

Dual-aggregate Office Communications Manager for Branch Locations

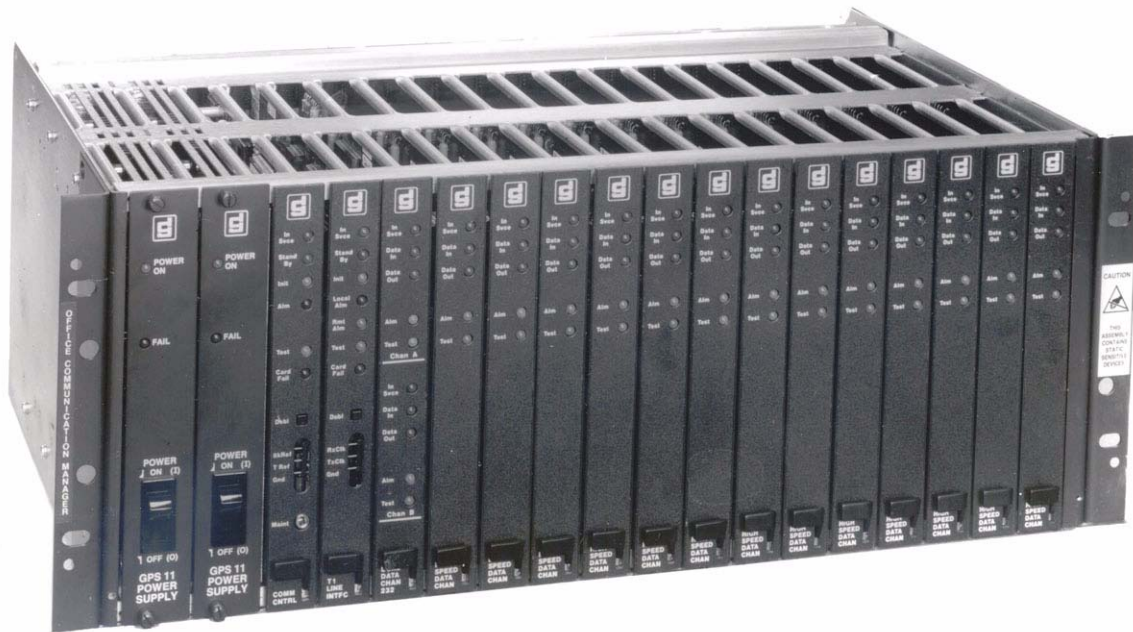


Figure 1: Office Communications Manager (OCM-2000)

OCM-2000 OVERVIEW

GDC's OCM-2000 is a cost-effective networking platform that extends the backbone network's capabilities to remote branch office locations and integrates voice, data and LAN over common digital facilities. Common logic, line interface and channel modules in the shelf can support up to 28 data channels or up to 14 voice channels (up to 60 data channels or up to 30 voice when an expansion shelf is added). OCM-2000 provides the best utilization of bandwidth without sacrificing network performance or availability to users.

OCM-2000 supports connectivity to 56/64 Kbps leased line services, fractional T1/E1 services (groomed N x 56/64K services), and T1/E1 digital carrier services, allowing users to select the service that provides the best performance/cost ratio at each location. Delay-sensitive applications such as voice and traditional data processing applications are given dedicated bandwidth.

For voice traffic, users can implement 64K PCM (Pulse Code Modulation) voice or high quality compressed voice from 32 Kbps down to 4.8 Kbps. Data compression assures the least amount of bandwidth possible is used to transmit data applications.

Features & Benefits

- Supports a variety of digital services for easy implementation of global networks.
- Integrates voice and data over common digital facilities.
- Provides multi-aggregate capability for resilient mesh networks with diverse routing options.
- Can be configured and managed from a single central-site platform.
- Provides very high quality voice compression options.
- Employs Common Control Modules (CCM), Line Interface Modules (LIMs), High Speed Data Modules (HSDM), Dual Low Speed Data Modules (DDC), CELP Voice Modules, Dual Private Voice (DPV) and Voice Channel Modules (VCM).

Integral Access Devices

The OCM is available with an integral DSU or CSU for those countries where companies are permitted to purchase this type of equipment. Any GDC SpectraComm modem or CSU/DSU can be installed in an OCM channel slot. Using integrated access devices simplifies and extends the network's management reach, saves valuable rack space, and enhances overall reliability.

Service Connectivity

The two-aggregate OCM-2000 can be equipped with line interface modules (LIMs) to connect to 56/64 Kbps services or N x 56/64 Kbps services. The OCM-2000 supports aggregate rates of up to 2.048 Mbps, making it suitable for full or fractional T1/E1 connection. The OCM-2000 formats its outbound bitstream for both leased line services (RS-422/V.11, V.35) and network compatible frame structures (D4/ESF, G.704). This allows users to take full advantage of carrier-provided N x 56/64 Kbps digital services such as fractional T1/E1, where offered. Each OCM-2000 can be connected to two backbone sites.

Where digital cross-connect system-based groomed services are available, the OCM-2000 offers connection to them. In this environment, the network “grooms” a number of remote connections into a single 1.544/2.048 Mbps central site connection. These services use a single link into the digital cross-connect network to replace multiple links to several locations and generally offer more economical transport than traditional leased line services.

Network Reliability

The multi-aggregate capability of the OCM-2000 enables users to create a resilient mesh network with diverse routing options.

Monitoring and diagnostics run from a controller can eliminate the need for a trained specialist at each network location. Network problems can be diagnosed and quickly resolved with minimal impact to network operation and availability.

The OCM-2000 is designed with the same service and equipment resiliency as the TMS backbone network equipment, providing full redundancy for the power supplies, common logic modules, and line interface modules.

Scalability and Compatibility

OCM-2000's modular architecture makes it easy to install and maintain. As the network expands to more locations, the OCM as a point-to-point device ensures a migratory path to a more complex network topology. without replace existing network equipment.

OCM-2000 is fully channel compatible with GDC's TMS system architecture at the central site and at remote office locations (Figure 2), providing the same level of multimedia application support as the backbone equipment. All OCM management functions, including configuration, monitoring diagnostics, fault management, and network restoral can be performed from the central TMS controller(s).

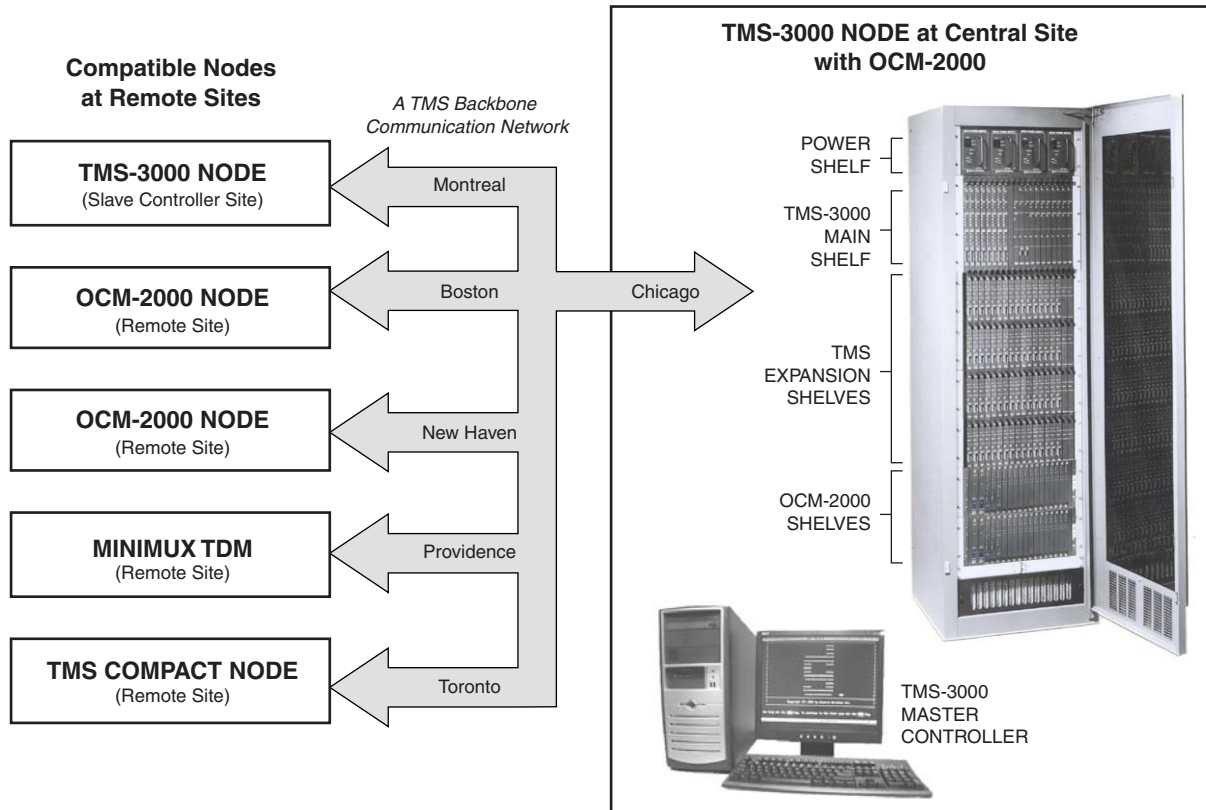


Figure 2: TMS*OCM at Central and Remote Sites