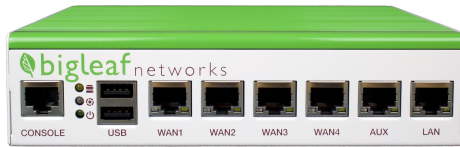BLR-107 and BLR-111

Customer Premise Equipment (CPE) Routers

Overview

Bigleaf Cloud-first SD-WAN is the next generation of Internet optimization – based on the natural redundancy found in leaf veins. The Bigleaf platform is distributed across the Bigleaf CPE Router, and Bigleaf Gateway Clusters in the core of the Internet, providing end-to-end visibility and control.

Features

SAME-IP FAILOVER

• BGP-like dedicated public IP address block(s) provided from the Bigleaf CPE LAN interface for seamless failover of inbound and outbound traffic.
• All application sessions maintained through consistent IP addressing and fast failover.
• Physical redundancy across geographically diverse Bigleaf Gateway Cluster datacenters, maintaining consistent IP addressing.

INTELLIGENT LOAD BALANCING

• 10x per second asymmetric/unidirectional ISP circuit health monitoring.
• Automatic session-based load-balancing for optimal circuit usage efficiency and application health, based on 4 application need algorithms:
       o Real-Time
       o Interactive
       o Bulk Data
       o High-Load Bulk Data (download only)
• Mid-session Same-IP re-routing for all applications based on real-time path health and application need
• Sensitivity down to 0.3% packet loss, 15ms latency increase, and 20ms jitter
• Automatic traffic identification, works without configuration for almost all customer use cases. Custom configurations available when needed.
• Advanced configuration option enabling granular selection of load-balancing, backup-only, or blocking, based on traffic class.

DYNAMIC QoS

• Application traffic automatically identified and grouped into 6 classes:
  o VoIP
  o Hi-priority Interactive
  o Med-priority Interactive
  o Low-priority Interactive
  o Bulk Transfers
  o Default
• Algorithmic identification of ISP circuit clean capacity in real-time for true Internet-wide QoS.
• Dedicated Gateway Cluster routing of all customer traffic for 100% control of prioritization, even with bursty download TCP or large UDP flows.
• Automatic traffic classification, works without configuration for almost all customer use cases. Per-site custom rules available when needed.

PLUG-AND-PLAY INSTALL

• CPE Router arrives pre-configured and tested for a seamless zero-config install experience.
• Simple IP address swap on existing firewall WAN interface completes the install and doesn't require breaching the existing LAN security perimeter.
• Bigleaf support available 24/7/365 to assist as needed
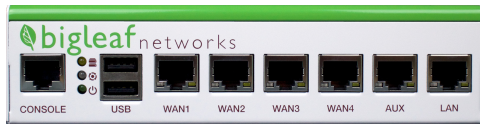
Centralized Visibility and Reporting

The Bigleaf Web Dashboard provides centralized visibility and alerting. Detailed data is provided on ISP circuit quality, bandwidth utilization, and more. Email alerts provide real-time notification of up/down status and health issues.
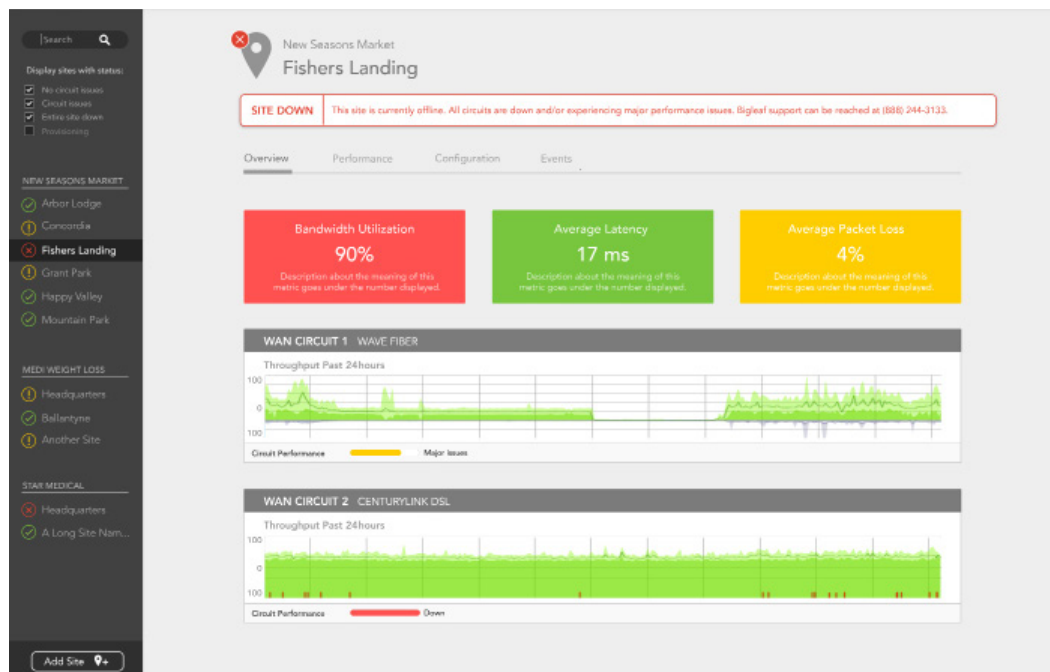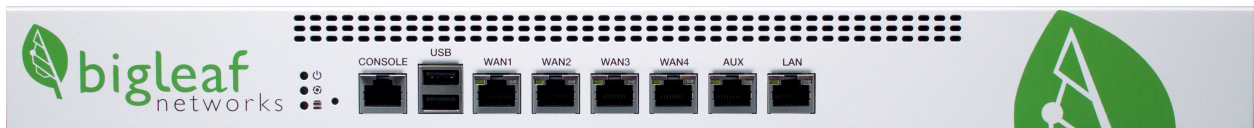
CPE Router Hardware
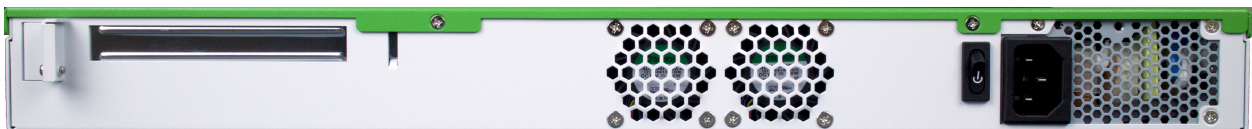
BLR-107

Front

Back

BLR-111

Front

Back

Specifications

	BLR-107	BLR-111	High-Availability (HA) Upgrade [1]
GENERAL			
Throughput [2]	100 Mbps / 100 Mbps	1 Gbps / 1 Gbps	
MTU [3]	1459 bytes		
ISP WAN ports [4]	4 x GbE RJ45		
LAN ports to Customer Firewall [5]	1 x GbE RJ45		8 x GbE RJ45 [6]
Multi-Use Fiber ports	--	--	4 x GbE SFP [7]
CPU Platform	Intel Atom	Intel Core	
HARDWARE REDUNDANCY			
Next Business Day Hardware Replacement	Yes		
Warm Spare option with 2nd unit for cable-swap redundancy	Upgrade Option		--
HA option, including switches with LACP support	Upgrade Option	Upgrade Option	Yes
PHYSICAL			
Mounting Options	1U rack, or wall	1U rack	1U rack (each switch)
Dimensions (W x D x H) [8]	7" x 5.8" x 1.75"	17" x 12" x 1.75"	10.6" x 9" x 1.75" (each switch)
Power Input	100-240V 50/60Hz AC		
Power Draw	35W	150W	30W (each switch)
Fanless	Yes	No	Yes
Operating Environment	0°-40° C temperature, 5%-90% humidity, non-condensing		
Compliance	FCC, CE, ROHS		

1. Adds 2 Bigleaf-provided switches to the deployment for integration of all devices and connections with no single point of failure
2. Typical Internet usage patterns and packet sizes
3. Bigleaf system will set TCP MSS appropriately and transparently fragment UDP, IPSEC, and other non-TCP packets, so no user equipment changes are generally needed. Stated size is for Bigleaf standard unencrypted tunnels.
4. AUX port may be enabled as 5th WAN in a future software release
5. AUX port will be enabled as 2nd LAN in a future software release
6. Typical install uses 4 ports for LACP to 2 customer firewalls, or 2 ports with no LACP to 2 customer firewalls. The remaining ports are available for other equipment, such as additional firewalls or VoIP IADs
7. Can be used for multi-building or multi-room HA setups, WAN port connects, or LAN connections to customer equipment
8. Not including rack ears or cabling