SIPconnect Compliance Workshop

SIPconnect Overview and Value Proposition

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Realizing The Promise of IP Communications

- Problem: IP-PBXs have successfully cut costs and delivered new features to customers, BUT…TDM Routing of VoIP Traffic is a Limited Approach to Achieving Next Generation Telephony
- Opportunity: Preserving and Extending Next-Generation IP Communications Capabilities Beyond the Enterprise
- Solution: Direct IP Peering, or Creating a Seamless, End-to-End Connection between SIP-enabled IP-PBXs and SIP-enabled VoIP Service Provider Networks

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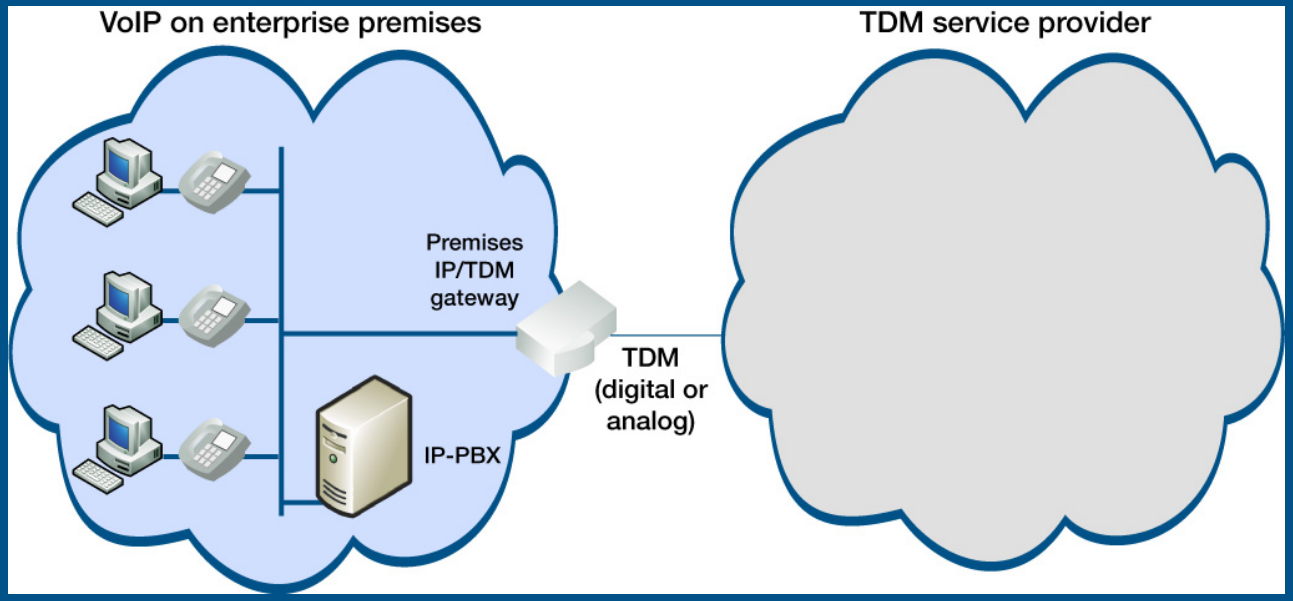
1st Generation IP PBXs are Dumbed Down



- Enterprises must use a gateway to connect IP PBXs to PSTN
  - Increases investment required to move to VoIP, reduces ROI
- Limits ability to leverage VoIP's advantages
  - Adapting to the PSTN means least common denominator functionality
  - Enterprises cannot fully leverage low-cost VoIP termination providers

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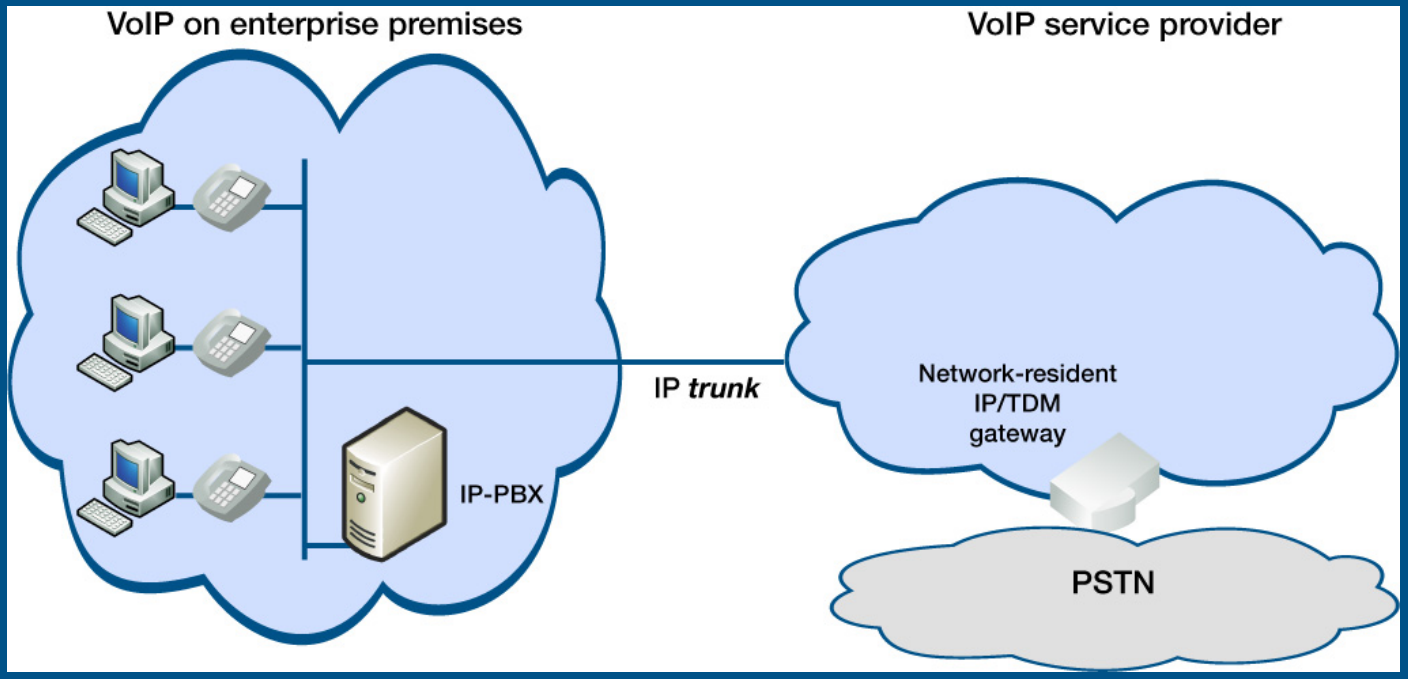
The New Way



- Connecting IP PBXs directly to VoIP service providers provides significant advantages
  - More features, less cost
- But, how to do it?

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SIP Is Key, but SIP Alone is Not Enough

- SIP is the industry standard for VoIP, but…
  - There's a lot to SIP; but what parts are relevant for this?
    - e.g. How to handle addressing in the presence of multiple firewalls
  - When we have SIP options, what choices do we make?
    - e.g. Inter-domain authentication / registration policy
  - Some solution elements lie "above" SIP
    - e.g. OA&M around hierarchical logical identities
      - Users, customers, locations, DID blocks, …
- What's needed?
  - An industry accepted interconnection method that uses SIP to build links between SIP-enabled PBXs and SIP-compliant service provider networks

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What is SIPconnect?

- SIPconnect specifies a reference architecture
  - Minimum set of IETF and ITU-T standards that must be supported
  - Provides precise implementation rules and guidelines where existing standards allow for multiple implementation options.
  - Specifies a minimum set of capabilities that should be supported by service provider and enterprise networks

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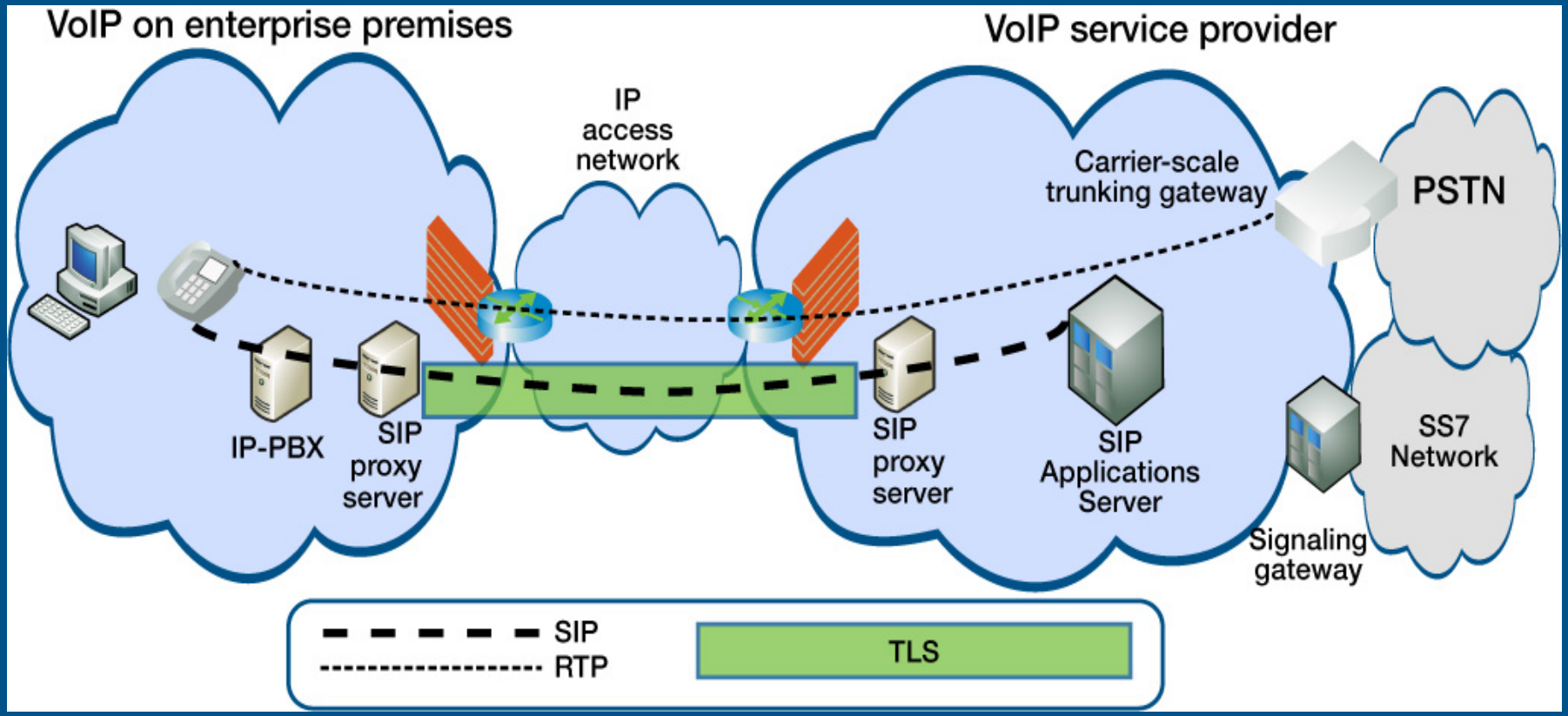
SIPconnect Reference Architecture

Common Functional Elements Required to Support SIPconnect



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The SIPconnect Value Proposition

- Offers a Universal Approach to SIP Trunking
- Delivers Customer Cost Savings
  - eliminates gateways and extends VoIP's benefits (DID, conferencing, etc.)
- Enables Transparent Feature Transport
  - end-user info can be passed from IP-PBX to network enabling presence and other apps to travel from point-to-point
- Optimizes Quality of Service
  - transport layer issues are defined – i.e., QoS configuration, echo cancellation, method for DTMF relay, packetization rates, codec support and fax/modem traffic
- Provides Security
  - well-defined approaches to identity and authentication provide a secure model for direct IP peering

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A Competitive Edge for IP PBX Manufacturers

- Why should IP PBX manufacturers care?
- Because direct IP peering is a huge value add for businesses and service providers alike – entities that purchase and interconnect with IP PBXs
  - Addresses QoS and security issues
  - Reduces equipment and transport costs
  - Increases features and functionality
  - Eliminates need to set up proprietary interfaces

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Benefits for Service Providers

- Improved QoS and security via superior interconnection to the network
- Ability to offer higher quality services with advanced features tailored to IP PBX users
- Ability to forge strong relationships with IP PBX vendors
- Ability to establish new relationships with distribution channel: interconnects, system integrators and VARs.

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Cost Savings and New Features for Business Customers

- Eliminates TDM gateways and increases efficiency of local access facilities
- Provides DID capabilities w/o requiring the recurring expense of analog lines or expensive digital circuits
- Improves voice quality by removing gateway latency and includes the attentive management of QoS, echo cancellation as well as fax and modem support
- Creates the right foundation for personalized applications and rich media services between customers and service providers as well as between customers and other IP-connected PBXs

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Benefits for Distributors and Channel Partners

- Eliminates PSTN interconnection woes
  - No quality of service problems (i.e. latency and echo)
  - No need to perform custom configurations on a customer-by-customer basis
- Allows service providers to manage QoS
- Allows security-related functions to be “off-loaded” from customer premises to VoIP networks (incl. NAT traversal for seamless SIP connectivity) and other security concerns (i.e, denial of service attacks, etc.)

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