

Broadband MTU 2001

Trends, Forecasts, Opportunities, and Threats of the MTU/MDU Market

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Agenda

- Market Overview
 - Segmentation
 - Size
 - Projections
 - Demographics
- Business Models
- Services
- Opportunities/Threats
- Keys to Success

Market Segmentation

- Segmented into three major markets
 - Commercial multi-tenant (MTU)
 - Includes businesses located in commercial buildings, campuses, and strip malls
 - Usually concentrated in downtown areas, business districts, and industrial campuses
 - Most targeted of the three segments
 - Residential multi-dwelling (MDU)
 - Includes residential properties from skyscrapers to garden-style complexes
 - Hospitality
 - Mainly hotels but also hospitals
 - Includes both consumer and business services

Market Sizes

■ MTU Market Size

- An estimated 150,000 buildings in the US according to the Department of Energy (1995):

■ Buildings with 6-10 establishments/businesses:	91,000
■ Buildings with 11-20 establishments/businesses:	28,000
■ Buildings with 20+ establishments/businesses:	31,000

■ MDU Market Size

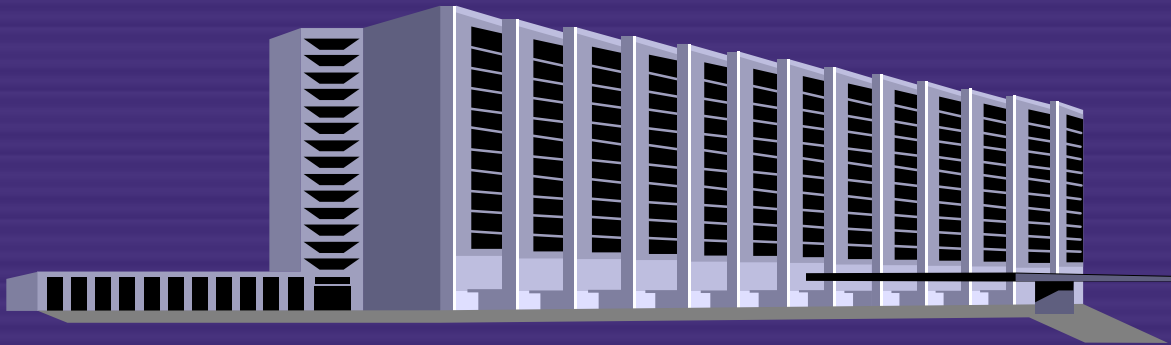
- There are more than 860,000 residential buildings and apartment complexes in the US, with an estimated 8.6M tenants

- Yankee Group (1999):

■ Buildings with 4-9 tenants:	622,850
■ Buildings with 10-19 tenants:	107,170
■ Buildings with 20+ tenants:	130,173

Market Sizes

- Hospitality market size according to Jupiter Communications
 - There are about 51,000 hotels in the United States with 3.9 million rooms
 - Business travelers constitute more than 55% of hotel occupancy



Market Projections

■ MTU Projections

- Equipment sales to increase from \$184 million to \$558 million in 2005 (304% increase)
 - 25% growth in 2001
 - 182% growth in 2002
 - 22% growth in 2003
 - 12% growth in 2004
 - 20% growth in 2005

Source: Cahners In-Stat

Market Projections

■ MTU Projections (Cont'd)

- Services are expected to grow from \$91 million in 2000 to \$3.4 million in 2005

■ MDU Projections

- High-speed Internet access will grow from \$124 million in 2000 to \$1.8 billion in 2005

■ Hospitality Projections

- Projects revenue of more than half a billion dollars by 2003 for the hospitality market
- Estimated that more than 4 million hotel rooms worldwide will offer on-demand Internet access by 2002, up from 4,000 rooms at the end of 1999

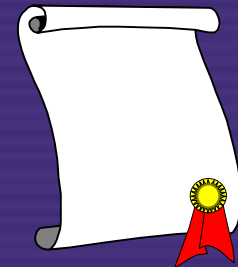
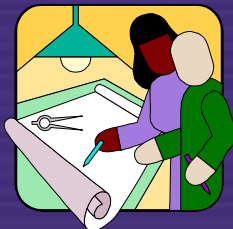
US Tenant Demographics

- About 60% of all businesses in the US are located in MTU facilities
- Majority of tenants in US commercial buildings have < 100 employees
- Small businesses (<100 employees) spent about \$1,000/year on Internet access
- That accounts for almost 10% of small business IT budget; this will increase to almost 30% by 2003



US Tenant Demographics

- Medium businesses (100-999 employees) spend about \$125K on Internet access per year
- This accounts for about 12% of total IT budget
- Over 90% of medium businesses had Internet access at the end of 2000
- % running corporate LANs: small businesses about 50%, medium businesses over 90%
- Typical vertical industries of tenants inside commercial buildings include legal, engineering, accounting, insurance, and business services



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Business Models

BLEC Option

- Business Definition: Building Local Exchange Carrier
 - Focused on equipping buildings with data network edge equipment, such as DSLAMs or routers, and providing data (mainly Internet) services to the tenants. Most are also providing some sort of voice services. DLEC business model with the edge of the network located in the building
- Pros of Business Model:
 - Limited regulations/dealings with ILEC
 - Good step into the BSP market
- Cons of Business Model:
 - Crowded market
 - Limited or no funding available
 - Access services quickly becoming commodity
 - Low to no margins for BLEC services
 - Replicable business model
 - Unproven model

BLEC Option

- Competitive Service Examples:
 - High-speed Internet access
 - Some traditional ISP services – email/Web hosting
 - Voice services
- TeleChoice Take on Opportunity:
 - Overcrowded market – if not already in, probably too late
 - Services are commodities resulting in thin to no margins
 - Difficult to differentiate from competitors
 - Companies that stay with this model long will probably not survive
 - Must be combined with plans to evolve into BSP where higher-margin products are offered

BSP Option – Extension of BLEC Model

- Business Definition: Building Service Provider
 - A business model that extends the BLEC model by providing value-added services and application services to building tenants in addition to Internet access service
- Pros of Business Model:
 - Provides a growth path from BLEC business model
 - Offers more options to differentiate through value-added services
 - Value-added services return higher margins leading to faster positive cash flow
- Cons of Business Model:
 - Requires more customer education on value of service offerings
 - Small businesses might be slower to adopt hosted services and applications
 - More capital intensive than BLEC due to application solution aspect
 - More complex due to necessary relationships with application partners

BSP Option - Extension of BLEC Model

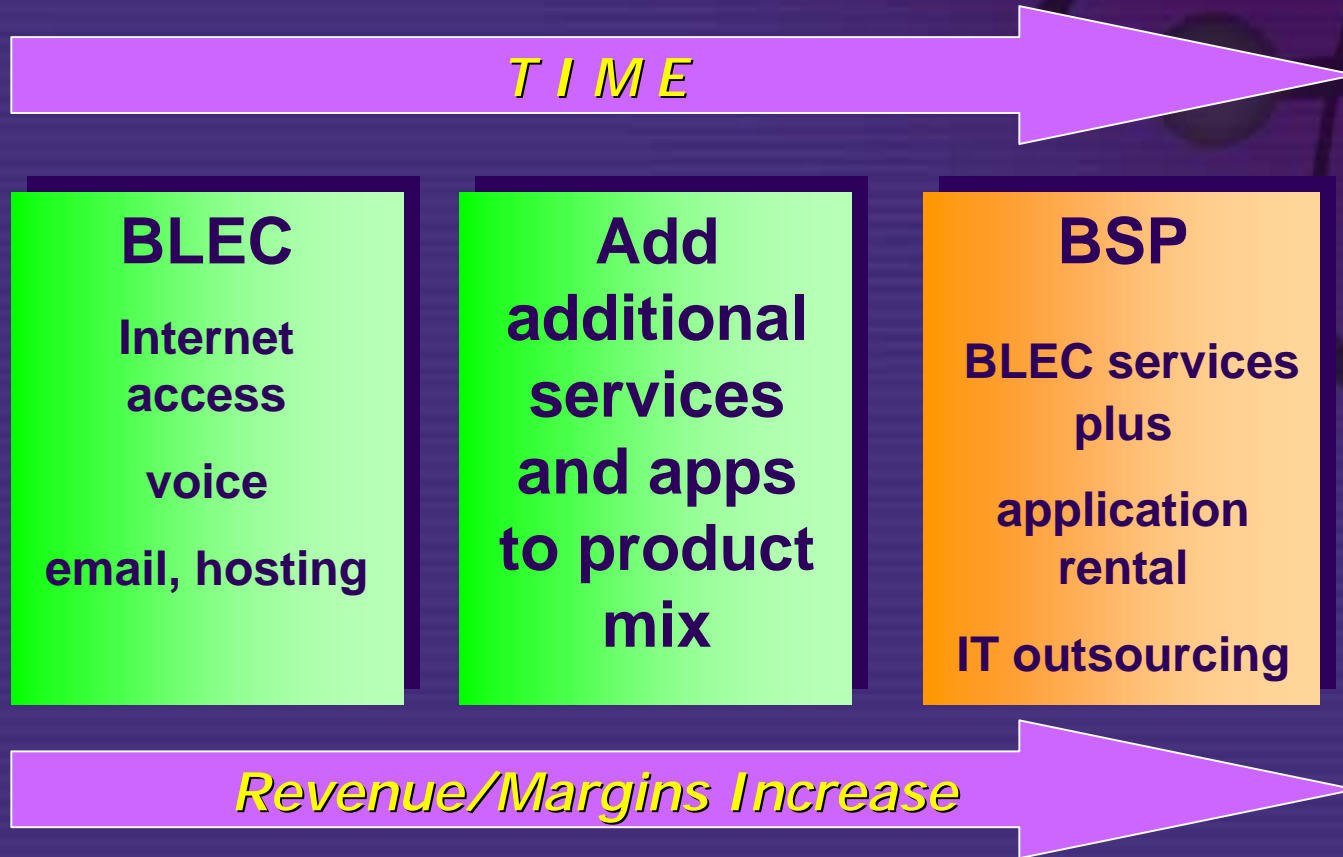
■ Competitive Service Examples:

- Application rental
- Professional services
- IT outsourcing
- Desktop rental
- LAN integration
- E-Commerce

■ TeleChoice Take on Opportunity:

- More attractive than simple BLEC business model
- Value-added services allow for more revenue and margin growth potential
- BSP model has better chance of survival than BLEC model
- Can tailor service offers for vertical markets

BLEC – BSP Evolution



Equipment Vendors

- Equipment vendors can be segmented into three main categories
 - MTU-focused vendors
 - MTU + others vendors
 - Something-for-everyone vendors
- MTU-focused vendors
 - Focus solely on serving the MTU market
 - Usually startups
 - Tend to have unique solutions since they have designed a solution specifically for the MTU market
 - Could be potential buy-out targets for the bigger vendors
 - Optranet purchased by Extreme Networks
 - Examples include: Avail Networks, RC Networks and TUT

Equipment Vendors

■ MTU + Other vendors

- Vendors that have had some success in other markets
- Now expanding their existing product line to include the MTU market
 - Usually involves scaling down their original equipment
- Increased focus on the MTU market to create additional revenue sources
 - Some have been hurt by the failures of DLECs
- Examples: Copper Mountain, AccessLan, Accelerated Networks, Extreme Networks

■ Something-for-everyone vendors

- The large vendors that have a solution for everyone
- MTU market is a very small piece of their overall business
- Have the name, money, and resources to create good solutions for the MTU/MDU market
- Examples: Cisco, Nortel, Lucent

Current MTU Environment

- Beginning to see some failures in the space
 - Service providers - Urban Media and Eziaz; Darwin Networks and Winstar file Chapter 11
 - Others in trouble
 - But a few have recently received some funding
 - Intellispace received \$60 million in February 2001
 - Everest Broadband received \$50 million in January 2001
- Lack of capital funding has forced many providers to change network build-out plans
 - Slow down building expansions to save cash
 - Considering lower-cost alternatives for build outs
 - Use existing wire versus rewiring
 - Concentrating on the buildings already lit to gain penetration and increase revenue

Current MTU Environment

- Service provider slowdown might effect equipment vendors
 - Buying less equipment since slowing down build outs
- Some BLECs adding services and moving into the BSP category
 - Firewalls services
 - Professional services
- Bundling of services is still scarce
- Many new Gigabit Ethernet and VDSL vendors are appearing in the market
 - MTU/MDU market is a good test market for these vendors
 - Provides faster speeds than DSL for bandwidth-intensive applications such as video

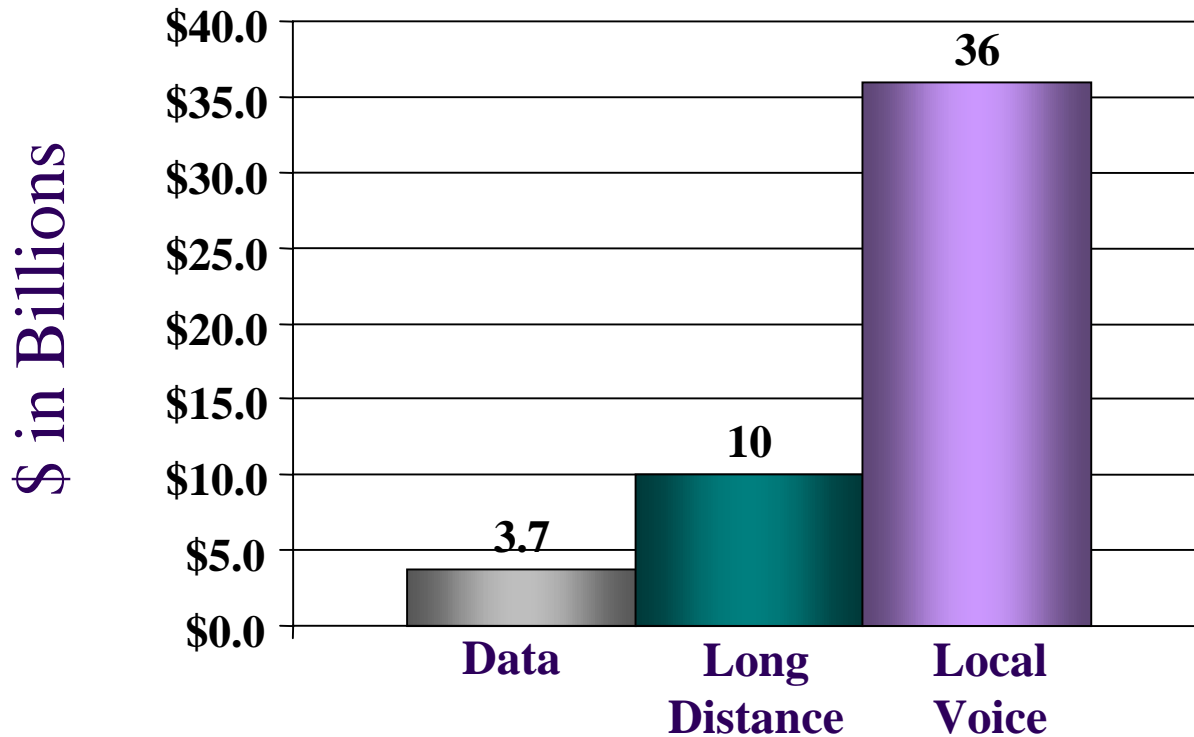
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BLEC/BSP Services

Common Services

- Voice
- Internet access
- Web hosting
- Messaging
- Security

Total US Small Business Spending



Result: Integrated Voice/Data Can Be a Big Money Maker

Service Offerings

■ Internet access

- Many small businesses do not utilize broadband connections today
- They do not understand their need for broadband
- There needs to be a reason for them to “need” broadband before they will pay for it
- Unfortunately, there is no real killer broadband application for this segment currently
 - Applications have to have opportunity to help drive the need for broadband
- Types of Internet access
 - High-speed access
 - xDSL
 - Gigabit Ethernet
 - Dial-up
 - Both office and remote

Service Offerings

- Messaging and collaboration
 - Most businesses utilize email for corporate communication
 - Almost all service providers have email services available
- Possible messaging service offerings
 - Email services
 - Tiered for basic or business-class email
 - Domain and non-domain name email
 - Outsourced MS Exchange 2000
 - Unified messaging
 - Converging of voice mail, email, and fax on one platform that is accessible at any time with any device
 - Technology still in infancy stage but large market prediction in this market segment
 - Document management
 - Audio conferencing
 - Video conferencing

Service Offerings

■ Security products

- Education is needed to successfully sell this service
- Most small businesses don't understand security, they just know to be "scared"
 - Have heard about the Melissa virus
- Security is complex and difficult to understand
- Great opportunity to provide a managed security offer that is bundled in with broadband access

■ Possible service offering

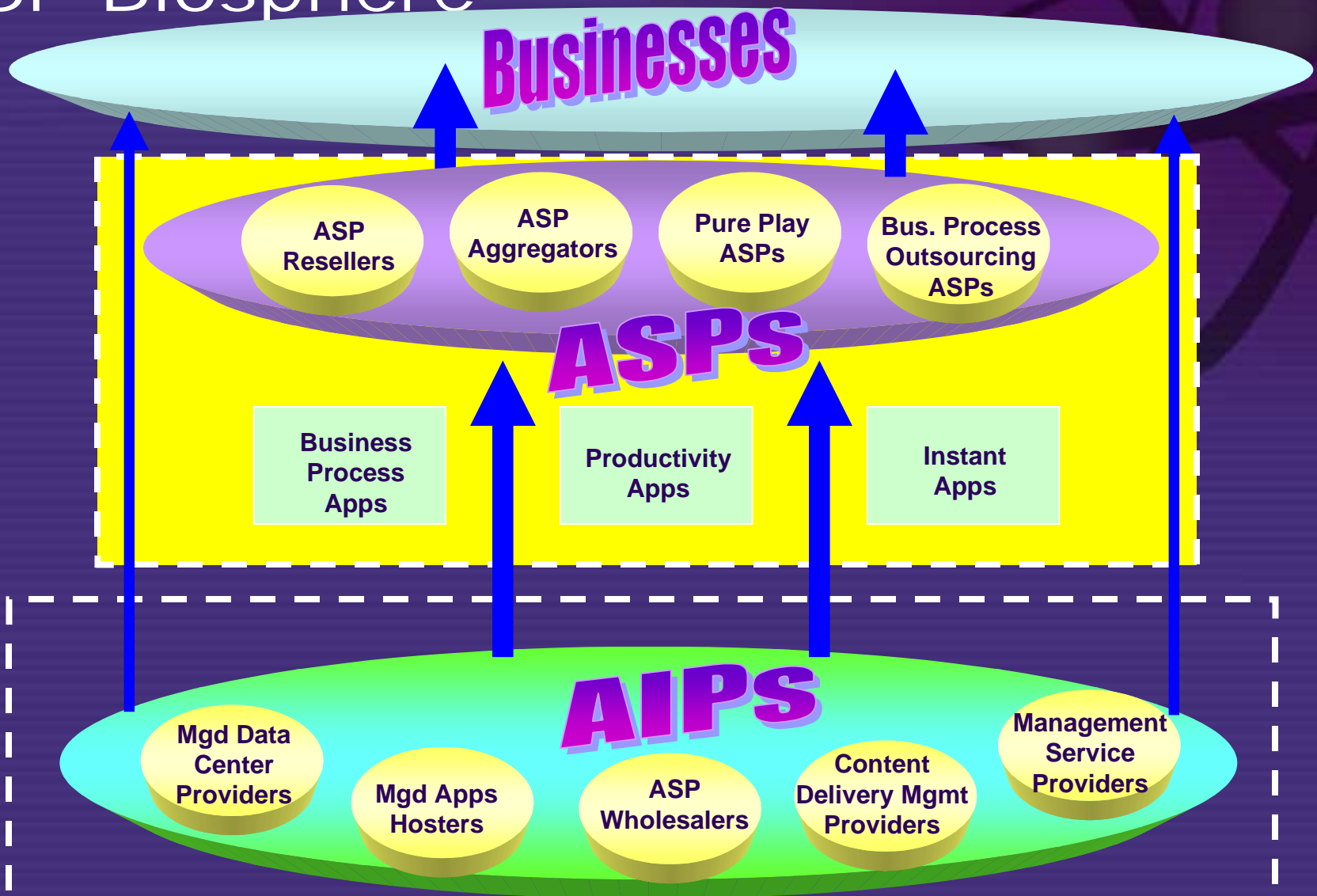
- Firewall
 - Tiered level of security depending on needs
- VPNs
 - Remote offering for traveling personnel
 - HQ to branch offices
 - Can be CPE-based or network-based
 - Remote LAN access

Service Offerings

■ Web hosting

- Low margins but a must-have to be a one-stop solution since most SMBs need a Web presence
- Most service providers are partnering with a hosting vendor to resell the hosting service versus doing it in-house
 - Data centers are high cost and difficult to maintain for low-end hosting
- About 87% of small businesses utilized their Internet access service provider for Web hosting
- Possible Web hosting service offerings
 - Shared Web hosting with specific limits on disk space and bandwidth
 - Dedicated hosting for larger, more complex websites
 - Website design

ASP Biosphere



Application Taxonomy

	Business Process Applications	Productivity Applications	Instant Applications
Applications Supported	ERP, CRM, HRMS, and other e-business-related apps	Messaging and collaboration, document management, time tracking, expense reporting, basic invoicing, etc.	Voice/data conferencing, whiteboard apps, broadcast fax, storage-on-demand, entertainment, financial transactions, and event-based applications
Service Interface	Typically apps window but can also be browser-based	Portal, browser, or apps window	Typically a portal
Service Term and Payment	Per-seat basis or flat monthly charge, plus customization charges	Typically contracted service (monthly payment)	Typically "Sign Up and Pay Online," a la Pay-Per-View or Use
Service Packaging and Configuration	Requires more sophisticated integration and configuration	Prepackaged with little or no configuration	Prepackaged with little or no configuration
Target Market (Size)	Traditionally large enterprises but ASPs allow smaller businesses to have the same apps as larger businesses	Primarily SOHO, small, and med-sized businesses; but some large business as well (want to concentrate more on bus process apps)	Any size business with on-demand, emergency, or one-off applications
Connectivity	Generally requires some private connections or secure Internet access	Private connections and/or Internet access	Primarily Internet access

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Opportunities/Threats

Potential Issues/Threats

- The MTU/MDU is a unproven model
 - Most analysts will suggest only a few service providers will survive
- Adoption rate of the services by small businesses
 - So far, the penetration rates needed to achieve profitability have been very difficult to achieve
- Relatively small IT budgets of small businesses
 - Not a whole lot of IT services budget for most small businesses
- Service provider slowdown could have an impact on the success of equipment vendors



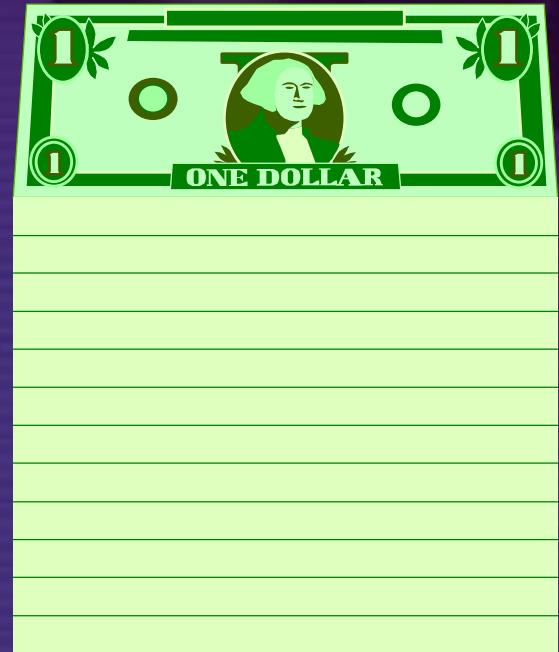
Potential Issues/Threats

- Large capital investments by service providers to get in the buildings
 - Although most service providers are looking for lower-cost alternatives
- Potential for in-building competition
 - Not really an issue yet
- MTU market is very crowded
 - Both from a service provider and equipment vendor perspective



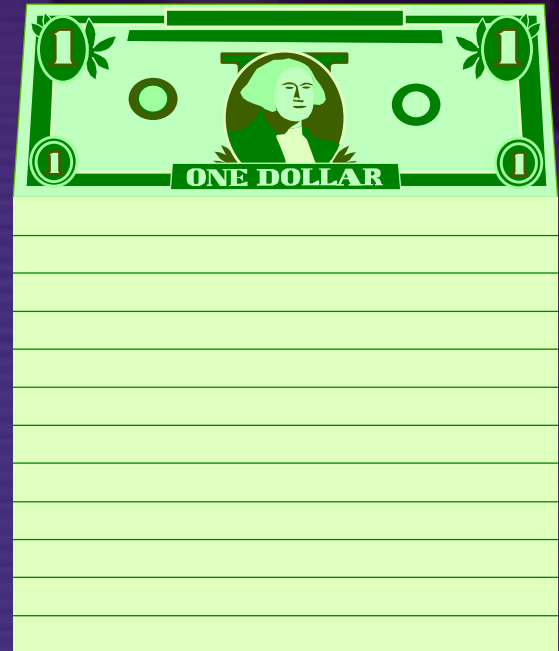
Opportunities

- Huge market opportunity with millions of small businesses – many of which reside in commercial buildings
 - Tier 2 and 3 cities remain very underserved by both the MTU/MDU service providers
- Small business market has been mostly ignored and underserved by the ILECs
- Technology might force many businesses to adapt new applications to stay competitive



Opportunities

- Recent failures of the xDSL service providers could create some opportunities for the MTU providers
- IT outsourcing all the way to the desktop is huge opportunity
 - Small businesses do not have IT departments
- ASP model fits nicely in the MTU market
 - Common applications such as financial, payroll, and HR services can be offered as ASP solution



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Potential Strategies

Strategic Options For Service Providers

- Die fast (keep spending money)
- Die slow (stop spending money)
- Salvage something (sell out)
- Win in retail (focus on tenants)
- Win in wholesale (focus on retailers)

What Does It Take To Win In Retail?

- Focus on providing compelling solutions to each tenant in each building:
 - Provide more customization/control than the RBOC ever could (order-of-magnitude improvement)
 - Deliver at a lower cost than your competitors ever could (order-of-magnitude improvement)
 - Provide complete solutions combining voice, data, Internet, applications, content

- Requires focusing ALL resources on building long-term, committed relationships built on knowledge, understanding, and trust

What Does It Take To Win In Wholesale?

- Focus on providing transport to all service providers serving the tenants:
 - Establish the lowest cost position
 - Drive utilization and scale
 - Exit all segments where you don't have lowest cost or can't achieve utilization or scale
 - Create the portfolio of QoS-enabled services that will enable retailers to deliver powerful solutions to tenants

- Requires focusing ALL resources on establishing and defending the lowest cost position and on creating the ability to manage your margin mix

Keys To Success

- Define your business strategy
 - What is your company all about?
 - What are your core strengths and competencies?
 - Don't confuse your business strategy with your product or marketing strategy
- Segment the tenant market
 - Most providers going after any and all tenants in the building with the same generic offer to all
 - Good to go after all customers to gain penetration but customers have different needs
 - One size does not fit all
 - Know who your top 5-10 segments are
 - Understand their needs
 - Develop bundles specifically designed around those needs
- Use appropriate technology depending on building characteristics to deliver these services

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TeleChoice, Inc.

The Strategic Catalyst for the Telecom Industry