

Nortel Networks

Network solutions *for* hotels, motels, and resorts

Technologies for on-site service providers

Hospitality enterprises that cater to business travelers in the U.S. have a problem, and with it, an opportunity. Their 70 million business customers are frustrated by slow dial-up connections in guest rooms... bogged down at 56 kbps or less as they access corporate applications, send faxes and email, and download large files.

Hotels, motels, and resorts have a huge opportunity to differentiate themselves by offering high-speed connections to guest suites.

Service providers have an even bigger opportunity: to align with property managers for exclusive rights to offer those high-value services to designated guest rooms, with minimal upfront investment.

In the U.S. alone, some 15,000 hotels, motels, and resorts cater primarily to business travelers. Of these multi-hospitality units (MHUs), nearly half are planning to deploy broadband access in 2001, and another one-third are planning to do so by 2004.

More than half of these properties are planning to deploy high-speed Internet access in at least half of their guest rooms, to attract and retain guests and provide incremental service revenues, according to Cahners In-Stat Group (2000).

**NORTEL
NETWORKS™**

High-speed Internet, voice, and video

In sum, 12,000 hotels/motels are candidates for upgraded communications infrastructures in the next four years, by Cahner In-Stat estimates.

With these figures, and more than \$670 million in potential service and equipment revenue at stake between now and 2004 (Cahners In-Stat Group, 2000), it's no wonder that the MHU market is expected to grow more than 77 percent over that period.

This scenario opens up promising opportunities for service providers and property owners/managers to expand their role—to become “on-site service providers,” by creating in-building networks that extend bundled broadband services directly to each guest suite.

Complete solutions to succeed in the MHU market

Nortel Networks has complete, one-stop solutions to help hotel management firms and service providers increase revenues and capture a strong position in this market, whether they choose to deploy their access services on xDSL, cable, Etherloop, Ethernet, or wireless—or a combination of these technologies—using existing in-building wiring or new infrastructure.

Service providers benefit by extending the reach of their brand and voice/data/video service offerings, at relatively low cost, since hospitality enterprises have a high density of customers in one location.

Hotel/motel owners/managers

differentiate their properties in a highly competitive market by offering in-building, high-speed data connectivity and other advanced services to their business traveler guests.

Business travelers enjoy secure, robust high-speed access to corporate networks and the Internet, along with on-demand entertainment services and office-type telephony services.

Architecture options for any configuration or business case

The specific architectures for our MHU solution are defined more by business and service attributes than by equipment. In designing an optimal network for your hospitality enterprise/customer, we consider the following key issues:

- **Minimum up-front cost and construction.** Our MHU solutions use existing wiring and PBX/voice systems to the extent possible, thereby minimizing disruption and implementation cost. We offer options for high-speed data over unshielded twisted pair, coaxial cable, hybrid fiber-cable, CAT3 and CAT5 wiring, and 802.11 wireless LANs.
- **Plentiful bandwidth.** Our network solutions are scalable—in access, aggregation, and backbone—to meet surges in demand as guests take advantage of high-speed access in their guest rooms.

The mini-PoPs we deploy in hotel/motel properties are down-sized versions of the ones we deploy in large Internet service provider (ISP) PoPs and central offices—designed for modular growth.

- **Quality of service.** Our MHU solutions are engineered for a high degree of control over user traffic and data center server traffic, to ensure premium reliability, availability, and service quality.
- **Privacy and security.** The “always on” aspect of broadband connections creates privacy and security issues for users accessing confidential resources over a public facility. Our MHU solution addresses those concerns with robust firewall, authentication, and virtual private networking (VPN) capabilities, which the property manager can choose to manage or outsource.
- **Efficiency of content distribution.** When you add high-speed access, you invite users to exponentially increase their demands on the backbone network with large downloads and streaming content. Our MHU strategy proactively reduces this traffic through creative approaches, such as caching, which moves the content closer to the subscriber, and multi-casting, which reduces the number of identical network streams.

Whatever the hotel/motel configuration (high rise, garden, multiple buildings, etc.), existing in-building wiring, and business case, Nortel Networks has the MHU architecture to fit.

Choice of access technologies

Broadband access to guest rooms can be offered via a choice of technologies, including but not limited to:

- **DSL** (digital subscriber line) services over existing telephone wiring or the more sophisticated CAT 3/CAT 5 wiring typical in newer properties
- **Dedicated Ethernet** 10/100BaseT and 100FX connections within buildings and 1-Gbps Ethernet between buildings, supporting voice over IP, high-speed Internet access, IP-based video streaming and video on demand, and more—with end-to-end control over quality of service
- **Coaxial cable** (which already runs to most hotel rooms) using cable modems in guest rooms and cable networks upgraded for two-way communication
- **Etherloop**, a transmission technology from Nortel Networks that combines DSL and Ethernet to deliver up to 10 Mbps between the guest room and network point of presence, using existing copper twisted pair telephone wiring

- **Wireless local area network** (LAN) based on the IEEE 802.11 industry standard, to transmit data up to 1000 feet over the air—through walls and other non-metal barriers—on an unlicensed frequency.

Our complete MHU solutions also include options for high-bandwidth core systems, transport networks that exploit the bandwidth-boosting capabilities of dense wave division multiplexing (DWDM), and powerful data centers for service, network, and content management.

Network operations and service administration can be managed remotely or on-site, using our unified suite of network and service management software. For hotels/motels with multiple buildings, a master building network can provide centralized management for other buildings, to increase efficiency and reduce costs.

Evolve the plain old telephone system in a hotel to one that provides voice and high-speed Internet access... often with no construction, and with minimal equipment and installation costs.

...directly to guest suites in hotels/motels that cater to business travelers

Telephony services equivalent to office phone systems

High-speed Internet and intranet access

Email, Web browsing, custom Web portals

Multimedia, cable television, videoconferencing

Benefits of our MHU service solution

Service providers can capture their share of a large, under-served market, and accelerate their success by targeting real estate investment trusts that own multiple properties.

By negotiating with hotel/motel property managers for exclusive rights to high-speed services, the provider can gain revenues from a captive audience, and at the same time build brand recognition that might influence business travelers when selecting home services in the future.

These advantages are gained at relatively little implementation cost, because the service area clusters hundreds of access points in a single building, and our solutions leverage existing infrastructure wherever possible.

By adding a high-value service to their portfolio of guest amenities, hotel/motel owners and property managers can increase the value of their total hospitality offering, attract new guests, and retain existing customers in a competitive market.

MHU management can gain additional income through revenue-sharing and renting roof rights for wireless systems—while the on-site service provider assumes the acquisition and installation costs.

Business travelers enjoy state-of-the-art network access for their bandwidth hungry applications. With any one of our MHU access solutions in the guest room, they maintain peak productivity while they're on the road.

Business travelers that frequent the same hotel/motel chain in different cities will benefit from a predictable, quality user experience, no matter where they park their laptop for the night.

As an added plus, they can take advantage of customized local content the on-site service provider may choose to offer, such as business services, automated billing, and information about local restaurants and attractions. To find out more about our complete solutions for becoming an on-site service provider and securing your share of the promising MHU market, call us or visit our Web site at: www.nortelnetworks.com

Nortel Networks as your ally

Nortel Networks is your fast track to success. We have the technology, people, and programs to jump-start your entry or expansion in any on-site service provider market.

- **Our complete technology portfolio** includes highly scalable, carrier-grade technologies for access, aggregation, and core. That means you can rely on one source for the end-to-end MHU solution. If you prefer a multi-vendor solution, you'll appreciate our commitment to open, industry standards for maximum interoperability.
- **Our Global Professional Services team** can support any and all phases of your business and network evolution, from strategic planning to network optimization to ongoing maintenance and support, and everything between.
- **Our alliances with manufacturers of customer-premises equipment** expand your options for user access devices—no matter which access technology you choose to deploy.
- **Financing options and incentives**—such as trial programs and turnkey reseller packages, where available—can minimize the risk of entry into new markets.
- **Our cooperative marketing and business planning programs** accelerate your market success with a full portfolio of enhanced revenue services.



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