

■ APPLICATION NOTE

Voice and data convergence over satellite: anywhere, anytime

An overview of NetPerformer's® unique value proposition

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TRANSPORTING ANY SERVICES ON ANY NETWORK

NetPerformer's family of cell relay access devices integrates data and voice applications onto a single Wide Area Network (WAN). The result: award-winning solutions that transport any service — voice, fax/modem, LAN, and legacy serial data — over any network infrastructure, including TDM, IP, Frame Relay and ATM. We call it the "Power of Convergence" —voice, video and data on one cost-effective, bandwidth-efficient and easy-to-manage network.

NetPerformer brings the Power of Convergence to even the most remote locations where terrestrial networks are unavailable but integrated voice and data communications are a must. Supporting end-to-end voice, fax/modem, data and LAN services on one network, NetPerformer delivers these capabilities over satellite or hybrid satellite/terrestrial infrastructures, forming a single, seamless network that reaches anywhere. Where do you need to go?

Extend Your Reach

NetPerformer's modular expansion capabilities allow your organization to start small and then control growth in-line with your network needs.

- Converged voice/ data services
- E1/ T1 voice trunking
- TDM, Frame Relay or IP backhaul over satellite

The clear choice for single/distributed star and partial/full-mesh networks, NetPerformer is ideal for small to large-size networks requiring voice and multi-protocol data and LAN support. Whatever topology is right for you, NetPerformer will ensure it runs at peak performance and with unparalleled efficiency!

Point-to Multipoint

Ideally suited to NetPerformer; Single star topologies are typically used in small to medium-size networks and carry a mix of voice and data, with remote locations communicating to a central site.

Mesh

Ease of management and less bandwidth requirements make NetPerformer the perfect fit for the network that demands full- mesh connectivity – linking all your remote locations via a single satellite hop using SkyPerformer over SCPC technology.

NetPerformer provides a single platform for a combined satellite/terrestrial network, translating to less equipment and less training time. And if terrestrial lines do become available in the service area, a simple software configuration brings NetPerformer back down to earth – allowing you to maintain the same hardware platform and management system on which you have come to trust and depend.

FEATURES & BENEFITS

- A uniform network**
Simplify deployment and management with a single interface and hardware platform for both satellite and terrestrial networks.
- Easy migration**
Install a satellite network today and in the future transfer to a terrestrial network without forklift hardware upgrades.
- Converge voice & data capability**
Ideal solution for regional or central offices in a converged network, NetPerformer allows each site to be configured with just the right combination of services – including satellite or terrestrial connection to the network – and just the right amount of performance and scalability to avoid unnecessary cost.

Support for key analog and digital signalling methodologies allows NetPerformer to seamlessly connect to the most popular PBX systems and distributed satellite-based nodes, saving costs by converging all traffic onto a single network.
- Optimal multiplexing performance**
NetPerformer's award-winning cell-relay multiplexing technology enables optimal voice and data integration and prioritization.
- SNMP compliant MIBs and GUI Interface**
NetPerformer can be managed using today's most popular open base network management platform. ACT View 3000, NetPerformer's dedicated network management system, also enables users to easily manage their network through a high performance intuitive Graphical User interface (GUI).
- Any-to-any voice switching**
Integrate disparate phone systems across various sites, driving OPEX savings and increasing flexibility.

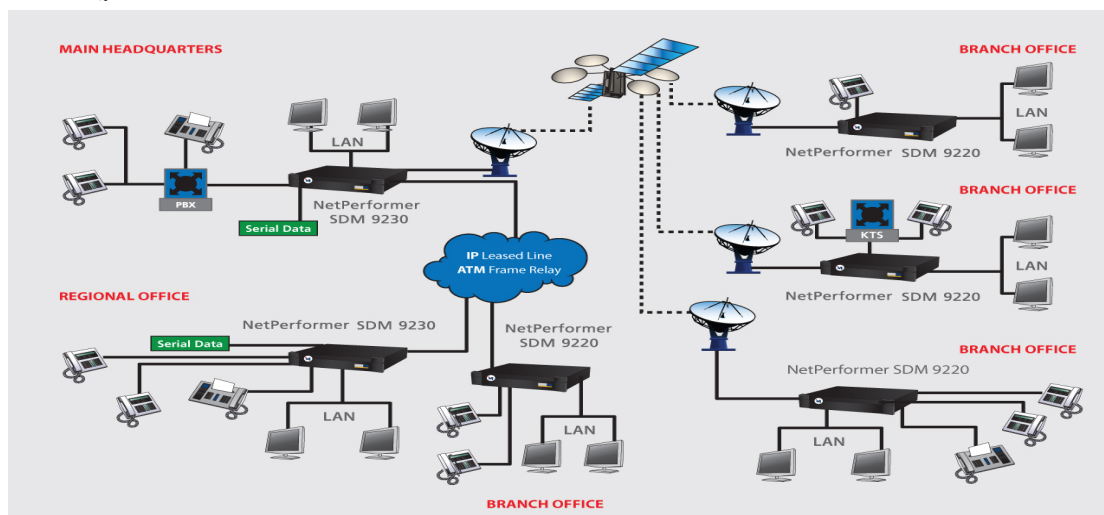


Figure 1: Convergence over hybrid satellite/terrestrial networks

ADAPT TO ANY TERRAIN

Wherever in the world you need to be, whatever your network needs, NetPerformer can extend your business across any terrain just as it has for many leading network providers, Fortune 500 companies and demanding private enterprises.

WHETHER YOU NEED TO MANAGE A GLOBAL DISTRIBUTION NETWORK...



Multi-National Beverage Maker Links Disparate Locations –

From its production and distribution hub in Jakarta, this Fortune 500 Company has finally realized toll-quality voice service and superior data throughput over one, cost-effective network – to even its most remote sites across South East Asia. With future plans for expansion, they'll be counting on NetPerformer's combination of satellite and terrestrial support more than ever.

PROVIDE CARRIER-GRADE SERVICES TO THE FARTHEST REACHES OF THE GLOBE...



Troops in Afghanistan Phone Home –

When a major European long-distance reseller was tasked to implement an international telecommunication service for the United Nations Peacekeepers in Afghanistan, they needed a network that required minimal infrastructure and, due to the volatile political environment, no on-site support. Their only choice to be able to integrate voice and data services was NetPerformer. In just two months, a comprehensive network was deployed using a creative combination of prepaid long-distance calling cards, an 800 number, and both satellite and public networks support. The army gained access to the outside world while being able to operate on the move. For the soldiers calling home, NetPerformer's optimum bandwidth usage offered affordable and top quality carrier-grade communications with their family and friends.

CONNECT TO REMOTE MANUFACTURING OPERATIONS...



American Major Mining Operation Stays in Contact –

Dotted across the rugged Mexican interior, eight remote mining locations stay in constant contact with one another – above as well as below ground. Their only link with the outside world – a hybrid satellite/ terrestrial Frame Relay network between the U. S. and Mexico became a reality with the deployment of NetPerformer. Where it was impossible before, real-time voice calls and data exchange between miners and management is now handled over one network.

OR PROVIDE MARITIME-BASED COMMUNICATIONS...



Ship-to-Shore for a Leading Luxury Liner –

For one of the world's greatest passenger ships, the telecommunications challenge– one network for passenger ship-to-shore voice and fax, on-board business voice, fax and data, as well as providing communication between the ships's LAN and the company's headquarters – could only be overcome by a network utilizing both satellite and terrestrial topology. And NetPerformer stays on target – anywhere in the world she's steaming full speed ahead.

NetPerformer adapts to any terrain, bringing your organization the most cost-effective communications network solutions through:

- Integrated voice & data over satellite
- One-to-many broadcast technology
- One hardware platform for both terrestrial and satellite network
- One all-encompassing network management system

***That's the POWER of Convergence NOW
Anywhere, Anytime***