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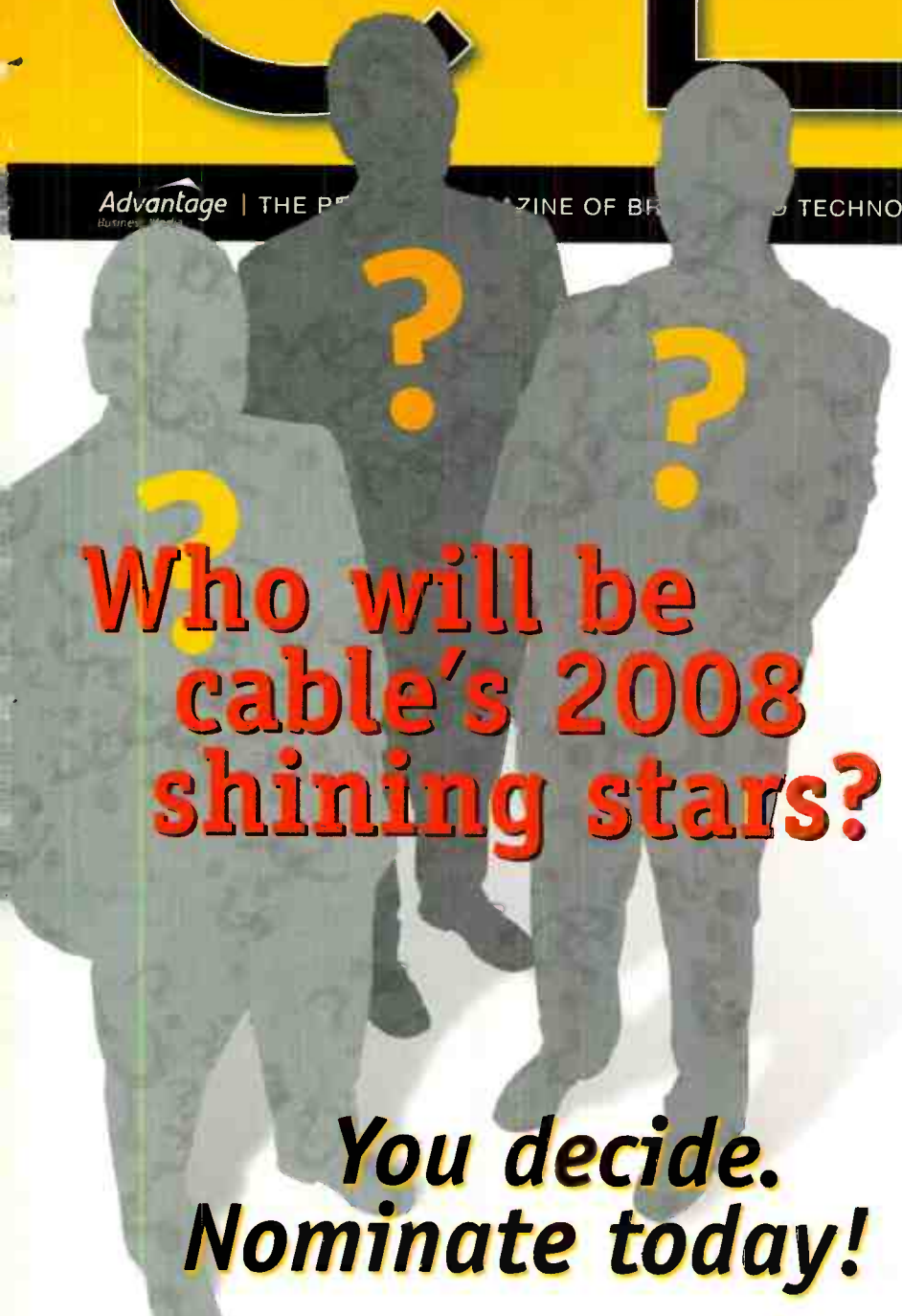

Who will be cable's 2008 shining stars?

You decide. Nominate today!

IP Innovator Award

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A member of SCTE who, as an engineer or manager, has displayed innovative achievement and creativity in the advancement and development of IP networking.

Polaris Award

Sponsored by CommScope

An engineering manager at the system, MSO or vendor level who has displayed exceptional achievement and commitment to the development and/or deployment of HFC Networks. Nominees must be members of SCTE to be considered.

Star of Integrity

Sponsored by C-COR

A member of the SCTE who, as an engineer or manager, has contributed to the efficiency and effectiveness of next-generation networks in delivering On Demand services.

The 2008 Emerging Technologies Award winners will be recognized in a multitude of industry venues, including a cover feature in the March 2008 issue of CED magazine and presented with a special award during SCTE Conference on Emerging Technologies® annual awards luncheon.

Nominations deadline: November 2, 2007

It's easy to nominate: Visit www.scte.org to complete the nomination form for a deserving industry professional.

The 2008 Emerging Technologies awards are presented by:

SCTE Society of Cable Telecommunications Engineers

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deep video library with instant access must-watch lists; accessed through second and third screens; opt-out windows that would allow viewers to change their mind about a movie within the first five to 10 minutes without paying for it; a high-quality viewing experience; and instant access to the desired title with simplicity and not all the "forced previews" of DVDs would provide a formidable service that would not only compete with best-in-class online rental companies but beat them with ultimate convenience.

Such a service could relegate the likes of Netflix and Blockbuster to mere niche players who provide deep libraries of hard-to-find titles. While this too could also be a lucrative business for some time, VOD operators need storage technology to get much better and significantly cheaper for them to cost-effectively build and maintain a 100,000-plus title library. ■

CICIORA'S CORNER

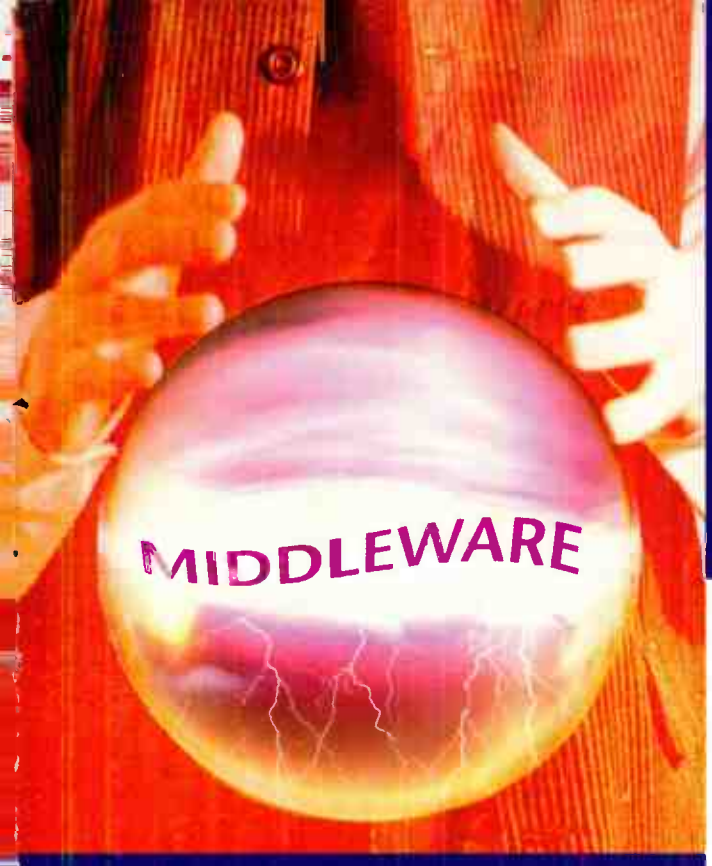
Have a comment? Contact Walt by e-mail at: wciciora@ieee.org

Continued from page 46

measure my blood pressure. It was 200-plus over 100-plus. That was the last game I watched – not worth dying over.) So when *USA Today* comes, the first thing I toss is the sports section (got to take care of my blood pressure). When the *Wall Street Journal* comes, I toss section C. And I haven't looked at those pages of fine print of stocks in years. I have my Internet connection for that. Should my newspapers be "a la carte," too?

The consumer electronics industry is pushing for regulations that would limit cable innovation by forcing cable services to be constrained to only what can work with the products they make - I should say, the lowest common denominator of the products they make, since there are very few standards. The misleading terminology of "Digital Cable Ready" has caused plenty of confusion with subscribers who thought they wouldn't need a set-top box for VOD or other interactive services. These same folks would like to halt switched digital video because it requires a set-top box or an adapter with DCR. Are our subscribers to be prevented from enjoying additional services because of these limitations? Again, I'll let you decide if these are "clowns" or "jokers," but in either case, they are unfair and dangerous.

It seems all we can do is grin and bear it and hope our Washington folks can do some good in the face of all the evil forces. Here's another line: "It's so hard to keep this smile from my face, losing control, yeah, I'm all over the place."



Middleware demystified

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LIVE WEBCAST:

Tuesday, October 2, 2007

11:00 a.m. ET; 8:00 a.m. PT

Register at www.CEDmagazine.com

The term **"middleware"** can mean different things to different people...and perhaps to different industries. Although, at its essence, middleware ensures a linkage between the application and the device's resident operating system and aims for applications that can be "written once" and deployed widely, some versions bundle in an interactive program guide, while others don't. Some are optimized for specific platforms, and others are designed to operate in a wide range of environments.

This **FREE Webcast** will cut through the clutter to apply a firm definition on middleware and provide an unbiased view of the various types of middleware, as well as their capabilities and potential shortcomings.

During this 60-minute, live event, you'll learn...

- About the role of middleware in entertainment delivery systems and the linkages that middleware forms to tie anchor services together..
- How a major broadband service provider weighed its middleware options and came to an important, final decision.
- The benefits of an extra layer of software that makes it easier for operators to adapt middleware to different hardware platforms, including digital set-tops.

Moderator:

Gary Arlen
President
Arlen Communications Inc.

Panelists:

Matt Cuson,
Vice President of Marketing,
Minerva Networks

Keith Wymbs,
Product Manager,
Motorola

David Eubanks,
Network Planner, Strategic Network Planning,
D & E Communications

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SOUTH KOREA

By early 2007, about 29 percent of South Korea's population – 90 percent of households – subscribed to broadband services, making it the most penetrated broadband market in the world. In the late '90s, the government mandated that operators provide a 2 Mbps connection for every citizen. The government's push for ubiquitous coverage, mixed with Korea's competitive market, dense population (apartment buildings make up nearly 60 percent of housing) and computer-literate society, outlines the foundation of the country's burgeoning broadband market.

The popularity of available content, such as online gaming, has also spurred broadband growth, as well as reduced costs due to increased competition. And as of 2006, South Korea had the largest percentage of Internet users downloading videos from the Web.

South Korea's Broadband convergence Network (BcN) is expected to be completed by 2010, converging TV broadcasts, voice telecommunications and the Internet into a single network with transmission speeds of 50-100 Mbps.

Cable TV operators in the country have rivals in satellite providers, but also in Hanaro and KT, two telcos that have deployed pre-IPTV services. IPTV regulations have been delayed in the country because of a long-lasting spat between the Ministry of Information and Communication (MIC) and the Korean Broadcasting Commission (KBC) over who should regulate the new technology. Now the National Assembly is trying to introduce a regulatory framework through legislation.

What follows are some brief statistics and a peek at South Korea's major players.

South Korea broadband stats

- Population: 49.1 million
- 41.1 million mobile subs**
- 34.1 million Internet users*
- 23.1 million fixed telephone lines in service*
- 14.2 million broadband subs**
  - 5.2 million DSL subs
  - 5.1 million cable modem subs
  - 3.6 million A-LAN subs
  - 400,000 other subs

C&M

- Headquarters: Seoul
- Second-largest cable operator
- Offers cable TV, VOD and high-speed Internet services.
- 2 million cable TV subs*
  - 1.9 million analog subs
  - 84,000 digital subs
- 422,000 Internet subs*
- In August, Goldman Sachs sold its 30.5 percent share in C&M to Macquarie Bank for $664.9 million.

Hanaro Telecom

- Headquarters: Seoul
- Second-largest telco
- Offers high-speed Internet, IPTV and telephony services.
- 540,000 hanaTV (VOD IPTV) subs***
- 3.6 million broadband subs**
  - 2 million cable modem subs
  - 956,000 A-LAN subs
  - 568,000 DSL subs
  - 77,000 FTTH subs

KT

- Headquarters: Seongnam City
- Largest telco
- Offers fixed-line, data, Internet, mobile and satellite telecom services.
- 21.3 million fixed-line subs**
- 6.5 million broadband subs***
  - 4.5 million DSL subs
  - 1.8 million A-LAN subs
  - 187,000 FTTH subs
  - 1,200 satellite Internet subs
- 30,000 MegapassTV (VOD IPTV) subs**

SK Telecom

- Headquarters: Seoul
- Largest mobile operator
- Offers mobile, wireless Internet and video telephony services.
- 20.7 million subs**
- Recently inked deal with McDonald's, enabling users to place meal orders via mobile phones.

SkyLife

- Headquarters: Seoul
- Offers digital satellite TV, as well as portable and mobile video services.
- 2 million subs**
- Launched DVB-MHP-based iTV service (SkyTouch) in 2003; currently has more than 1 million SkyTouch subs.

Tbroad

- Headquarters: Seoul
- Largest cable operator
- Offers cable TV, VOD and high-speed Internet services.
- 3 million subs*

** As of December 2006*
*** As of March 2007*
**** As of April 2007*
Source: BuddeComm

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Addressable advertising, interactive advertising, RFI (request for information), telescoping, and on demand advertising are all means for service providers to increase ad revenue from both local and national advertisers. New capabilities in ad splicers, video on demand servers and switched digital video can be combined with new dynamic ad decision engines to enable a powerful infrastructure for maximizing revenue while providing a better product for advertisers.

During this hour attendees will hear about...

- Infrastructure requirements and options
- How to build on success
- Realistic expectations for return on investment

Moderator:

Brian Santo
Editor
CED Magazine

Panelists to be announced

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NEW products

FTTx cabinet

HICKORY, N.C. – Corning Cable Systems has announced the latest addition to its cabinet offering, the OptiTect Local Convergence Cabinet, LS Series, which the company says is suited for applications involving higher density, flexibility and scalability. The new cabinet will be available in scalable sizes up to 864 fibers.

The LS Series Cabinet features a new method of splitter module loading and parking. Its jumper routing and slack storage allow FTTx providers to install cabinets quickly and easily on day one, as well as maintain fiber organization and protection throughout the life of the network, according to Corning.

The cabinet includes "pass-through" patch panels for commercial services or customers who require dedicated fibers that bypass optical splitters. The cabinet allows for multiple feeder and distribution cables for added flexibility in network deployment. It also features a replaceable shell. If a deployed cabinet sustains exterior damage, the shell can be replaced without having to interrupt services and install a new cabinet.

The LS Series Cabinet features splitter modules which are approximately 40 percent smaller than traditional modules, says the company, and are robust enough to meet the requirements of harsh installation environments.

Three-phase UPS

DAYTON, Ohio – Staco Energy Products Co. has unveiled its new TreStar P line of online, double-conversion, three-phase Uninterruptible Power Supplies (UPS) for critical loads. Up to eight TreStar P modules can be installed in parallel for redundancy or additional capacity. The new products feature a digital control system to eliminate all overloads, frequency variations, transients, flicker and blackouts in real time. The digital control processes signals 10-times faster than previous analog methods, according to Staco. The TreStar P is suited to protect sensitive loads like data centers, computer systems, and telecommunications systems.

The components include a user-friendly front control panel with an LCD panel.

Self-healing cable

PLEASANT PRAIRIE, Wis. – Honeywell has introduced HDMI digital cable with CURxE Light technology that automatically corrects corrupted HDCP and EDID data that would otherwise degrade high-definition picture and multichannel audio performance. HDCP and EDID data becomes corrupted as a result of inconsistencies in hardware manufacturers' implementation of HDMI, or excess transmission distances, according to the company. CURxE Light Technology automatically cleans the bad data to its intended dynamic range for the best picture quality. Left uncorrected, this corrupt data causes dropout of the picture or audio signal, incorrect resolution, intermittent "snow" in the picture, or a pink- or blue-hued screen. Four LEDs integrated into the cable's HDMI connector serve as self-diagnostic monitoring indicators.

Staco Energy Products' UPS

Fiber optics

PLP's Coyote splice tray

Splice tray

CLEVELAND, Ohio – Preformed Line Products (PLP) has introduced the Coyote splice tray with Lite-Grip technology, which makes fiber installation and adjustment easier to manage, minimizing the potential for damage and reducing labor time and cost, according to PLP. The tray's design features Lite-Grip retention sleeves, which secure bare fiber entering the tray; splice blocks, which secure and protect fiber splices from movement and vibration; and ribbon managers, which help organize fiber bundles within fiber storage compartments.

The design of the components eliminates the need for tie wraps. They accommodate single buffer tube, multiple buffer tube and pigtail grip configurations. Soft component materials help ensure that fiber is not over compressed during installation or adjustment. The Lite-Grip splice blocks are designed to increase splice density within the splice tray, and they are available for single fusion and ribbon applications. Splice blocks for ribbon applications are also sized to accept PLC splitter devices. The splice tray is engineered to meet the challenging space requirements of newer fiber networks by permitting larger bend radii in a small package.

Building the Network of the Future Today

A New Live Webcast from CED

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LIVE WEBCAST:

Thursday, November 1, 2007

11:00 a.m. ET; 8:00 a.m. PT

Register at www.CEDmagazine.com

Cable operators are faced with a **changing landscape** in today's network environment. They need to keep up with the current slate of services, have plans in place for advanced services and be ready for the next "killer" application.

This Webcast sponsored by OpVista and hosted by CED will outline the current environment of today's networks and the requirements for networks of the future.

This live, 60-minute event, will educate you on...

- What's going on in the network today?
- What new services are driving the need for greater bandwidth and quick service delivery?
- What are the continuing pressures to reduce CAPEX and OPEX?
- Unpredictability of the next "killer" application
- Requirements for the network of the future; service types, bandwidth required, flexibility (CAPEX & OPEX containment), Options for the network of the future and tradeoffs

Registration will include a FREE white paper on the same subject

Moderator:

Mike Robuck
Senior Editor
CED Magazine

Panelists:

Eve Griliches,
Program Manager, IDC

Winston Way,
CTO and Founder, OpVista, Inc.

John Guran,
Senior Director, Network Engineering;
Northeast Ohio Division
Time Warner Cable

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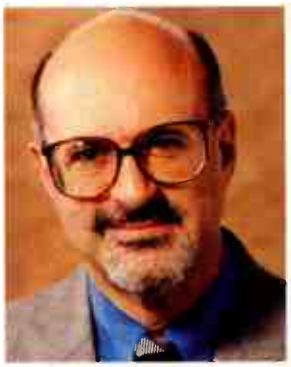
DBS update



By Jeffrey Krauss

President of Telecommunications and Technology Policy

jkrauss@krauss.ws

The FCC recently adopted a number of policies for the new band, but the interference issues are far from resolved

Over the past few years I've provided updates on the new DBS frequency band, and what the FCC was doing (or not doing) to implement new services. It's a saga that could have been written by the Slowskys (www.theslowskys.com/home/).

In 1992, the International Telecommunications Union adopted an additional frequency allocation for broadcast satellite service in North and South America. The 17.3-17.8 GHz band would be the downlink broadcasting frequency, and 24.75-25.25 GHz would be the uplink (or "feeder link") band. In 2000, the FCC adopted this allocation into the U.S. frequency table, except that only the 17.3-17.7 GHz band was allocated for downlink broadcasting; the 17.7-17.8 GHz slice was already heavily used for point-to-point microwave links and the FCC decided that sharing would be difficult.

But then the FCC had to confront another sharing problem. The 17 GHz frequencies were long ago allocated as uplink feeder link frequencies for the 12 GHz DBS band, and DirecTV, EchoStar and other satellite operators have uplink earth stations at 15 to 20 locations in the U.S. Those high-power uplink signals would leak into any nearby home earth station receivers and cause interference. This use of "reverse band" operations was unprecedented, and the FCC still has not figured out how to deal with it.

Meanwhile, four companies had filed satellite applications at the FCC to use the new frequency band, even though the FCC had no rules in place to deal with interference issues, licensee eligibility, applications processing, or anything else. These four are EchoStar, DirecTV, Intelsat North America and Pegasus Development DBS Corp.

So in June 2006 the FCC issued a Notice of Proposed Rulemaking, proposing a variety of rules and asking questions in particular about the interference issues. I wrote about that in my August 2006 column (www.cedmagazine.com/article.aspx?id=67672).

The FCC recently adopted a number of policies for the new band, but the interference issues are far from resolved. Among the recent decisions was four degree orbital spacing for the satellites (compared with nine degrees for the existing DBS service). That should support service to dish receivers as small as 45 centimeters. The FCC defined 35 orbital slots that start at 43 degrees West Longitude (over Brazil, and way to the east of any point in North America) and continue to 179 degrees WL (over Fiji and the Marshall Islands, and way to the west of Honolulu). So some of the orbital slots are much more desirable than others.

The FCC had previously received 20 satellite applications from the four companies, but some of them conflicted with one another because they proposed the same orbital slot. So the FCC gave the four applicants time to amend their applications, and decided to allow (eventually) additional applications on a first-come, first-served basis. But for now, there is a filing freeze on new applications until the existing applications are amended. So the existing operators – EchoStar and DirecTV – are assured access to this new band, and they will get the best orbital locations. And maybe Pegasus and Intelsat will simply lease capacity to EchoStar and DirecTV rather than competing with them.

The FCC resolved some of the interference issues, by adopting uplink and downlink power limits and antenna patterns, using traditional approaches. But the question of interference from existing 17 GHz DBS feeder link stations into new 17 GHz DBS home receivers is still up in the air, so to speak. It seems likely that all existing DBS feeder link earth stations will be grandfathered, and operators will be allowed to construct new stations at or near existing sites. Nearby DBS home receivers will simply have to accept any interference.

The tougher question is the deployment of new 17 GHz feeder link stations. As new satellites are designed with more spot beam capability, and as EchoStar and DirecTV try to carry local broadcast signals from additional cities, it seems likely they will want to build more feeder link earth stations. What happens if they want to build a new station say 10 years from now, in an area where there are some 17 GHz DBS home receivers?

So the FCC has released a Further Notice of Proposed Rulemaking on these and other interference issues. Based on past performance, we'll get an answer from the FCC in about a year.

Meanwhile, EchoStar, DirecTV, Intelsat and Pegasus will pick the best orbital slots. The FCC will eventually start to accept additional applications, and later on maybe there will be some new DBS operators to compete with EchoStar and DirecTV.

That will be about the time the Slowskys mutate into tortoises with long sinewy legs, able to run the four-minute mile.

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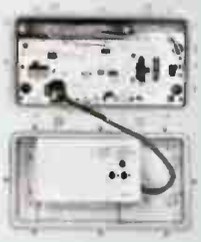

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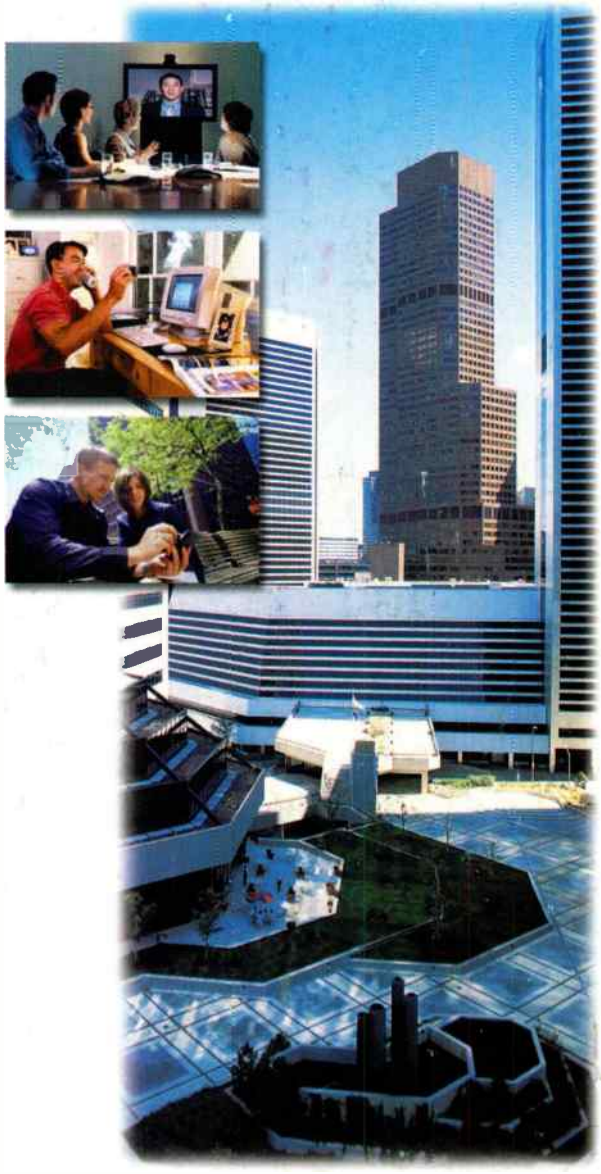

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