



Midmarket LAN Solution

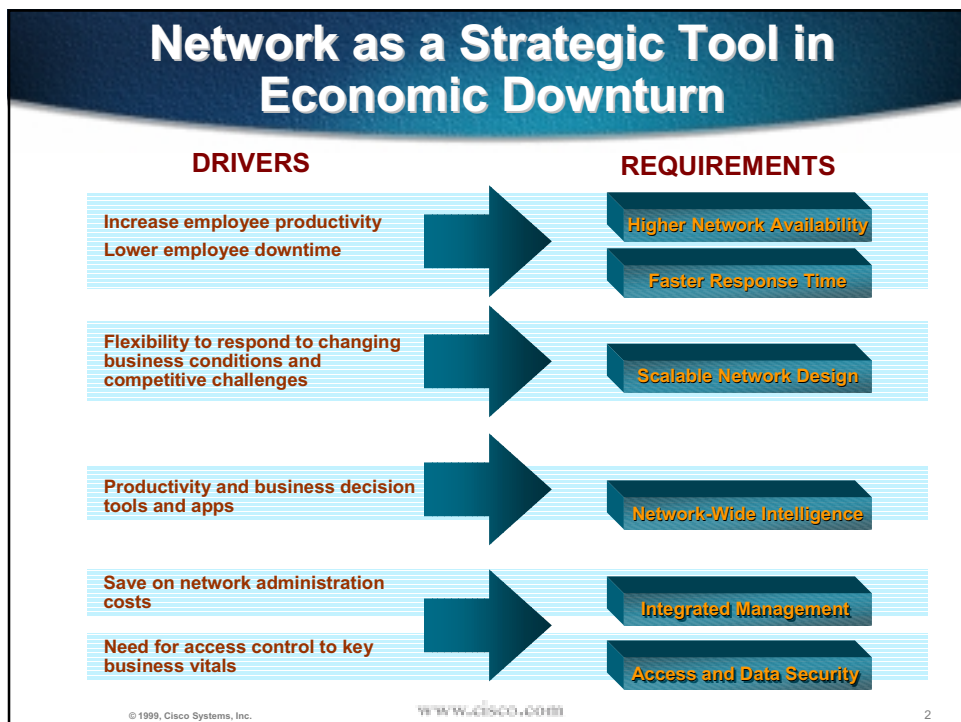


Extending the Life of IT Infrastructures
Through Strategic Network Investments

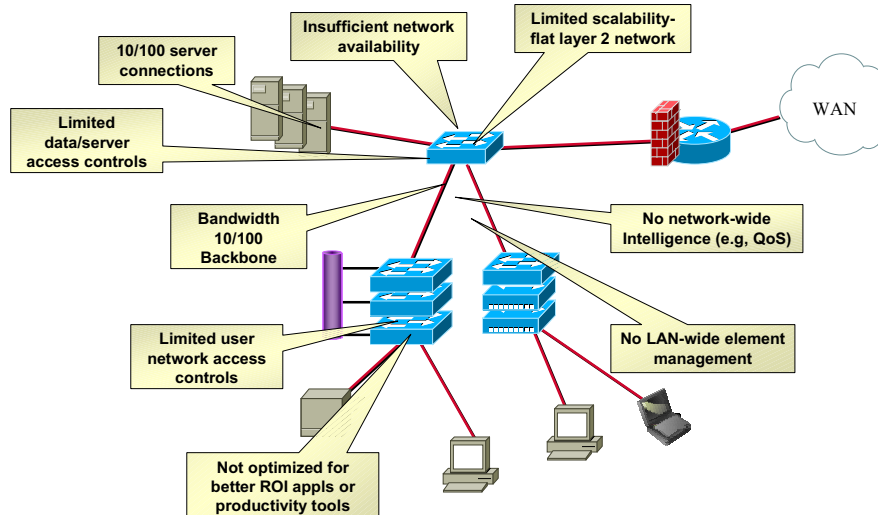



Course Number
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Typical Issues with Current Midmarket Networks



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Strategic Network Investments

Customers can make several strategic investments to leverage their existing infrastructure and improve their business productivity

#1: Increase The Speed of the Backbone/Server Connectivity

#2: Add Network Intelligence

#3: Expand Network Intelligence

#4: Increase Backbone Availability

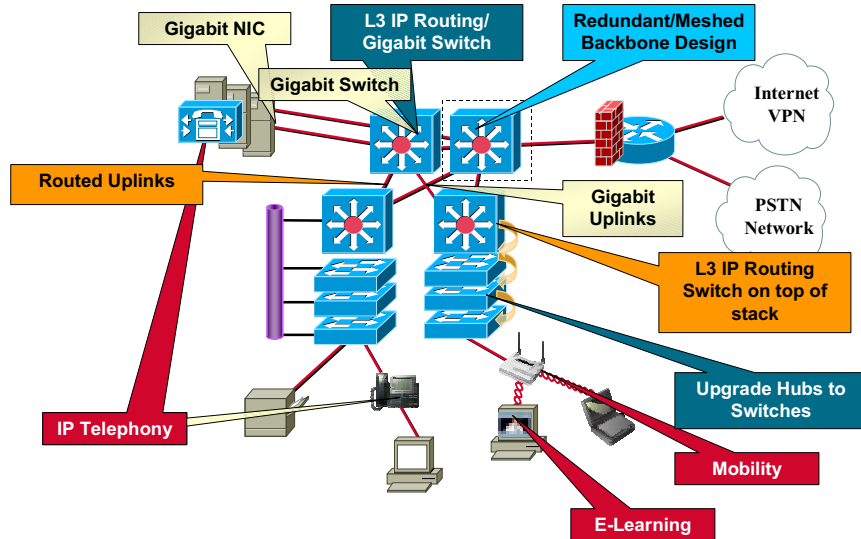
#5: Add High ROI and Productivity Apps

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Strategic Network Investments

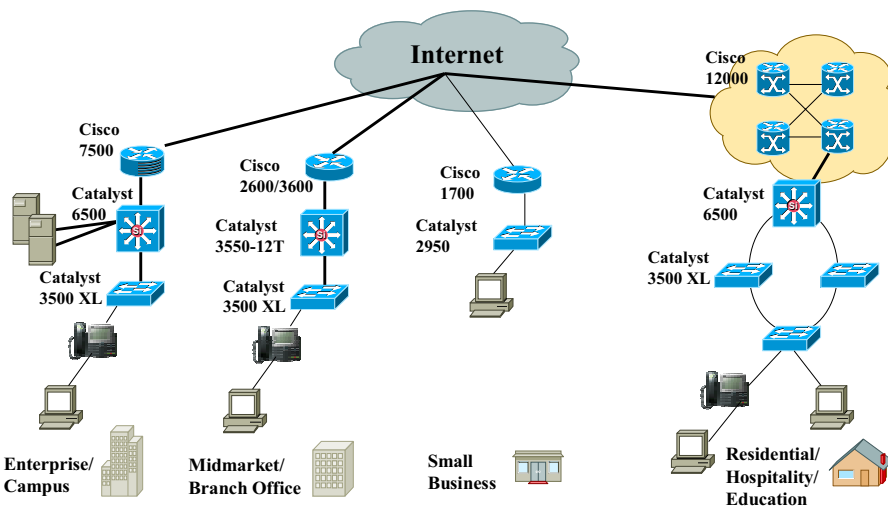


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Network Design by Market Segment



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Announcement Highlights

New Cisco Solution and Products

- **Gigabit-Ethernet over Copper:** Cisco Catalyst 2950 Series, Catalyst 3550-12T, and 1000BaseT GBIC optimized to move mid-market customers from Fast Ethernet to higher performance Gigabit Ethernet backbone using existing Cat 5 copper cabling.
- **1000BaseT Fixed Configuration Desktop Switches:**
 - Cisco Catalyst 2950 Series delivers next generation wire-speed performance and functionality with 10/100/1000BaseT uplinks, enhanced QoS and multicast management features.
 - First 10/100/1000 Gigabit Ethernet aggregation switch, the Cisco Catalyst 3550-12T delivers multi-layer services such as IP routing, advanced quality of service, IP security and Web-based management at wire-speed performance.

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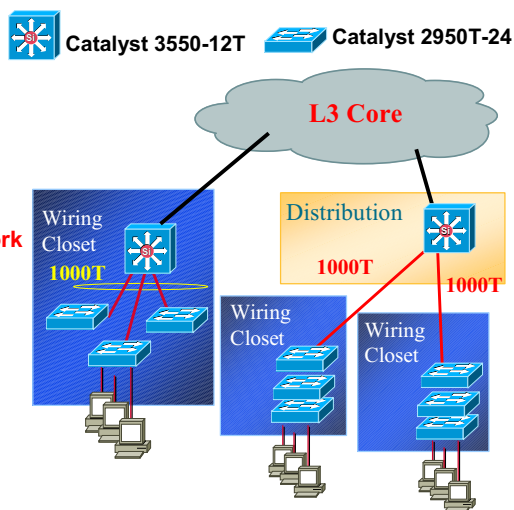
Cisco's Midmarket 1000BaseT Solution

Why 1000BaseT?

- Protects investment in installed horizontal cabling (Category 5)
- Leverages investment in installed gear
- Extends Cisco IOS **Intelligent Network Services** at wire-speed over copper

Where in the network?

- Aggregation of wiring closets
- Uplinks to Distribution Layer
- Data centers



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Introducing Cisco's 1000BaseT Midmarket Solution

FIBER

Catalyst 3500 XL



Catalyst 4908G-L3



COPPER

Catalyst 2950T



Wiring Closet

Catalyst 3255-12T



Backbone

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NEW

Cisco Catalyst 2950 Series

- **Best in class wire-speed performance**
Unmatched 8.8 Gbps switching fabric, 6.6 Mpps maximum forwarding rate
- **Powerful upgrade path to Gigabit speed networks over copper infrastructure**
Dual, integrated 10/100/1000BaseT uplinks support redundancy and facilitate easy migration from Fast Ethernet
- **Enhanced and powerful Cisco IOS Services**
Enhanced LAN Edge QoS and Multicast Management
High availability and security features
- **Embedded management using award winning Cisco Cluster Management Suite (CMS)**
Manage a cluster of up to 16 Cisco Catalyst 3500XL, 2900XL, 1900 switches



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Cisco Catalyst 3550-12T

- **New Cisco Catalyst 3550-12T!**
(10) 10/100/1000 ports with 2 GBIC ports
- **Wire Rate performance at Layer 2 and Layer 3**
17.9 Million packets per second
- **DiffServ QoS support, Multicast Routing, and IP Forwarding**
- **Cisco's Award winning CMS**
- **Cisco High Availability and VLAN features**
- **Limited Lifetime Warranty**
- **Full Cisco GBIC Support**



1000BaseT or GBIC-Based
Gigabit Ethernet Ports

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1000BaseT GBIC



- **1000BaseT connectivity for existing network infrastructure!**
- **Runs at 1000 Mbps only**
- **Supported on Catalyst 3550, 3500 XL, and modular 2900 XL switches with 1000BaseX module installed (WS-X2931-XL)**

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Cisco Midmarket Gigabit Ethernet Solution

The diagram illustrates a Cisco Midmarket Gigabit Ethernet Solution network topology. At the top, two **Catalyst 3550-12T** switches are connected to a **Catalyst 3548 XL** switch on the left and another **Catalyst 3550-12T** switch on the right. The **Catalyst 3548 XL** switch is connected to a server rack. The **Catalyst 3550-12T** switch on the right is connected to a **Catalyst 2950T** switch, which is in turn connected to a wireless access point. The wireless access point is connected to a laptop. The **Catalyst 3550-12T** switch on the right is also connected to an **Internet VPN** cloud and a **PSTN Network** cloud. The **Catalyst 2950T** switch is connected to a desktop computer and a printer.

Catalyst 3550-12T

Catalyst 3548 XL

Catalyst 3550-12T

Catalyst 2950T

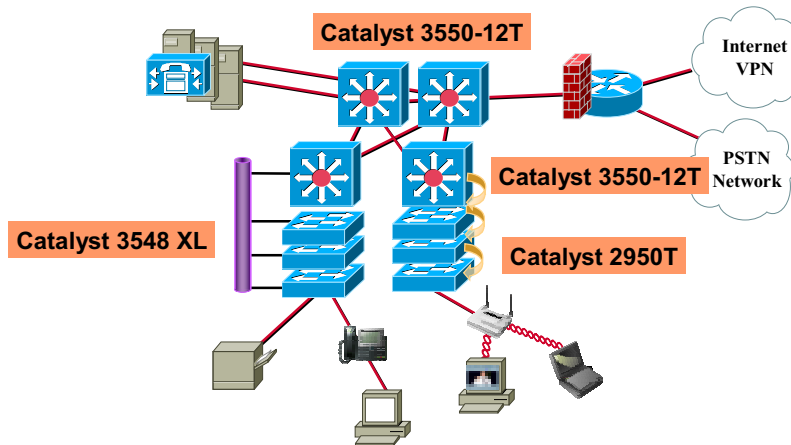
Internet VPN

PSTN Network

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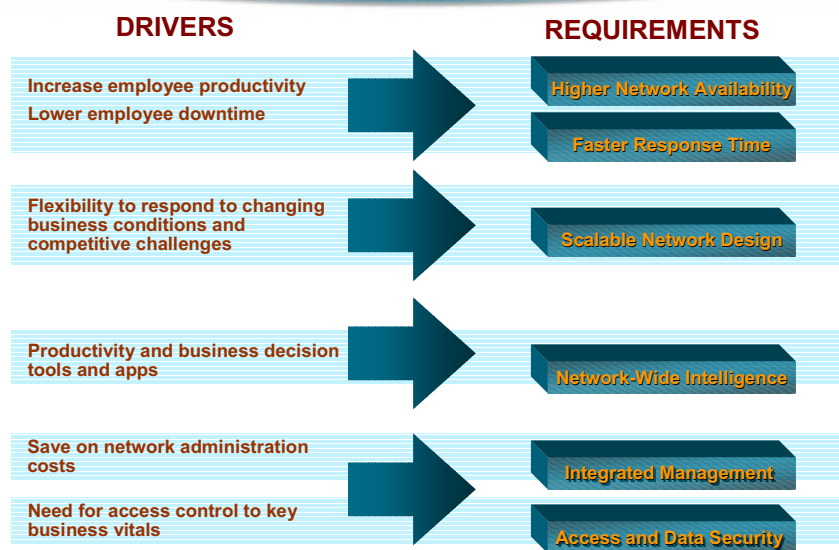
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Network as a Strategic Tool in Economic Downturn

DRIVERS	REQUIREMENTS
Increase employee productivity Lower employee downtime	Higher Network Availability Faster Response Time
Flexibility to respond to changing business conditions and competitive challenges	Scalable Network Design
Productivity and business decision tools and apps	Network-Wide Intelligence
Save on network administration costs	Integrated Management
Need for access control to key business vitals	Access and Data Security

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Meeting the Midmarket Network Requirements

REQUIREMENTS

Higher Network Availability

Faster Response Time

Scalable Network Design

Network-Wide Intelligence

Integrated Management

Access and Data Security

Enterprise Class High Availability Features

Cisco STP enhancements for L2 redundancy

HSRP for router Redundancy

Equal Cost Routes

Redundant Gigabit Uplinks

RPS 300 support

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Meeting the Midmarket Network Requirements

REQUIREMENTS

Higher Network Availability

Faster Response Time

Scalable Network Design

Network-Wide Intelligence

Integrated Management

Access and Data Security

Cisco Network Performance Features

Cisco STP convergence features

HSRP for router Redundancy

Wire rate performance

Stable IOS routing for rapid L3 convergence

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Meeting the Midmarket Network Requirements

REQUIREMENTS

Higher Network Availability

Faster Response Time

Scalable Network Design

Network-Wide Intelligence

Integrated Management

Access and Data Security

Scalable Approach to Midmarket
Building Block Approach
Stackable switching to gradually grow the network
Broadcast Domain Segmentation
CEF Based Forwarding

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Meeting the Midmarket Network Requirements

REQUIREMENTS

Higher Network Availability

Faster Response Time

Scalable Network Design

Network-Wide Intelligence

Integrated Management

Access and Data Security

End to End Network Intelligence
Layer 3 QoS Classification /
Reclassification
Dynamic Routing support
Multicast Routing (PIM)

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Meeting the Midmarket Network Requirements

REQUIREMENTS

Higher Network Availability

Faster Response Time

Scalable Network Design

Network-Wide Intelligence

Integrated Management

Access and Data Security

Unparalleled Ease of Use
Embedded web GUI
Clustering for Layer 2 and Layer 3!
Cisco Works support
Wizards and Templates for easy configuration

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Meeting the Midmarket Network Requirements

REQUIREMENTS

Higher Network Availability

Faster Response Time

Scalable Network Design

Network-Wide Intelligence

Integrated Management

Access and Data Security

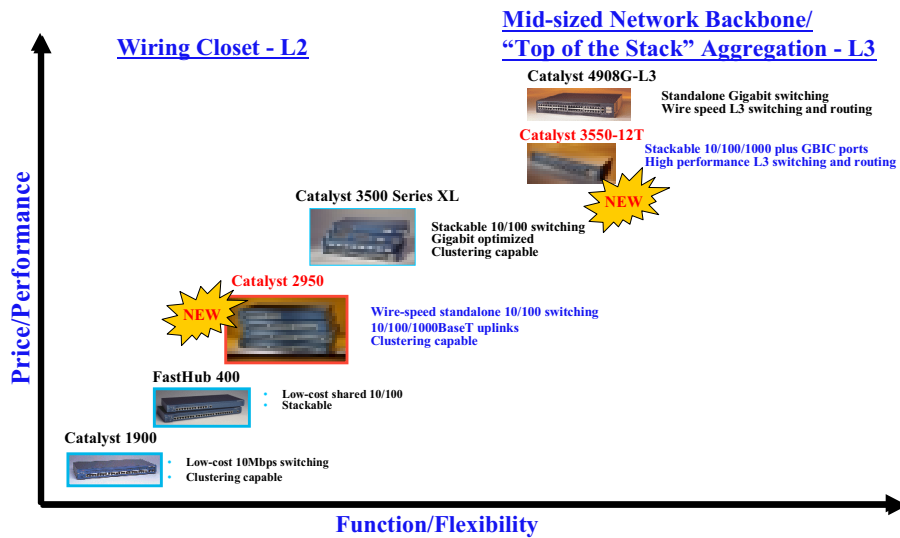
Enterprise Class Security
Standard and Extended IP ACLs
VLAN ACLs
Port Security
TACACS+
802.1x support (future)

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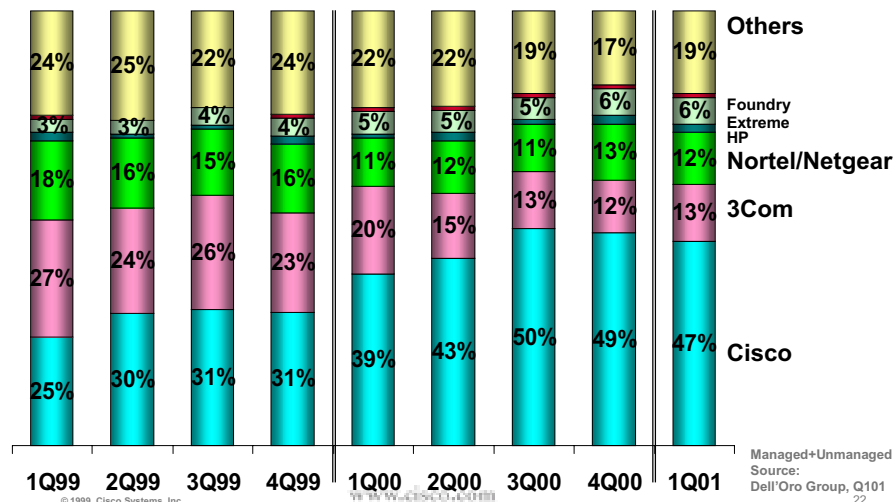
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Cisco Delivers the **Most Complete** Line of Midmarket LAN Products in the Industry



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Leadership in Overall Stackable Switching



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