



Webinar: Delivering Sustainable Differentiation from SIP Trunking



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SIP Trunking Evolution

Presented by Matthew Townend

Introducing Cavell



- Providing Research. Consulting & Professional services for over 10 years
- “illuminate” Cavell’s research business focused on the Hosted VoIP and SIP market for over 10 years
- Providing research reports for UK & Mainland Europe
- Hosting “European VoIP Summit” 1st March London

Key Factors affecting SIP Trunking

End of the ISDN

Growth of SIP Trunking Services

Commoditization of SIP Trunking Services

Emergence of SIP Applications

New Customer Use Cases



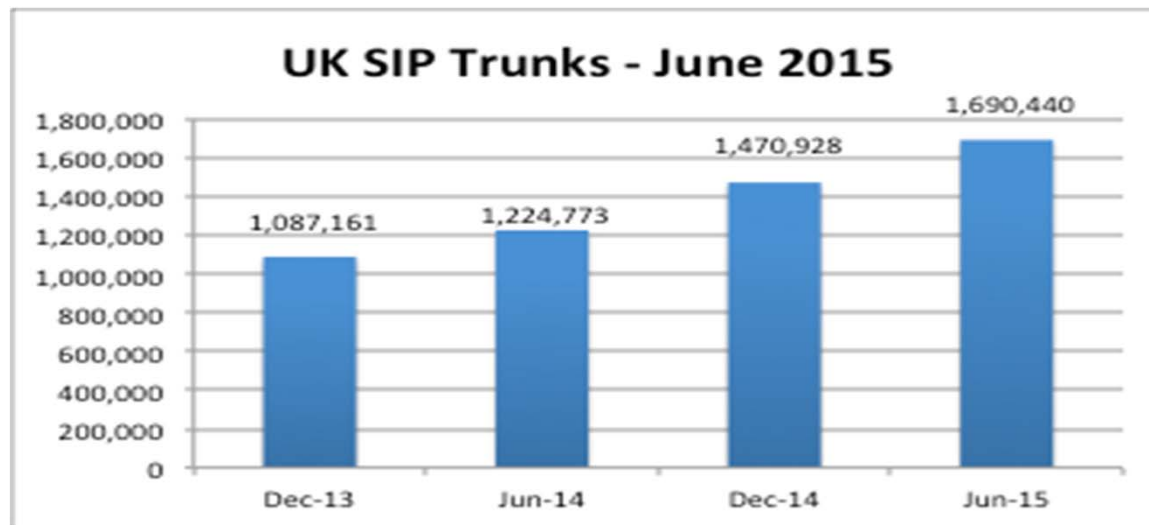
PSTN switch off could dramatically change the speed in which SIP Trunking grows



Operator	Country	Transition Date	Source
AT&T	USA	2020	AT&T Investor Presentation & Public Policy Blog
CenturyLink	USA	Made Request to FCC 06/2015	FCC filing
Verizon	USA	2018-2020	Verizon Policy Blog
Orange	All countries	2020	Light Reading Blog
KPN	Netherlands	60% already	Light Reading Blog
Telkom Austria	Austria	Complete	Light Reading Blog
BT	UK	2025	BT Investor presentation Jan 2015
NTT	Japan	2025	Announced in 2010: Nippon Telegraph and Telephone East Corporation Press Release
Telstra	Australia	2021	Telstra Website
Deutsche Telekom	Slovakia, Croatia Montenegro, Hungary, Romania, Greece and Germany	2018	Deutsche Telekom Blog
Swisscom	Switzerland	2017	Swisscom blog

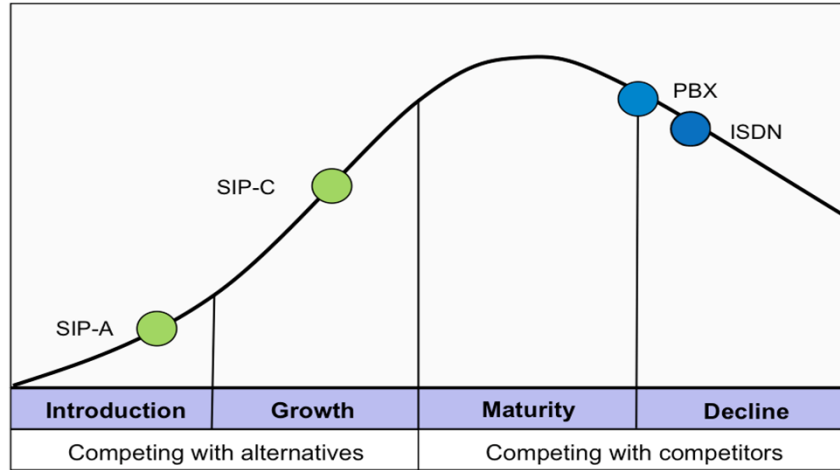
- Most countries have announced an end date to the PSTN network.
- BT announcement of 2025 will drive change
- Not all countries have official dates but all implementing migration plans
- Some providers are starting to offer attractive pricing to encourage migration

UK SIP Trunking market growing fast



- The UK SIP Trunking market has grown by 221,061 Trunks in the first six months of 2015, compared with 137612 in same period last year
- Larger scale providers seem to be growing fastest

New class of SIP services emerging as SPs look to differentiate



SIP A (Application) is a Trunking service that focuses on giving the customer access to additional UC applications, including Mobility

SIP C (Capacity) is a Trunking service that is focused on providing a scalable, flexible Voice access service. Providers offering SIP C type service are focused on offering high capacity and highly resilient SIP access

- Currently SIP trunks are generally sold as capacity products, competing directly with ISDN
- Price falls and increased competition in SIP T is making providers consider new services
- In recent Broadsoft/Cavell whitepaper Broadsoft mention they have 6 million trunks and 5% are also sold as Application

Commoditisation of SIP Capacity Services



SIP Capacity Services Differentiation:

- Quality of Service
- Access
- Network Based Services
 - Channel Flexing
 - Business Continuity
 - Recording



Price of SIP C channels falling

Large scale providers starting to dominate

Initial Customer Use Cases

Mixed Estate UC provision

Enterprise customer has multiple types of PBX and wishes to deliver some common UC capabilities without having to refresh all their estate at one time. Service Providers can start to offer the traditional UC services you would receive in an advanced Hosted Environment.

Common Mobile Applications

The customer wishes to support one common FMC capability across multiple PBX implications. The assets are linked via SIPT, with a common application capability serving all the end-users with one common FMC client.

Hybrid Environments

Customer moving to a Hosted VoIP infrastructure, but has some key PBX assets or user groups they do not wish to move immediately. SIP trunk enable the remaining PBXs and offer the users on these PBXs some of same applications as the hosted users. This improves the short term user experience to those left on the PBX environment as well as making any future migration easier.

Services Provider Examples



Vanilla IP SIP Trunks are a bit like smartphones in that they have a core capability, which is ISDN replacement, but the real power is in the apps that can be overlaid across the top

Offer a Mobility Bolt ON specific overlay service



AT&T position that you can integrate SIP Trunking offering with a series of UC features including; Instant messaging; Voice, Web and Video Conferencing, Unified messaging, Voice calling, Team collaboration

Thanks

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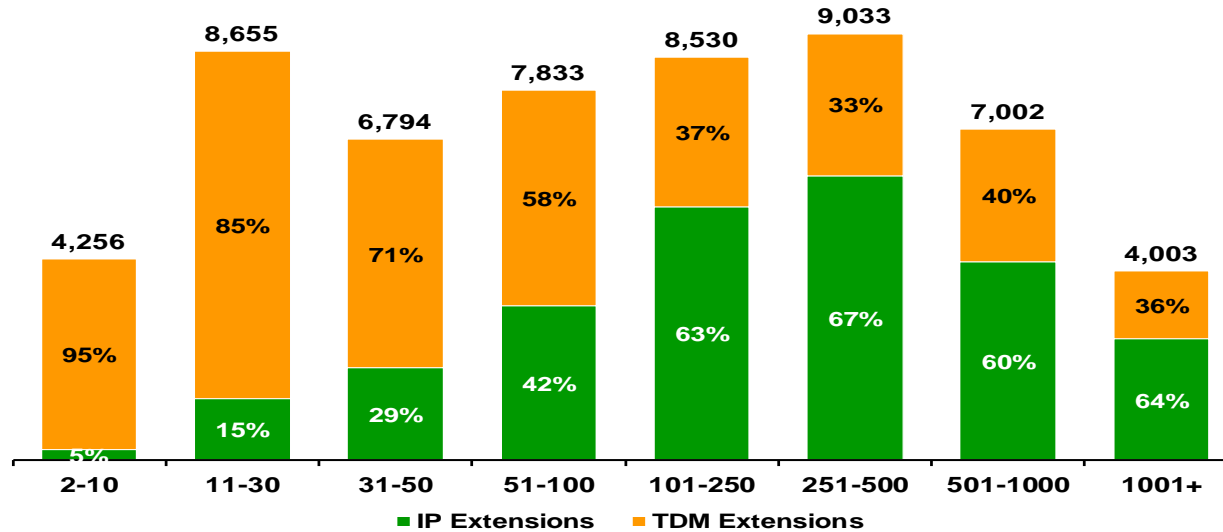
Tel: + 44 (0)1206 381544



SIP Trunking Service Strategy

Mike Wilkinson VP Product Marketing

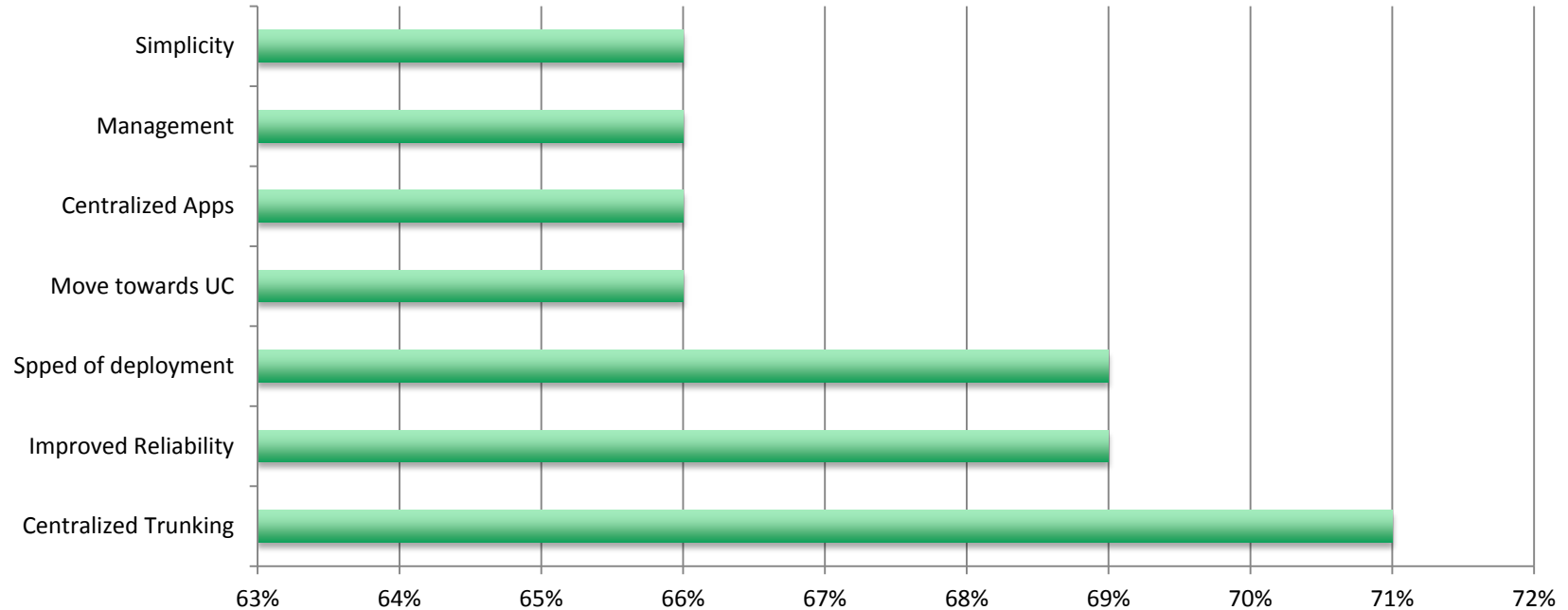
Largest Adoption of IP-PBXs in the Mid-Market Market



Global PBX sales (thousands) in 2014

Source: MZA March 2015

Enterprise Benefit of Implementing SIP Trunking



Source: Infonetics 2014

PBX Market in Decline

	2Q14	1Q15	2Q15	2Q15 vs. 2Q14	2Q15 vs. 1Q15
Total revenue	\$2.1B	\$2.0B	\$2.0B	-7.0%	-1.1%
Total PBX	\$1.7B	\$1.6B	\$1.6B	-7.2%	-1.6%
TDM PBX	\$27.0 M	\$25.4 M	\$20.2 M	-25.2%	-20.4%
Hybrid PBX	\$964.6 M	\$908.0 M	\$858.8 M	-11.0%	-5.4%
Pure IP PBX	\$702.1 M	\$664.4 M	\$692.9 M	-1.3%	4.3%

Source: Infonetics 2015

SIPT Strategy

1. Win the SIPT contract
2. Sell Overlay
3. Replace the PBX



BroadSoft SIP Trunking

**Value Added
Features**

Ability to Scale

**Address
multiple
segments**

**Deployment
Flexibility**

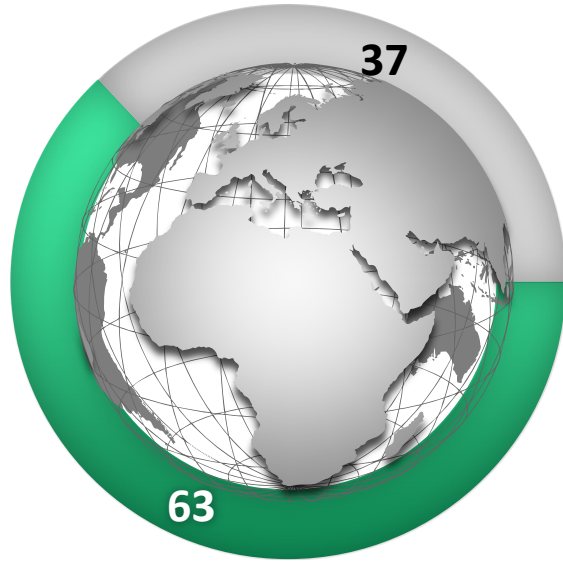


- Software solution
- Service providers design, build, and deploy
- Maximum flexibility and control



- Optimized end-to-end business processes
- Accelerated time-to-market
- Frequent service innovation

BroadSoft SIP Trunking Leadership

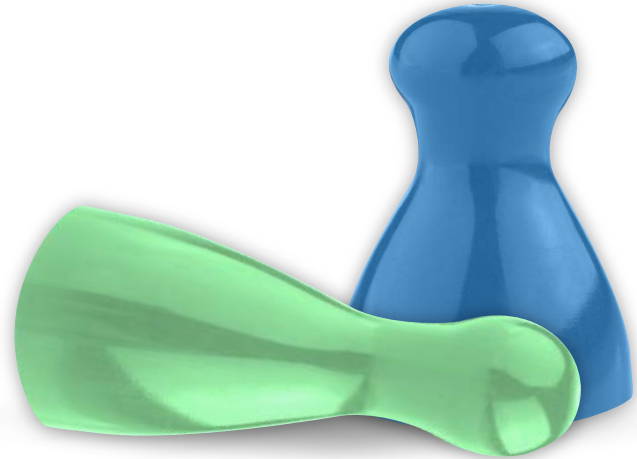


Facts and Figures

- Global market leader with over 6M SIP Trunks deployed
- BroadSoft has 37% market share of the global SIP Trunking Market
- World number one vendor
- BroadSoft has 40% of the US SIP Trunking Market
- All the top US service providers use BroadSoft for SIP trunking

SIP Trunking Challenges

1. Speed to market with the right offer
2. Unit cost of production
3. Sustainable differentiation in the market
4. Scalability to meet long term market forecasts



3. Creating Sustainable Differentiation



Trunks

- Ability to burst over the existing trunk capacity
- Queuing calls on a fixed trunk capacity



User

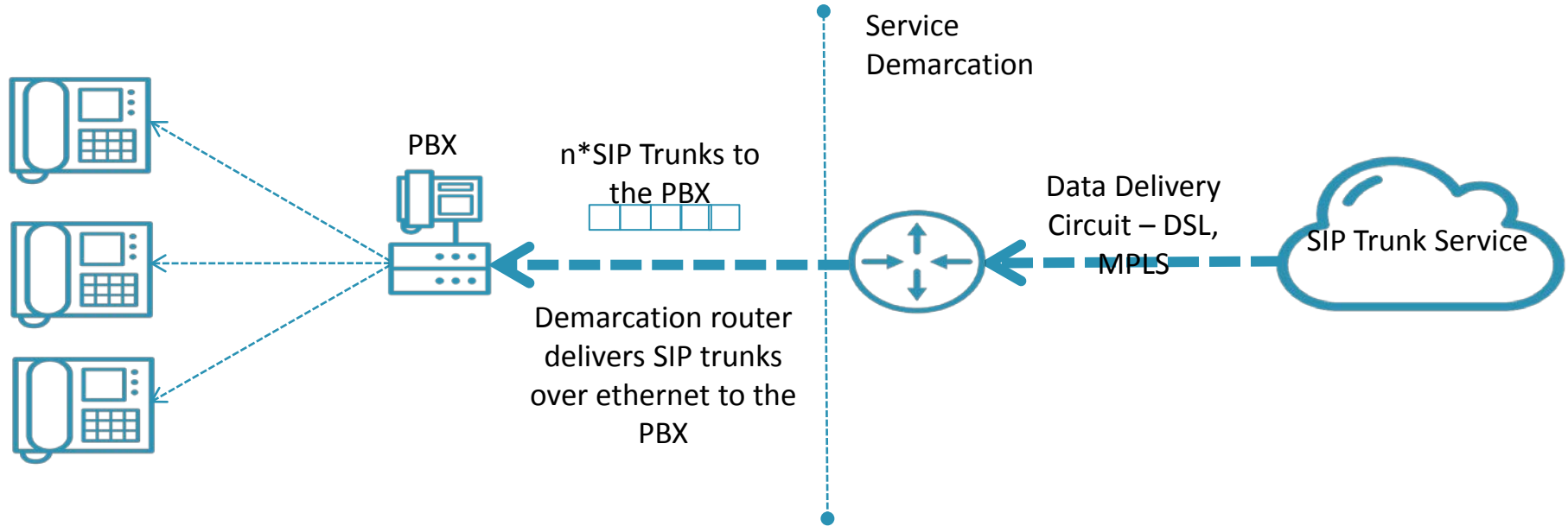
- Enhance features on current PBX
- Mobility overlay features
- UC overlay features



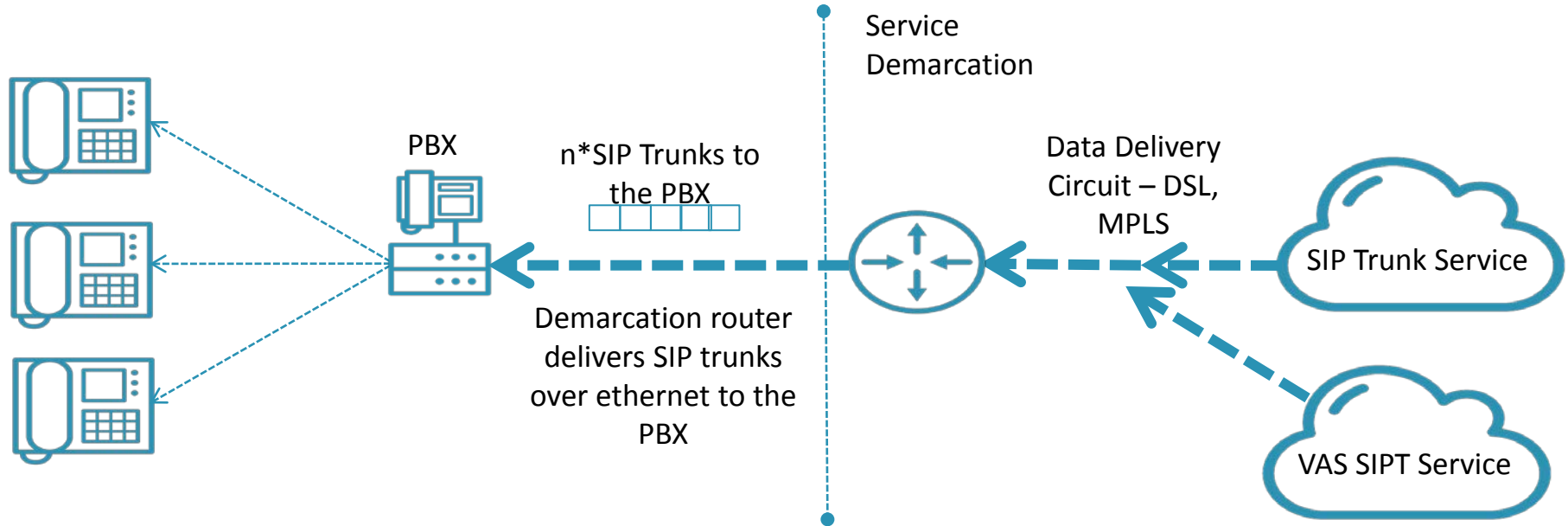
Network

- Hybrid deployments mixing hosted and trunking services

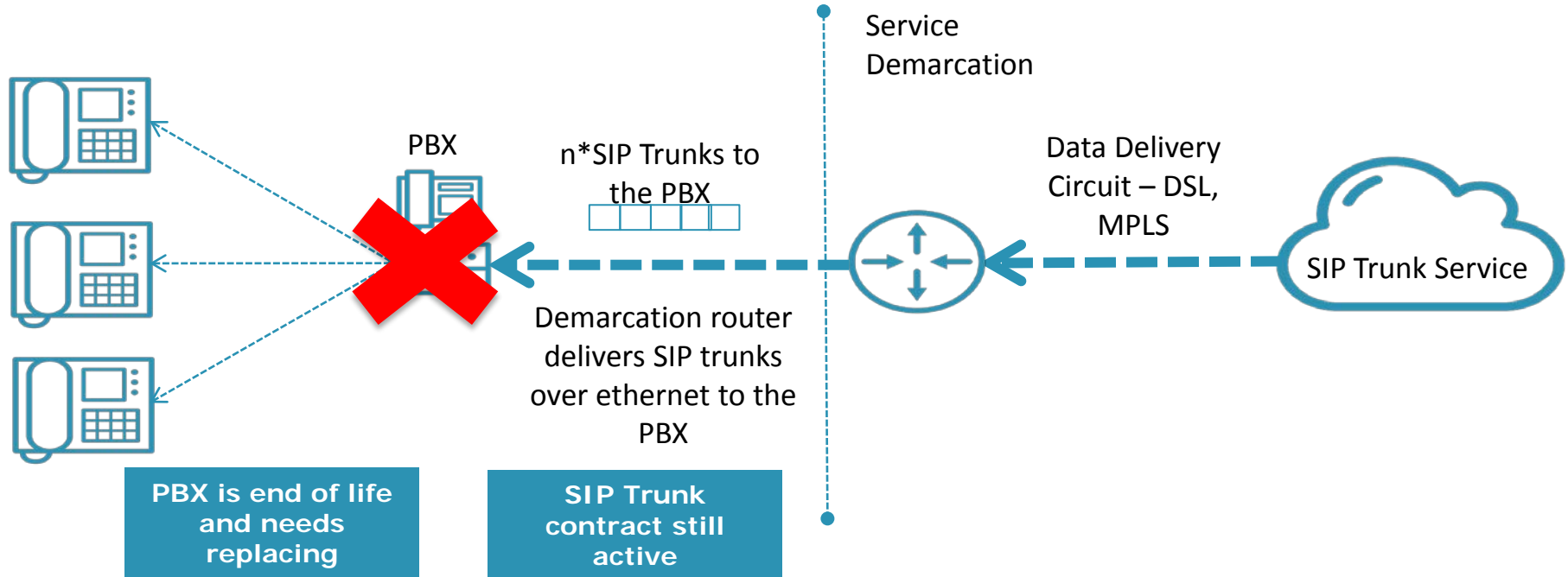
SIP Trunking Service



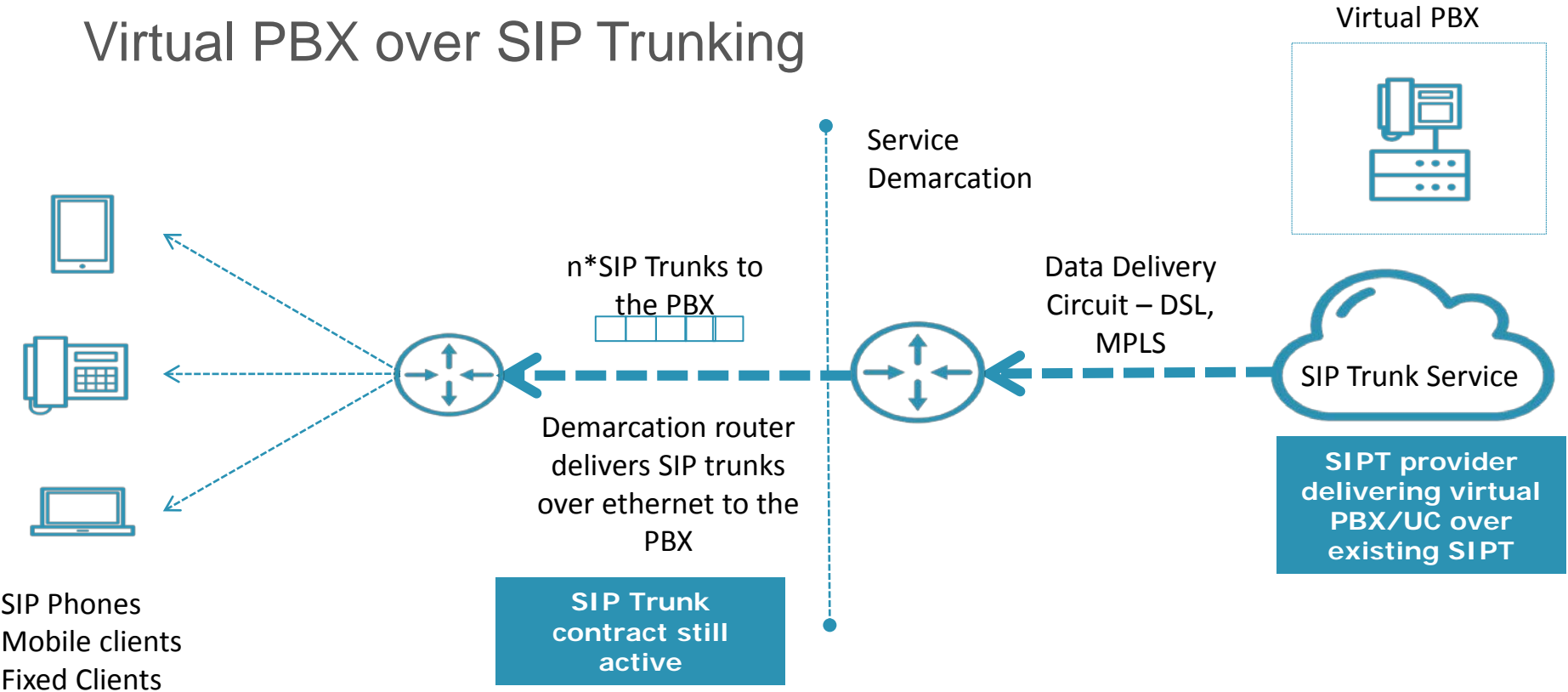
Basic SIP Trunking Service with VAS



PBX is End of Life, SIPT Contract Active



Virtual PBX over SIP Trunking



Swisscom Business Connect



Business Connect

The cost-reliable combi offer for small and medium-sized companies with advanced telephony requirements:

- > Flat-rate telephony in the entire Swiss fixed and mobile network and free minutes for international calls
- > Make multiple calls simultaneously
- > Practical call functions such as call transfer, collective conference call, busy display, line keys, dialling from the PC etc. for efficient working in a team
- > Optimum linking of multiple sites



...with a virtual telephone system

Business Connect with a virtual telephone system (PBX) offers you the following additional benefits:

- > No investment in a physical telephone system and no costs for maintenance or upgrades
- > Make calls from anywhere with your fixed-network number



...with a telephone system on site

Business Connect in combination with a telephone system on site offers you the following additional benefits:

- > You can continue to use your existing telephone system (only applies for certain PBX types)
- > Integration of local applications (e.g. door opener)
- > Record and process call data (e.g. for hotels, law firms)
- > Integration of external applications (e.g. alarm server, hotel or call centre solutions)
- > Maximum budgetability across all telecommunications in combination with the Full Service Solution care-free package



SIP Trunking Service Strategy

Mike Wilkinson VP Product Marketing



SIP Trunk as First Step Towards Hosted UC

Benny Matityahu

Director, Marketing and Business Development

bennym@audiocodes.com



About AudioCodes

- Market leader in VoIP networking, Focus on:

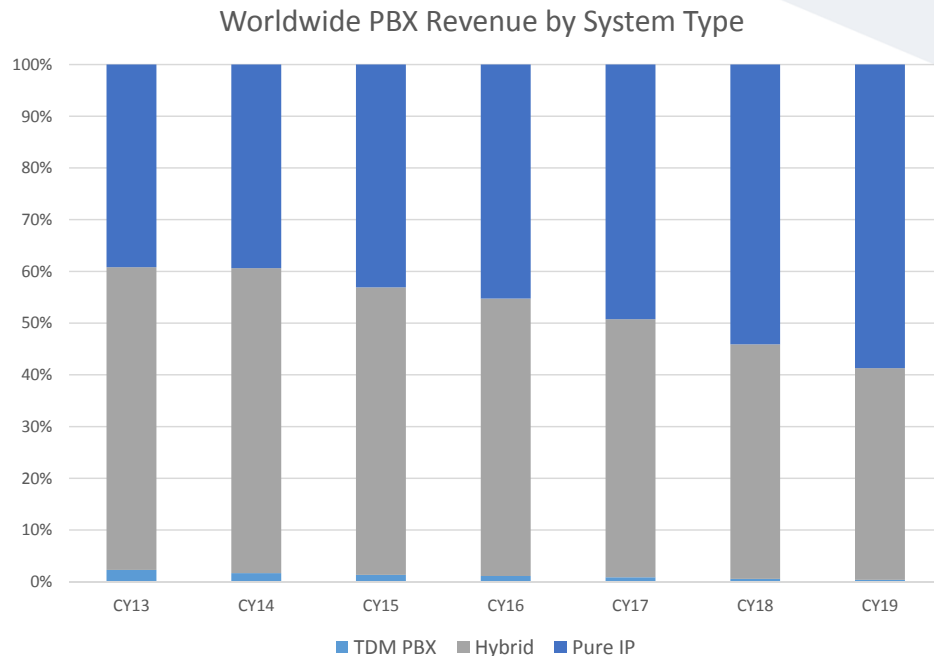
- Unified Communications
- Business Communications Services
- Contact centers



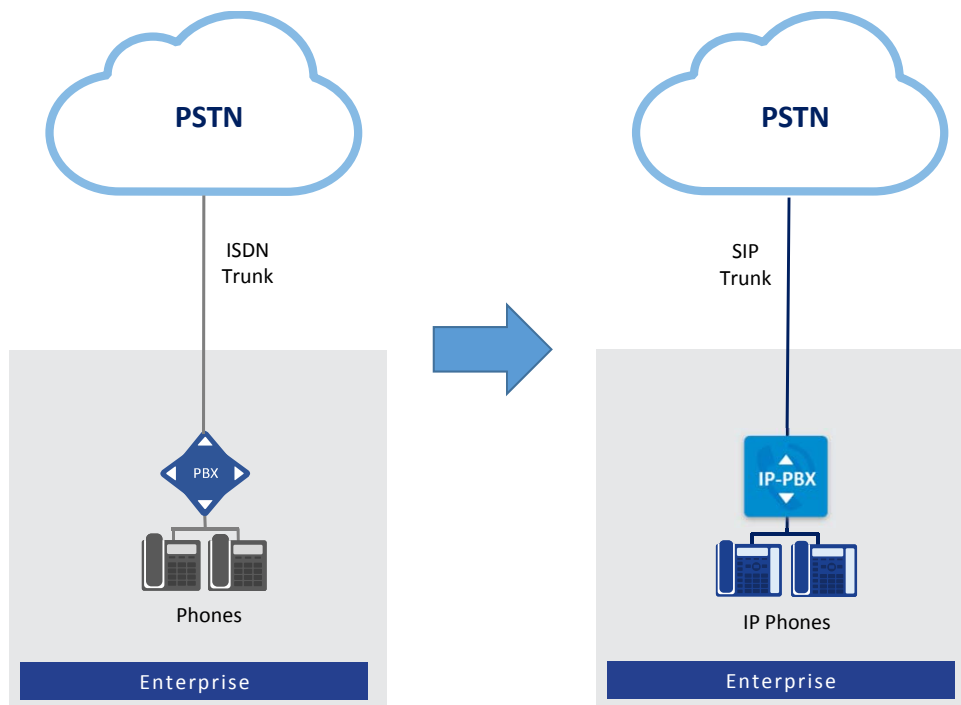
- Ranked by Infonetics as 2nd most deployed for both E-SBC and mid density GWs
- Deployed in over 100 countries in service provider and enterprise networks
- Global partnership with BroadSoft, Microsoft, Genesys, Avaya, NSN, AT&T
- 650 Employees worldwide
- >20 years of operations, Public since 1999

Businesses are Migrating to IPPBX

- Infonetics:
“The transition to IP systems is essentially over, and the next move will be to pure IP PBXs.”
- For enterprises, the process is typically a gradual move from PBX to IPPBX and from ISDN to SIP Trunk



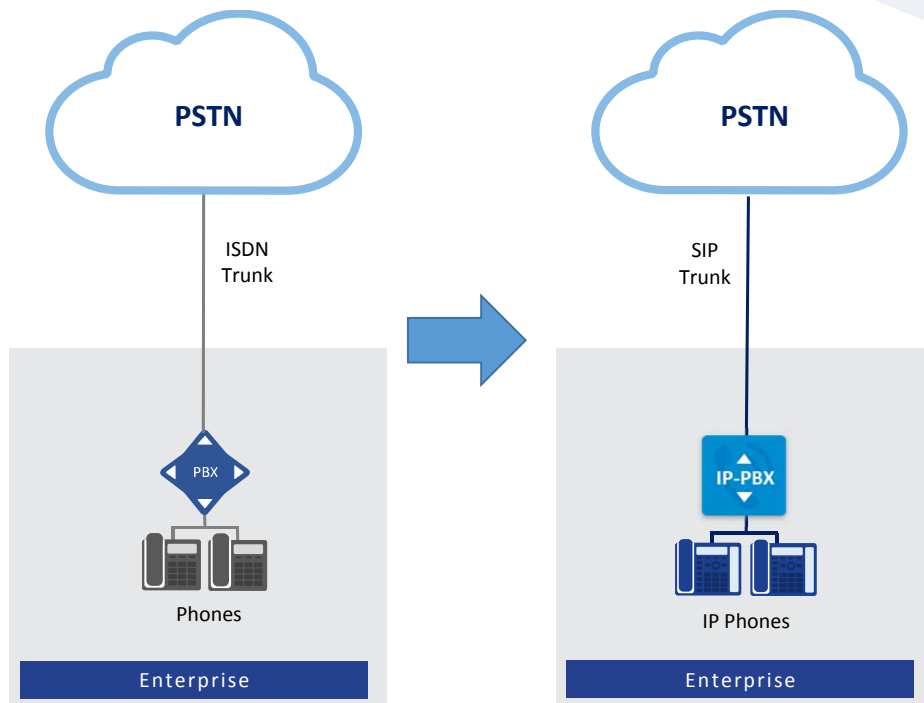
Migration of Enterprise to Pure IP



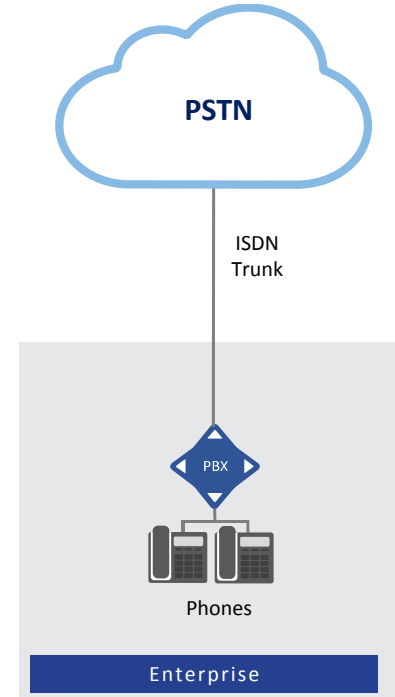
Migration of Enterprise to Pure IP

Questions:

- How to migrate with minimum disruption to the business?
- How to easily introduce new services?



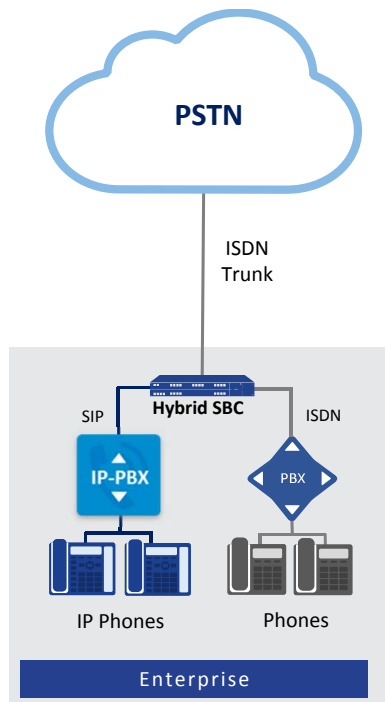
Migration of Enterprise to Pure IP



Migration of Enterprise to Pure IP

1) PBX and IPPBX running in parallel

- POC
- Migration of users
- Unified dial plan
- Coexistence with forking



Migration of Enterprise to Pure IP

1) PBX and IPPBX running in parallel

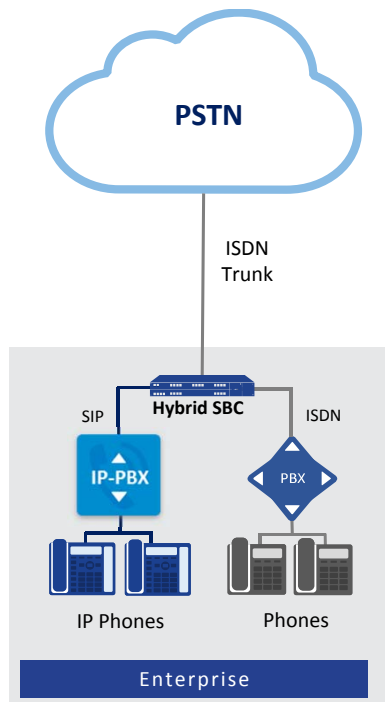
- POC
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Benefits:

- Smooth/gradual migration
- Introduction of new services

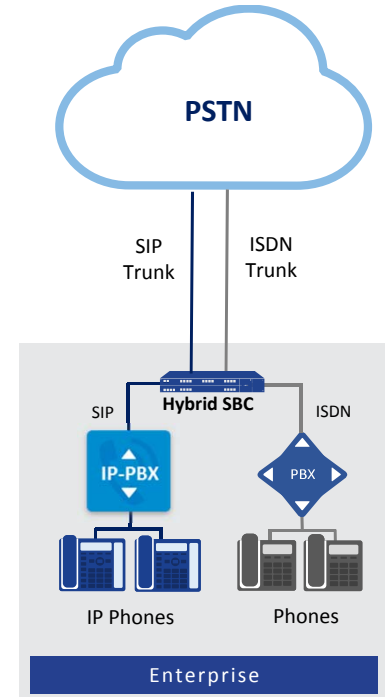
Challenge:

- Interoperability with IPPBX – solved with Hybrid SBC



Migration of Enterprise to Pure IP

2) Add SIP Trunk



Migration of Enterprise to Pure IP

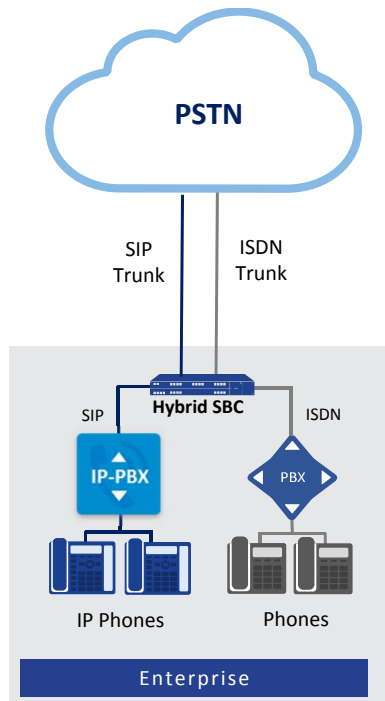
2) Add SIP Trunk

Benefits:

- Trunk consolidation / cost reduction
- LCR
- Smooth migration (e.g. Backup via ISDN)

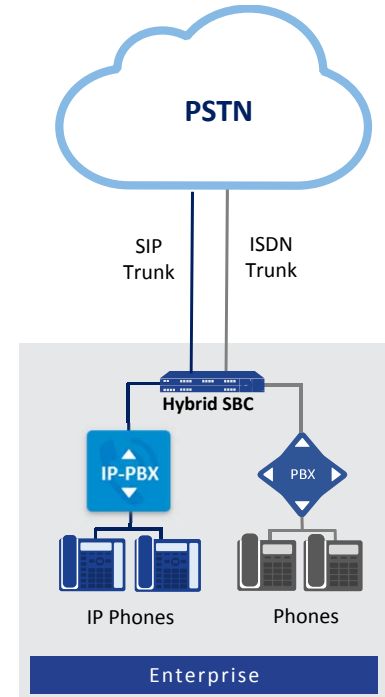
Challenge:

- Inter-op with the SIP Trunk – solved with Hybrid SBC



Migration of Enterprise to Pure IP

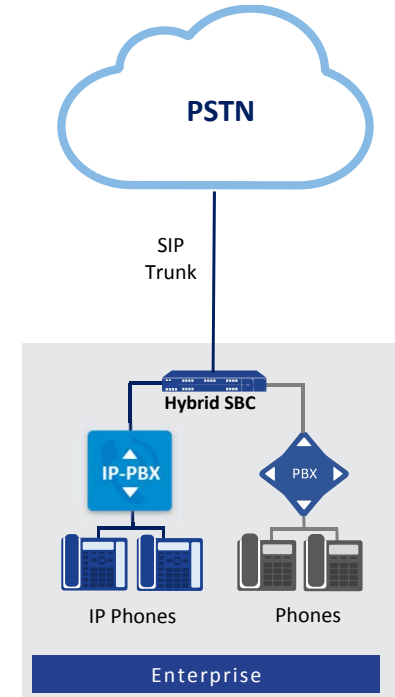
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Migration of Enterprise to Pure IP

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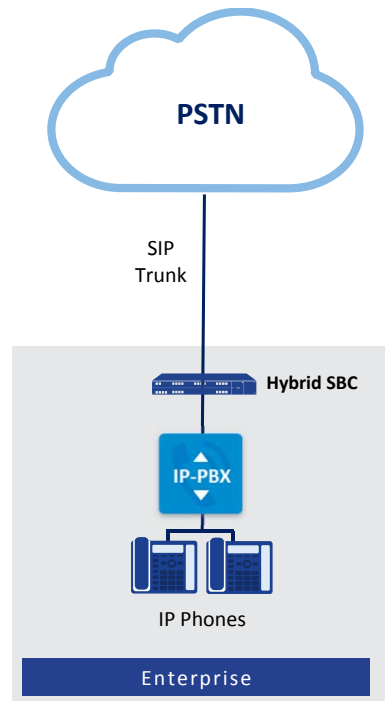
- Disconnect the ISDN Trunk



Migration of Enterprise to Pure IP

3) Fully migrate to pure IP

- Disconnect the ISDN Trunk
- Complete the user migration and disconnect the PBX



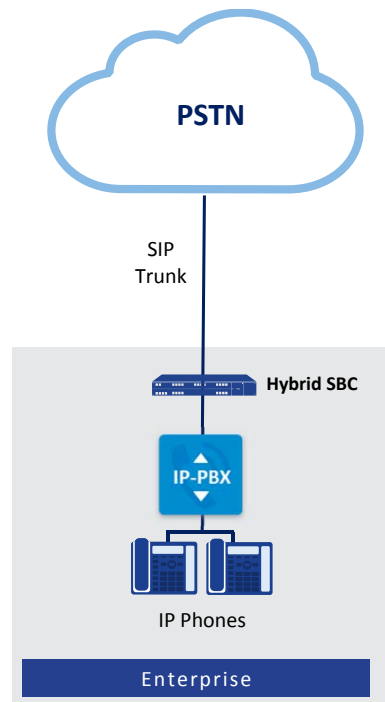
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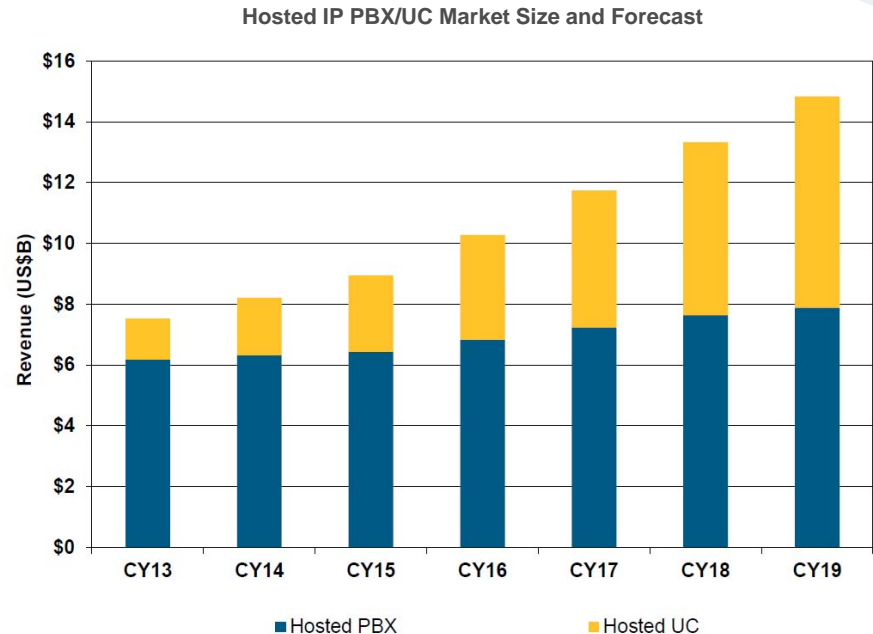
Benefits:

- Continue leveraging on the investment in Hybrid SBC to make these changes at your own pace



Transition to All-IP for Any Business

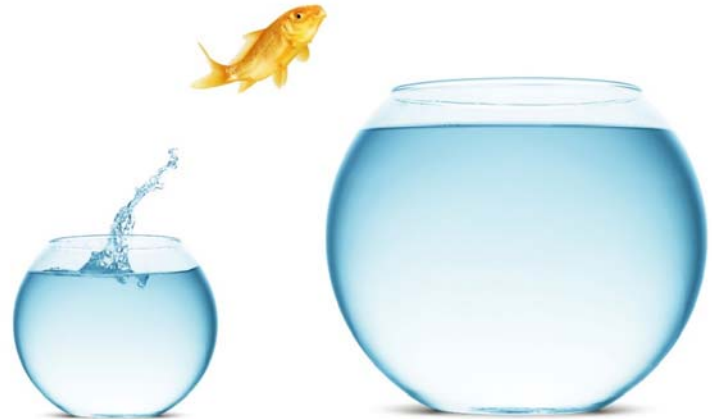
- Infonetics:
 - “Cloud Represents Growth Opportunity for Enterprise VoIP “
 - “We expect the overall market to grow at a CAGR of 13% from CY14-CY19, with revenue reaching \$14.8B in CY19.”
- Service providers can develop a migration approach to help drive businesses to move to their cloud/hosted services



Transition to All-IP in 3 Steps

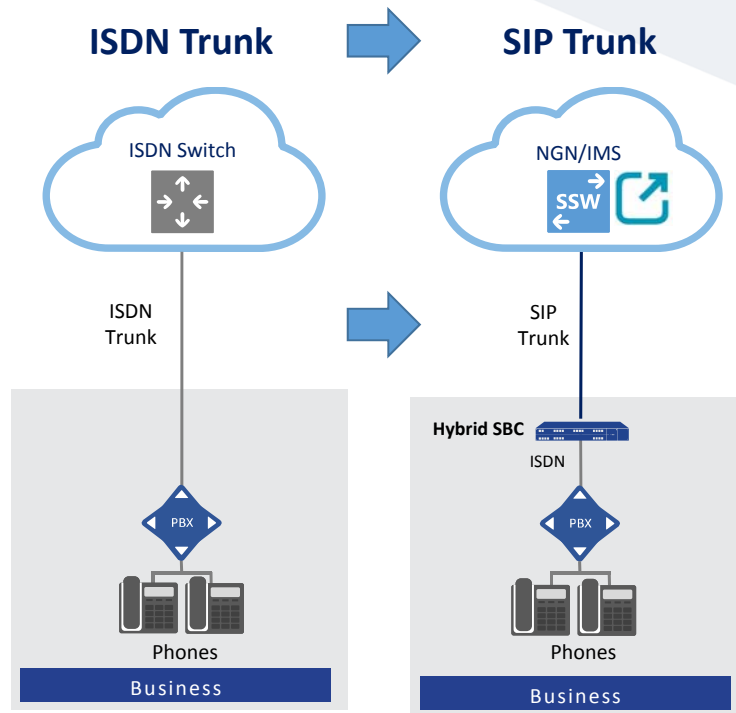
Example of migration strategy service providers can adopt to migrate customers to pure IP:

- 1) Migrate from ISDN to SIP
- 2) Add new applications and hosted UC extensions
- 3) Migrate to hosted UC



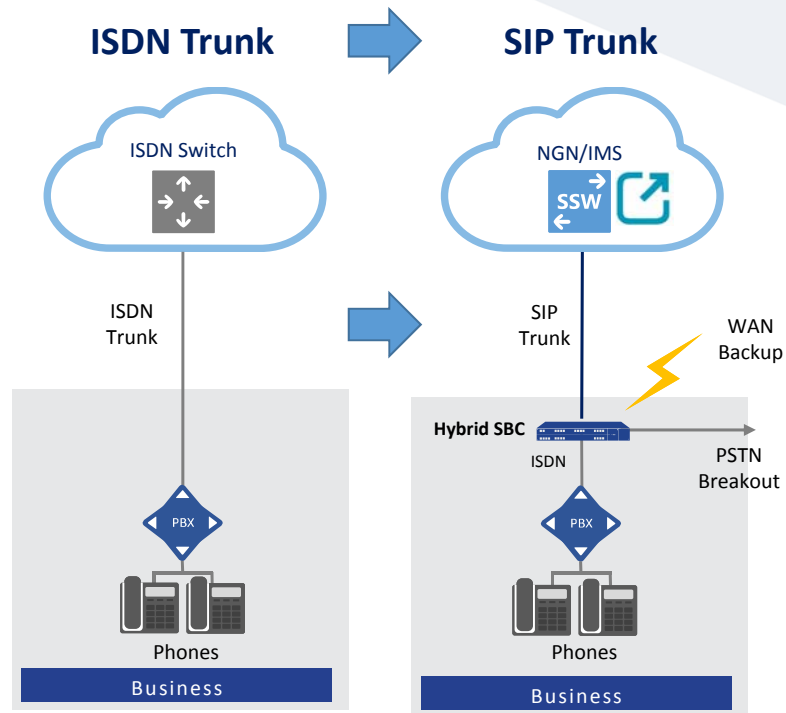
Step 1: Migrate to SIP

- Change connectivity from ISDN to SIP
 - Use hybrid SBC for converting SIP back to ISDN
 - Same works for IPPBX fronted by a Gateway
 - No change at the PBX side
- The core network can move to SIP
- Inter-op is guaranteed by the Hybrid SBC



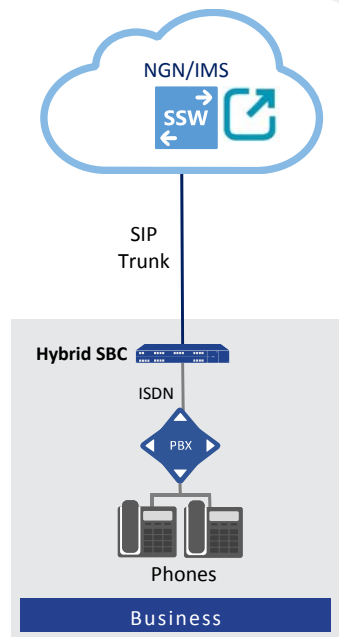
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 - Same works for IPPBX fronted by a Gateway
 - No change at the PBX side
- The core network can move to SIP
- Inter-op is guaranteed by the Hybrid SBC
- Additional benefits:
 - QoS Monitoring via the Hybrid SBC
 - PSTN Breakout (backup, 911)
 - WAN Backup (e.g. 3G/4G)



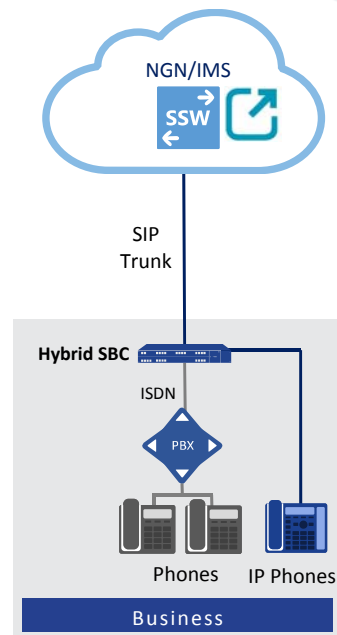
Step 2: Add New Applications and Services

- Add new applications from the cloud
 - E.g. Conferencing, IVR



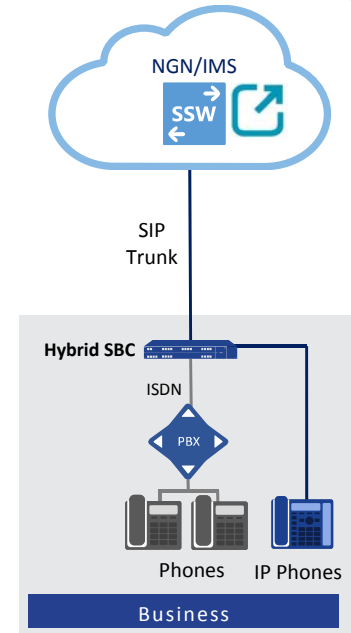
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- Add new applications from the cloud
 - E.g. Conferencing, IVR
- Expand by adding Hosted UC extensions
 - Enable gradual expansion and migration
 - Maintain homogenous local dial experience
 - Introduce UC clients and new capabilities



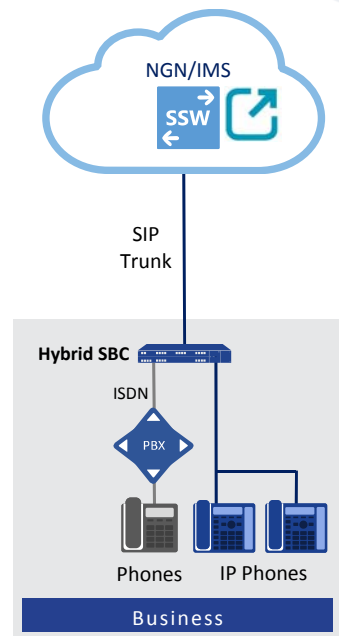
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- Add new applications from the cloud
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- Further benefits:
 - Survivability for the Hosted UC extensions
 - Local media termination



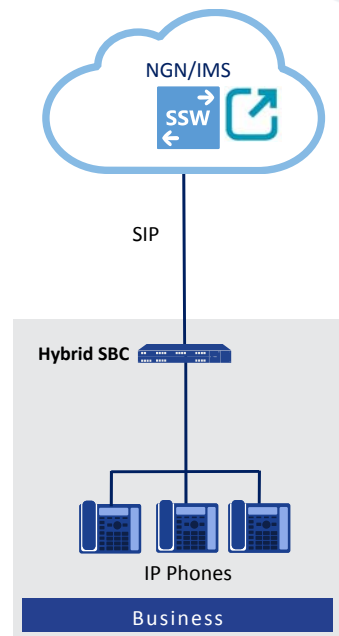
Step 3: Fully Migrate to Hosted UC

- Migrate PBX extensions
 - Gradually move users to Hosted UC extensions
 - Train the business to leverage on the new features
 - The process continues until all users are migrated



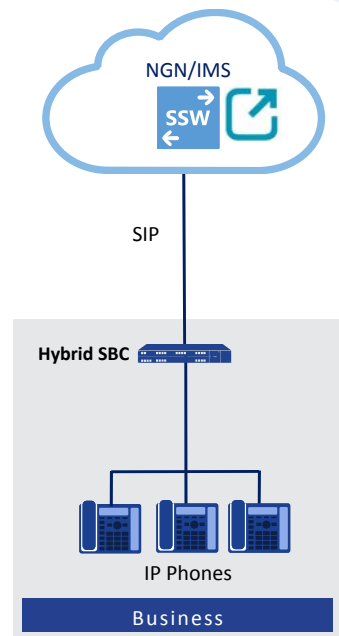
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- Disconnect the PBX



Step 3: Fully Migrate to Hosted UC

- Migrate PBX extensions
 - Gradually move users to Hosted UC extensions
 - Train the business to leverage on the new features
 - The process continues until all users are migrated
- Disconnect the PBX
- Preserved benefits:
 - Survivability and resiliency
 - QoS monitoring
 - Local Media termination



Transition to All-IP – Beyond SIP Trunking

Transition to all-IP in 3 Steps

- 1) Migrate from ISDN to SIP
- 2) Add new applications and hosted UC extensions
- 3) Migrate to hosted UC

- Service providers can migrate customers to SIP Trunking at their own pace
- Enjoy the increased revenue of Hosted UC based on investment made at the SIP Trunk migration step
- The Hybrid SBC is the enabler for successful migration and improved operation

Hybrid SBC – Enabler for Differentiation

- Broad inter-op for IP connectivity
 - No impact on the core for interoperability
 - Special tools like SBC wizard leverage a broad inter-op database to automate installation
- Comprehensive TDM connectivity options
 - Mix and match analog and TDM interfaces as required
- Built-in QoS monitoring and enhancement tools
- Survivability and resiliency
 - Including specific feature support for the Hosted UC application
- Built-in migration tools
 - Forking, dial plan tools
 - Directory integration for user search
 - Session license pool

AudioCodes SBCs





Simple



Scalable



Reliable