

- **High-performance switching and routing for the enterprise premium edge, collapsed backbone, distributed switching and server farm aggregation**
- **Low entry cost, leveraging Enterasys Advanced Distributed Architecture**
- **High-availability through Enterasys' innovative Integrated Services Design that provides the industry's first stateful fail-over capability**
- **Performance and capacity scales as more engines are added for inherent scalability**



## Enterasys Matrix N3 and Matrix N7 Enterprise Switches

### A New Generation of Premium Enterprise Switches

The Enterasys Matrix N3 and Matrix N7 are the first in a new generation of enterprise switching solutions. Providing intelligent switching at user and server access points, the Matrix N3 and Matrix N7 are ideal for premium edge, collapsed backbone, distribution switching, and server farm aggregation applications, including performance networking, business-critical applications, end-to-end security, and voice.

To support a wide array of configurations, the Matrix N-Series is available in two different models: the Matrix N3 and Matrix N7.

The Matrix N3 is a modular 3-slot chassis and the Matrix N7 is a modular 7-slot chassis; both support hot-swappable power supplies and a single fan tray. With two chassis options, the Matrix N-Series can be deployed based on the specific network density, capacity and performance requirements to meet a wide range of network configurations.

The Matrix N-Series was engineered to provide for high availability through its distributed passive backplane.

The N-Series backplane is a point-to-point matrix design with fully meshed interswitch links that provide increased scalability and performance. The interswitch links can support 20 Gbps to 80 Gbps of switching capacity per link. Total system aggregate switching capacity for the Matrix N3 is 240 Gbps; the Matrix N7 has the capability to scale to 1.68 Tbps.

### Supported Modules

The Matrix N-Series supports Enterasys' next-generation Distributed Forwarding Engines (DFEs). Based on a new family of nTERA™ ASICs, DFEs provide high port density to new and emerging technologies such as 10 Gbps, with support for over 18 Gbps of switch capacity. DFEs introduce new innovations like Enterasys Integrated Services Design, Multiuser Packet Classification, and Self-Healing Maintenance, all leveraging the Distributed Switching Architecture to ensure maximum uptime as well as sophisticated traffic management and control.

Both Matrix N-Series chassis support the following Distributed Forwarding Engines without any slot dependencies:

#### Edge Deployment

- 48 10/100Base-TX RJ45 ports with one expansion slot
  - 6 1000Base-X Mini-GBIC ports Network Expansion Module
- 48 10/100Base-TX RJ-21 (Telco) ports with one expansion slot
  - 6 1000Base-X Mini-GBIC ports Network Expansion Module
- 72 10/100Base-TX RJ21 (Telco) ports
- 48 100Base-FX MT-RJ ports with one expansion slot

#### Distribution Deployment

- 12 1000Base-X Mini-GBIC ports
- 2 10GE (Xenpak) 10GBase Optics slot

#### Server Aggregation Deployment

- 30 10/100/1000Base-TX RJ45 ports

### • High-performance switching and routing

- DFE switching/routing performance: 13.5 Mpps
- Matrix N3 aggregate performance: 40.5 Mpps
- Matrix N7 aggregate performance: 94.5 Mpps

### • Switch fabric capacity

- DFE switching capacity: 18.5 Gbps per module
- Aggregate chassis switching capacity: Matrix N3, 240 Gbps; Matrix N7, 1.68 Tbps

### • Optimized high-availability services

- All failures architecturally isolated to one engine (stateful fail-over)
- Redundancy scales with the number of engines

### • Inherent scalability

- Performance/capacity scale as engines are added
- Support 10-Gigabit Ethernet today and scale up to 40-Gigabit Ethernet per slot

### • Simplified system maintenance

- All engines have the same firmware version
- Each engine keeps a copy of the current configuration

## SPECIFICATIONS

### PHYSICAL SPECIFICATIONS

#### Dimensions

Matrix N3: 35.56 cm (14") H x 49.53 cm (19.5") W x 44.45 cm (17.5") D

Matrix N7: 77.47 cm (30.5") H x 36.83 cm (14.5") W x 44.04 cm (17.34") D

#### Weight

Matrix N3: 19.1 kg (42 lbs)

Matrix N7: 23.6 kg (52 lbs)

#### Rack Mounting

19"

#### Rack Unit Height

Matrix N7: 18

#### Power Supply Redundancy

1+1

#### Power Supply Wattage

Matrix N3: 863 Watts maximum

Matrix N7: 1600 Watts per supply

#### Input Frequency

50 to 60 Hz

#### Input Voltage Range

100 to 125 Vac

#### Input Current

12 A maximum

#### Minimum Power Supplies

1

#### Network Management

NetSight Atlas Console

NetSight Atlas Policy Manager

NetSight Atlas Inventory Manager

NetSight Atlas ACL Manager

### ENVIRONMENTAL SPECIFICATIONS

#### Operating Temperature

5° C to +40° C (41° F to 104° F)

#### Storage Temperature

-30° C to 73° C (-22° F to 164° F)

#### Operating Humidity

5%–90% RH, non-condensing

### AGENCY AND STANDARDS SPECIFICATIONS

#### Safety

**Matrix N7:** ULI950, CSA C22.2 No. 950, EN60950, IEC950, 72/73/EEC

**Matrix N3:** ULI950, CSA C22.2 No. 950, EN 60950, IEC950, 72/73/EEC, EN 60825

#### Electromagnetic Compatibility

**Matrix N7:** FCC Part 15, CSA C108.8, EN555022, VCCI V-3/93.01, EN50082-1, 89/336/EEC

**Matrix N3:** FCC Part 15, CSA C108.8, EN 555022, VCCI V-3/93.01, EN50082-1, 89/336/EEC, EN 61000-3-2, EN 61000-3-3, EN 55024, AS/NZS 3548

#### MTBF (Predicted)

##### Systems

**Matrix N7:** > 200,000 hours

**Matrix N3:** > 200,000 hours

## ORDERING INFORMATION

7C107	Matrix N7 Chassis
7C103	Matrix N3 Chassis
6C207-3	1600W AC Power Supply for Matrix E7 and Matrix N7 (includes 2 15 AMP power outlets)
7C203-1	863W AC Power Supply for Matrix N3 (includes 15 AMP power outlet)
6C407	Fan unit for Matrix E7 and Matrix N7
7C403	Fan unit for Matrix N3

## EOS L3 UPGRADE SOFTWARE

N-EOS-L3	Enterasys Operating System (EOS) Layer 3 routing package upgrade for Matrix N-Series switches
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### Notes:

1. Base system “bundles” are not available outside North America; only spares and system components are available in regions outside North America.
2. Basic EOS routing is included with each DFE. EOS supports static routes and RIP.
3. Only one advanced Routing Package (N-EOS-L3) is required per chassis (N3 or N7).
4. The Advanced Routing Package (N-EOS-L3) includes OSPF, DVMRP, and PIM-SM.
5. Matrix N7 and N3 chassis support only Distributed Forwarding Engines (DFEs).
6. The Matrix N7 and N3 do not support first-, second-, and third-generation modules.

## WARRANTY

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As a customer-centric company, Enterasys is committed to providing the best possible workmanship and design in our product set. In the event that one of our products fails due to a defect in one of these factors, we have developed a comprehensive warranty that protects you and provides a simple way to get your products repaired as soon as possible.

## SERVICE AND SUPPORT

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Enterasys Networks understands that superior service and support is a critical component for your Business-Driven Network. The Enterasys **SupportNet** Portfolio—a suite of innovative and flexible service and support offerings—completes the Enterasys Business-Driven Network solution. **SupportNet** offers all the post-implementation support services you need—online, onsite or over the phone—to maintain your network availability and performance.

## ADDITIONAL INFORMATION

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For additional information on the Matrix N-Series, please refer to the following documents:

- Matrix N-Series Product Overview <http://www.enterasys.com/products/switching/n/>
- Matrix N-Series Application Overview <http://www.enterasys.com/products/switching/n/app-overview.html>
- Matrix N-Series Data Sheet <http://www.enterasys.com/products/switching/7C10x/>
- Matrix N-Series FAQ <http://www.enterasys.com/products/switching/n/faq.html>

## CONTACT INFORMATION

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