



Network Transformation Top 5 Best Practices

Lessons Learned in planning migrations from TDM to IP



ZT Technology Solutions



ZT was created in 2010 to provide government, telecommunications and enterprise customers with technology solutions to address their product and service life cycle needs, especially for legacy products.

Our value proposition is to continue to support legacy products by providing advanced technical services; repair/replace options for defective and obsolete equipment and to provide a consolidation and migration strategy to newer and more advanced technologies.

Our expertise is primarily in legacy Data Networking, Switching, Transmission and Voice Messaging Platforms. We are currently headquartered in Hazlet, New Jersey and have employees in support centers located throughout the United States.

Our focus has changed since our customers have told us the "Death of the PSTN" is finally here. Our goal is to assist our customers in their migration to an all IP world. We have the experience a manage the migration and have recently partnered with TelcoBridges to accelerate the transition NOW!





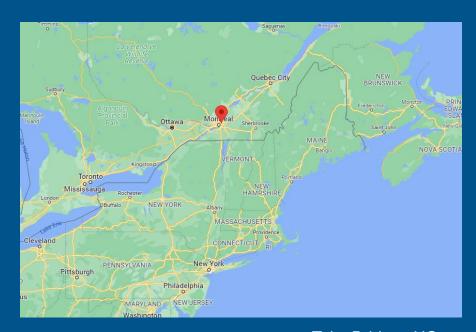
Alliance Partner



TelcoBridges



- Manufacturer of VoIP gateways and session border controller software for telecom carriers
- Privately held
- Founded in 2002
- Employees: ~40
- Headquarters: Boucherville, Canada
- Hardware & software R&D as well as production of its products in Montreal
- Sales/Marketing/Support: Boucherville, Buffalo, Hong Kong, Italy, Turkey, Vietnam
- 24/7 technical support



TelcoBridges HQ 138 de la Barre Boucherville, QC Canada





Where are you along your TDM to IP network transformation journey?









TDM TO IP NETWORK TRANSFORMATION

A Transformation Strategy for Service Providers



The Forgotten CO



- ~25,000 Central Offices across the US
- 5,000 Offices are under 5,000 lines
- Built in the 70's 90's
- Providing connectivity to homes and small businesses
- Urban, suburban and rural locations



CO in Gravenhurst, Ont. thecentraloffice.com



The Forgotten CO



- Aging switching equipment
- Reaching End-of-Life
- Difficult to get support, and spare parts
- Expertise is hard to find
- Power-hungry, requiring cooling, battery maintenance
- Lacking mandated features
- Ideal target for fraud / spoofing
- How to retain remaining customers?

What's the Future for the Central Office?





Maximizing Customer Retention



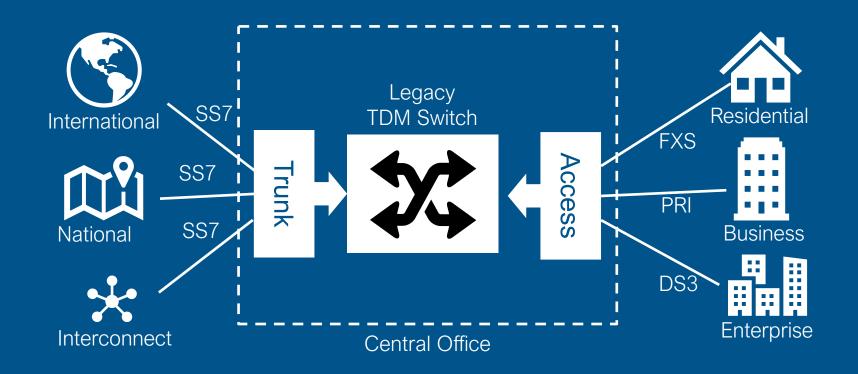
- 1. The more you make the customer do, the greater the chances they will start shopping around
- 2. Truck rolls are expensive and disruptive
- 3. Consumer self-installs are fraught with potential problems (ATAs, digital phones, etc)

"If you must make a change, make it virtually invisible to the customer" (TelcoBridges customer – 2020)



Network Transformation - Before

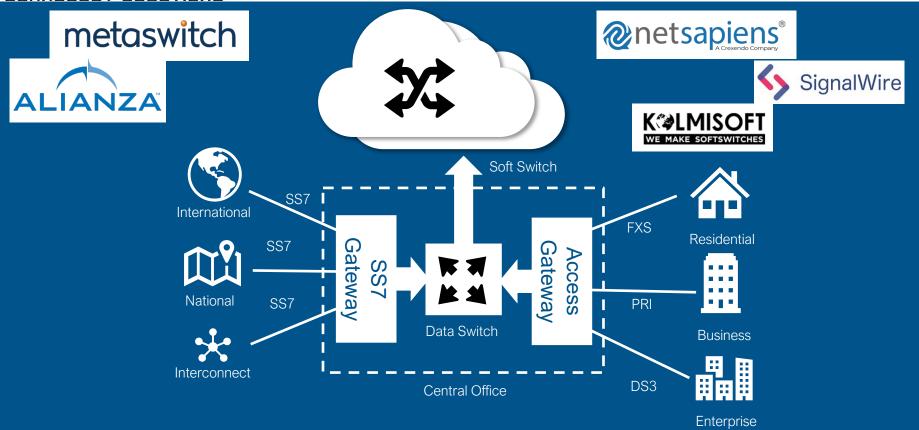






Network Transformation - After

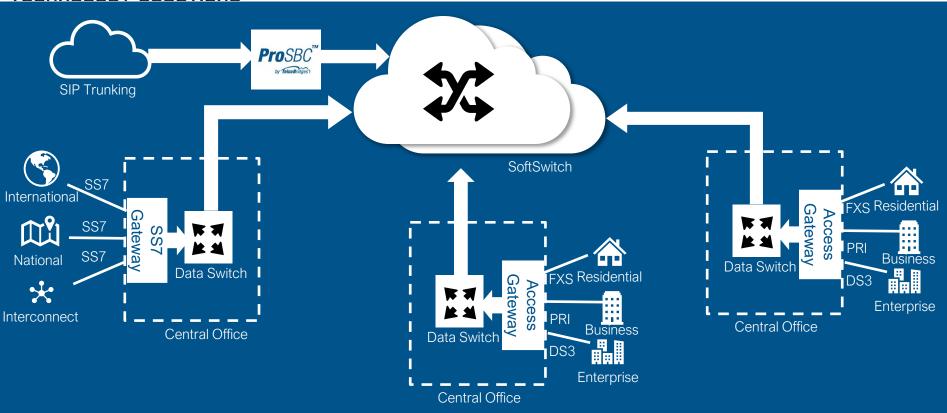






Network Transformation – Macro View







Network Transformation Drivers



- Remove aging TDM equipment
- Replace with softswitch and media gateways
- CO or Cloud-based switching and Class 5 features
- Minimize customer disruption
- Enable SIP peering and trunking
- Offer new high-value end-customer features
- Reduce power consumption, A/C and battery needs
- Usage-based financial model for software







TDM TO IP NETWORK TRANSFORMATION

Top 5 Best Practices







Develop a Long-Term Plan

- Decide what SUCCESS looks like
- Identify all the nuances of your current infrastructure.mentation.
- Perform a detailed evaluation of available IP solutions.
- Identify a trusted partner with TDM experience to perform the migration outside of daily operations.
- Develop a Communication Plan
- Develop/Execute a detailed migration plan.
- Develop/Execute an extensive post migration test plan.







Start at the Bottom

- Next Generation equipment allows you to be flexible in your approach to migration and network consolidation.
 Equally valid arguments can be made for each of the three general methods of migration:
 - Cap and Grow
 - 2) Full Migration
 - 3) Network consolidation







Avoid subscriber interruption/disruption Key Components:

- Current Deployment Statistics and Architecture
- Proposed Deployment Architecture
- Align/Train resources Internal/External
- Identify key risks and dependencies
- Capital and Operational Expenses
- Develop a proposed timeline







Focus on the value-added services

- Value-Added Services (VAS) are performed to meet customer demands
- Understand what services are available today.
- Understand what services the customer wants.
- Migration supports new service revenue opportunities:







Chose vendors for the long road ahead Long Term Strategy => SUCCESS

<u>Tips and Tricks</u>: Things to discuss with your partners

- Interconnection negotiations and arrangements
- Standard intervals for negotiations can be lengthy, especially if a new site is being established
- New trunk builds
- SS7 / C7 design point code proxy, point code sharing.
- CO build additional space, power, HVAC
- Secure or build backhaul / transport
 - Fiber build & leased transport lead-times can be considerable
- What is the "EOL Policy"?



Final Thoughts



- Accelerate the migration off the legacy PSTN
- NOW is the time
- With TelcoBridges partnership, we will be able to offer complete migration solutions for our customers
- ZT Technology Solutions can provide the project management and detailed planning, technical support, and translations effort to an all-IP network using TelcoBridges Media Gateways



TelcoBridges Portfolio



Signaling and Media Gateways

TMG800

TMG3200



TMG7800



Virtualized
Session Border Controller
Software





Support and Professional Services



Confidential 20



Tmedia Product Line



TECHNOLOGY SOLUTIONS				
	Low Capacity	High Density	High Scalability	
Model	TMG800	TMG3200	TMG7800	
	Tanana Carte Carte	American Cook Cook		
Max. Sessions	3,000	3,000	36,800	
T1/E1	1-16	64	1,024	
DS3	-	3 :	48	
OC3/STM-1	-	1	16	
Ethernet Ports	6	5	48	

Confidential 2



Worldwide Success



- Carrier network solutions
- Focus on reliability and service
- Technology innovator







































Together, Enabling the TDM to IP Network Transformation

www2.telcobridges.com/TDM2IP

www.telcobridges.com

www.prosbc.com

sales@telcobridges.com

Youtube.com/telcobridges

www.zttechsol.com

http://zttechsol.com/contact-us

info@zttechsol.com