL AGREEMENT AND NOTICE

This Patent Collateral Agreement and Notice dated as of December 22, 2011, is between Bytemobile, Inc., a Delaware corporation with its principal place of business at 2860 De La Cruz Blvd., 2nd Floor, Santa Clara, CA 95050 ("Assignor") and Partners for Growth III, L.P., 150 Pacific Avenue, San Francisco, CA 94111 ("Assignee") pursuant to a Loan and Security Agreement of even date herewith, by and between Assignor and Assignee and pursuant to certain other loan documents referenced therein (collectively, the "Loan Documents").

WHEREAS, Assignor is the owner of certain United States patents and/or patent applications as listed on Exhibit 1 hereto (the "Patents"); and

WHEREAS, Assignee has agreed to extend certain credit to Assignor on condition that the Assignor pledge and grant to Assignee as collateral for the Obligations (as defined in the Loan Documents) a security interest and lien in and to the Patents and all proceeds thereof and all other related claims and rights as more fully described in a certain Intellectual Property Security Agreement (the "Security Agreement") in favor of the Assignee of even date herewith, by and between Assignor and Assignee;

NOW THEREFORE, for good and valuable consideration, as security for the due and timely payment and performance of the Obligations, Assignor hereby pledges and grants to Assignee a security interest and lien in and to the Patents and all proceeds thereof and gives notice of such security interest and the existence of such Security Agreement providing therefor.

Executed as of the date first above written.

[Signature Page Follows]

**Assignor:**

**Bytemobile, Inc.**

By \_\_\_\_\_  
**Thomas Hubbs**  
**Chief Financial Officer**

By \_\_\_\_\_  
**Andrew Missan**  
**Secretary**

**Assignee:**

**PARTNERS FOR GROWTH III, L.P.**

By Lorraine Nield

Name: Lorraine Nield

**Title: Manager, Partners for Growth III, LLC**  
**Its General Partner**

[Signature Page to Patent Collateral Agreement and Notice]

**EXHIBIT 1**  
**Bytemobile, Inc.**  
**Patent Schedule**

**Bytemobile-originated US patent applications and issued patents**

<b>Serial No. Patent No.</b>	<b>Title/Description</b>	<b>Status</b>	<b>Inventors</b>
10/061,574 7,099,273	Data Transport Acceleration and Management Within a Network Communication System	Filing Date: 01/29/02 Issue Date: 08/29/06	Sungwon Ha, Sung-Wook Han, Tae-eun Kim, Vaduvur Bharghavan, Upamanyu Madhow, Kannan Ramchandran
10/095,551 7,024,460	Service-Based Compression of Content Within a Network Communication System	Filing Date: 03/11/02 Issue Date: 04/04/06	Chris Koopmans, Constantine Polychronopoulos, Nick Stavrakos
10/126,131 7,031,314	Systems And Methods For Providing Differentiated Services Within a Network Communication System	Filing Date: 04/19/02 Issue Date: 04/18/06	David Craig, Constantine Polychronopoulos, Sung-Wook Han
10/143,441 7,444,418	Transcoding Multimedia Information Within a Network Communication System	Filing Date: 05/09/02 Issue Date: 10/28/08	Jim Chou, Kannan Ramchandran
10/150,858 7,136,353	Quality of Service Management for Multiple Connections Within a Network Communication System	Filing Date: 05/17/02 Issue Date:11/14/06	Tae-eun Kim, Sungwon Ha, Sung-Wook Han, Upamanyu Madhow, Constantine Polychronopoulos
10/871,905	Method and System for Dynamic Interleaving	Filing Date: 06/17/04	Chris Koopmans, Fred Koopmans, Nick Stavrakos, Amalraj Antonyasamy

<b>Serial No. Patent No.</b>	<b>Title/Description</b>	<b>Status</b>	<b>Inventors</b>
11/432,951	Method for Cache Object Aggregation	Filing Date: 05/12/06	Chris Koopmans, Kannan Parthasarathy, Nick Stavrakos
11/439,003	Method and System for Object Prediction	Filing Date: 05/22/06	Nick Stavrakos, Jeff Monks, Fred Koopmans, Chris Koopmans, Kapil Dakhane
11/439,009	Dynamic Data Optimization in Data Network	Filing Date: 05/22/06	Nick Stavrakos, Chris Koopmans
11/439,068	Method and System for Delta Compression	Filing Date: 05/22/06	Nick Stavrakos, Jeff Monks, Fred Koopmans, Chris Koopmans, Kapil Dakhane
11/439,330	Method for Multipart Encoding	Filing Date: 05/22/06	Nick Stavrakos, Fred Koopmans, Chris Koopmans, Parikshit Ambatkar
11/636,033	Content Adaptation	Filing Date: 12/08/06	Miguel Melnyk, Suresh Bashyam, Andrew Penner, John Rochon, Kapil Dakhane
7,987,285 12/170,347	Adaptive Bitrate Management for Streaming Media Over Packet Networks	Filing Date: 07/9/08 Issue Date: 07/26/11	Miguel Melnyk, Nick Stavrakos, Fabian Breg, Andrew Penner
Not Yet Filed	Adaptive Bitrate Management for Streaming Media Over Packet Networks	Continuation Application TBA	Miguel Melnyk, Nick Stavrakos, Fabian Breg, Andrew Penner
7,987,243 12/170,719	Method for Media Discovery	Filing Date: 07/10/08 Issue Date: 07/26/11	Nick Stavrakos, Miguel Melnyk, John Rochon, Dimitris Hanos, Spyros Kapotas
12/328,679	Advertisement Insertion Module and Advertisement Replacement Module	Filing Date: 12/4/08	Suresh Bashyam

<b>Serial No. Patent No.</b>	<b>Title/Description</b>	<b>Status</b>	<b>Inventors</b>
12/341,307	TCP Burst Avoidance	Filing Date: 12/22/08	Ashwani Wason, Kannan Parthasarathy, Nick Stavrakos, Chris Koopmans
12/368,260	Method for Controlling Download Rate of Real-Time Streaming as Needed by Media Player	Filing Date: 02/9/09	Miguel Melnyk, Robert Kidd, Andrew Penner, Jeremy Tidemann, Fabian Breg
7,991,904 12/416,085	Adaptive Bitrate Management for Streaming Media Over Packet Networks	Filing Date: 03/31/09 Issue Date: 08/02/11	Miguel Melnyk, Nicholas Stavrakos, Andrew Penner, Jeremy Tidemann, Fabian Breg
Not Yet Filed	Adaptive Bitrate Management for Streaming Media Over Packet Networks	Continuation Application TBA	Miguel Melnyk, Nicholas Stavrakos, Andrew Penner, Jeremy Tidemann, Fabian Breg
12/580,212	Budget Encoding	Filing Date: 10/15/09	Miguel Melnyk, Robert Kidd, Joseph Sestrich, Jeremy Tidemann, Kartik Ayyar, Frederick Koopmans, Andrew Penner
12/751,951	Framework for Quality-Aware Video Optimization	Filing Date: 03/31/10	Miguel Melnyk, Andrew Penner, Jeremy Tidemann
Not Yet Filed	Systems and Methods for Video Cache Indexing	U.S. Utility Application due 7/30/11	Fred Koopmans, Miguel Melnyk, Reuben Balik
61/369,513	Systems and Methods for Video Cache Indexing	Filing Date: 07/30/10	Fred Koopmans, Miguel Melnyk, Reuben Balik
61/495,949	On-Demand Adaptive Bitrate Management for Streaming Media Over Packet Networks	Filing Date: 06/10/11	Fred Koopmans Robert Kidd Andrew Penner



<b>Serial No.</b>	<b>Title/Description</b>	<b>Status</b>	<b>Inventors</b>
<b>Patent No.</b>			
61/495,951	Application of Adaptive Quantization in Quality Aware Video Optimization	Filing Date: 06/10/11	Jeremy Tidemann Andrew Penner
61/495,952	Adaptive Bitrate Management on Progressive Download with Indexed Media Files	Filing Date: 06/10/11	Robert Kldd Andrew Penner Fred Koopmans Jeremy Tidemann Fabian Breg Miguel Melnyk

**Bytemobile-Originated Foreign Corresponding Patent Applications and Issued Patents**

European Patent No. 1,393,508	Data Transport Acceleration and Management Within a Network Communication System (Working title: Transport Acceleration)	Filing Date: 4/11/02 Granted 08/30/06	Sungwon Ha, Sung-Wook Han, Tae-eun Kim, Vaduvur Bharghavan, Upamanyu Madhow, Kannan Ramchandran
European Patent No. 1,564,960	Systems and Methods for Providing Differentiated Services Within a Network Communication System	Filing Date: 05/15/02 Granted 03/28/07	David Craig, Constantine Polychronopoulos, Sung-Wook Han
European Patent No. 1,393,496	Systems and Methods for Providing Differentiated Services Within a Network Communication System	Filing Date: 05-15-02 Granted 10/29/08	David Craig, Constantine Polychronopoulos, Sung-Wook Han
European Patent No 1,393,497	Dual Mode Service Platform Within a Network Communication System	Filing Date: 12/16/03 Granted 11/02/06	Sung-Wook Han, Vaduvur Bharghavan, Constantine Polychronopoulos
EPO Application No. 06760372.0	Method and System for Delta Compression	Filing Date: 11/29/07	Nick Stavrakos, Jeff Monks, Fred Koopmans, Chris Koopmans, Kapil Dakhane
EPO Application No. 06771002.0	Method and System for Object Prediction	Filing Date: 11/28/07	Nick Stavrakos, Jeff Monks, Fred Koopmans, Chris Koopmans, Kapil Dakhane
EPO Application No. 06771004.6	Method and System for Dynamic Bearer Aware	Filing Date: 11/29/07	Nick Stavrakos, Chris Koopmans
EPO Application No. 06771139.0	Method for Multipart Encoding	Filing Date: 05/23/06	Nick Stavrakos, Fred Koopmans, Chris Koopmans, Parkshit Ambatkar

EPO Application No. 07870889.8	Content Adaptation	Filing Date: 07/07/09	Miguel Melnyk, Suresh Bashyam, Andrew Penner, John Rochon, Kapil Dakhane
EPO Application No. 08780120.5	Method for Media Discovery	Filing Date: 02/01/10	Nick Stavrakos, Miguel Melnyk, John Rochon, Dimitris Hanos, Spyros Kapotas
China Patent Application No. 200880106478.5	Method for Media Discovery	Filing Date: 03/10/10	Nick Stavrakos, Miguel Melnyk, John Rochon, Dimitris Hanos, Spyros Kapotas
EPO Application No. 08780143.7	Adaptive Bitrate Management for Streaming Media Over Packet Networks	Filing Date: 01/28/10	Miguel Melnyk, Nick Stavrakos, Fabian Breg, Andrew Penner
China Patent Application No. 200880106476.6	Adaptive Bitrate Management for Streaming Media Over Packet Networks	Filing Date: 03/10/10	Miguel Melnyk, Nick Stavrakos, Fabian Breg, Andrew Penner
PCT/US08/13430	Advertisement Insertion Module and Advertisement Replacement Module	Filing Date: 12/4/08	Suresh Bashyam
EPO Application No. 08868107.7	TCP Packet Spacing	Filing Date: 07/16/10	Ashwani Wason, Kannan Parthasarathy, Nick Stavrakos, Chris Koopmans
China Patent Application No. 200880127690.X	TCP Packet Spacing	Filing Date: 6/28/10	Ashwani Wason, Kannan Parthasarathy, Nick Stavrakos, Chris Koopmans
PCT/US08/14027	TCP Packet Spacing	Filing Date: 12/22/2008	Ashwani Wason, Kannan Parthasarathy, Nick Stavrakos, Chris Koopmans

PCT/US10/00302	Method for Controlling Download Rate of Real-Time Streaming as Needed by Media Player	Filing Date: 02/03/10	Miguel Melnyk, Robert Kidd, Andrew Penner, Jeremy Tidemann, Fabian Breg
PCT/US10/00959	Adaptive Bitrate Management for Streaming Media Over Packet Networks	Filing Date: 03/30/10	Miguel A. Melnyk, Nicholas J. Stavrakos, Andrew Penner, Jeremy Tidemann, Fabian Breg
PCT/US10/00988	Framework for Quality-Aware Video Optimization	Filing Date: 03/31/10	Miguel A. Melnyk, Andrew Penner, Jeremy Tidemann
PCT/US10/02762	Budget Encoding	Filing Date: 10/14/10	Miguel Melnyk, Robert Kidd, Joseph Sestrich, Jeremy Tidemann, Kartik Ayyar, Frederick Koopmans, Andrew Penner

**BYTEMOBILE ACQUIRED PATENT APPLICATIONS AND ISSUED PATENTS****Proquent Originated US Patent Applications and Issued Patents**

<b>Serial No. Patent No.</b>	<b>Title/Description</b>	<b>Filing and Issue Dates</b>	<b>Inventors</b>
11/330,588 7,586,871	Platform and Method for Providing Data Services in a Communication Network	Filing Date: 01/11/06 Issue Date: 09/08/09	Thomas Hamilton, Chuanfei Chen, Ken Descoteaux, Clifford Atwood

**Broadcloud Originated US Patent Applications and Issued Patents**

<b>Serial No. Patent No.</b>	<b>Title/Description</b>	<b>Filing and Issue Dates</b>	<b>Inventors</b>
09/618,881 6,496,520	Wireless Network System and Method	Filing Date: 07/19/00 Issue Date: 12/17/02	Edward Acosta
08/852,557 6,166,729	Remote Visual Information Monitoring System and Method	Filing Date: 05/07/97 Issue Date: 12/26/00	Edward Acosta
09/619,038	Digital Image Transfer System and Method	Filing Date: 7/19/00	
09/917,449 7,209,474	Wireless Services Provider Network System and Method	Filing Date: 07/27/01 Issue Date: 04/24/07	Edward Acosta, David Thompson
8,009,694 11/686,677	Wireless Services Provider Network System and Method	Filing Date: 03/15/07 Issue Date: 08/30/11	David Thompson
09/982,511 7,512,694	Wireless Communications Invisible Proxy and Hooking Systems and Methods	Filing Date: 10/17/2001 Issue Date: 03/31/09	Drew Sarkisian
09/982,510 7,315,544	Global Sequence Numbers in Wireless Communications Systems and Methods	Filing Date: 10/17/01 Issue Date: 01/01/08	David Thompson, Shi Lin, James Chou
10/090,290 6,795,859	Scalable Server Architecture Systems and Methods	Filing Date: 03/02/02 Issue Date: 09/21/04	Dennis Parker

10/933,067 7,616,559	Multi-Link Network Architecture, Including Security, in Seamless Roaming Communications Systems and Methods	Filing Date: 09/02/04 Issue Date: 11/10/09	David Thompson, Lin Shi
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