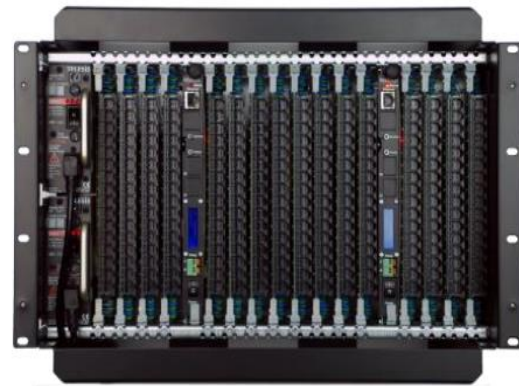


SIP TRUNK



- **SIP TRUNK -Session Initiation Protocol (SIP) Trunking** is a service offered by a BSNL that uses the protocol to provision voice over IP (VoIP) connectivity between an on-premises phone system and the Public Switched Telephone Network (PSTN).
- SIP is used for call establishment and management.
- SIP Trunking is typically sold as a replacement for Digital Primary Rate Interfaces (PRIs), which are based on Time-Division Multiplexing (TDM). SIP Trunking is widely deployed by communications service providers across the globe, many of which are using it to replace their TDM-based services.
- By delivering SIP Trunks over existing Ethernet or Multi Protocol Label Switching (MPLS) network infrastructure, the providers reduce the cost and management complexity associated with legacy digital platforms, while also provisioning additional features.



SIP Trunk Vs ISDN PRI Comparison

	Primary Rate Interface (PRI)	Session Initiation Protocol (SIP)
Distribution	PRI is sold per circuit, each circuit consist of 30 channels	SIP is sold per channel, it can be offered in multiples of 10 channels
Scalability	To increase the number of channels, additional PRI Circuit must be offered. Delivery of PRI Circuit takes time.	To increase concurrent channels, additional bandwidth and channels can be upgraded at back end on the same link within few hours without delivering any physical circuit.
Hardware	PRI requires each circuit to be physically connected via cables and termination hardware	SIP requires no additional hardware
Call Quality	Good	Superior
Cost of Delivery	High	Low
Maintenance	Physical Maintenance is required, which increases cost of maintenance	Virtually, no physical maintenance is required, low cost of maintenance. Can be monitored and maintained from back end.
Data Service	For Data Service separate link is required	Data Service can be delivered on the same link delivered for Voice.

SIP TRUNK ADVANTAGES

- SIMPLE
 - SINGLE PHYSICAL LINK
 - OPEN STANDARD
- IP BASED
 - COST EFFECTIVE
 - NO EXPENSIVE HARDWARE REQUIRED
- FUTURE READY
 - EASILY ESCALABLE
 - UPTO 1000 CHANNELS ON SINGLE LINK

SIP Trunk service is analogous to erstwhile ISDN PRI. Prevailing development of end to end IP blended Enterprise Solutions have paved the way for success of SIP Trunk resulting in generation of huge market demand. Ease of deployment, capacity scaling, maintenance and integration with the customers' existing IT infrastructure with minimal CAPEX and OPEX is added boon.

Connectivity

- Customer is connected to an isolated SPOKE VPN at nearest MPLS PE.
- Within MPLS network, routing is configured towards NGN Core HUB VPN
- This HUB and SPOKE VPN provides customer to customer isolation and security
- In the case of SIP Trunk through internet, all customers shall be in common internet VPN. However, the communication is secured by establishing SSL based VPN using Softether or OpenVPN from customer device to NGN core.

