

## DATASHEET

### Product Summary

With the 4030, Service Providers can deliver new levels of service to their customers:

- **Scale:** The appliance scales to over 1 million DNS queries per second; an Infoblox Grid™ configuration of 4030s can scale into billions of queries per second.
- **Secure:** Security is provided via multi-layered protection against a broad range of hacker and network-based attacks.
- **Manage:** Management of this carrier-grade appliance is streamlined, efficient and real-time.
- **Protect:** This device provides seamless automatic recovery for business continuity.

### Service Provider Challenges

With the rise of social media and the mobile Web, already-burdened DNS infrastructures are experiencing unprecedented rises in traffic. Along with this trend, security attacks are growing in sophistication and in pure volume. Global hackers are compromising DNS to steal credentials from end users, and are assembling botnets — literally thousands of personal computers acting as one — to launch Distributed Denial of Service (DDoS) attacks. Also, mobile devices cause demand peaks (called “signal storms”) at the edge of the network that often result in outages. While the current centralized approaches are not ideal, Service Providers (SPs) use them because distributed architectures typically involve increases in management overhead that diminish their margins.

### A New Solution for These New Problems

Infoblox, the market and thought leader in Network Automation Control, responded to the requests of over 100 of our Service Provider customers with an appliance built to address their needs — the Infoblox 4030 DNS Caching Appliance. The 4030 provides DNS caching at unprecedented volumes, assures that the integrity of the DNS system is protected, delivers the operational efficiencies required by Service Providers, and enables global business continuity.

### Scale

As broadband traffic levels increase — largely driven by growth in pad and smartphone traffic — it becomes increasingly critical to maintain a high level of customer satisfaction with fast application response times. In order to meet these expectations, Service Providers (SPs) need a new approach for handling the type of traffic responsible for the growth, namely, mobile Web and social media. Instead of relying on centralized caching servers, SPs need to place server capacity close to customers in a distributed rather than centralized manner.

By combining advanced hardware computing platforms with highly optimized DNS caching software, Infoblox enables SPs to build highly scalable DNS caching solutions that meet the rapidly growing demands from their customers. Each Infoblox 4030 can support DNS query rates above 1 million queries per second as a standalone appliance. By leveraging multiple 4030s in a distributed Infoblox Grid™ configuration, billions of queries per second can be processed.



Infoblox-4030 Network Services Appliance

ISPs to grow their infrastructure without adding operations support staff. The Infoblox Grid architecture enables distributed appliances to be effectively managed from a central or several regional locations, thereby ensuring that configurations can scale without operational limits.

### Secure

Security attacks are growing in sophistication and in sheer volume. In addition to attempts to make the network fail, other attacks seek to compromise the quality of the DNS data to redirect traffic to a fake site, to steal user credentials, or to infect computers with malware.

The 4030 embeds new “Trusted DNS” technology to provide multi-layered protection against a wide variety of threats:

- Full protection against attempts to make the network fail by having a network of hostile computers overload it a.k.a. “Distributed Denial of Service (DDoS) attacks.
- Blocks devices that get into the network and imitate the real device to steal credentials a.k.a. “Man-in-the-Middle” attacks
- Prevents customers from being sent to fake web sites a.k.a “Cache Poisoning” attacks

In addition to threat detection, the 4030 provides capabilities to prevent an attack from impacting performance even over a short period of time:

- Automated early detection of Distributed Denial of Service attacks with Reporting
- Automated disabling of the URLs of attacking servers a.k.a. ‘blacklisting’ the servers’ URLs
- Automated collection of patterns and methods used to attack by infected devices a.k.a. ‘sinkholing’

### Manage

Management challenges typically revolve around ensuring that Service Level Agreements (SLAs) are met, capital costs are minimized, and operational costs are ideally kept flat even when the network is expanded.

The 4030 uses around 1/40<sup>th</sup> of the energy needed by a legacy DNS servers. On the basis of units needed to attain 1 million qps, the 4030 replaces approximately 25 legacy DNS servers. Whether based on power or performance measures, the 4030 provides significant savings in power, rackspace (at a modest 2-U’s, the 4030 takes up about the same space as a single server), and server-based operational costs.

By managing all servers from a central location or a few regional locations, SPs gain visibility into performance issues while centralizing administration of all servers and concentrating support staff and expertise where needed. By implementing the 4030 in an Infoblox Grid architecture, SPs can flatten operational support costs through automation of routine maintenance tasks, such as patches and upgrades, and monitoring even a worldwide distributed system via a single pane of glass.

The Infoblox Grid also provides a central real-time database of DNS conditions. The 4030 utilizes this data to provide reports that show real-time views of DNS performance, DNS “Top Talkers,” most-queried DNS URLs and other reports targeted to troubleshooting and capacity planning. With the addition of an Infoblox Report Server, these trends can be analyzed over an extensive period to enable ISPs to provide the right level of server capacity to the right locations before capacity becomes choked, and to eliminate the guesswork in capacity planning.

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### Key Benefits for Service Providers

- Handles “Perfect Storm” of Social Media and Mobile:** Provides the edge-based scalability needed to prevent ‘signal storm’ outages, resist Denial of Service attacks, and repel hacker threats.
- Fits into Service Provider Environments:** The 4030 was designed for Service Provider environments with features such as Carrier-grade hardware, edge deployment, and centralized management.
- Strengthens Service Provider Economics:** Protects the top line by minimizing user “churn” and the bottom line by minimizing both capital equipment and operational expenses, such as replacing 40 legacy DNS servers per appliance.

### Protect

An Infoblox Grid architecture provides several levels of protection to ensure business continuity. Grid Masters can be configured in high-availability pairs to protect against hardware failures. The Infoblox database is synchronized in real-time between the Grid Master and the alternate Grid Master so that any failure does not lose data. Further, the capability to have multiple Grid Masters in multiple geographies maximizes global business continuity for the Service Provider.

Infoblox 4030 DNS Caching Appliance	
Form Factor	2-U rack-mountable appliance
Dimensions	3.38” H x 17.54” W x 26.01” D (8.59 cm H x 44.54 cm W x 66.07 cm D)
Weight	Approximately 60 pounds (27.2 kg)
Ethernet Ports	MGMT, HA, LAN1, LAN2 – auto-sensing 10Base-I/100Base-I/1000Base-I
Serial Port	DB-9 (9600/8n1, Xon/Xoff)
USB Ports	Two USB 2.0/1.1 compliant
Operating Temperature	50 to 95 degrees F (10 to 35 degrees C)
Storage Temperature	-22 to 140 degrees F (-30 to 60 degrees C)
Operating relative Humidity	10% to 90% (non-condensing)
Average Heat Dissipation	1400 BTU (British Thermal Units)/hour
AC Power Supply	100 to 120V AC, 200 to 240 V AC 1200W Rated input frequency: 50 Hz to 60 Hz Rated Input Current: 10A at 100V AC, 4.9A at 200V AC Rated Input Power: 930W at 100V AC input, 1348W at 240V AC input Heat Output (BTU/hour): 3530 at 120V AC input; 4600 at 200V to 240V AC input Maximum Peak Power: 800 W at 100V AC input; 900 W at 120V AC input; 1200 W at 200V to 240V AC input
DC Power Supply	8v 1200W GRND TERM, RING, VIN 12-10 AWG #10 Nominal Input Voltage: 48 Nominal Input Current: 28 Maximum Rated Input Wattage Rating (Watts): 1350 Maximum Maximum Rated Volt-Amp: 1350 Heat Output (BTU/hour): 4610 Maximum

### Infoblox Product Warranty and Services

The standard hardware warranty is for a period of one year. The system software has a 90-day warranty that will meet published specifications. Optional service products are also available that extend the hardware and software warranty. These products are recommended to ensure the appliance is kept updated with the latest software enhancements and to ensure the security and availability of the system. Professional services and training courses are also available from Infoblox. Information in this document is subject to change without notice. Infoblox Inc. assumes no responsibility for errors that appear in this document.