

# Tellabs® 8600 Managed Edge System

## Product Overview

### Overview

The Tellabs® 8600 Managed Edge System, paired with the Tellabs® 8000 Intelligent Network Manager, is a scalable and versatile solution for evolving access and aggregation networks. It is designed to meet the ever-growing capacity requirements as well as the technology dynamics of mobile and business service networks. The Tellabs 8600 system is a single Ethernet backhaul platform designed to support various networking technologies including Ethernet, Internet Protocol (IP) and Multiprotocol Label Switching (MPLS), TDM (Time Division Multiplexing), Frame Relay (FR) and Asynchronous Transfer Mode (ATM), which are all simultaneously needed to evolve the network from 2G and 3G to HSPA and LTE.

The Tellabs 8600 system makes it possible for service providers to benefit from current network investments and at the same time migrate from circuit to packet at their own pace, with low investment and low risk. The Tellabs 8600 system is designed to lower operating expenses. Its energy efficient design reduces the operating costs and meets the environment sustainability goals of many of our customers. When coupled with the powerful Tellabs® 8000 Intelligent Network Manager, which provides end-to-end network and service management, service providers will maximize their operational efficiency and lower the operating expenses. The system scales from a single small managed network element up to tens of thousands of network elements.

### Challenges of Today's Mobile and Fixed-Mobile Converged Networks

- In wireless networks, the Radio Access Network (RAN) evolution is accelerating the migration of mobile services to an all-IP network; mobile service providers are therefore looking for a way to migrate their current RAN towards Long Term Evolution (LTE) and to find the most economical way to arrange the transport
- In wireline networks, business and residential services are predominately IP and Ethernet-based; with increasing bandwidth requirements and new service delivery models, legacy infrastructures are becoming inefficient and expensive to maintain
- Fixed and wireless convergence happens both in the services and in the underlying networks. The distinction between these previously separate applications is now becoming blurred and operators are looking for a platform that can consolidate both service types into single network infrastructure

### Applications

The Tellabs 8600 system is optimized for access transport with the ability to support current and future requirements in wireless,

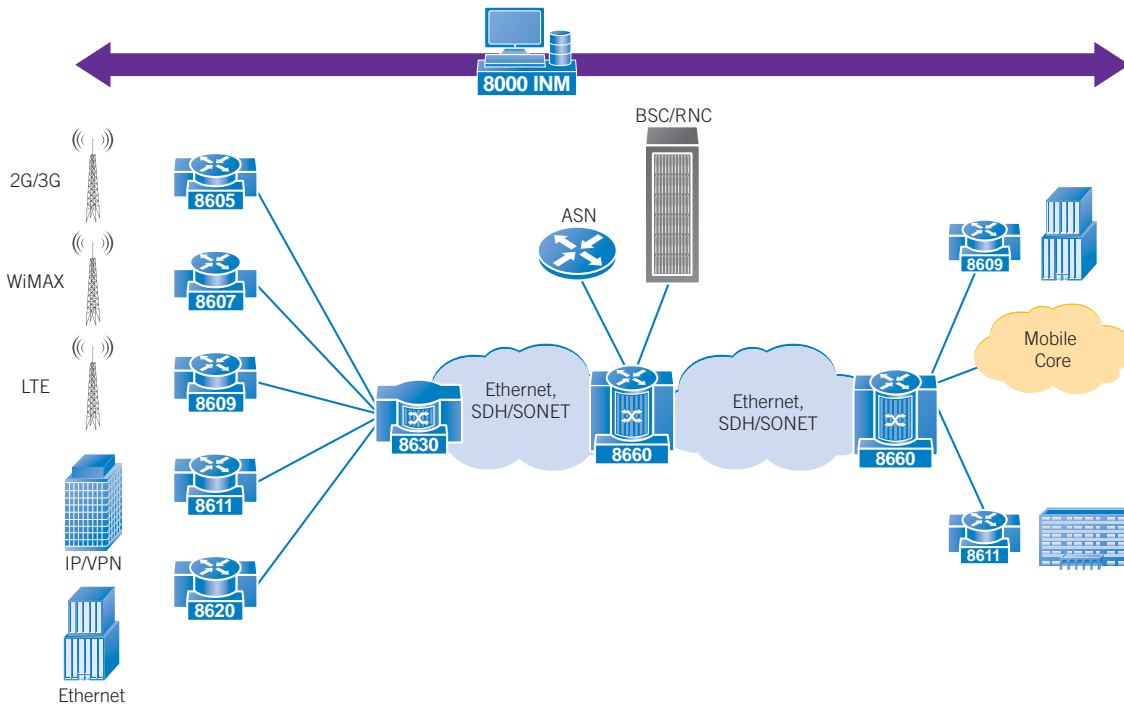


wireline and converged networks. The main applications of the system are:

- Mobile backhaul: an advanced and long-term mobile backhaul solution to simultaneously support LTE, 3G HSPA (High Speed packet Access), 3G WCDMA (Wideband Code Division Multiple Access) and 2G related technologies
- WiMAX backhaul: a cost-efficient backhaul network solution optimized for WiMAX, with QoS support and efficient end-to-end management
- Converged access network: a single transport network supporting the various service needs on mobile and fixed networks, including Ethernet and pseudowire based multiservice applications
- Business services: a flexible and scalable transport solution from Customer Premises Equipment (CPE) to Provider Edge (PE) routers supporting both critical business services and best effort data requirements

### Benefits

- Single, long term platform to fulfill operators' needs in evolving mobile RANs and converged networks. It supports all technologies and media required in LTE, 3G and 2G network convergence — full support for IP/Ethernet, TDM, ATM and FR.
- Minimizes operating costs: Management tools minimize operational and maintenance costs with a GUI based toolset covering the entire service lifecycle. A high automation level makes network modifications fast, easy and accurate.
- Minimizes capital costs: One, flexible access platform to manage the delivery of a mixture of services and network requirements like synchronization, SLA verification and security. Accurate and timely



documentation of network data also minimizes capital expenses when undertaking network planning and optimization programs.

- Cost-efficient growth: A unique system architecture which offers a highly efficient and scalable approach to access network deployment.

### Tellabs® 8660 Edge Switch

The Tellabs® 8660 Edge Switch is an IP/MPLS-based switch designed to fulfill the most demanding requirements of service providers. Thanks to its distributed switching and modular architecture, it has a low initial cost of deployment and excellent scalability. The Tellabs

8660 switch can cover all locations within the mobile network between the core network and local exchange sites. It has all the features needed for smart migration towards LTE and full support for both 3G and 2G and provides a smart migration path towards Fixed/Mobile Convergence (FMC). The Tellabs 8660 switch supports various interfaces from 10G Ethernet to channelized TDM and POS and offers the full redundancy needed in service providers networks.

### Tellabs® 8630 Access Switch

The Tellabs® 8630 Access Switch is similar to the Tellabs 8660 switch but with a more compact form factor. Following the same cost-efficient architecture and full redundancy options as the Tellabs 8660 switch, the Tellabs 8630 switch has been specifically designed to offer the functionality needed in mobile networks and its optimized



size makes it ideal for use in operator sites with limited space. The Tellabs 8630 switch supports various interfaces from 10G Ethernet to channelized TDM and POS and covers the diverse technology requirements of the mobile evolution.

### Tellabs® 8620 Access Switch

The Tellabs® 8620 Access Switch is a compact IP/MPLS-based switch that delivers a variety of high-bandwidth connections and services with managed quality to small access sites or customer premises. Alternatively, the Tellabs 8620 switch can be used as a traffic aggregator when located in a small hub. The Tellabs 8620 switch has a redundant power supply and is environmentally hardened to support installations in cabinets without climate control.



### Tellabs® 8611 Access Switch

The Tellabs® 8611 Access Switch is a compact 2RU device, which is a perfect fit for small hub and aggregation sites in the Ethernet backhaul network with superior IP/Ethernet and multiservice functionality. Despite its small size it provides full redundancy, modular design and great scalability with 10GE interface readiness. As an environmentally hardened network element it may be deployed in various locations.



### Tellabs® 8609 Access Switch

The Tellabs® 8609 Access Switch is a 1RU high cell site optimized network element, which scales up to 10GE throughput capacity as well as a growing amount of Ethernet interfaces dictated by IP RAN and LTE networks. Like other Tellabs cell site elements, it supports a broad temperature range satisfying service provider's installation requirements.



### Tellabs® 8607 Access Switch

The Tellabs® 8607 Access Switch is a 1RU high compact cell site optimized IP/MPLS-based switch that can integrate a variety of interface and transport options from E1/T1 to DSL and Ethernet interfaces. The Tellabs 8607 switch supports pluggable interface modules and a variety of power supplies (AC/DC) which can be set up based on operator needs. The Tellabs 8607 switch has been used at base station sites and small hub sites, and can also be installed in customer premises. The Tellabs 8607 switch has a protected DC power option and is also environmentally hardened.



### Tellabs® 8605 Access Switch

The Tellabs® 8605 Access Switch is a 1RU high compact cell site optimized IP/MPLS-based switch that delivers a variety of connectivity options from E1/T1s to FEs and GEs. The Tellabs 8605 switch supports services with guaranteed quality to the base station, small hub sites and customer premises. The Tellabs 8605 switch is environmentally hardened to support installations in cabinets without climate control. The Tellabs 8605 switch has a protected DC power input.



## Tellabs® 8000 Intelligent Network Manager

The Tellabs® 8000 Intelligent Network Manager provides end-to-end management for mobile backhaul applications and enables full GUI based management for the network and related services and connections.

The Tellabs 8000 INM is a unified management tool, which manages 10 Tellabs product families:

- Tellabs® 3700 Multimedia Controller
- Tellabs® 5500 Digital Cross-Connect System
- Tellabs® 5320L Digital Cross-Connect System
- Tellabs® 6300 Managed Transport System
- Tellabs® 7100 Optical Transport System
- Tellabs® 7300 Metro Ethernet Switching Series
- Tellabs® 8100 Managed Access System
- Tellabs® 8600 Managed Edge System
- Tellabs® 8800 Multiservice Router Series
- Tellabs® SmartCore® 9100 Series

With these systems, service providers can offer managed TDM services in SDH, optical and PDH networks as well as IP VPN, Ethernet, ATM, FR and TDM connectivity services in MPLS networks with flexible capacities. The Tellabs 8000 INM is developed for the service provider environment with great scalability and easy usability requirements in mind.



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