



**FortiCache™ Series**  
ISP and Enterprise-Class  
Content Caching



## FortiCache Series

FortiCache 400C, 1000D, 3000C and 3000D

### ISP and Enterprise-Class Content Caching

#### Dealing with Bandwidth Demand

The Internet is experiencing dramatic changes in usage patterns as users shift from fixed to mobile access and the volume of interactive and video content increases dramatically. Carriers, service providers, large enterprises and educational grids all face a similar problem: Exponential growth in bandwidth requirements that consume capacity as soon as they create it. Networks have to be able to keep up with volatile demand, avoiding network congestion while maintaining service functionality and profitability.

#### Take Back Control of the Network

The FortiCache range of appliances give you control of your network by enabling you to cache content and accelerate applications, thus reducing the impact of these new pressures on the network. The FortiCache high-end caching solution provides application caching for large enterprises, ISPs, mobile providers, telcos, universities and educational grids. By caching application content, organizations can reuse popular content rather than download the same content each time a user requests it. The integrated FortiGuard web filtering allows the network administrator to block access to selected content (e.g. adult content, malicious etc) to protect users or offer differentiated services.

#### Key Features & Benefits

Enterprise-Class Content Caching	Increases network performance, improves user satisfaction and reduces bandwidth costs.
Video Caching	Minimizes impact of viral video on network resource by caching common resource intensive web video formats including YouTube.
FortiGuard Antivirus and Web Content Filtering	Protects users from accessing unwanted content and secures network from malicious malware threats.
OS and Microsoft Application Update Caching	Minimizes the impact of "Patch Tuesday" events by caching updates for what can be thousands of requests.

### FortiCache Features

- Reduces bandwidth requirements by caching repeatedly accessed content on-net
- Caches resource heavy viral video content, e.g. YouTube, MSN, Metacafe etc.
  - Detects same video ID when content comes from different CDN hosts
  - Seek forward/backward in video
  - Detect advertisements automatically played before actual videos
- Reduces the need for costly network upgrades
- Improves network latency which increases customer satisfaction
- Secures the enterprise
  - Web content filtering to prevent access to unwanted or malicious content
  - Antimalware protection to protect the network from virus and other malicious threats
- Increases enterprise communication
  - Support for WAN Optimization enhances inter-location communications

## Bandwidth Reduction and Application Acceleration

The Internet is increasingly driven by short-term phenomena as news stories, sporting events, viral videos and games drive spikes in bandwidth demand. Interest in such content can spread within minutes, proliferate quickly and generate huge loads on the network. The result is congestion, latency and unplanned cost. By reducing the amount of bandwidth used, particularly during demand spikes, service providers and enterprises can deliver a higher quality of service to their customers, improve customer satisfaction, retain a larger customer base and ultimately drive profitability.

## FortiCache Network Control

You may be battling against the continuous need to upgrade bandwidth and the associated costs. In some locations, it may not

be possible to purchase additional bandwidth. In these situations, FortiCache can enable your organization to remove the need for costly upgrades and gain more performance from your existing investments.

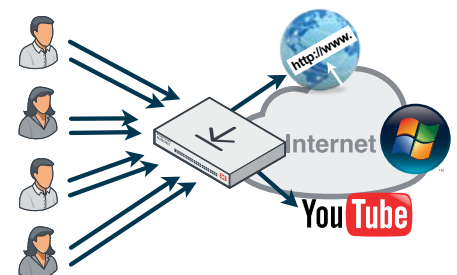
FortiCache enables the network administrator to optimize and accelerate the network by keeping as much traffic as possible “on net” and thus decrease the utilization of valuable external connectivity. This allows upgrades to be planned strategically rather than reactively. FortiCache understands the delivery format of content delivery networks, enabling caching of dynamic, distributed and streaming video content, even if such video is padded with advertisements or the file is served from different locations within the Content Delivery Network.

## HIGHLIGHTS

### Content Caching

Internet access is critical to the smooth functioning of any enterprise and latency or network congestion can disrupt business critical business apps. FortiCache acts as the enterprise’s network “memory”, remembering content and returning it locally rather than wasting precious internet bandwidth:

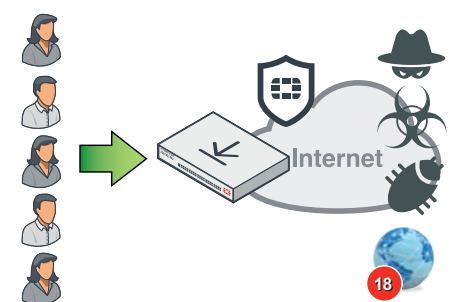
- Caches HTTP objects whilst observing HTTP/1.0 and 1.1 standards
- Caches Microsoft, Apple and common AV signature updates
- Caches video formats and understands popular DDNs to maximize performance benefits
  - Detects same video ID when content comes from different CDN hosts
  - Seek forward/backward in video
  - Detect advertisements automatically played before actual videos



### FortiGuard Antivirus and Web Content Filtering

Organizations of all types and sizes have a duty of care to protect users from unwanted content and to secure the network against malware threats. FortiCache helps achieve these goals:

- FortiGuard Web filtering consists of 79 content categories in 8 groups, which can be filtered or blocked based on the user credentials. Additional features such as safe search enforcement and keyword filtering are also included.
- The FortiClient network anti-malware solution has received 28 Virus Bulletin VB100 awards.



### WAN Optimization

Remote or satellite offices often suffer from latency to the head office network which results in excessive file transfer, open and save times and critically, frustrated staff. FortiCache WAN Optimization alleviates this with object and byte caching to reduce traffic between offices and datacenters and through optimization of “chatty” protocols. Such optimizations can generate significant improvement to network performance and improve staff satisfaction.



## SPECIFICATIONS

	FORTICACHE-400C	FORTICACHE-1000D	FORTICACHE-3000C	FORTICACHE-3000D
<b>Hardware</b>				
10/100/1000 Interfaces (Copper, RJ-45)	4	2	4	4
10/100/1000 with bypass Interfaces (Copper, RJ-45)	0	4	0	2
SFP Gigabit Ethernet Interfaces	0	2	2	2
Local Storage	1x 1 TB Hard Disk Drive	4x 2 TB Hard Disk Drive	4x 1 TB Hard Disk Drive (Additional 2x 1 TB Optional)	4x 2 TB Hard Disk Drive (Additional 4x 2 TB Optional)
Power Supply	Single 480 W Auto Ranging (100V–240V)	Dual 480W Auto Ranging (100V–240V)	Dual 480W Auto Ranging (100V–240V)	Dual 480W Auto Ranging (100V–240V)
<b>System Performance</b>				
Throughput	80 Mbps	200 Mbps	500 Mbps*	800 Mbps*
Deployment Modes	Transparent Inline Proxy, Routed Inline Proxy, Partial Inline Proxy (via policy routing), Explicit Proxy, WCCP Target			
High Availability Configuration	Yes			
Unlimited User License	Yes			
<b>Dimensions</b>				
Height x Width x Length (inches)	1.7 x 17.1 x 14.3 in	3.5 x 17.2 x 14.5 in	3.4 x 17.4 x 26.8 in	3.4 x 20.0 x 29.7 in
Height x Width x Length (mm)	44 x 435 x 364 mm	90 x 438 x 368 mm	86 x 443 x 681 mm	87 x 482 x 755 mm
Weight	23 lbs (10.43 kg)	30.6 lbs (13.9 kg)	65.7 lbs (29.8 kg)	77.1 lbs (35.5 kg)
<b>Environment</b>				
Form Factor	Rack Mountable (1 RU)	Rack Mountable (2 RU)	Rack Mountable (2 RU)	Rack Mountable (2 RU)
Power Source	100–240V AC, 50–60 Hz			
Current (Maximum)	4A / 110V, 2A / 220V	5A / 110V, 3A / 220V	7A / 110V, 4A / 220V	10A / 110V, 5A / 220V
Power Consumption (Average)	100 W	133 W	200 W	340 W
Heat Dissipation	341 BTU/h	546 BTU/h	682 BTU/h	1160 BTU/h
Operating Temperature	32–104°F (0–40°C)	32–104°F (0–40°C)	50–95°F (10–35°C)	50–95°F (10–35°C)
Storage Temperature	-13–158°F (-25–70°C)	-40–149°F (-40–65°C)	-40–149°F (-40–65°C)	-40–149°F (-40–65°C)
Humidity	10–90% non-condensing	5–95% non-condensing	20–80% non-condensing	20–90% non-condensing
<b>System</b>				
Management	Direct Console DB9 CLI, SSH, TELNET, HTTP/S			
<b>Compliance</b>				
Safety	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB	FCC Part 15 Class A, C-Tick, VCCI, CE, BSMI, UL/cUL, CB	FCC Part 15 Class A, C-Tick, VCCI, CE, BSMI, KC, UL/cUL, CB, GOST	FCC Part 15 Class A, C-Tick, VCCI, CE, BSMI, KC, UL/cUL, CB, GOST

\* Fully populated

VIRTUAL APPLIANCES	FORTICACHE VM01	FORTICACHE VM02	FORTICACHE VM04	FORTICACHE VM08
<b>Performance</b>				
Throughputs	VMWare Hardware Dependent			
Deployment Modes	Transparent Inline Proxy, Routed Inline Proxy, Partial Inline Proxy (via policy routing), Explicit Proxy, WCCP Target			
High Availability Configuration	Yes			
Unlimited User License	Yes			
<b>Virtual Machine</b>				
Hypervisors Supported	VMware ESXi / ESX 4.0 / 4.1 / 5.0 / 5.1			
Virtual Machine Form Factor	Open Virtualization Format (OVF)			
Max Virtual CPUs Supported	1	2	4	8
Virtual NICs Required (Min/Max)	1 / 4	1 / 4	1 / 4	1 / 4
Virtual Machine Storage Required	60 GB / 2 TB	60 GB / 4 TB	60 GB / 6 TB	60 GB / 8 TB
Virtual Machine Memory Required (Min/Max)	512 MB / 4 GB	512 MB / 8 GB	512 MB / 12 GB	512 MB / 16 GB



FortiCache-400C



FortiCache-1000D



FortiCache-3000C



FortiCache-3000D

## ORDER INFORMATION

Product	SKU	Description
FortiCache 400C	FCH-400C	FortiCache-400C, 4x 10/100/1000 RJ-45 ports, 1x 1 TB storage.
FortiCache 1000D	FCH-1000D-E07S	FortiCache-1000D, 2x 10/100/1000 RJ-45 ports, 4x 10/100/1000 RJ-45 bypass ports, 2x GbE SFP ports, 4x 2 TB storage.
FortiCache 3000C	FCH-3000C	FortiCache-3000C, 4x 10/100/1000 RJ-45 ports, 2x GbE SFP ports, 4x 1 TB storage.
FortiCache 3000D	FCH-3000D	FortiCache-3000D, 4x 10/100/1000 RJ-45 ports, 2x 10/100/1000 RJ-45 bypass ports, 2x GbE SFP ports, 4x 2 TB storage.
FortiCache-VM01	FCH-VM01	FortiCache-VM software virtual appliance designed for VMware ESX and ESXi platforms. 1x vCPU core, 4 GB RAM and 1 TB disk.
FortiCache-VM02	FCH-VM02	FortiCache-VM software virtual appliance designed for VMware ESX and ESXi platforms. 2x vCPU core, 8 GB RAM and 4 TB disk.
FortiCache-VM04	FCH-VM04	FortiCache-VM software virtual appliance designed for VMware ESX and ESXi platforms. 4x vCPU core, 12 GB RAM and 6 TB disk.
FortiCache-VM08	FCH-VM08	FortiCache-VM software virtual appliance designed for VMware ESX and ESXi platforms. 8x vCPU core, 16 GB RAM and 8 TB disk.



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