EIGHTH AMENDMENT TO QUILT VENDOR
CIS MASTER SERVICE AGREEMENT

This EIGHTH AMENDMENT ("Eighth Amendment") to the Quilt Vendor CIS Master Service Agreement ("MSA") is dated as of this 25th day of September, 2017 (the "Effective Date") and is by and between The Quilt, Inc. ("Quilt") and Level 3 Communications, LLC ("Level 3").

WHEREAS, Quilt and Level 3 are parties to the Quilt Vendor CIS Master Service Agreement, dated June 12, 2008, as amended, pursuant to which Level 3 provides commodity Internet services to certain specified authorized buyers;

WHEREAS, for the promises contained herein and for other valuable consideration, Quilt and Level 3 now wish to amend the Agreement as set forth herein.

NOW, THEREFORE, Quilt and Level 3 agree as follows:

1.   **Definitions.** Terms defined in the Agreement shall have the same meaning herein unless otherwise specified.

2.   **Effective Date of Amendment.** Except as otherwise noted herein, modifications to the Agreement specified in this Addendum shall be effective as of the Amendment Date.

3.   **Authorized Quilt Buyers.** Exhibit A containing the list of Authorized Quilt Buyers is hereby deleted and replaced with Exhibit A attached hereto.

4.   **Pricing.** Exhibit B is hereby deleted and replaced with Exhibit B attached hereto.

5.   **Ratification.** All other terms and conditions of the Agreement shall remain unchanged and shall continue in full force and effect.

The Quilt, Inc.   Level 3 Communications, LLC

By:__   By:_____

Name:_Jennifer Leasure_____   Name:__Dwight E Steiner_____

Title:_President   Title:Asst. Gen. Counsel

Date: _September 21, 2017_____   Date: __Sept. 22, 2017_____

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Exhibit A
AUTHORIZED QUILT BUYERS

CODE	Updated: June 2017 INSTITUTION
1.00	Three Rivers Optical Exchange (3ROX)
1.01	Pittsburgh Gigapop
1.02	Pittsburgh Supercomputing Center/Carnegie Mellon University
2.00	Albuquerque Gigapop (ABQG)
2.01	University of New Mexico
3.00	Arkansas Research Education Optical Network (ARE-ON)
4.00	Connecticut Education Network (CEN)
4.01	University of Connecticut
5.00	Corp. for Education Network Initiative in California (CENIC)
5.01	Stanford University
6.00	Florida LambdaRail (FLR)
6.01	Abanacle Corporation
6.02	Barry University
6.03	Bay County Public Schools
6.04	Bethesda Health
6.05	Boca Raton Regional Hospital
6.06	Bradford County, Florida
6.07	Broward Health
6.08	Central Florida Health Alliance
6.09	City of Gainesville Engineering
6.10	City of Jacksonville
6.11	Clay County Public Schools
6.12	Eckerd College
6.13	Embry Riddle Aeronautical University
6.14	Escambia County School District

6.15	Florida A&M University
6.16	Florida Atlantic University
6.17	Florida Department of Education
6.18	Florida Guardian Ad Litem
6.19	Florida Gulf Coast University
6.20	Florida Institute of Technology
6.21	Florida International University
6.22	Florida State College at Jacksonville
6.23	Florida State University
6.24	Florida Virtual Campus: State College Library Services
6.25	Gulf Coast State College
6.26	Gulliver Schools
6.27	H. Lee Moffitt Cancer & Research Institute
6.28	Hillsborough Community College
6.29	Indian River State College
6.30	Jesse Ball duPont Foundation
6.31	Johnson and Wales University
6.32	Lake Sumter Community College
6.33	Lee County Clerk of the Court
6.34	Martin County, Florida
6.35	Max Planck Florida Corp. DBA Max Planck Florida Institute
6.36	Miami Dade College
6.37	NAP of Central Florida
6.38	National Oceanic and Atmospheric Administration
6.39	Northwest Regional Data Center
6.40	Nova Southeastern University (NSU)
6.41	Orange County, Florida
6.42	Palm Beach County, Florida
6.43	Palm Beach State College
6.44	Pasco-Hernando Community College
6.45	Pensacola State College
6.46	Polk County Public Schools
6.47	Polk State College
6.48	Rollins College
6.49	Sanford-Burnham-Prebys Institute for Medical Research
6.50	Santa Fe College

6.51	Scripps Florida
6.52	Seminole State College of Florida
6.53	St. Petersburg College
6.54	St. Thomas University
6.55	State College of Florida Manatee-Sarasota
6.56	Tallahassee Memorial Healthcare
6.57	University of Central Florida
6.58	University of Florida
6.59	University of Miami
6.60	University of North Florida
6.61	University of South Florida (SURA)
6.62	University of West Florida
6.63	Valencia College
7.00	**Front Range Gigapop (FRGP)/UCAR**
7.01	Auraria Higher Education Center
7.02	Colorado College
7.03	Colorado Community College System
7.04	Colorado Mountain College
7.05	Colorado School of Mines
7.06	Colorado State University System - Fort Collins
7.07	Colorado State University System - Pueblo
7.08	Community College of Denver
7.09	East Central Board of Cooperative Educational Services
7.10	Educational Access Gateway Learning Environment Network
7.11	Fort Lewis College
7.12	Front Range Community College
7.13	Jefferson County School District
7.14	Liberty Common Schools
7.15	Metropolitan State College of Denver
7.16	Poudre School District
7.17	University Corporation for Atmospheric Research (UCAR)
7.18	University of Colorado – Boulder
7.19	University of Colorado - Colorado Springs
7.20	University of Colorado – Denver
7.21	University of Denver
7.22	University Information Systems
7.23	University of Northern Colorado

7.24	University of Wyoming
8.00	**Great Plains Network**
8.01	South Dakota Board of Regents
8.02	South Dakota School of Mines and Technology
8.03	University of Nebraska at Lincoln
8.04	University of Nebraska at Omaha
8.05	University of Kansas Center for Research
8.06	University of Nebraska Medical Center
9.00	**Illinois Century Network**
10.00	**Indiana Gigapop**
10.01	Washington University in St. Louis
11.00	**KanREN**
12.00	**Kentucky Regional Optical Network (KyRON)**
12.01	Eastern Kentucky University
12.02	Kentucky Community and Technical College System
12.03	Kentucky State University
12.04	Morehead State University
12.05	Murray State University
12.06	Northern Kentucky University
12.07	University of Kentucky
12.08	University of Louisville
12.09	Western Kentucky University
13.00	**KINBER**
14.00	**Lone-Star Education and Academic Research Network (LEARN)**
14.01	Aldine ISD
14.02	Baylor College of Medicine
14.03	Baylor U
14.04	Houston Community College System
14.05	Lamar U
14.06	Northeast Texas Consortium (NETnet)

14.07	Prairie View A&M U
14.08	Rice University
14.09	Sam Houston State U
14.10	Southern Methodist U
14.11	Stephen F. Austin State University
14.12	Texas A&M U System
14.13	Texas A&M University
14.14	Texas A&M University System Health Science Center
14.15	Texas Assn of Community Colleges
14.16	Texas Christian U
14.17	Texas Education Telecommunications Network (TETN)
14.18	Texas State U System
14.19	Texas Tech U System
14.20	Texas Tech University
14.21	U of Houston System
14.22	U of North Texas System
14.23	University of Houston
14.24	University of Texas
14.25	UT Arlington
14.26	UT Austin
14.27	UT Dallas
14.28	UT El Paso
14.29	UT HSC, San Antonio
14.30	UT MD Anderson Cancer Ctr
14.31	UT Med Branch
14.32	UT San Antonio
14.33	UT Southwestern Med Ctr
14.34	UTHSC, Houston
15.00	**Louisiana Optical Network Initiative (LONI)**
15.01	Louisiana State University
16.00	**Maryland Research and Education Network (MDREN)**
17.00	**Mid-Atlantic Crossroads (MAX)**
17.01	American University
17.02	Baltimore Education & Research Network (BERnet)
17.03	Catholic University

17.04	Columbia Telecommunications Corporation (CTC)
17.05	D.C. Government
17.06	Energy Sciences Network (ESnet)
17.07	George Mason University
17.08	George Washington University
17.09	Georgetown University
17.10	Howard Hughes Med. Institute
17.11	Inter-American Development Bank (IADB)
17.12	Internet2, D.C. Office
17.13	Johns Hopkins University
17.14	Johns Hopkins University - Applied Physics Laboratory (JHU-APL)
17.15	Laboratory for Telecommunications Sciences (LTS)
17.16	Library of Congress
17.17	Montgomery College
17.18	NASA / GSFC
17.19	National Archives and Records Administration (NARA)
17.20	National Consortium for Supercomputing Applications / ACCESS
17.21	National Institute of Standards and Technology (NIST)
17.22	National Institutes of Health (NIH)
17.23	National Library of Medicine (NLM)
17.24	National Oceanic and Atmospheric Administration (NOAA)
17.25	National Science Foundation (NSF)
17.26	Smithsonian Institution
17.27	Southern Universities Research Association (SURA)
17.28	U.S. Department of Health and Human Services (HHS)
17.29	U.S. Department of State
17.30	U.S. Department of Veterans Affairs
17.31	U.S. Geological Survey
17.32	U.S. Holocaust Memorial Museum
17.33	Univ. System of Maryland Network (aggregating 11 campuses)
17.34	University of California, D.C. campus
17.35	University of Maryland, Baltimore (UMB)
17.36	University of Maryland, Baltimore County (UMBC)
17.37	University of Maryland, University College
17.38	University of Maryland, College Park (UMD)
17.39	University of Southern California, Information Sciences Institute / East
17.40	USDA, Beltsville Agricultural Research Center

17.41	Washington Research Library Consortium
18.00	**Merit Network, Inc. (Merit)**
19.00	**Missouri Research and Education Network (MOREnet)**
20.00	**Metropolitan Research and Education Network (MREN)**
20.01	Bradley University
20.02	De Paul University
20.03	Illinois Century Network
20.04	Illinois Institute of Technology
20.05	Illinois State University
20.06	Iowa State
20.07	Loyola University
20.08	National Center for Supercomputing Applications (NCSA)
20.09	Northern Illinois University
20.10	Northwestern University
20.11	Notre Dame
20.12	Purdue University
20.13	Southern Illinois University
20.14	Univ. of Chicago
20.15	Univ. of Illinois at Chicago
20.16	University of Illinois at Champaign-Urbana
20.17	University of Iowa
20.18	University of Wisconsin (Madison & Milwaukee)
21.00	**New Jersey Research and Education Network (NJEDge)**
22.00	**North Carolina Research and Education Network (NCREN / MCNC)**
23.00	**Networkmaine**
24.00	**NetWork.Virginia**
24.01	College of William and Mary
24.02	George Mason University
24.03	Hampton University
24.04	Longwood University
24.05	Norfolk State University Research and Innovation Foundation

24.06	Old Dominion University
24.07	Radford University
24.08	Thomas Jefferson High School for Science and Mathematics
24.09	University of Mary Washington
24.10	University of Richmond
24.11	University of Virginia
24.12	Virginia Commonwealth University
24.13	Virginia Community College System
24.14	Virginia Science Museum
24.15	Virginia Tech
24.16	Virginia Tech Corporate Research Center (VTCRC)
25.00	**Northern Lights GigaPoP**
25.01	Concordia College
25.02	Gustavus Adolphus College
25.03	Macalester College
25.04	Northwestern College
25.05	St. Olaf College
25.06	University of St. Thomas
25.07	Augsburg College
25.08	Bethel University
25.09	Carleton College
25.10	College of St. Catherine
25.11	Concordia University
25.12	Hamline University
25.13	North Dakota STAGENet State Network
25.14	North Dakota State University
25.15	Ties
25.16	University of Minnesota
25.17	University of North Dakota
25.18	Luther Seminary
26.00	**Northern Crossroads (NoX)**
26.01	Boston College
26.02	Boston University
26.03	Brandeis University
26.04	Brown University
26.05	Dartmouth College

26.06	Emerson College
26.07	Harvard University
26.08	MIT
26.09	Northeastern University
26.10	Tufts University
26.11	University of Maine
26.12	University of Massachusetts - Information Technology Services (Umass - ITS)
26.13	University of Massachusetts-Amherst
26.14	University of New Hampshire
26.15	University of Rhode Island
26.16	University of Vermont
26.17	Wellesley College
26.18	Worcester Polytechnic Institute
26.19	Yale University
27.00	**NYSERNet**
27.01	Albert Einstein College of Medicine
27.02	Alfred University
27.03	American Museum of Natural History
27.04	ARTstor
27.05	Binghamton University
27.06	Buffalo State College
27.07	Canisius College
27.08	Capital Region BOCES
27.09	City University of New York
27.10	Clarkson University
27.11	Colgate University
27.12	Columbia University
27.13	Cornell University
27.14	D'Youville College
27.15	Daemen College
27.16	Erie Community College
27.17	Erie / 1 BOCES
27.18	The Frick Collection
27.19	Hofstra University
27.20	Icahn School of Medicine at Mt. Sinai
27.21	LeMoyne College

27.22	Long Island University
27.23	Marist College
27.24	Museum of Modern Art (MoMA)
27.25	New School University
27.26	New York State Department of Health: Wadsworth Center
27.27	New York University
27.28	New York College of Podiatric Medicine
27.29	Niagara University
27.30	NYSERNET, Inc.
27.31	Rennsealr Polytechnic Institute
27.32	Rochester Institute of Technology
27.33	Rockefeller University
27.34	Siena College
27.35	Skidmore College
27.36	Stony Brook University (SUNY)
27.37	SUNY Geneseo
27.38	SUNY Oswego
27.39	SUNY Potsdam
27.40	SUNY Upstate Medical
27.41	Syracuse University
27.42	The College of Saint Rose
27.43	Union College
27.44	University at Albany (SUNY)
27.45	University at Buffalo (SUNY)
27.46	University of Rochester
27.47	Victor Central School District
27.48	Weill Medical College – Qatar
27.49	Weill Medical College of Cornell University
27.50	Yeshiva University
28.00	**OARnet**
29.00	**ONENET--Oklahoma State Regents for Higher Education**
30.00	**Oregon Gigapop**
30.01	University of Oregon (OWEN/NERO)
31.00	**OSHEAN**

31.01	NEREN Inc. - North East Research and Education Network, Inc.
32.00	**Pacific Northwest Gigapop (PNWGP)**
32.01	University of Hawaii
32.02	University of Washington
33.00	**Southern Crossroads (SoX)**
33.01	Southern Light Rail
34.00	**Utah Education Network (UEN)**
34.01	University of Montana
34.02	University of Utah
35.00	**WiscNet**
36.00	**West Virginia Network (WVNET)**

Exhibit B
Pricing Schedule

Each Authorized Buyer taking services from Level 3 under the Agreement will make a commitment to Level 3 to purchase a minimum of amount of Level 3 High Speed IP based on the circuit bandwidth in the table below.

Each Authorized Buyer's price per month per Mbps of Level 3 provided Level 3 High Speed IP Service shall be prospectively adjusted by Level 3 each calendar quarter during the term of service, with such adjusted pricing being applicable to Level 3 High Speed IP Service delivered during the calendar quarter immediately following the adjustment. Pricing adjustments will be made by Level 3 by aggregating the contractual commitments for Level 3 High Speed IP Service (committed data rates ("CDR")) of all Authorized Buyers with whom Level 3 has agreed, and applying those aggregated commitments ("QACDR") and adjusting pricing per Mbps for all Authorized Buyers in accordance with the chart below:

Tiered Aggregation Usage Review

Provider will extend price reductions to Authorized Quilt Buyers (AQBs) when the aggregate CDR of all AQBs purchasing service from Provider (including the CDRs of AQBs purchasing Services from Provider exceeds one of the volume tiers set forth in the table below and the AQBs sign new Service Orders for a minimum term of 12 months. Pricing adjustments will be made as follows.

Port	Commit	NRC	Price per Mbps
1G	300M	$-	$4.10
1G	1G	$-	$1.80
10G	1G	$2,000.00	$1.60
10G	2G	$2,000.00	$1.23
10G	5G	$2,000.00	$1.08
2x10G ACDR	4G	$2,000.00	$1.19
10G	10G	$2,000.00	$0.90
100G	10G	$10,000.00	$1.30
100G	20G	$10,000.00	$1.20
100G	40G	$10,000.00	$0.95
100G	100G	$10,000.00	$0.60
2x100G ACDR	20G	$10,000.00	$1.25

Aggregation Chart for Quilt

Quilt Aggregate Commitment	1 Gbps		10 Gbps				2x10G ACDR	100G			2x100G ACDR
	300 Mbps	1 Gbps	1 Gbps	2 Gbps	5 Gbps	10G	2G	20G	40G	100G	20G
240,000	$4.10	$1.80	$1.60	$1.23	$1.08	$0.90	$1.30	$1.20	$0.95	$0.60	$1.25
271,200	$3.90	$1.71	$1.52	$1.17	$1.03	$0.86	$1.24	$1.14	$0.90	$0.57	$1.19
306,456	$3.78	$1.66	$1.47	$1.13	$1.00	$0.83	$1.20	$1.11	$0.88	$0.55	$1.15
346,295	$3.66	$1.61	$1.43	$1.10	$0.97	$0.80	$1.16	$1.07	$0.85	$0.54	$1.12
391,314	$3.55	$1.56	$1.39	$1.07	$0.94	$0.78	$1.13	$1.04	$0.82	$0.52	$1.08

Charges for additional usage over an Authorized Buyer's individual commitment at the price per Mbps above shall apply, but additional purchases over the CDR do not count towards the QACDR

Cross connects will be priced at $300 NRC and $300 MRC.

Level 3 Security Services

Level 3 network security services are available to Authorized Quilt Providers. These services include the "secure pipe" service as well as DDOS mitigation service managed through the Level 3 NOC. Please see Exhibit C for a sample Service Schedule with a detailed service description.

Internet Direct Service is Delivered over Level 3 HSIP Connection or VPN Connection	1 Year Term	
1G Clean Traffic Return	**MRC**	**NRC**
DDoS Internet Direct 1 Gbps VLAN provisioned production site(s). Each Site includes CIR commit of 1 Gbps, on demand protection and up to 1000 protected / 24 subnets per site	$5,500.00	$0
Client Border Router(s) provisioned and monitored with Flow Monitoring service. Max. 1,000 flows per second; sampling 1024:1 or 1000:1 required	Included	$0
Level 3 Network Protection Site - CIR - 500Mbps - 1.0 Gbps (requires Level 3 HSIP service)	Included	$0
2G Clean Traffic Return	**MRC**	**NRC**
DDoS Internet Direct 2 Gbps VLAN provisioned production site(s). Each Site includes CIR commit of 2 Gbps, on demand protection and up to 1000 protected / 24 subnets per site	$7,556.00	$0

Downstream Client Border Router(s) provisioned and monitored with Flow Monitoring service. Max. 1,000 flows per second; sampling 1024:1 or 1000:1 required	Included	$0
Level 3 Network Protection Site - CIR - 1.0 - 2.0 Gbps (requires Level 3 HSIP service)	Included	$0

Internet Direct Service is Delivered over Level 3 HSIP Connection or VPN connection	1 Year Term	
10G Clean Traffic Return	**MRC**	**NRC**
DDoS Internet Direct 10 Gbps provisioned production site(s). Individual VLANs for each downstream connection with on demand protection and up to 1000 protected / 24 subnets per VLAN.		
Minimum of four downstream connections per 10G port, price per connection	$6,000.00	$0
More than four downstream connections, price per connection	$5,000.00	$0
Each Client Border Router(s) provisioned and monitored with Flow Monitoring service. Max. 1,000 flows per second; sampling 1024:1 or 1000:1 required (Additional routers $500 MRC)	Included	$0

Exhibit C
DDoS and Network Protection Service Schedule

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