



Product Brief

Nortel Networks

## Voice over IP Solutions

# Succession Communication Server 2000 – Compact

**At the heart of the next-generation packet network lies the communication server, managing calls, controlling access and trunking gateways, delivering services, and functioning as the centerpiece of an open, standards-based network.**

Nortel Networks offers a small-footprint, “Superclass” softswitch that delivers a full suite of line-side services and trunking applications to the global packet telephony market. A *Superclass* softswitch is one that meets all criteria for true service provider circuit-to-packet migration. This includes local, tandem, and long distance capability on a single platform; full business and residential service sets; regulatory features; and carrier-grade reliability and scalability.

If you’re a service provider or cable operator seeking to enter the Voice over IP market, your options have expanded. The Succession\* Communication Server 2000 – Compact is a carrier-grade Superclass softswitch designed for global deployment of new packet networks. It enables you to deliver the full suite of traditional voice services to business, residential, and trunking markets for your strategic Voice over IP applications.

Voice over IP solutions from Nortel Networks deliver next-generation packet networks that combine the best of the Internet with the best of today’s telephone network. Delivering high-value telephony features and advanced multi-media services over a unified packet infrastructure, our Voice over IP solutions reduce capital expenses and the total cost of network ownership.

The Succession Communication Server 2000 – Compact, available today, supports open industry standards and a comprehensive set of line and trunking features.

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In addition to providing immediate revenue potential from its feature-rich Succession Voice over IP (VoIP) Services offerings, it reduces operating expenses with a space-efficient design and low power consumption. You also realize the cost saving advantages of using your existing operations support system (OSS) infrastructure with your next-generation packet network.

A next-generation softswitch, the Succession Communication Server 2000 – Compact allows service providers to economically deliver new network solutions that offer a comprehensive set of services that create revenue-generating opportunities. The Succession Communication Server 2000 – Compact, which consists of robust, commercially-available hardware:

- Delivers a world-class set of packet-based business, residential, and trunking features
- Extends global reach and enables seamless expansion through its comprehensive set of country variants
- Reduces real estate and power requirements due to its scalable, small footprint
- Provides open protocol support, including H.248 and H.323, Media Gateway Control Protocol (MGCP), Network-based Call Signaling (NCS), and Session Initiation Protocol (SIP)
- Enables carrier-managed Voice over IP Virtual Private Networking (VPN)
- Enables high service availability and carrier-grade performance
- Includes Nortel Networks world-class 24/7 support

## **New revenue opportunities through Succession VoIP Services**

The versatile Succession Communication Server 2000 – Compact enables you to deliver a comprehensive set of field-proven Succession VoIP Services to target markets around the world. Flexible software options—including Succession Centrex/Centrex IP, Succession Primary Voice, and Succession Voice over IP Virtual Private Networks (VPN)—allow you to tailor your service portfolio to specific end-user market segments:

### **Succession Centrex/Centrex IP**

Succession Centrex/Centrex IP provides cost-effective VoIP services for large and small businesses. Enterprise employees can access 200+ voice services, either through the enterprise LAN or remotely via the Internet.

### **Succession Primary Voice**

Succession Primary Voice supports a full range of CLASS services, offering revenue-generating opportunities and full regulatory compliance. Ideal for existing service providers and new market entry, Succession Primary Voice delivers a packet-enabled, feature-rich offering that presents a significant competitive advantage.

### **Succession Voice over IP Virtual Private Network (VPN)**

Making these services available across your entire enterprise, Succession Voice over IP VPN (Virtual Private Network) delivers carrier-hosted voice networking and cost-effective converged access for traditional PBX and H.323 multi-vendor IP PBX networks. Succession Voice over IP VPN service also brings headquarters, branch offices, remote sites, and even telecommuters together onto a single dial plan, simplifies service management, and provides revenue-generating opportunities.

In addition, you can also deploy the Nortel Networks Multimedia Communication Server 5200 alongside the Succession Communication Server 2000 – Compact to enable SIP-based enhanced services that will allow you to differentiate your service offering with multimedia and productivity services such as Multimedia Business Services, Broadband Multimedia Services, and Personal Communication Services. These services open a new world of revenue possibilities and provide a sustained competitive advantage.

## **Low cost market entry**

The Succession Communication Server 2000 – Compact is highly scalable. You can enter the VoIP market space at a fraction of the cost of a large-scale offering, and then scale to support a growing subscriber base. Its small footprint also helps make ongoing engineering, operational, and real estate expenses more manageable—without compromising full-featured functionality.

In addition, the Succession Communication Server 2000 – Compact enables you to introduce packet telephony features to geographically dispersed markets. Its scalability allows you to grow your subscriber base flexibly, targeting a variety of serving areas—including small-pocket areas—while minimizing backhaul expenses. And, with its comprehensive set of country variants, the Succession Communication Server 2000 – Compact lets you expand globally. The system also incorporates the existing OSS infrastructure, thus limiting the need to develop a new OSS infrastructure or retrain existing employees.

## **Advanced technologies, standards-based protocols**

The Succession Communication Server 2000 – Compact delivers a world-class feature set on commercially available compact PCI technology running under an open operating system. Since the

***The Succession Communication Server 2000 – Compact has a complete feature set that allows any new revenues to begin flowing quickly.***

Succession Communication Server 2000 – Compact was developed with open, standards-based protocols in mind—such as H.248, H.323, MGCP, NCS, and SIP—you also benefit from a flexible set of media gateway options. By building on these industry-standard platforms, the Succession Communication Server 2000 – Compact is designed to take advantage of industry advances as soon as they become available.

As you grow and your market expands, you have the option to deploy the Nortel Networks Multimedia Communication Server 5200 with the Succession Communication Server 2000 – Compact, enabling you to introduce complementary SIP-based services into your portfolio of network offerings. The winning combination of industry innovation along with Nortel Networks one-stop integration and support can help reduce your time to revenue.

### Softswitch intelligence

At the heart of this system is a pair of high-availability call agent processors that provide all of the call control capabilities—such as routing, translations, and centralized service delivery—that are needed to manage the gateways in your packet network.

### Open standards gateway control

Implemented on a packet backbone, the Succession Communication Server 2000 – Compact provides media gateway control through open, industry-standard VoIP protocols. These include H.248, H.323, MGCP, NCS, and SIP. Use of standards-based protocols will enable cost-effective customer premises-based devices that can support both traditional and next-generation telephony services.

### SS7 interface (optional)

For seamless interworking between circuit-switched and packet-based networks, processors providing an SS7 signaling interface can be provisioned on the Succession Communication Server 2000 – Compact platform. Operating as

a fully transparent node in the SS7 network, the signaling gateway supports today's advanced telephony and intelligent networking services.

### Packetized audio services (optional)

Nortel Networks Succession Universal Audio Server, which further enhances the Succession Communication Server 2000 – Compact, can be housed in the same frame to provide a complete set of packet-based audio features. These include announcements, conferencing, and lawful interception of specified user traffic by law enforcement agencies. Advanced capabilities, such as end-user recording and customization, help differentiate your portfolio and introduce new revenue opportunities.

### Trunk gateway support

Nortel Networks trunk gateways, such as the Passport\* Packet Voice Gateway, can be seamlessly integrated with the Succession Communication Server 2000 – Compact using open standards-based protocols to provide interfaces to the public telephone network.

### Nortel Networks Multimedia Communication Server 5200 (optional)

The Succession Communication Server 2000 – Compact is designed to interface with the Multimedia Communication

Server 5200. When both of these platforms are deployed in the same network, service providers can receive a sustainable competitive advantage by using the Multimedia Communication Server 5200 to offer a set of SIP-enabled enhanced services such as Multimedia Business Services, Broadband Multimedia Services, and Personal Communications Services that complement the Succession Communication Server 2000 – Compact's rich service set.

## Robust, reliable carrier-class operation

The Succession Communication Server 2000 – Compact has been designed to meet carrier requirements across a variety of environments. Helping to protect against service disruptions are many built-in features, such as:

- Redundant provisioning of all circuit packs for quick fault recovery
- Five nines (99.999 percent) availability
- Best-in-class fault-handling software
- Redundant disk storage that protects billing, system images, and other vital data
- Fewer network elements, reducing maintenance tasks and avoiding single points of failure

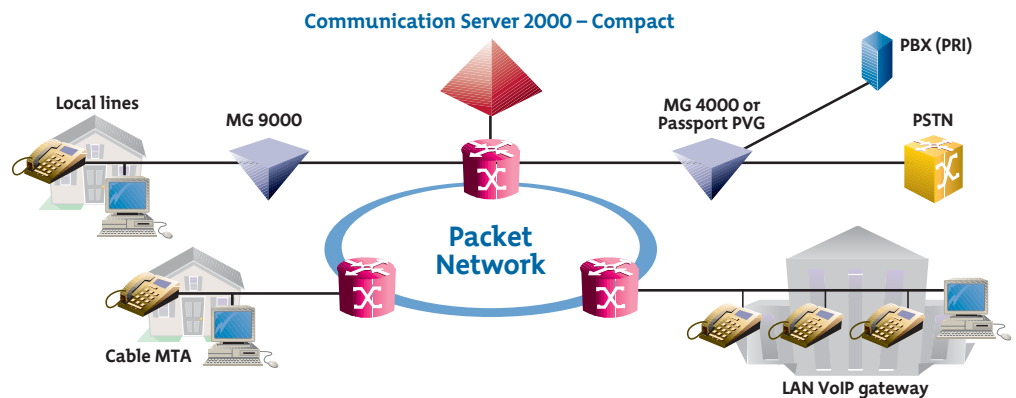


Figure 1. The packet-based Succession Communication Server 2000 – Compact supports traditional copper access, integrated access, and cable media applications as well as packet trunking solutions.

## Turnkey applications

The packet-based Succession Communication Server 2000 – Compact supports traditional copper access, integrated access, and cable media applications as well as packet trunking solutions. The Succession Communication Server 2000 – Compact supports the following applications:

### Cable services

By delivering VoIP to cable service subscribers, the Succession Communication Server 2000 – Compact furnishes cable providers with the telephony and advanced services required to expand their revenue streams.

The Succession Communication Server 2000 – Compact interfaces with existing Multimedia Terminal Adapters (MTAs) and Cable Modem Termination Systems (CMTSs) using PacketCable standards. This allows operators to leverage their existing investments.

### Hosted business and residential lines

By enabling convergence of voice and data services over a single WAN link, the Succession Communication Server 2000 – Compact expands your business services portfolio and enhances your subscriber service options.

### Enterprise connectivity and trunking

Delivering a comprehensive feature set on a packetized network, the Succession Communication Server 2000 – Compact enables carriers to offer inter-office trunking services and enterprise connectivity.

### Rural market providers

Since its full feature set is packed in a cost-effective small footprint, the Succession Communication Server 2000 – Compact will provide investment protection and an ideal evolution path for rural market providers.

## Key specifications

### Capacity

- Up to 1,400,000 Busy Hour Call Attempts (BHCA's)

### Standard-based protocol support

- H.248, H.323, MGCP, NCS, SIP, SIP-T

### Management (OAM&P)

Features point-and-click GUIs using industry-leading hardware with mission-critical applications running on fault tolerant hardware. This suite of element management solutions provides full fault, configuration, accounting, performance, and security (FCAPS) functionality—and more.

### Cable media standards

Achieved PacketCable 1.0 qualification based on the following specifications:

- Network-Based Call Signaling Protocol Specification (NCS) PKT-SP-EC-MGCP-I04-011221
- Dynamic Quality-of-Service Specification (DQoS) PKT-SP-DQOS-I03-020116
- Security Specification PKT-SP-SEC-I05-020116

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*China Ministry of Information Industry (MII)  
Certification achieved in July 2002.*

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# NORTEL NETWORKS™

*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](http://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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