3Com® SuperStack® 3 Switch 4400 Family

Key Benefits

Performance
Enterprise-class managed Layer 2/4 10/100 switching for workgroups, with a choice of Gigabit downlinks and stacking. Available in 24- and 48-port products covering important network interface types including Power over Ethernet and 100BASE-FX, with two Gigabit module slots on every unit, the SuperStack 3 Switch 4400 family can meet nearly all Enterprise workgroup switching requirements.

Security
Advanced security for network data and the management traffic controlling the network. IEEE 802.1X RADIUS network login provides secure network access control at the edge of the network. Further enhancing security, authenticated users can be automatically placed into a specific VLAN, restricting access only to the data they need. Secure Shell (SSH) encryption of login passwords, management VLANs, and management station "trusted IP address" lists help protect the network from rogue management threats.

Resiliency
Hot-swappable stacking of up to eight units, or 384 10/100 ports, allows continuous operation of the network. Stack-wide link aggregation (LACP) enables high-performance connectivity of up to 4Gbps to the core of the network, with up to four ports from different units aggregated together across the stack to maximize network uptime.

Multilayer Traffic Shaping
Advanced Multilayer packet classification enables prioritization of mission critical traffic and real-time applications such as voice and video, while freeing bandwidth by eliminating unwanted protocols and applications from the network. Through network login profiles, classification can be dynamically assigned on a per-user basis. Port based rate-limiting enables the maximum bandwidth on each port to be limited, allowing maximum control of network resources while maintaining the full benefit of the powerful traffic prioritization features.

Ease of Use
Switches automatically select the optimal speed and duplex mode of connected cables to prevent misconfiguration of the network. They also detect and adjust to cross-over or straight-through cable connections – a feature called auto MDI/MDIX – eliminating the need for specific cables.

Network Control
Network management is available through an embedded web and command line interface (CLI), or via an SNMP management station. Supported by the range of 3Com management offerings including 3Com Network Supervisor.

Limited Lifetime Warranty
Lifetime Lifetime hardware warranty with 90 Day software support.
3Com SuperStack 3 Switch 4400 family switches provide wirespeed 10/100 Fast Ethernet switching specifically designed for Enterprise workgroup environments. This award-winning switch family boasts advanced Quality of Service features that can reduce the latency of packets through the network, with specific traffic prioritization improving the delivery of converged data such as voice and high quality video over IP.

The switch family has great deployment flexibility, with dual expansion slots to support a full mix of Gigabit downlink modules and stacking support of up to eight stacked units. Stacking reduces network management complexity by allowing up to 384 Fast Ethernet ports to be managed as a single entity. The Switch 4400's hot-swappable stacking, with the ability to implement stack-wide aggregated links, provides advanced resiliency for mission critical networks.

Security is of utmost importance for a network, and the SuperStack 3 Switch 4400 family is a strong contributor to this for workgroups. IEEE 802.1X network login ensures all users are authorized before being granted access to any network resource. User authentication is carried out using any standards-based RADIUS server, avoiding any proprietary authentication mechanisms.

3Com backs these products with more than 25 years of networking experience. They come with a Limited Lifetime product hardware warranty and limited lifetime access to software updates.

The SuperStack 3 Switch 4400 SE 24-Port is an economical alternative if advanced multilayer and security features are not needed initially, a switch that preserves the option of getting these features in the future.

The Switch 4400 SE lacks the traffic classification and prioritization, and RADIUS network login, accounting, and other security features of the other Switch 4400 family models, while sharing the family’s performance, stackability, and available uplink modules. Enable the advanced features later with the purchase of the SuperStack 3 Switch 4400 SE Enhanced Software Upgrade.
# Features

## Performance

| Switching capacity: 24-port models, 8.8 Gbps; 48-port models, 13.6 Gbps |
| Forwarding rate: 24-port models, 6.6 Mpps; 48-port models, 10.1 Mpps |
| Store-and-forward switching; latency <2.6 µs |

## Layer 2 Switching

| MAC Address | 8K MAC addresses |
| VLANs (IEEE 802.1Q) |
| Link Aggregation | 64 VLANs (IEEE 802.1Q) |
| IEEE 802.1ad (LACP) |
| Four trunk groups (up to four ports in each) |
| Link Aggregation across stack |
| Auto-negotiation | Auto-negotiation of port speed, duplex, and connection (MDI/MDIX) |
| Traffic control | IEEE 802.3x full-duplex flow control |
| Back pressure flow control for half-duplex |
| Broadcast Storm Suppression (3,000 pps threshold) |
| Spanning Tree | IEEE 802.1D Spanning Tree Protocol (STP) |
| IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) |
| • Fast-start mode |
| • Spanning tree enable/disable per port |
| Multicast Snooping | IGMP v1 and v2 snooping |
| IGMP Querier |
| Filtering for 128 multicast groups |

## Stacking

| Stacking | Up to 384 ports |
| Single IP address for stack management |
| Resilient loop back |
| Hot-swappable |

## Convergence

| Priority Queues | Four hardware queues per port |
| Strict priority queuing |
| Weighted Round Robin queuing |
| Traffic Prioritization | CoS Marking / Remarkming |
| IEEE 802.1p to DSCP mapping |
| Auto classification of 3Com NBX® telephony traffic |
| Priority based on: |
| • IEEE 802.1pCoS |
| • DSCP (DiffServ Code Point) |
| • TCP/UDP destination port number |
| • Default port priority |
| • IP Address / Protocol |
| Traffic Shaping | Egress rate limiting, port-based: |
| • 1 Mbps increments (10/100 ports) |
| • 8 Mbps increments (Gigabit ports) |
| Application and protocol blocking |
| Illegal DHCP server protection |

## Security

| Network Login | IEEE 802.1X user authentication |
| • RADIUS authentication |
| • Secure Mode (locks MAC address) |
| Device Unknown Disconnect (DUD) |
| Switch Management | Local or RADIUS management of switch passwords |
| Trusted IP Management Addresses |
| Telnet |
| • SSH v2 (56 bit or 168 bit DES) |

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*Switch 4400 SE requires Enhanced Software Upgrade, 3C17207, to perform these functions.*
**Resiliency**

Support for 3Com Advanced Redundant Power Supply; provides backup power to the switch
Backup and restore of switch settings

**Management**

- Remote Management: SNMP v1, User-selectable management VLAN
- Software: Backup and restore, TFTP configuration: upload/download, TFTP agent: upload
- Configuration: Command line, Serial (9-pin, D-type connector), Telnet, Web-based, SNMP
- Mirror port / RAP (Roving Analysis Port): One-to-one
- RMON (Remote Monitoring): Four groups: statistics, history, alarm, and events
- IP address allocation: DHCP, BootP, Manual, Auto IP
- Remote management: 3Com Network Supervisor (*copy provided with product*)
  - Topology discovery
  - Change management reporting
  - Capacity planning
  - Event logging
  - Fault identification and troubleshooting
  - Utilization monitoring

Switch 400 SE requires Enhanced Software Upgrade: 3C17207, to perform these functions.

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**Configuration Example**
### Specifications

**Connectors**
- 24- or 48 auto-negotiating 10BASE-T/100BASE-TX ports configured as Auto MDI/MDIX
- 24 auto-negotiating In-Line Power 10BASE-T /100BASE-TX ports configured as Auto MDI/MDIX (24-port PWR only)
- 24 100BASE-FX ports (24-port FX only)
- 2 module slots accommodating media modules or stacking modules
- All fiber connectors are MT-RJ modules or stacking modules

**Performance**
- **24-port**
  - 8.8 Gbps forwarding bandwidth
  - 6.6 million packets per second
  - 8,000 MAC addresses supported

**Environmental Requirements**
- **Operating temperature**: 0° to 40°C (32° to 104°F)
- **Storage Temperature**: -40° to +70°C (-40° to +158°F)
- **Operating Humidity**: 10% to 90% relative humidity non-condensing
- **Standards**: EN60068 (IEC68)

**Safety Agency Certifications**
- **24-port**: UL1950, EN60950, CSA22.2 No. 950, IEC 60950
- **24-port PWR, 24-port FX, and 48-port**: UL60950, EN60950, CSA2.2 No. 60950, IEC 60950

**Specifications**
- **Dimensions**
  - Height: 43.6 mm (1.7 in or 1U)
  - Width: 440 mm (17.3 in)
  - Depth: 24-port PWR: 304 mm (12.0 in), 24-port FX: 270 mm (10.6 in), all others: 274 mm (10.8 in)
  - Weight: 24-port: 2.8 kg (6.2 lb), 24-port PWR: 4.6 kg (10.1 lb), 24-port FX: 2.7 kg (6.0 lb), 48-port: 3.2 kg (7.1 lb)

**Reliability**
- **MTBF @ 40°C**
- 24-port: 254,024 hours
- 24-port PWR: 233,451 hours
- 24-port FX: 227,969 hours
- 48-port: 180,700 hours

**Emissions**
- **EN55022 Class A**, **CISPR 22 Class A**, **VCCI Class A**, **EN61000-3-2**, **EN61000-3-3 (24-port PWR only)**, **Immunity**: EN55024

**Heat Dissipation**
- 24-port: 100 W maximum (341 BTU/hr maximum)
- 24-port PWR: 275 W maximum (938 BTU/hr maximum)

**Power Supply**
- **AC Line Frequency**: 50/60 Hz
- **Input Voltage**: 90-240 V AC
- **Current Rating**: 24-port: 2.3A maximum, 48-port: 2.8A maximum

**SNMP Standards**
- **SNMP Protocol**: (RFC 1157)
- **3Com SuperStack 3 Switch 4400 Stack**
- **Supervisor provided on accompanying CD**
- **Trial copy of 3Com Network Management**

**Security**
- **Radius**, **SSHv2**, **OpenSSH**
- **IEEE 802.1X network login**

**Stacking**
- Up to 384 10/100 front panel ports
- Mix and match Switch 4400 24-port (3C17203), 4400 48-port (3C17204), 4400 PWR (3C17205), and 4400 FX (3C17210)
- Stack Switch 4400 SE (3C17206) only with other like units

**3Com SuperStack3 Switch 4400 Family Data Sheet**

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### Ordering Information

3Com SuperStack 3 Switch 4400 24-port
3Com SuperStack 3 Switch 4400 48-port
3Com SuperStack 3 Switch 4400 PWR
3Com SuperStack 3 Switch 4400 SE 24-port
3Com SuperStack 3 Switch 4400 FX

**Optional Modules and Accessories**
- 3Com SuperStack 3 Switch 4400
- Enhanced Software Upgrade
- 3Com SuperStack 3 Switch 4400 100BASE-T Module
- 3Com SuperStack 3 Switch 4400 100BASE-SX Module
- 3Com SuperStack 3 Switch 4400 100BASE-FX Module
- 3Com SuperStack 3 Switch 4400 100BASE-LX Module

**Power Supply**
- **AC Line Frequency**: 50/60 Hz
- **Input Voltage**: 90-240 V AC
- **Current Rating**: 24-port: 2.3A maximum, 48-port: 2.8A maximum

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