



## Deliver More Applications for More Users

F5® BIG-IP® Application Delivery Controller (ADC) platforms can manage even the heaviest traffic loads at both layer 4 and layer 7. By merging high-performance switching fabric, specialized hardware, and advanced software, F5 provides the flexibility to make in-depth application decisions without introducing bottlenecks.

With the high performance you get from BIG-IP platforms, you can consolidate devices—saving management costs, electricity, space, and cooling—and still have room to grow.

### Key benefits

#### Consolidate your infrastructure with purpose-built hardware

BIG-IP hardware platforms are designed specifically for application delivery performance and scalability. One device can be configured for server load balancing, global data center load balancing, DNS services, web application firewall, access management, web performance optimization, and WAN optimization.

#### Offload application servers

BIG-IP platforms feature high-performance SSL and compression hardware, as well as advanced connection management, so that you can remove processing-intensive tasks from application servers, consolidate devices, and use these resources more efficiently.

#### Secure your network

Instantly add layer 3–7 protection with ICSA Certified BIG-IP platforms that provide default deny security, a full packet filter engine that limits access in a granular way, and an industry-leading web application firewall.

#### Reduce your operating costs

Spend less time on configuration, upgrades, and maintenance with the simple-to-manage BIG-IP hardware, featuring out-of-band management, front-panel management, warm upgrades, remote boot, and USB support. Lower power and cooling costs in your data center with 80 Plus Gold and Platinum certified high-efficiency power supplies.

#### Maximize uptime

Ensure your critical infrastructure is built on reliable hardware with hot-swappable components, redundant power supplies, redundant fans, compact flash, multi-boot support, and always-on management. Appliances can be deployed in traditional active/standby configuration or horizontal clusters (active/active) to achieve high availability and application-level failover.



## Intelligent Performance Where It Matters

Performance traditionally has been measured in terms of throughput, but this doesn't accurately represent the complex needs of application delivery. Connection capacity and L7 transactions per second are critical for an ADC to support the increasing needs of modern web applications and infrastructure. For instance, an ADC needs to be able to process high levels of layer 4 and layer 7 connections and make more decisions at the application layer, such as inspecting and removing sensitive information or transforming application-specific payloads. BIG-IP appliances have the intelligence and performance to deliver the maximum amount of application layer decisions while securing your data and infrastructure.

## Simplify Your Network

BIG-IP ADC appliances can help you simplify your network by offloading servers and consolidating devices, saving management costs as well as power, space, and cooling in the data center.

With the massive performance and scalability of the BIG-IP platform, you can reduce the number of Application Delivery Controllers you need to deliver even the most demanding applications. By offloading computationally intense processes, you can significantly reduce the number of application servers needed.

### BIG-IP hardware includes:

- **SSL hardware acceleration**—Offload costly SSL processing and accelerate key exchange and bulk encryption with best-in-market SSL performance.
- **Hardware compression\***—Cost-effectively offload traffic compression processing from your servers to improve page load times and reduce bandwidth utilization.
- **OneConnect™ connection pooling**—Aggregate millions of TCP requests into hundreds of server-side connections. Increase server capacity and ensure requests are handled efficiently.
- **Embedded Packet Velocity Acceleration (ePVA)\***—Provide specific application delivery optimizations, support for low latency and tunneling protocols, and denial-of-service (DoS) protection. ePVA uses field-programmable gate array (FPGA) technology tightly integrated with TMOS and software to deliver:
  - High performance interconnect between Ethernet ports and processors.
  - L4 offload, enabling leading throughput and reduced load on software.
  - Hardware-accelerated SYN flood protection.
  - More than 65 types of DoS attacks detected and mitigated in hardware.
  - Native Financial Information eXchange (FIX) support for message routing and tag substitution while maintaining low latency requirements.

## The Advantages of F5 BIG-IP Technology

Unique architecture and patented hardware and software innovations from F5 offer unmatched capabilities, including:

### F5 ScaleN architecture

ScaleN™ enables you to scale performance on demand, virtualize, or horizontally cluster multiple BIG-IP devices, creating an elastic Application Delivery Networking infrastructure that can efficiently adapt as your business needs change.

- **On-demand scaling**—Increase capacity and performance with on-demand scaling, where you can simply add more power to your existing infrastructure instead of adding more devices. The latest BIG-IP appliance models can be upgraded to the higher performance model within each series through on-demand software licensing. On-demand licensing enables organizations to right-size application delivery services and support growth without requiring new hardware.
- **Operational scaling**—F5 can virtualize ADC services with a multi-tenant architecture that supports a variety of BIG-IP versions and product modules on a single device. Multi-tenant device virtualization is provided by F5's unique Virtual Clustered Multiprocessing™ (vCMP) technology, which enables select hardware platforms to run multiple BIG-IP guest instances. Each BIG-IP guest instance looks and acts like a physical BIG-IP device, with a dedicated allocation of CPU, memory, and other resources.

You can further divide each vCMP guest using multi-tenant features such as partitions and route domains, which can isolate configuration and networks on a per-virtual-domain basis. Within each virtual domain, you can further isolate and secure configuration and policies by using a role-based access system for greater administrative control. When combining both route domains/partitions with vCMP guests, F5 provides the highest density multi-tenant virtualization solution that can scale to thousands of virtual ADC (vADC) instances.

This ability to virtualize BIG-IP ADC services means service providers and enterprise users can isolate based on BIG-IP version, enabling departmental or project-based tenancy as well as performance guarantees, while benefiting from managing a single, consolidated application delivery platform and increased utilization.

- **Application scaling**—Increase capacity by adding BIG-IP resources through an all-active approach. With application scaling, you can scale beyond the traditional device pair to eliminate the need for idle and costly standby resources. Application scaling achieves this through two forms of horizontal scale: Application Service Clustering, which focuses on application scalability and high availability, and Device Service Clustering, designed to efficiently and seamlessly scale BIG-IP application delivery services.

Application Service Clustering delivers sub-second failover and comprehensive connection mirroring for a highly available cluster of up to eight devices at the application layer, providing highly available multi-tenant deployments. Workloads can be moved across a cluster of devices or virtual instances without interrupting other services and can be scaled to meet the business demand.

Device Service Clustering can synchronize full device configurations in an all-active deployment model, enabling consistent policy deployment and enforcement across devices—up to 32 active nodes. This ensures a consistent device configuration that simplifies operations.

### F5 TMOS platform

At the heart of BIG-IP appliances is TMOS®, the F5 operating system that provides a unified system for optimal application delivery, giving you total visibility, flexibility, and control across all services. With TMOS, you can intelligently adapt to the diverse and evolving requirements of applications and networks.

### F5 SYN Check

F5 uses a collaborative software SYN cache and hardware SYN cookie approach to protect against large scale SYN flood DDoS attacks. SYN flood mitigation is available on all TMOS platforms in software. Select hardware platforms (5000, 7000, 10000, and 12000 series appliances and VIPRION blades) utilize the embedded Packet Velocity Acceleration (ePVA) field-programmable gate array (FPGA) to provide significantly improved performance (up to 80 million SYN cookies per second on the BIG-IP 10200v appliance). When a SYN flood is detected, the ePVA turns on the SYN Check™ feature to prevent invalid sessions from getting to the servers or exhausting the BIG-IP device resources. SYN Check is unique in that it can be applied on a per-virtual-IP/application basis, meaning if one application is under attack, the others are not affected. F5 is the only ADC that implements hardware-based SYN cookies in L4 and full proxy L7 mode.

## Next-Generation ADC Appliances

With the introduction of the new BIG-IP 2000, 4000, 5000, 7000, 10000, and 12000 series appliances, F5 continues to invest and innovate in hardware development to ensure that even the most demanding web applications are available, secure, and fast. The new BIG-IP hardware offers industry-leading performance in application decisions per second, SSL processing, and hardware compression for each class of ADC. Enterprises and service providers can deploy multiple application delivery services, offload SSL processing, and efficiently consolidate on a single, unified platform. In addition, with the capability to upgrade from a base appliance to a higher capacity model in that series through a software license, F5 provides on-demand flexibility to match changing business needs.



| Specifications                                  | 12250v   | 11050  |
|---|--|--|
| Intelligent Traffic Processing:                 | L7 RPS: 4M<br>L4 CPS: 1.5M<br>L4 HTTP RPS: 14M<br>Maximum L4 concurrent connections: 80M<br>Throughput: 84 Gbps/40 Gbps L4/L7                                    | L7 requests per second: 2.5M<br>L4 connections per second: 1M<br>Maximum L4 concurrent connections: 24M<br>Throughput: 42 Gbps/40 Gbps L4/L7 |
| Hardware SSL:                                   | Included: 240K TPS (2K keys)<br>Maximum: 240K TPS (2K keys)<br>40 Gbps bulk encryption*  | Included: 500 TPS<br>Maximum: 20,000 TPS (2K keys)<br>15 Gbps bulk encryption*   |
| FIPS SSL:                                       | N/A  | FIPS 140-2 Level 2 (option)<br>9,000 TPS (2K keys)<br>15 Gbps bulk encryption*   |
| Hardware DDoS Protection:                       | 80 M SYN-Cookies Per Second  | N/A  |
| Hardware Compression:                           | Included: 40 Gbps, Maximum: 40 Gbps  | N/A  |
| Software Compression:                           | N/A  | Included: 50 Mbps<br>Maximum: 12 Gbps  |
| Software Architecture:                          | 64-bit TMOS  | 64-bit TMOS  |
| On-Demand Upgradable:                           | N/A  | N/A  |
| Virtualization (Maximum Number of vCMP Guests): | 24   | N/A  |
| Processor:                                      | One twelve core Intel Xeon processor<br>(total 24 hyperthreaded logical processor cores)   | Dual CPU, hex core (12 processing cores)   |
| Memory:   | 128 GB   | 32 GB  |
| Hard Drive:                                     | 800 GB SSD   | Two 600 GB drives, 10,000 RPM (RAID 1)   |
| Gigabit Ethernet CU Ports:                      | Optional SFP   | Optional SFP   |
| Gigabit Fiber Ports (SFP):                      | Optional SFP (SX or LX)  | Optional SFP (SX or LX)  |
| 10 Gigabit Fiber Ports (SFP+):                  | 16 SR or LR (sold separately, 2 SR included);<br>Optional 10G copper direct attach   | 10 SR or LR (sold separately, 2 SR included);<br>Optional 10G copper direct attach   |
| 40 Gigabit Fiber Ports (QSFP+):                 | 2 SR4 (sold separately) (QSFP+ optical breakout cable<br>assemblies available to convert to 10 gigabit ports)<br>Note: Only optics provided by F5 are supported. | N/A  |
| Power Supply:                                   | Dual 850W included (80+ Platinum efficiency), DC option  | Dual 850W included, DC optional  |
| Typical Consumption:                            | 330W (dual supply, 110V input)**   | 440W (dual A/C power - 110V input)   |
| Input Voltage:                                  | 90–240 VAC +/- 10% auto switching, 50/60hz   | 90–240 VAC +/- 10% auto switching, 50/60 hz  |
| Typical Heat Output:                            | 1125 BTU/hour (dual supply, 110V input)**  | 1501 BTU/hour (110V input)   |
| Dimensions:                                     | 3.45" (8.76 cm) H x 17.3" (43.94 cm) W x 21.4" (54.36 cm) D<br>2U industry standard rack-mount chassis   | 5.2" (13.2 cm) H x 17.4" (44.2 cm) W x 21.4" (54.36 cm) D<br>3U industry standard rack-mount chassis   |
| Weight:   | 43 lbs. (19.5 kg) (Dual power supply)  | 52 lbs. (23.6 kg) (dual power supply)  |
| Operating Temperature:                          | 32° to 104° F (0° to 40° C)  | 32° to 104° F (0° to 40° C)  |
| Operational Relative Humidity:                  | 10 to 90% @ 40° C  | 5 to 85% at 40° C  |
| Safety Agency Approval:                         | UL 60950-1 2nd Edition<br>CAN/CSA C22.2 No. 60950-1-07<br>EN 60950-1:2006, 2nd Edition<br>IEC 60950-1:2006, 2nd Edition<br>Evaluated to all CB Countries         | UL 60950-1:2001, 1st Edition<br>CSA C22.2 No. 60950-1-03<br>IEC 60950-1: 2005, 2nd Edition<br>EN 60950-1: 2005, 2nd Edition                  |
| Certifications/<br>Susceptibility Standards:    | EEN 300 386 V1.5.1 (2010-10)<br>EN 55022:2006 + A1:2007<br>EN 61000-3-2:2006<br>EN 61000-3-3:1995 + A1:2000 + A2:2005<br>EN 55024: 2010<br>USA FCC Class A       | EN 55022:2006 + C1:2006<br>EN 55024:1998 + A1: 2001 + A2:2003<br>FCC Part 15B Class A<br>VCCI Class A<br>NEBS compliant (option)             |

\*Maximum throughput.

\*\*Please refer to the [Platform Guide: 12000 Series](#) for the latest power ratings for your specific configurations (SSL, highline input voltage, DC, etc.)

Note: Performance-related numbers are based on local traffic management services only.



| Specifications                                  | 11000  | 10350v-N  |
|---|--|---|
| Intelligent Traffic Processing:                 | L7 requests per second: 2.5M<br>L4 connections per second: 1M<br>Maximum L4 concurrent connections: 30M<br>Throughput: 24 Gbps L4/L7 | L7 RPS: 3M<br>L4 CPS: 1.2M<br>L4 HTTP RPS: 14M<br>Maximum L4 concurrent connections: 80M<br>Throughput: 84 Gbps/40 Gbps L4/L7                                 |
| Hardware SSL:                                   | Included: 500 TPS<br>Maximum: 20,000 TPS (2K keys)<br>15 Gbps bulk encryption*   | Included: 42K TPS (2K keys)<br>Maximum: 42K TPS (2K keys)<br>24 Gbps bulk encryption  |
| FIPS SSL:                                       | FIPS 140-2 Level 2 (option)<br>9,000 TPS (2K keys)<br>15 Gbps bulk encryption*   | N/A   |
| Hardware DDoS Protection:                       | N/A  | 80 M SYN-Cookies Per Second   |
| Hardware Compression:                           | Included: 50 Mbps<br>Maximum: 16 Gbps  | Included: 24 Gbps<br>Maximum: 24 Gbps   |
| Software Compression:                           | N/A  | N/A   |
| Software Architecture:                          | 64-bit TMOS  | 64-bit TMOS   |
| On-Demand Upgradable:                           | N/A  | N/A   |
| Virtualization (Maximum Number of vCMP Guests): | N/A  | 20  |
| Processor:                                      | Dual CPU, hex core (12 processing cores)   | One ten core Intel Xeon processor<br>(total 20 hyperthreaded logical processor cores)   |
| Memory:   | 48 GB  | 128 GB  |
| Hard Drive:                                     | Two 600 GB drives, 10,000 RPM (RAID 1)   | 800 GB SSD  |
| Gigabit Ethernet CU Ports:                      | Optional SFP   | Optional SFP  |
| Gigabit Fiber Ports (SFP):                      | Optional SFP (SX or LX)  | Optional SFP (SX or LX)   |
| 10 Gigabit Fiber Ports (SFP+):                  | 10 SR or LR (sold separately, 2 SR included);<br>Optional 10G copper direct attach   | 16 SR or LR (sold separately, 2 SR included);<br>Optional 10G copper direct attach  |
| 40 Gigabit Fiber Ports (QSFP+):                 | N/A  | 2 SR4 (sold separately) (QSFP+ optical breakout cable assemblies available to convert to 10 gigabit ports)<br>Note: Only optics provided by F5 are supported. |
| Power Supply:                                   | Dual 850W included, DC optional  | Dual 850W included (80+ Platinum efficiency), DC-only.  |
| Typical Consumption:                            | 440W (dual A/C power - 110V input)   | 320W (dual supply, 48VDC input)**   |
| Input Voltage:                                  | 90–240 VAC +/- 10% auto switching, 50/60 hz  | Operating range: 44 to 72 VDC<br>Minimum start up voltage: 44 VDC   |
| Typical Heat Output:                            | 1501 BTU/hour (110V input)   | 1092 BTU/hour (dual supply, 48V input)**  |
| Dimensions:                                     | 5.2" (13.2 cm) H x 17.4" (44.2 cm) W x 21.4" (54.36 cm) D<br>3U industry standard rack-mount chassis                                 | 3.45" (8.76 cm) H x 17.3" (43.94 cm) W x 21.4" (54.36 cm) D<br>2U industry standard rack-mount chassis  |
| Weight:   | 52 lbs. (23.6 kg) (dual power supply)  | 43 lbs. (19.5 kg) (Dual power supply)   |
| Operating Temperature:                          | 32° to 104° F (0° to 40° C)  | 32° to 104° F (0° to 40° C)   |
| Operational Relative Humidity:                  | 5 to 85% at 40° C  | 10 to 90% @ 40° C   |
| Safety Agency Approval:                         | UL 60950-1:2001, 1st Edition<br>CSA C22.2 No. 60950-1-03<br>IEC 60950-1: 2005, 2nd Edition<br>EN 60950-1: 2005, 2nd Edition          | UL 60950-1 2nd Edition<br>CAN/CSA C22.2 No. 60950-1-07<br>EN 60950-1:2006, 2nd Edition<br>IEC 60950-1:2006, 2nd Edition<br>Evaluated to all CB Countries      |
| Certifications/<br>Susceptibility Standards:    | EN 55022:2006 + C1:2006<br>EN 55024:1998 + A1: 2001 + A2:2003<br>FCC Part 15B Class A<br>VCCI Class A                                | EEN 300 386 V1.5.1 (2010-10)<br>EN 55022:2006 + A1:2007<br>EN 61000-3-2:2006<br>EN 61000-3-3:1995 + A1:2000 + A2:2005<br>EN 55024: 2010<br>USA FCC Class A    |

\*Maximum throughput.

\*\*Please refer to the [Platform Guide: 10000 Series](#) for the latest power ratings for your specific configurations (SSL, SSD, highline input voltage, DC, etc.)

Note: Performance-related numbers are based on local traffic management services only.



| Specifications                                  | 10250v/10200v-SSL  | 10050s/10000s   |
|---|--|---|
| Intelligent Traffic Processing:                 | L7 requests per second: 2M<br>L4 connections per second: 1M<br>L4 HTTP requests per second: 14M<br>Maximum L4 concurrent connections: 36M<br>Throughput: 80 Gbps/40 Gbps L4/L7                       | L7 requests per second: 1M<br>L4 connections per second: 500K<br>L4 HTTP requests per second: 7M<br>Maximum L4 concurrent connections: 36M<br>Throughput: 80 Gbps/40 Gbps L4/L7 |
| Hardware SSL:                                   | Included: 42,000 TPS (2K keys)<br>Max for 10200v: 42,000 TPS (2K keys)<br>Max for 10200v-SSL: 75,000 TPS (2K keys)<br>22 Gbps bulk encryption* for 10200v<br>33 Gbps bulk encryption* for 10200v-SSL | Included: 21,000 TPS (2K keys)<br>Maximum: 21,000 TPS (2K keys)<br>22 Gbps bulk encryption*   |
| FIPS SSL:                                       | FIPS 140-2 Level 2 (10200v option)***<br>9,000 TPS (2K keys), 22 Gbps bulk encryption*   | N/A   |
| Hardware DDoS Protection:                       | 80M SYN cookies per second   | 40M SYN cookies per second  |
| Hardware Compression:                           | Included: 24 Gbps , Maximum: 24 Gbps   | N/A   |
| Software Compression:                           | N/A  | Included: 12 Gbps<br>Maximum: 12 Gbps   |
| Software Architecture:                          | 64-bit TMOS  | 64-bit TMOS   |
| On-Demand Upgradable:                           | N/A  | Yes   |
| Virtualization (Maximum Number of vCMP Guests): | 12 (10250v), 6 (10200v)  | N/A   |
| Processor:                                      | Intel hex core (total 12 hyperthreaded logical processor cores)  | Intel hex core (total 12 hyperthreaded logical processor cores)   |
| Memory:   | 48 GB  | 48 GB   |
| Hard Drive:                                     | Two 1 TB drives (RAID 1) (10200v)<br>400 GB solid state drive (10250v)   | Two 1 TB drives (RAID 1) (10000s)<br>400 GB solid state drive (10050s)  |
| Gigabit Ethernet CU Ports:                      | Optional SFP   | Optional SFP  |
| Gigabit Fiber Ports (SFP):                      | Optional SFP (SX or LX)  | Optional SFP (SX or LX)   |
| 10 Gigabit Fiber Ports (SFP+):                  | 16 SR or LR (sold separately, 2 SR included);<br>Optional 10G copper direct attach   | 16 SR or LR (sold separately, 2 SR included);<br>Optional 10G copper direct attach  |
| 40 Gigabit Fiber Ports (QSFP+):                 | 2 SR4 (sold separately) (QSFP+ optical breakout cable assemblies available to convert to 10 gigabit ports)<br><i>Note: Only optics provided by F5 are supported.</i>                                 | 2 SR4 (sold separately) (QSFP+ optical breakout cable assemblies available to convert to 10 gigabit ports)<br><i>Note: Only optics provided by F5 are supported.</i>            |
| Power Supply:                                   | Dual 850W included (80+ Platinum efficiency), DC optional  | Dual 850W included (80 Plus Platinum efficiency), DC optional   |
| Typical Consumption:                            | 320W (dual supply, 110V input)**   | 320W (dual supply, 110V input)**  |
| Input Voltage:                                  | 90–240 VAC +/- 10% auto switching, 50/60hz   | 90–240 VAC +/- 10% auto switching, 50/60hz  |
| Typical Heat Output:                            | 1090 BTU/hour (dual supply, 110V input)**  | 1090 BTU/hour (dual supply, 110V input)**   |
| Dimensions:                                     | 3.45" (8.76 cm) H x 17.3" (43.94 cm) W x 21.4" (54.36 cm) D<br>2U industry standard rack-mount chassis   | 3.45" (8.76 cm) H x 17.3" (43.94 cm) W x 21.4" (54.36 cm) D<br>2U industry standard rack-mount chassis  |
| Weight:   | 43 lbs. (19.5 kg) (dual power supply)  | 43 lbs. (19.5 kg) (dual power supply)   |
| Operating Temperature:                          | 32° to 104° F (0° to 40° C)  | 32° to 104° F (0° to 40° C)   |
| Operational Relative Humidity:                  | 5 to 85% at 40° C  | 5 to 85% at 40° C   |
| Safety Agency Approval:                         | UL 60950-1 2nd Edition<br>CAN/CSA C22.2 No. 60950-1-07<br>EN 60950-1:2006, 2nd Edition<br>IEC 60950-1:2006, 2nd Edition<br>Evaluated to all CB Countries   | UL 60950-1 2nd Edition<br>CAN/CSA C22.2 No. 60950-1-07<br>EN 60950-1:2006, 2nd Edition<br>IEC 60950-1:2006, 2nd Edition<br>Evaluated to all CB Countries                        |
| Certifications/<br>Susceptibility Standards:    | EEN 300 386 V1.5.1 (2010-10); EN 55022:2006 + A1:2007<br>EN 61000-3-2:2006; EN 61000-3-3:1995 + A1:2000 + A2:2005<br>EN 55024: 2010; USA FCC Class A   | EEN 300 386 V1.5.1 (2010-10); EN 55022:2006 + A1:2007<br>EN 61000-3-2:2006; EN 61000-3-3:1995 + A1:2000 + A2:2005<br>EN 55024: 2010; USA FCC Class A                            |

\*Maximum throughput.

\*\*Please refer to the [Platform Guide: 10000 Series](#) for the latest power ratings for your specific configurations (SSL, SSD, highline input voltage, DC, etc.)

\*\*\* vCMP guest access to FIPS resources not supported.

Note: Performance-related numbers are based on local traffic management services only.



## Specifications

### 7250v/7200v-SSL

### 7050s/7000s

|   |   |   |
|---|---|---|
| Intelligent Traffic Processing:                 | L7 requests per second: 1.6M<br>L4 connections per second: 775K<br>L4 HTTP requests per second: 7M<br>Maximum L4 concurrent connections: 24M<br>Throughput: 40 Gbps/20 Gbps L4/L7                       | L7 requests per second: 800K<br>L4 connections per second: 390K<br>L4 HTTP requests per second: 3.5M<br>Maximum L4 concurrent connections: 24M<br>Throughput: 40 Gbps/20 Gbps L4/L7           |
| Hardware SSL:                                   | Included: 25,000 TPS (2K keys)<br>Maximum for 7200v: 25,000 TPS (2K keys)<br>Maximum for 7200v-SSL: 60,000 TPS (2K keys)<br>18 Gbps bulk encryption for 7200v<br>19 Gbps bulk encryption* for 7200v-SSL | Included: 15,000 TPS (2K keys)<br>Maximum: 15,000 TPS (2K keys)<br>18 Gbps bulk encryption*   |
| FIPS SSL:                                       | FIPS 140-2 Level 2 (7200v option)***<br>9,000 TPS (2K keys); 18 Gbps bulk encryption*   | N/A   |
| Hardware DDoS Protection:                       | 40M SYN cookies per second  | 20M SYN cookies per second  |
| Hardware Compression:                           | Included: 18 Gbps, Maximum: 18 Gbps   | N/A   |
| Software Compression:                           | N/A   | Included: 9 Gbps, Maximum: 9 Gbps   |
| Software Architecture:                          | 64-bit TMOS   | 64-bit TMOS   |
| On-Demand Upgradable:                           | N/A   | Yes   |
| Virtualization (Maximum Number of vCMP Guests): | 8 (7250v), 4 (7200v)  | N/A   |
| Processor:                                      | 1 quad core Intel Xeon processor (total 8 hyperthreaded logical processing cores)   | 1 quad core Intel Xeon processor (total 8 hyperthreaded logical processing cores)   |
| Memory:   | 32 GB   | 32 GB   |
| Hard Drive:                                     | Two 1TB (RAID 1) (7200v)<br>400 GB solid state drive (7250v)  | Two 1TB (RAID 1) (7000s)<br>400 GB solid state drive (7050s)  |
| Gigabit Ethernet CU Ports:                      | 4   | 4   |
| Gigabit Fiber Ports (SFP):                      | Optional SFP (SX, LX, or copper)  | Optional SFP (SX, LX, or copper)  |
| 10 Gigabit Fiber Ports (SFP+):                  | 8 SR or LR (sold separately, 2 SR included);<br>Optional 10G copper direct attach   | 8 SR or LR (sold separately, 2 SR included);<br>Optional 10G copper direct attach   |
| 40 Gigabit Fiber Ports (QSFP+):                 | N/A   | N/A   |
| Power Supply:                                   | Two 400 W included (80 Plus Gold Efficiency), DC optional   | Two 400 W included (80 Plus Gold Efficiency), DC optional   |
| Typical Consumption:                            | 205W (dual supply, 110V input)**  | 205W (dual supply, 110V input)**  |
| Input Voltage:                                  | 90-240 VAC +/- 10% auto switching, 50/60hz  | 90-240 VAC +/- 10% auto switching, 50/60hz  |
| Typical Heat Output:                            | 700 BTU/hour (dual supply, 110V input)**  | 700 BTU/hour (dual supply, 110V input)**  |
| Dimensions:                                     | 3.45" (8.76 cm) H x 17.3" (43.94 cm) W x 21.4" (54.36 cm) D<br>2U industry standard rack-mount chassis  | 3.45" (8.76 cm) H x 17.3" (43.94 cm) W x 21.4" (54.36 cm) D<br>2U industry standard rack-mount chassis  |
| Weight:   | 43 lbs. (19.5 kg) (dual power supply)   | 43 lbs. (19.5 kg) (dual power supply)   |
| Operating Temperature:                          | 32° to 104° F (0° to 40° C)   | 32° to 104° F (0° to 40° C)   |
| Operational Relative Humidity:                  | 5 to 85% @ 40° C  | 5 to 85% @ 40° C  |
| Safety Agency Approval:                         | ANSI/UL 60950-1-2011<br>CSA 60950-1-07, including Amendment 1:2011<br>Low Voltage Directive 2006/95/EC<br>CB Scheme<br>EN 60950-1:2006+A11:2009+A1:2010+A12:2011<br>IEC 60950-1:2005, A1:2009           | ANSI/UL 60950-1-2011<br>CSA 60950-1-07, including Amendment 1:2011<br>Low Voltage Directive 2006/95/EC<br>CB Scheme<br>EN 60950-1:2006+A11:2009+A1:2010+A12:2011<br>IEC 60950-1:2005, A1:2009 |
| Certifications/Susceptibility Standards:        | EN 300 386 V1.5.1 (2010-10); EN 55022:2010<br>EN 61000-3-2:2006+A1:2009+A2:2009; EN 61000-3-3:2008<br>EN 55024:2010; EN 55022:2010; EN 61000-3-3:2008<br>EN 55024:2010; USA FCC Class A                 | EN 300 386 V1.5.1 (2010-10); EN 55022:2010<br>EN 61000-3-2:2006+A1:2009+A2:2009; EN 61000-3-3:2008<br>EN 55024:2010; EN 55022:2010; EN 61000-3-3:2008<br>EN 55024:2010; USA FCC Class A       |

\*Maximum throughput.

\*\*Please refer to the [Platform Guide: 7000 Series](#) for the latest power ratings for your specific configurations (SSL, SSD, highline input voltage, DC, etc.).

\*\*\* vCMP guest access to FIPS resources not supported.

Note: Performance-related numbers are based on local traffic management services only.





텍스트

## Specifications

## 5250v/5200v

## 5050s/5000s

|  |   |   |
|--|---|---|
| Intelligent Traffic Processing:                | L7 requests per second: 1.5M<br>L4 connections per second: 700K<br>Maximum L4 concurrent connections: 24M<br>L4 HTTP requests per second: 7M<br>Throughput: 30 Gbps/15 Gbps L4/L7             | L7 requests per second: 750K<br>L4 connections per second: 350K<br>L4 HTTP requests per second: 3.5M<br>Maximum L4 concurrent connections: 24M<br>Throughput: 30 Gbps/15 Gbps L4/L7           |
| Hardware SSL:                                  | Included: 21,000 TPS (2K keys)<br>Maximum: 21,000 TPS (2K keys)<br>12 Gbps bulk encryption*   | Included: 10,000 TPS (2K keys)<br>Maximum: 10,000 TPS (2K keys)<br>12 Gbps bulk encryption*   |
| FIPS SSL:                                      | FIPS 140-2 Level 2 (5250v option)***<br>5,000 TPS (2K keys); 12 Gbps bulk encryption*   | N/A   |
| Hardware DDoS Protection:                      | 40M SYN cookies per second  | 20M SYN cookies per second  |
| Hardware Compression:                          | Included: 12 Gbps, Maximum: 12 Gbps   | N/A   |
| Software Compression:                          | N/A   | Included: 6 Gbps<br>Maximum: 6 Gbps   |
| Software Architecture:                         | 64-bit TMOS   | 64-bit TMOS   |
| On-Demand Upgradable:                          | N/A   | Yes   |
| Virtualization (Maximum Number of vCMP Guests) | 8 (5250v), 4 (5200v)  | N/A   |
| Processor:                                     | 1 quad core Intel Xeon processor (total 8 hyperthreaded logical processing cores)   | 1 quad core Intel Xeon processor (total 8 hyperthreaded logical processing cores)   |
| Memory:  | 32 GB   | 32 GB   |
| Hard Drive:                                    | 1 TB (5200v); 400 GB solid state drive (5250v)  | 1 TB (5000s)<br>400 GB solid state drive (5050s)  |
| Gigabit Ethernet CU Ports:                     | 4   | 4   |
| Gigabit Fiber Ports (SFP):                     | Optional SFP (SX, LX, or copper)  | Optional SFP (SX, LX, or copper)  |
| 10 Gigabit Fiber Ports (SFP+):                 | 8 SR or LR (sold separately);<br>Optional 10G copper direct attach  | 8 SR or LR (sold separately);<br>Optional 10G copper direct attach  |
| 40 Gigabit Fiber Ports (QSFP+):                | N/A   | N/A   |
| Power Supply:                                  | One 400 W included (80 Plus Gold Efficiency),<br>dual power and DC options  | One 400 W included (80 Plus Gold Efficiency),<br>dual power and DC options  |
| Typical Consumption:                           | 165W (single supply, 110V input)**  | 165W (single supply, 110V input)**  |
| Input Voltage:                                 | 90-240 VAC +/- 10% auto switching, 50/60hz  | 90-240 VAC +/- 10% auto switching, 50/60hz  |
| Typical Heat Output:                           | 564 BTU/hour (single supply, 110V input)**  | 564 BTU/hour (single supply, 110V input)**  |
| Dimensions:                                    | 1.75" (4.45 cm) H x 17" (43.18 cm) W x 21" (53.34 cm) D<br>1U industry standard rack-mount chassis  | 1.75" (4.45 cm) H x 17" (43.18 cm) W x 21" (53.34 cm) D<br>1U industry standard rack-mount chassis  |
| Weight:  | 21 lbs. (9.53 kg) (one power supply)  | 21 lbs. (9.53 kg) (one power supply)  |
| Operating Temperature:                         | 32° to 104° F (0° to 40° C)   | 32° to 104° F (0° to 40° C)   |
| Operational Relative Humidity:                 | 5 to 85% at 40° C   | 5 to 85% at 40° C   |
| Safety Agency Approval:                        | ANSI/UL 60950-1-2011<br>CSA 60950-1-07, including Amendment 1:2011<br>Low Voltage Directive 2006/95/EC<br>CB Scheme<br>EN 60950-1:2006+A11:2009+A1:2010+A12:2011<br>IEC 60950-1:2005, A1:2009 | ANSI/UL 60950-1-2011<br>CSA 60950-1-07, including Amendment 1:2011<br>Low Voltage Directive 2006/95/EC<br>CB Scheme<br>EN 60950-1:2006+A11:2009+A1:2010+A12:2011<br>IEC 60950-1:2005, A1:2009 |
| Certifications/<br>Susceptibility Standards:   | EN 300 386 V1.5.1 (2010-10); EN 55022:2010<br>EN 61000-3-2:2006+A1:2009+A2:2009; EN 61000-3-3:2008<br>EN 55024:2010; EN 55022:2010; EN 61000-3-3:2008<br>EN 55024:2010; USA FCC Class A       | EN 300 386 V1.5.1 (2010-10); EN 55022:2010<br>EN 61000-3-2:2006+A1:2009+A2:2009; EN 61000-3-3:2008<br>EN 55024:2010; EN 55022:2010; EN 61000-3-3:2008<br>EN 55024:2010; USA FCC Class A       |

\*Maximum throughput.

\*\*Please refer to the [Platform Guide: 5000 Series](#) for the latest power ratings for your specific configurations (dual power supplies, SSD, highline input voltage, DC, etc.).

\*\*\* vCMP guest access to FIPS resources not supported.

Note: Performance-related numbers are based on local traffic management services only.



## Specifications

## 4200v

## 4000s

|  |   |  |
|--|---|--|
| Intelligent Traffic Processing:              | L7 requests per second: 850K<br>L4 connections per second: 300K<br>L4 HTTP requests per second: 2.5M<br>Maximum L4 concurrent connections: 10M<br>Throughput: 10 Gbps L4/L7 | L7 requests per second: 425K<br>L4 connections per second: 150K<br>L4 HTTP requests per second: 1.25M<br>Maximum L4 concurrent connections: 10M<br>Throughput: 10 Gbps L4/L7 |
| Hardware SSL:                                | Included: 9,000 TPS (2K keys)<br>Maximum: 9,000 TPS (2K keys)<br>8 Gbps bulk encryption*  | Included: 4,500 TPS (2K keys)<br>Maximum: 4,500 TPS (2K keys)<br>8 Gbps bulk encryption*   |
| FIPS SSL:                                    | N/A   | N/A  |
| Hardware DDoS Protection:                    | N/A   | N/A  |
| Hardware Compression:                        | Included: 8 Gbps<br>Maximum: 8 Gbps   | N/A  |
| Software Compression:                        | N/A   | Included: 4 Gbps<br>Maximum: 4 Gbps  |
| Software Architecture:                       | 64-bit TMOS   | 64-bit TMOS  |
| On-Demand Upgradable:                        | N/A   | Yes  |
| Processor:                                   | 1 quad core Intel Xeon processor<br>(total 8 hyperthreaded logical processing cores)  | 1 quad core Intel Xeon processor (total 8 hyperthreaded logical processing cores)  |
| Memory:                                      | 16 GB   | 16 GB  |
| Hard Drive:                                  | 500 GB  | 500 GB   |
| Gigabit Ethernet CU Ports:                   | 8   | 8  |
| Gigabit Fiber Ports (SFP):                   | Optional SFP (SX, LX, or copper)  | Optional SFP (SX, LX, or copper)   |
| 10 Gigabit Fiber Ports (SFP+):               | 2 SR or LR (sold separately);<br>Optional 10G copper direct attach  | 2 SR or LR (sold separately);<br>Optional 10G copper direct attach   |
| 40 Gigabit Fiber Ports (QSFP+):              | N/A   | N/A  |
| Power Supply:                                | One 400W included (80 Plus Platinum efficiency),<br>dual power and DC options   | One 400W included (80 Plus Platinum efficiency),<br>dual power and DC options  |
| Typical Consumption:                         | 95W (single supply, 110V input)**   | 95W (single supply, 110V input)**  |
| Input Voltage:                               | 90-240 VAC +/- 10% auto switching, 50/60hz  | 90-240 VAC +/- 10% auto switching, 50/60hz   |
| Typical Heat Output:                         | 324 BTU/hour (single supply, 110V input)**  | 324 BTU/hour (single supply, 110V input)**   |
| Dimensions:                                  | 1.75" (4.45 cm) H x 17" (43.18 cm) W x 21" (53.34 cm) D<br>1U industry standard rack-mount chassis  | 1.75" (4.45 cm) H x 17" (43.18 cm) W x 21" (53.34 cm) D<br>1U industry standard rack-mount chassis   |
| Weight:                                      | 20 lbs. (9.1 kg) (one power supply)   | 20 lbs. (9.1 kg) (one power supply)  |
| Operating Temperature:                       | 32° to 104° F (0° to 40° C)   | 32° to 104° F (0° to 40° C)  |
| Operational Relative Humidity:               | 5 to 85% at 40° C   | 5 to 85% at 40° C  |
| Safety Agency Approval:                      | UL 60950-1 2nd Edition<br>CAN/CSA C22.2 No. 60950-1-07<br>EN 60950-1:2006, 2nd Edition<br>IEC 60950-1:2006, 2nd Edition<br>Evaluated to all CB Countries                    | EN 60950-1:2006, 2nd Edition<br>IEC 60950-1:2006, 2nd Edition<br>Evaluated to all CB Countries<br>UL 60950-1 2nd Edition<br>CAN/CSA C22.2 No. 60950-1-07                     |
| Certifications/<br>Susceptibility Standards: | EN 300 386 V1.5.1 (2010-10); EN 55022:2006 + A1:2007<br>EN 61000-3-2:2006; EN 61000-3-3:1995 + A1:2000 + A2:2005<br>EN 55024:2010; USA-FCC Class A                          | EN 300 386 V1.5.1 (2010-10)<br>EN 55022:2006 + A1:2007<br>EN 61000-3-2:2006<br>EN 61000-3-3:1995 + A1:2000 + A2:2005<br>EN 55024: 2010<br>USA FCC Class A                    |

\*Maximum throughput.

\*\*Please refer to the [Platform Guide: 4000 Series](#) for the latest power ratings for your specific configurations (dual power supplies, highline input voltage, DC, etc.).

Note: Performance-related numbers are based on local traffic management services only.



## Specifications

## 2200s

## 2000s

|  |   |  |
|--|---|--|
| Intelligent Traffic Processing:              | L7 requests per second: 425K<br>L4 connections per second: 150K<br>L4 HTTP requests per second: 1.1M<br>Maximum L4 concurrent connections: 5M<br>Throughput: 5 Gbps L4/L7 | L7 requests per second: 212K<br>L4 connections per second: 75K<br>L4 HTTP requests per second: 550K<br>Maximum L4 concurrent connections: 5M<br>Throughput: 5 Gbps L4/L7 |
| Hardware SSL:                                | Included: 4,000 TPS (2K keys)<br>Maximum: 4,000 TPS (2K keys)<br>4 Gbps bulk encryption*  | Included: 2,000 TPS (2K keys)<br>Maximum: 2,000 TPS (2K keys)<br>4 Gbps bulk encryption*   |
| FIPS SSL:                                    | N/A   | N/A  |
| Hardware DDoS Protection:                    | N/A   | N/A  |
| Hardware Compression:                        | Included: 4 Gbps<br>Maximum: 4 Gbps   | N/A  |
| Software Compression:                        | N/A   | Included: 2.5 Gbps<br>Maximum: 2.5 Gbps  |
| Software Architecture:                       | 64-bit TMOS   | 64-bit TMOS  |
| On-Demand Upgradable:                        | N/A   | Yes  |
| Processor:                                   | Intel dual core (total 4 hyperthreaded logical processing cores)  | Intel dual core (total 4 hyperthreaded logical processing cores)   |
| Memory:                                      | 8 GB  | 8 GB   |
| Hard Drive:                                  | 500 GB  | 500 GB   |
| Gigabit Ethernet CU Ports:                   | 8   | 8  |
| Gigabit Fiber Ports (SFP):                   | Optional SFP (SX, LX, or copper)  | Optional SFP (SX, LX, or copper)   |
| 10 Gigabit Fiber Ports (SFP+):               | 2 SR or LR (sold separately);<br>Optional 10G copper direct attach  | 2 SR or LR (sold separately);<br>Optional 10G copper direct attach   |
| 40 Gigabit Fiber Ports (QSFP+):              | N/A   | N/A  |
| Power Supply:                                | One 400W included (80+ Platinum efficiency),<br>dual power and DC options   | One 400W included (80+ Platinum efficiency),<br>dual power and DC options  |
| Typical Consumption:                         | 74W (single supply, 110V input)**   | 74W (single supply, 110V input)**  |
| Input Voltage:                               | 90–240 VAC +/- 10% auto switching, 50/60hz  | 90–240 VAC +/- 10% auto switching, 50/60hz   |
| Typical Heat Output:                         | 252 BTU/hour (single supply, 110V input)**  | 252 BTU/hour (single supply, 110V input)**   |
| Dimensions:                                  | 1.75" (4.45 cm) H x 17" (43.18 cm) W x 21" (53.34 cm) D<br>1U industry standard rack-mount chassis  | 1.75" (4.45 cm) H x 17" (43.18 cm) W x 21" (53.34 cm) D<br>1U industry standard rack-mount chassis   |
| Weight:                                      | 20 lbs. (9.1 kg) (one power supply)   | 20 lbs. (9.1 kg) (one power supply)  |
| Operating Temperature:                       | 32° to 104° F (0° to 40° C)   | 32° to 104° F (0° to 40° C)  |
| Operational Relative Humidity:               | 5 to 85% at 40° C   | 5 to 85% at 40° C  |
| Safety Agency Approval:                      | UL 60950-1 2nd Edition<br>CAN/CSA C22.2 No. 60950-1-07<br>EN 60950-1:2006, 2nd Edition<br>IEC 60950-1:2006, 2nd Edition<br>Evaluated to all CB Countries                  | UL 60950-1 2nd Edition<br>CAN/CSA C22.2 No. 60950-1-07<br>EN 60950-1:2006, 2nd Edition<br>IEC 60950-1:2006, 2nd Edition<br>Evaluated to all CB Countries                 |
| Certifications/<br>Susceptibility Standards: | EN 300 386 V1.5.1 (2010-10)<br>EN 55022:2006 + A1:2007<br>EN 61000-3-2:2006<br>EN 61000-3-3:1995 + A1:2000 + A2:2005<br>EN 55024: 2010<br>USA FCC Class A                 | EN 300 386 V1.5.1 (2010-10)<br>EN 55022:2006 + A1:2007<br>EN 61000-3-2:2006<br>EN 61000-3-3:1995 + A1:2000 + A2:2005<br>EN 55024: 2010<br>USA FCC Class A                |

\*Maximum throughput.

\*\*Please refer to the [Platform Guide: 2000 Series](#) for the latest power ratings for your specific configurations (dual power supplies, highline input voltage, DC, etc.)

Note: Performance-related numbers are based on local traffic management services only.

## Simplified Licensing

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[BIG-IP Advanced Firewall Manager](#)

[BIG-IP Application Security Manager](#)

[BIG-IP Access Policy Manager](#)

[BIG-IP Application Acceleration Manager](#)

[BIG-IP Carrier-Grade NAT](#)

[BIG-IP Policy Enforcement Manager](#)

### Report

[F5 Comparative Performance Report ADC 2013](#)

### White papers

[ScaleN: Elastic Infrastructure](#)

[BIG-IP Application Delivery Hardware: A Critical Component](#)

[Clustered Multiprocessing: Changing the Rules of the Performance Game](#)

[Virtual Clustered Multiprocessing \(vCMP\)](#)

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