



Solution Brief

Nortel Networks

Voice over IP Solutions Succession Local Solution

Nortel Networks Succession Local Solution delivers revenue-generating voice, data, and multimedia services over a single packet infrastructure

Nortel Networks Local Solution enables new service revenues, reduces capital and operating costs, and provides the most flexible set of network evolution choices in the industry. Each solution adapts flexibly to your business plan, with configurations for ATM or IP transport, small or large network deployments, and a broad range of access technologies, enabling you to build a new network or transition your existing network to packet.

Applications include Packet Trunking, Wireline Universal Access, and Integrated Access Wireline, enabling local carriers to match the solution to their chosen market. All three applications seamlessly integrate a host of traditional voice services and new multimedia services.

While Nortel Networks Local Solution is built on the best-in-class products in the Succession portfolio, each offers value far greater than the sum of its elements.

Imagine a standards-based network that transports the revenue-generating services you deploy today and opens new revenue streams, with packet-based voice, data, and multimedia services over multiple access technologies.

Now imagine a network that delivers all this over a single transport infrastructure to reduce capital expense by up to 50 percent and operating expense by up to 30 percent.

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Finally, imagine all of these benefits on a network that extends the tradition of world-class reliability, availability, and scalability you've come to expect from Nortel Networks.

Benefits

Comprehensive, flexible solutions

Nortel Networks Local Solution delivers the most comprehensive set of services and features available, while offering maximum flexibility in developing and executing your business plan.

A full class 4 and class 5 feature set (there are 3000+ features in every Succession software load) enables you to begin delivering local service now, while retaining the option of adding revenue-generating long distance.

Each solution enables you to deliver either a new Voice over IP network or smoothly transition your DMS network to packet—with expanded service, revenue, and cost-reduction potential—while laying the foundation for future packet services.

New revenue opportunities

By converging separate voice, data, and multimedia environments into a single, scalable network, solutions for local carriers protect and extend current revenue streams while providing a platform for revenue growth. In addition to traditional access technologies, service providers can deploy integrated access devices (IADs) and IP phones, enabling a wide variety of emerging services to a converged multimedia desktop.

Traditional voice services integrate seamlessly with advanced, packet-based Succession Services, including those offered by Session Initiation Protocol (SIP). Current revenue-generating Succession Services include:

- Succession Voice over IP VPNs
- Succession Centrex/Centrex IP

- Succession Personal Communications Manager
- Succession Multimedia & Collaboration
- Succession Internet Voice
- Succession Primary Voice

These services can be delivered by carriers in a premises-based, managed or hosted environment, thereby maximizing deployment options over a single solution architecture.

Reduced operating costs

Our simplified, standards-based design reduces network and operational complexity: Access trunking features are absorbed by access gateways, eliminating the need for separate peripheral frames. In addition, reduced equipment requirements increase network efficiency, simplify management tasks, and lower real estate, power, spares, and climate-control expenses.

Easy expansion, future-readiness

Our modular, distributed architecture scales dynamically, offering easy growth at reduced capital and operating costs. Since Succession elements can be mixed with each other and with standards-compliant equipment from other vendors, you have unprecedented flexibility in network planning, deployment, and growth. Our open architecture also enables you to add new protocols and technologies as they become available, making your network truly future-ready.

Carrier-grade quality, reliability

Nortel Networks brings best-in-class, five-nines reliability into packet-switched operations by using fault-tolerant technology, distributing network elements for enhanced survivability, separating maintenance functions from network connectivity for easier problem isolation, and taking a leadership role in standards and regulatory compliance.

Applications

Packet Trunking

Taking full advantage of the feature rich Succession Communication Server 2000, the Packet Trunking application delivers the traditional trunking service suite across converged, packetized networks (either ATM or IP), enabling carriers to address:

- Transit Exhaust/Mobile Transit
- Business Overlay
- Intermachine Packet Trunking
- Long Distance
- Tandem Replacement for ATM solutions
- Internet Offload

Gateway choices include the Nortel Networks Passport Packet Voice Gateway for both IP and ATM solutions, and the Succession Multi-service Gateway 4000 for ATM (AAL1) trunking in North America.

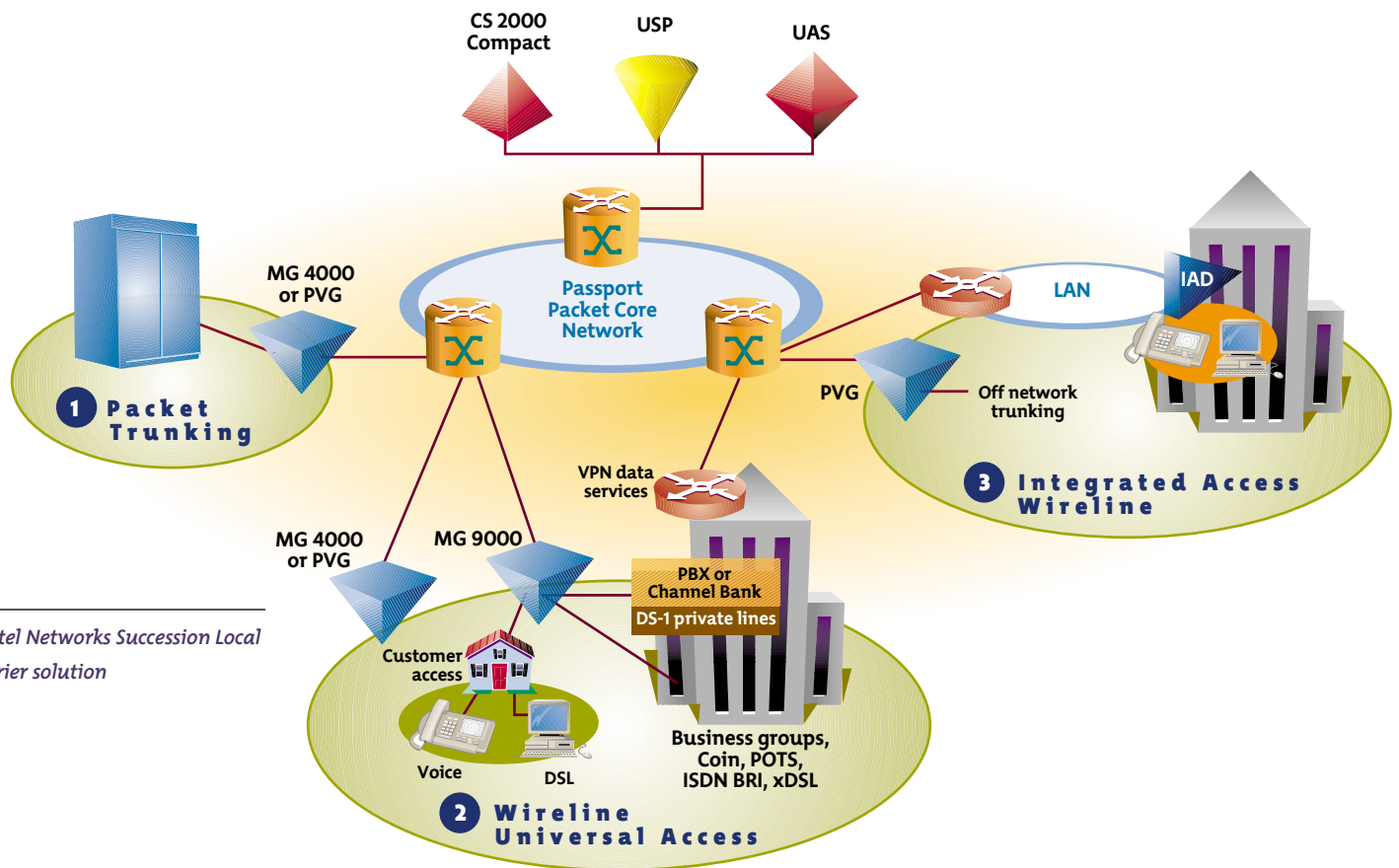
Wireline Universal Access

Our Universal Access application enables you to deliver world-class voice, data, and multimedia services to businesses and consumers. Solutions utilize IP transport for global markets and ATM (AAL1) transport for North American markets. The Universal Access application can be integrated with the Packet Trunking application to provide a smooth packet migration of existing revenue-generating services.

This application can be deployed to provide:

- End Office Replacement
- Residential Line Growth
- Hosted Business Services

The feature-rich Succession Communication Server 2000 serves as the cornerstone for our Universal Access solution, enabling a seamless circuit to packet transition.



Nortel Networks Succession Local Carrier solution

Integrated Access Wireline

Our Integrated Access application delivers world-class voice services and new multimedia services to businesses and consumers, using next-generation integrated access devices (IADs). This application can be used to address:

- Residential Line Growth
- Hosted Business Services

Like our Universal Access application, traditional voice, video, and data services are delivered from the Succession Communication Server 2000. The Integrated Access application can be delivered over wireline, optical Ethernet, or cable networks, connecting traditional telephones or IP client devices, such as IP phones or PC soft clients.

Key elements

Key network elements of our Solutions for local carriers are built to meet or exceed carrier-grade standards and protocols set by ITU, Telcordia, ANSI, ETSI, IETF, ATME, and other standards organizations.

Superclass Softswitch

The first vendor to deliver a Superclass Softswitch, Nortel Networks offers a choice of two rugged, reliable platforms—the Succession Communications Server 2000 and Succession Communication Server 2000 – Compact. A Superclass Softswitch offers the critical attributes that you equate with successful softswitch deployment, such as consolidated local, tandem, and long distance applications; comprehensive services (3000+ features), regulatory capabilities, and carrier-grade attributes.

Both of Nortel Networks Superclass Softswitch platforms are designed to control the multi-vendor gateways, integrated access devices (IADs), and IP phones in your network. Both provide the call control and other network intelligence required to deliver revenue-enhancing services.

Signaling

The Universal Signaling Point enables your network to communicate with standards-based and emerging IP-based SS7 messaging systems. With this signaling capability, your network will seamlessly interwork with established networks to deliver IN-based services, such as toll-free long distance and number portability.

Audio resources

In a small footprint, the Universal Audio Server provides an expanding list of centralized audio resources, including announcements, dynamic audio recording, conferencing, and lawful intercept.

Management

A comprehensive set of network management tools and applications work together seamlessly to provide both element and network management. Whether you transition your current infrastructure or build a new network, Nortel Networks has the management solutions to build and support your next-generation network.

Gateways

Access gateway

The Nortel Networks Succession Media Gateway 9000 is a high-density access gateway designed to bring high-value voice and data edge-access services to the packet network. With this gateway, you can link subscriber interfaces directly to ATM or IP backbones.

Trunk gateways

The Succession Multi-service Gateway 4000, with a capacity of 4,000 ports per frame, allows you to transition your network to packet by connecting standard circuit-switched trunks to an ATM backbone.

The Passport Packet Voice Gateway provides high-density voice processing that scales to 48,000 DS-0s per frame in IP applications.

Both gateways provide access trunking to circuit-based end offices, inter-exchange carriers, and enterprise customers.

Access Devices

Integrated Access Devices

Nortel Networks supports open-standard, H.248-compliant IADs, to provide a comprehensive set of telephony services for residential and business customers. IAD-based services combine the quality of the telephone network with the simplicity and connectivity of the Internet.

IP Phones

IP Phones bring Web applications to the phone set, using standard protocols such as SIP, Media Gateway Control Protocol (MGCP), and H.323. They connect directly to the LAN, allowing customers to capitalize on the economies of the simplified wiring system within the enterprise.

IP phone service can include value-added services, such as voice-activated dialing, corporate and personal directory services, and user customization of the communications desktop.

Core switching and transport

Nortel Networks Local Solution uses either an ATM or IP backbone. For a service provider ATM or IP backbone, we combine the high-density Passport Multiservice Switching portfolio with high-capacity OPTera optical transport solutions.

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Nortel Networks is an industry leader and innovator focused on transforming how the world communicates and exchanges information. The company is supplying its service provider and enterprise customers with communications technology and infrastructure to enable value-added IP data, voice and multimedia services spanning Wireless Networks, Wireline Networks, Enterprise Networks, and Optical Networks. As a global company, Nortel Networks does business in more than 150 countries. More information about Nortel Networks can be found on the Web at:

www.nortelnetworks.com

For more information, contact your Nortel Networks representative, or call 1-800-4 NORTEL or 1-800-466-7835 from anywhere in North America.

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