



Local PRIs, Digital PRIs & SIP Trunks: What Makes Them Different

A traditional T1/local PRI, a digital PRI and SIP trunking are three ways of connecting a business phone system to the PSTN (Public Switched Telephone Network). While all three serve the same purpose, and that is to make and receive calls, there are considerable differences between the three.

The biggest differentiating factor is that digital PRIs and SIP trunking use the Internet to make and receive calls, and combine voice and data traffic on a single network. Calls are routed through the Internet rather than the PSTN, eliminating the need for costly dedicated voice T-1/PRI circuits and the expensive telecom services that go along with them.

	Traditional T1/Local PRI	TouchTone Digital PRI	SIP Trunking
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Description	Dedicated line for voice transmission only.	Voice and data transmission - integrates local, long distance and Internet over a single dedicated private IP network. Ability to share call capacity across the entire enterprise, including multiple locations.	Voice transmission, data optional. SIP combines voice and data on a single IP network (private or public). Ability to share call capacity across multiple locations. IPSec tunnels available.
Service Type	DID, Long Distance, Local, Toll Free	DID, Long Distance, Local, Toll Free, ITFS	DID, Long Distance, Local, Toll Free, ITFS
Capacities	The number of simultaneous calls that can be made is limited to the number of channels that you have. T1 = 24 channels; PRI = 23 channels. Each channel represents 1 call.	Add/remove lines as needed quickly and easily by calling your provider and purchasing additional trunks, or in some cases just increasing your data connection. Up to 40 channels/T1.	Add/remove lines as needed quickly and easily by calling your provider and purchasing additional SIP trunks, or in some cases just increasing your data connection. No minimums or maximums on trunks.
Cost	Per circuit per month (pricing based on location), plus the cost of hardware and installation. Unlimited local calling and 23/24 channels (per circuit) for inbound, outbound or bi-directional calling.	Per circuit per month (pricing based on location). Managed router/IAD included.* Choice of metered/pay per minute or unlimited domestic local/long distance calling plans.**	Per trunk/channel per month. Choice of metered/pay per minute or unlimited local/domestic long distance calling plans.*

*included with 2 and 3 year agreements

**availability based on location

alarm/emergency/short duration customers are not eligible for unlimited plans

Signaling	T-1: ISDN PRI/CAS	Analog/T-1: ISDN PRI/CAS	SIP
Connection & Integration	Physical connection - each circuit requires a physical connection to the PSTN over a dedicated line (and at each individual location).	Physical connection - IAD/router connects to your existing PBX/phone system over a virtual private and secure IP network.	Virtual connection - SIP connects to your existing PBX/phone system and requires a reliable public Internet connection (bring your own or bundle voice and data).
Features	Contingent on the customer's phone system.	Standard features plus advanced features may be available such as Voicemail, Caller ID, Call Forwarding, Call Waiting, 3-Way Calling, Call Hold, Hunt Groups, Star Codes, and Auto Attendant.	Contingent on the customer's phone system.
Scalability	Per circuit. Scaling requires the installation of a new circuit (23/24 voice channels) and hardware. Cannot add or remove single channels.	Per customer requirements. Purchase only the lines you need rather than a full 23-channel PRI. Dedicated high speed Internet access is available in multiple speeds from 1.5Mbps and up.	Per customer requirements. Purchase only the channels/trunks you need rather than a full 23-channel PRI.
Flexibility	Must plan ahead - circuit and hardware must be installed.	Quickly and easily add/remove phone lines, connect new/multiple locations, and increase calling capacity.	Quickly and easily add/remove phone lines, connect new/multiple locations, and increase calling capacity.
Redundancy & Disaster Recovery	Possible, but rerouting calls to another location comes with a hefty price tag.	For Internet, provides backup connection in case of outage. For voice service provides multi-carrier network diversity and geographic redundancy. Calls are automatically rerouted in the event of power or Internet outage.	For voice service provides multi-carrier network diversity and geographic redundancy. Calls are automatically rerouted in the event of power or Internet outage.
Quality	Guaranteed QoS - PRIs are not subject to the network interference, packet loss and jitter.	Dedicated T-1 provides high Quality of Service (QoS) and Class of Service (CoS) routing and prioritization.	Can figure Quality of Service (QoS) with voice prioritization. Things to consider: bandwidth, latency, packet loss, jitter and delay.
Private Data Transfer Between Locations	Not available	Available with SLAs	Available with private connectivity into TouchTone's network