Rajant SLP–1025

Supercharge your APT Connections

The Rajant SLP–1025 is a BreadCrumb® node that enables ultra-high throughput connections between your wired network and your Kinetic Mesh® network. When installed on your wired network, it assumes responsibility for bridging the wired network to any other BreadCrumbs on the same Ethernet segment. It performs any required encryption or decryption to ensure secure and fast delivery of data, voice, and video traffic. Working in concert with other BreadCrumb nodes via Rajant's proprietary Automatic Protocol Tunneling (APT) functionality, the SLP–1025 allows network operators to establish multiple Layer 2 connection points between the wired LAN and Kinetic Mesh networks to increase capacity while eliminating single points of failure. **Rajant SLP–1025** offers more capability with reduced SWaP.

SLP–1025 Key Features

- **2x 10GbE** and **4x 2.5GbE Ports** to handle large data transfer and high throughput
- **Powerful** CPU devoted to Kinetic Mesh encapsulation and decapsulation
- **Seamless** integration with current BreadCrumb models, and backward compatibility with prior BreadCrumb nodes
- **Fast** and reliable ingress and egress for data, voice, and video
- **Support** for several strong cryptographic options used for data and MAC address encryption, as well as per-hop, per-packet authentication (list of options on page 2)
- **InstaMesh®** networking software, enabling the network to quickly adapt to rapidly-deployed and quickly – or constantly – moving network elements
- **Self-configuring** operation for fast and easy deployments
- **Compatible** with Rajant's BC|Commander network management software and BC|Enterprise monitoring tool
- **Reduced SWaP** from Needletail
- **Designed** for indoor installations

Utilizing the Rajant SLP–1025 to Your Advantage

Whether you are deploying a new wireless mesh network or expanding the capabilities of your existing mesh network, SLP–1025 nodes can greatly increase throughput and eliminate potential ingress/egress bottlenecks.

In many scenarios, video can tax connections between wired and Kinetic Mesh networks as the number of video sources and viewers increases. Rajant's SLP–1025 nodes can significantly accelerate the flow of this data across the LAN/mesh boundary, providing network operators with greater flexibility to construct or expand a wireless network that meets a wide range of high-capacity requirements and integrates with your existing wired infrastructure.

The SLP–1025 is a versatile product that can easily be utilized in rail, ports, mining, construction, airports, oil and gas, utilities, solar, wind, and warehousing environments.

With very high throughput, the SLP–1025 reduces the overhead needed to manage equipment while providing network operators greater flexibility to construct or expand a wireless network that meets a wide range of high-capacity requirements.

InstaMesh®

InstaMesh is the advanced, patented[1] protocol developed by Rajant that directs the continuous and instantaneous forwarding of packets from wireless and wired connections. It enables complete network mobility, high throughput, and low latency with very low maintenance and administrative requirements. Operating at Layer 2 and not requiring a root node or LAN Controller, InstaMesh provides robust fault tolerance even if there is a connection or node outage. No matter how you configure your network, InstaMesh networking software always determines the most efficient pathway between any two points, even when those points are in motion.

[1] U.S. Patent 9,001,645

Model	Part Number	Description
SLP–1025	23-100268-001	SLP–1025 appliance for high performance APT routing between wired LAN and BreadCrumb networks. Offers four 2.5 GbE and two 10 GbE Ethernet interfaces.

Network & Security

Network Functionality	VLAN and QoS support; Bridge; Gateway; DHCP; NAT and Port Forwarding; Automatic Protocol Tunneling (APT)
Security	• Multiple cryptographic options, including NSA Suite B algorithms (implementation not certified); for information on models with full Suite B certification, contact Rajant or your authorized Rajant partner • Separately configurable data and MAC address encryption via AES256-GCM, AES192-GCM, AES128-GCM, AES256-CTR, AES192-CTR, AES128-CTR, XSalsa20, XSalsa20/12, and XSalsa20/8 • Configurable per-hop, per-packet authentication between BreadCrumbs via AES256-GMAC, AES192-GMAC, AES128-GMAC, HMAC-SHA512, HMAC-SHA384, HMAC-SHA256, HMAC-SHA224, HMAC-SHA1, and Poly-1305-AES

Power

Input Voltage and Current	12VDC @ 10A 120W
Power Supply	120W Power Supply with barrel connector, US/CA Power Cable (Other regional power cables available)

Input/Output

Ethernet	2x 10GbE SFP+ with copper adapters, 4x 2.5 GbE Copper
USB	Rear: 3x USB 2.0 Type-A, 1x USB 3.2 Gen 2 Type-A, 1x USB 3.2 Gen 2 Type-C
Push Button	Rear: Power Button Front: Reset Button, Momentary Switch, Front recessed
Power	12V DC threaded barrel connector for the 120W external power supply. Positive rail is the tip, negative is sleeve.
LEDs	Rear 1x Power and 1x HDD activity, Front 6x Ethernet port Link and Activity.

Physical	
Dimensions	7.5 x 7 x 3 in (191 x 178 x 76 mm)
Weight	Unit: 2.3 kg (5lb) Shipping Weight: 2.6 kg (5lbs 13oz)
Temperature	Ambient (operating): -10 °C to +50 °C (-14 °F to 122 °F)
Operating Humidity	0 – 95% relative, non-condensing
Enclosure	Aluminum, Gray, finned heat sync, indoor use only
Certification	UL (Power Supply), FCC Part 15 Class B, CE, RoHS
Warranty	90 days
Includes	Power supply and US power cord Mounting Hardware
Chassis Mounting	VESA bracket with hardware
COO	Made in China, Assembled in US/Canada/Germany

NOTE: This is a PRELIMINARY spec sheet due to pending test results.

20+ OF GAME-CHANGING WIRELESS

RAJANT
INTELLIGENT EDGE
Enabling Industrial AI