

February 29, 2024

Network Modernization

Addendum #2

This addendum consists of eleven (11) pages, with the following documents included:

1. SOV Network Modernization – Question Addendum
2. SOV Site-Circuit Inventory
3. Network Diagram
4. SOV Capabilities Matrix

SOV Network Modernization Question Addendum

Dear RFP Respondents,

We appreciate your queries and interest in understanding the network infrastructure of the State of Vermont. Herein, we provide a comprehensive overview of our current network setup, challenges, and operational nuances as per your request for details.

The State of Vermont operates a robust and complex network, underpinned by an Autonomous System Number (ASN) 11577, with IP blocks 159.105.0.0/16 and 170.222.0.0/16, catering to a range of services across the state's multifaceted landscape. Our primary uplink connections include services from Vermont Telephone Company, Firstlight, and Lumen, offering bandwidths ranging from 1 Gbps to 3 Gbps. Additionally, we have established a 10 Gbps connection to Internet2 through the University of Vermont (UVM). The Internet circuits terminate on two Cisco ASR 1001 routers located at the National Life and TechVault data centers, essential for routing operations and network resilience. These routers, running BGP, are connected to a pair of Nexus 9K switches also running OSPF (Open Shortest Path First) exchanging routes with the rest of the State's WAN. Please reference the appended [SOV Network Diagram](#) for a high-level network diagram.

Additionally, we currently leverage F5's distributed cloud DDoS protection and WAF (Web Application Firewall) services. This key component of our WAN configuration employs GRE tunnels to F5's distributed cloud DDoS protection service to ensure that traffic is effectively scrubbed, enhancing our defensive posture against DDoS attacks, and ensuring the integrity of our network operations. With respect to WAF, we have two primary domains, vermont.gov and state.vt.us with several hundred subdomains each, e.g. labor.vermont.gov. Additionally we have approximately 300 vanity domains, e.g. vermontjoblink.com.

Connectivity across our sites is mainly provided by ELAN services through First Light and Consolidated Communications, along with various types of standard broadband connections, including DSL, fiber broadband and cable for our smaller locations. For fiber-based ELAN services, we expect the service provider to ensure a latency of less than 7 milliseconds within the same LATA (Local Access and Transport Area). Our current setup heavily relies on Ethernet for connectivity, utilizing 153 ELAN circuits. To achieve broad coverage, DSL technology is also widely used, with 101 circuits in operation. Additionally, we utilize other connectivity options such as cable, fiber broadband, direct internet access (DIA), Ethernet private lines (EPL or ELINE), wavelength services, and dark fiber, based on what the specific site needs and what's possible in each location. WAN connectivity at the remote sites is predominately terminated using a Cisco ISR 4000 or Cisco Catalyst 9300 series switch with light layer 3 routing enabled. For a detailed list of the types of connectivity and the committed information rate at each site, please check the attached inventory of sites and circuits. Please reference the appended [SOV – Site Circuit Inventory](#).

Please be advised that circuit provisioning and management falls outside the purview of this specific engagement. The State of Vermont maintains direct contractual relationships with each circuit provider, and as such, will continue to oversee the management of these circuits independently. The responsibilities associated with this project do not encompass circuit management activities.

Our network currently faces significant challenges, particularly at the internet edge where we have witnessed a surge in CPU usage to 100% on the Cisco Firepower 2140 firewalls. This incident has revealed the limitations of our existing infrastructure, specifically the inability to process legitimate traffic effectively under stress conditions.

Considering these challenges, we are exploring various avenues to bolster our network's resilience and security posture. One of the critical considerations is transitioning our internet edge configuration from an active/passive

SOV Network Modernization Question Addendum

firewall setup to an active/active model. This change aims to address the single point of failure issue, better distribute traffic loads, and enhance our network's capacity to handle peak demand and potential security threats.

As part of our network modernization effort, incorporating SD-WAN into our network infrastructure is anticipated to bring substantial improvements in application performance and network manageability, aligning with our strategic initiatives for digital transformation. SD-WAN's capabilities are expected to directly enhance the performance and reliability of our extensive range of cloud-based services, as depicted in our ADS Ecosystem.

Business SaaS tools such as Office 365 and Microsoft Teams, which are the backbone of our daily business operations, will benefit from SD-WAN's optimized bandwidth usage and improved access reliability. Likewise, our cloud infrastructure platforms that underpin these tools, including services from VMware, AWS, and Azure will become more resilient and agile through SD-WAN's intelligent path selection and traffic shaping capabilities.

For our public facing applications, which include Salesforce and NIC, SD-WAN's ability to prioritize traffic will ensure that these critical customer interaction systems have enhanced availability and performance, especially critical during high-traffic periods.

Application integration is key to our operational efficiency. SD-WAN will provide reliable connections for MuleSoft integrations, enabling seamless communication between our disparate cloud services with reduced latency and enhanced data throughput.

For a full list of capabilities please reference the appended [Capabilities matrix](#)

In refining our network strategy, we specifically aim for ELAN traffic to route towards the data center, ensuring secure and efficient handling of internal data. On the other hand, we intend for traffic destined for the cloud or the internet to bypass the data center entirely, avoiding the inefficient "hairpin" routing where traffic unnecessarily loops back to the data center before reaching its final destination. This approach minimizes latency and maximizes performance by allowing direct internet and cloud access, particularly beneficial for our remote ELAN sites. By implementing this strategy, we effectively eliminate potential bottlenecks and improve overall network responsiveness.

We trust this response provides a clear understanding of the State of Vermont's network infrastructure and the challenges we are currently addressing.

SOV - Site Circuit Inventory

Provider	Type	Address	Commit Rate bps
Firstlight	Wavelength	133 State St Montpelier	10,000,000,000
Firstlight	Wavelength	National Life	10,000,000,000
Lumen	Ethernet Private Line (EPL/ELINE)	Tech Vault	10,000,000,000
Consolidated Communications (CCI)	Wavelength	108 Cherry St Burlington	10,000,000,000
Firstlight	Wavelength	Tech Vault	10,000,000,000
Lumen	Ethernet Private Line (EPL/ELINE)	National Life	10,000,000,000
Lumen	Wavelength	Tech Vault	10,000,000,000
Firstlight	Wavelength	National Life	10,000,000,000
Lumen	Wavelength	Tech Vault	10,000,000,000
Consolidated Communications (CCI)	Wavelength	Tech Vault	10,000,000,000
Lumen	Direct Internet Access (DIA)	Tech Vault	3,000,000,000
Firstlight	Direct Internet Access (DIA)	National Life	2,000,000,000
VTel	Fiber Broadband	165 Elm St Chester	1,000,000,000
Consolidated Communications (CCI)	ELAN	93 Pilgrim Park Waterbury	1,000,000,000
VTel	Fiber Broadband	2216 Route 103 S Mount Holly	1,000,000,000
Consolidated Communications (CCI)	Ethernet Private Line (EPL/ELINE)	National Life	1,000,000,000
VTel	Direct Internet Access (DIA)	National Life	1,000,000,000
Firstlight	Ethernet Private Line (EPL/ELINE)	National Life	1,000,000,000
VTel	Fiber Broadband	3780 VT ROUTE 100A PLYMOUTH	1,000,000,000
VTel	Fiber Broadband	236 COOLIDGE MEMORIAL RD PLYMOUTH	1,000,000,000
Firstlight	ELAN	National Life	1,000,000,000
Waitsfield Telecom	Fiber Broadband	2490 Ethan Allen Hwy New Haven	1,000,000,000
Firstlight	ELAN	National Life	1,000,000,000
Comcast	Ethernet Private Line (EPL/ELINE)	Tech Vault	1,000,000,000
Consolidated Communications (CCI)	ELAN	National Life	1,000,000,000
VTel	Fiber Broadband	15 Airport Rd Springfield	1,000,000,000
Consolidated Communications (CCI)	ELAN	117 Strongs Ave Rutland	1,000,000,000
Firstlight	ELAN	Tech Vault	1,000,000,000
VTel	Fiber Broadband	700 Charlestown Rd Springfield	1,000,000,000
Consolidated Communications (CCI)	ELAN	Tech Vault	1,000,000,000
VTel	Fiber Broadband	249 Coolidge Memorial Rd Plymouth	1,000,000,000
Consolidated Communications (CCI)	Ethernet Private Line (EPL/ELINE)	Tech Vault	1,000,000,000
Firstlight	ELAN	Tech Vault	1,000,000,000
Consolidated Communications (CCI)	Fiber Broadband	76 BELLWATER AVE BARTON	250,000,000
Consolidated Communications (CCI)	Fiber Broadband	60 Washington St Barre	250,000,000
Consolidated Communications (CCI)	Fiber Broadband	96 State St Rutland	250,000,000
Consolidated Communications (CCI)	Fiber Broadband	23 Haystack Rd Wilmington	250,000,000
Consolidated Communications (CCI)	Fiber Broadband	20 Auditorium Hill Barre	250,000,000
Consolidated Communications (CCI)	Fiber Broadband	158 State Park Rd Woodford	250,000,000
Consolidated Communications (CCI)	Fiber Broadband	4952 VT Route 9 Marlboro	250,000,000
Comcast	ELAN	National Life	200,000,000
Comcast	ELAN	Tech Vault	200,000,000
Firstlight	ELAN	5 Green Mountain Dr Montpelier	200,000,000
Firstlight	ELAN	32 Cherry St Burlington	200,000,000
Firstlight	ELAN	5 South Main St Hartford	100,000,000
Consolidated Communications (CCI)	Direct Internet Access (DIA)	103 South Main St Waterbury	100,000,000
Consolidated Communications (CCI)	ELAN	100 Main St Brattleboro	100,000,000
Comcast	ELAN	217 Main St Newport	100,000,000
Consolidated Communications (CCI)	ELAN	155 Lake St Saint Albans	100,000,000
Comcast	ELAN	38 Water St Orleans	100,000,000
Firstlight	ELAN	4 Market St South Burlington	100,000,000
Firstlight	ELAN	426 Industrial Ave Williston	100,000,000
Consolidated Communications (CCI)	ELAN	3649 Lower Newton Rd Saint Albans	100,000,000
Consolidated Communications (CCI)	ELAN	5 Court St Chelsea	100,000,000
Consolidated Communications (CCI)	ELAN	7 Farrell St South Burlington	100,000,000
Consolidated Communications (CCI)	ELAN	1016 US-5 Saint Johnsbury	100,000,000
Consolidated Communications (CCI)	ELAN	1002 Airport Rd Clarendon	100,000,000
Consolidated Communications (CCI)	ELAN	63 Professional Dr Morristown	100,000,000
Consolidated Communications (CCI)	ELAN	3677 US Route 2 North Hero	100,000,000
Consolidated Communications (CCI)	Direct Internet Access (DIA)	260 Woodside Dr Essex	100,000,000
Consolidated Communications (CCI)	ELAN	2559 Glen Rd Newport	100,000,000
Consolidated Communications (CCI)	ELAN	310 Main St Bennington	100,000,000
Consolidated Communications (CCI)	ELAN	260 Woodside Dr Essex	100,000,000
Consolidated Communications (CCI)	ELAN	60 Washington St Barre	100,000,000
Firstlight	ELAN	192 College St Burlington	100,000,000
Consolidated Communications (CCI)	ELAN	100 Main St Newport	100,000,000
Consolidated Communications (CCI)	ELAN	154 Main St Hyde Park	100,000,000
Firstlight	ELAN	359 S Park Dr Colchester	100,000,000
Consolidated Communications (CCI)	ELAN	35 Crawford Rd Derby	100,000,000
Firstlight	ELAN	789 Vermont National Guard Rd Colchester	100,000,000
Firstlight	ELAN	156 South Village Green Middlebury	100,000,000
Firstlight	ELAN	102 Court St Middlebury	100,000,000

SOV - Site Circuit Inventory

Provider	Type	Address	Commit Rate bps
Firstlight	ELAN	32 College St Montpelier	100,000,000
Firstlight	ELAN	2777 St George Rd Williston	100,000,000
Firstlight	ELAN	1311 US Rt 302 Berlin	100,000,000
Firstlight	ELAN	1126 Main St Saint Johnsbury	100,000,000
Firstlight	ELAN	175 Main St Burlington	100,000,000
Firstlight	ELAN	1136 VT Route 100 Readsboro	100,000,000
Firstlight	ELAN	7 Green Mountain Dr Montpelier	100,000,000
Firstlight	ELAN	111 West St Essex Junction	100,000,000
Firstlight	ELAN	94 Harvest Ln Williston	100,000,000
Firstlight	ELAN	380 Hurricane Ln Williston	100,000,000
Firstlight	ELAN	208 Hurricane Ln Williston	100,000,000
Firstlight	ELAN	67 Eastern Ave Saint Johnsbury	100,000,000
Firstlight	ELAN	1270 US-5 Saint Johnsbury	100,000,000
Firstlight	ELAN	41 Spring Tree Rd Brattleboro	100,000,000
Firstlight	ELAN	185 Main St Brattleboro	100,000,000
Firstlight	ELAN	1153 Main St Saint Johnsbury	100,000,000
Firstlight	ELAN	324 Main St Bennington	100,000,000
Firstlight	ELAN	96 Airport Rd Shaftsbury	100,000,000
Firstlight	ELAN	107 Eastern Ave Saint Johnsbury	100,000,000
Firstlight	ELAN	81 River St Montpelier	100,000,000
Firstlight	ELAN	58 E State St Montpelier	100,000,000
Firstlight	ELAN	870 US-5 Dummerston	100,000,000
Firstlight	ELAN	221 Beswick Dr Hartford	100,000,000
Firstlight	ELAN	546 State Farm Rd Windsor	100,000,000
Firstlight	ELAN	232 VT-30 Jamaica	100,000,000
Firstlight	ELAN	61 Valley Vw Mendon	100,000,000
Firstlight	ELAN	1068 US 5 Saint Johnsbury	100,000,000
Firstlight	ELAN	1197 Main St Saint Johnsbury	100,000,000
Firstlight	ELAN	578 Paine Turnpike North Berlin	100,000,000
Firstlight	ELAN	61 Depot St Hartford	100,000,000
Firstlight	ELAN	13 Green Mountain Dr Montpelier	100,000,000
Firstlight	ELAN	65 State St Montpelier	100,000,000
Firstlight	ELAN	7 Mahady Court Middlebury	100,000,000
Firstlight	ELAN	382 Hercules Dr Colchester	100,000,000
Firstlight	ELAN	83 Center St Rutland	100,000,000
Firstlight	ELAN	162 N Main St Barre	100,000,000
Firstlight	ELAN	7 Court St Newfane	100,000,000
Firstlight	ELAN	341 Creek Rd Middlebury	100,000,000
Firstlight	ELAN	84 US 4 Mendon	100,000,000
Firstlight	Direct Internet Access (DIA)	Exit 16 Interstate 89 Colchester	100,000,000
Firstlight	Direct Internet Access (DIA)	2A East Ramp Vt 289 Essex	100,000,000
Firstlight	Direct Internet Access (DIA)	16 Zephyr Rd Williston	100,000,000
Firstlight	ELAN	82 Railrd Row Hartford	100,000,000
Firstlight	Direct Internet Access (DIA)	1 Webster Rd Shelburne	100,000,000
Firstlight	Direct Internet Access (DIA)	60 Upper Main St Essex	100,000,000
Firstlight	Ethernet Private Line (EPL/ELINE)	578 Paine Turnpike North Berlin	100,000,000
Firstlight	ELAN	61 Valley Vw Mendon	100,000,000
Firstlight	ELAN	30 Putney Rd Brattleboro	100,000,000
Firstlight	ELAN	25 Evelyn St Rutland	100,000,000
Firstlight	ELAN	1 Scale Ave Rutland	100,000,000
Firstlight	Ethernet Private Line (EPL/ELINE)	45 State Dr Waterbury	100,000,000
Firstlight	Ethernet Private Line (EPL/ELINE)	45 State Dr Waterbury	100,000,000
Firstlight	ELAN	28 Vernon St Brattleboro	100,000,000
Firstlight	ELAN	255 N Main St Barre	100,000,000
Firstlight	Direct Internet Access (DIA)	Exit 10 Route 100 Waterbury	100,000,000
Firstlight	ELAN	5 Barnes Ave Colchester	100,000,000
Firstlight	ELAN	200 Veterans Memorial Dr Bennington	100,000,000
Firstlight	ELAN	207 South St Bennington	100,000,000
Firstlight	ELAN	325 North St Bennington	100,000,000
Firstlight	ELAN	230 Main St Brattleboro	100,000,000
Firstlight	ELAN	232 Main St Brattleboro	100,000,000
Firstlight	ELAN	92 State St Rutland	100,000,000
Firstlight	ELAN	100 VT Route 279 Bennington	100,000,000
Firstlight	ELAN	18 Village St Dorset	100,000,000
Firstlight	ELAN	145 State St Rutland	100,000,000
Firstlight	ELAN	271 North Main Rutland	100,000,000
Firstlight	ELAN	163 Admin Dr Randolph	100,000,000
Firstlight	ELAN	224 Holiday Dr Hartford	100,000,000
Firstlight	ELAN	374 Emerson Falls Rd Saint Johnsbury	100,000,000
Firstlight	ELAN	359 Bowen Rd Bennington	100,000,000
Firstlight	ELAN	10 Taylor St Montpelier	100,000,000
Firstlight	ELAN	101 State Pl Rutland	100,000,000

SOV - Site Circuit Inventory

Provider	Type	Address	Commit Rate bps
Firstlight	ELAN	2011 VT-107 Bethel	100,000,000
Firstlight	ELAN	219 North Main St Barre	100,000,000
Firstlight	ELAN	56 Howe St Rutland	100,000,000
Firstlight	ELAN	89 Main St Montpelier	100,000,000
Firstlight	ELAN	50 Park Pl Brattleboro	100,000,000
Comcast	Cable	678 Airport Rd Highgate	100,000,000
Firstlight	ELAN	700 Charlestown Rd Springfield	100,000,000
Firstlight	ELAN	88 Merchants Row Rutland	100,000,000
Firstlight	ELAN	3 North Park Pl Fair Haven	100,000,000
Firstlight	ELAN	140 S Main St Saint Albans	100,000,000
Firstlight	ELAN	317 Academy Rd Pittsford	100,000,000
Firstlight	ELAN	5 Perry St Barre	100,000,000
Firstlight	ELAN	Dill Building	100,000,000
Firstlight	ELAN	140 Fisher Pond Rd Saint Albans	100,000,000
Comcast	Cable	2777 St George Rd Williston	100,000,000
Firstlight	ELAN	27 Federal St Saint Albans	100,000,000
Firstlight	ELAN	36 Lake St Saint Albans	100,000,000
Firstlight	ELAN	5 Lemnah Dr Saint Albans	100,000,000
Firstlight	ELAN	347 Emerson Falls Rd Saint Johnsbury	100,000,000
Firstlight	ELAN	1323 Industrial Parkway Saint Johnsbury	100,000,000
Firstlight	ELAN	17 Church St Saint Albans	100,000,000
Firstlight	ELAN	1330 Westminster Heights Rd Westminster	100,000,000
Firstlight	ELAN	1998 Memorial Dr Saint Johnsbury	100,000,000
Firstlight	ELAN	118 Prospect St Hartford	100,000,000
Firstlight	ELAN	1713 Industrial Pkwy Lyndon	100,000,000
Firstlight	ELAN	111 Colchester Ave Burlington	100,000,000
Firstlight	ELAN	350 Fisher Rd Berlin	100,000,000
Comcast	Cable	2490 Ethan Allen Hwy New Haven	100,000,000
Consolidated Communications (CCI)	DSL	58 E State St Montpelier	60,000,000
Consolidated Communications (CCI)	DSL	36 Lake St Saint Albans	60,000,000
Comcast	Cable	1002 Airport Rd Clarendon	50,000,000
Comcast	Cable	515 Vt Route 100 N Killington	50,000,000
Consolidated Communications (CCI)	ELAN	252 Main St Hyde Park	50,000,000
VTel	ELAN	100 Mineral St Springfield	50,000,000
Consolidated Communications (CCI)	ELAN	30 Upper Village Rd Chelsea	50,000,000
Comcast	Cable	35 Crawford Rd Derby	50,000,000
Comcast	Cable	634 Point Of Pines Rd Castleton	50,000,000
Consolidated Communications (CCI)	DSL	5730 VT ROUTE 5A WESTMORE	50,000,000
Consolidated Communications (CCI)	DSL	31 Knights Pt Rd North Hero	40,000,000
Consolidated Communications (CCI)	DSL	35 Court St Middlebury	40,000,000
Comcast	Cable	1422 W CASTLETON RD CASTLETON	35,000,000
Comcast	Cable	789 Vermont National Guard Rd Colchester	35,000,000
Comcast	Cable	94 Hatchery Rd Bennington	35,000,000
Comcast	Cable	1563 Walloomsac Rd Bennington	35,000,000
Comcast	Cable	339 Lake Saint Catherine Dr Poultney	35,000,000
Comcast	Cable	3576 Lake Dunmore Rd SALISBURY	35,000,000
Comcast	Cable	3570 Lake Dunmore Rd Salisbury	35,000,000
Comcast	Cable	34 Gifford Woods Killington	35,000,000
Comcast	Cable	70 Lake Saint Catherine Dr Poultney	35,000,000
Comcast	Cable	5900 US Route 4 Mendon	35,000,000
Comcast	Cable	100 Bettis Rd Randolph	35,000,000
Comcast	Cable	135 State Garage Rd Rochester	35,000,000
Comcast	Cable	280 Seward Rd Rutland	35,000,000
Comcast	Cable	48 Salmon Hole Ln Jamaica	35,000,000
Comcast	Cable	12 Missing Link Rd Springfield	35,000,000
Comcast	Cable	12 Missing Link Rd Springfield	35,000,000
Comcast	Cable	158 Derry Woods Rd Londonderry	35,000,000
Comcast	Cable	1756 Little Pond Rd Londonderry	35,000,000
Comcast	Cable	266 Loop Rd Westfield	35,000,000
Comcast	Cable	517 Old Guilford Rd Brattleboro	35,000,000
Comcast	Cable	991 Rockingham Rd Bellows Falls	35,000,000
Comcast	Cable	1235 Broad Brook Rd Guilford	35,000,000
Comcast	Cable	5800 Woodstock Rd Hartford	35,000,000
Comcast	Cable	3985 US Route 5 Weathersfield	35,000,000
Comcast	Cable	1067 GLOVER RD BARTON	35,000,000
Comcast	Cable	275 Elm St Enosburg	35,000,000
Comcast	Cable	1424 W CASTLETON RD CASTLETON	35,000,000
Comcast	Cable	308 Lake Saint Catherine Dr Poultney	35,000,000
Comcast	Cable	460 Lake Saint Catherine Dr Poultney	35,000,000
Comcast	Cable	304 Lake Saint Catherine Dr Poultney	35,000,000
Comcast	Cable	306 Lake Saint Catherine Dr Poultney	35,000,000
Comcast	Cable	2524 INTERSTATE 89 N WILLISTON	35,000,000

SOV - Site Circuit Inventory

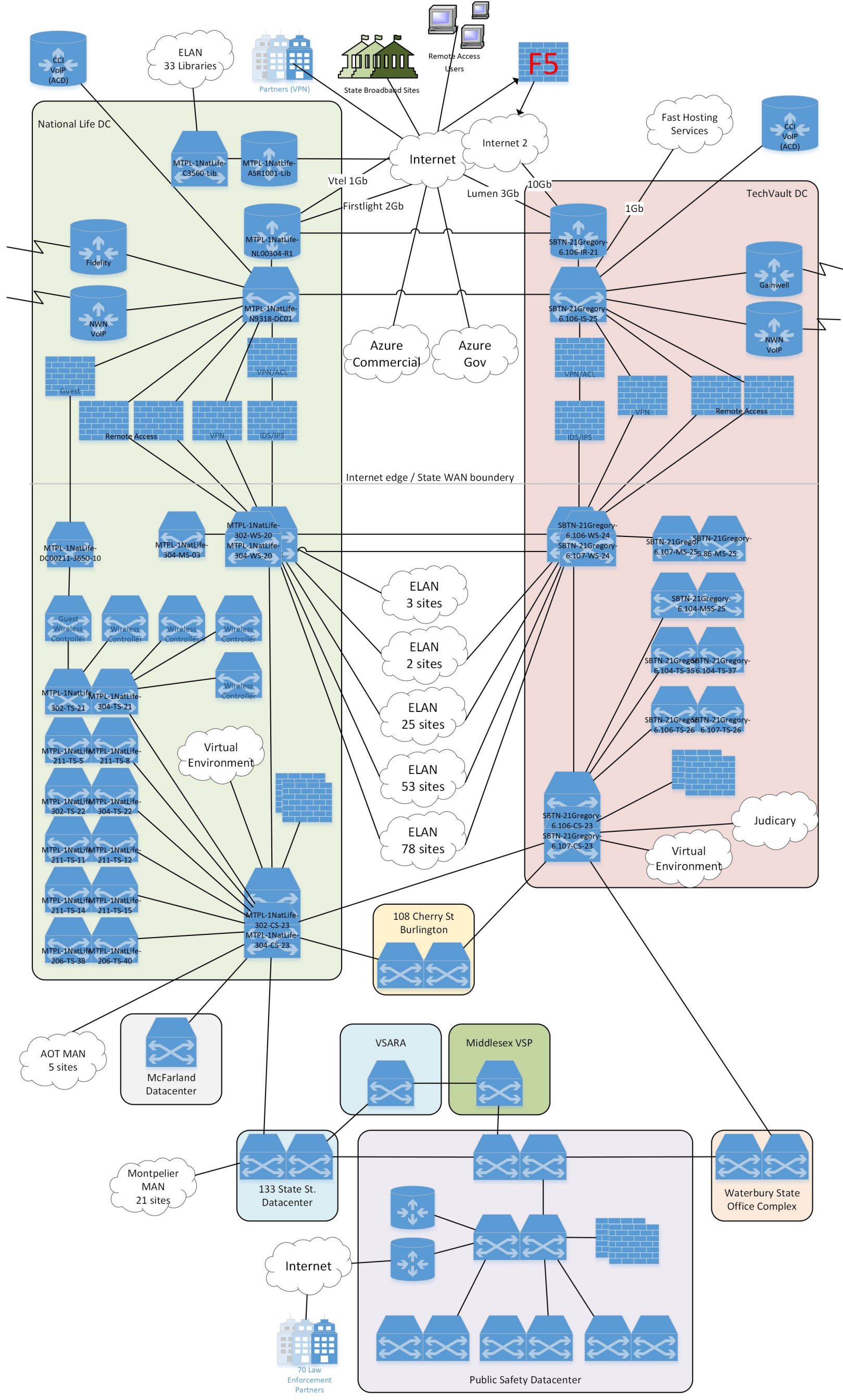
Provider	Type	Address	Commit Rate bps
Consolidated Communications (CCI)	ELAN	1 Main St Newport	30,000,000
Consolidated Communications (CCI)	ELAN	90 Prospect St Saint Johnsbury	30,000,000
Consolidated Communications (CCI)	DSL	3052 Interstate 89 S Williston	25,000,000
Comcast	Cable	1628 Route 7B Central Clarendon	25,000,000
Consolidated Communications (CCI)	DSL	214 JUSTIN MORRILL MEMORIAL HWY STRAFFORD	25,000,000
Comcast	Cable	416 Cadreact Rd Milton	25,000,000
Comcast	Cable	1628 Route 7B Central Clarendon	25,000,000
Comcast	Cable	143 VT Route 30 N Castleton	25,000,000
Comcast	Cable	1640 US Route 5 N Windsor	25,000,000
Comcast	Cable	91 Vermont Rte 100 Ludlow	25,000,000
VTel	DSL	16 Orchard Ln Springfield	25,000,000
Waitsfield Telecom	Fiber Broadband	6909 Main St Waitsfield	25,000,000
VTel	DSL	10 Airport Rd Springfield	25,000,000
Consolidated Communications (CCI)	DSL	275 Elm St Enosburg	25,000,000
Consolidated Communications (CCI)	DSL	47 Robert Wood Dr Brandon	25,000,000
Consolidated Communications (CCI)	DSL	44 Stillwater Rd Groton	25,000,000
Comcast	Cable	1628 Route 7B Central Clarendon	25,000,000
VTel	ELAN	56 Main St Springfield	25,000,000
Consolidated Communications (CCI)	DSL	646 Lake Dunmore Rd Salisbury	25,000,000
Comcast	Cable	643 Brooklyn St Morristown	25,000,000
Comcast	Cable	1876 VT ROUTE 214 EAST MONTPELIER	25,000,000
Comcast	Cable	103 South Main St Waterbury	25,000,000
Consolidated Communications (CCI)	ELAN	12 The Green Woodstock	20,000,000
Consolidated Communications (CCI)	ELAN	1501 Interstate 91 S Hartford	20,000,000
Consolidated Communications (CCI)	ELAN	58 S Main St Waterbury	20,000,000
Consolidated Communications (CCI)	DSL	49 PARK LN FERRISBURGH	20,000,000
Consolidated Communications (CCI)	ELAN	1594 Waits River Rd Bradford	20,000,000
Consolidated Communications (CCI)	DSL	2287 Boulder Beach Rd Groton	20,000,000
Consolidated Communications (CCI)	ELAN	93 Pilgrim Park Waterbury	20,000,000
Consolidated Communications (CCI)	ELAN	75 Courthouse Dr Guildhall	20,000,000
Consolidated Communications (CCI)	ELAN	4611 US Route 5 Derby	20,000,000
Consolidated Communications (CCI)	ELAN	2557 Glen Rd Newport	20,000,000
Consolidated Communications (CCI)	ELAN	680 Lower Newton Rd Saint Albans	20,000,000
Consolidated Communications (CCI)	ELAN	530 Main St Bennington	20,000,000
Consolidated Communications (CCI)	DSL	2287 Boulder Beach Rd Groton	20,000,000
Consolidated Communications (CCI)	DSL	1467 Boulder Beach Rd Groton	20,000,000
Consolidated Communications (CCI)	ELAN	188 Harvest Ln Williston	20,000,000
Consolidated Communications (CCI)	DSL	1595 Boulder Beach Rd Groton	20,000,000
Consolidated Communications (CCI)	ELAN	179 Main St Hyde Park	20,000,000
Consolidated Communications (CCI)	DSL	856 VT Route 12 Elmore	15,000,000
Consolidated Communications (CCI)	DSL	1846 Route 2 Danville	15,000,000
Consolidated Communications (CCI)	DSL	856 VT Route 12 Elmore	15,000,000
Consolidated Communications (CCI)	DSL	217 Main St Newport	15,000,000
Consolidated Communications (CCI)	DSL	249 Industrial Park Rd Newbury	15,000,000
Consolidated Communications (CCI)	DSL	65 State St Montpelier	15,000,000
Consolidated Communications (CCI)	DSL	787 Kingsland Bay State Park Rd Ferrisburgh	15,000,000
Consolidated Communications (CCI)	DSL	255 N Main St Barre	15,000,000
Consolidated Communications (CCI)	DSL	96 Bellwater Ave Barton	15,000,000
Consolidated Communications (CCI)	DSL	243 WESTSIDE LAKE RD MAIDSTONE	15,000,000
Consolidated Communications (CCI)	DSL	6673 VT Route 100 Troy	15,000,000
Consolidated Communications (CCI)	DSL	3677 US Route 2 North Hero	15,000,000
Consolidated Communications (CCI)	DSL	88 Merchants Row Rutland	15,000,000
Consolidated Communications (CCI)	DSL	88 Merchants Row Rutland	15,000,000
Consolidated Communications (CCI)	DSL	325 North St Bennington	15,000,000
Consolidated Communications (CCI)	ELAN	190 Junction Rd Berlin	10,000,000
Consolidated Communications (CCI)	ELAN	27 Fisher Pond Rd Saint Albans	10,000,000
Consolidated Communications (CCI)	ELAN	249 Industrial Park Rd Newbury	10,000,000
Consolidated Communications (CCI)	ELAN	434 US Rt 2 Waterbury	10,000,000
Consolidated Communications (CCI)	ELAN	197 Harrel St Morristown	10,000,000
Consolidated Communications (CCI)	ELAN	23 Tilton Rd Saint Johnsbury	10,000,000
Consolidated Communications (CCI)	DSL	100 VT Route 279 Bennington	10,000,000
Consolidated Communications (CCI)	ELAN	444 Airport Rd Highgate	10,000,000
Consolidated Communications (CCI)	ELAN	1953 VT-107 Royalton	10,000,000
Consolidated Communications (CCI)	DSL	364 MARVIN TAYLOR RD UNDERHILL	10,000,000
Consolidated Communications (CCI)	DSL	638 VT Route 131 Weathersfield	10,000,000
VTel	ELAN	71 Main St Springfield	10,000,000
Consolidated Communications (CCI)	DSL	82 Railrd Row Hartford	10,000,000
Consolidated Communications (CCI)	ELAN	365 Furnace St Randolph	10,000,000
Consolidated Communications (CCI)	DSL	1126 Main St Saint Johnsbury	10,000,000
Consolidated Communications (CCI)	DSL	135 State Garage Rd Rochester	10,000,000
Waitsfield Telecom	Fiber Broadband	32 Jericho Rd Richmond	10,000,000
Consolidated Communications (CCI)	ELAN	1235 VT-113 Thetford	10,000,000

SOV - Site Circuit Inventory

Provider	Type	Address	Commit Rate bps
Consolidated Communications (CCI)	ELAN	434 Hurricane Ln Williston	10,000,000
Consolidated Communications (CCI)	DSL	3576 Lake Dunmore Rd SALISBURY	10,000,000
Consolidated Communications (CCI)	DSL	367 Airport Rd Middlebury	10,000,000
Consolidated Communications (CCI)	DSL	467 Airport Rd Middlebury	10,000,000
Consolidated Communications (CCI)	ELAN	1170 US Route 2 Middlesex	10,000,000
Consolidated Communications (CCI)	ELAN	394 Hegeman Ave Colchester	10,000,000
Consolidated Communications (CCI)	DSL	4858 Maidstone Lake Rd Maidstone	10,000,000
Consolidated Communications (CCI)	DSL	162 Commonwealth Ave Hyde Park	10,000,000
Consolidated Communications (CCI)	DSL	1394 Green River Dam Rd Hyde Park	10,000,000
Consolidated Communications (CCI)	DSL	14 Fish Hatchery Rd Grand Isle	10,000,000
Consolidated Communications (CCI)	DSL	233 State Pk Rd Franklin	10,000,000
Consolidated Communications (CCI)	DSL	69 Station Rd Franklin	10,000,000
Consolidated Communications (CCI)	DSL	21 Station Rd Franklin	10,000,000
Waitsfield Telecom	Fiber Broadband	490 Main St. New Haven	10,000,000
Consolidated Communications (CCI)	ELAN	400 US Route 7 Colchester	10,000,000
Consolidated Communications (CCI)	DSL	756 Belvidere Rd Eden	10,000,000
Consolidated Communications (CCI)	DSL	856 VT Route 12 Elmore	10,000,000
Consolidated Communications (CCI)	DSL	1640 US Route 5 N Windsor	10,000,000
Consolidated Communications (CCI)	DSL	15 Monument Cir Bennington	10,000,000
Consolidated Communications (CCI)	DSL	8409 VT Route 15 Cambridge	7,000,000
Consolidated Communications (CCI)	DSL	35 Emerald Lake Ln Dorset	7,000,000
Consolidated Communications (CCI)	DSL	143 VT Route 141 Canaan	7,000,000
Consolidated Communications (CCI)	DSL	89 Main St Montpelier	7,000,000
Consolidated Communications (CCI)	DSL	5800 Interstate 89 S Georgia	7,000,000
Consolidated Communications (CCI)	DSL	110 Cherry St Burlington	7,000,000
Consolidated Communications (CCI)	DSL	460 MARSH FARM RD FRANKLIN	7,000,000
Consolidated Communications (CCI)	DSL	1076 Interstate 91 S Derby	7,000,000
Consolidated Communications (CCI)	DSL	18 Ricker Pond Rd Groton	7,000,000
Consolidated Communications (CCI)	DSL	3576 Lake Dunmore Rd SALISBURY	7,000,000
Consolidated Communications (CCI)	DSL	30 GARDEN LN BRADFORD	7,000,000
Consolidated Communications (CCI)	DSL	31 Kimball Rd Lunenburg	7,000,000
Consolidated Communications (CCI)	DSL	2107 Pudding Hill Rd Lyndon	7,000,000
Consolidated Communications (CCI)	DSL	1700 INTERSTATE 91 S LYNDON	7,000,000
Consolidated Communications (CCI)	DSL	1501 Interstate 91 S Hartford	7,000,000
Consolidated Communications (CCI)	DSL	150 S Winooski Ave Burlington	7,000,000
Consolidated Communications (CCI)	DSL	705 VT Route 9 E Wilmington	7,000,000
Consolidated Communications (CCI)	DSL	2755 State Forest Rd Townshend	7,000,000
Consolidated Communications (CCI)	DSL	33 Dunes Dr Alburgh	7,000,000
Consolidated Communications (CCI)	DSL	69 Station Rd Franklin	7,000,000
Comcast	Cable	400 US Route 7 Colchester	6,000,000
Consolidated Communications (CCI)	ELAN	424 Hegeman Ave Colchester	5,000,000
Consolidated Communications (CCI)	ELAN	153 Church St Cambridge	5,000,000
Consolidated Communications (CCI)	DSL	680 Main St Alburgh	4,000,000
Consolidated Communications (CCI)	DSL	2967 Seyon Pond Rd Groton	4,000,000
Consolidated Communications (CCI)	DSL	1636 VT Route 232 Peacham	4,000,000
Consolidated Communications (CCI)	DSL	1636 VT Route 232 Peacham	4,000,000
Consolidated Communications (CCI)	DSL	5 Green Mountain Dr Montpelier	3,000,000
Consolidated Communications (CCI)	DSL	2777 St George Rd Williston	3,000,000
Consolidated Communications (CCI)	DSL	380 Emerald Lake Ln Dorset	3,000,000
Consolidated Communications (CCI)	DSL	678 Airport Rd Highgate	3,000,000
Consolidated Communications (CCI)	DSL	61 Valley Vw Mendon	3,000,000
Consolidated Communications (CCI)	DSL	381 LAKESHORE DR BRIGHTON	3,000,000
Consolidated Communications (CCI)	DSL	156 South Village Green Middlebury	3,000,000
Consolidated Communications (CCI)	DSL	154 Main St Hyde Park	3,000,000
Consolidated Communications (CCI)	DSL		3,000,000
Consolidated Communications (CCI)	DSL	1640 US Route 5 N Windsor	3,000,000
Consolidated Communications (CCI)	DSL	96 State St Rutland	3,000,000
Consolidated Communications (CCI)	DSL	1 Abenaki Way Winooski	3,000,000
Consolidated Communications (CCI)	DSL	50 Randolph Ave Randolph	3,000,000
Consolidated Communications (CCI)	DSL	308 Lake Saint Catherine Dr Poultney	3,000,000
Consolidated Communications (CCI)	DSL	111 State St Montpelier	3,000,000
Consolidated Communications (CCI)	DSL	247 W Main St Newport	3,000,000
Consolidated Communications (CCI)	DSL	175 Main St Burlington	3,000,000
Consolidated Communications (CCI)	DSL	16 Main St Windsor	3,000,000
Consolidated Communications (CCI)	DSL	3677 US Route 2 North Hero	3,000,000
Consolidated Communications (CCI)	DSL	5 Mount Ascutney State Park Rd Windsor	3,000,000
Consolidated Communications (CCI)	DSL	2777 St George Rd Williston	3,000,000
Consolidated Communications (CCI)	DSL	63 Professional Dr Morristown	3,000,000
Consolidated Communications (CCI)	DSL	63 Professional Dr Morristown	3,000,000
Consolidated Communications (CCI)	DSL	1170 US Route 2 Middlesex	3,000,000
Consolidated Communications (CCI)	DSL	1356 Prospect St Fair Haven	3,000,000
Consolidated Communications (CCI)	DSL	4588 Chester A Arthur Rd Fairfield	3,000,000

SOV - Site Circuit Inventory

Provider	Type	Address	Commit Rate bps
Consolidated Communications (CCI)	DSL	1078 US Route 2 Middlesex	3,000,000
Consolidated Communications (CCI)	DSL	30 Bailey Meadows Rd Middlesex	3,000,000
Consolidated Communications (CCI)	DSL	149 State St Montpelier	3,000,000
Consolidated Communications (CCI)	DSL	65 State St Montpelier	3,000,000
Consolidated Communications (CCI)	DSL	1 Interstate 89 N Sharon	3,000,000
Consolidated Communications (CCI)	DSL	3396 W WOODSTOCK RD WOODSTOCK	3,000,000
Consolidated Communications (CCI)	DSL	175 Main St Burlington	3,000,000
Consolidated Communications (CCI)	DSL	274 Raymond Rd Colchester	3,000,000
Consolidated Communications (CCI)	DSL	6443 Mountain Rd Stowe	3,000,000
Consolidated Communications (CCI)	DSL	6992 MOUNTAIN RD STOWE	3,000,000
Consolidated Communications (CCI)	DSL	1229 Portland St Saint Johnsbury	3,000,000
Consolidated Communications (CCI)	DSL	1229 Portland St Saint Johnsbury	3,000,000
Consolidated Communications (CCI)	DSL	288 VT Route 114 Canaan	3,000,000
Consolidated Communications (CCI)	DSL	1302 Brand Farm Dr South Burlington	3,000,000
Consolidated Communications (CCI)	DSL	102 State Park Rd Brighton	3,000,000
Consolidated Communications (CCI)	DSL	2077 Lower Newton Rd Saint Albans	3,000,000
Consolidated Communications (CCI)	DSL	86 N Main St Saint Albans	3,000,000
Consolidated Communications (CCI)	DSL	1961 Route 106 Reading	3,000,000
Consolidated Communications (CCI)	DSL	30 Reservoir Rd Orange	3,000,000
Consolidated Communications (CCI)	DSL	28 Vernon St Brattleboro	3,000,000
Consolidated Communications (CCI)	DSL	20 Houghton St Saint Albans	3,000,000
Consolidated Communications (CCI)	DSL	177 Reservoir Rd Waterbury	3,000,000
Consolidated Communications (CCI)	DSL	5200 Interstate 89 N Georgia	3,000,000
Consolidated Communications (CCI)	DSL	133 State St Montpelier	3,000,000
Consolidated Communications (CCI)	DSL	1270 Interstate 93 N Waterford	3,000,000
Consolidated Communications (CCI)	DSL	177 Reservoir Rd Waterbury	3,000,000
Consolidated Communications (CCI)	DSL	185 Main St Brattleboro	1,500,000
Consolidated Communications (CCI)	DSL	464 Marlboro Rd Brattleboro	1,500,000
Consolidated Communications (CCI)	ELAN	1078 US Route 2 Middlesex	1,500,000
Consolidated Communications (CCI)	DSL	112 State St Montpelier	1,500,000
Consolidated Communications (CCI)	DSL	30 VT Route 65 Brookfield	1,500,000
Consolidated Communications (CCI)	DSL	4001 N Cambridge Rd Cambridge	1,500,000
Consolidated Communications (CCI)	DSL	112 S 89 Rest Access Randolph	1,500,000
Consolidated Communications (CCI)	DSL	38 Water St Orleans	1,500,000
Consolidated Communications (CCI)	DSL	67 S Windsor St Royalton	1,500,000
Consolidated Communications (CCI)	DSL	1998 Memorial Dr Saint Johnsbury	1,500,000





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Data Management/Warehousing



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Monitoring/



Security

