

SIP Trunking: Evolution and Position in the Market Today

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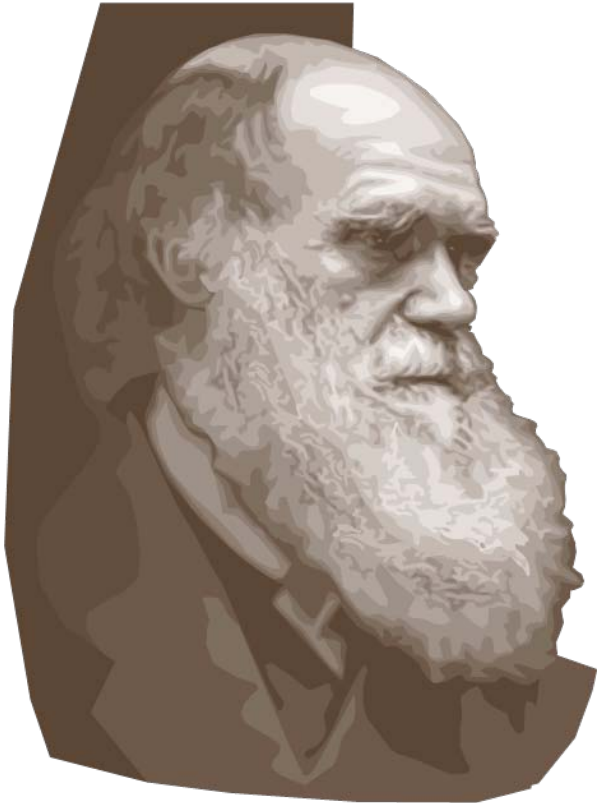
Director of Marketing

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**GLOBAL CAPABILITY.
PERSONAL ACCOUNTABILITY.**



IT Trunking: Evolution and State of the Union



- **AGENDA:**

- Interoperability
- Availability
- Cost Considerations

IP Trunking Basics

IP Trunking is a VoIP solution that enables enterprises to maintain their IP private branch exchange (PBX) while **leveraging the benefits of VoIP**

- **Modernizes the network to make it VoIP-capable**
- **Provides direct Session Internet Protocol (SIP) connectivity to an IP PBX**
- **Delivers the expected benefits of VoIP**
 - Single network for all communications—long distance, local, and Internet
 - Network efficiency via compression and dynamic bandwidth allocation
- **Eliminates the need for expensive enterprise gateway gear**
- **Provides new operational efficiencies via centralized designs and shared trunks**

IP Trunking Evolution: Interoperability

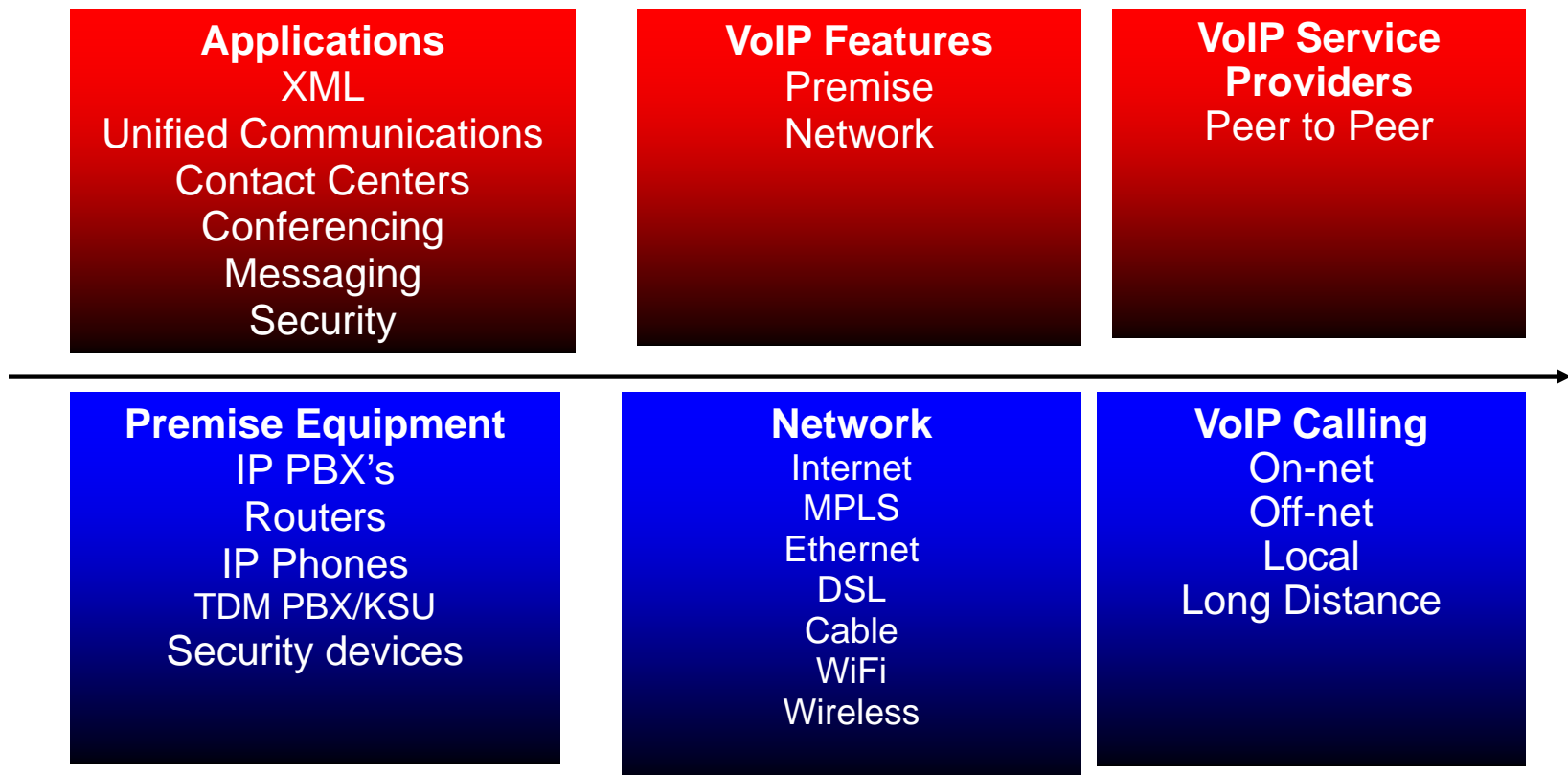


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VoIP Interoperability

Interoperability enables successful voice calling, voice features and applications across varying CPE devices, networks, and service providers.



SIP Enablement Evolution

SIP has come a long way and become the de facto IP telephony standard, enabling easier faster standardization and interoperability of services

Then:

- Limited number of CPE providers supporting SIP CPE providers didn't support SIP
- Basic connectivity between SIP-based phones/devices worked but significant failure rates for basic VoIP features that required customized configurations

Now:

- Virtually all CPE vendors support SIP
- Most calling features between VoIP CPE vendors have high success rates
- Ratification of SIPconnect delivers unprecedented interoperability potential
- Most CPE providers still leverage proprietary VoIP protocols for end devices to enable more feature rich capabilities but support SIP

Future:

- Most vendors are expected to offer pure SIP down to the end device to enable integration of presence and multimedia features into a VoIP network
- CPE vendor ubiquity/interoperability will be essential
- Establishment of standards body that also conducts third party testing to enable peer to peer VoIP calling
- Expanded availability of SIP enabled VoIP applications

IP Trunking Evolution: Availability



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**verizon**business

Verizon VoIP: Global Service Offering

- **Nationwide Reach**
 - Local Service in more than 2600 Rate Centers
- **DSL extends reach to remote locations**
 - 2300 Central Offices

- **Full Verizon VoIP Solution**
- **Future Countries with Full VoIP Solution (Nov. 2008)**
- **Expanded Europe Site-to-Site Calling**
- **Standalone Regional VoIP Solution**

- **Global IP network**
- **Network-based QoS**
- **SIP-based services**
- **Availability in 350+ local U.S. metropolitan markets**
- **15 European countries and Australia**
- **Plans to expand further in Asia and Europe**

Evolving with IP Trunking: Cost and Efficiency Considerations



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IP Trunking: Drives Operational Efficiencies and Helps Control Costs

IP Trunking

- Efficient and cost-effective interface from IP PBX to PSTN
- Control costs
- Operational efficiency

Network Efficiency Benefits

- Shared transport of local and long distance across an enterprise with local to global capabilities

Cost Control

- Avoid new outlays in costly equipment and capitalize on initial investments
- Consolidate services for remote sites
- Migrate at your own pace
- Leverage VoIP technology to create operational efficiencies

Operational Efficiency Benefits

- Manage all local services from a central site
- Focus in-house resources on key business issues vs. vendor management
- Assign local telephone numbers to any “virtual location”
- Reduce need for separate PSTN connections at remote sites for 911
- Simplify administration with network-based /centralized private dial plan



IP Trunking: Better Efficiency Leads to Greener Ways

Power Consumption Comparison

- US-based company
- Five locations: headquarters with four branch offices
- Higher energy costs
- Requirement for increased calling capacity



Customer Environment with PSTN

- IP PBX – Cisco Unified Communications Manager
- PSTN Connectivity – Headquarters has 2 Cisco 2811 Routers with 3 PRIs to PSTN in each (can support total of 144 calls)
- 4 Branch offices each have two 2801 Routers with 1 PRI in each (can support total of 48 calls per branch)
- The total power consumption for the PSTN gateways in this **enterprise is 5,148 BTU/hr**

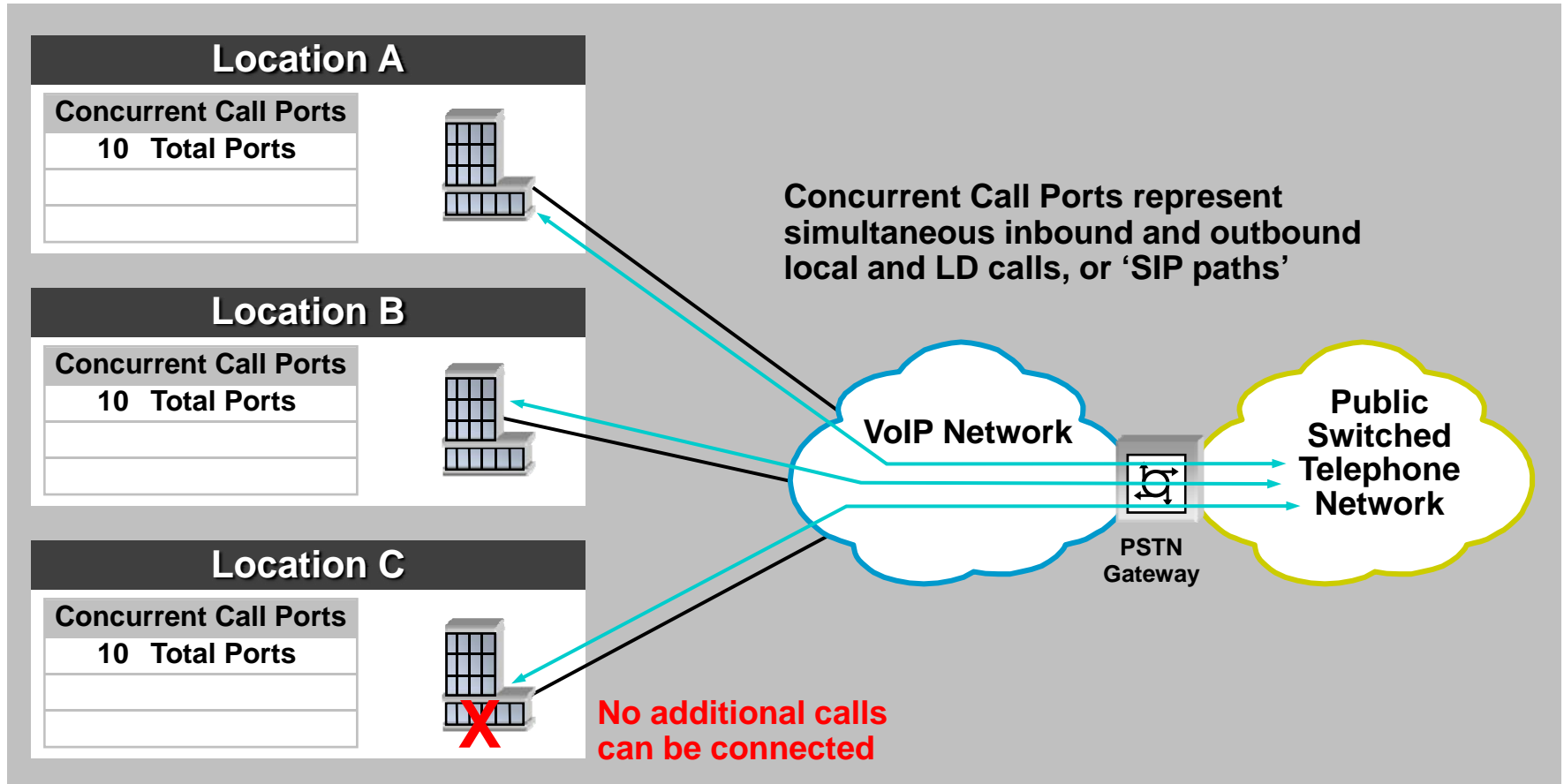
Customer Environment with IP Trunking

- IP PBX – Cisco Unified Communications Manager
- IP Trunking
- Headquarters has one Cisco 2811 Router w/ CUBE for IP Trunking (can support total of 200 calls)
- 4 Branch offices each have one 2801 Router w/CUBE for IP Trunking (can support total of 100 calls per branch)
- The total power consumption for PSTN gateways in this **enterprise is 2,614 BTU/hr**

This enterprise increased its calling capacity by 30% in the headquarters and by 50% in branch offices while significantly reducing its power consumption

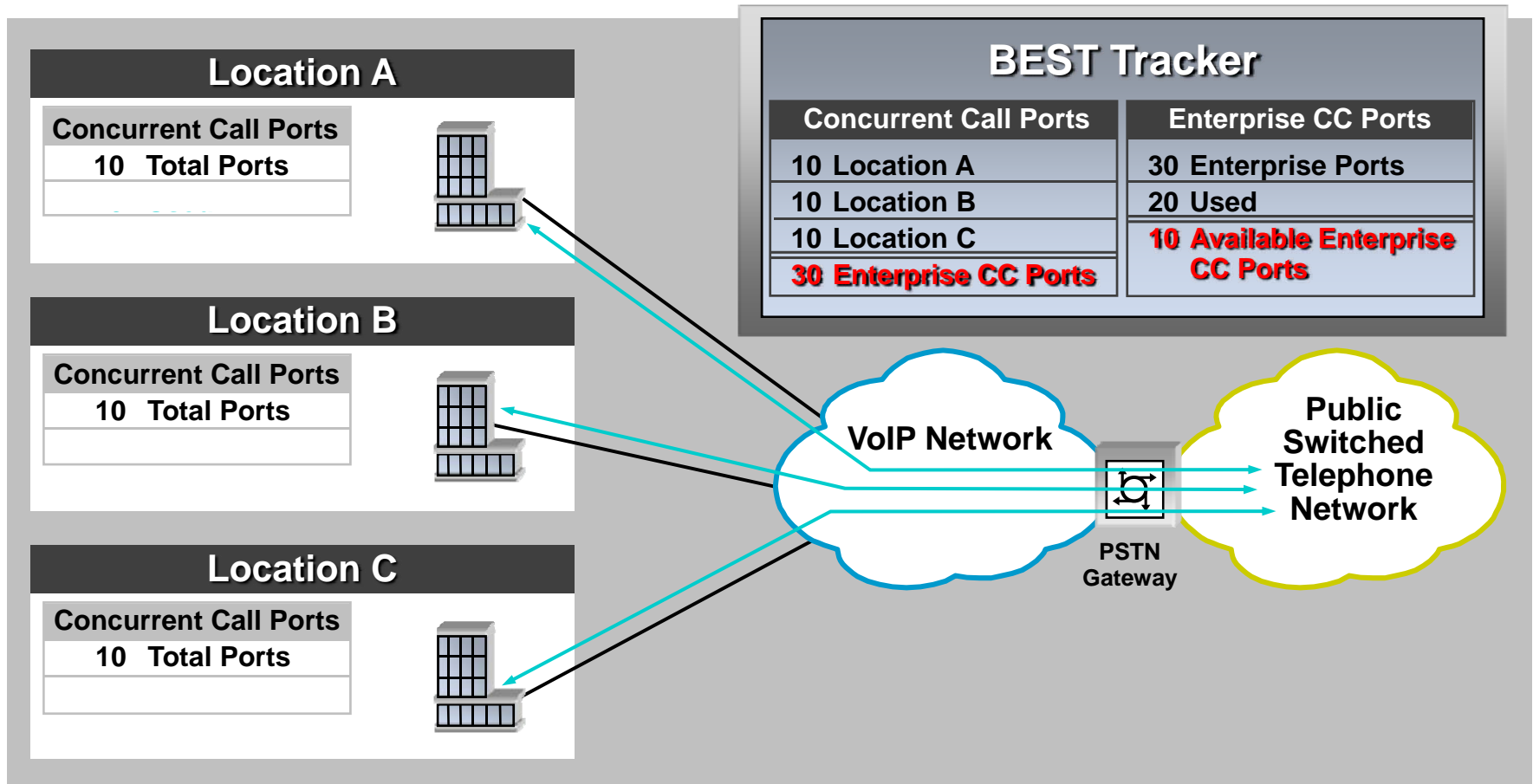
Basic IP Trunking

How it Works



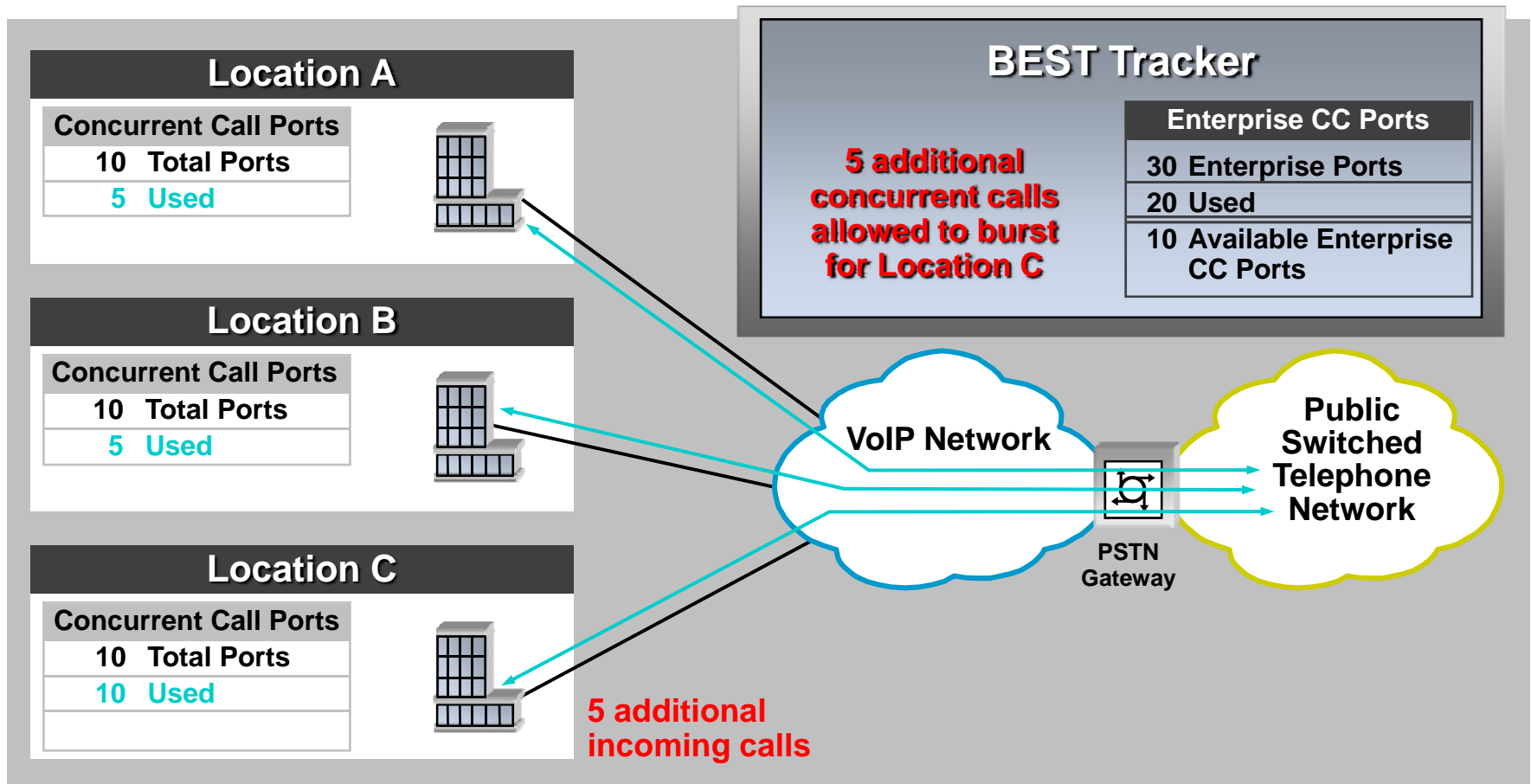
Adding BEST

Enterprise-level Concurrent Call Ports (Enterprise CC Ports)



BEST

How Burst Works



IP Trunking with BEST

National Retail Chain with Hundreds of Locations



Challenges

- Supporting a variety of key telephone systems
- Required average of (12) local telephone lines, sized for high peak
- Required separate telephone numbers and ‘hunt groups’ for departments
- Purchased local lines from variety of ILECs, with no common contract/offer; difficult to manage

Solution

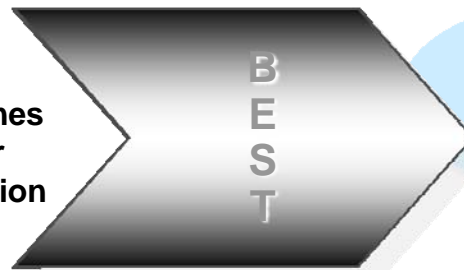
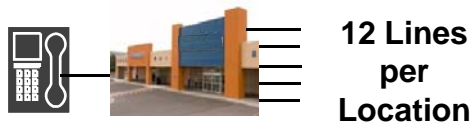
- Leveraged unique IP Trunking with BEST design capabilities (previously unavailable with TDM service)
- Enabled cost savings opportunities and improving network survivability capabilities
 - » Reduced number of lines required at each site from 12 to 5
 - » Cost savings justified upgrade of data network plus an additional 25% + savings
- Provided consolidated contracting for all local service requirements

IP Trunking with BEST: Savings Example

This enterprise with 1100 locations has realized savings of **\$219,170** or **30%** in monthly costs

TDM Trunking

13,200 Trunks



IP Trunking with BEST

**5,500 Shared Concurrent
Call Pool**

5 Lines
per
Location



Monthly Cost:

\$50/line x 1100 stores =	\$660,000
Monthly LD (1700 min avg) =	<u>\$55,000</u>
TOTAL Current monthly	\$715,000

Monthly Cost:

5,500 Concurrent Calls @ \$32 =	\$176,000
Monthly LD (1700 min avg)	<u>\$28,055</u>
Additional PIP circuit cost	<u>\$291,775</u>
TOTAL new monthly	\$495,830