



# U.S. SIP Trunk Service Update 3Q 2009

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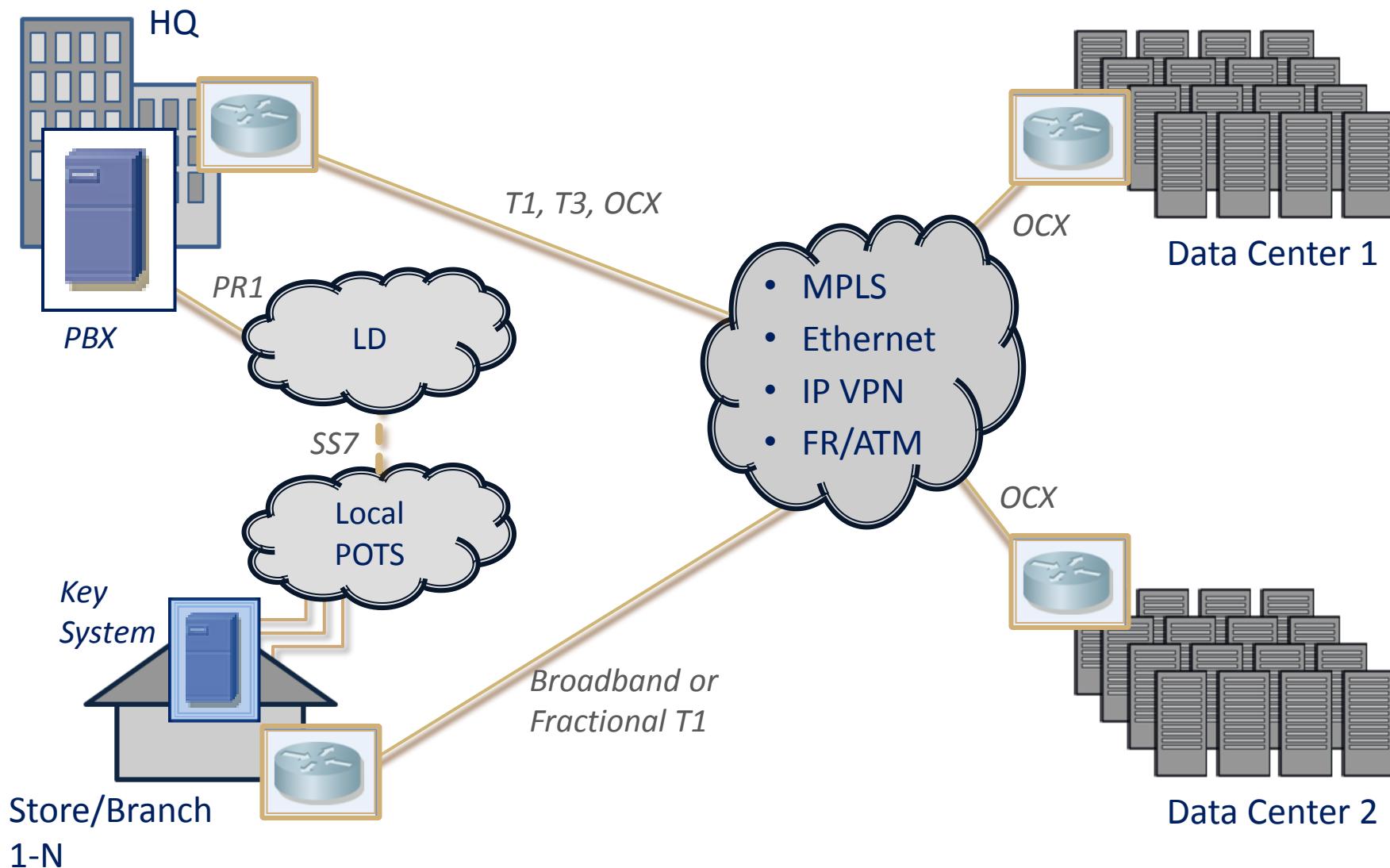
# Agenda

- Benefits of SIP Trunk Services
- Current state of US SIP Trunk services
- Current state of US SIP Trunk service SLAs
- Future evolution of SIP Trunk services and SLAs

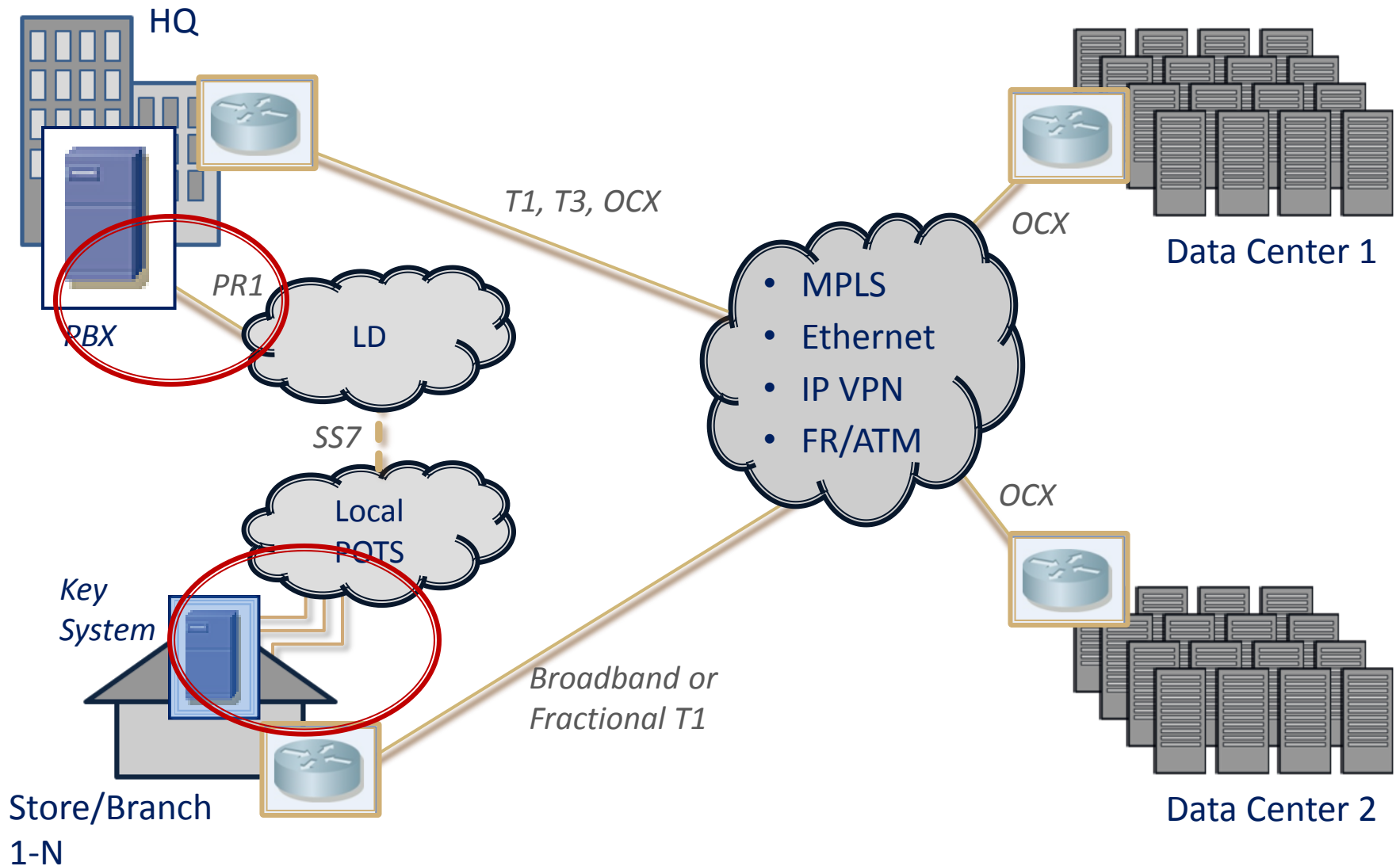
# Why Move to Carrier-Based SIP Trunk Services?

- **Extend UC features beyond the IP PBX**
  - Interconnect IP PBX 'islands'
  - Extend UC to mobile users, teleworkers, suppliers, customers...
  - Move more calls to an on-net, pure IP environment
- **Improve access line flexibility and utilization to support growing array of real time applications**
- **Migrate off of TDM-based trunks**
  - Analog lines and ISDN BRIs
  - ISDN PRIs and In Band T1 and T3s
- **Migrating to SIP Trunks can help fund a company's UC migration business case**
  - Local access savings
  - Savings on international calls
  - Possible savings on domestic calls
  - Possible reductions in MAC expenses

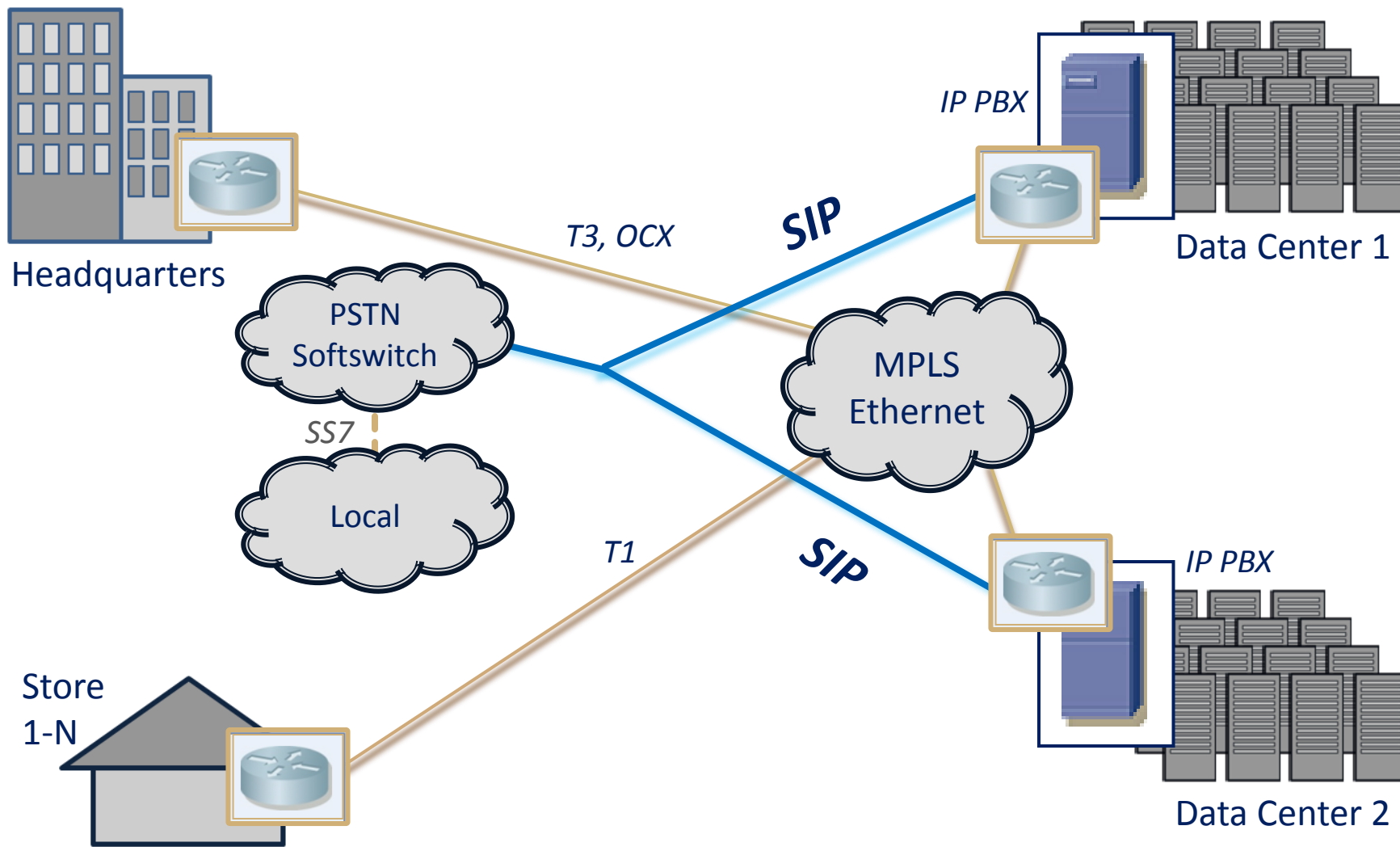
# Simplified Enterprise Architecture Before SIP Trunk Service



# Many SIP Trunk Architectures Appear to Only Replace Existing Carrier Trunks



# But To Save Money, Enterprise Architectures Must be 'Optimized' for SIP Trunks



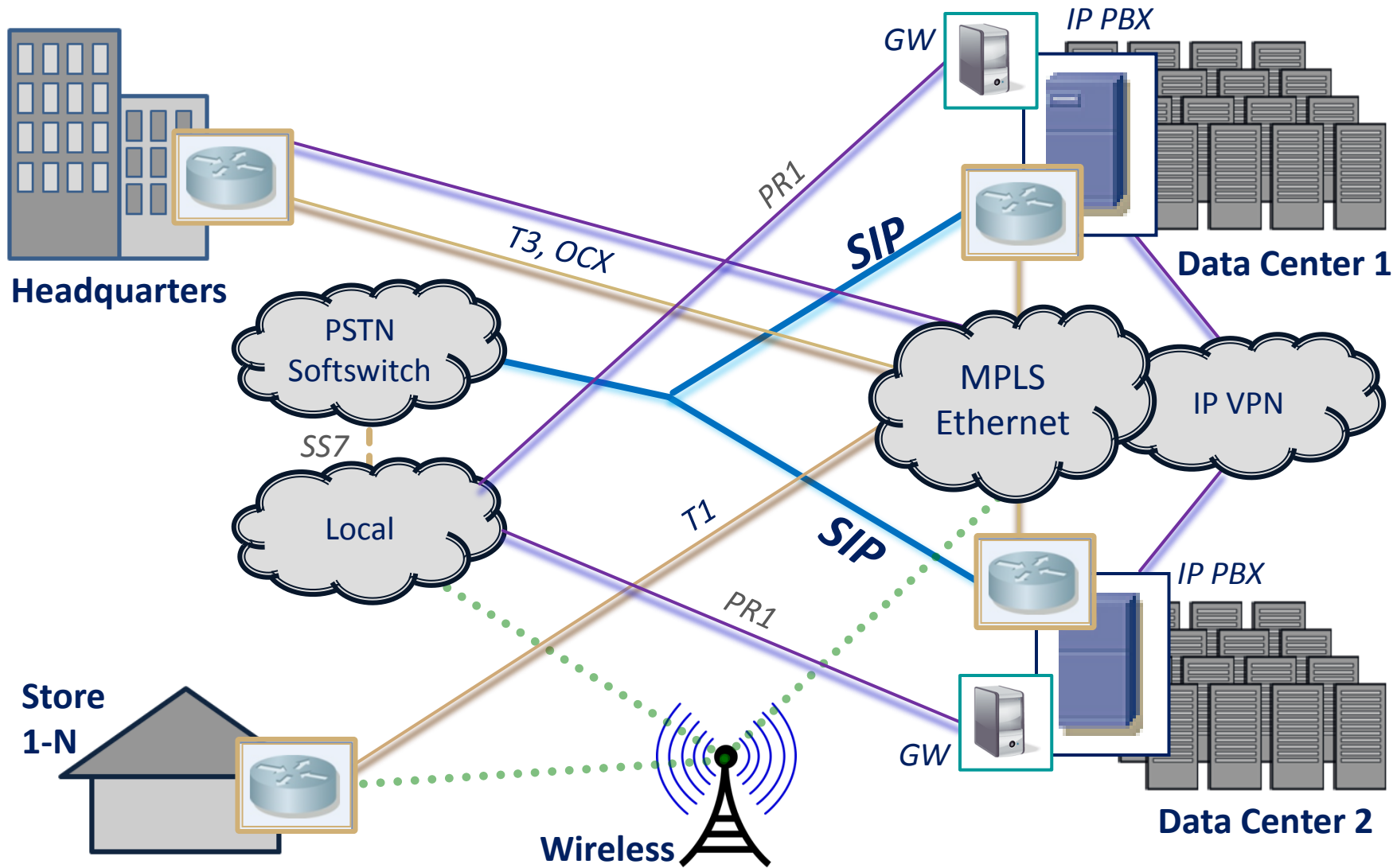
# Current State of US SIP Trunk Services Market

- **Now - very small number of trunk installations (well under 3% of DS-1s), but growth is rapid—300%+ /year**
- **Expanding pool of providers**
- **Standards exist, but aren't enough. For instance, most providers have their own CPE certification processes.**
- **Providers' offers diverge greatly**
  - **Definitions of on-net**
  - **Call features**
  - **Use of Broadband access**
  - **Backup/overflow features**
  - **Access to Operator Services, N11, Directory Assistance, CDRs**
  - **Quantity of VOIP infrastructure, quality of redundancy**
- **Day 1 and 2 processes and support**
  - **Design, ordering and provisioning- little automation/flow through**
  - **Monitoring, remediation – often Layer 1-3 focused**
  - **There's a reason the bill is a flat MRC**

# U.S. SIP Trunk Service SLAs

- **Given small installed base, many providers' installation, monitoring and management processes require extensive human involvement — which can't scale**
  - **25% offer installation SLAs (but with one exception, all intervals are ICB-typically 60-90 days)**
  - **13% offer MTTR SLA**
  - **All availability SLAs kick-in after 30 minutes (or more) of each (unscheduled) outage**
  - **Less than 40% support some voice-specific SLAs like MOS/R-Factor, Call Blocking, etc.**
- **Portals/automation – 25% allow some MAC functions via portal**
  - **13% can quote a standard change interval (5 days)**
  - **38% support SIP Trunk trouble reporting via portal**
- **Trouble resolution can depend on insight into history –**
  - **Range of retention of performance data is from 3 to 14 months**
  - **Type of info retained varies greatly-those with data-centric processes don't yet retain application-level performance data**

# 'Optimized' WAN Architecture with SIP Trunks Needs Backup



# Future of U.S. SIP Trunk Services and SLAs

- **Over next two years, many providers plan to:**
  - Expand list of features
  - Expand geographic footprint
  - Integrate tighter with UC vendors like Microsoft, Cisco, Avaya, IBM
  - Offer services that require SIP Trunks (like hosted/managed UC)
  - Likely that all providers will embrace standard configurations and do custom quotes for special requests
- **Many also plan to improve their SIP OSS processes in the next 2 years**
  - Chiefly to increase scale and decrease unit cost
  - Majority will continue to focus on T1 + access, not Broadband
  - No-one shared plans on advanced protocol analysis (SIP, SIMPLE...)
- **But--providers will be slow to improve their SLAs – most have no current plans to do so**
- **To ensure service quality, enterprises should:**
  - Evaluate and employ performance monitoring/management tools that look at the entire stack, including applications-level performance
  - Build in sufficient diversity and redundancy
  - Evaluate viability of a managed services approach

# Thank you

- **To *No Jitter***
- **To the participating providers – AT&T, Global Crossing, Level 3, Orange Business Services, Qwest, Sprint, Time Warner Telecom, Verizon, XO**
- **Other providers were invited to participate, but did not supply information in time for this webcast**
- **Strategic Networks Group focuses on improving the quality and functionality of emerging enterprise-class telecommunications and WAN services. These include VPLS, 3G and 4G services, SIP Trunks and UC/FMC.**
- **A report on SIP Trunk Service Evaluation Criteria will be published in Q4 2009. For information, please contact:**
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