

SD-WAN Service Guide

This SD-WAN Service Guide (“Service Guide”) sets forth the specific terms and conditions applicable to Services described herein offered by Birch Communications, Inc., and its Affiliates (“Birch”), and is subject to, and integral part of, the Master Service Agreement between Birch and Customer. Birch reserves the right to change any of this Service Guide by posting it to the Birch website, which upon posting shall supersede all prior versions.

DEFINITIONS AND ABBREVIATIONS

Capitalized terms and abbreviations shall have meaning set forth in applicable industry standards, except as defined elsewhere in the Master Services Agreement or other part of the Agreement where they shall have the following meanings:

Acceptable Use Policy (AUP) – Terms and conditions that govern Customer’s acceptable and unacceptable use of the Services posted at <http://www.birch.com/legal/acceptable-use-policy>. The AUP is incorporated herein by reference. Company reserves the right to modify the AUP at any time, which changes shall become effective upon posting on the Birch website and shall supersede all prior versions.

Affiliate – An entity that Controls, is Controlled by, or is under common Control of Company.

Agreement – The collection of documents that govern Customer’s use and Company’s provision of the Services, and includes the Master Service Agreement, all Service Orders accepted by Company and all Service Guides governing the Services, including Service Guides governing Services other than those described in this Service Guide.

Available – Customer’s ability to access or use the Services, even on an impaired basis.

Cloud – Internet-based computing utilizing shared communications infrastructure and signaling hosted at one or more physical locations.

Company – Birch Communications, Inc. or the Affiliate providing the Service, as applicable.

Control – Means possessing at least 50% of the voting equity of an entity, either directly or through one or more subsidiaries or other Affiliates.

Customer – The Person which orders or uses the Service and is responsible for the payment of rates and charges under this Service Guide.

Disconnection – The temporary cessation of Service.

Edge Device – The Equipment located closest to the interface with Customer’s connection to the Services, as more fully described herein.

Equipment – The modem, router, and/or other equipment provided by Company for use with the Service. Unless Customer and Company specifically agree otherwise, Company owns the Equipment.

Master Service Agreement (MSA) – The framework agreement between Customer and Company that further governs the Services. If Company and Customer have not executed a MSA, then the MSA posted at the following URL shall govern: www.birch.com/legal/MSA. Company reserves the right to modify the MSA posted on its website at any time, which changes shall become effective upon posting on the Birch website and shall supersede all prior versions.

Person – An individual, corporation, limited liability company, partnership, or any other entity.

Services – The Services described in this Service Guide, also referred to herein as SD-WAN.

Service Order – A document, either electronic or in writing, on a form promulgated by Company by which Customer requests Company to provide Service.

Termination – The permanent cessation of Service.

WAN – Wide Area Network, as the term is generally used in the telecommunications industry.

1. Service Description. The Services described herein, SD-WAN (Software Defined Wide Area Network) is a software-centric network overlay designed to help optimize Customer’s network topology, minimize or eliminate network points of failure and latency issues through virtualization of the network. SD-WAN uses application-aware routing to automatically allocate traffic in Customer’s hybrid network. The Edge Device with Dynamic Multi-Path Optimization (DMPO) and deep application recognition aggregates multiple links (e.g. Fiber, Ethernet, Private-line, Cable, DSL) and steers traffic over the optimal links to other on-premises Edge Devices in branch offices, private data centers, campuses, and headquarters. The Edge Device can also optionally connect to the system of global Birch Gateways to provide performance, security and visibility for cloud services (SaaS, IaaS, B2B Internet). This system of Birch Gateways is deployed at top-tier cloud data centers to provide scalable and on-demand cloud network services. Birch shall have no responsibility for compatibility of the Services with any Customer configuration of hardware or software. All Services are subject to availability. Customer shall be solely responsible for the security of any passwords and other credentials needed or desired to access or use the Services.

The Service enables business policies to be implemented across the logical overlay to deliver abstraction of application flows from the underlying physical transport. Agility is achieved based on adjusting forwarding to meet policy and real-time link conditions. SD-WAN has a distributed control plane for forwarding decisions to be made locally with context, so there are no latency issues or points of failure across the WAN are minimized. Each SD-WAN node receives centralized control policies for programmability and visibility.

- Cloud Managed WAN with efficient provisioning.
- Intelligent Load Balancing – utilize available bandwidth of each link
- Application awareness – steer application traffic to the appropriate(s) links to support the specific application
- Business Policy Routing – build routing based on applications rather than destinations
- Brownout Detection and Remediation - Detect link degradation or destination failure and automatically steer traffic around bad connections
- Global management access
- Monitoring and Reporting – Report on application performance and monitor links for SLA performance. SLAs can be found at www.birch.com/legal/service-level-agreement
- Third party SaaS prioritization is available via Birch Cloud Connect
- UTM

Specific product functionality is dependent upon configuration. Not all capabilities and features will be available in all SD-WAN and/or network configurations. In the event of circuit failover, voice calls may be interrupted or dropped dependent upon configuration.

Third-Party Cloud Providers

Birch can optionally provide you with direct access to third party cloud providers via Birch Cloud Connect ordered separately. Birch Gateways implement Birch cloud VPN and Birch Multisource Inbound Quality of Service between global cloud services (SaaS, IaaS, network services) and each Edge Device, enabling multiple broadband and private leased lines to appear as a single, high performance WAN.

Third Party providers available vary by datacenter, but can include the following:

Amazon Web Services (AWS)
Google Cloud Platform
Microsoft Azure and Office 365
IBM Softlayer
Oracle Cloud
Rackspace
Salesforce.com

You must purchase Birch SD-WAN service to utilize Birch Cloud Connect.

Birch Unified Threat Management

Birch can optionally provide a cloud-based Unified Threat Management (UTM) service

provides network-based security, content filtering, and Virtual Private Network (VPN) without requiring dedicated internet gateways or on premise-firewalls. The specifications and performance of these UTM services are subject to the limitations of the Equipment and embedded software, as well as Company's third-party providers specifications and performance limitations.

- Firewall Policies - 24x7x365 monitoring and alert
- Centrally-defined content policies can be defined globally or on a per-location basis to maximize use of network and filter out undesired web traffic
- Antivirus/Antispyware
- Remote Office Firewall Security
- Intrusion Detection (IDS)
- Intrusion Prevention (IPS)

Service Options and Features:

Features	Basic Firewall	Premium Firewall
Firewall Policies	x	x
Static Web Filtering	x	x
VPN	x	x
Web filtering (category-based)		x
Anti-virus/anti-spyware		x
Intrusion Detection (IDS)		x
Intrusion Prevention (IPS)		x

UTM is provided on an aggregate basis across all Edge Devices ordered by Customer utilizing a single installation of a UTM. Customers must purchase Birch SD-WAN service to utilize UTM. UTM may be ordered at the following throughput speeds, measured as the aggregate bandwidth across all Edge Devices ordered by Customer utilizing a single installation of a UTM:

- 0-100Mbps
- 100-250Mbps
- 251-500Mbps
- 501-1000Mbps

Speeds above 1Gbps may be available on an individual case basis, in Birch's sole discretion.

Birch Unified Threat Management includes fifty (50) VPN simultaneous sessions.

Birch shall have no responsibility for compatibility of the Services with any Customer configuration of hardware or software. All Services are subject to availability. Customer shall be solely responsible for the security of any passwords and other credentials needed or desired to access or use the Services.

2. Fees and Service Terms. Fees for Services shall be as set forth on the applicable Service Order. Upgrading or downgrading Services is subject to Birch's approval, in Birch's sole and absolute discretion. Services are available for Service Terms of 12 Months, 24 Months, or 36 Months. The Service Term shall be as set forth on the applicable Service Order. Upon expiration of a Service Term, the Service shall continue on a month-to-month basis until one Party provides the other Party written notice of termination, which shall be at least 30 days before the end of the termination date.

3. Customer Requirements. SD-WAN requires a minimum of one internet connection. SD-WAN Throughput Bandwidth is defined as the total throughput at an Edge Device per customer location. This summation includes all circuits including both upload and download utilization.

By way of example:

- 50 Mbps symmetrical Ethernet DIA circuit. Total Throughput = 50 Mbps download + 50 Mbps upload = 100 Mbps Throughput.
- 7 Mbps/1 Mbps asymmetrical DIA Circuit. Total Throughput = 7 Mbps download + 1 Mbps upload = 8 Mbps Throughput.
- 50 Mbps symmetrical Ethernet DIA circuit and 7 Mbps/1 Mbps asymmetrical DIA Circuit at the same location. The total Bandwidth would be 100Mbps + 8Mbps = 108Mbps. This would mean you would need the 200 Mbps Bandwidth option.

Maximum number of tunnels is determined by Edge Device and may not be exceeded. If Customer's desired configuration exceeds Edge Device limits, Customer may be required to upgrade SD-WAN Tiers.

4. Use of Service and Equipment. You agree to abide by any terms of use for the Service published by Birch, as amended from time to time by Birch's posting on its website. You may install and use the Equipment solely for the purposes of accessing and using the Service during the subscription period purchased by you. You agree not to disable or defeat any capacity-limiting feature of the Equipment, or otherwise use the Equipment at a greater capacity rate than the rate for which you have subscribed. You agree not to use the Equipment with any unsupported hardware or software (as described in the applicable documentation provided by Birch); or use the Service other than as described in the documentation provided therewith; or use the Service for any unlawful purpose.

THE SERVICE IS NOT DESIGNED, INTENDED, AUTHORIZED, OR WARRANTED FOR USE OR INCLUSION IN LIFE SUPPORT, NOR IN LIFE ENDANGERING APPLICATIONS

WHERE FAILURE OR INACCURACY MIGHT CAUSE DEATH OR PERSONAL INJURY; ANY SUCH USE OR INCLUSION BY YOU IS FULLY AT CUSTOMER'S OWN RISK, AND YOU SHALL INDEMNIFY AND HOLD US AND OUR SUPPLIERS HARMLESS FROM ALL RESULTING OR RELATED COSTS, LOSS, LIABILITY, AND EXPENSE (INCLUDING WITHOUT LIMITATION COURT AND REASONABLE ATTORNEY'S FEES).

5. Birch's Audit Rights; Use of Data. You grant us the right to audit Customer's use of the Service to confirm compliance with this Agreement and other agreements you have with Birch. You acknowledge and agree that Birch may use, on an aggregated, non-individually-identifiable basis, all information regarding networking characteristics, usage, performance and related data involved in the use of the Service.

6. Proprietary Rights. Except as explicitly set forth in this Agreement, you do not acquire any rights in or license to any component of the Service or any Birch intellectual property rights. You shall not, and shall not encourage any third party to: (a) modify, adapt, alter, disassemble, reverse-engineer, decompile, disassemble, or attempt to derive the source code for the Service (including the Equipment), except to the extent that such activities are required to be permitted under applicable law; or (b) remove, alter, or obscure in any way the proprietary rights notices (including copyright, patent, and trademark notices and symbols) of Birch or its suppliers affixed or contained on or within any Equipment. Without limiting the foregoing, any software provided to you or made available for Customer's use ("Software") is licensed only, is subject to any license agreement provided therewith, and Birch retains title in all copies of the Software, and you do not obtain title to, or ownership of, any intellectual property rights in the Software or any copies thereof. Birch reserves all rights not expressly granted by this Agreement.

7. Limited Warranty. Birch warrants to you that the Equipment shall be free from defects in material and workmanship (the "Exclusive Warranty") during Customer's subscription of the Birch SD-WAN Service. With respect to the Equipment, the Exclusive Warranty shall apply only to the extent it has been installed, used and maintained in the conditions specified by Birch or, in absence thereof, at least in conditions consistent with generally accepted practices for this type of product; and not been subject to any unauthorized modification or repair or attempts thereto; and not been connected to or used in combination with other incompatible equipment or systems.

If any Equipment fails to meet the Exclusive Warranty, then upon Customer's written request and pursuant to any warranty procedure published by Birch, Birch shall, at Birch's sole option and expense, promptly either repair or replace the Equipment in question. The remedies specified in this Section shall constitute Customer's sole and exclusive remedy and Birch's sole and exclusive liability for Equipment and Birch's breach of this Limited Warranty hereunder.

Birch makes no other warranties or representations, express or implied, and Birch expressly excludes and disclaim any and all warranties which may be implied or otherwise created by operation of law including without limitation all implied warranties of uninterrupted or error-

free use or operation, and merchantability, non-infringement and fitness for a particular purpose.

8. Service Level Agreement. As Customer's exclusive remedies, and Birch's exclusive liability, for any performance issue affecting the Services, you shall be entitled to the credits under the Service Level found at <http://www.birch.com/legal/service-level-agreement>.

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