CLOUDGENIX

DATASHEET

Instant-On Network (ION) Device Family

The CloudGenix Instant-On Network (ION) family of hardware and software devices enable integration of heterogeneous WAN links, confident integration of the cloud, improved application performance and visibility, and reduce overall cost and complexity of your WAN.

Business Challenges

Two fundamental shifts have occurred in the past decade which have changed the way applications are deployed and managed: cloud computing and the availability of low-cost, high performance Internet connections. I/T organizations have deployed robust MPLS private WANs to provide secure connectivity from remote offices to a small set of data centers where applications were hosted. This legacy architecture presents a series of debilitating limitations when attempting to migrate to the cloud or take advantage of commodity Internet connections for remote office high availability or performance.

With a legacy network architecture, application traffic is sent from the remote office to servers in the data center over MPLS private WAN connections. While these networks set the standard for security, they are also an order of magnitude more expensive than standard Internet broadband or cellular connections. Further, cloud-hosted and SaaS applications do not reside in the data center, and often, a direct path to the Internet from the remote office provides better performance and lower cost.

Adding to the complexity, I/T organizations have become accustomed to managing networks by configuring a series of fragmented, fragile, and sometimes non-interoperable features on low-level networking devices. Businesses today are demanding that the inherent complexity be reduced or eliminated in favor of company-wide policies that map to intent rather than elements that only seasoned veterans understand. Policies today map to IP addresses, ports, queues, and interfaces, where they should map to applications, networks, sites, and profiles for performance, compliance, and security.

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With cloud applications becoming the new normal, I/T needs a way to see end-to-end performance and availability for every application and network, whether it is deployed in the data center or in the cloud. While mature solutions exist as an add-on to the network, these require additional software, servers, and agents to meet the full spectrum of visibility needs, and often lack key capabilities when dealing with applications that could use a variety of network links or have applications deployed in the cloud.

Networking must change to accommodate the new normal of cloud applications.

Benefits

WITH CLOUDGENIX ION, THE MOST PERFORMANT PATH FOR ALL APPLICATIONS IS USED, INCLUDING DIRECT INTERNET CONNECTIONS, ENSURING THE BEST USER EXPERIENCE POSSIBLE.

IMPLEMENT A HYBRID WAN

CloudGenix ION allows you to take advantage of a diverse set of WAN transports including MPLS, LTE, and broadband to build a secure, unified, high-performance, highly-available hybrid WAN for your enterprise. With CloudGenix ION, WAN paths are dynamically selected based on policy and real-time performance measurement while configuration of complex routing protocols and fragmented networking features are virtually eliminated.

CONFIDENTLY DEPLOY CLOUD AND SAAS APPLICATIONS

CloudGenix ION allows you to meet the performance and availability demands that are required when deploying cloud and SaaS applications, including remote office WAN high availability, bandwidth, and consistent latency. With CloudGenix ION, the best path for your cloud and SaaS applications is used, including direct Internet connections, unburdening your private MPLS links while improving end-user performance.

REDUCE REMOTE OFFICE INFRASTRUCTURE

CloudGenix ION can help reduce the number of devices required in remote offices by replacing routers and zone-based firewalls. Any WAN link with an Ethernet connection can be connected directly to the CloudGenix ION; any WAN link with a non-Ethernet connection will require a modem or equipment from your provider to directly connect to the CloudGenix ION. Along with reducing remote office hardware, management and operational costs are reduced.

UNIFY POLICIES ON BUSINESS INTENT

CloudGenix allows you to configure policies for performance, compliance, and security based on business intent rather than low-level network characteristics. By defining policies according to application, sites, and networks, risks of misconfiguration or misinterpretation, commonly encountered when configuring routers and firewalls, is avoided completely. With CloudGenix ION, you can move closer to a software-defined enterprise.

REDUCE DEPENDENCY ON PRIVATE MPLS WANS

CloudGenix ION allows you to take advantage of diverse WAN transports in the remote office and data center, including broadband and LTE. By integrating these transports and defining application policies for performance, private MPLS links can be reserved for internal applications while Internet connections can be used for cloud and SaaS applications. Further, Internet links can be used as primary or backup VPN connections between sites. With CloudGenix ION, your dependency on private MPLS WANs is reduced, creating an opportunity for substantial cost savings.

UNDERSTAND NETWORK HEALTH AND USAGE

CloudGenix ION continually monitors the health and performance of your WAN links within each site and can be viewed within the CloudGenix cloud management portal. With visibility into usage by WAN link type, link health and statistics (bandwidth, loss, latency, jitter), top applications, and concurrent flows, you can quickly see how your WAN links are performing and glean actionable insights.

GAIN INSTANT VISIBILITY INTO APPLICATION PERFORMANCE

CloudGenix ION dissects application flows to measure key performance indicators for dynamic path selection and visibility into application performance. CloudGenix provides visibility into elements contributing to response time, application throughput, quality and health, and transaction statistics. Visibility into these metrics helps understand how applications are performing and identify the root cause of performance issues for data center and cloud applications alike, eliminating finger-pointing.

Features

ZERO-TOUCH PROVISIONING AND DEPLOYMENT

CloudGenix ION hardware and software devices ship pre-configured with materials to authenticate to the CloudGenix cloud controller and are automatically assigned to your CloudGenix account. Simply plug-in the device or install the virtual machine, connect to your LAN with Internet access, and the ION appears in the portal ready to be claimed and configured. IONs automatically receive the default policy and any policy associated with the site to which it is assigned.

DYNAMIC PATH SELECTION

CloudGenix ION continually monitors the health and performance of each WAN link and each application to dynamically choose WAN paths accordingly. Further, policies can be configured to specify preferred primary and backup WAN paths to control which are used for each application.

CONFIGURE, MANAGE, AND MONITOR FROM THE CLOUD

All aspects of configuration, management, and monitoring of CloudGenix ION hardware and software devices are performed from the CloudGenix management portal, thereby reducing the dependency on skilled networking expertise at each location. No additional servers or storage are required.

SIMPLE, SAFE NETWORK INTEGRATION

CloudGenix ION devices integrate in a safe and highly-available manner in both the remote office and data center. Fail-to-wire inline bypass ports can be used in the remote office, and BGP integration in the data center allows ION to control paths for traffic from the data center to remote offices.

SECURE APPLICATION FABRIC

CloudGenix ION devices are built with FIPS140-2 as a security baseline. ION devices automatically learn the topology from the cloud controller and establish a secure application fabric amongst all sites using available WAN links. Secure links are encrypted using keys that are specific to each customer and device, and are rotated frequently to ensure compliance needs are met.

REMOTE OFFICE PERIMETER SECURITY

CloudGenix ION devices include an application-based, zone-based firewall (ZBFW) configured using the same top-down application-centric policies used for performance and path selection. By providing ZBFW capabilities for the remote office, CloudGenix ION helps reduce remote office hardware and operations. Further, CloudGenix ION can be configured to use on-premises security devices or external, hosted security services to provide further security for remote offices.

ION DEVICES AUTOMATICALLY LEARN THE TOPOLOGY FROM THE CLOUD CONTROLLER AND ESTABLISH A SECURE APPLICATION FABRIC AMONGST ALL SITES USING AVAILABLE WAN LINKS, DELIVERING A SELF-BUILDING, SELF-HEALING NETWORK.

Modes of Operation

CloudGenix include two modes of operation: CloudGenix Clarity and CloudGenix SD-WAN.

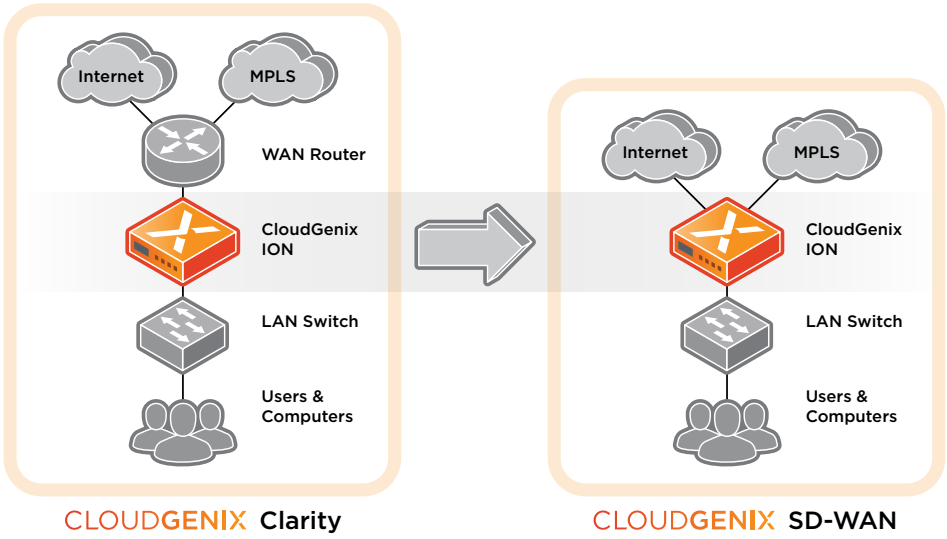

FIGURE 1: CLOUDGENIX CLARITY ENABLES A SEAMLESS TRANSITION TO SD-WAN

CLOUDGENIX CLARITY

CloudGenix Clarity is a foundational component of the CloudGenix SD-WAN solution that provides end-to-end visibility and analytics of your applications and networks, and operates independently of the full suite of CloudGenix SD-WAN capabilities. ION devices are deployed in the network near the WAN edge and automatically begin examining application data on the network to identify the application and measure several key performance indicators of each session. Statistics from your network are stored securely in the CloudGenix cloud management portal, which can be used to configure ION devices, define applications and sites, and monitor end-to-end application performance and availability.

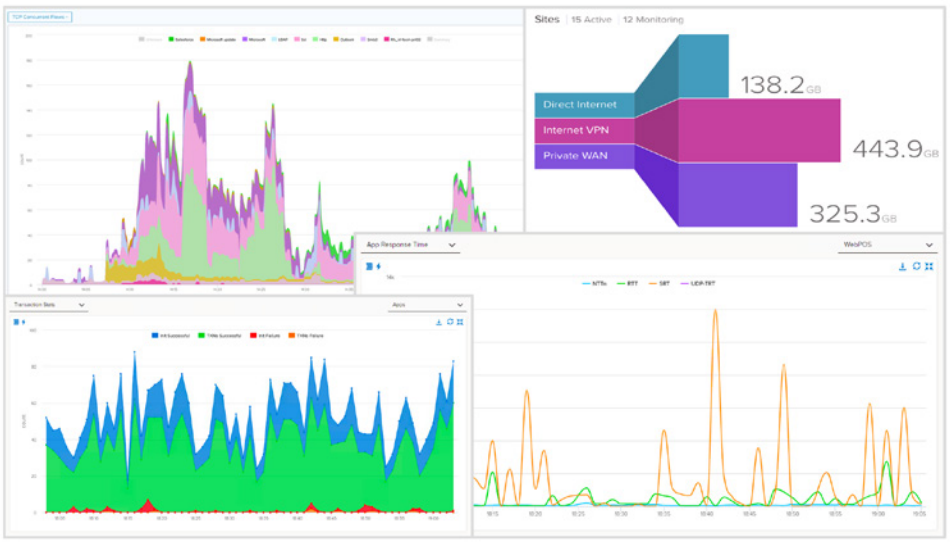

FIGURE 2: CLOUDGENIX PROVIDES ACTIONABLE INSIGHTS ON PERFORMANCE AND ANALYTICS FOR YOUR APPLICATIONS AND WANS

CLOUDGENIX SD-WAN

CloudGenix SD-WAN builds on the visibility and analytics foundation set by Clarity and allows the ION devices to begin intelligently taking action based on policy for performance, compliance, and security. Routing functions including path selection, prioritization, and security can be absorbed into the ION device to reduce the amount of hardware and operational expense associated with each remote office.

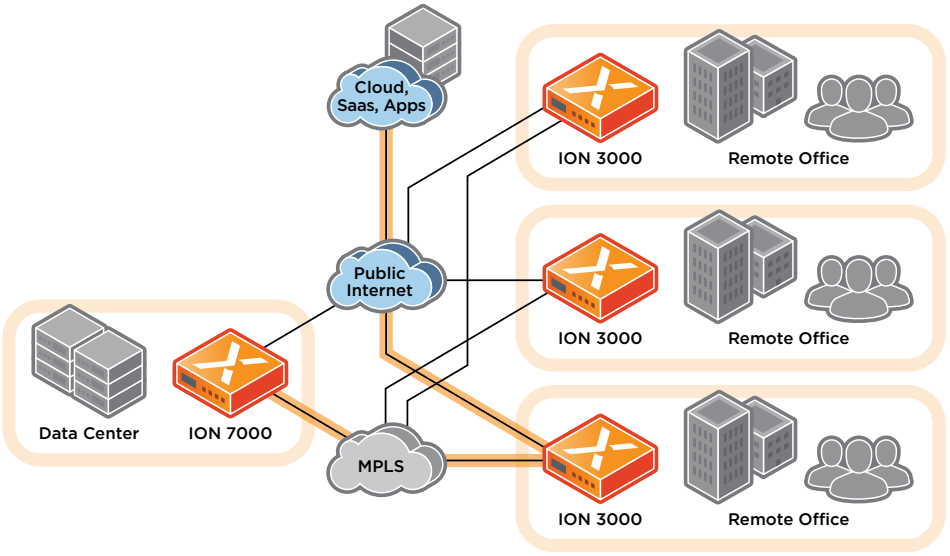

FIGURE 3: CLOUDGENIX ION SELECTS THE BEST PERFORMING PATH ACCORDING TO POLICY, WAN HEALTH, AND PERFORMANCE OF APPLICATION TRANSACTIONS.

Models and Specifications

CloudGenix ION devices come in both hardware and software form factors to meet the needs of any location and any deployment scenario.

THE CLOUDGENIX ION FAMILY (LEFT: 7000 SERIES, CENTER: 2000 SERIES, RIGHT: 3000 SERIES)

HARDWARE MODELS

	ION 2000	ION 3000	ION 7000
Place in Network	Small Remote Office	Remote Office	Large Remote Office Data Center
Controller Ports	1x10/100/1000 RJ45	2x10/100/1000 RJ45	2x10/100/1000 RJ45
WAN/LAN/Internet Ports*	5x10/100/1000 RJ45	6x10/100/1000 RJ45	6x10 GE SFP+8x10/100/1000 RJ45
Fail-to-Wire Ports	1 pair	6 pairs	2 pairs
Throughput	Up to 150Mbps	Up to 500Mbps	Up to 5Gbps
Power and Mechanical	36W Power Adapter AC 100-240V 50-60Hz	1 PSU 150W AC 100-240V 50-60Hz 1 Smart Fan	1+1 Redundant PSU 650W AC 90-264V 47-63Hz 4x Hot Swap Fans
Certifications	FCC/UL, CE (EMC)	CE (EMC), FCC Class A, RoHS, BIS, CCC, KCC	CE (EMC), FCC Class A, RoHS, BIS, CCC, KCC
Operating Temperature	32F to 104F (0C to 40C)	32F to 104F (0C to 40C)	32F to 104F (0C to 40C)
Storage Temperature	-4F to 158F (-20C to 70C)	-4F to 158F (-20C to 70C)	-4F to 158F (-20C to 70C)
Operating Humidity (Non-Condensing)	5% to 90%	5% to 90%	5% to 95%
Storage Humidity (Non-Condensing)	5% to 95%	5% to 95%	5% to 95%
Dimensions (LxWxH in inches)	5.73"x6.97"x1.73"	16.81"x11.89"x1.72"	21.45"x17.16"x1.72"
Weight	2.64lbs (1.2kg)	8.8lbs (4kg)	28.6lbs (13kg)

* Includes fail-to-wire port pairs

SOFTWARE MODELS FOR REMOTE OFFICES

	ION 3102V	ION 3104V	ION 3108V
Hypervisors	ESXi 5.x+	ESXi 5.x+	ESXi 5.x+
Throughput	Up to 100Mbps	Up to 200Mbps	Up to 350Mbps
vCPU	2	4	8
RAM (GB)	8	8	8
Disk (GB)	40	40	40

SOFTWARE MODELS FOR DATA CENTERS

	ION 7108V
Hypervisors	ESXi 5.x+
Throughput	Up to 500Mbps
vCPU	8
RAM (GB)	32
Disk (GB)	100

SEE FOR YOURSELF

SEE CLOUDGENIX IN ACTION FOR YOURSELF!
VISIT WWW.CLOUDGENIX.COM/TRIAL TO REGISTER FOR A NO-RISK FREE TRIAL TODAY.

ABOUT CLOUDGENIX

CloudGenix provides a software-defined WAN solution with AppFabric technology that enables you to build a global WAN based on business policies for application performance, compliance, and security, across all sites and users. Unlike router-based solutions, CloudGenix AppFabric allows you to define top-down global policies based on business intent rather than fragmented bottoms-up configuration changes based on technical implementation. With CloudGenix, you can easily integrate heterogeneous WAN connections for any site, take advantage of cloud and SaaS applications, improve visibility for app performance and SLAs, and dramatically simplify network operations.

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