RAY
Secure Networking

Edge-Atom

Edge Gateway

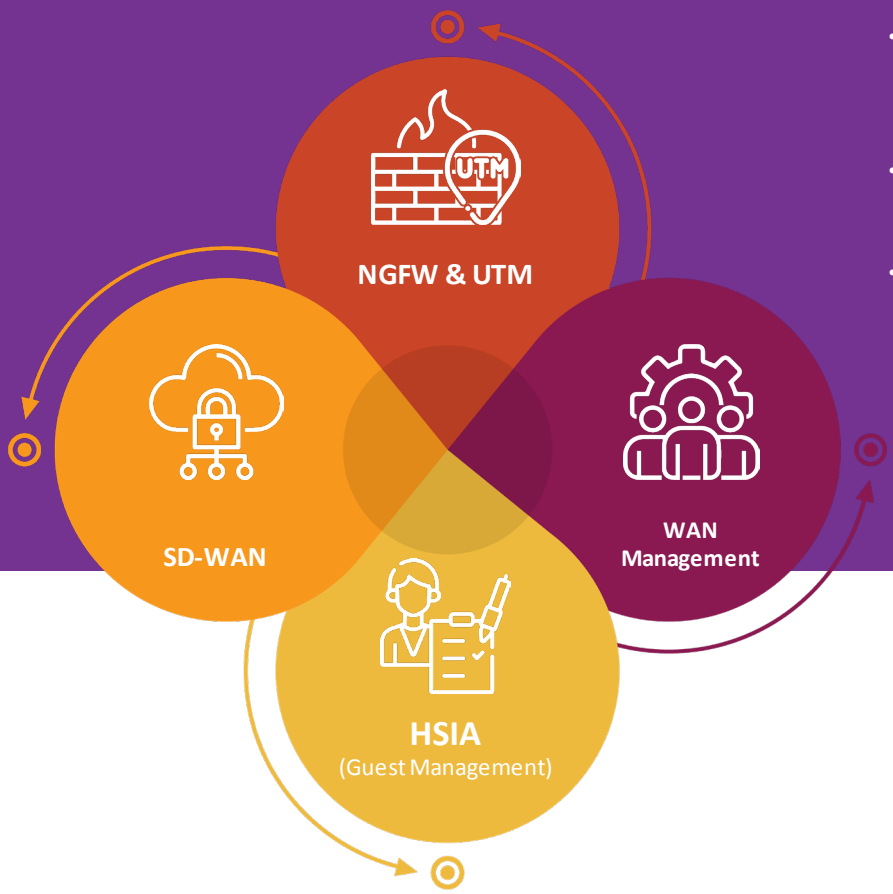
For Small Branches

Edge-Atom

- FinTech , ATMs , Utilities

RAY ONE

Ray One is a Next Generation Solution for the challenges of today.



- Ray combines the features of multiple specialty product lines into One single EDGE Product line.
- Edge is offered in both Physical Appliance and Virtual format.
- Edge is managed from the same Ray Platform that manages the Ray Switch, Ray Wi-Fi and Ray Endpoint making the management fabric very simple.

Overview

Ray's cutting-edge convergence solution effortlessly scales to any location, whether it's a remote office, branch, campus, data center, or cloud environment. Our innovative hybrid mesh firewall system is expertly managed through Ray Unified Management, ensuring seamless security across intricate hybrid infrastructures. Powered by the Ray One, our solution offers unparalleled visibility and security in multiple form factors.

Ray's Secure SD-WAN solution delivers exceptional speed, scalability, and adaptability both on-premises and in the cloud. Designed with cloud-first, security-conscious, and global enterprises in mind, Ray Secure SD-WAN also caters to the evolving needs of hybrid workforces. Our Integrated Networking approach employs a single operating system, Streamlining SD-WAN, Next-generation Firewall (NGFW), and advanced routing gateway capabilities

Seamlessly Merging Security and Networking

With the rise of cloud computing and hybrid work, organizations require anywhere, anytime access from any device. Traditional network architectures struggle to support this shift, causing poor user experiences and administrative complexities.

Ray's innovative Unified SASE Platform addresses these challenges by combining a wide range of networking and security capabilities into one streamlined platform. Ray One features a unified console, cohesive policy management, and a shared data lake. Our application-aware, traffic-engineered fabric simplifies design, deployment, and life cycle management for the modern digital landscape.

For More Refer our White paper on SD-WAN.

Features

Acceleration
Architecture for improved performance, greater ROI, and reduced power onsumption.

Secure SD-WAN
Optimize performance for SaaS, SD-WAN, and cloud traffic With Ray One.

One Console to Manage It All
Ray One provides a single cloud management console for all your Ray Product line.

Reporting in the Cloud
Flexible reporting tools for analyzing and visualizing network data over time.

Isolate Infected Systems
Automatic threat response to identify and isolate compromised systems on your network.

Zero-Day and ML Protection
Instantly identify the latest ransomware and unknown threats with machine learning technology.

Advanced Threat Protection
Instantly identify bots and other advanced threats while defending your network.

User Identity
User identity-based policies and unique user risk analysis for better network control.

Application Control
Complete visibility and control over all applications on your network with deep-packet scanning technology.

Web Control
Full visibility and control over web traffic with flexible enforcement tools.

Content Control
User-based monitoring and control of keyword content and downloadable content.

Business Applications
Protect critical applications with next-gen firewall and an enterprise-class web application firewall.

Phising & Spam
Protect email from spam, phishing, and data loss with policy-based email encryption, DLP, and anti-spam.

Central Management
Powerful centralized management, reporting, and zero-touch deployment for all your Ray Product line.

Central SD-WAN Orchestration
Easily set up complex site-to-site SD-WAN overlay networks.

Central Firewall Reporting
Create custom views of network activity and threats across your entire network.

Dashboard and Alerts
Respond quickly to changes in your network with a control center that analyzes extensive back-end data sources.

Reporting
Extensive, free on-box reporting and limited cloud-based reporting at no extra charge.

High Availability
Support

Secure SD-WAN Use Cases

Achieve Operational Efficiencies

Automate network design, deployment, and operation with a single pane of glass for comprehensive visibility, analytics, reporting, and orchestration.

Connecting Remote Workers

Offer remote or hybrid users client-based or clientless options for always-on connections to workloads in private or public clouds, with gateways based on proximity, load, and real-time variables.

Connecting Branch Offices

Empower branch or corporate offices with Ray Secure SD-WAN devices or third-party SD-WAN, routers, or firewalls for seamless access to workloads in private or public clouds and interoffice connections. Utilize Ray SD-WAN as an on-ramp for end-to-end observability and control over user/device-to-app performance and security.

Ray AI Powered Security Services

Antispam

Significantly reduce spam at the perimeter with a multi-layered approach to filtering email.

Central SD-WAN Orchestration

Enjoy easy setup of complex site-to-site SD-WAN overlay networks with Ray's cloud-managed SD-WAN orchestration.

Secure VPN client

Ray One integrates with VPN client to provide a secure and straightforward way for users to access crucial applications and data.

Ray Edge Gateway

Experience the Ray Edge Gateway for an affordable, secure edge access device suitable for SD-Branch, SOHO, and industrial control solutions.

Core Networking

Utilize the most advanced enterprise-grade networking technology available for NAT, routing, and bridging with Firewall.

Ray HSIA

Complete control of User Wi-fi

You can easily create customized free and paid tiers that suit your hotel's unique requirements and seamlessly integrate with your own custom systems through its API. Providing guests with instant and customized connectivity has never been easier with the one-touch account slip printer that interfaces with Property Management Systems for hassle-free billing without staff intervention. Extremely helpful in hospitality use cases

Ray Customised Log-IN options

Ray HSIA is a one-stop gateway solution for schools and universities, providing optimized bandwidth and content filtering for multimedia classrooms and on-campus roaming, offices, dormitories, and hostels. With multiple authentication methods such as LDAP, SMS OTP, and many more, student logins are seamless and secure. The dual WAN link load-balancing and multi-tier QoS, including a guaranteed bandwidth option, ensures top performance during critical periods. User form authentication and lawful intercept provide added security and compliance with contact tracing requirements.

NGFW Use Cases

Enterprise

Equip your demanding network with enterprise-grade protection, performance, visibility, and SD-WAN features tailored for the modern business landscape.

Cloud

Safeguard public cloud infrastructure or hybrid networks with a robust cloud firewall solution designed for diverse network environments.

All-in-One

Simplify and consolidate protection for small offices with an affordable, comprehensive security solution that delivers the best value and protection.

Retail and Branch

Address the unique challenges of retail and distributed organizations with branch offices for seamless, secure connectivity.

Schools

Cater to the specific requirements of educational institutions with RAY One’s compliance and protection features designed for a safe learning environment.

Ray Multi Wan

Load Balancing

Experience seamless connectivity with Ray Multi-WAN's Load Balancing feature. It intelligently distributes network traffic across multiple paths, ensuring optimal internet performance and resilience against any single point of failure. With load balancing, you can make the most of your bandwidth, optimizing resource utilization and enhancing your online experiences.

Complete control of User Wi-fi

With Ray Multi Wan Traffic Steering, an advanced network feature that offers unparalleled control over the flow of various types of traffic within your network. Whether it's video streams, ERP sessions, HTTP sessions, or other types of traffic, you can easily prioritize or limit the bandwidth of each one to ensure optimal network performance. With Ray Multi-WTraffic Steering, you can tailor your network to suit your specific needs and deliver an exceptional user experience. Say goodbye to network congestion and hello to a more efficient and streamlined network.

Bandwidth Policy Management

Introducing Bandwidth Management , an innovative feature that offers instant access to improvised WAN connections anytime and anywhere. With this feature you can stay connected on the go without any limitations or restrictions. Whether you're traveling to a new city or working remotely, Ray Multi-WAN has got you covered with a tailored solution that meets your unique needs. Experience the freedom of seamless connectivity.

RAY ONE

Edge-Atom

- 5 x 1G RJ45 Ports
- 1 x USB Port
- Wi-Fi 6, 2x2 MIMO
- 2 x SIM Slots (Optional)

CORE COMPONENTS

Services
- RAY Essential
- RAY Premium

Products
- Edge Gateway
- Switch
- Wi-Fi
- Sase

Centralized Management
- Orchestration
- Integration
- Automation

Security driven Networking
- SD-Wan
- Firewall
- HSIA
- Multiwan

Ray OS
- Linux Networking
- Multiple Interfaces
- Hardware

- Appliance
- Virtual

Specifications

Specifictaions	Edge-Atom
Recommended Deployment	Desktop
Medium/ Large Branch	Small
Dimensions	
Height x Width x Length (mm)	42 x 245 x 160 mm
Weight	1.24 kg
Form Factor	Desktop
Enclosure Material	Metal
Hardware Specifications	
1G Ports	5
1G SFP Ports	N/A
10G SFP Ports	N/A
Other Ports	
USB	1 x USB 3.0
COM	N/A
SIM Slots	2 (Active-Active)
Wireless Specification	
Wi-Fi Standard	Wi-Fi 6
Antenna	8 x External Antenna
Cellular	4G/5G
Wi-Fi Throughput	300 Mbps
System Performance	
Routing	1200 Mbps
IPSec VPN Throughput	315 Mbps
IPS Throughput	200 Mbps
NGFW Throughput	250 Mbps
Concurrent Sessions	50,000
New Sessions/Sec	2,000

Environmental	
Temperature	0°C to 50°C
Humidity	10% to 90% (Non-condensing)
Nonoperating/Storage temperature	-40°C to 70°C
Nonoperating/Storage relative humidity	10% to 90% noncondensing
Power	
Input	12V DC
Box Content	
	1 x Atom Hardware, 1 x Ethernet cable, 1 x Power Adapter, 1 x SIM Card Adapter

4G Specifications	
LTE FDD	Band 1 - 2100 MHz; Band 3 - 1800 MHz; Band 5 - 850 MHz; Band 8 - 900 MHz
LTE TDD	Bands 34, 38, 39, 40 and 41
WCDMA / 3G	Bands 1, 5 and 8
GSM / 2G	900 MHz and 1800 MHz
SIM Slots	(2 x Nano)
IPv4 Support	Yes
IPv6 Support	Yes
Data Rate (Max.)	Upload / Download up to 20 Mbps

5G Specifications	
5G NR - NSA	n1/n2/n3/n5/n7/n8/n12/n13/n14/n20/n25/n26/n28/n29/n30/n38/n40/n41/n48/n66/n71/n75/n76/n77/n78/n79
5G NR - SA	n1/n2/n3/n5/n7/n8/n12/n13/n14/n20/n25/n26/n28/n29/n30/n38/n40/n41/n48/n66/n71/n75/n76/n77/n78/n79
LTE-FDD	B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71
LTE-TDD	B34/B38/B39/B40/B41/B42/B43/B48
LAA	B46 (only support 2 x 2 MIMO)
WCDMA	B1/B2/B4/B5/B8/B19
SIM Slots	(2 x Nano)
IPv4 Support	Yes
IPv6 Support	Yes
GNSS Support	GPS/GLONASS/BeiDou (Compass)/Galileo
Data Rate (Max.)	Upload / Download up to 1 Gbps (* Subject to 5G Network)

Specifications

Routing & Network Services	
IPv4 / IPv6 Routing	Dual Stack Routing, Static Routing, OSPFv2/v3, BGP4+
Traffic Engineering	Policy Based Routing (PBR), VRF Multi-Tenant Segmentation
High Availability	VRRP High Availability
LAN Services	IEEE 802.1Q VLAN (4K VLANs), LACP Link Aggregation
Multicast	PIM-SM/DM Routing, IGMP / MLD Snooping

WAN & Multi-WAN	
WAN Interfaces	Ethernet / SFP / 4G / 5G WAN (Model Dependent)
WAN Protocols	Static IP, DHCP, PPPoE
Cellular Services	APN Selection, SIM Failover, USB Modem Backup
Load Balancing	Weighted, Priority and Session Based Load Balancing
Link Reliability	Automatic Failover/Failback, Packet Duplication, FEC

Secure Connectivity	
VPN	IPSec VPN, WireGuard VPN
Tunneling	GRE / EoGRE, L2TP / PPTP, MPLS CE Support
Network Services	NAT, DHCP Server/Relay, DNS Forwarder, NTP Services

Native Secure SD-WAN	
Topology	Hub-Spoke, Full Mesh and Hybrid
Routing Intelligence	Application Aware Routing, Dynamic Path Selection
Monitoring	Latency, Jitter, Loss Monitoring, Brownout Detection
Optimization	Ray Link Bonding, Packet/Session Multipath
Encryption	AES-256, ChaCha20-Poly1305

Next Generation Firewall & Security	
Firewall	Stateful Firewall, Application Identification & Control
Web Security	URL Filtering, DNS Filtering
Protection	DoS/DDoS Protection, Zero-Day Protection
Segmentation	Trust Zone Based Security Policies

Identity & Management	
Authentication	802.1X, RADIUS, LDAP, Microsoft AD, OAuth
Policy Control	MAC/IP/User Based Policy Mapping
Administration	AAA Server, RBAC Multi-Admin Control
Management	Ray ONE Cloud / On-Prem Controller
Monitoring	SNMP v1/v2/v3, NetFlow/IPFIX, CLI, SSH

Certifications	
Product Compliance	TEC/MTCTE (Applicable Models)
Company Certifications	ISO 9001:2015, ISO 14001:2015, ISO 20000-1:2018, ISO 27001:2022, ISO 27017:2015, ISO 27018:2014

SUBSCRIPTIONS

ESSENTIAL	CONNECT	TOTAL
Cloud Subscription	Cloud Subscription	Cloud Subscription
L3 Networking	L3 Networking	L3 Networking
VPN	VPN	VPN
Advance Wireless	Advance Wireless	Advance Wireless
RRM	RRM	RRM
	Multi WAN	Multi WAN
	SD-WAN	SD-WAN
		Network & Web Protection
		Captive Portal/Guest Authentication
		Analytics (7 Days)
Essential Software Support (8*5)	Essential Software Support (8*5)	Essential Software Support (8*5)
12 Months (Renewal Required)	12 Months (Renewal Required)	12 Months (Renewal Required)
36 Months (Renewal Required)	36 Months (Renewal Required)	36 Months (Renewal Required)
60 Months (Lifetime Essential)	60 Months (Lifetime Essential)	60 Months (Lifetime Essential)

Ray Edge Atom Hardware

Product Name	Description
Ray Edge Atom (Non-Cellular) [REEGCC0N403]	› Ray Edge Atom Hardware Appliance › Form Factor - Desktop › 5 x 1G (WAN/LAN), 1 x USB 3.0 › 2 x 2 MIMO › Wi-Fi 6, 300 Mbps
Ray Edge Atom v3 (Single 4G) [REEGCC0N404]	› Ray Edge Atom Hardware Appliance › Form Factor - Desktop › 5 x 1G (WAN/LAN), 1 x USB 3.0 › 2 x 2 MIMO › Wi-Fi 6, 300 Mbps › 1 x 4G Cellular
Ray Edge Atom v3 (Dual 4G) [REEGCC0N383]	› Ray Edge Atom Hardware Appliance › Form Factor - Desktop › 5 x 1G (WAN/LAN), 1 x USB 3.0 › 2 x 2 MIMO › Wi-Fi 6, 300 Mbps › 2 x 4G Cellular (Active-Active)
Ray Edge Atom v3 (Dual 5G) [REEGCC0N397]	› Ray Edge Atom Hardware Appliance › Form Factor - Desktop › 5 x 1G (WAN/LAN), 1 x USB 3.0 › 2 x 2 MIMO › Wi-Fi 6, 300 Mbps › 2 x 5G Cellular (Active-Active)

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