

## Packet Tandem Switching Solution for Mobile Service Providers

### IP-Enable Your MSCs for Cost-Effective Network Evolution

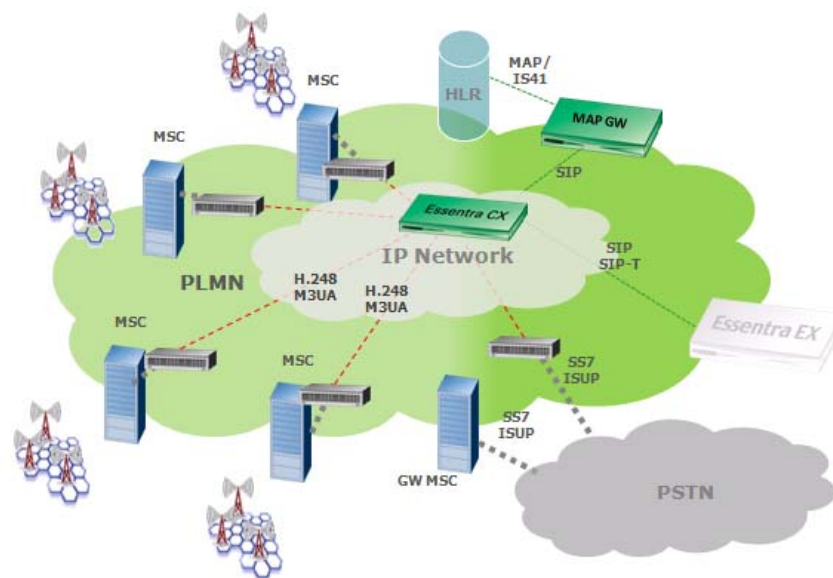
#### Overview

The migration and evolution of legacy networks to packet-based infrastructures has long been apparent amongst wire-line service providers; many have already implemented core packet networks as the basis of their national telephony infrastructure.

Mobile operators, today more than ever, are looking to implement cost savings, together with capacity and operational efficiencies. Coupled with the need to provide innovative services and enhanced features, mobile operators are faced with the need to evolve their core networks.

Mobile Core evolution consists of IP-enabling the network by deploying VoIP media gateways adjacent to the existing MSCs controlled by a packet-based switching system. This contributes to reducing capital and operational costs when sending voice traffic over long distance trunks and/or between Inter Machine Trunks. Successfully deployed with wireline operators, this migration has proven to be both highly reliable, quick to deploy and extremely cost-effective.

As such, VocalTec's Class 4 Mobile Core VoIP Network solution is ideal for IP-enabling legacy MSC networks, as well as building Greenfield mobile networks. Based on a highly efficient and field-proven packet tandem switching infrastructure, the solution is ideal for deployment in both centralized and distributed networks.



#### The Solution

This application combines traditional Class 4 switch functionality with the reduced operational costs of VoIP networks. It features carrier-grade platforms allowing for TDM quality voice services with full SS7 tunneling capabilities.

At the heart of the solution is VocalTec's standards-based Media Gateway Controller performing signaling and call-control. Supporting industry-standard control protocols, including MEGACO, MGCP, SIGTRAN and SIP, the solution enables the conversion of TDM traffic to VoIP replacing existing IMTs with packet-based handling of signaling and media.

In conjunction with Media Gateway and Signaling Gateway capabilities in varying densities and capacities, the solution is highly suited for deployment in sites of different sizes, enabling a more efficient network topology.

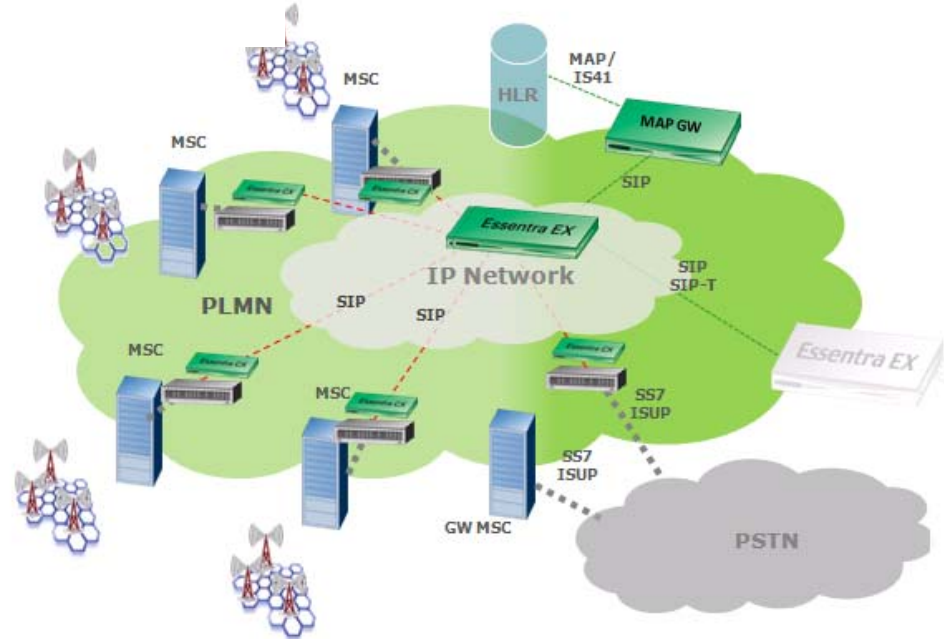
An intuitive web-based network management application allows full and efficient operation, maintenance, administration and provisioning of the entire network from a single centralized location.

In summary, the solution enables the efficient upgrade of legacy core networks to packet-based infrastructures. Combined with intelligent and flexible routing capabilities, carriers can reduce capital and operational costs as well as optimize routing and network efficiencies.

#### Solution Benefits

- ✓ Full TDM/TDM, IP/TDM, and IP/IP interworking
- ✓ Flexible routing for optimize routing plan management
- ✓ Scalable, open architecture
- ✓ Centralized management of all network elements
- ✓ Distributed and/or centralized deployment options
- ✓ Immediate revenues from affiliate carriers
- ✓ Standards-based interoperability with packet-based (H.323, SIP) and SS7 networks
- ✓ Designed for simple deployment enabling quick time-to-market
- ✓ Flexible business models conducive to fast ROI

Distributed Mobile Core Solution



Solution Components

Combinations of Essentra products enable the evolution of existing core mobile network to IP. These components offer centralized and/or distributed call control, signaling and intelligent routing between existing MSCs for optimized network utilization.

**Essentra™ CX:** a flexible multi-protocol solution bridging between legacy SS7 and VoIP-based next-generation networks. It controls media gateways and signaling gateways using standards-based protocols, thus providing seamless connectivity with legacy services. Essentra CX is a scalable, carrier-grade, SIP-based Media Gateway Controller.

**Essentra MAP Gateway:** a SIP-based application server controlled by the Essentra CX providing MAP/IS-41 interworking with industry leading Home Location Registers (HLRs).

**Essentra™ OSS:** a centralized, web-based management system enabling remote element management, service configuration, monitoring and provisioning of all Essentra elements. It supports bulk provisioning of network elements, network-wide service configuration, rapid implementation of complex routing plans and role-based security.

**Media and Signaling Gateways:** Best-of-breed Media gateways and Signaling Gateways provide varying density solutions suited for centralized and/or distributed deployments.

About VocalTec

VocalTec Communications (Nasdaq: VOCL) is a global provider of carrier-class multimedia and voice-over-IP solutions for communication service providers. A pioneer in VoIP technology since 1994, VocalTec provides proven trunking, peering and residential/enterprise VoIP application solutions that enable flexible deployment of next-generation networks (NGNs). Partnering with prominent system integrators and equipment manufacturers, VocalTec serves an installed base of dozens of leading carriers including Deutsche Telekom, Telecom Italia San Marino and Mobifon. VocalTec is led by a management team comprised of respected industry veterans.

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