



Benefits of Tellabs 1000 MSAP leveraged for 911 PSAP Diversity

- Approved, installed & operationalized with most USA 911 service providers
- Supports copper circuits such as POTS, T1, PRI, 56K DDS and DS0
- Provides both fiber-based and copper-based transport options
- EMS offers proactive monitoring, troubleshooting and daily operations
- It is the only fiber-fed Digital Loop Carrier (DLC) in the industry today

National Upgrade of Emergency 911 Networks Rely on Tellabs 1000 MSAP

USA Service Providers put their trust in the Tellabs 1000 MSAP for emergency 911 connectivity to Public-Safety Answering Points for the highest degree of Redundancy, Diversity and Reliability.

The Federal Communications Commission (FCC) has imposed new network reliability requirements for Public-Safety Answering Point (PSAP) call centers responsible for answering calls to emergency telephone numbers for police, firefighting, and ambulance services. They have done this to improve the reliability and resiliency of 911 communications networks nationwide and to minimize preventable 911 network breakdowns. Service providers that provide 911, E911 and NG911 connectivity to these local and regional PSAPs are required to adhere to these new requirements. To meet these FCC requirements, service providers are adding telephony equipment redundancy and route diversity to both central and remote offices where voice switches, Digital Data Service (DDS) and databases [e.g. Automatic Location Information (ALI), Automatic Number Identification (ANI)] exist.

No doubt there is an altruistic local civic and nationalistic duty to meet these 911 reliability and availability benchmarks, but by no means are there new revenue streams to offset the additional costs for service providers. Therefore, service providers are being smart about how they build the proper redundancy and diversity in the most cost-effective means possible.

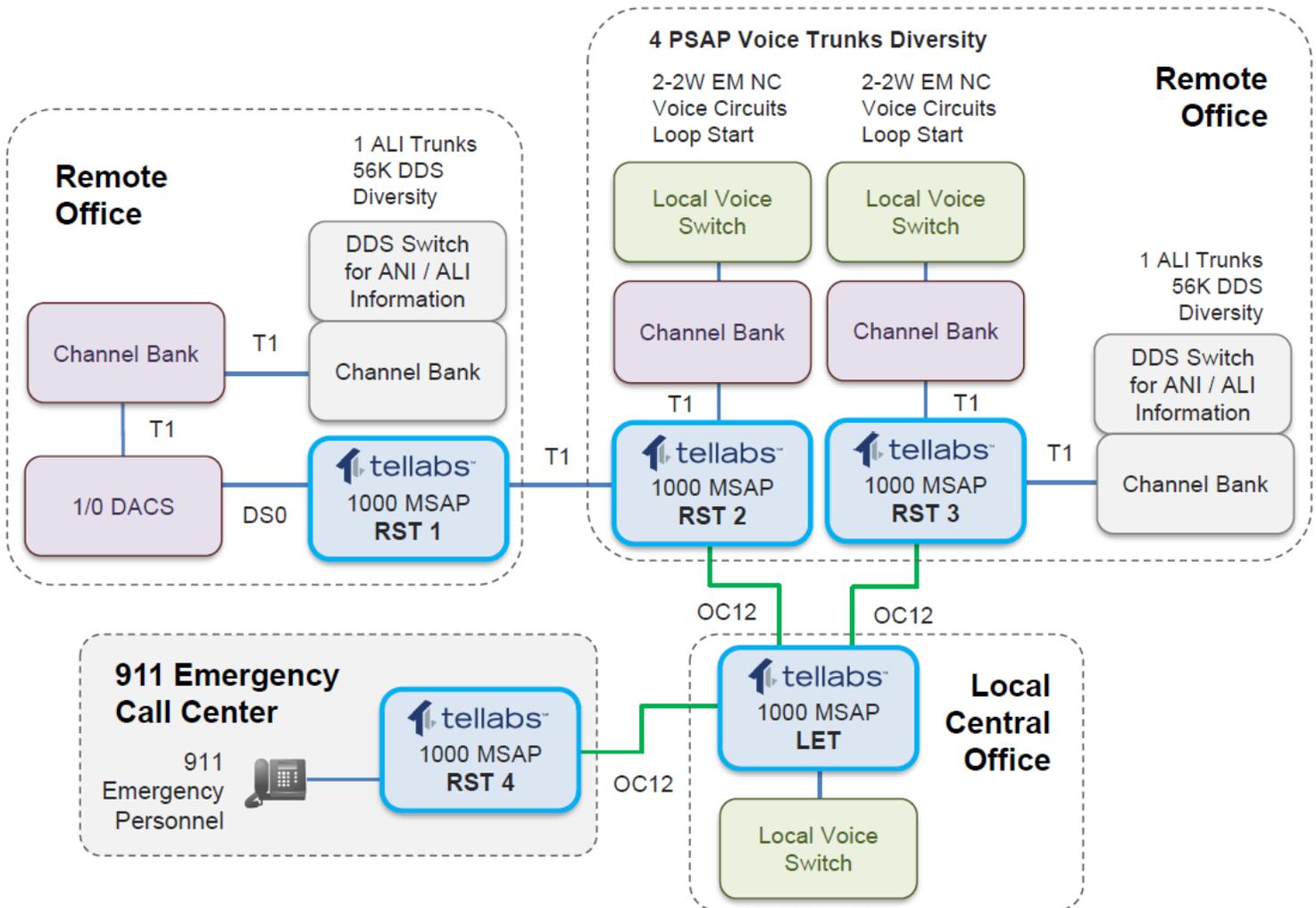


More and more Service providers are turning to the Tellabs® 1000 Multi-Service Access Platform (MSAP). The Tellabs 1000 is the only fiber-fed digital loop carrier available on the market today. With the long-standing access heritage, it is highly likely that the Tellabs 1000 MSAP is already approved, installed and operationalized with most North American 911 service providers. This makes for a smart, easy, and cost-effective access solution to satisfy the goals of the 911 PSAP redundancy and diversity architecture with the Tellabs 1000 MSAP delivering:

- **Historic high reliability and system redundancy**
- **Redundant and diverse copper circuits services**
- **Redundant and diverse copper or fiber transport**
- **Proactive network monitoring**

Historic High Reliability and System Redundancy

The Tellabs 1000 MSAP is a highly reliable access platform that has delivered lifeline POTS and 911 services for decades. This is possible with its fully redundant architecture that allows for duplicity of powering (e.g. LPSU cards) and common control (e.g. CPU3 card). System redundancy can be provided by building two Local Exchange Terminals (LET) at the main central office, and sharing network resources across both systems with two Element Management System interfaces (e.g. IPMI3). In system configurations where expansion channel bank assemblies are needed, they too can also be outfitted with redundant power (e.g. RPSU) and common control (e.g. EBC3, ELU3). The net result is a highly reliable MSAP system with network up-time availability at 99.999%, which has been confirmed through actual field performance data and validated by predictive calculations data as well.





About the Tellabs 1000 MSAP

The Tellabs® 1000 Multi-Service Access Platform (MSAP) is a modern and flexible access solution capable of economically serving from as few as one to as many as 2,000 subscribers. Designed with a modular building-block approach that incorporates state-of-the-art technologies, the Tellabs 1000 MSAP accommodates a variety of transmission media to provide both legacy and modern services in a wide range of access network topologies. The Tellabs 1000 supports fiber-based transport such as OC3c, or OC12c, 10/100/1000 Ethernet and 10G Ethernet options, while also supporting copper-based transport such as DS1, xDSL or DS3 too. Complementing the flexible transport options are a wide variety of services such as POTS, xDSL, Ethernet, Specials, Hi-Caps and DS3.

<https://www.tellabs.com/products/tellabs-1000-channel-bank-assembly-cba/>



Redundant and Diverse Copper Circuit Services

The Tellabs 1000 MSAP can provide an impressive number of legacy copper services including POTS, ISDN, DDS, T0 and T1 and the latest in xDSL technologies. Relative to the 911 PSAP redundancy and diversity application, the most common copper circuits needed are POTS, T1, PRI, 56K DDS and DS0 special services. These copper circuits are available today on the Tellabs 1000 MSAP with the full support of the Tellabs corporations from engineering, PLM, sales, distribution, logistics, warranty, TAC and professional services. For connectivity to the DDS switches accessing the redundant Automatic Location Information (ALI) and Automatic Number Identification (ANI) databases, the Tellabs 1000 MSAP can provide 56K DDS circuits and T1 links to channel banks. Furthermore, the Tellabs 1000 has the flexibility to be equipped as a D4 channel bank or 1/0 Digital Access Cross-Connect (DAC). Finally, the Tellabs 1000 MSAP T1 cards can then provide the redundant and diverse access to the voice switches.

Redundant and Diverse Copper or Fiber Transport

The Tellabs 1000 MSAP can offer multiple options for transport between access equipment located at main central offices, remote offices and environmental hardened cabinets. The Tellabs 1000 MSAP supports fiber-based transport such as OC3c, or OC12c, or Gigabit Ethernet options, while also supporting copper-based transport such as DS1, HDSL, G.SHDSL or DS3 too. For the 911 PSAP redundancy and diversity application, it is important to have the flexibility to support both copper and fiber transport options – of course with system, card and port redundancy that creates the route diversity needed. These network connections will be necessary between the different locations where the emergency 911 call centers, police, firefighting, and ambulance services exist; and where the PSAP voice switches, DDS switches and call information reside.

Proactive Network Monitoring

The FCC is asking the service providers to take reasonable measures to provide reliable service. One way to assure the highest degree of network availability is through proactive network monitoring as provided by Tellabs™ Panorama™ Element Management System (EMS). Without an overarching EMS, you are working in a post-failure reactive mode of operations which most likely means “rolling a truck”. It is also likely that these 911 PSAP are in rural communities, where proactive remote monitoring is ideal. The Tellabs Panorama EMS is a powerful network management within reach of the network administrator and speeds operations across both copper and fiber-fed services. Tellabs Panorama EMS is a simple, single screen, point and click GUI, which enables more efficient human-to-machine interfaces and machine-to-machine automation of proactive monitoring, troubleshooting and daily operations. Tellabs Panorama EMS offers flow-through provisioning as well as centralized management from a controlled, remote location that assures consistent policies and procedures are achieved.

Trust the Tellabs 1000 MSAP for Redundancy, Diversity and Reliability

With the FCC imposing new network reliability requirements for PSAP call centers to improve the reliability and resiliency of our nationwide 911 networks, service providers are diligently working to meet these FCC initiatives. Clearly, the Tellabs 1000 MSAP is an ideal choice to help, with its historic high reliability and system redundancy, redundant and diverse copper circuits services, redundant and diverse copper or fiber transport and proactive network monitoring. Tellabs 1000 is the only fiber-fed digital loop carrier available to service providers to accomplish this task and it is already approved, installed and operationalized in their networks today. This makes the Tellabs 1000 MSAP the first best choice for a cost-effective solution to satisfy the 911 PSAP redundancy and diversity.

About Tellabs

Tellabs® Broadband helps service providers converge, collapse and connect their access networks in a cost-effective manner that leverages existing approved equipment and infrastructure. Tellabs Broadband solutions can converge legacy analog services onto systems that have full support and options for fiber and Ethernet connectivity. The same Tellabs access equipment can collapse remote cabinet footprint and Class 5 voice switches at their sunset horizon. Finally, the Tellabs access gears supports modern fiber and Ethernet based network uplinks and service connectivity simultaneously alongside legacy copper-based analog services for maximum revenue.

<https://www.tellabs.com/broadband/>

