The Juniper Networks WXC™ application acceleration platforms provide distributed enterprises with a scalable approach to accelerating application delivery over the WAN. Based on the comprehensive WX Framework™, which delivers the elements needed to accelerate applications over wide-area links and optimize WAN performance, the WXC products help businesses make the most efficient use of their existing WAN resources and improve application response times for branch office users.

The WXC product family includes the WXC 250, the WXC 500, the WXC 590 and the WXC Stack. The WXC family scales from 128 Kbps to 155 Mbps, with hard drive capacity from 40 GB to 3 TB.

The hard drives provide support for Network Sequence Caching technology that dramatically improves the transfer of large files over wide-area networks by eliminating repetitive data sequences, reducing the amount of data actually traversing the WAN. The hard-drive storage supplies sufficient capacity to store particularly long data sequences for long periods of time, enabling up to 100-fold increases in WAN capacity.

The WXC devices constantly communicate with each other and with the Juniper WX™ application acceleration platforms, exchanging vital information such as topology, accessibility, and path-performance metrics to ensure maximum efficiency. In addition, the WXC Stack pairs WXC 500s and WXC 590s with a WX 100 to extend support for the Sequence Caching function to 155 Mbps link speeds and up to 840 connected locations.

**WXOS and WX CMS Software**

The WXC products run the WX Operating System (WXOS™) software, which delivers the elements that comprise the WX Framework – Sequence Caching, Molecular Sequence Reduction™ (MSR™), Packet Flow Acceleration™ (PFA™), Application Flow Acceleration™ (AppFlow™), Quality of Service (QoS), and Policy-based Multipath™ technologies.

The WXOS software also provides visibility into and control over all WXC and WX platforms via embedded WebView device management and the powerful WX Central Management System™ (WX CMS™) software. The WX CMS software provides visibility into application performance across multiple WXC and WX devices, enabling extensive configuration, monitoring and management capabilities. Individual device monitoring and configuration can be performed via WebView device management or a command line interface (CLI).

**Easy Installation and Configuration**

WXC platforms can be installed and configured in just 10 minutes using a web-based installation wizard. Configuration can also be fully automated using the WXOS and WX CMS software. It simply defines centralized configuration templates; when remote WXC devices boot up, they retrieve a network address, locate the WX CMS software server through the domain name service (DNS), download their configuration file, and begin operation.

The WXC platforms also support redundant configurations to ensure complete fail-safe operations. In the event of a failure, the WXC devices automatically convert to bypass mode, allowing traffic to pass through untouched.

Transparent to other network equipment, WXC devices can be installed directly inline between a LAN switch and WAN router, or they can be deployed offline by attaching to an available port on the switch or router. The WXC products also work effectively alongside VPN servers, firewalls, and other security devices, where they optimize traffic before it is encrypted.

The WXC platforms support both inline and off-path configurations, as well as multipath environments, asymmetric deployments and secure IPSec configurations over public networks.
## Specifications

### Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Total reduction throughput speed</th>
<th>Tunnels supported</th>
<th>Disk capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>WXC 250</td>
<td>128 Kbps to 2 Mbps</td>
<td>Up to 10 with all features enabled</td>
<td>40 GB</td>
</tr>
<tr>
<td>WXC 500</td>
<td>512 Kbps to 20 Mbps</td>
<td>Up to 50 with all features enabled</td>
<td>500 GB (redundant 250 GB drives)</td>
</tr>
<tr>
<td>WXC 590</td>
<td>2 Mbps to 45 Mbps</td>
<td>Up to 140 with all features enabled</td>
<td>500 GB (redundant, field-serviceable 250 GB drives)</td>
</tr>
<tr>
<td>WXC Stack</td>
<td>34 Mbps to 155 Mbps</td>
<td>Up to 840 with all features enabled</td>
<td>Up to 3 TB</td>
</tr>
</tbody>
</table>

### Connections

<table>
<thead>
<tr>
<th>Model</th>
<th>Network interfaces</th>
<th>Power requirement</th>
<th>Dimensions and Weight</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>WXC 250</td>
<td>Two copper 10/100 fail-to-wire Ethernet ports</td>
<td>AC power 110-240V, 50-60Hz, 150 Watts max or 510 BTU/hr</td>
<td>1.8 in (44 mm), 1 rack unit</td>
<td>17.1 in (435 mm)</td>
<td>14.3 in (363 mm)</td>
<td>21 lb (9.5 kg)</td>
<td></td>
</tr>
<tr>
<td>WXC 500</td>
<td>Two copper 10/100/1000 fail-to-wire Ethernet ports</td>
<td>AC power 110-240V, 50-60Hz, 150 Watts max or 510 BTU/hr</td>
<td>3.44 in (88 mm), 2 rack units</td>
<td>17.1 in (435 mm)</td>
<td>16.7 in (425 mm)</td>
<td>25 lb (11.3 kg)</td>
<td></td>
</tr>
<tr>
<td>WXC 590</td>
<td>Two copper 10/100/1000 fail-to-wire Ethernet ports</td>
<td>Redundant, hot-swappable AC power 110-240V, 50-60Hz, 300 Watts max or 1025 BTU/hr</td>
<td>3.44 in (88 mm), 2 rack units</td>
<td>17.1 in (435 mm)</td>
<td>16.7 in (425 mm)</td>
<td>25 lb (11.3 kg)</td>
<td></td>
</tr>
<tr>
<td>WXC Stack</td>
<td>Two copper 10/100/1000 fail-to-wire Ethernet ports</td>
<td></td>
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</tbody>
</table>

### WXC Application Acceleration Platform Functions

#### Product Features

- **Traffic services**: IP payload compression, protocol acceleration, QoS, traffic visibility, application identification, route optimization, IPSec encryption, packet aggregation
- **Protocols supported**: Any IP-based traffic (TCP, UDP, etc.)

#### Network Integration

- **Installation**: Inline between aggregation switch and edge router, or off WAN router using route injection (RIP, WCCPv2, or policy-based routing)
- **Transparency**: Transparent bridge mode operation, configurable DSCP and IP port transparency
- **Topology support**: Point-to-point, hub-and-spoke, full mesh
- **Network discovery**: Via RIP v1/v2, OSPF, and router polling
- **Tunnel creation**: Automatic or manual
- **Asymmetric routing support**: Supported for both inline and off-path
- **Load balancing**: Active/active or active/passive, with passive in hot standby
- **Fault-tolerant non-stop operation**: 10/100/1000 BaseT auto switch-to-wire on any power, hardware, or software failure condition
- **High availability**: Backup device can support multiple primary devices

#### Quality of Service

- **Honor, preserve and/or set ToS/DSCP**
- **Bandwidth allocation**: Create traffic classes for bandwidth allocation with time of day option
- **Application identification**: Automatic, based on source/destination IP address/port, ToS/DSCP, IP protocol, LT identification for HTTP and Citrix, follows port hopping applications (FTP, Exchange)
- **Route optimization**: Multipath: application level path selection based on link SLA

#### Traffic Acceleration

- **Packet Flow Acceleration**: TCP Acceleration, Fast Connection Setup, and Forward Error Correction
- **Application Flow Acceleration**: Microsoft and Samba File Services acceleration (CIFS), Microsoft Exchange acceleration (MAP), HTTP acceleration

### Device Management

- **SNMP, Syslog**
- **Secure remote access**
- **Network upgradeable**
- **SNMPv2c, MIB II, WXC Enterprise MIB and local Syslog**
- **AAA local database and RADIUS support**
- **SNMPv2c, SSHv1, SSHv2, and HTTPS (SSL)**
- **Via FTP, HTTP and TFTP, dual software images and configurations**

### Monitoring

- **Compression statistics**
- **QoS, bandwidth management**
- **Accelerator**
- **Network latency, loss, and availability for SLA monitoring and enforcement**
- **WAN performance statistics**
- **QoS, bandwidth management**
- **WCCPv2, TCP session time and throughput, both real-time and historical**
- **Bandwidth monitoring**
- **UDP element or application type**
- **Event/performance monitoring**
- **Generate automatic alerts (SNMP traps, e-mail, console)**

### Operating Environment

- **Temperature**: 41º F to 104º F (5º C to 40º C)
- **Humidity**: 10% to 85%, non-condensing at 95º F (35º C)
- **Maximum altitude**: 10,000 ft (3,048 m)
- **Non-operating Environment**
- **Temperature**: -40º F to 158º F (-40º C to 70º C)
- **Humidity**: 5% to 95%, non-condensing at 95º F (35º C)
- **Maximum altitude**: 40,000 ft (12,192 m)

### Regulations

- **FCC Class A, EN 55022 Class A, EN 55024 immunity, EN 61000-3-2, VCCI Class A**
- **Safety**: CAN/CSA-C22.2 No. 60950-1
- **Application flow acceleration**
- **Microsoft and Samba File Services acceleration (CIFS), Microsoft Exchange acceleration (MAP), HTTP acceleration**
- **Maximum altitude of 12,192 m**

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