## Symantec CacheFlow

Improve the User Experience and Contain Network Costs

CacheFlow enables internet access providers, including ISPs, mobile operators and large institutions, to better manage subscriber growth and excessive increases in network traffic. A key element of the Symantec Network Performance Optimization solutions, CacheFlow utilizes highly effective caching technology to dramatically accelerate the delivery of rich web 2.0 content, including large files and video. CacheFlow appliances also save bandwidth on expensive international links and backhaul traffic, which reduces infrastructure costs while improving customer satisfaction.

#### Save on Bandwidth and Backhaul

By caching content closer to the subscribers, CacheFlow drastically reduces bandwidth consumption. CacheFlow typically demonstrates 40-50% savings on general web traffic, while savings with dedicated content caching deployments can approach 90%. This translates into a rapid return on investment and significant long-term cost savings on upstream bandwidth and backhaul traffic. By better conserving and optimizing bandwidth with caching, customers are better positioned to serve more users, deliver enhanced next-generation services and better leverage existing network investments without costly upgrades.

#### Speed Delivery of Rich Web 2.0 Content and Video

CacheFlow can cache and speed the delivery of popular web 2.0 content from sites including Facebook, YouTube and Netflix. It can also address large file downloads from Microsoft, Adobe and Apple. In testing, CacheFlow on average delivers up to 10x faster web response times, and for larger objects like video, the user experience gain can be even greater. CacheFlow can even address content served from dynamically-generated URLs and content marked as non-cacheable. In addition, CacheFlow appliances validate content freshness before serving that content to the enduser guaranteeing consistency with the origin server.

#### Ensure Long.term Caching Effectiveness

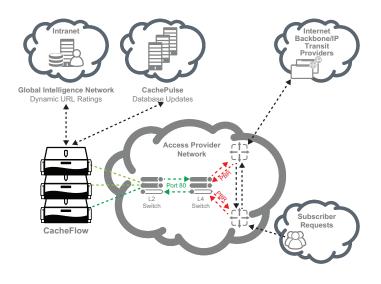
CacheFlow leverages Symantec CachePulse for automatic, network-based updates as the web changes, to ensure the appliance effectively caches content and consistently delivers the highest possible bandwidth savings and improvement in user experience. Customers can contribute new and emerging sites in their region directly into the CachePulse community to share the benefits of caching. CachePulse also employs an automated heartbeat mechanism for real-time feedback on changes in popular web content to further speed caching rule and instruction updates.

# Flexible Deployment and Scaling with Increased Traffic

CacheFlow is designed for the most demanding environments and a single device can handle multi-gigabit throughput. For larger deployments and scalability to hundreds of gigabits, multiple CacheFlow devices can be deployed in cache farms. CacheFlow offers 1GigE and both 10GigE copper and fiber interfaces for high-speed network requirements and tight integration with existing infrastructure. This includes integration with routers from Cisco and Juniper, as well as load-balancing switches from A10 Networks, Brocade, Citrix, F5 Networks and Radware. Over time, customers can easily accommodate more users and traffic simply by adding more appliances or building content-specific cache farms. CacheFlow can be deployed in a number of different ways including in-line and out-of-band depending on the customer's



requirements. Additional deployment flexibility is provided by CacheFlow's support of both AC or DC, redundant hot-swappable power supply options.



#### Manage and Report on Web Traffic

CacheFlow provides intuitive, web-based management console and command-line tools for administering the appliance, monitoring its performance, and reporting in real-time on bandwidth savings. Detailed web analytics are available to allow customers to gain greater visibility on web traffic and usage patterns, which can be valuable information for marketing or for determining future content and advertising partnerships. In addition, Symantec has partnered with Splunk on a CacheFlow specific application to address more advanced log analysis and reporting requirements. For ongoing monitoring, health checks and reporting on key performance metrics, CacheFlow integrates via SNMP with common network management solutions and supports event logging via syslog. For customers with large cache farms, CacheGroup™ is available for simple, multi-device management and configuration.

## Filter and Secure Web Traffic

By purchasing a license and enabling the built-in Symantec WebFilter option, CacheFlow filters and secures web traffic, including blocking undesirable content and malware sites. Symantec WebFilter benefits from the power of the Symantec Global Intelligence Network collaborative defense, which provides over one billion requests for ratings per day, and blocks over four million malware threats per day. CacheFlow also allows customers to create customized exception and block lists for specific sites, and leverage the Internet Watch Foundation list to block illegal content.

### World-class Service & Support

Global 24/7 support options are available for the CacheFlow appliance, and next business day availability for hardware replacement. The appliance includes built-in features to proactively mitigate issues and expedite resolution, such as proactive monitoring and analysis of heartbeats and automatic uploads of system information to Symantec support. Professional Services are also available for customers that require dedicated technical support or have advanced deployment or customization needs.

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	megalplo	baa cem		3d.tv (2.9%) er (34.0%)		
esuits: 10 14:00:00 Wed Aug 17 201	To 14:00:00 Thu Aug 18 2011 BWS (Total 36.6%) v	Cacheability (Total 82.9%)	Traffic (Total 10.64 GB)	Traffic (%)	Traffic (Cumulative %)	Requests (Total 373765)
pole.com		97.4 99.7	0.45	4.2	50.6	828
buntu.com		93.0 99.6	0.45	4.2	66.0	5848
ooveshark.com		64.1 99.3	0.84	7.9	34.6	1444
sutube.com		60.0 97.2	2.84	26.7	26.7	3176
indowsupdate.com		27.1 65.4	0.36	3.4	54.0	1029



SPECIFICATIONS				
HARDWARE FEATURES	CF 5000	CF 500		
CPU	Dual AMD Istanbul CPUs	Quad-core Intel CPU (2.67GHz)		
Disk Drives	15x2TB SAS [CF5000-MX] 8x1TB SAS [CF5000-CX]	4x2TB SAS		
RAM	32GB RAM	32GB RAM		
Network Interfaces	(4) integrated (on board) 10/100/1000 Base-T NICs, (3) Open PCIe Slots	(4) integrated, dual port 1000Base-T NICs		
Optional Cards	None	None		
Optional NICs	Dual port 10G Fiber card, Dual port 10G copper card, 4x1GigE card	4-port 1000Base-T NIC		
DIMENSIONS AND WEIGHT				
Enclosure	19" Rack-mountable	19" Rack-mountable		
Dimensions (LxWxH)	690mm x 485mm x 170mm (27.17in x 19.09in x 6.69in) (including handles) 667mm x 427mm x 172mm (26.3in x 16.8in x 6.77in) (chassis only) 727mm x 480mm x 172mm (28.6in x 18.9in x 6.77in) (chassis plus extensions)	43.3cm x 59.5cm x 4.3cm (17.0in x 23.4in x 1.69in) (chassis only) 48.4cm x 62.3cm x 4.3cm (19.1in x 24.5in x 1.69in) (chassis plus extensions)		
Weight (maximum)	40kg (88.2lbs), +/- 5% (excluding rack mount kit)	Approx. 18kg (39.7 lbs)		
OPERATING ENVIRONMENT				
Redundant Power	AC power: 100-240V, 50-60Hz, 9.0-4.5A, DC power: -36V to -72C DC (rating 30A @ -48V)	AC power: 100-240V, 50-60Hz, 6.0-3.0A		
Maximum Power	Output AC power: 750 watts, DC power: 1200 watts	400 Watts		
Typical Power	Consumption 520 watts			
Temperature	Operating: 5°C to +40°C (41°F to 104°F), Storage: -40C to 70C (-40F to 158F)	5°C to 40°C (41°F to 104°F) at sea level		
Humidity	Operating: 20% to 80% relative humidity, non-condensing, Storage: 10% to 90% relative humidity, non-condensing	20 to 80% relative humidity, non-condensing		
Altitude	Operating: Up to 3048 M (10,000 ft), Storage: Up to 12192 M (40,000 ft)	Up to 3048m (10,000ft)		
Acoustics	68 dB typical operating			
REGULATIONS				
Electromagnetic Compliance (EMC)	CISPR22/CISPR24 (International), EN55022/EN55024 (CE/Europe), FCC part 15 (USA), ICES-003 (Canada), VCCI V-3 (Japan), AS/ZNS-CISPR22 (Australia/New Zealand), CNS13438 (BSMI), 51318.22/51318.24 (Russia), GB9254/GB17625 (China), EM:KN22/IM:KN24 (Korea). Tested to Class A Emissions for all standards.			
Environmental	RoHS-Directive 2011/65/EU, REACH-Regulation No 1907/2006			
Safety	IEC60950 (CB Scheme), UL60950 (USA), CSA C22.2 No.60950 (Canada), EN60950 (CE/Europe), CNS14336 (Taiwan), GB4943 (China), MEK60950 (Russia), KSC8305 (Korea), NOM-019 (Mexico), AS/NZS 60950-1 (Australia/New Zealand)			
Standards	UL/CSA, TUV-S, BSMI, C-tick, CCC, CE			
Product Warranty	Limited, non-transferable hardware warranty for a period of one (1) year from date	e of shipment. Software warranty is ninety (90) days from shipment.		

### About Symantec

#### Symantec Corporation World Headquarters

#### 350 Ellis Street Mountain View, CA 94043 USA | +1 (650) 527 8000 | 1 (800) 721 3934 | www.symantec.com

Symantec Corporation (NASDA0: SYMC), the world's leading cyber security company, helps businesses, governments and people secure their most important data wherever it lives. Organizations across the world look to Symantec for strategic, integrated solutions to defend against sophisticated attacks across endpoints, cloud and infrastructure. Likewise, a global community of more than 50 million people and families rely on Symantec's Norton suite of products for protection at home and across all of their devices. Symantec operates one of the world's largest civilian cyber intelligence networks, allowing it to see and protect against the most advanced threats. For additional information, please visit www.symantec.com or connect with us on Facebook, Twitter, and LinkedIn.

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