



## Optimizing Traffic Flows for Tomorrow's Wide Area Packet Networks



General DataComm, Inc.

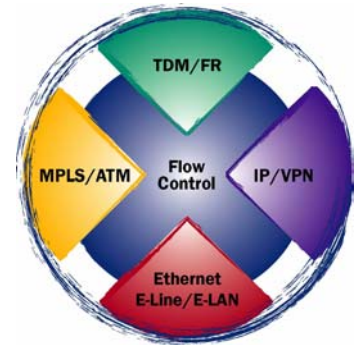
**Multiservice Solutions**

# GDC Network System Expertise



General DataComm, Inc. (GDC), provides application diverse hybrid-networking solutions for operators of private and public Wide Area Networks (WANs). By applying its reputable system design and WAN expertise, GDC adapts and integrates multiple technologies to support evolving network requirements and lower cost of operations.

- **Metro Ethernet Services**
- **Packet Voice and Video**
- **Pseudowires over MPLS/VLAN**
- **Native Ethernet, TDM, ATM, Frame Relay Services**
- **Comprehensive Network Management**
- **Systems Engineering Support**
- **Flow Sensitive Traffic Management**



## Markets

### Transportation

GDC supplies intelligent transportation networks for highway monitoring, traffic light control, airport control systems, and railway operations.

### Energy/Utilities

Simplifying the operations of multiservice networking and saving dollars are among many reasons for choosing GDC to solve the transport of supervisory control data (SCADA), surveillance video, and voice applications over wide area networks.



### Government/Defense/Aerospace

GDC has special expertise and technologies to support SATCOM, Telemetry, and delay sensitive applications. Government integrators choose GDC's hybrid network solutions, life cycle support and custom approach to solving real-time mission application problems.

### Distance Learning

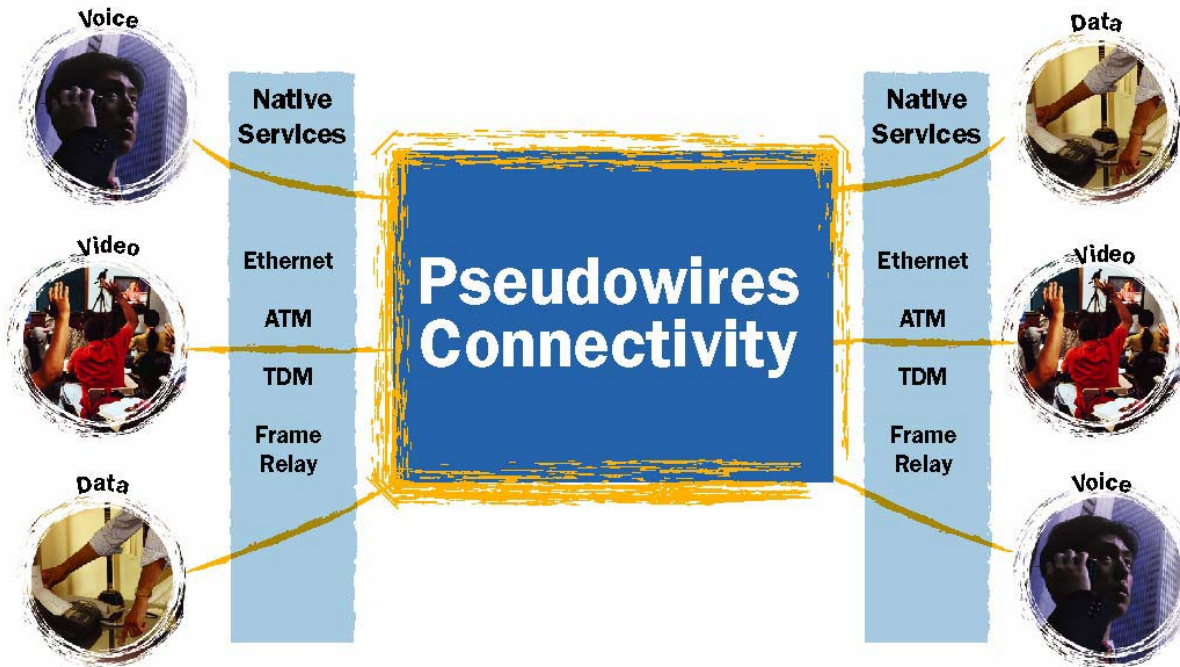
GDC provides turnkey distance learning, video-conferencing, and video monitoring network solutions. With its array of video network technologies, scheduling software, and experience in supporting large scale video networks, GDC lowers cost of operations.

### Regional Public Service Providers

GDC multiservice WAN switches enable revenue generating services for regional carriers in the United States, South America, and Europe.

# The GDC Systems Mission

GDC strives to reduce the cost of ownership for WAN operators by designing, integrating and supporting hybrid network solutions that deliver significant return on investment.



## The GDC Difference

- End-to-End Solutions Focus
- Real-time Multiservice Perspective
- Engineering and Service Expertise
- Proven, Reliable, Flexible Products
- Company-wide Responsiveness
- QoS for Packet Networks

## Systems Engineering Group

One critical difference between GDC and other suppliers is its commitment to making the end-to-end networking solutions it offers a complete success for its customers. GDC provides professional design, training and support services as part of its system solution offering. Performed by senior design engineers with hands-on experience in networking applications as varied as distance learning, telemetry data acquisition, or convergence of high speed IP/Ethernet with legacy services, GDC experts can turn a challenge into a cost benefit. GDC provides a responsive and experienced team of network designers and capacity planners, trainers, system experts, product repair specialists, as well as accomplished field installation and maintenance professionals to make a direct benefit to its customer's long term planning and networking needs.

# Prestigious Customers

General DataComm's blue chip customer base includes state and county governments, commercial railroads, transportation entities, utilities, DoD, petrochemical enterprises, schools and hospitals. GDC fully collaborates with the customer-integrator at an early stage in the network planning and design cycle. This approach establishes a strong technical relationship between GDC, its customers, and the parties responsible for network operation, maintenance and logistic support.

## **Private Wide Area Network Operators:**

Burlington Northern Santa Fe Railroad, Union Pacific Railroad, U.S. Department of State, NASA, Sandia Labs, U.S. Air Force (Cape Canaveral/Vandenberg AFB Range Automation), Petrobras (Brazil State Oil Company), FAA, NATO, Los Angeles Department of Transportation (LADOT), Rome and Milan Airports (Italy), Boeing Sea Launch, Maryland Department of Transportation, Circumvesuviana Railways (Italy), CEA -- Commissariat Energie Atomique (France), City Council of Stockholm (Sweden), JME -- Power Distribution (Czech Republic), Montgomery County FiberNet, Ferromex (Mexico), Jefferson County, First Energy, State of California Water Resource Authority.



GDC also furnishes network solutions to public operators. These include incumbent service providers, independent telephone companies, and alternative service providers.

## **Incumbent Operators:**

Telekom Austria, OTE (Greece), Slovak Telecom, Qwest (US), France Telecom -- Globecast, KPN (Netherlands).

## **Independent Telephone Companies:**

Red River Communications Network (North Dakota), Consolidated Telephone (Nebraska), S&T Telephone (Kansas), Consolidated Telecom (North Dakota), Dickey Telephone (North Dakota), and Pioneer Communications (Kansas).

## **CLEC Operators:**

Diveo, Brazil and Colombia; Intelig Brazil, and Alltel (U.S.).



## Enabling Hybrid Network Solutions

The adage that one size does not fit all certainly applies to wide area network technology evolution. GDC recognizes the diversity of network requirements and rather than try to make one product family or technology fit customer needs, it applies its systems engineering expertise to help design solutions with the greatest cost benefit. This approach allows GDC to lower the cost of ownership for customers based on real requirements.

# One size does Not fit all

An approach to evolving real multiservice networks that recognizes the business values of established technology solutions alongside the capabilities of more recently introduced communications platforms. Hybrid Networking reconciles customer needs (and environments) with the right product solution for the network space. GDC is technology agnostic in its approach to WAN solutions.

GDC specializes in migrating existing WAN networks to packet networks insisting that all aspects of customer investments be considered to assure the best results. By delivering integrated access, edge and core technologies for the WAN, GDC can help operators make measurable return on their technology investment.

## Reliable and Secure Networks

GDC delivers network solutions that have an outstanding reputation for reliability and security. In mission critical private networks, reliability means everything to the success of the mission. GDC provides network equipment responsible for mission control in U.S. Air Force space lifts. GDC Xedge equipment is at the heart of commercial rail operations in the largest railroads in North America. When the network goes down the trains stop. For every train that stops the railway operators lose thousands of dollars per hour. These networks carry significant voice, video, and data that drive the success of the business.



## Real Time Application Service Control and Traffic Optimization



GDC can help customers to introduce large scale wide area use of Voice over IP (VoIP) and packet video cost effectively and reliably. Both voice and video applications are delay sensitive and occur in real time, they can be perturbed by traffic congestion in the network. A core competency at GDC is its ability to deliver networks with a high degree of Quality of Service (QoS). GDC offers a flexible and powerful set of traffic management options especially well suited to emerging real time Ethernet and IP based applications. GDC has significant experience in building network solutions with packet voice and video operating reliably and securely even in very bandwidth constrained environments.



**General DataComm, Inc.**

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