

On-site Service Provider (OSP) marketplace overview summary

Solutions marketing

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Executive summary

Connectivity is key and time is money—these two concepts are powering the growing demand for high-speed Internet access. The desire for fast connections is no longer confined to the workplace; demand is beginning in both the residential and public markets. Business travelers have become accustomed to the convenience of high-speed access at work, and are becoming increasingly sensitive to time delays using dial-up connections. These travelers have a perceived reduction of productivity when they are on the road connected at traditional modem speeds.

The hospitality, residential and commercial rental industries, and developers of master-planned communities (MPCs) are beginning to recognize that offering broadband service is a differentiator to help them retain existing customers and attract new ones.

These market drivers have resulted in a new business delivery model, the on-site service provider (OSP). The OSP works with the property owner to deliver broadband access and related services to tenants or residents of buildings or communities. In some instances, the property owner may choose to be the OSP.

The incremental opportunity to provide broadband access as well as new services in the U.S. is over \$2 billion through 2004 (Cahners In-Stat).¹

Definitions

On-site service provider (OSP)

An OSP is a company dedicated to delivering broadband access and services to a targeted group of customers who have common interests and service needs—such as tenants of an apartment building or group of buildings, homeowners in an MPC, the travelers staying at hotels, or small and medium-sized businesses (SMBs) that lease space in shared-space commercial buildings. The OSP provides specialized services and content only to those subscribers living or working within specific properties, and these services are generally not available to the general Internet community. In addition to providing broadband access and services, the OSP typically owns or leases all infrastructure equipment within the specific building, set of buildings, or community to provide this combination of data, voice, and video services.

Multi-tenant unit (MTU)

MTUs are commercial buildings in which several businesses operate, and are classified as shared-tenant office space. There are several different classifications of buildings housing MTUs; however, office use is the most interesting to OSPs.

Multi-dwelling unit (MDU)

MDUs are residential environments (apartment buildings, garden apartments, apartment complexes, condominiums, and townhomes) which are owned or managed by a single entity and which house a concentrated set of users.

Master-planned community (MPC)

MPCs are communities containing new homes that promote a lifestyle of convenience through higher-end amenities and features such as community entries, parks, recreational areas, schools, and community shopping. The whole concept is based on bringing people together and creating a sense of community. The MPC is the physical implementation of these desires.

Multi-hospitality unit (MHU)

MHUs are properties such as hotels, motels, and convention centers that offer short-term accommodations for travelers. These properties typically offer a range of telecommunications and entertainment services to their guests.

Multi-tenant unit

Introduction

The broadband market is developing areas of focus once ignored by traditional service providers. One such area is the

¹ Cahners, May 2000, *Networked Neighborhood*, pp 2, 37.

MTU. A new industry of specialized equipment and service providers has surfaced to fill the demand for high-speed Internet and other advanced services.

In the past, typical access for MTU facilities consisted of separate physical connections from each tenant to their specified provider. The aggregation point was in the central office, and the tenants' networks were completely separate. The advent of the MTU shifts this aggregation point from the central office to the MTU.

Service delivery can often be accomplished using in-building wiring, eliminating an investment for the service provider. However, when an upgrade to the building wiring is required, MTU owners reap the benefit.

Service providers can expand their footprint on a building-by-building basis, rather than on an individual customer basis, reducing selling expenses and equipment investment.

Advantages to MTU owners include the ability to attract and retain tenants through the offering of broadband services. Usually, there is no capital investment required by the owners, creating a low-risk business opportunity to increase revenue through the sale or lease of building risers, as well as participation in service revenue.

Market research

According to the U.S. Department of Energy (DOE), there are 4.5 million commercial properties. Of these 705,000 are classified as "office space." The remaining properties consist of factories warehouses and other commercial space. The identified market sweet spot is mid-sized to large office properties. There are 167,000 buildings with more than 25,000 square feet (see Figure 1) and, of these, the Yankee Group has classified 118,000 as "shared tenant" office space.²

Shared tenant space is key because these businesses need high speed access but usually do not have the internal network staff to create and manage a corporate network. Major corporations usually own their own building and manage their own networks.

The Real Estate Investment trusts (REITS) offer a centralized point of property ownership and management. The REITS focus on MTU properties greater than 50 thousand square feet and have a greater than 15% ownership in this segment.³ Smaller properties typically are privately held or are not centrally owned and managed by a large property management company or REIT.

Global View

The data gathered as of the writing of this draft is for the U.S. only. However, we expect to find similar drivers for broadband in Europe, the Middle East, and Africa (EMEA), the Caribbean and Latin America (CALA) and the Asia Pacific region. In some European countries, there is a pattern of apartment ownership rather than renting. In some European cities, the deployment of broadband technologies that require construction to deploy fiber would be difficult, if not impossible. In the Asia Pacific region, the expected opportunity is more like that in the U.S.

Potential Solutions

The reference architectures for the OSP market include—but are not be limited to—the following solutions:

Architecture	Wiring
Digital subscriber line (DSL)	CAT3
Optical Ethernet	CAT5/Fiber
Wireless	Transport

² Yankee Group, May 2000, Vol. 1, No. 7, *MTU Broadband Service Providers*, pp 2-3.

³ Dain-Rauscher-Wessels, June 2000, *Bullish on Broadband*, pp 113-114.

Multi-dwelling unit

Introduction

The MDU is a residential structure, as compared to a multi-tenant unit (MTU), which is inhabited by businesses. The MDU market has gained the attention of service providers because it provides a densely concentrated service area. This can greatly reduce the customer acquisition cost for the service provider. It has also gained the attention of property owners as a method of generating additional revenue through leasing or selling the access right-of-way to service providers. Finally, it is a marketing tool for acquiring new tenants as well as a retention tool to decrease turnover.

Market Research

The market research presented in this paper is based on U.S. Census data and Cahners In-Stat information.

The target market for service providers will be those MDUs with more than 50 units. While this segment represents slightly less than half of the number of MDUs, economies of scale dictate that larger properties should be the target market.

The market is projected by Cahners In-Stat to grow from under \$100 million in 2000 to almost \$780 million by 2004.⁴ New services will play an important

role in market growth, including entertainment, IP telephony, and “smart” home services

MDUs are owned by a variety of entities: corporations, partnerships, real estate investment trusts (REITS), and individuals. The most efficient approach for the service provider is to win those entities that own or control a large number of properties.

The MDU market is fueled by partnerships and strategic relationships; some players in the market are competitors as well as potential customers. Some of the providers manufacture their own equipment for part of the solution and purchase the rest from other equipment vendors.

Global View

In some European countries, there is a pattern of apartment ownership rather than renting. In some European cities, the deployment of broadband technologies that require construction to deploy fiber would be difficult if not impossible.

In the Asia Pacific region, the expected opportunity is even greater than in North America, as the population density in apartment complexes is much higher on average.

Potential Solutions

Any proposed solutions must live within the existing infrastructure. New construction of facilities for existing MDUs is difficult at best, and prohibited by the operator in most situations. Only in greenfield opportunities can construction of high-speed infrastructure, such as fiber, be considered.

The reference architectures include—but are not limited—to the following solutions:

Architecture	Wiring
Digital subscriber line (DSL)	CAT3
Cable	Coax/hybrid fiber coax (HFC)
Optical Ethernet	CAT5
Wireless	Transport for local area networks (LANs)

Master-planned community

Introduction

The MPC is a direct result of a change in attitude among the population. It reflects a growing desire to return to small-town, everyday life, away from

⁴ Cahners, May 2000, *Networked Neighborhood*, pp 2, 37.

big impersonal cities. The result is a small town with homes, businesses, a golf course, or other community facilities all planned in advance. The planning typically includes the entire acreage that is being developed, such that even the first residents have detailed knowledge about how their community will appear when completed.

A growing number of these developments are created each year, and this trend is expected to continue to grow in the future. As such, the MPC market represents a significant opportunity for service providers and equipment manufacturers in creating a truly wired community, with telecommunication and high-speed data communication access along with value-added local community services for everyone.

Market Research

Through analyst publications as well as public information, including U.S. Census and Department of Energy statistics, market research was conducted to determine the size of the MPC market for equipment manufacturers. Based upon the information found, the following data points and assumptions were used:

- 1.5 million new homes are constructed each year⁵

- 30 percent (450K) of those homes are in MPCs⁶
- An average of 1000 homes per MPC results in 450 new MPC developments per year⁶
- An average of \$200K per development for equipment costs yields a \$90 million per year opportunity⁶

Global View

The concept of an MPC is primarily a North American play. However, a large opportunity in Portugal has been identified—a hybrid MPC/MDU development—so it can be concluded that these types of communities will also be developed in Europe. The Caribbean and Latin America (CALA) and Asia Pacific regions have expressed an interest in further research in their respective geographies, and that research is in progress. It is expected that on a global scale, the total market will significantly increase and, therefore, the revenue potential for Nortel Networks will be significantly larger.

Potential Solutions

The reference architectures include but are not limited to the following solutions:

Architecture	Wiring
DSL	CAT5
Cable	Coax, HFC
Optical Ethernet	CAT5, hybrid/fiber coax (HFC), optical Ethernet

Multi-hospitality unit

Introduction

One of the new arenas in the broadband market is the hospitality industry. MHUs represent a large market that demands broadband service deployment to guest rooms, which service providers and hardware vendors are rushing to supply.

This market is a source of new revenue for equipment manufacturers, service providers, and property owners. Service providers are considering solutions specifically for the hospitality industry to differentiate themselves from other Internet service providers (ISPs). In addition, these service providers are also considering delivery of enhanced services, such as voice video and applications. Many are also offering cable installation services and on-site network management as part of the package to attract property owners.

⁵ Cahners, May 2000, *Networked Neighborhood*, pp 2, 37.

⁶ Nortel Networks (assumptions for number of MPC properties based on U.S. Census housing statistics).

Market Research

The Market Research is based on a survey conducted by the Cahners In-Stat (2000).⁷

The U.S. MHU market for services and hardware is expected to grow dramatically from 2000 through 2004. The market for equipment and services is expected to grow to almost \$700 million in that time period.

Almost three-quarters of the MHUs surveyed are considering broadband connectivity in guest rooms. The reasons most often cited are generating additional service revenue, attracting new customers, and retaining current customers.

Of those MHUs considering broadband, over 80 percent plan to deploy within the next 24 months. Only 13 percent have no time frame in which they plan to implement.

MHUs who would consider implementation plan to wire at least half of their guestrooms. The next level is in the 8 to 13 percent range. If the MHU was not faced with the prospect of new wiring, the “no” category drops from 21 percent to only 3 percent. However, the “don’t know” category increases from 6 percent to 19 percent. This shift suggests that proposing a strong business case using existing infrastructure (mostly copper, see following chart) or a wireless infrastructure could win a significant share of the “don’t know” category.

The MHU owner can be a REIT, corporation, partnership, or individual. There may also be management companies involved in the operation of a property or properties. The most efficient approach is to win those entities that own or control a large number of properties.

Some players in the market are competitors as well as potential customers.

Some of the providers manufacture their own equipment for part of the solution, and purchase the rest from other equipment vendors.

Global View

The data gathered as of the writing of this draft is for the U.S. only. However, we expect to find similar drivers for broadband in Europe, the Middle East, and Africa (EMEA), the Caribbean and Latin America (CALA), and the Asia Pacific region.

Potential Solutions

The MHU target market consists of hotels that cater to business travelers and have from 100 to 500 rooms.

Wiring is most often Category 3 (CAT3) performance standard in existing structures, and CAT5 for new or greenfield opportunities.

Proposed solutions include—but are not limited to—the following:

Architecture	Wiring
DSL	CAT3, CAT5
Ethernet	Fiber
Cable modem	Coax
Wireless	Wireless transport

Conclusions

OSP market demands are growing quickly. Many service providers are just beginning to realize the potential. As new services become available, the market should continue to grow beyond the current forecasted horizons in 2004.

As property owners become aware of the potential to grow their core business through enhancements that include broadband access and services, the market will increase beyond those that have recognized its potential today. The market is a win for all involved: the equipment manufacturer, the service provider, the property owner, and ultimately the tenants or residents.

⁷ Cahners, June 2000, *The Wired Room*.



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