Housekeeping: Technical Issues

- If you have any **technical difficulties**:
  - Pls email us directly: **mike.erps@audiocodes.com**

We will **make the slides & recording from this episode available** for future reference or to share with your colleagues.

Clouducation

WELCOME!

It is time for your Clouducation to commence.

What is clouducation?

I am glad you asked:

cloud·u·ca·tion

[kloud͵jəˈkāSH(ə)n]

Noun

1. The process of receiving systematic knowledge and insight related to all things cloud communications (cloud, premises or hybrid communications!)
2. An enlightening experience, focused around everyone's favorite topic of cloud communications

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Clouducation™

Clouducation is your monthly webucation.

Cloud (and non-cloud) communication topics.

The 2nd Wednesday of each month + on demand.

Industry experts | Relevant Topics

30 to 45 minute episodes.

Tangible ideas | solution options | Q&A

Now, it is time to get Clouducated!

Episode 1 - Webinar Replay:
Driving Skype for Business User Adoption with Phone Devices and Headsets

PPT SLIDES | MOV ON DEMAND

Episode 2 - Webinar Replay:
what to consider between co-existence and full migration

PPT SLIDES | MOV ON DEMAND

Today's Featured Speakers

Mike Erps

- UC Solution Manager
- 10+ years AudioCodes Experience

Eric Bauer

- VP Marketing, BD & Microsoft Alliance
- 15+ years UC industry experience

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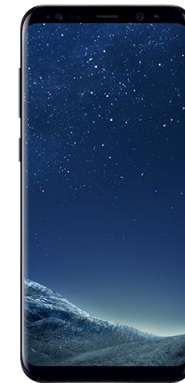# Now...lets get Clouducated!

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TDM Sunset: Defined

TDM (time division multiplexing)

SIP (session initiation protocol)

The changing enterprise communications landscape

Service providers are transforming their infrastructure to IP

Employees are working from anywhere
Customers and partners are engaging in new and different ways

Communications costs

Competitiveness

2013 $537
2014 $589
2015 $622

- 80% work away from the office 2 days or more of every week
- Multi real-time modalities (voice, chat, web, video, social)
- 2015: 2 Billion WebRTC enabled devices → 2019: 6B

- As comm costs increase, competitiveness decrease
- Large Ent. are on eternal quest seeking to lower costs
- EOL/EOS legacy systems intensify the need and drive action

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4 Challenges Inhibiting Change

Silos	Security	Regulations	Operations + Quality

Silos
1. Lack of solution integration
2. Costly to maintain
3. Expensive off-net calling

Security
1. Denial of service (DoS) attacks
2. IP telephony spam
3. Service theft & Eavesdropping

Regulations
1. Emergency Calling Requirement
2. Compliance Recording
3. Data sovereignty and control

Operations + Quality
1. MPLS network setup is costly
2. MRC are high
3. Multi-location drives complexity

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Enterprise Voice Migration Strategies
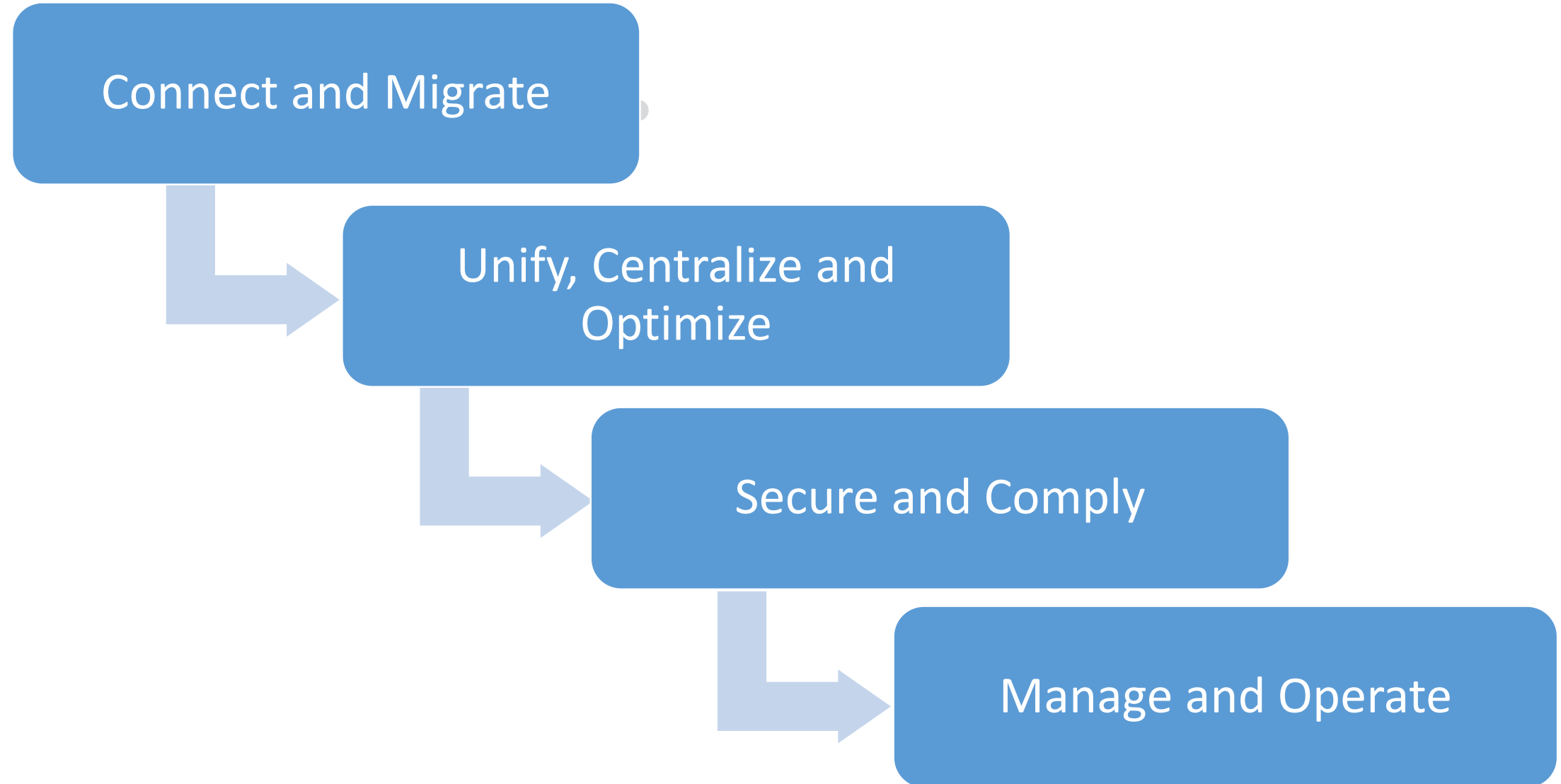
Multi-vendor (Network Driver)

1. Small % of knowledge employees
2. Lower TCO due to ability to Shop Around (Gartner)
3. Want Best-of-Breed UC applications
4. Keep healthy tension between vendors
5. Don't want to put all eggs in one basket (reduce risk)

Single UC vendor (UC Driver)

1. Many knowledge employees
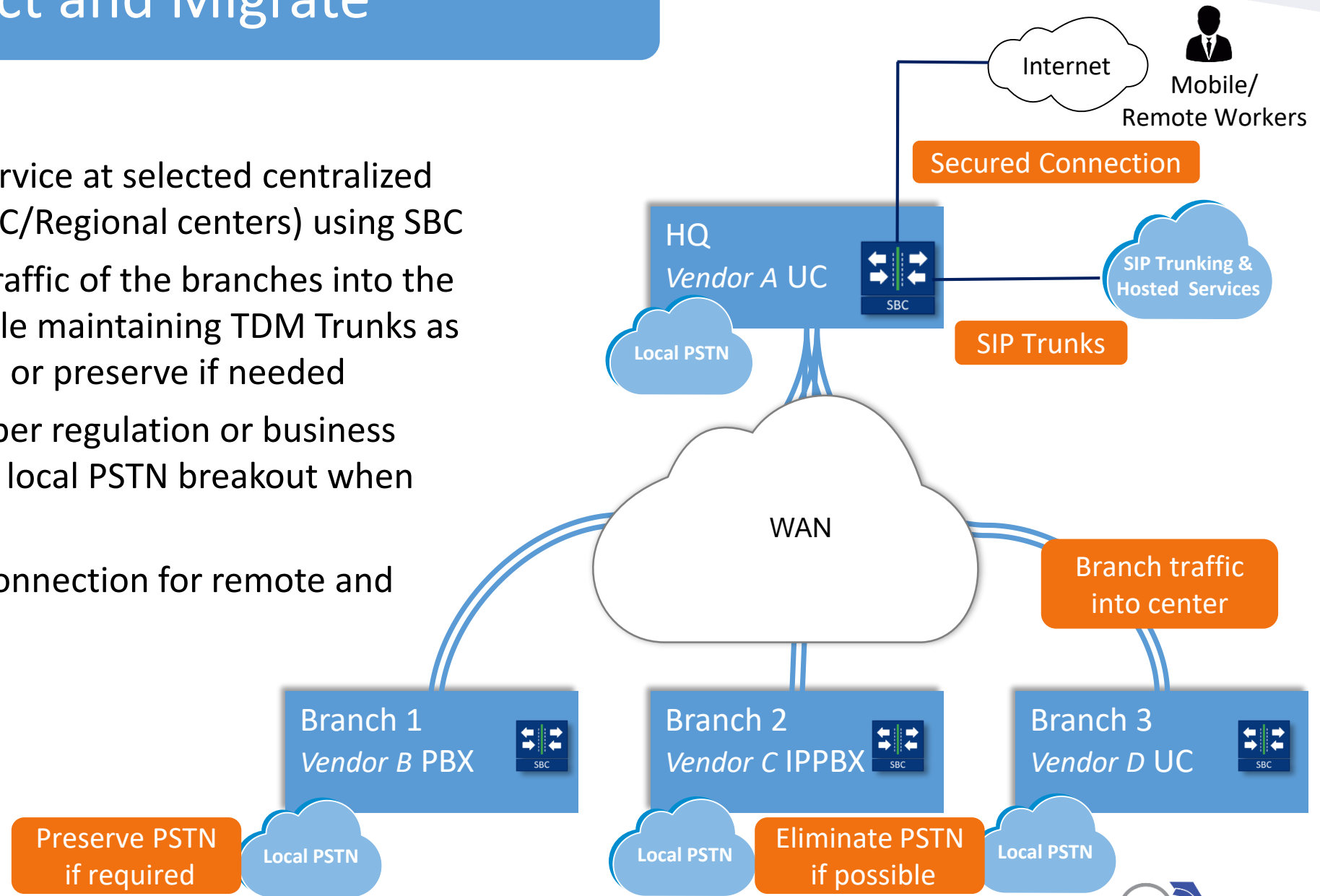2. Politics/Relationships
3. View multi-vendor as risky

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Considerations to Modernize Your Enterprise Voice Network

Connect and Migrate

Unify, Centralize and Optimize

Secure and Comply
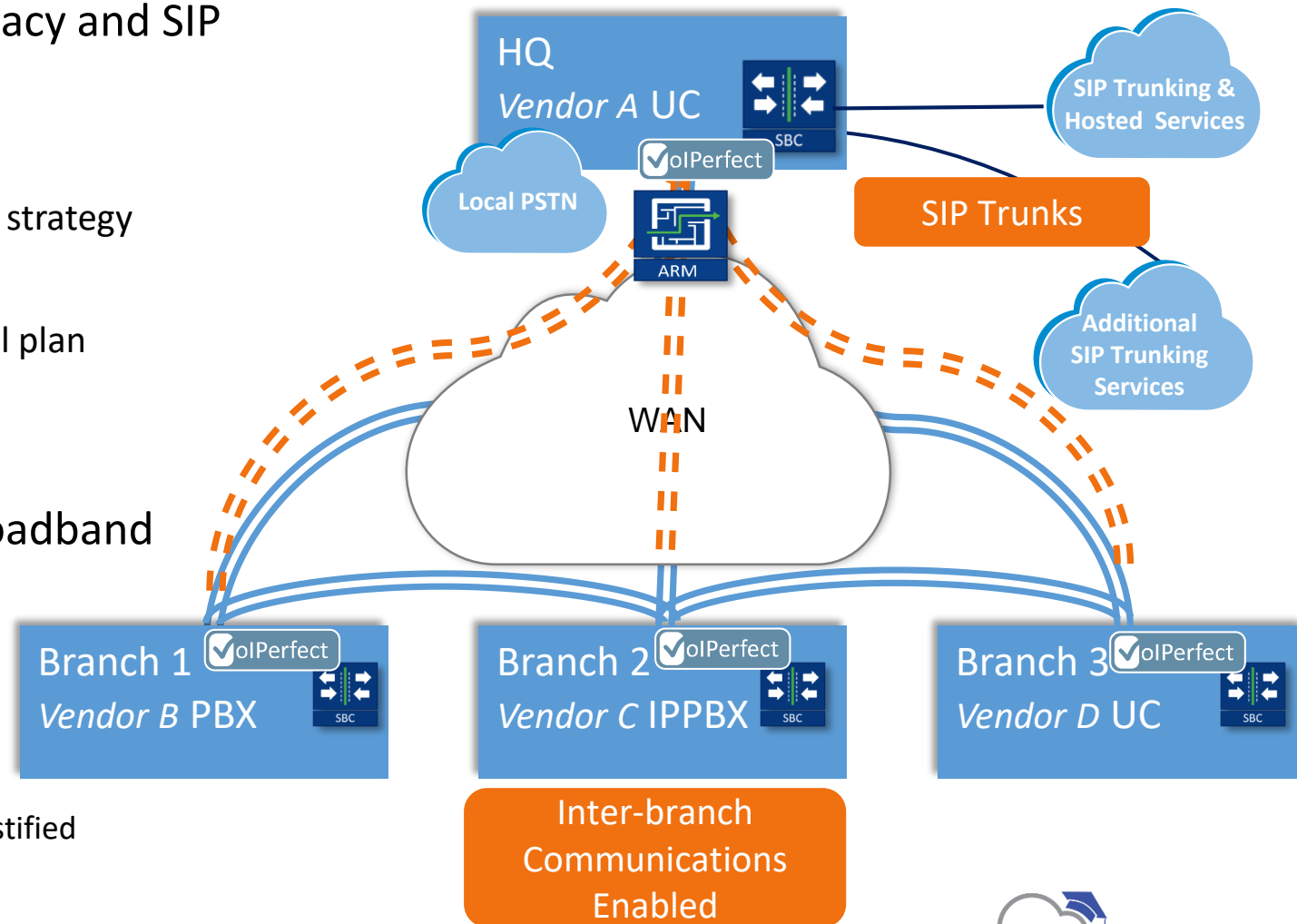
Manage and Operate

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Connect and Migrate

- Connect to a SIP Trunk service at selected centralized locations (Typically HQ/DC/Regional centers) using SBC
- Aggregate off-net voice traffic of the branches into the centralized locations, while maintaining TDM Trunks as needed during migration, or preserve if needed
- Manage PSTN migration per regulation or business considerations, eliminate local PSTN breakout when possible
- Enable secured remote connection for remote and mobile users

Internet

Mobile/
Remote Workers

Secured Connection

HQ
Vendor A UC

SBC

SIP Trunking & Hosted Services

Local PSTN

SIP Trunks

WAN

Branch traffic into center

Branch 1
Vendor B PBX
SBC

Branch 2
Vendor C IPPBX
SBC

Branch 3
Vendor D UC
SBC

Preserve PSTN if required

Local PSTN

Local PSTN

**Eliminate PSTN if possible**

Local PSTN

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Unify, Centralize and Optimize

- Interoperate various vendor SIP/Media/Encryption methods into a common framework, Unify Legacy and SIP capable voice platforms over company WAN
- Centralized UCA hub is created at HQ
  - Implement corporate users co-existence or migration strategy
  - Optimized enterprise-wide session routing
  - Centralized clear and easy to maintain normalized dial plan
  - Uniformly manage user voice services and policies
  - Dry testing for visibility and human error correction
- Lower costly MPLS BW and utilize Business Broadband as needed, by as much as 60%
  - Utilizing VoIPerfect managed OPUS
    - G.711 quality at G.729 bandwidth
  - Utilizing VoIPerfect managed G.711
    - Optimal for locations where MPLS is not available or justified
  - Could be used as backup or in conjunction with MPLS

HQ
Vendor A UC
SBC
VoIPerfect

SIP Trunking & Hosted Services

Local PSTN

ARM

SIP Trunks

Additional SIP Trunking Services

WAN

Branch 1
VoIPerfect
Vendor B PBX
SBC

Branch 2
VoIPerfect
Vendor C IPPBX
SBC

Branch 3
VoIPerfect
Vendor D UC
SBC

Inter-branch Communications Enabled

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Secure and Comply

- Protect against service affecting attacks (DoS, DDoS) while continuing to service trusted traffic
- Protect against outside and inside fraud
- Maintain confidentiality and avoid eavesdropping
- Centralized call recording solution natively integrated with UCA
  - Complies with increasing corporate and governmental regulation
  - Improve internal policy compliance
  - Minimize legal risks and costs
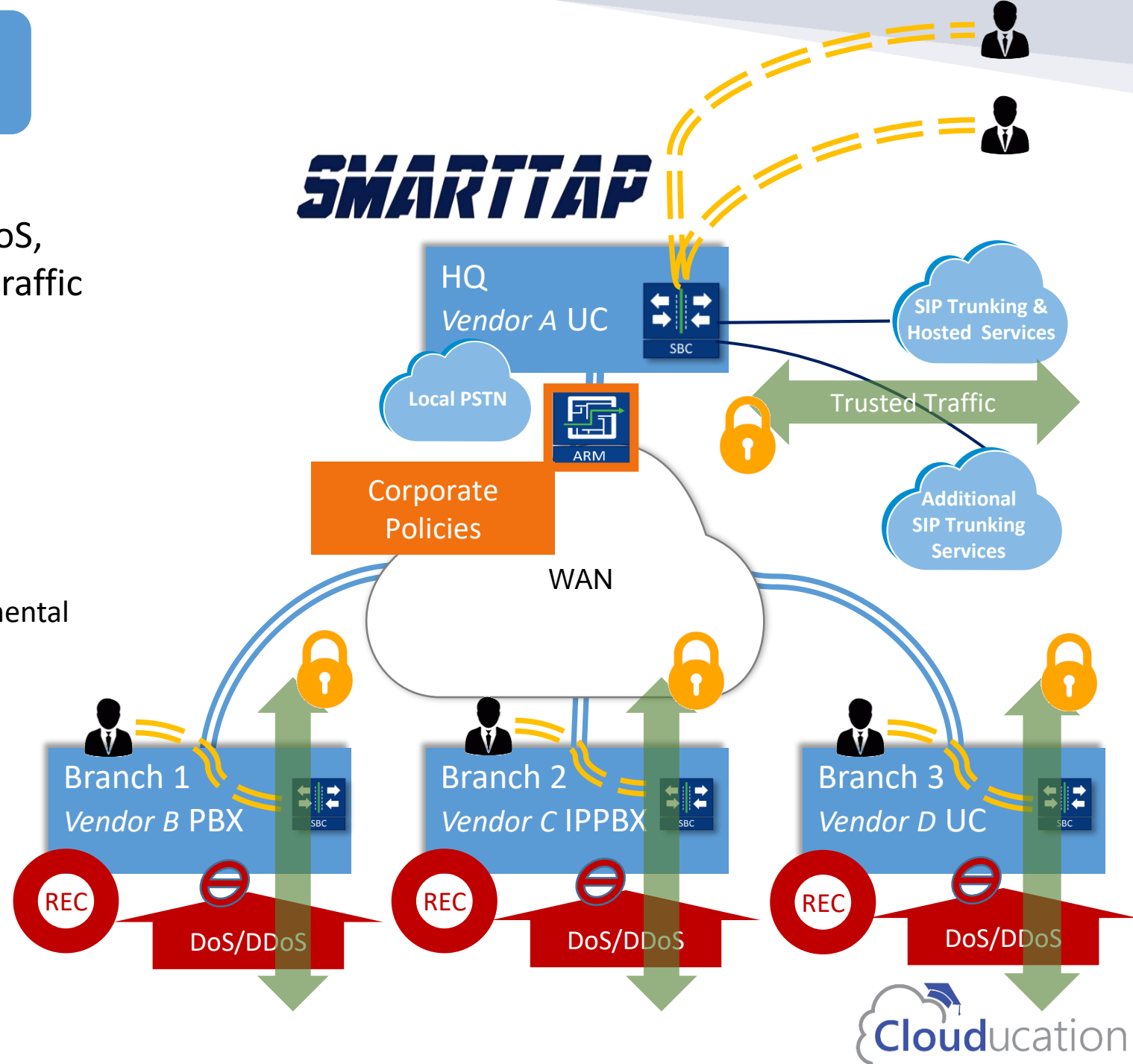
Manage and Operate

- Achieve operational efficiency
  - Centralized end-to-end device management system
  - Mass upgrades, updates and operations
  - Configuration, Operation, Administration and Fault
- Enterprise global license pools enable efficiency in resource allocation and planning
- Integrated QoS measurement probes
  - Real-time health and voice quality monitoring and alarms
  - Multi-site Network view with drill down to call details
  - Identify, Analyze, Fix and Plan
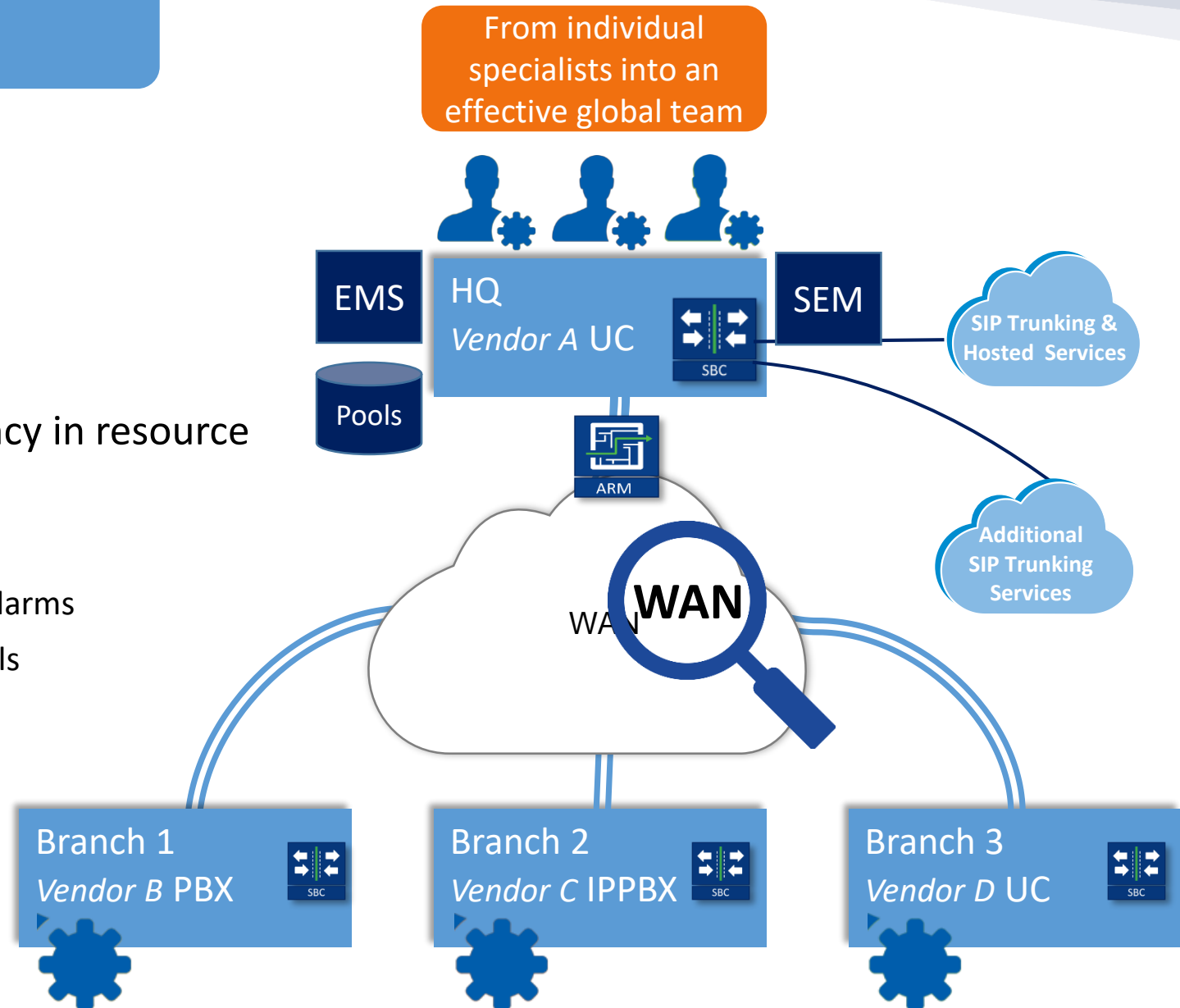
Case Study: F500 Energy Company

Goal: Unification of Silos, Centralized SIP Trunking, VoWAN

Customer Profile

- Multi-National Energy Company
- 64,000 employees, present over hundreds of sites spread across tens of courtiers

Challenges: Excerpt from RFP

█████ has offices spread all over the world. We have a lot of large offices with hundreds of employees on one side and many small remote branches on the other.

Because of many acquisitions over the past years, our infrastructure is characterized by many different brands and many local PSTN breakouts. The challenge is to connect all locations independently of the PBX brand.

Additional challenges:

- Costly inter-branch and international calls
- No visibility of voice quality

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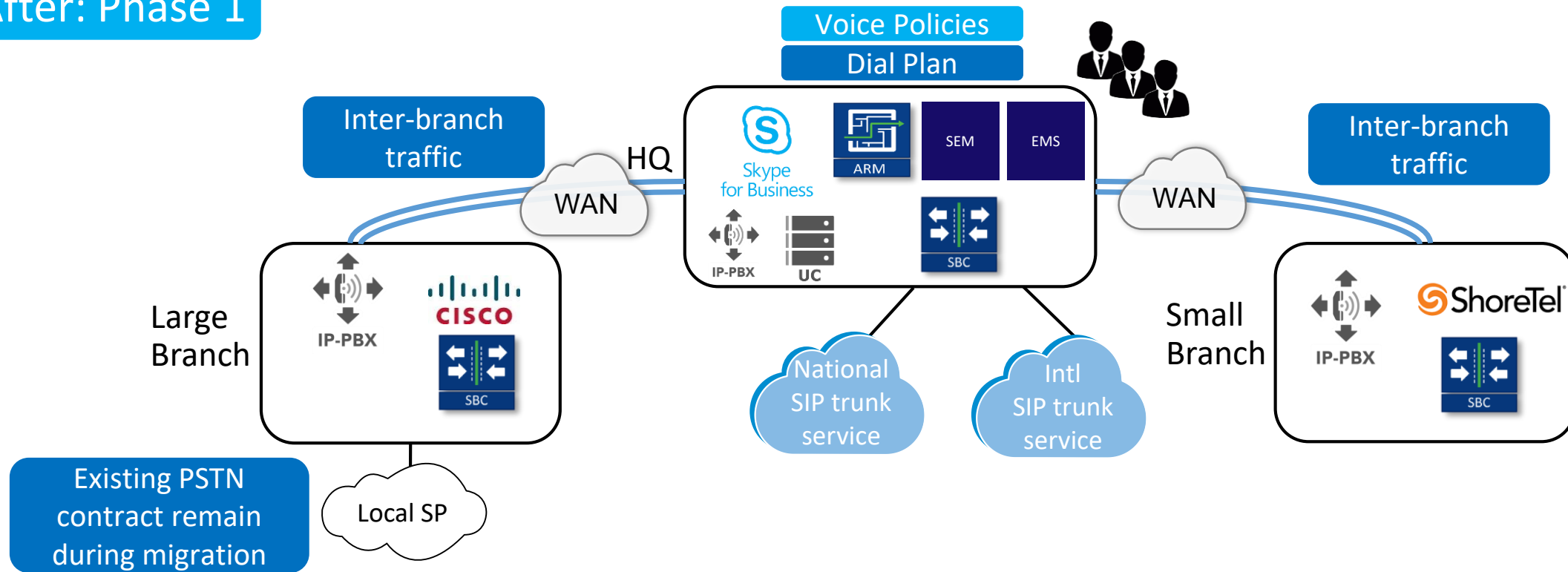# Case Study: F500 Energy Company

Before
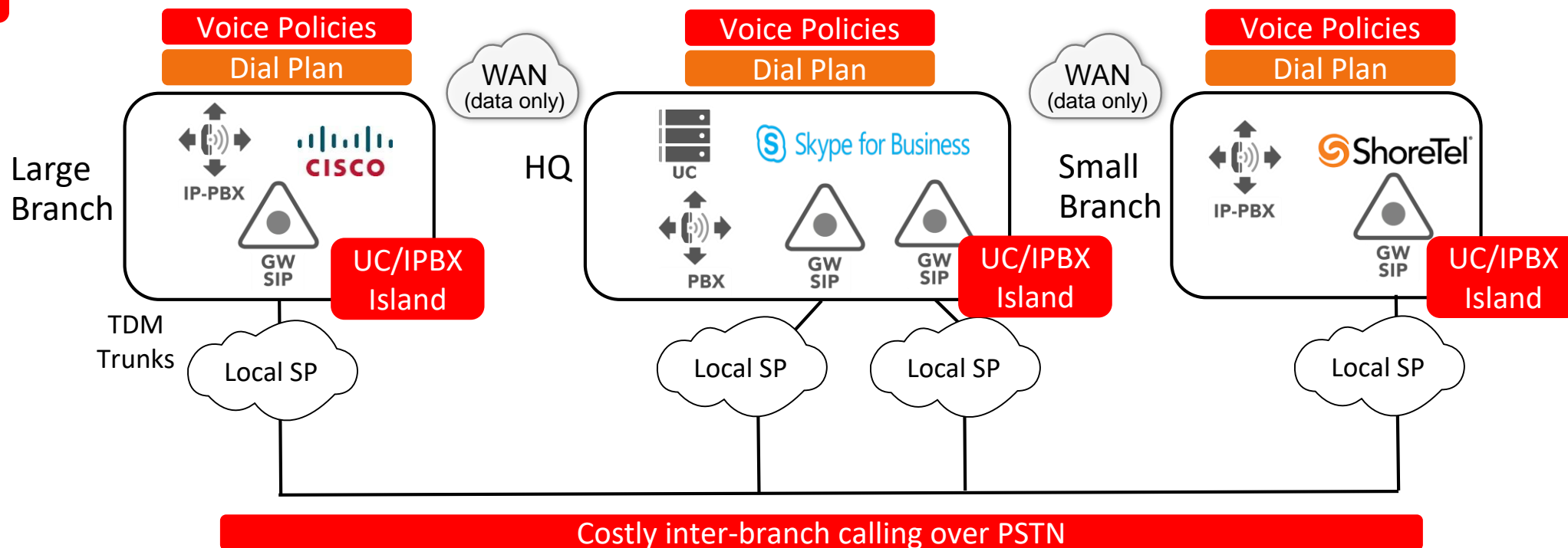
- Operational inefficiency in managing multiple communications silos

- Costly inter-branch and international calling through local PSTN provider/contract, and lack of visibility to voice routes and costs

- No UC/IPBX capabilities across disparate locations/systems

Case Study: F500 Energy Company

After: Phase 1

Voice Policies
Dial Plan

Inter-branch traffic

HQ

Skype for Business

ARM   SEM   EMS

IP-PBX   UC   SBC

WAN

Inter-branch traffic

Large Branch

CISCO
IP-PBX   SBC

Small Branch

ShoreTel
IP-PBX   SBC

National SIP trunk service

Intl SIP trunk service

Existing PSTN contract remain during migration

Local SP

- Centralized management of voice services

- Branch traffic collected to HQ to leverage contract with national and international SIP trunk services

- Gradual migration of systems, users and voice contracts

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Q&A

Next Steps

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