



## Communications Convergence

## Through Consolidated Network Components Cyvergence Simplifies Network Management

As data networks increase in complexity, the CyverONE represents a change in direction towards simplicity. By embracing simplicity through convergence CyverONE presents a simpler paradigm for network planning. With multiple functions concentrated in the CyverONE platforms the need for multiple network appliances to provide standard network functionality is lessened. The ability to support multiple protocols on the single platform aids in the simplification of the network by providing support for different network topology layers on centralized network components.

### Security

CyverONE routers provide support for encrypted communications seamlessly across the network with your

choice of encryption algorithms. VPN functionality allows the protection to be extended transparently across multiple networks

### Features

#### Scalability

Boasting the latest in “state of the art” processors CyverONE routers provide a platform that provides levels of processor capacity ranging from low end Intel Dual-Core systems to Xeon Six-Core systems with as much as 96 GB RDIMM.

#### Availability

High Availability is an integral part of today’s networks and the CyverONE family of routers supports these through redundancy and support for the Virtual Router Redundancy Protocol.

#### Traffic Management

CyverONE routers provide integrated Traffic Management capabilities in order to assist Network Administrators on maximizing throughput.

Standardized network reports are also provided to allow the Administrator to evaluate traffic trends and patterns.

#### Firewall Capabilities

As security is of paramount importance in today’s network environments, Firewall capabilities are provided in all CyverONE routers.

CyverONE routers also allow for the minimization of the network “footprint” by allowing the Administrator to specify “stealth mode” operations rather than a simple allow or block approach to port response.



## ROUTER DATA SHEET

### Scalability through Processor Choice

Cyvergence hardware platforms can scale from appliances supporting a single Intel Celeron processor to units that will support multiple quad-core Xeon processors with as much as 96 GB onboard memory. Appliances can be provided with solid state hard drives when requested. Standard models offer the choice between the following:

- Intel™ XEON™ X3400/L3400
- Intel™ Core i3/i5 Processors
- Intel™ XEON™ C5500/C3500

Special order high end devices can be ordered with support for the Intel™ Nehalem and Westmere Processors with up to 96 gigabytes of memory.

### Ethernet Port Support

Smaller models come with a maximum of 20 GbE ports and an RJ45 connector on

the front for System Console connectivity.

Larger models provide a maximum of 24 GbE ports with an additional two (2) GbE ports for management access to the appliance via three (3) NIP modules for maximum flexibility.

### Ethernet Port Support

Smaller models provide one (1) internal 2x5 pin connector.

Larger models support up to one (1) PCIe x8 and two (2) PCIe x4 slots.

### Protocol Support

- E1/T1 Wide area communications protocols with support for CAS, CCS, and RBS signaling (SS7 is part of CCS).
- Ethernet
- Wi-Fi Protocols
  - 802.11a
  - 802.11b
  - 802.11g
  - 802.11n

- ADSL Half and Full Duplex DSL protocols.

### Layer 3 Routing

Layer 3 routing is fully supported.

### Redundancy

In addition to the simple approaches to redundancy like providing redundant power supplies the Cyvergence family of routers can support a dynamic approach to router redundancy using the Virtual Router Redundancy Protocol (VRRP). As defined in RFC 2338, when running multiple VRRP enable routers on the network allows the protocol to dynamically assign responsibility for specific virtual routes to one of the active routers. This router, termed the Master, is then responsible for forwarding the packets to the IP addresses within its sphere of control. This election process allows for the specification of an alternate Master should the initially designated Master lose contact. The use of alternate path routing with the same IP and MAC addressing allows the network to continue without requiring a reconfiguration of the gateway.



## Router Specifications

### CPU Support

- Intel LGA1155 Xeon X3400/L3400
- Intel Core i3/i5 Processors
- Intel Xeon C5500/C3500 Processors



### Memory Supported

DDR3 1333/1066/800 UDIMM or RDIMM  
(Maximum 48 gigabytes)



### Ethernet Ports

Up to 26 GbE Ports  
2 PCIe GbE Ports for Management  
(Larger Models)



### Expansion Slots

Maximum 1 PCIe x8 and two PCI x4 slots  
(Depending on model)

### Dual USB 2.0 Ports

### LED Indicators:

Power Status  
Disk Access  
Ethernet status  
Port Speed  
Bypass Status.



Removable Smart Fan

Redundant 500W ATX PSU

Built onboard 5 pin adapter for VGA Access

1U or 2U Form Factors – Depending on Model

### LCD Panel Support:

16x2 Characters  
128/64  
128/32 LCD Module

### Power:

300 or 500 Watt Power Supply Unit  
(Redundancy Available on Some Models)