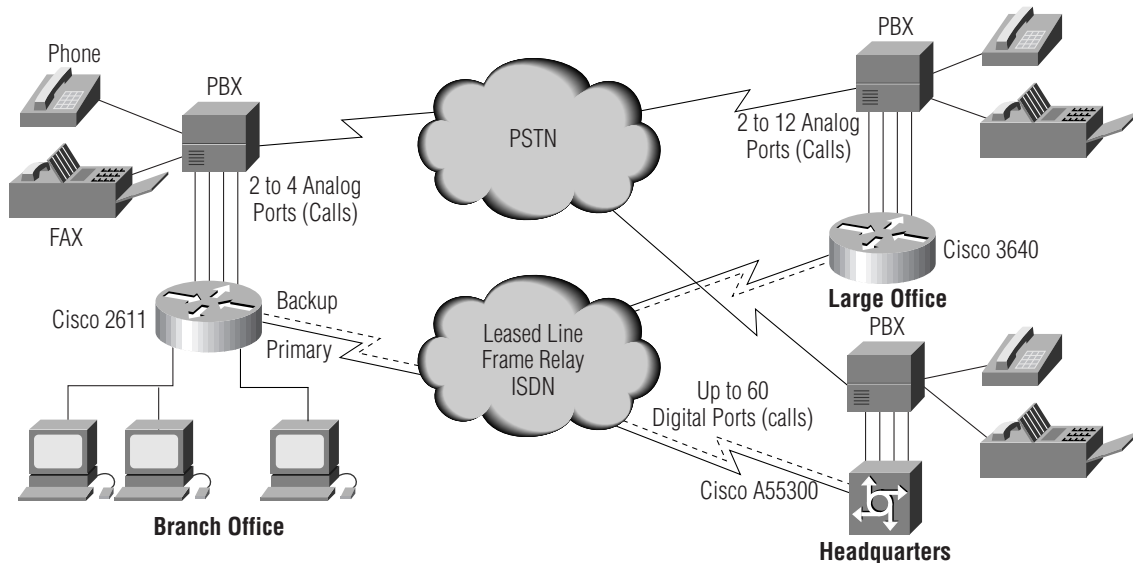


Data/Voice/Fax Integration Using Cisco 2600 Series

Data/Voice/Fax Integration Solution



Data/Voice/Fax Integration: 2 Ethernet, 4 Voice, 1 T1 Leased Line, ISDN Backup

Cisco IOS® Software Upgrade Options

- S26CH-xxx** IP/Firewall
- **S26CP-xxx** IP Plus
- S26CW-xxx**, and **S26CL-xxx** IP Plus 40, and IPSEC 56
- S26CHL-xxx** IP/Firewall Plus IPSEC 56
- S26B-xxx** IP/IPX/AT/DEC
- S26BP-xxx** IP/IPX/AT/DEC Plus
- S26BHP-xxx** IP/IPS/AT/DEC/Firewall Plus
- S26AP-xxx** Enterprise Plus
- S26AL-xxx** Enterprise Plus IPSEC 56
- S26AHL-xxx** Enterprise/Firewall Plus IPSEC 56
- S26ANP-xxx** Enterprise APPN/Plus
- S26ANL-xxx** Enterprise APPN/Plus IPSEC 56
- S26E-xxx** Remote Access Server

Notes: Decide first on the Cisco IOS features you need for a cost effective, secure, scalable end-to-end network. Then choose the platform with the density and performance for current and growth needs. The Cisco 2600 includes IP in the base chassis, the part numbers are upgrades from IP. "xxx" is the Cisco IOS Release such as 12.0 (1)T.

Cisco 2600 Chassis

- CISCO2610** One 10BaseT Ethernet, two WIC slots, one NM slot, one AIM slot, AC
- CISCO2610-DC** -48V DC
- CISCO2610-RPS** Use w/RPS
- **CISCO2611** Two 10BaseT Ethernet, two WIC slots, one NM slot, one AIM slot, AC
- CISCO2611-DC** -48V DC
- CISCO2611-RPS** Use w/ RPS
- CISCO2612** One 10BaseT Ethernet, one Token Ring, two WIC slots, one NM slot, one AIM slot, AC
- CISCO2612-DC** -48V DC
- CISCO2612-RPS** Use w/RPS
- CISCO2613** One Token Ring, two WIC slots, one NM slot, one AIM slot, AC
- CISCO2613-DC** -48V DC
- CISCO2613-RPS** Use w/RPS
- CISCO2620** One 10/100BaseT Ethernet, two WIC slots, one NM slot, one AIM slot, AC
- CISCO2620-DC** -48V DC
- CISCO2620-RPS** Use w/RPS
- CISCO2621** Two 10/100BaseT Ethernet, two WIC slots, one NM slot, one AIM slot, AC
- CISCO2621-DC** -48V DC
- CISCO2621-RPS** Use w/RPS

Notes: 8 MB of Flash and 24 MB DRAM included with chassis. Additional memory (not shown) may be required. For example Enterprise Plus requires 8 MB of Flash and 32 MB of DRAM in IOS 12.0 (1)T. If higher performance or density is required consider 3620 @ 20-40 kpps and 3640 @ 50-70 kpps.

Network Modules

- NM-16A** 16-Port Async
- NM-32A** 32-Port Async
- NM-4A/S** Four-port Async/Sync
- NM-8A/S** Eight-port Async/Sync
- NM-1V** One-slot (1 VIC) Voice/Fax
- **NM-2V** Two-slot (2 VIC) Voice/Fax
- NM-4B-U, NM-4B-S/T, NM-8B-U, NM-8B-S/T** Four- and eight-port ISDN BRI w/ ("U") and w/o ("S/T") NT1
- NM-1CT1-CSU, NM-1CT1, NM-2CT1-CSU, NM-2CT1** One- and two-port Channelized T1/ISDN-PRI w/ and w/o CSU
- NM-8AM, NM-16AM** Eight and 16 integrated analog modems
- NM-1CE1B, NM-1CE1U, NM-2CE1B, NM-2CE1U** One- and two-port Channelized E1/ISDN-PRI balanced ("B") and unbalanced ("U")
- NM-1ATM-25** One-port ATM-25
- NM-1E** One-port Ethernet
- NM-4E** Four-port Ethernet

Advanced Integration Modules (AIMs)

- AIM-COMPR2** Data compression AIM for the Cisco 2600

Notes: Network modules shared with the 3620 (2 slots) and 3640 (4 slots). Cables are recommended for the following: NM-16A, NM-32A, NM-4A/S, NM-8A/S, NM-CT1(x), NM-CE1(x)

WAN Interface Cards (WICs)

- WIC-1T** One-port T1/E1 serial
- WIC-2T** Two-port T1/E1 serial
- WIC-1DSU-56K4** One-port four-wire 56 kbps CSU/DSU
- WIC-1DSU-T1** T1/ Fractional T1 CSU/DSU
- WIC-2A/S** Two-port async/sync serial
- **WIC-1B-S/T** One-port ISDN BRI
- **WIC-1B-U** One-port ISDN BRI with NT1

Voice Interface Cards (VICs)

- VICs used with NM-1V and NM-2V**
- **VIC-2E/M** Two-port-E&M
- VIC-2FXO** Two-port-FXO
- VIC-2FXS** Two-port-FXS

Redundant Power Systems (RPS)

- PWR600-AC-RPS-NCAB** 600W Redundant AC Power System w/o DC Power Cables
- CAB-RPSY-2218** RPS 22/18 Two-to-one DC Power Cable

Notes: Many WICs shared with the 3600 and 1600 series. All VICs shared with 3600. Cables are recommended for the following: WIC-1T, WIC-2T, WIC-2A/S.

Data/Voice/Fax Integration Using Cisco 2600 Series

Overview

Improvements in operating economics, manageability, and the need for desktop and applications integration has driven the consolidation of multiple networks into a single ubiquitous infrastructure. Historically, the focus of this integration has been on combining legacy and LAN-based traffic. With Cisco's leadership in providing IP quality of service (QoS) and high-quality digitization and compression using advanced Digital Signal Processors (DSPs), these same benefits can now be applied to voice and fax to create an end-to-end multiservice network infrastructure.

Solution

The Cisco 2600 series gives customers a cost-effective way to extend their multiservice network infrastructure to smaller, remote branch offices. Combined with higher-density packet telephony solutions in the Cisco AS5300 and Cisco 3600 series, the Cisco 2600 provides a seamless end-to-end multiservice solution, interoperable with network infrastructures based on Cisco 7500 series routers and Cisco StrataCom IGX switches.

The voice/fax network modules for the Cisco 2600 and 3600 series and support connections to PBXs, key systems, telephone sets, and fax machines in the branch office while the voice/fax feature card for the AS5300 supports digital connections to the PBX at corporate headquarters. The voice implementation is without compromise due to its very high-quality codes and support for voice over IP (VoIP). Because VoIP provides an end-to-end solution, the Cisco 2600, 3600, and AS5300 series enable the coming explosion of integrated voice/data applications.

Cisco Systems' robust Cisco IOS software provides advanced QoS features for low-latency, jitter-free voice support with configurable balancing and prioritization of multiple voice and data streams. Using sophisticated QoS features such as fragmentation and interleaving, IP Precedence, and Weighted Fair Queuing (WFQ), the Cisco 2600 series allows voice traffic to be digitized, compressed, encapsulated in data packets, and consolidated with other data traffic for a highly efficient, end-to-end network infrastructure.

Features	Benefits
<ul style="list-style-type: none"> Combines voice, fax (Group III) and data on the WAN 	<ul style="list-style-type: none"> Rapid return on investment (ROI) through toll avoidance
<ul style="list-style-type: none"> 8 kbps (G.729 CS-ACELP) with voice activity detection, echo cancellation, and comfort noise generation 	<ul style="list-style-type: none"> High quality yet low bandwidth supports voice on even low-speed WANs
<ul style="list-style-type: none"> Voice over IP 	<ul style="list-style-type: none"> WAN independent (leased line, Frame Relay, ISDN) end-to-end solution that enables integrated voice/data applications.
<ul style="list-style-type: none"> Real-Time Protocol (RTP), WFQ, RSVP, IP Precedence and RFC 1717 fragmentation and interleaving 	<ul style="list-style-type: none"> Cisco IOS QoS features yield high quality voice while balancing voice and data traffic
<ul style="list-style-type: none"> H.323, G.729, G.723 support 	<ul style="list-style-type: none"> Standards-based implementation ensures end-to-end integrated solutions while preventing "technology lockout"
<ul style="list-style-type: none"> Modular design that shares modular interfaces with Cisco 1600, 1700, and 3600 series 	<ul style="list-style-type: none"> Takes advantage of lower costs created by the rapid change of telecommunications technology and deregulation, scales to higher performance and densities while protecting investment through the economies of shared training, management and spares