

Section 3 - Software Defined Network (SDN)

Virtual Network Service (VNS)

Virtual Network Services (VNS) is a virtual network service which provides functions (VNFs) deployed on cloud-based virtual machines (VMs) in the Hosted Network Services (HNS) environment, or premise-based universal CPE hardware (uCPE) VMs, subject to availability. With VNS, Verizon provides a choice among standard software-based services: Virtual Network Services – Routing, Security, SD-Wan and WAN Optimization. These are offered by service in three software options depending on VNF to include Essential, Core and Complete Service Levels. There are also two Management levels to include Monitor or Managed. Each VNF available based on processing speed requirements not to exceed 10 Gbps. Sizing on uCPE will depend on customer requirements determined in a needs assessment. VNS Universal Customer Premise Equipment (uCPE) and Network Functions Virtualization (NFV) are subject to product availability and service design support. Pre-design VNS service chaining approvals are required for quoting this service.

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Premise Based				
Universal CPE (uCPE) – Verizon Owned & Managed Host Hardware				
Site Survey Standard WAN/LAN R Business Hours	Includes one service call, up to two total hours of on-site labor and a site survey report, including evaluation for installation of CPE and/or network services, environmental conditions, power source availability and additional inside wiring requirements.	Each	\$479.05	\$0.00
Wireless Site Survey Business Hours	Includes one service call, up to two (2) total hours on-site labor and a report assessing the proposed CPE location for Wireless WAN access, signal strength, RF interference, throughput speeds, CPE placement recommendations and/or external antenna requirements.	Each	\$410.61	\$0.00
Inside Wiring Standard Business Hours	Includes one service call, up to 2 total hours of on-site labor, installation of one (1) Cat 3, 5 or 5e cable drop up to 150 feet (vertical length up to 12 feet), connectors, ty-wraps, jacks and cable test, to connect two items of Customer equipment.	Each	\$479.05	\$0.00
Juniper NFX 250 S1	uCPE installed to include uCPE Maintenance, Software, software Maintenance, 56k Modem, Cisco Async kit, 6' Ethernet RJ45 cable.	Each	ICB	ICB

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Dell R430-8 with LTE Capital Service	uCPE installed to include uCPE Maintenance, Software, software Maintenance, 56k Modem, Cisco Async kit, 6' Ethernet RJ45 cable.	Each	\$3,877.42	\$50.43
Dell R430-8 Capital Service	uCPE installed to include uCPE Maintenance, Software, software Maintenance, 56k Modem, Cisco Async kit, 6' Ethernet RJ45 cable.	Each	\$3,749.42	\$50.43
Dell R430-8 Operational Service	uCPE installed to include uCPE Maintenance, Software, software Maintenance, 56k Modem, Cisco Async kit, 6' Ethernet RJ45 cable.	Each	\$100.00	\$262.71
Dell R430-16 with LTE Capital Service	uCPE installed to include uCPE Maintenance, Software, software Maintenance, 56k Modem, Cisco Async kit, 6' Ethernet RJ45 cable.	Each	\$6,910.86	\$72.09
Dell R430-16 Capital Service	uCPE installed to include uCPE Maintenance, Software, software Maintenance, 56k Modem, Cisco Async kit, 6' Ethernet RJ45 cable.	Each	\$6,680.86	\$72.09
Dell R430-16 Operational Service	uCPE installed to include uCPE Maintenance, Software, software Maintenance, 56k Modem, Cisco Async kit, 6' Ethernet RJ45 cable.	Each	\$100.00	\$456.51
Dell R630-36 with LTE Capital Service	uCPE installed to include uCPE Maintenance, Software, software Maintenance, 56k Modem, Cisco Async kit, 6' Ethernet RJ45 cable.	Each	\$13,067.09	\$125.79
Dell R630-36 Capital Service	uCPE installed to include uCPE Maintenance, Software, software Maintenance, 56k Modem, Cisco Async kit, 6' Ethernet RJ45 cable.	Each	\$12,937.09	\$125.00
Dell R630-36 Operational Service	uCPE installed to include uCPE Maintenance, Software, software Maintenance, 56k Modem, Cisco Async kit, 6' Ethernet RJ45 cable.	Each	\$100.00	\$875.65
uCPE Custom	Custom uCPE required for customer requirements.	Each	ICB	ICB

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Router Network Functions Virtualization (NFV) - Size / Mgmt Level/ Service Level				
<p>Cisco CSR available for Managed Service. Essential, Core and Complete Service Levels are available to include the following Features:</p> <p><u>Essential:</u> Networking: BGP, OSPF, EIGRP, Routing Information Protocol (RIP), Intermediate System-to-Intermediate System (IS-IS), IPv6, GRE, VRF-Lite, NTP, QoS, BFD, and CLNS • Multicast: Internet Group Management Protocol (IGMP) and Protocol Independent Multicast (PIM) • High availability: HSRP, VRRP, and GLBP Addressing: 802.1Q VLAN, EVC, NAT, DHCP, and DNS, • Basic security: ACL, AAA, RADIUS, and TACACS+ • Management: Cisco IOS XE CLI, SSH, Flexible NetFlow, SNMP, EEM, and NETCONF</p> <p><u>Core:</u> Networking - BGP, OSPF, EIGRP, Routing Information Protocol (RIP), Intermediate System-to-Intermediate System (IS-IS), IPv6, GRE, VRF-Lite, NTP, QoS, and CLNS. Multicast - Internet Group Management Protocol (IGMP) and Protocol Independent Multicast (PIM). High Availability - HSRP, VRRP, and GLBP. Addressing - 802.1Q VLAN, EVC, NAT, DHCP, and DNS. Security - ACL, AAA, RADIUS, and TACACS+, Zone based firewalls, IPsec VPN, Easy VPN, DMVPN, and FlexVPN, Box-to-box high-availability for ZBFW and NAT. Management - Cisco IOS XE CLI, SSH, Flexible NetFlow, SNMP, EEM, and NETCONF.</p> <p><u>Complete:</u> Advanced networking: Layer 2 Tunneling Protocol Version 3 (L2TPv3), MPLS, VRF, and VXLAN, • Application experience: WCCPv2, AppXNAV, Network-Based Application Recognition Version 2 (NBAR2), AVC, and IP SLA • Hybrid cloud connectivity: LISP, OTV, VPLS, and EoMPLS • Subscriber management: PTA, LNS, and ISG.</p>				
Cisco CSR 10 Mbps Managed Essential		Each	N/A	\$195.00
Cisco CSR 20 Mbps Managed Essential		Each	N/A	\$260.00
Cisco CSR 50 Mbps Managed Essential		Each	N/A	\$340.00
Cisco CSR 100 Mbps Managed Essential		Each	N/A	\$530.00
Cisco CSR 1000 Mbps Managed Essential		Each	N/A	\$660.00
Cisco CSR 2000 Mbps Managed Essential		Each	N/A	\$950.00
Cisco CSR 10 Mbps Managed Core		Each	N/A	\$250.00
Cisco CSR 20 Mbps Managed Core		Each	N/A	\$345.00
Cisco CSR 50 Mbps Managed Core		Each	N/A	\$410.00
Cisco CSR 100 Mbps Managed Core		Each	N/A	\$700.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Cisco CSR 1000 Mbps Managed Core		Each	N/A	\$815.00
Cisco CSR 2000 Mbps Managed Core		Each	N/A	\$1,300.00
Cisco CSR 10 Mbps Managed Complete		Each	N/A	\$280.00
Cisco CSR 20 Mbps Managed Complete		Each	N/A	\$390.00
Cisco CSR 50 Mbps Managed Complete		Each	N/A	\$465.00
Cisco CSR 100 Mbps Managed Complete		Each	N/A	\$790.00
Cisco CSR 1000 Mbps Managed Complete		Each	N/A	\$955.00
Cisco CSR 2000 Mbps Managed Complete		Each	N/A	\$1,425.00
Juniper vSRX available for Managed Service. Core Service Level Features include: <u>Networking</u> - BGP, ISIS, OSPF, DHCP, Jflow, IPv4 & IPv6, MPLS, L2 VPN(vpls) L3 VPN. Multicast - PIM SM/ PIM DM, IGMP v1, v2, v3, DVMRP. <u>High Availability</u> - Active/active or active/passive. Addressing - Static NAT, PAT, persistent NAT, NAT64. Security - Stateful firewall, screens, security zones. <u>Management</u> - Jweb, CLI, & NetConf.				
Juniper vSRX 20 Mbps Managed Core		Each	N/A	\$105.00
Juniper vSRX 50 Mbps Managed Core		Each	N/A	\$115.00
Juniper vSRX 100 Mbps Managed Core		Each	N/A	\$125.00
Juniper vSRX 1000 Mbps Managed Core		Each	N/A	\$175.00
Juniper vSRX 2000 Mbps Managed Core		Each	N/A	\$210.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Software Define (SD) - WAN Network Functions Virtualization (NFV) - Size / Mgmt Level				
<p>Viptela vEdge is available for Monitor Service.</p> <p>Essential, Core and Complete Service Levels are available to include the following Features:</p> <p><u>Essential:</u> Networking - Secure overlay across any transport utilizing IPSec, basic QoS (Classification, re-marking, shaping, policing & scheduling), Split Tunnel. Topology: Hub-n-spoke, 1 VPN, NAT: Dynamic, static. Advanced Routing - Static routing only, Application Aware Routing (AAR) that provides the ability to route traffic across different paths based on loss, latency, jitter. Application classification based on IP 5 tuple only. Security - Basic ACLs, Automatic Device Authentication - Initial set up & device authentication, Zscaler Access to Access to cloud security service, Encryption at Scale by Automatic setup of data-plane secure tunnels at scale. Policy - Centralized Data Policy. High Availability - Viptela_SD-WAN. Management - vManage centralized provisioning with Centralized vManage provisioning includes REST + Netconf, vManage monitoring app with vManage monitoring & troubleshooting + REST + Netconf, Zero Touch Provisioning with the Ability to bring-up Viptela devices with zero initial configuration.</p> <p><u>Core:</u> Include all Essential plus Networking - Topology: Hub-n-spoke, Full mesh, Star etc. Advanced Routing - Dynamic routing on service or transport - BGP, OSPF. Multicast - Multicast includes encryption for multicast, multicast routing protocols. Policy - Centralized control policy for route filtering, topology definition, set preference/w eight etc., Advanced policies (Service chaining, extranet). High Availability - Controller High Availability/Redundancy, CPE node redundancy through VRRP or dynamic routing, Management - vSmart basic policies - Centralized control policy to filter route and TLOCs, set preference/w eight etc.</p> <p><u>Complete:</u> Includes all Essential & Core plus Advanced Routing - Application Aware Routing based on application recognition through DPI (Deep Packet Inspection).</p>				
Viptela vEdge 10 Mbps Monitor Essential		Each	N/A	\$125.00
Viptela vEdge 20 Mbps Monitor Essential		Each	N/A	\$145.00
Viptela vEdge 50 Mbps Monitor Essential		Each	N/A	\$170.00
Viptela vEdge 100 Mbps Monitor Essential		Each	N/A	\$195.00
Viptela vEdge 1000 Mbps Monitor Essential		Each	N/A	\$375.00
Viptela vEdge 10 Mbps Monitor Core		Each	N/A	\$185.00
Viptela vEdge 20 Mbps Monitor Core		Each	N/A	\$240.00
Viptela vEdge 50 Mbps Monitor Core		Each	N/A	\$340.00
Viptela vEdge 100 Mbps Monitor Core		Each	N/A	\$385.00
Viptela vEdge 1000 Mbps Monitor Core		Each	N/A	\$465.00
Viptela vEdge 2000 Mbps Monitor Core		Each	N/A	\$535.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Viptela vEdge 10 Mbps Monitor Complete		Each	N/A	\$275.00
Viptela vEdge 20 Mbps Monitor Complete		Each	N/A	\$390.00
Viptela vEdge 50 Mbps Monitor Complete		Each	N/A	\$590.00
Viptela vEdge 100 Mbps Monitor Complete		Each	N/A	\$670.00
Viptela vEdge 1000 Mbps Monitor Complete		Each	N/A	\$805.00
Viptela vEdge 2000 Mbps Monitor Complete		Each	N/A	\$935.00
Software Define (SD) Secure Branch Versa Network Functions Virtualization (NFV) - Size / Mgmt Level / Service Level				
<p><i>Versa is available for Management Service.</i></p> <p>Essential, Core and Complete Service Levels are available to include the following Features:</p> <p><u>Essential:</u> Automated Provisioning, Ext Service Chaining, VRRP, IPAM, Routing Policies, PBF, MP-BGP, OSPF, VRF, VLAN, QoS/HQoS, MPLS L3VPN, Traffic Mgmt/Shaping, Multiple Active Links, Any Topology, Dynamic IPSec Overlays, SD WAN Controller, IPSec Transport, CGNAT, App Aware Migration Gateway, Packet Striping, Cloning, FEC, App Traffic Engineering App SLA, App Policy Forwarding, Inline Performance Measurement, App QoS Traffic Shaping, App Visibility, and TLB.</p> <p><u>Core:</u> Include all Essential plus Stateful Firewall, App Access Control, User/Group Control, IP Reputation & Filtering and DNS Reputation & Filtering.</p> <p><u>Complete:</u> Includes all Essential and Core plus DDoS, SSL Decryption, Anti-Virus and IDS/IPS.</p>				
Versa 10 Mbps Monitor Essential		Each	N/A	\$135.00
Versa 20 Mbps Monitor Essential		Each	N/A	\$145.00
Versa 50 Mbps Monitor Essential		Each	N/A	\$155.00
Versa 100 Mbps Monitor Essential		Each	N/A	\$175.00
Versa 1000 Mbps Monitor Essential		Each	N/A	\$390.00
Versa 10 Gbps Monitor Essential		Each	N/A	\$1,090.00
Versa 10 Mbps Monitor Core		Each	N/A	\$170.00
Versa 20 Mbps Monitor Core		Each	N/A	\$175.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Versa 50 Mbps Monitor Core		Each	N/A	\$185.00
Versa 100 Mbps Monitor Core		Each	N/A	\$205.00
Versa 1000 Mbps Monitor Core		Each	N/A	\$515.00
Versa 10 Gbps Monitor Core		Each	N/A	\$1,875.00
Versa 10 Mbps Monitor Complete		Each	N/A	\$195.00
Versa 20 Mbps Monitor Complete		Each	N/A	\$200.00
Versa 50 Mbps Monitor Complete		Each	N/A	\$210.00
Versa 100 Mbps Monitor Complete		Each	N/A	\$235.00
Versa 1000 Mbps Monitor Complete		Each	N/A	\$615.00
Versa 10 Gbps Monitor Complete		Each	N/A	\$2,320.00
Versa 10 Mbps Managed Essential		Each	N/A	\$145.00
Versa 20 Mbps Managed Essential		Each	N/A	\$155.00
Versa 50 Mbps Managed Essential		Each	N/A	\$165.00
Versa 100 Mbps Managed Essential		Each	N/A	\$185.00
Versa 1000 Mbps Managed Essential		Each	N/A	\$400.00
Versa 10 Gbps Managed Essential		Each	N/A	\$1,100.00
Versa 10 Mbps Managed Core		Each	N/A	\$195.00
Versa 20 Mbps Managed Core		Each	N/A	\$200.00
Versa 50 Mbps Managed Core		Each	N/A	\$210.00
Versa 100 Mbps Managed Core		Each	N/A	\$230.00
Versa 1000 Mbps Managed Core		Each	N/A	\$540.00
Versa 10 Gbps Managed Core		Each	N/A	\$1,900.00
Versa 10 Mbps Managed Complete		Each	N/A	\$455.00
Versa 20 Mbps Managed Complete		Each	N/A	\$460.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Versa 50 Mbps Managed Complete		Each	N/A	\$470.00
Versa 100 Mbps Managed Complete		Each	N/A	\$495.00
Versa 1000 Mbps Managed Complete		Each	N/A	\$870.00
Versa 10 Gbps Managed Complete		Each	N/A	\$2,575.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Firewall Network Functions Virtualization (NFV) - Size / Mgmt Level / Service Level				
<p>Fortinet Fortigate available for Monitor and Managed Service.</p> <p>Essential, Core and Complete Service Levels are available to include the following Features:</p> <p><u>Essential:</u> VPN - IP Sec VPN, SSL VPN. Routing - NAT, RIPv1 and v2, OSPF v2 and v3, ISIS, BGP4. Traffic Shaping & QOS, Content Routing (WCCP & ICAP), Proxy chaining. Firewall - Policy objects, session helpers and ALGs, User and device based policies, Traffic shaping policies, IP reflecting capability, Load balancing & Explicit web proxy authentication.</p> <p><u>Core:</u> Include all Essential plus NGFW (IPS) - IPS Engine: 7,000+ up-to-date signatures, protocol anomaly detection, rate-based detection, custom signatures, manual, automatic pull or push signature update, threat encyclopedia integration, IPS Actions: Default, monitor, block, reset, or quarantine (attackers IP, attackers IP and Victim IP, incoming interface) with expiry time Filter-Based Selection: Severity, target, OS, application, and/or protocol, application control which protects against application-based threats by allowing or denying granular network application usage with deep application control to reinforce business rules of acceptable interaction allowed to and from applications, Filter-based selection: By behavior, category, popularity, technology, risk, vendor, and/or protocol, Actions to allow, block, reset session (CLI only), monitor only SSH Inspection.</p> <p><u>Complete:</u> Includes all Essential & Core plus IP Reputation - Protects against prohibits traffic to and from sites known to contain malicious content or infections, as well as preventing botnet command and control signals. Botnet server IP blocking with global IP reputation database, Web filtering inspection mode support: proxy-based, flow-based and DNS. Data Loss Prevention (DLP) - DLP message filter: (a) Protocol supported: HTTP-POST, SMTP, POP3, IMAP, MAPI, NNTP, (b) Actions: Log only, block, quarantine user/IP/Interface (c) Predefined filter: Credit card number, Social Security ID AND DLP file filter: (a) Protocols Supported: HTTP-POST, HTTP=GET,SMTP, POP3, IMAP, MAPI, FTP, NNTP (b) Filter options: size, file type, watermark, content, if encrypted AND DLP watermarking: Allows filter files that pass through the FortiGate unit and contain a corporate identifier (a text string) and a sensitivity level (Critical, Private, and Warning) hidden in a watermark. Support Windows and Linux free watermarking tools AND DLP fingerprinting: Generates a checksum fingerprint from intercepted files and compare it to those in the fingerprint database AND DLP archiving: Records full content in email, FTP, IM, NNTP, and web traffic. Web Filtering - Provides the option to explicitly allow websites, or to pass web traffic un-inspected both to and from known-good websites in order to accelerate traffic flows. Real-time updates from FortiGuard help determine the category and rating of a specific URL. Antivirus - Protects against the latest content-level threats by detecting and removing malicious software. Top rated proactive protection delivers one of the best-curated defenses against zero-days. Antispam - Significantly reduces spam volume at the perimeter for superior control of email attacks and infections. Using multiple collection techniques, FortiGuard Labs develop and maintain accurate lists of spammers and spam content. Sandbox Cloud Service - Complement your established defenses with cutting edge capability — analyzing suspicious and high-risk files in a contained environment to uncover the full attack lifecycle using system activity and callback detection. FortiSandbox offers a robust combination of proactive detection and mitigation, actionable threat insight and integrated and automated deployment. At its foundation is a unique, dual level sandbox which is complemented by Fortinet's award-winning anti-malware and integrated FortiGuard threat intelligence. Years of Fortinet threat expertise is now packaged up and available in the cloud via FortiSandbox.</p>				

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Fortinet Fortigate 20 Mbps Monitor/MSS Essential		Each	N/A	\$140.00
Fortinet Fortigate 50 Mbps Monitor/MSS Essential		Each	N/A	\$150.00
Fortinet Fortigate 100 Mbps Monitor/MSS Essential		Each	N/A	\$170.00
Fortinet Fortigate 1000 Mbps Monitor/MSS Essential		Each	N/A	\$200.00
Fortinet Fortigate 2000 Mbps Monitor/MSS Essential		Each	N/A	\$275.00
Fortinet Fortigate 20 Mbps Monitor/MSS Core		Each	N/A	\$150.00
Fortinet Fortigate 50 Mbps Monitor/MSS Core		Each	N/A	\$160.00
Fortinet Fortigate 100 Mbps Monitor/MSS Core		Each	N/A	\$185.00
Fortinet Fortigate 1000 Mbps Monitor/MSS Core		Each	N/A	\$340.00
Fortinet Fortigate 2000 Mbps Monitor/MSS Core		Each	N/A	\$625.00
Fortinet Fortigate 20 Mbps Monitor/MSS Complete		Each	N/A	\$180.00
Fortinet Fortigate 50 Mbps Monitor/MSS Complete		Each	N/A	\$190.00
Fortinet Fortigate 100 Mbps Monitor/MSS Complete		Each	N/A	\$265.00
Fortinet Fortigate 1000 Mbps Monitor/MSS Complete		Each	N/A	\$1,250.00
Fortinet Fortigate 2000 Mbps Monitor/MSS Complete		Each	N/A	\$1,300.00
Fortinet Fortigate 20 Mbps Managed Essential		Each	N/A	\$190.00
Fortinet Fortigate 50 Mbps Managed Essential		Each	N/A	\$200.00
Fortinet Fortigate 100 Mbps Managed Essential		Each	N/A	\$220.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Fortinet Fortigate 1000 Mbps Managed Essential		Each	N/A	\$255.00
Fortinet Fortigate 2000 Mbps Managed Essential		Each	N/A	\$325.00
Fortinet Fortigate 20 Mbps Managed Core		Each	N/A	\$300.00
Fortinet Fortigate 50 Mbps Managed Core		Each	N/A	\$310.00
Fortinet Fortigate 100 Mbps Managed Core		Each	N/A	\$345.00
Fortinet Fortigate 1000 Mbps Managed Core		Each	N/A	\$490.00
Fortinet Fortigate 2000 Mbps Managed Core		Each	N/A	\$770.00
Fortinet Fortigate 20 Mbps Managed Complete		Each	N/A	\$440.00
Fortinet Fortigate 50 Mbps Managed Complete		Each	N/A	\$450.00
Fortinet Fortigate 100 Mbps Managed Complete		Each	N/A	\$525.00
Fortinet Fortigate 1000 Mbps Managed Complete		Each	N/A	\$1,500.00
Fortinet Fortigate 2000 Mbps Managed Complete		Each	N/A	\$1,800.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
<p><i>Palo Alto available for Monitor and Managed Service.</i> Essential, Core and Complete Service Levels are available to include the following Features: <u>Essential:</u> Networking - 2 virtual interfaces, 1 external interface, VLAN tagged Sub-interface, IP v4/I-v6 and site to site VPN. Routing - Static routing, BGP and OSPF. Firewall includes Layer 3/4 rules, Source NAT rules, group objects, 2 zones, geolocation firewall rules, application identification and logging using AppID. Reporting - network traffic logs and threat detection. Logging includes send firewall syslogs to 1 customer destination. DDoS Lite (Flood Protection) - Detect floods that exceed thresholds with options at alarm at a specific rate and activate blocking at a specific rate (sync, ICMP, UDP flood). AppID - Positive security enforcement/AppID based security policy rules. UserID includes AD/VDAP integration with user identification. <u>Core:</u> Include all Essential plus Networking is increased to 4 virtual interfaces. Firewall Zones is increased to 3. Antivirus Signatures - known virus protection, inspection via a stream-based, and wire speed antivirus engine. Anti-Spyware Signatures - known spyware/malware prevention, maintenance of signature set of malicious DNS domains. Vulnerability Signatures - ability to prevent network-borne attacks against client and server vulnerabilities. <u>Complete:</u> Includes all Essential & Core plus Networking is increased to 4 virtual interfaces. Firewall Zones is increased to 3+. DLP Lite for content base custom rules need to be made to do this and when USERID is enable the alerts are tied back to the user (e.g. credit card, SSN, keyword, file type - detection and blocking). Decryption - SSL Inspection for firewall uses certificates and keys to decrypt the traffic specified by the policy to plaintext, and then enforces App-ID and security settings on the plaintext traffic, including Decryption, Antivirus, Vulnerability, Anti-Spyware, URL Filtering, and File-Blocking profiles. Anti-Malware (Wildfire Platform - Zero Day Threats) provides analyze file types used in targeted attacks (e.g. Portable Executables, Microsoft Office files, Adobe PDFs, and Android APKs), leverages global threat intelligence to prevent attacks on your network before they happen, detects/prevents against multiple attack vectors (e.g. web, email, file sharing, media streaming), View logs / forensics through one interface to reduce time for event correlation and forensics gathering down to minutes. URL Filtering includes web access can be allowed by category / user group, Regional seed database, fast URL lookup in Data & Management plane, and updates from WildFire & categorize unknown URLs. Global Protect extends the protection of the Palo Alto Networks® Next-Generation Security Platform to your mobile workforce by using GlobalProtect to maintain visibility of traffic and enforcement of security policy for protection against known and unknown threats (e.g. Android, iOS, Windows, macOS VPN Clients). High Availability provides environments deployed as a highly available pair to provide a resilient service and minimize downtime.</p>				
Palo Alto 20 Mbps Monitor Essential		Each	N/A	\$145.00
Palo Alto 50 Mbps Monitor Essential		Each	N/A	\$155.00
Palo Alto 100 Mbps Monitor Essential		Each	N/A	\$215.00
Palo Alto 1000 Mbps Monitor Essential		Each	N/A	\$310.00
Palo Alto 2000 Mbps Monitor Essential		Each	N/A	\$675.00
Palo Alto 20 Mbps Monitor Core		Each	N/A	\$160.00
Palo Alto 50 Mbps Monitor Core		Each	N/A	\$170.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Palo Alto 100 Mbps Monitor Core		Each	N/A	\$230.00
Palo Alto 1000 Mbps Monitor Core		Each	N/A	\$340.00
Palo Alto 2000 Mbps Monitor Core		Each	N/A	\$750.00
Palo Alto 20 Mbps Monitor Complete		Each	N/A	\$180.00
Palo Alto 50 Mbps Monitor Complete		Each	N/A	\$190.00
Palo Alto 100 Mbps Monitor Complete		Each	N/A	\$280.00
Palo Alto 1000 Mbps Monitor Complete		Each	N/A	\$450.00
Palo Alto 2000 Mbps Monitor Complete		Each	N/A	\$1,075.00
Palo Alto 20 Mbps Managed Essential		Each	N/A	\$195.00
Palo Alto 50 Mbps Managed Essential		Each	N/A	\$205.00
Palo Alto 100 Mbps Managed Essential		Each	N/A	\$265.00
Palo Alto 1000 Mbps Managed Essential		Each	N/A	\$360.00
Palo Alto 2000 Mbps Managed Essential		Each	N/A	\$710.00
Palo Alto 20 Mbps Managed Core		Each	N/A	\$310.00
Palo Alto 50 Mbps Managed Core		Each	N/A	\$320.00
Palo Alto 100 Mbps Managed Core		Each	N/A	\$385.00
Palo Alto 1000 Mbps Managed Core		Each	N/A	\$495.00
Palo Alto 2000 Mbps Managed Core		Each	N/A	\$900.00
Palo Alto 20 Mbps Managed Complete		Each	N/A	\$440.00
Palo Alto 50 Mbps Managed Complete		Each	N/A	\$450.00
Palo Alto 100 Mbps Managed Complete		Each	N/A	\$540.00
Palo Alto 1000 Mbps Managed Complete		Each	N/A	\$710.00
Palo Alto 2000 Mbps Managed Complete		Each	N/A	\$1,315.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Check Point Security Essential, Core and Complete Service Levels are available to include the following Features: <u>Essential:</u> Networking - Firewall, VPN, Mobile Access, Routing, and DDoS. <u>Core:</u> Include all Essential plus Networking IPS, Identity Awareness, Application Control, URL Filtering, Anti-Bot, and Anti Virus. <u>Complete:</u> Includes all Essential and Core plus Networking Threat Emulation, Threat Extraction, Anti-Spam, and Data Loss Prevention.				
Check Point 10 Mbps Monitor/MSS Essential		Each	N/A	\$180.00
Check Point 20 Mbps Monitor/MSS Essential		Each	N/A	\$180.00
Check Point 50 Mbps Monitor/MSS Essential		Each	N/A	\$210.00
Check Point 100 Mbps Monitor/MSS Essential		Each	N/A	\$250.00
Check Point 1000 Mbps Monitor/MSS Essential		Each	N/A	\$1,200.00
Check Point 2000 Mbps Monitor/MSS Essential		Each	N/A	\$2,100.00
Check Point 10 Mbps Monitor/MSS Core		Each	N/A	\$180.00
Check Point 20 Mbps Monitor/MSS Core		Each	N/A	\$210.00
Check Point 50 Mbps Monitor/MSS Core		Each	N/A	\$250.00
Check Point 100 Mbps Monitor/MSS Core		Each	N/A	\$310.00
Check Point 1000 Mbps Monitor/MSS Core		Each	N/A	\$1,700.00
Check Point 2000 Mbps Monitor/MSS Core		Each	N/A	\$2,950.00
Check Point 10 Mbps Monitor/MSS Complete		Each	N/A	\$250.00
Check Point 20 Mbps Monitor/MSS Complete		Each	N/A	\$310.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Check Point 50 Mbps Monitor/MSS Complete		Each	N/A	\$395.00
Check Point 100 Mbps Monitor/MSS Complete		Each	N/A	\$520.00
Check Point 1000 Mbps Monitor/MSS Mgmt Complete		Each	N/A	\$6,480.00
Check Point 2000 Mbps Monitor/MSS Mgmt Complete		Each	N/A	\$6,100.00
Check Point 10 Mbps Managed Essential		Each	N/A	\$335.00
Check Point 20 Mbps Managed Essential		Each	N/A	\$230.00
Check Point 50 Mbps Managed Essential		Each	N/A	\$260.00
Check Point 100 Mbps Managed Essential		Each	N/A	\$300.00
Check Point 1000 Mbps Managed Essential		Each	N/A	\$1,240.00
Check Point 2000 Mbps Managed Essential		Each	N/A	\$2,100.00
Check Point 10 Mbps Managed Core		Each	N/A	\$335.00
Check Point 20 Mbps Managed Core		Each	N/A	\$365.00
Check Point 50 Mbps Managed Core		Each	N/A	\$405.00
Check Point 100 Mbps Managed Core		Each	N/A	\$465.00
Check Point 1000 Mbps Managed Core		Each	N/A	\$1,800.00
Check Point 2000 Mbps Managed Core		Each	N/A	\$3,000.00
Check Point 10 Mbps Managed Complete		Each	N/A	\$510.00
Check Point 20 Mbps Managed Complete		Each	N/A	\$575.00
Check Point 50 Mbps Managed Complete		Each	N/A	\$660.00
Check Point 100 Mbps Managed Complete		Each	N/A	\$785.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Check Point 1000 Mbps Managed Complete		Each	N/A	\$6,730.00
Check Point 2000 Mbps Managed Complete		Each	N/A	\$6,350.00
Juniper Security Essential, Core and Complete Service Levels are available to include the following Features: <u>Essential:</u> Networking - VPN, Routing, and Firewall. <u>Core:</u> Include all Essential plus Networking IPS, App ID, AppFW, and AppTrack. <u>Complete:</u> Includes all Essential & Core plus Networking Antivirus, Web filtering, Content filtering, Antispam and User FW.				
Juniper 20 Mbps Monitor/MSS Essential		Each	N/A	\$120.00
Juniper 50 Mbps Monitor/MSS Essential		Each	N/A	\$130.00
Juniper 100 Mbps Monitor/MSS Essential		Each	N/A	\$145.00
Juniper 1000 Mbps Monitor/MSS Essential		Each	N/A	\$230.00
Juniper 2000 Mbps Monitor/MSS Essential		Each	N/A	\$300.00
Juniper 20 Mbps Monitor/MSS Core		Each	N/A	\$140.00
Juniper 50 Mbps Monitor/MSS Core		Each	N/A	\$165.00
Juniper 100 Mbps Monitor/MSS Core		Each	N/A	\$185.00
Juniper 1000 Mbps Monitor/MSS Core		Each	N/A	\$305.00
Juniper 2000 Mbps Monitor/MSS Core		Each	N/A	\$420.00
Juniper 20 Mbps Monitor/MSS Complete		Each	N/A	\$150.00
Juniper 50 Mbps Monitor/MSS Complete		Each	N/A	\$180.00
Juniper 100 Mbps Monitor/MSS Complete		Each	N/A	\$205.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Juniper 1000 Mbps Monitor/MSS Mgmt Complete		Each	N/A	\$350.00
Juniper 2000 Mbps Monitor/MSS Mgmt Complete		Each	N/A	\$495.00
Juniper 20 Mbps Managed Essential		Each	N/A	\$175.00
Juniper 50 Mbps Managed Essential		Each	N/A	\$185.00
Juniper 100 Mbps Managed Essential		Each	N/A	\$200.00
Juniper 1000 Mbps Managed Essential		Each	N/A	\$280.00
Juniper 2000 Mbps Managed Essential		Each	N/A	\$350.00
Juniper 20 Mbps Managed Core		Each	N/A	\$295.00
Juniper 50 Mbps Managed Core		Each	N/A	\$320.00
Juniper 100 Mbps Managed Core		Each	N/A	\$345.00
Juniper1000 Mbps Managed Core		Each	N/A	\$455.00
Juniper 2000 Mbps Managed Core		Each	N/A	\$570.00
Juniper 20 Mbps Managed Complete		Each	N/A	\$400.00
Juniper 50 Mbps Managed Complete		Each	N/A	\$435.00
Juniper 100 Mbps Managed Complete		Each	N/A	\$460.00
Juniper 1000 Mbps Managed Complete		Each	N/A	\$605.00
Juniper 2000 Mbps Managed Complete		Each	N/A	\$750.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
WAN-Optimization Network Functions Virtualization (NFV) - Size / Mgmt Level/ Service Level				
Riverbed Steelhead available for Monitor and Managed Service.				
<u>Core:</u> Monthly Service Report - PDF based report into the platform usage trends and capacity forecasting SCC exported report. Flow Export - Communicates application types, volumes and performance metrics to Visibility tools. Path Selection (e.g. for moving apps across links) - using DPI and host tables for application identification. Quality of Service (QoS) - QoS (application classification) using DPI and host labels for application identification. Web Proxy services - Single Ended Proxy Internet Accelerator. Secure Transport - GRE/Secure Transport for network layer security. Deep Packet Inspection (DPI) - Application identification using DPI. Scalable Data Reduction (SDR) / Data Streamlining - De-duplication and compression technology to reduce volume of traffic traversing the network; default configuration.				
<u>Complete:</u> Includes all Core plus TCP Acceleration / Transport Streamlining - Avoids TCP slow start and repackages the WAN payloads to ensure higher throughputs. MS Exchange Optimization - Optimization of Exchange2003/7/10 & 2013 including Encrypted MAPI and Outlook Anywhere. Secure Application Optimization - SSL Optimization (HTTPS) and certificate management. Domain Join - Active Directory domain join. File Transfer Optimization - Optimization of signed SMB. Lotus Notes Optimization - Optimization of Lotus Notes (unencrypted). HTTP(S) Optimization - HTTP auto configuration enablement. Cloud Application Optimization - Accelerated connections to cloud services (e.g. IaaS and SaaS apps such as O365).				
Riverbed Steelhead Max Connections 650 Monitor Core		Each	N/A	\$230.00
Riverbed Steelhead Max Connections 2,300 Monitor Core		Each	N/A	\$500.00
Riverbed Steelhead Max Connections 6,000 Monitor Core		Each	N/A	\$1,150.00
Riverbed Steelhead Max Connections 14,000 Monitor Core		Each	N/A	\$1,970.00
Riverbed Steelhead Max Connections 100,000 Monitor Core		Each	N/A	\$6,750.00
Riverbed Steelhead Max Connections 650 Monitor Complete		Each	N/A	\$315.00
Riverbed Steelhead Max Connections 2,300 Monitor Complete		Each	N/A	\$760.00
Riverbed Steelhead Max Connections 6,000 Monitor Complete		Each	N/A	\$1,840.00
Riverbed Steelhead Max Connections 14,000 Monitor Complete		Each	N/A	\$3,215.00
Riverbed Steelhead Max Connections 100,000 Monitor Complete		Each	N/A	\$11,250.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
Riverbed Steelhead Max Connections 650 Managed Core		Each	N/A	\$255.00
Riverbed Steelhead Max Connections 2,300 Managed Core		Each	N/A	\$525.00
Riverbed Steelhead Max Connections 6,000 Managed Core		Each	N/A	\$1,180.00
Riverbed Steelhead Max Connections 14,000 Managed Core		Each	N/A	\$2,000.00
Riverbed Steelhead Max Connections 100,000 Managed Core		Each	N/A	\$6,800.00
Riverbed Steelhead Max Connections 650 Managed Complete		Each	N/A	\$345.00
Riverbed Steelhead Max Connections 2,300 Managed Complete		Each	N/A	\$795.00
Riverbed Steelhead Max Connections 6,000 Managed Complete		Each	N/A	\$1,875.00
Riverbed Steelhead Max Connections 14,000 Managed Complete		Each	N/A	\$3,250.00
Riverbed Steelhead Max Connections 100,000 Managed Complete		Each	N/A	\$11,300.00
Hosted Network Services (HNS) to include Hardware and Bandwidth Connection to MPLS Network				
HNS Router Network Functions Virtualization (NFV) - Size / Mgmt Level / Service Level to include Hardware & Bandwidth				
HNS Cisco CSR				
HNS Cisco CSR 100 Mbps Managed Essential		Each	N/A	\$4,307.00
HNS Cisco CSR 1000 Mbps Managed Essential		Each	N/A	\$7,937.00
HNS Cisco CSR 10Gbps Mbps Managed Essential		Each	N/A	\$15,227.00
HNS Cisco CSR 100 Mbps Managed Core		Each	N/A	\$4,477.00
HNS Cisco CSR 1000 Mbps Managed Core		Each	N/A	\$8,092.00
HNS Cisco CSR 10Gbps Mbps Managed Core		Each	N/A	\$15,577.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
HNS Cisco CSR 100 Mbps Managed Complete		Each	N/A	\$4,567.00
HNS Cisco CSR 1000 Mbps Managed Complete		Each	N/A	\$8,232.00
HNS Cisco CSR 10Gbps Mbps Managed Complete		Each	N/A	\$15,986.00
HNS Juniper vSRX				
HNS Juniper vSRX 100 Mbps Managed Core		Each	N/A	\$707.00
HNS Juniper vSRX 1000 Mbps Managed Core		Each	N/A	\$3,302.00
HNS Juniper vSRX 10 Gbps Managed Core		Each	N/A	\$6,436.00
HNS Software Define (SD) - WAN Network Functions Virtualization (NFV) - Size / Mgmt Level / Service Level to include Bandwidth				
HNS Viptela vEdge				
HNS Viptela vEdge 100 Mbps Managed Essential		Each	N/A	\$733.00
HNS Viptela vEdge 100 Mbps Managed Essential with AWS		Each	N/A	\$1,079.00
HNS Viptela vEdge 1000 Mbps Managed Essential		Each	N/A	\$3,512.00
HNS Viptela vEdge 1000 Mbps Managed Essential with AWS		Each	N/A	\$6,857.00
HNS Viptela vEdge 100 Mbps Managed Core		Each	N/A	\$970.00
HNS Viptela vEdge 100 Mbps Managed Core with AWS		Each	N/A	\$1,339.00
HNS Viptela vEdge 1000 Mbps Managed Core		Each	N/A	\$3,594.00
HNS Viptela vEdge 1000 Mbps Managed Core with AWS		Each	N/A	\$6,947.00
HNS Viptela vEdge 10 Gbps Managed Core		Each	N/A	\$6,497.00
HNS Viptela vEdge 10 Gbps Managed Core with AWS		Each	N/A	\$13,135.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
HNS Viptela vEdge 100 Mbps Managed Complete		Each	N/A	\$1,226.00
HNS Viptela vEdge 100 Mbps Managed Complete with AWS		Each	N/A	\$1,621.00
HNS Viptela vEdge 1000 Mbps Managed Complete		Each	N/A	\$3,881.00
HNS Viptela vEdge 1000 Mbps Managed Complete with AWS		Each	N/A	\$7,690.00
HNS Viptela vEdge 10 Gbps Managed Complete		Each	N/A	\$6,811.00
HNS Viptela vEdge 10 Gbps Managed Complete with AWS		Each	N/A	\$14,228.00
HNS Firewall Network Functions Virtualization (NFV) - Size / Mgmt Level / Service Level to include Bandwidth				
HNS Fortinet Fortigate				
HNS Fortinet Fortigate 100 Mbps Monitor/MSS Essential		Each	N/A	\$730.00
HNS Fortinet Fortigate 1000 Mbps Monitor/MSS Essential		Each	N/A	\$3,280.00
HNS Fortinet Fortigate 10 Gbps Monitor/MSS Essential		Each	N/A	\$6,436.00
HNS Fortinet Fortigate 100 Mbps Monitor/MSS Core		Each	N/A	\$745.00
HNS Fortinet Fortigate 1000 Mbps Monitor/MSS Core		Each	N/A	\$3,420.00
HNS Fortinet Fortigate 10 Gbps Monitor/MSS Core		Each	N/A	\$6,786.00
HNS Fortinet Fortigate 100 Mbps Monitor/MSS Complete		Each	N/A	\$825.00
HNS Fortinet Fortigate 1000 Mbps Monitor/MSS Complete		Each	N/A	\$4,330.00
HNS Fortinet Fortigate 10 Gbps Monitor/MSS Complete		Each	N/A	\$7,461.00
HNS Fortinet Fortigate 100 Mbps Managed Essential		Each	N/A	\$1,120.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
HNS Fortinet Fortigate 1000 Mbps Managed Essential		Each	N/A	\$3,730.00
HNS Fortinet Fortigate 10 Gbps Managed Essential		Each	N/A	\$6,866.00
HNS Fortinet Fortigate 100 Mbps Managed Core		Each	N/A	\$1,560.00
HNS Fortinet Fortigate 1000 Mbps Managed Core		Each	N/A	\$4,205.00
HNS Fortinet Fortigate 10 Gbps Managed Core		Each	N/A	\$7,381.00
HNS Fortinet Fortigate 100 Mbps Managed Complete		Each	N/A	\$2,500.00
HNS Fortinet Fortigate 1000 Mbps Managed Complete		Each	N/A	\$5,595.00
HNS Fortinet Fortigate 10 Gbps Managed Complete		Each	N/A	\$8,956.00
HNS Palo Alto				
HNS Palo Alto 100 Mbps Monitor/MSS Essential		Each	N/A	\$1,056.00
HNS Palo Alto 1000 Mbps Monitor/MSS Essential		Each	N/A	\$3,671.00
HNS Palo Alto 10 Gbps Monitor/MSS Essential		Each	N/A	\$6,836.00
HNS Palo Alto 100 Mbps Monitor/MSS Core		Each	N/A	\$1,071.00
HNS Palo Alto 1000 Mbps Monitor/MSS Core		Each	N/A	\$3,701.00
HNS Palo Alto 10 Gbps Monitor/MSS Core		Each	N/A	\$6,911.00
HNS Palo Alto 100 Mbps Monitor/MSS Complete		Each	N/A	\$1,121.00
HNS Palo Alto 1000 Mbps Monitor/MSS Complete		Each	N/A	\$3,811.00
HNS Palo Alto 10 Gbps Monitor/MSS Complete		Each	N/A	\$7,236.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
HNS Palo Alto 100 Mbps Managed Essential		Each	N/A	\$1,541.00
HNS Palo Alto 1000 Mbps Managed Essential		Each	N/A	\$4,076.00
HNS Palo Alto 10 Gbps Managed Essential		Each	N/A	\$6,871.00
HNS Palo Alto 100 Mbps Managed Core		Each	N/A	\$1,961.00
HNS Palo Alto 1000 Mbps Managed Core		Each	N/A	\$4,496.00
HNS Palo Alto 10 Gbps Managed Core		Each	N/A	\$7,061.00
HNS Palo Alto 100 Mbps Managed Complete		Each	N/A	\$2,226.00
HNS Palo Alto 1000 Mbps Managed Complete		Each	N/A	\$4,891.00
HNS Palo Alto 10 Gbps Managed Complete		Each	N/A	\$7,476.00
HNS Check Point Security				
HNS Check Point 100 Mbps Monitor/MSS Mgmt Essential		Each	N/A	\$810.00
HNS Check Point 1000 Mbps Monitor/MSS Essential		Each	N/A	\$4,280.00
HNS Check Point 2000 Mbps Monitor/MSS Essential		Each	N/A	\$8,261.00
HNS Check Point 100 Mbps Monitor/MSS Core		Each	N/A	\$870.00
HNS Check Point 1000 Mbps Monitor/MSS Core		Each	N/A	\$4,780.00
HNS Check Point 2000 Mbps Monitor/MSS Core		Each	N/A	\$9,111.00
HNS Check Point 100 Mbps Monitor/MSS Complete		Each	N/A	\$810.00
HNS Check Point 1000 Mbps Monitor/MSS Complete		Each	N/A	\$4,280.00
HNS Check Point 2000 Mbps Monitor/MSS Complete		Each	N/A	\$8,261.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
HNS Check Point 100 Mbps Managed Essential		Each	N/A	\$860.00
HNS Check Point 1000 Mbps Managed Essential		Each	N/A	\$4,320.00
HNS Check Point 2000 Mbps Managed Essential		Each	N/A	\$8,261.00
HNS Check Point 100 Mbps Managed Core		Each	N/A	\$1,025.00
HNS Check Point 1000 Mbps Managed Core		Each	N/A	\$4,880.00
HNS Check Point 2000 Mbps Managed Core		Each	N/A	\$9,161.00
HNS Check Point 100 Mbps Managed Complete		Each	N/A	\$860.00
HNS Check Point 1000 Mbps Managed Complete		Each	N/A	\$4,320.00
HNS Check Point 2000 Mbps Managed Complete		Each	N/A	\$8,261.00
HNS Juniper Security				
HNS Juniper 100 Mbps Monitor/MSS Mgmt Essential		Each	N/A	\$705.00
HNS Juniper 1000 Mbps Monitor/MSS Essential		Each	N/A	\$3,310.00
HNS Juniper 2000 Mbps Monitor/MSS Essential		Each	N/A	\$6,461.00
HNS Juniper 100 Mbps Monitor/MSS Core		Each	N/A	\$745.00
HNS Juniper 1000 Mbps Monitor/MSS Core		Each	N/A	\$3,385.00
HNS Juniper 2000 Mbps Monitor/MSS Core		Each	N/A	\$7,236.00
HNS Juniper 100 Mbps Monitor/MSS Complete		Each	N/A	\$1,121.00
HNS Juniper 1000 Mbps Monitor/MSS Complete		Each	N/A	\$3,811.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
HNS Juniper 2000 Mbps Monitor/MSS Complete		Each	N/A	\$7,236.00
HNS Juniper 100 Mbps Managed Essential		Each	N/A	\$1,025.00
HNS Juniper 1000 Mbps Managed Essential		Each	N/A	\$3,625.00
HNS Juniper 2000 Mbps Managed Essential		Each	N/A	\$6,861.00
HNS Juniper 100 Mbps Managed Core		Each	N/A	\$1,400.00
HNS Juniper 1000 Mbps Managed Core		Each	N/A	\$4,000.00
HNS Juniper 2000 Mbps Managed Core		Each	N/A	\$7,236.00
HNS Juniper 100 Mbps Managed Complete		Each	N/A	\$2,226.00
HNS Juniper 1000 Mbps Managed Complete		Each	N/A	\$4,891.00
HNS Juniper 2000 Mbps Managed Complete		Each	N/A	\$7,476.00
HNS WAN-Optimization Network Functions Virtualization (NFV) - Size / Mgmt Level / Service Level to include Bandwidth				
HNS Riverbed Steelhead				
HNS Riverbed Steelhead Max Connections 6,000 Managed Core		Each	N/A	\$2,255.00
HNS Riverbed Steelhead Max Connections 14,000 Managed Core		Each	N/A	\$10,093.00
HNS Riverbed Steelhead Max Connections 100,000 Managed Core		Each	N/A	\$23,439.00
HNS Riverbed Steelhead Max Connections 6,000 Managed Complete		Each	N/A	\$2,950.00
HNS Riverbed Steelhead Max Connections 14,000 Managed Complete		Each	N/A	\$11,343.00
HNS Riverbed Steelhead Max Connections 100,000 Managed Complete		Each	N/A	\$27,939.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
<i>HNS Session Border Controller (SBC)</i> Essential, Core and Complete Service Levels are available to include the following Features: <u>Essential:</u> QoS supports up to 4 cores, bandwidth management and TOS/TOC packet marking. Basic Routing Engine with Maximum number routes of 2,000, Standard Routing on Called Number or domain, User Name Routing on User Name or domain, DM/PM Criteria Calling/Called numbers only, Route Prioritization Sequence, Proportion, All Proportion, Round Robin and Call Processing Interwork between 4 codecs. Media Services support - NAT/NAPT. Signaling Back to Back User Agent (B2BUA) for SIP, SIP-I/SIP-T and SIP/H.323. VoIP Security for Session aware firewall & topology hiding, Line rate DoS/DDoS, Rogue RTP protection, Line rate malformed packet protection. Number of Trunks - Up to 3 Trunk Groups. <u>Core:</u> Include all Essential plus QoS supports 5 cores. Media Service supports Transcoding of up to 10% of total traffic and DTMF Trigger Detection and Notification. Signaling supports SIP protocol normalization/repair and SIP Message Manipulation. VoIP Security supports Media encryption - Secure RTP/RTCP (SRTP) and Signaling Encryption - TLS, IPSec. Number of Trunks - Up to 6 Trunk Groups. <u>Complete:</u> Includes all Essential & Core plus QoS supports 6 cores. Advance Routing Engine supports Standard Routing: Route on Called Number, Domain Call Parameter, Call Parameter Filter Profile Call Type, Digit Type, Time Range - User Name Routing: Route on User Name, Domain, Call Parameter Filter Profile, Call Type, Digit Type, Time Range - Route Prioritization: Sequence, Proportion, All Proportion, Round Robin, Overflow routing, ToD, DoW, Special Days - Services: Screening, Blocking - Call Processing: PSP on IP PEER, Interwork between 12 codecs. Signaling supports Far-end camera control (FECC). Number of Trunks supports up to 12 Trunk Groups.				
HNS SBC Sonus Small Managed Essential		Each	N/A	\$480.00
HNS SBC Sonus Medium Managed Essential		Each	N/A	\$685.00
HNS SBC Sonus Small Managed Core		Each	N/A	\$495.00
HNS SBC Sonus Medium Managed Core		Each	N/A	\$695.00
HNS SBC Sonus Small Managed Complete		Each	N/A	\$505.00
HNS SBC Sonus Medium Managed Complete		Each	N/A	\$710.00

Feature Name	Description	Unit of Measure	Non-Recurring Charge	Monthly Recurring Charge
HNS SBC Sonus License Small Managed Essential		Each	N/A	\$2.54
HNS SBC Sonus License Medium Managed Essential		Each	N/A	\$2.16
HNS SBC Sonus License Small Managed Core		Each	N/A	\$3.32
HNS SBC Sonus License Medium Managed Core		Each	N/A	\$2.62
HNS SBC Sonus License Small Managed Complete		Each	N/A	\$4.14
HNS SBC Sonus License Medium Managed Complete		Each	N/A	\$3.52