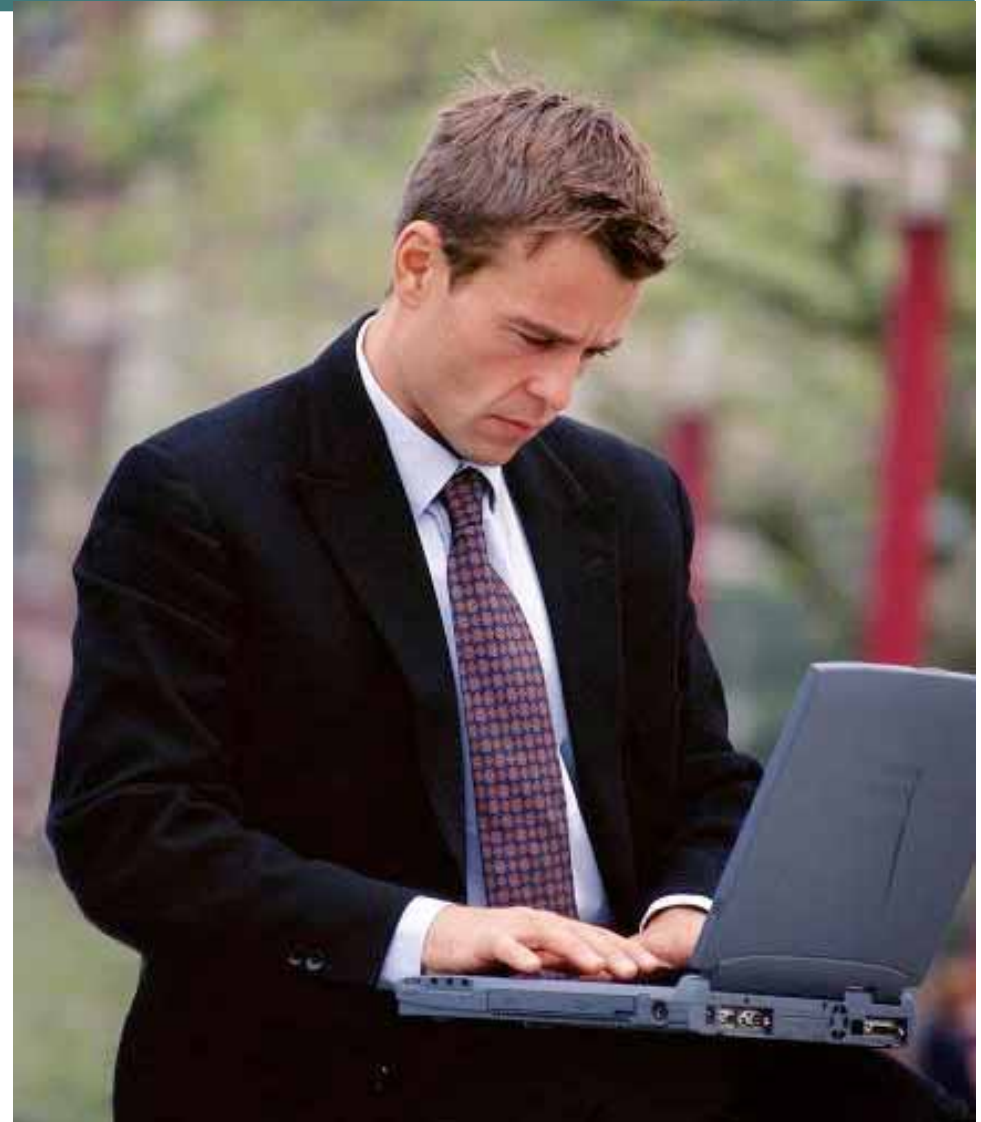# Managed Services
The Road to Revenue

Pravin Mahajan

pmahajan@cisco.com

Agenda

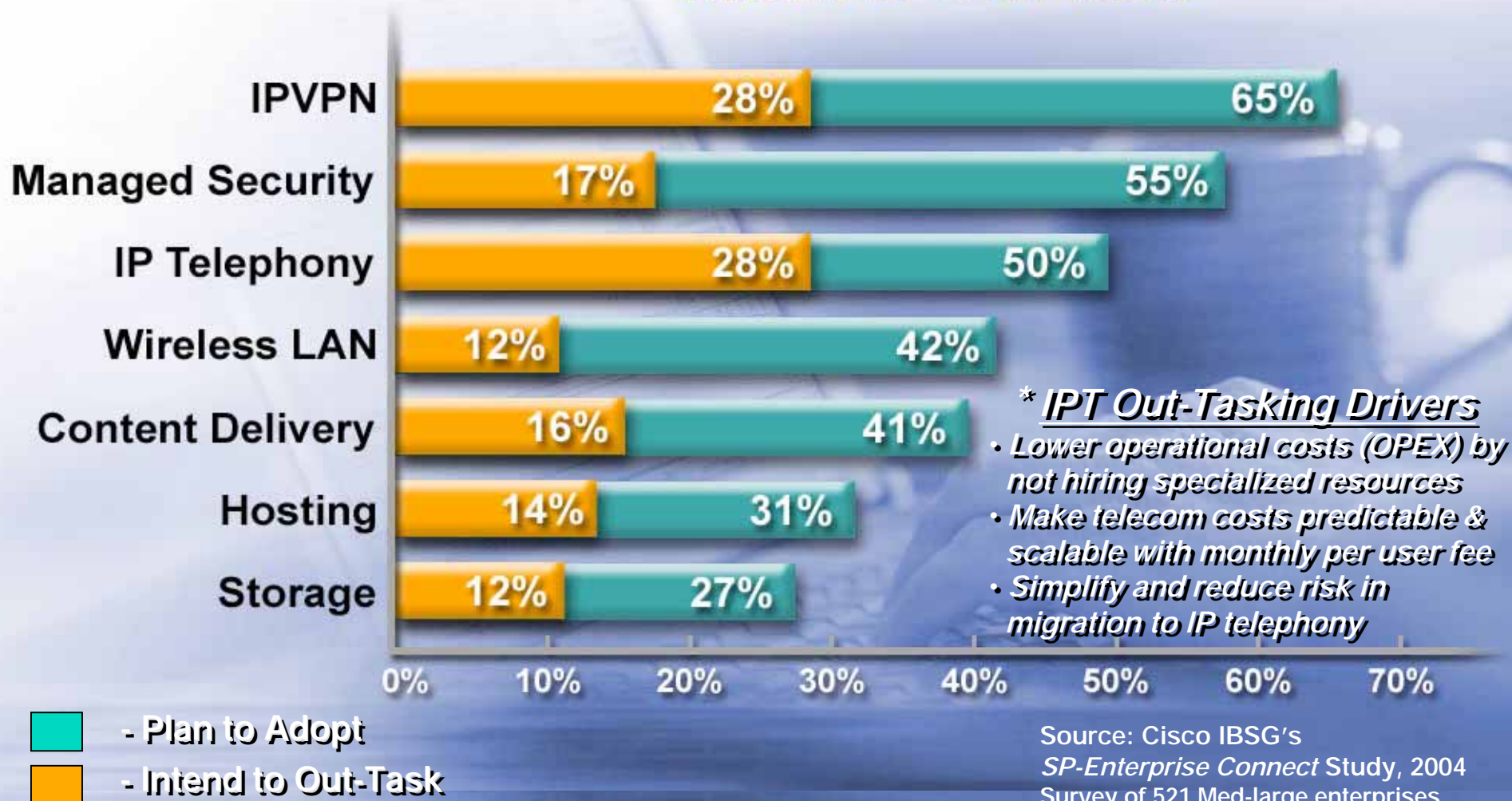- **Managed Services Introduction**

- **Solution Offerings**

- **Market to Services Mapping**
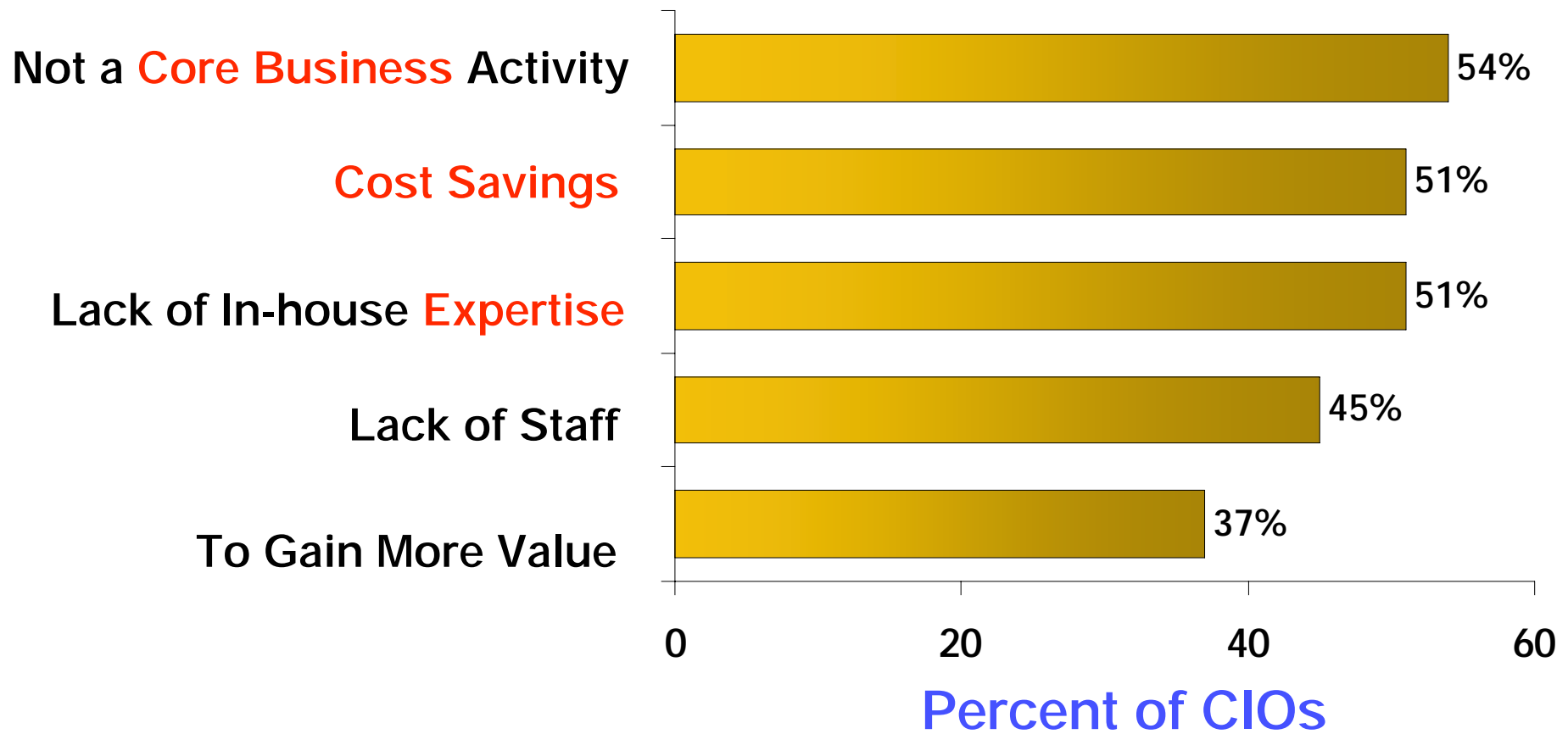
- **Summary**

High Business Interest in OutTasking

Intent to Out-Task

Category	Intend to Out-Task	Plan to Adopt
IPVPN	28%	65%
Managed Security	17%	55%
IP Telephony	28%	50%
Wireless LAN	12%	42%
Content Delivery	16%	41%
Hosting	14%	31%
Storage	12%	27%

*** IPT Out-Tasking Drivers**
- **Lower operational costs (OPEX) by not hiring specialized resources**
- **Make telecom costs predictable & scalable with monthly per user fee**
- **Simplify and reduce risk in migration to IP telephony**

- Plan to Adopt
- Intend to Out-Task

Source: Cisco IBSG's
SP-Enterprise Connect **Study, 2004**
Survey of 521 Med-large enterprises, US & EMEA

3

Out-Tasking---- Reasons

Not a **Core Business** Activity — 54%

Cost Savings — 51%

Lack of In-house **Expertise** — 51%

Lack of Staff — 45%

To Gain More Value — 37%

| 0 | 20 | 40 | 60 |

Percent of CIOs

Source : Cisco FISH Study

One Network Many Services for Customers

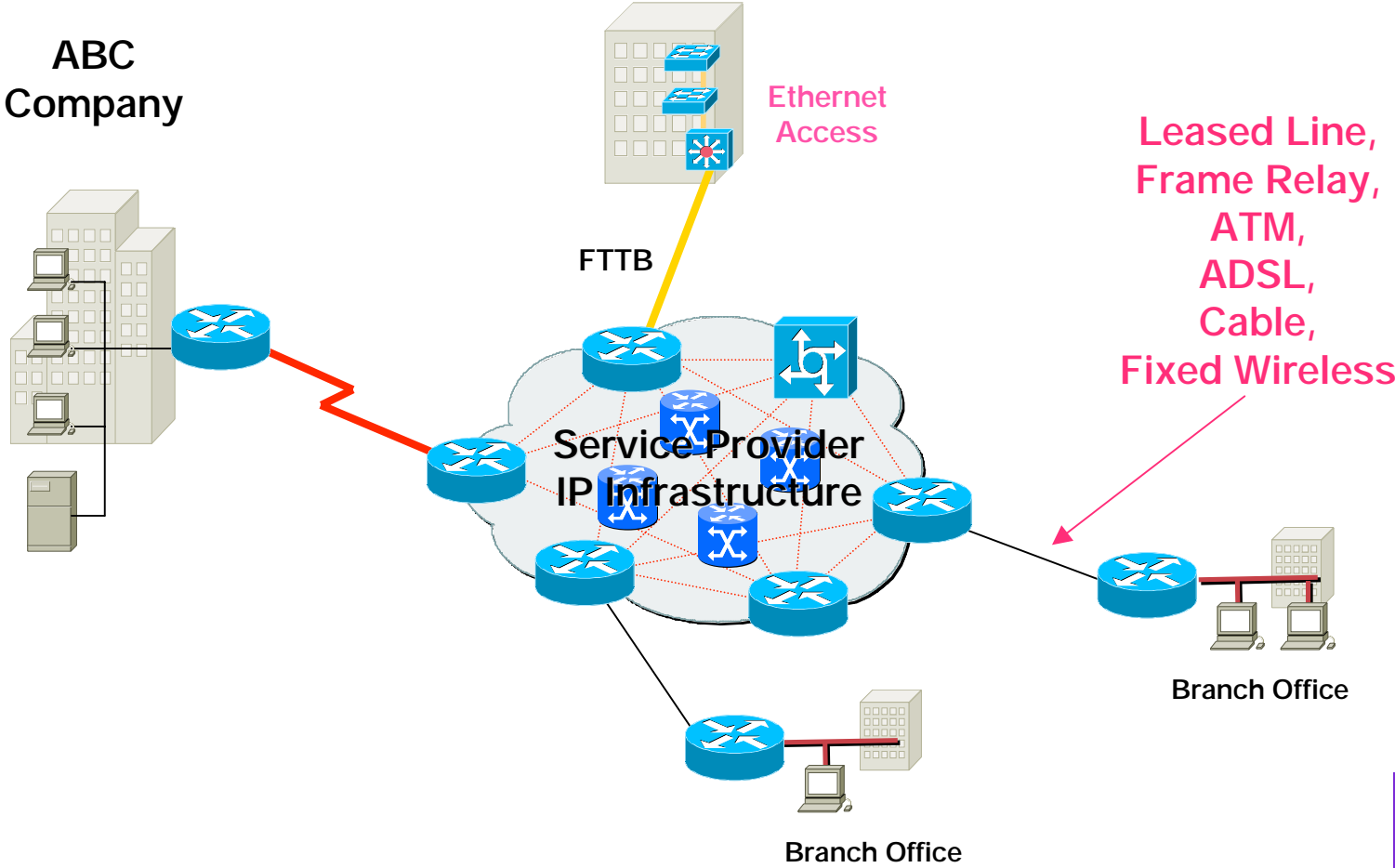|	
Site Backup and Resilience	Voice VPN's
Classes of Service	IP Telephony Integration
Telecommuter Services	Private Content Services
Traveling User Services	Managed Extranet Services
Internet Access Integration	ASP Services
Firewall Services	Virtual ISP Services
Secure OFFnet Access	Unified Communications
Intranet Hosting/Colo Services	E-commerce
Site-to-Site Encryption Services	End-to-End SLA's

Evolution of Services Phases

The evolution of Telco services can be divided into four phases, each with escalating complexity and value offered by the service provider:

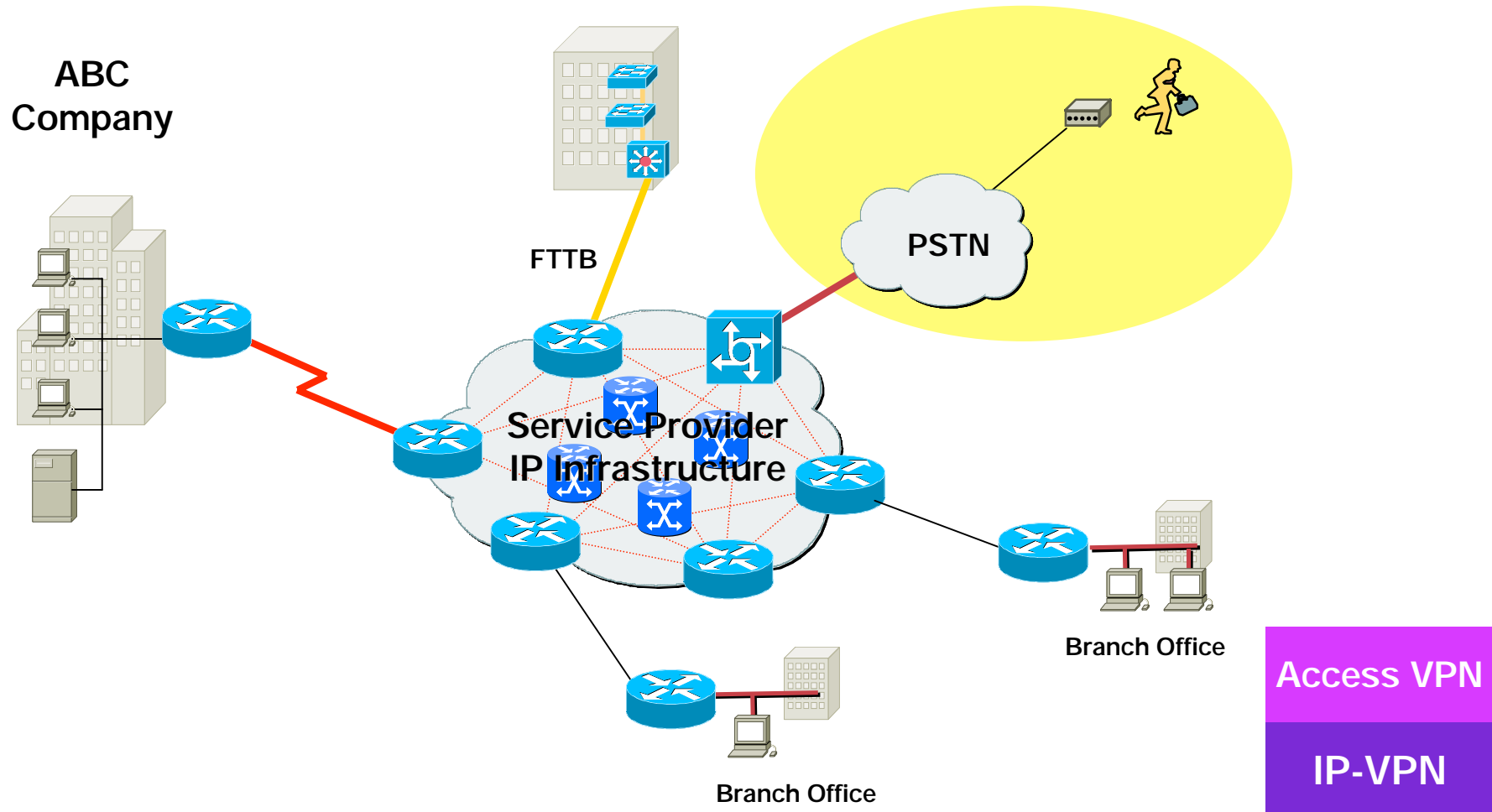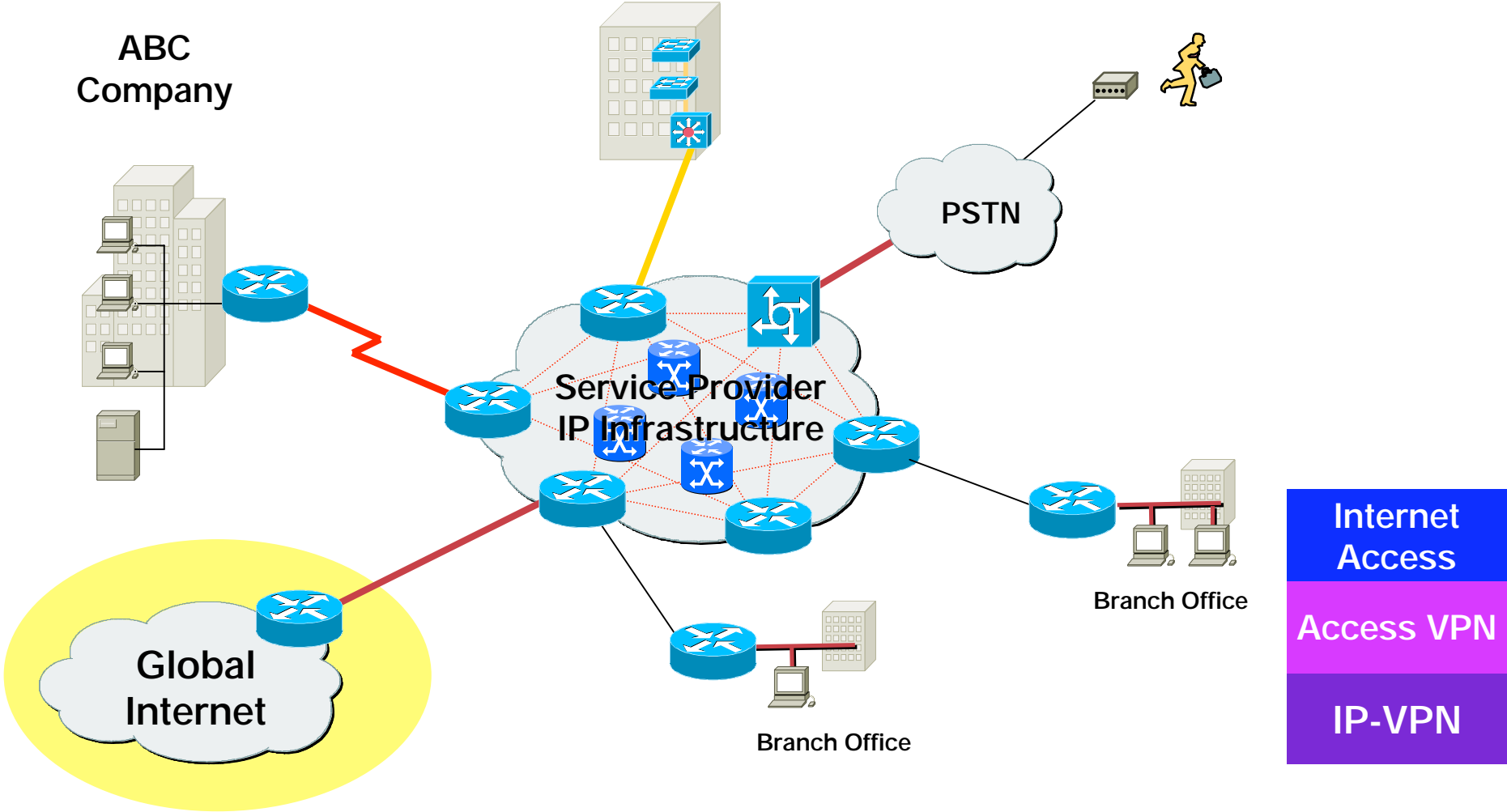| PHASE I CONNECTIVITY SERVICE	PHASE II PROVISIONED SERVICE	PHASE III MANAGED SERVICES	PHASE IV OUTSOURCING
The most basic offering	More expertise, but still static offering, includes CPE	Addressing business needs more completely, selectively tailored	The most complex offering
Transport: Type and bandwidth	Connectivity + design, installation	Provisioned + managed & monitored CPE , service bundling, SLA's	Integrated service + consultative modifications to fit customer's specific needs
Eg. Leased Line	Eg. Broadband Internet Access		

Managed Services Solution Options

Layer 3 and Layer 2 MPLS VPN

ABC Company

Ethernet Access

FTTB

Leased Line, Frame Relay, ATM, ADSL, Cable, Fixed Wireless

Service Provider IP Infrastructure

Branch Office

Branch Office

IP-VPN

Access VPN

**ABC
Company**

FTTB

PSTN

**Service Provider
IP Infrastructure**

Branch Office

Branch Office

Access VPN
IP-VPN

Internet Access

ABC
Company

PSTN

Service Provider
IP Infrastructure

Global
Internet

Branch Office

Branch Office

Internet
Access

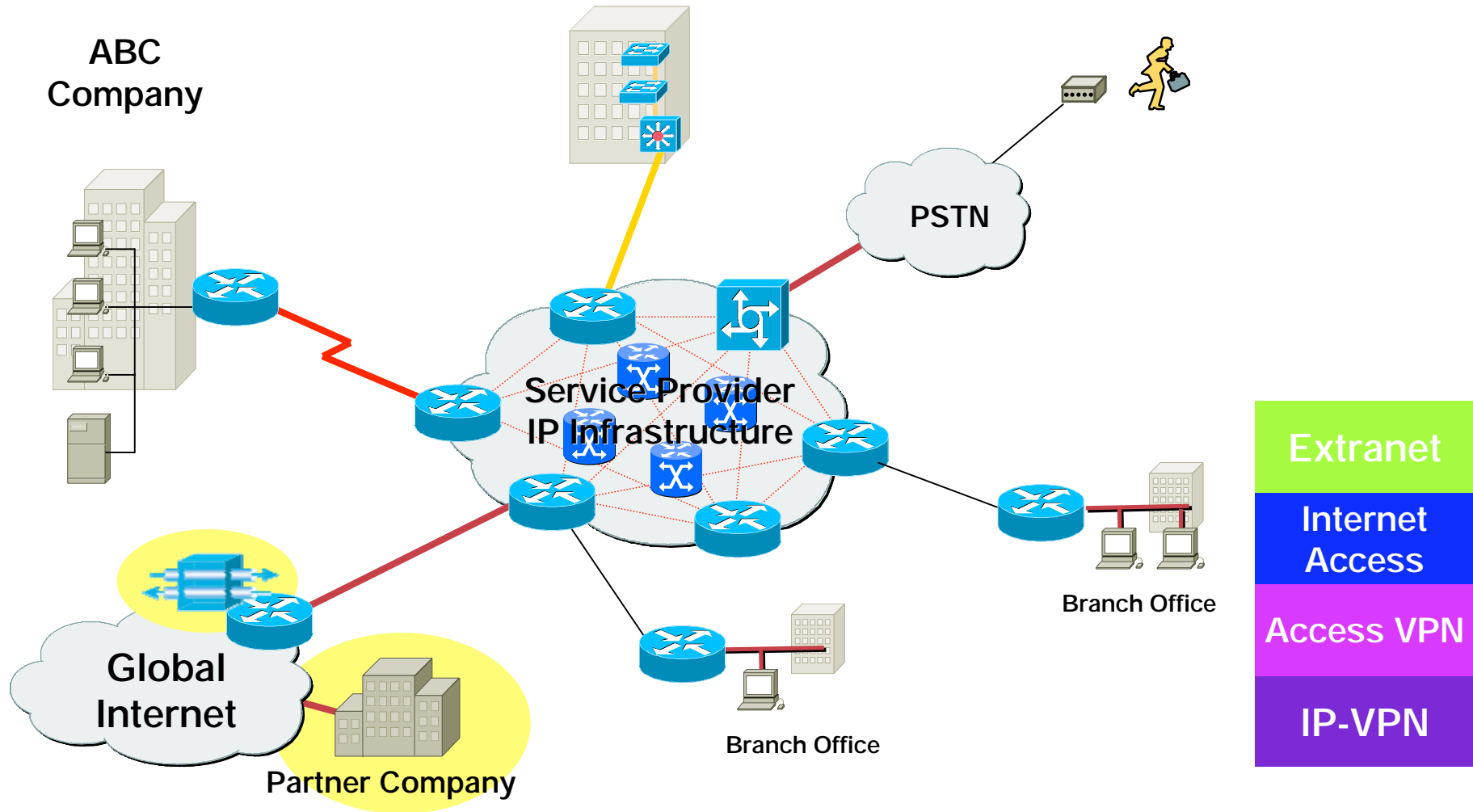Access VPN

IP-VPN

Managed Security

Managed End-to-End Security
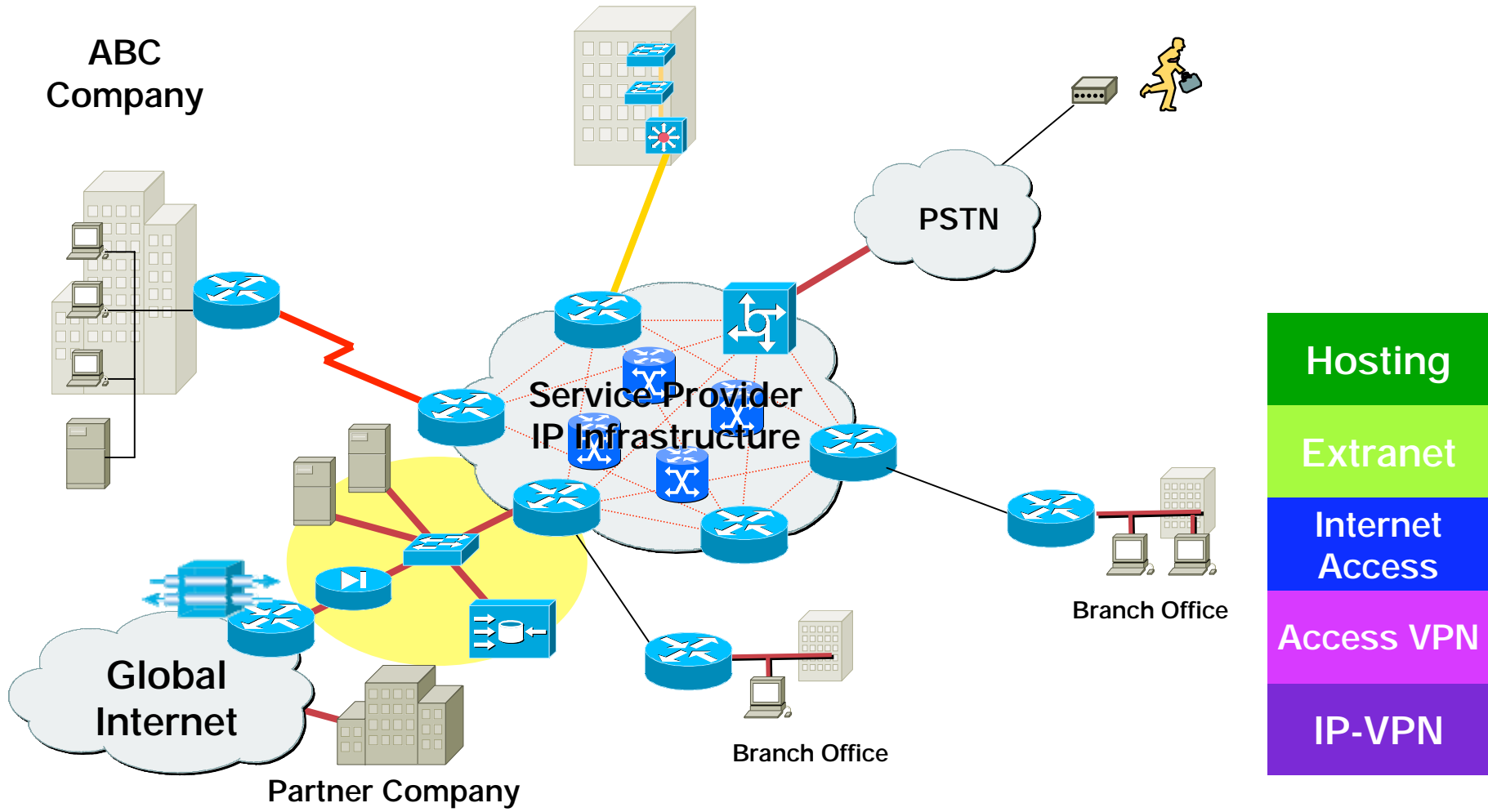
Enhanced Security

Basic Protection/ Security

11. **Full MSSP capabilities**
    - **Consultative Full Security Lifecycle Management**
    - **Security SLAs**

4. **Mgd DDoS Service**
5. **Mgd Network-based Firewall**
6. **Mgd Network-based Intrusion Detection/Prevention**
7. **Outbreak Prevention Service**
8. **Mgd Network Access Control/Quarantine**
9. **Mgd Antivirus & Endpoint Protection**
10. **Mgd Wireless (802.1x) Security Svc**

1. **Mgd CPE Firewall**
2. **Mgd IPSec VPN (site to site and remote access)**
3. **Mgd CPE Intrusion Detection/Prevention**

Extranet

ABC
Company

PSTN

Service Provider
IP Infrastructure

Global
Internet

Partner Company

Branch Office

Branch Office

Extranet

Internet
Access

Access VPN

IP-VPN

IDC / Hosting

ABC
Company

PSTN

Service Provider
IP Infrastructure

Global
Internet

Partner Company

Branch Office

Branch Office

Hosting
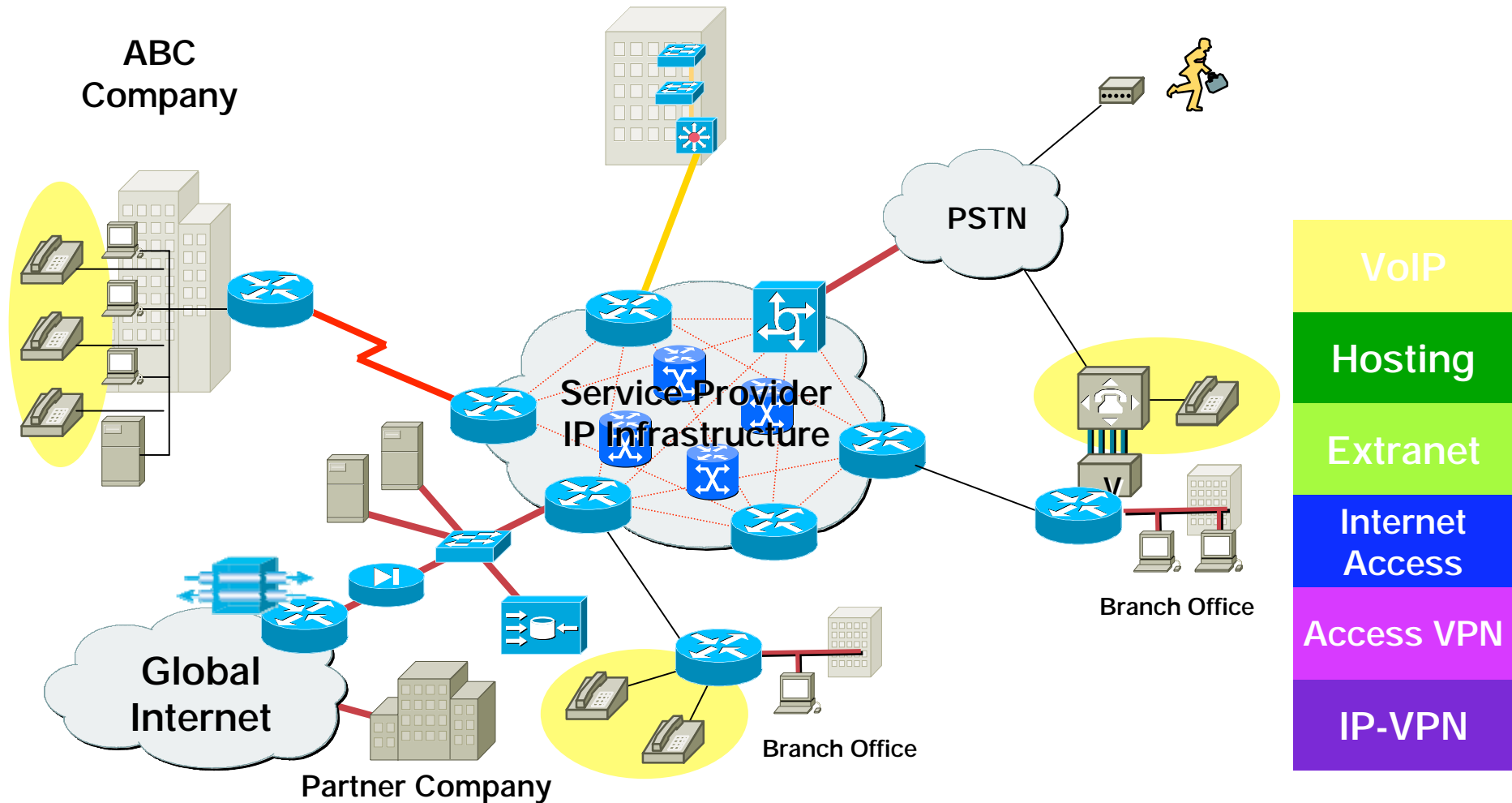
Extranet

Internet
Access

Access VPN

IP-VPN

Managed Voice Services

◈ **Enable Service Providers to deliver revenue generating** *services* **based on IP Communications to enterprises and SMBs**

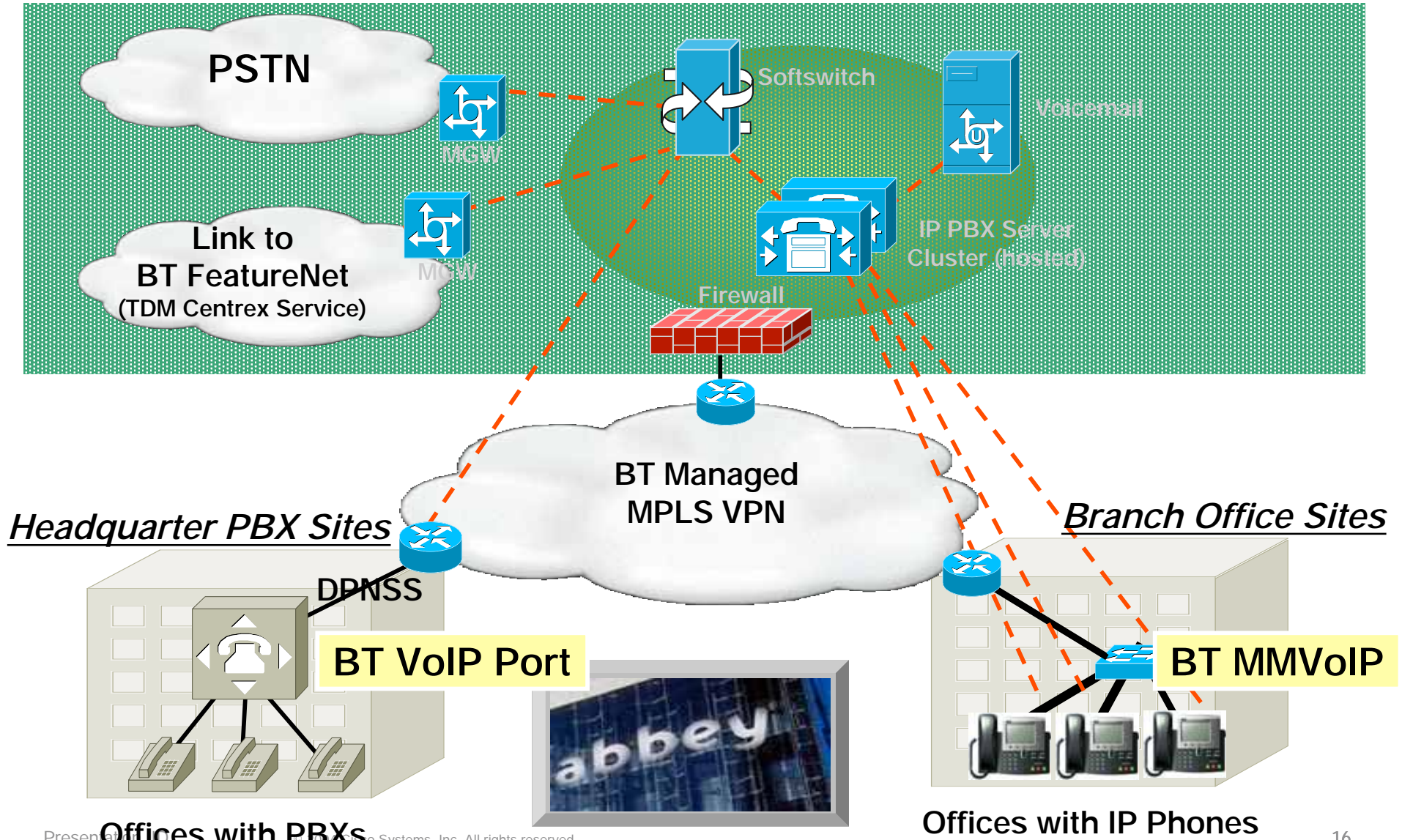⤲ *Hosted IP Communications Applications*

⤲ *Hosted Call Center*

Managed Voice Applications

ABC Company

PSTN

Service Provider IP Infrastructure

Global Internet

Partner Company

Branch Office

Branch Office

VoIP

Hosting

Extranet

Internet Access

Access VPN

IP-VPN

BVS (Biz Voice Services) Case Study:
Voice VPN and Hosted IP Telephony

Cisco.com

PSTN

MGW

Softswitch

Voicemail

Link to
BT FeatureNet
(TDM Centrex Service)

MGW

IP PBX Server
Cluster (hosted)

Firewall

BT Managed
MPLS VPN

Headquarter PBX Sites

DPNSS

BT VoIP Port

abbey

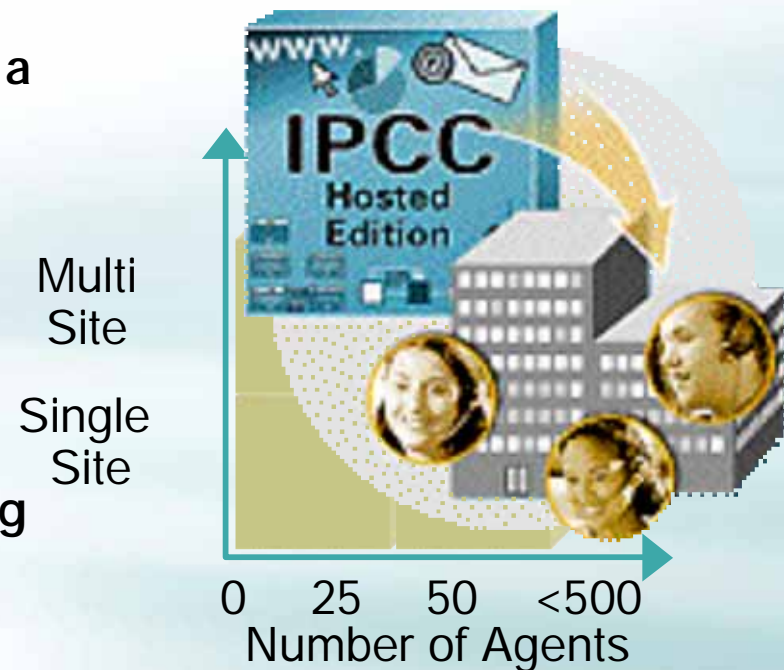*Branch Office Sites*
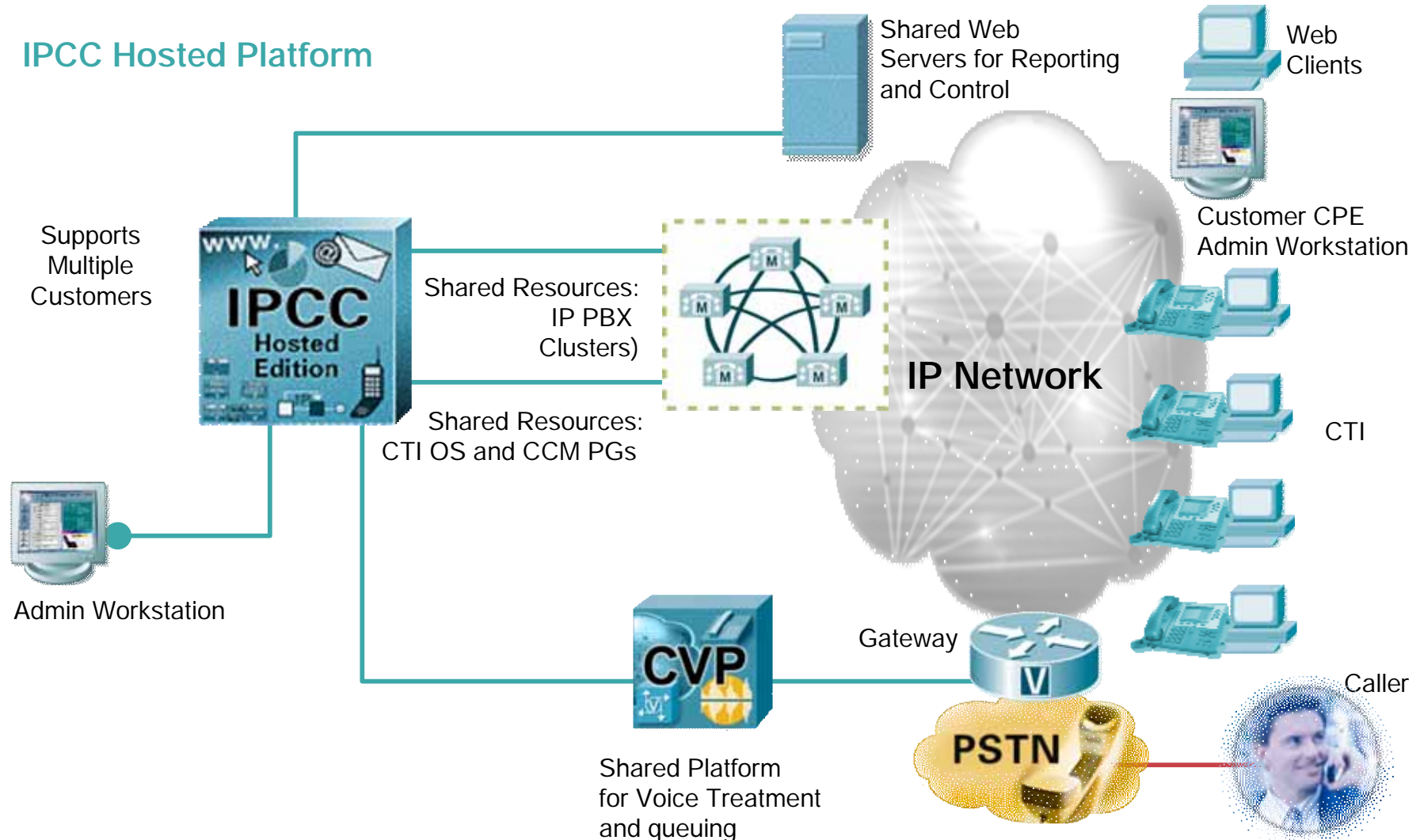
BT MMVoIP

Offices with PBXs

Offices with IP Phones

Hosted Call Center Services (IPCC)

- Service provider hosts the contact center infrastructure: the ACD feature set, the IP Network IVR, and IP telephony services — in its central office/data center, which is shared by multiple business customers

- Provides contact center functionality to a subscribing organization via an IP connection to the Service Provider's infrastructure

- A logical extension of a voice providers service portfolio

- Provides a configurable level of administration control to the subscribing enterprise customer

IPCC Hosted Edition

Multi Site

Single Site

0   25   50   <500
Number of Agents

IP Contact Center Hosted Edition Architecture with VoIP

IPCC Hosted Platform

Shared Web Servers for Reporting and Control

Web Clients

Supports Multiple Customers

IPCC Hosted Edition

Shared Resources: IP PBX Clusters)

Customer CPE Admin Workstation

IP Network

CTI

Shared Resources: CTI OS and CCM PGs

Admin Workstation

CVP

Gateway

Caller

Shared Platform for Voice Treatment and queuing

PSTN

Customer Control and Reporting

- Customer control options
  - *Dedicated CPE administrative workstations*
    - *Scripting, reporting, configuration*
  - *Web-based tools*
    - *Scripting* – Internet Script Editor
    - *Reporting (real-time/historical)* – WebView
    - *Multi-tenant Web-servers*
  - *Service provider managed*
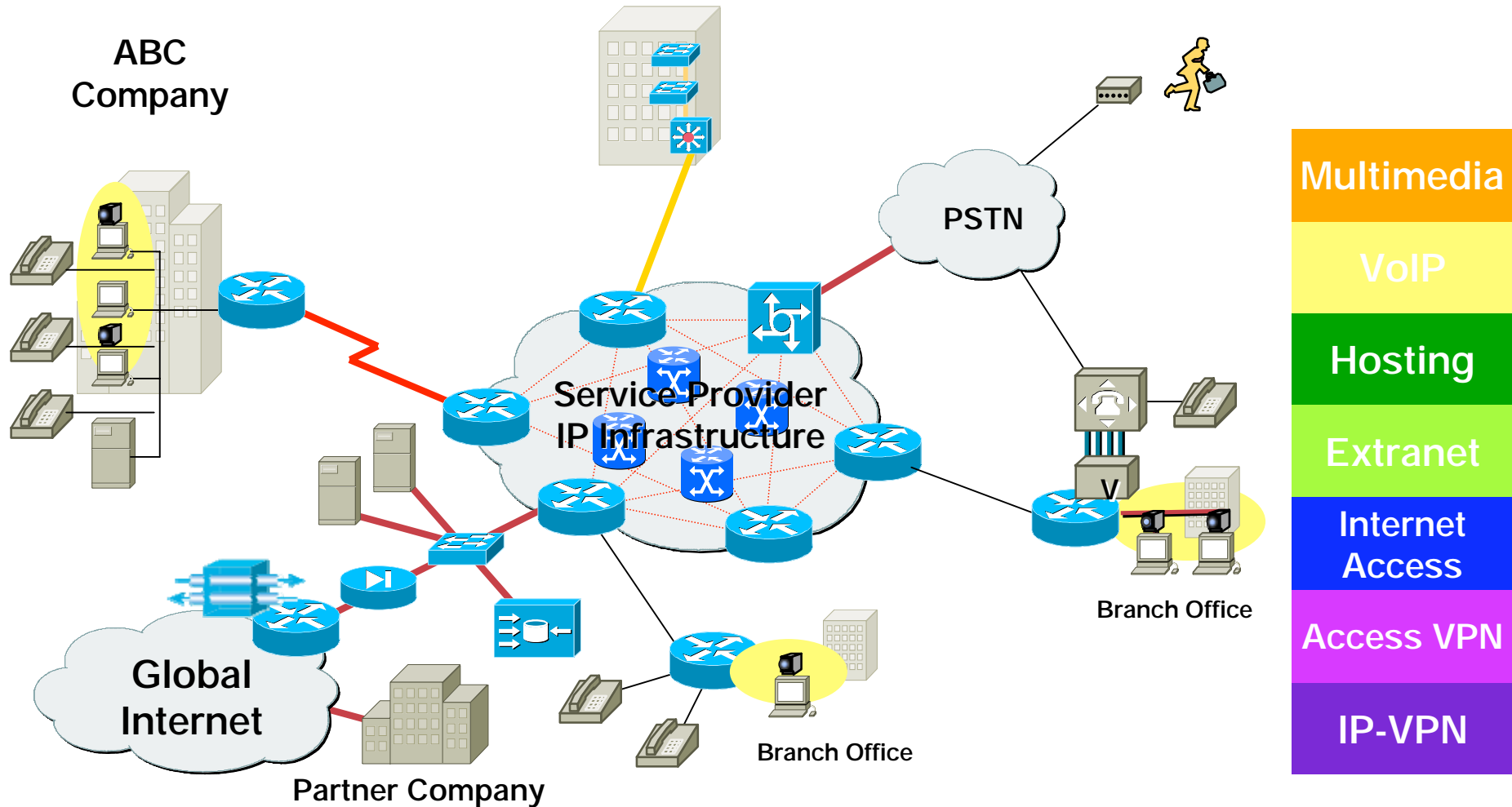   - *Service provider administers the virtual ACD elements for the customer*
    - *Customer only has IP Phones and Desktops*

- Service Provider controls the level of user access
  - *Based on customer and UserID*
  - *Configurable based on subscribing customer requirements: from read-only to full configuration and scripting capabilities*

Multimedia Applications

ABC Company

PSTN

Service Provider IP Infrastructure

Branch Office

Global Internet

Partner Company

Branch Office

| Multimedia |
| VoIP |
| Hosting |
| Extranet |
| Internet Access |
| Access VPN |
| IP-VPN |

Managed Storage Service

◈

- ◈ **Replacing enterprise managed storage solution to Service Provider managed Solution.**

- ◈ **Addressing Business Continuance and Disaster Recovery.**

- ◈ **Professionals to manage the storage space for Customers.**

- ◈ **Reducing Customers Capex Cost**
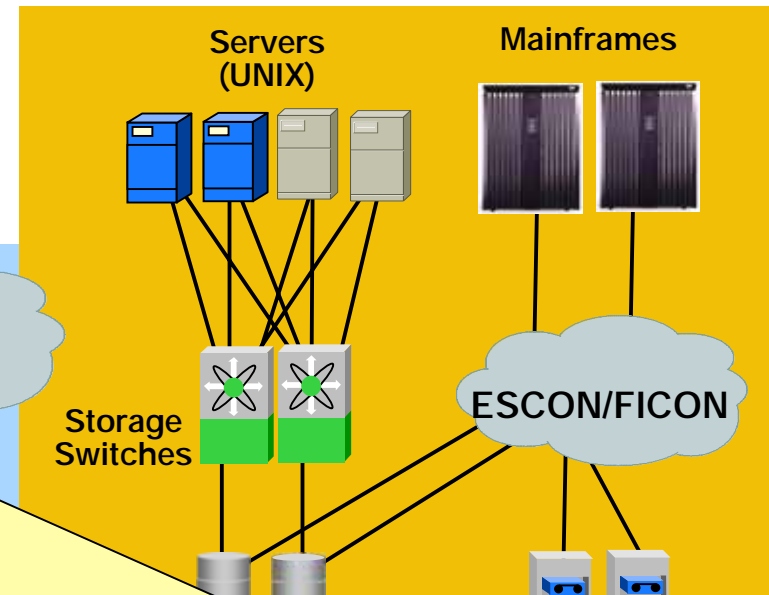
Business Continuity Solution
Network Requirements

Mainframes

Servers (UNIX)

ESCON/FICON

Storage Switches

Tape Storage

Disk Storage
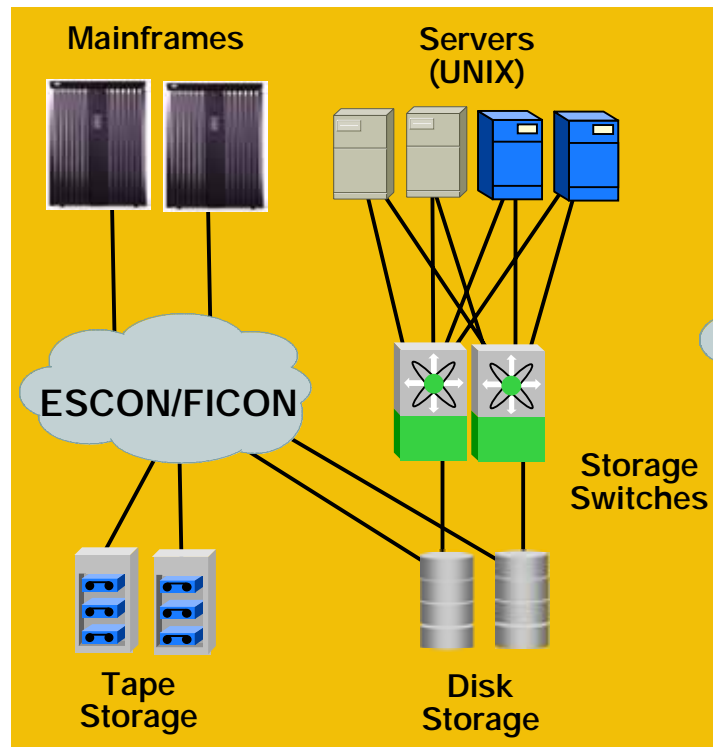
Primary Data Center

How to Connect?

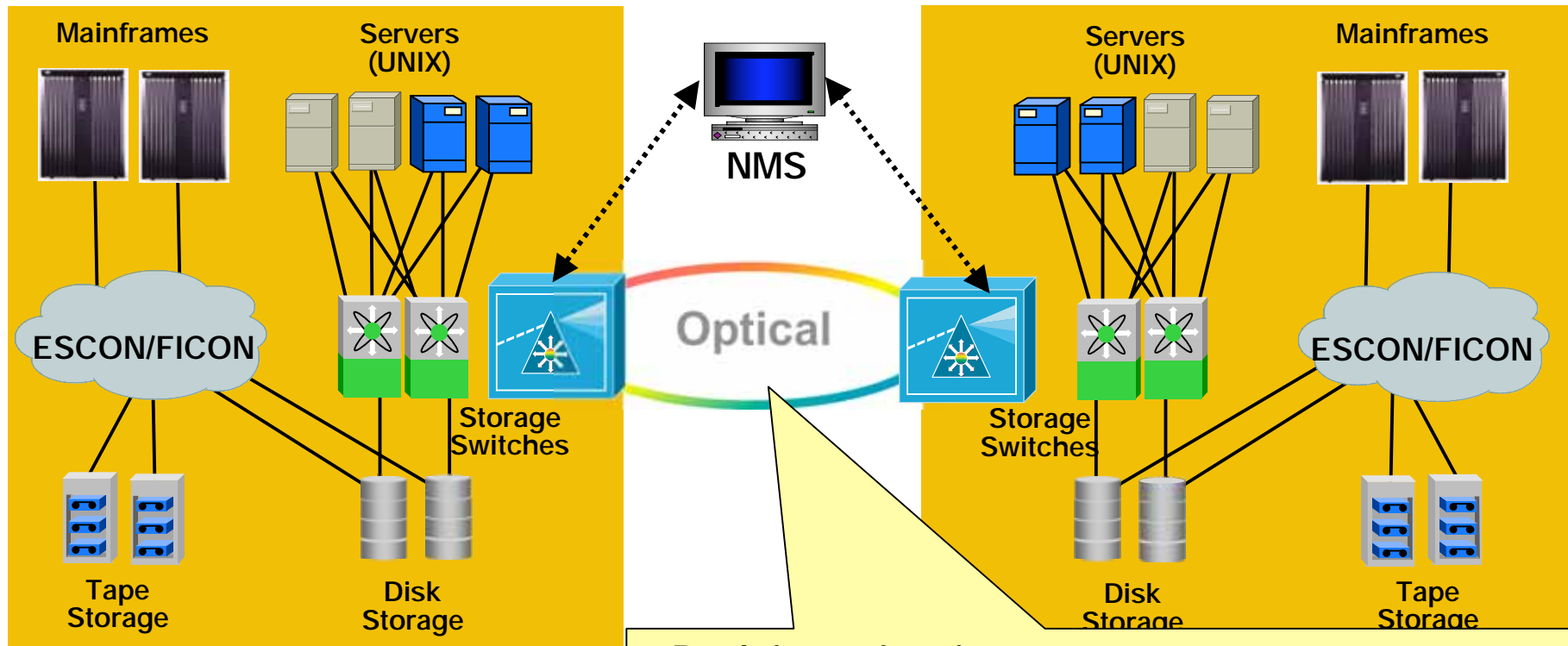**Servers (UNIX)**

Mainframes

Storage Switches

ESCON/FICON

Network Requirements:

- Low latency, high-bandwidth network to support synchronous applications
- Support for multiple storage interfaces
- Ability to scale as application requirements grow
- Certification

Synchronous Applications

Mainframes

Servers (UNIX)

NMS

ESCON/FICON

Storage Switches

Optical

Tape Storage

Disk Storage

Primary Data Center

Servers (UNIX)

Mainframes

Storage Switches

Disk Storage

ESCON/FICON

Tape Storage

- **Real time mirroring**
- **Efficiently support several storage connections (Fibre Channel / FICON / ESCON)**
- **High bandwidth, low latency network**
- **End to End Certification**

New Applications Enabler
- Video, SAN & Business Continuity
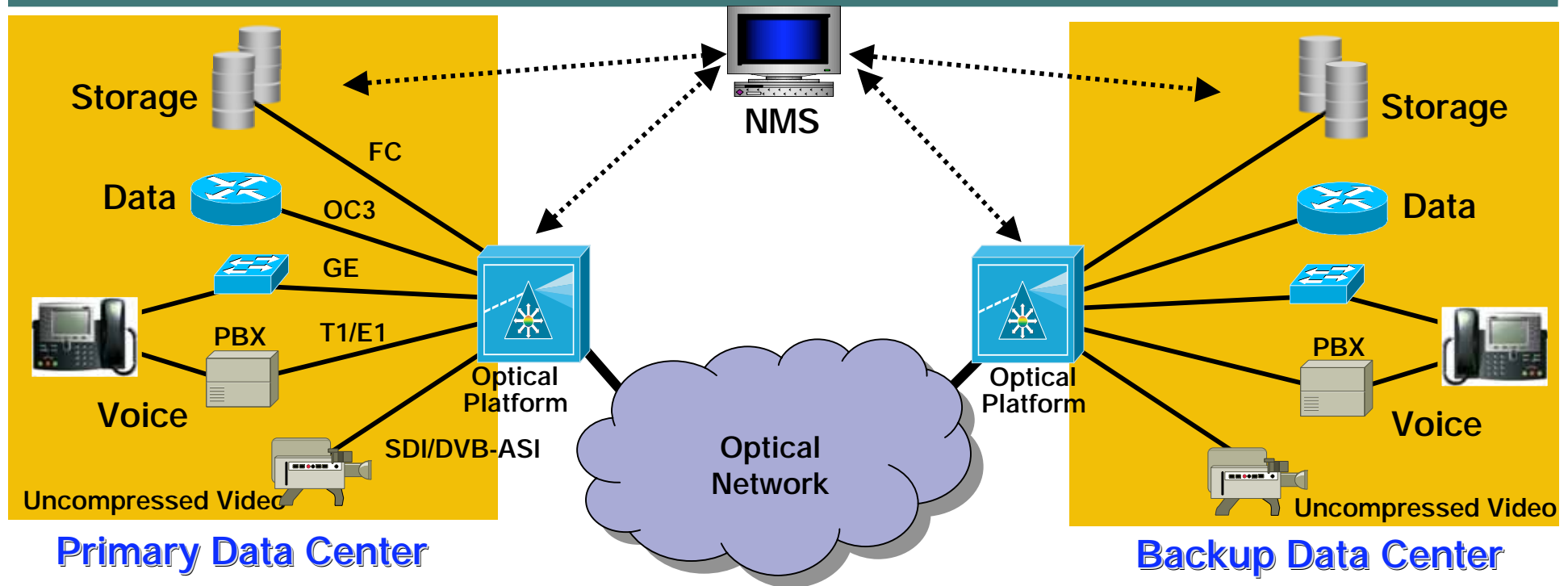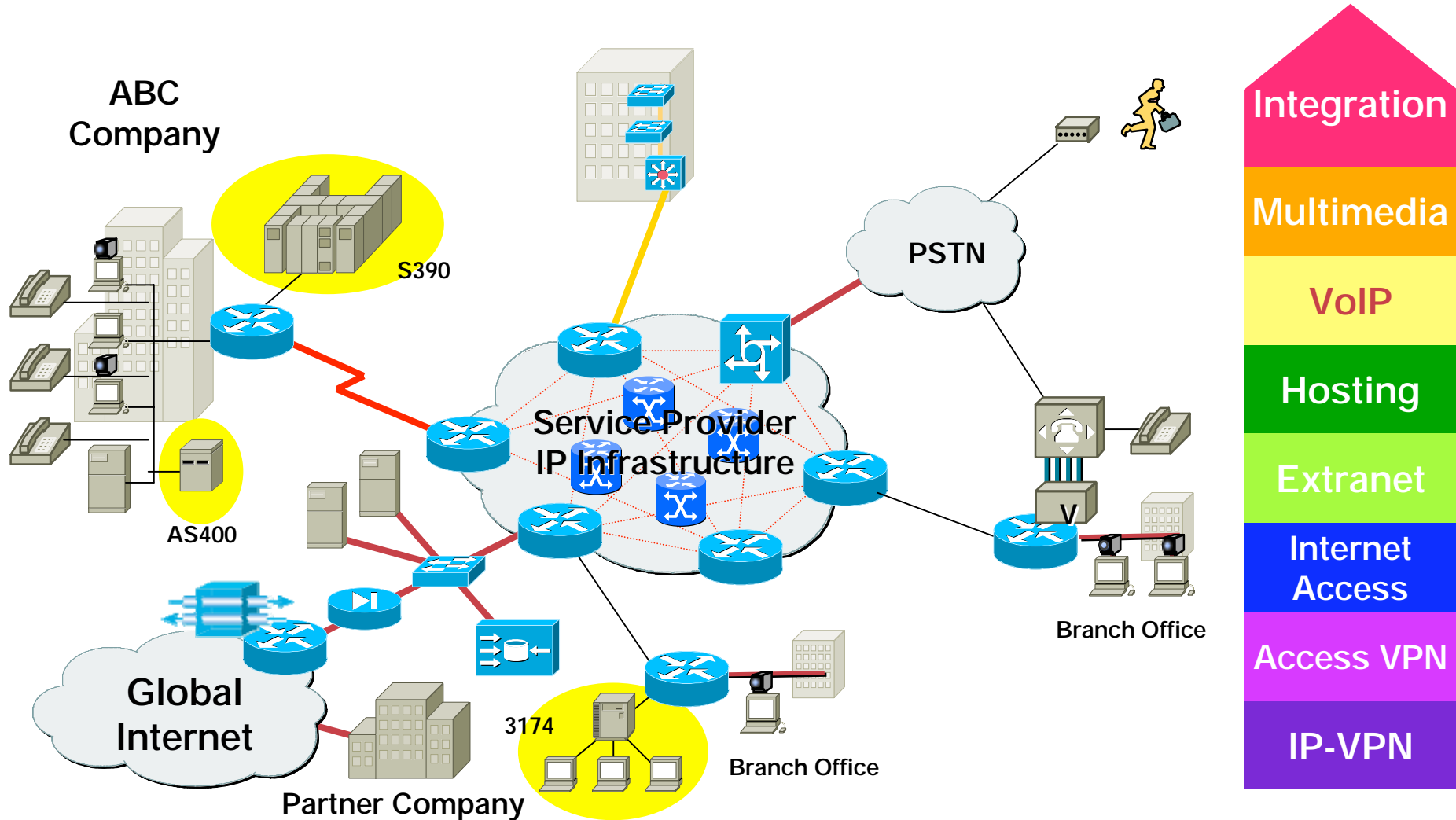
- ◈ Customer benefits from single, consolidated network

- ◈ Integrated management system for Video, LAN, routing, storage, and optical
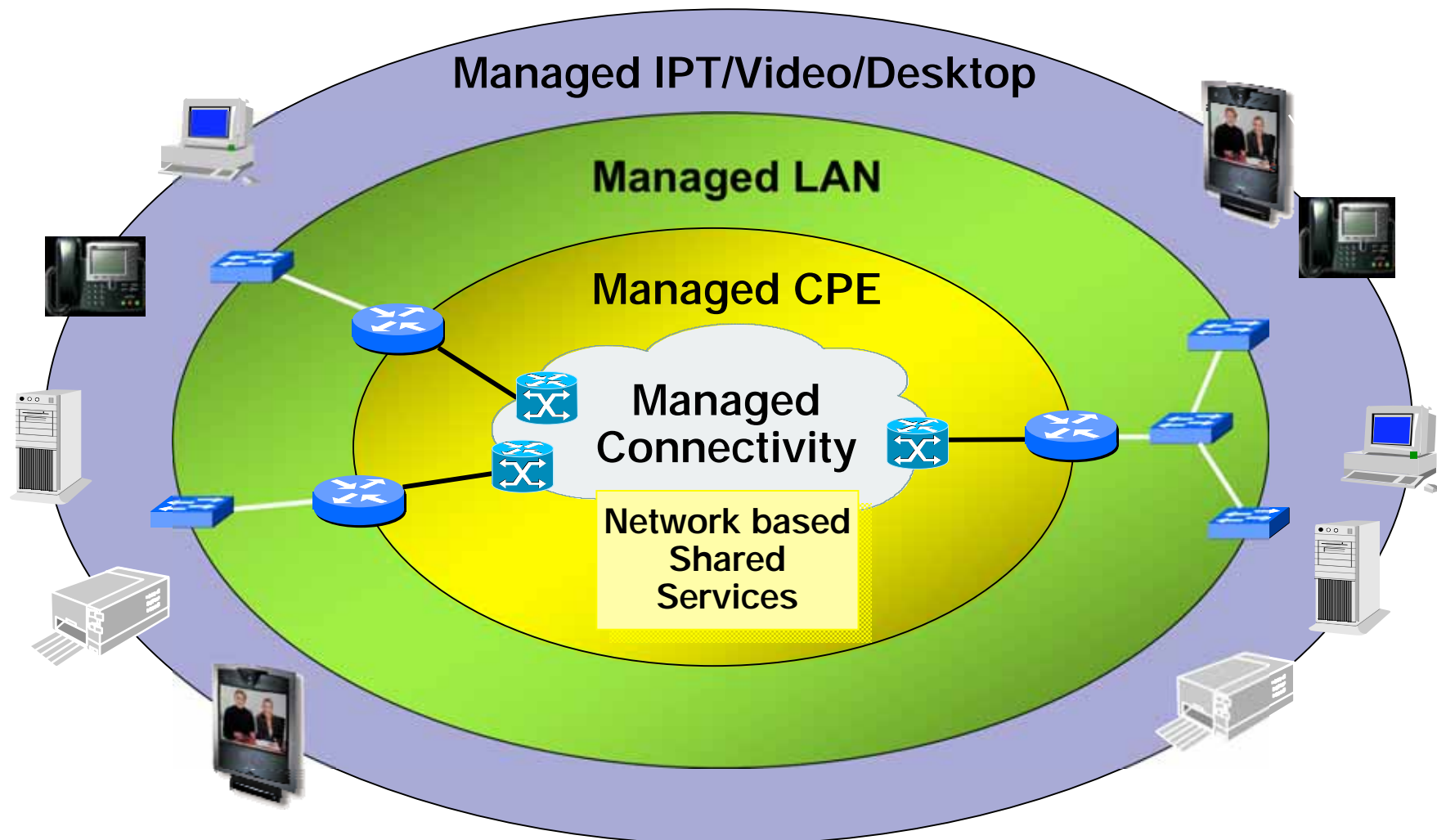
- ◈ Network Transformation by availability of Bandwidth

Enterprise Total Solution

ABC Company

S390

AS400

Global Internet

Partner Company

3174

Service Provider IP Infrastructure

PSTN

Branch Office

V

Branch Office

Integration

Multimedia

VoIP

Hosting

Extranet

Internet Access

Access VPN

IP-VPN

Extending the scope of SP Services

Managed IPT/Video/Desktop

Managed LAN

Managed CPE

Managed Connectivity

Network based Shared Services

Modes of Engagement

Complete Service Lifecycle Approach

STRATEGIC CONCEPT DESIGN AND PLAN DEVELOP TEST AND TRIAL LAUNCH, MARKET, AND SELL LIFECYCLE

Envision the Service	Build the Service	Market & Sell the Service
• Business Case	Technical Consulting	• Go to Market
• Service Creation	• Product positioning	• Deal engagement
	• Bundle creation	• Support Framework
	• Sales force skilling	

How SPs can succeed with their customers