

Domain Name System (DNS), the method of translating names to device IP addresses, is the lifeblood of the internet. Without it, e-mail cannot be sent, web sites cannot be found and access to the internet in general grinds to a halt. If compromised, DNS can open an organization up to attack and subversion via the redirection of users to malicious content. It is one of the most critical but often overlooked components of business continuity.

The problem with DNS is that it is complicated, prone to misconfiguration, and requires interaction at the command line. FortiDNS has been designed from the ground up as a highly secure caching DNS system to replace existing legacy solutions and is 100% GUI based to reduce the risk of configuration error.

Built with security in mind

In keeping with other Fortinet solutions, security is the key requirement of the FortiDNS solution, and to achieve this, Fortinet has partnered with Nominum, one of the leading DNS solutions providers to power the core of the solution. Developed by Fortinet and “Powered by Nominum” introduces significant security benefits including:

Layer	Action	Impact
Deterrence	Stop attacks using the following: <ul style="list-style-type: none"> • Randomize transaction ID (QID) • UDP Source Port Randomization (USPR) • Case (query name) Randomization (0x20) 	Decrease the probability of a successful attack
Defense	Detect and Defend (D&D) <ul style="list-style-type: none"> • Detect spoofed response and switch to TCP • E.g. 0x20 Failures switch to TCP 	Significantly slow the progress of an attack (100x or more)
Resistance	Discard unsolicited answers	Eliminate the opportunity for an attacker to insert a fake record
Remediation	Notification and Reporting <ul style="list-style-type: none"> • All TCP transaction, including 0x20 and D&D 	Isolate the attacker and take remedial measures



FortiDNS Features

- Hardened appliance format with GUI driven configuration significantly reduces the complexity of deployment and reduces operational overheads.
- “Powered by Nominum” delivers market leading carrier class DNS to the enterprise.
- High performance DNS caching speeds up name resolution and ultimately network performance.
- Strengthens enterprise security with a highly secure implementation supporting methods including:
 - Transaction ID Randomisation
 - UDP Source Port Randomization
 - Case (query name) Randomization
- IPv6 and DNSSEC support enables deployment with confidence that future requirements will be covered.
- Integrates with FortiToken two-factor authentication to enable remote secure management.

Technical Specifications	FortiDNS-400C	FortiDNS-1000C
Hardware Specifications		
Max Queries per Second	30,000	60,000
Max DNS Clients	10,000	10,000
10/100/1000 Interfaces (Copper, RJ-45)	4	4
Local Storage	1 TB Hard Disk Drive	1 TB Hard Disk Drive
Power Supply	Single 480W Auto Ranging (100V~240V)	Single 480W Auto Ranging (100V~240V)
System Specifications		
Standards Supported	10/100/1000 Base-TX (GbE), 1000, IP, Telnet, HTTP 1.0/1.1, SSL, RS232, NTP Client (RFC1305), DNS RFCs 1034, 1035, 1123, 1183, 1706, 5155, 5702, 6147, 1712, 2163, 2181, 2230, 2308, 2538, 2671, 2672, 2782, 2845, 2930, 2931, 3008, 3123, 3225, 3226, 3401, 3402, 3403, 3404, 3596, 3597, 3655, 3645, 4033, 4034, 4035, 4343, 4398, 4470, 4509, 4892, 5001, 5011	
Management	Telnet & SSH CLI, Direct Console (for basic network configuration), HTTPS GUI for all other administration.	
Dimensions		
Form Factor	Rack Mountable (1RU)	
Height	1.7 in (44 mm)	1.69 in (43 mm)
Width	17.1 in (435 mm)	17.09 in (434 mm)
Length	14.3 in (364 mm)	24.7 in (6271 mm)
Weight	23.0lbs (10.43kg)	24.2 lb (11.0 kg)
Environment		
Power Source	100-240 VAC, 50-60 Hz, 3.5 Amp max	
Current (Max)	4A /110V, 2A / 240V	3.50A /110V, 1.75A /220V
Power Consumption (AVG)	181 W	189 W
Heat Dissipation	620 BTU	644 BTU
Operating Temperature	32 – 104 deg F (0 – 40 deg C)	
Storage Temperature	-13 – 158 deg F (-25 – 70 deg C)	
Humidity	10 to 90% non-condensing	5 to 95% non-condensing
Compliance & Certification		
Compliance	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB	

All performance values are "up to" and vary depending on the system configuration.

Ordering Info		
Product	SKU	Description
FortiDNS-400C	FNS-400C	FortiDNS-400C
FortiDNS-1000C	FNS-1000C-E07S	FortiDNS-1000C

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IPv6 Support

There has been a great deal of discussion about moving towards IPv6 and Fortinet have been one of the pioneers of IPv6 enabled unified threat management, however, progress has been slow. Those already with an allocation of IPv4 addresses do not have the motivation to migrate. However, that is rapidly changing. The final block of IPv4 IP addresses were issued by Internet Assigned Numbers Authority IANA on February 3rd, 2011. This means that the Regional Internet Registries will have no more IPv4 addresses to distribute once their current allocation has depleted. On 15th April, 2011, APNIC, the internet registry for the Asia-Pacific region, announced that they are in exactly that situation, and are recommending an immediate move to IPv6. Fortinet are committed to supporting this migration and the FORTiDNS product range supports both IPv4 and IPv6 DNS to ease the migration process and future proof your investment.

Simplified Management

DNS has traditionally been a complicated and error prone system to manage and administer. Simple configuration errors on the command line can prove disastrous and difficult to troubleshoot. FortiDNS is a fully hardened, appliance based solution, removing the need to patch and maintain the host operating system. The appliance is a fully GUI configured solution, simplifying the task of administering the solution and minimizing the risk of misconfiguration and reducing operational overheads significantly.

Fortinet solutions offer you unparalleled security and performance, whether you're looking for a single platform to deliver unified threat management, a system to protect specific content such as web, messaging, or database traffic or a focused DNS security solution. Fortinet provides network and security solutions that address the most critical needs facing organizations of every size, including global enterprises, carriers, and service providers. To provide strong security without performance penalties, Fortinet products leverage breakthroughs in chip design, networking, security and content pattern recognition analysis. The unique, ASIC-based architecture analyzes network content and behavior in real-time, enabling all key network services— including real-time web applications—to be screened for both network and content-level threats without impacting network performance. FortiCache expands on the long experience working in the enterprise market and delivers scalability, high performance caching DNS at a competitive price point.

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