

# Intra-Network Interconnect

Many large service providers are today challenged with providing a truly ubiquitous global service offering when the requirements demand interconnection of multiple geographic regions and multiple legacy network technologies. This situation often leads to fragmented solutions which are economically inefficient and operationally complex.

Ribbon offers an Intra-Network Solution that service providers can leverage to seamlessly interconnect disparate network “islands” with fragmented technologies and thereby strengthen their competitive positions.

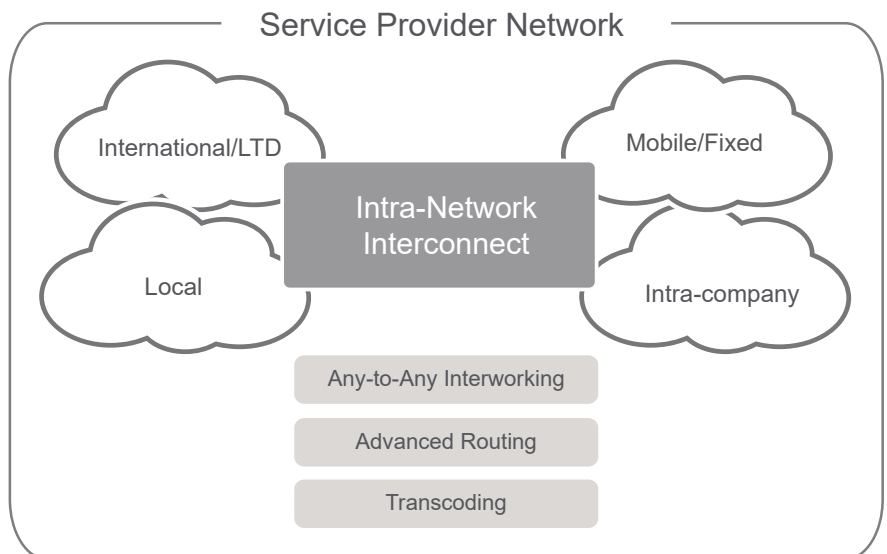
## Overview

Many service providers have TDM voice networks that include local exchanges or tandem switches, but they also have parallel IP networks for data and possibly voice traffic. Being aware of the high cost of maintaining disparate inefficient transport networks, they are looking for ways to begin converging networks together, with the objective of eventually transporting all of their core voice traffic over efficient IP networks.

The problem is more evident within the global service provider landscape, where interconnect services need to be extended into multiple geographies with unique regional network specifications. Additionally, these interconnects typically need to integrate with both mobile and fixed networks, and must include both IP-based and legacy TDM interworking technologies.

Traditionally, larger operators that have sought to tackle a global interconnect challenge have often chosen to grow opportunistically. This, in most cases, has led to deployments that are broken into disparate network “islands” with fragmented vendor technologies that are individually managed and operated. The end result is often inevitable technical and operational challenges with equipment interoperation, feature consistency, and end-to-end service management – ultimately leading to unfavorable opex and capex fundamentals. In many cases, this prevents a comprehensive global interconnect solution, and ultimately limits the overall appeal of the interconnect service.

The Ribbon Intra-Network Interconnect Solution enables service providers to bring together and harmonize both regional and global communication networks in a way that is both cost effective and easily managed. Ribbon maintains a comprehensive portfolio of switching platforms that can be leveraged to address all intranetwork interconnect requirements. Ribbon IP-to-TDM and IP-to-IP Gateway and call session central technologies offer a complete set of required technology components at a range of differing scale points under a common management umbrella.



## Solution Features

Ribbon's Intra-Network Interconnect Solution incorporates both TDM-to-IP and IP-to-IP interworking capabilities, and consists of Ribbon's C20 or C3 Call Session Controllers, G-Series media gateways, and Ribbon SBCs.

This solution offers advanced interworking features and media gateway control, and enables the complete migration of TDM core trunking networks, including both the physical trunks and the tandem switches. With the Ribbon Intra-Network Interconnect Solution, operators can converge TDM voice trunks with their core IP network, interwork diverse national and regional TDM and IP signaling and media formats on an any-to-any basis, lower operating costs, flatten their networks, and enable new routing and subscriber services with a clear path to IMS.

Ribbon's Intra-Network Interconnect Solution is deployed worldwide in diverse Next Generation and IMS applications including replacement of TDM tandem switches with IP Tandems, International VoIP Gateways, Media Transcoding, Wireless BICC to SIP Signaling Interworking, and Long Distance Bypass.

## Benefits

Ribbon provides operators with the ability to address all network interconnect requirements, both today and in the future, by leveraging a comprehensive portfolio of products and services..

Ribbon's Intra-Network Interconnect Solution enables operators to:

- Efficiently connect disparate network islands
- Leverage network components that can be continually repurposed to maintain key functional roles
- Migrate TDM trunking facilities and switching networks to more cost effective IP transport
- Decrease operating risk with carrier class platforms supporting millions of call attempts and geographic redundancy
- Interwork mobile network signaling (BICC) with wireline formats
- Interwork regional and national legacy SS7 signaling formats with SIP signaling variants
- Efficiently manage advanced routing, translations and billing
- Pass-through support of advanced IP services such as presence and location
- Transcode wireline and wireless media codec formats on an any to-any basis
- Integrate centralized routing databases for national and international routing
- Cost-effectively scale to accommodate on-going traffic growth

## Why Ribbon?

Ribbon's offers a comprehensive portfolio of products and solutions to support all network interconnect requirements.

- Ribbon offers a complete set of technology components at a range of scaling points and under a common management umbrella. A single-vendor approach allows network operators and their customers to enjoy simplified support and maintenance, feature and service transparency, and integrated operational and installation documentation.
- Ribbon backs the Interconnect solution portfolio with proven support for security, mediation, SLA management, and regulatory compliance capabilities. Ribbon offers a range of design and deployment services, as well as hosted VoIP, fixed mobile convergence, and unified communications solutions.

[Contact Us](#) Contact us to learn more about Ribbon solutions.