



# SIP Trunking and Architecture

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# Agenda

- ShoreTel introduction
- Why move to IP Telephony?
  - Simplicity, Reliability & Scalability
  - Low TCO
  - Migration
- Benefits & Cost of SIP Trunking

## Company information

### Founded

Superior technology designed from a clean sheet of paper in 1996

### Headquarters

Sunnyvale, California with offices in Austin, Texas, UK, Germany, Spain, Australia, Singapore and Hong Kong

### Customers

More than 11,000 globally

### Distribution

Sold through resellers and distributors worldwide

### Ownership

Public, listed on NASDAQ (“SHOR”)

No debt, positive cash flow

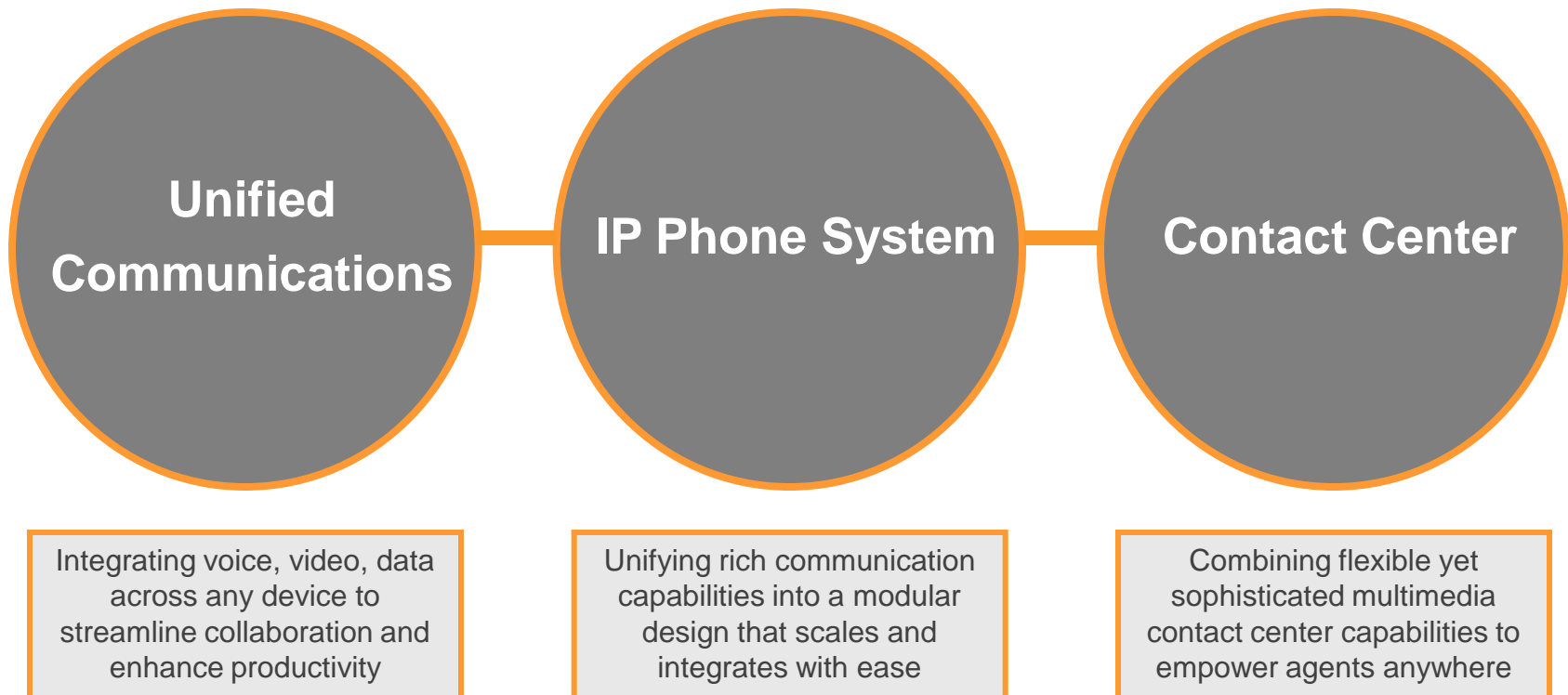


## A global reputation for excellence

- Customers in 33 countries
- More than one million licensed users to date
- Dramatically lower TCO
- World class customer satisfaction
- Great collaboration with world leaders: IBM, AT&T, Verizon, Juniper, and the list goes on
- Winner of many industry awards including
  - Best in VoiceCon for the last three years
  - Best overall VoIP provider by Nemertes Research for the last six years in a row

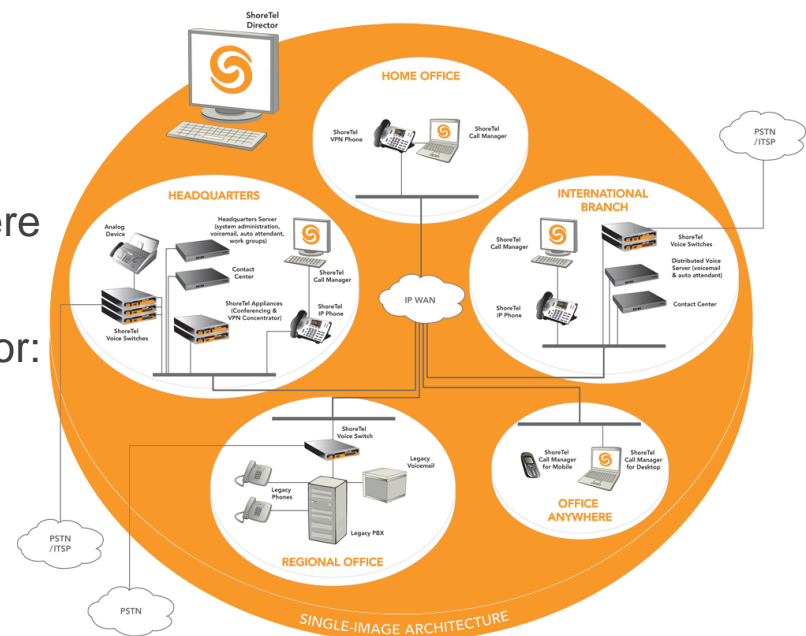
# One brilliantly simple solution for the way you work

## Business Communication Solution



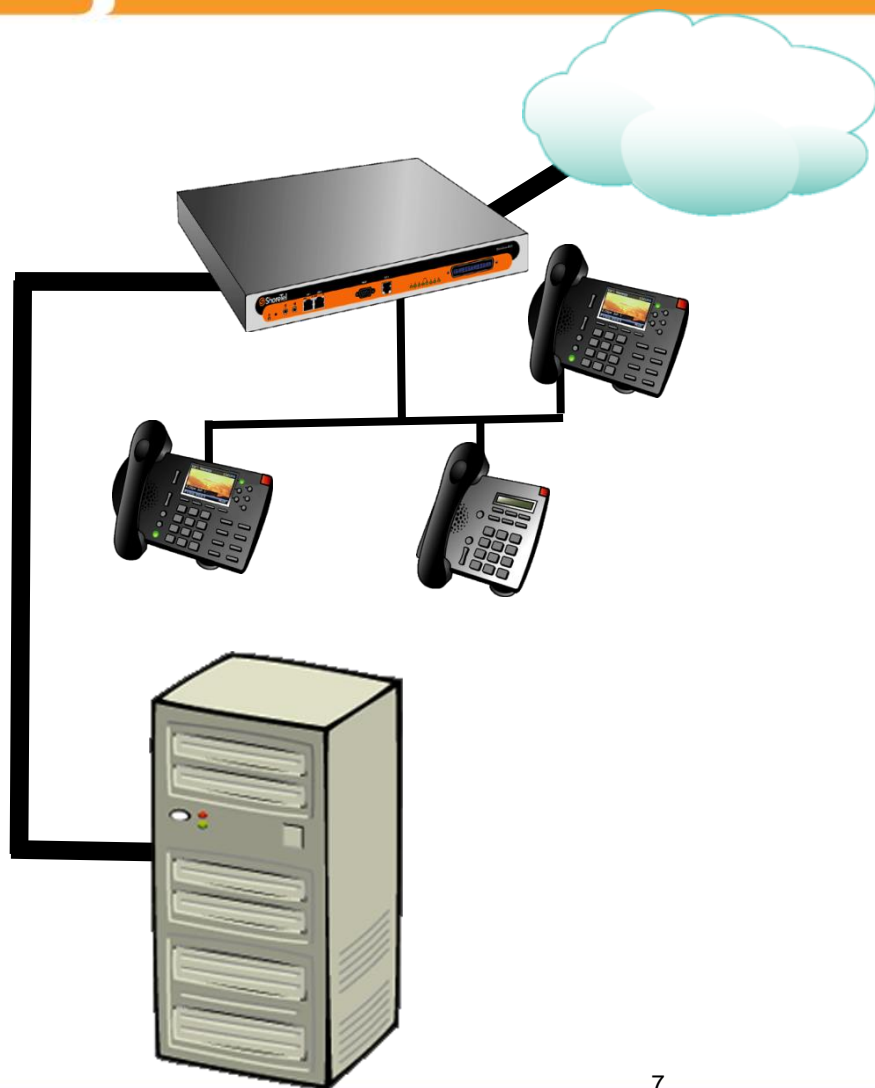
# ShoreTel's brilliantly simple unique architecture

- Built from the ground up for IP, unlike our competitors
- Distributed architecture makes it easy to deploy and scale to multiply sites and locations
- A single image with a unique, distributed architecture allows business to be as agile as possible with their business communication
- Applications are distributed and can run from anywhere in the system
- Easily managed from anywhere with ShoreTel Director: an intuitive browser-based interface that unifies everything
- Open platform for business agility, integrating enterprise applications, third-party phones and even other UC/UM platforms



# Migrating from legacy PBXs to a ShoreTel Unified Communications Solution

## ShoreTel Front End to the PBX



- Leverage existing infrastructure while migrating new users to ShoreTel
  - Ex: Nortel – Dozens of ShoreTel deployments in this model
- Enables ShoreTel features to the legacy PBX user
  - 4 digit dialing
  - Call Manager-visual vmail, directory, outlook integration, etc.
  - Mobile Call Manager
- Enables full UC strategy while eliminating dependency on legacy solution



## Or...Rip and Replace

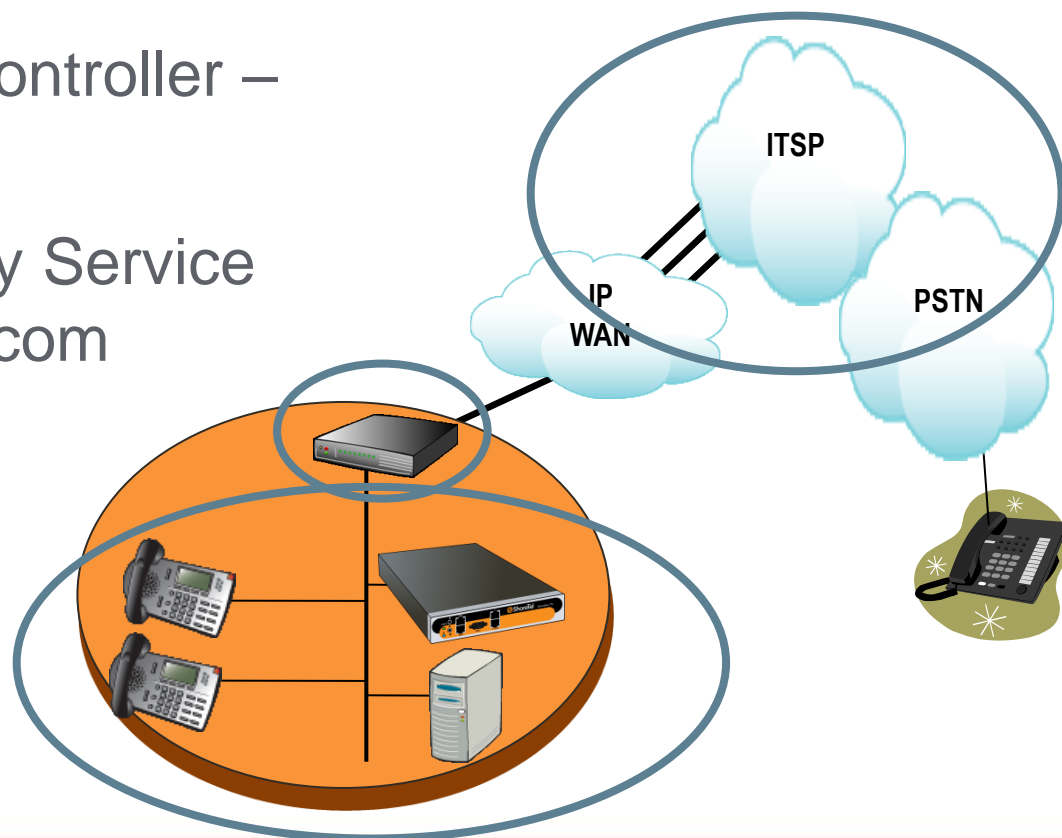


- Full suite of UC applications



## SIP Trunking – The Components

- ShoreTel's Business Communications Solution, the IP-PBX
- The Session Border Controller – Ingate's SIParator
- The Internet Telephony Service Provider – Bandwidth.com



## SIP Trunking - What are the advantages?

- Lower recurring costs from the carrier
- Flexible calling plans – bundled minutes, no long distance charges
- More feature offering – virtual numbers
- Deployment flexibility
  - Incremental provisioning vs. block provisioning
  - Quicker implementation – no waiting for a truck roll
  - Self serve portals – buy services on your own
- Dual use of data pipe, voice and data



## SIP Trunking – The Challenges

### ‘Carriers Offer SIP Trunks - Why Not Just Connect Directly?’

- SIP trunks aren’t like a T1
  - Consider network security
  - Existing IT infrastructure
- Firewalls can’t handle ‘outbound SIP proxy function’
- ITSPs can’t reach an IPBX behind a firewall on the LAN
- Many Service Providers have different & incompatible SIP implementation

A supplementary device is required: a Session Border Controller

# ShoreTel & Ingate Delivering a SIP Trunking solution that Works!

- Solve SIP firewall and NAT traversal issues with a consistent solution
  - NAT traversal problems are the source of many initial setup issues
- Ensure customers can keep total ownership of network security when SIP is introduced
- Provide SIP normalization when required
- ShoreTel's Technology Partner Program (TPP) Certification
  - Provide partners and customers validated 'end to end' multi-vendor solutions ( ShoreTel + Ingate + ITSP )



ShoreTel   inGate		APP NOTE
		<b>TPP-10012</b>
		<b>Date : November 13, 2008</b>
<b>Product: ShoreTel   Ingate</b>		<b>System version: ShoreTel 7.7.5, S.O.A</b>
		<b>E.1</b>
<b>SIP Trunking Getting Started Guide</b>		
SIP Trunking allows the use of Session Initiation Protocol (SIP) communications from an Internet Telephony Service Provider (ITSP) instead of the typical analog, Basic Rate Interface (BRI), T1 or E1 trunk connections. Having the pure IP trunk to the Internet Telephony Service Provider allows for more control and options over the communication link. This application note provides the details on connecting the ShoreTel IP phone system through an Ingate box which is connected to both the LAN and WAN and acts as a gateway and security device to the ITSP for SIP Trunking.		
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## Summary

- In the market for a phone system, Think ShoreTel's Brilliantly Simple Unified Communications Solution
- Look at the big picture – Ease and TCO
- There are many flavors of SIP out there
  - Be sure to select an IP-PBX, Session Border Controller & ITSP that have tested & certified the solution end to end