SATELLITE 2008
SHOW DAILY
DAY 4 » THURSDAY » 02.28.08

MSS CEOs Confident
Despite Competition

BY MARK HOLMES

CEOs in the mobile satellite services (MSS) sector are convinced that the industry has learned from the failures of the 1990s and all operators can build solid businesses as the demand for mobile services continue to grow.

John Mattingly, president, satellite services, Mobile Satellite Ventures (MSV), believes the company could build a strong mass-market business. "We are going to be a mass consumer business. That is where we are heading. We are looking at millions of devices on our system. Thousands would represent failure," he said during the "Mobile Satellite Services: MSS Industry Leaders Stake Their Claims" sector Wednesday.

Predictably, Inmarsat CEO Andy Sukawaty is less than enthusiastic about the business plans of some his new rivals. "In the 1990s, the feeling was the market was limitless. I think there was a basic misunderstanding of what satellites can do. (Right now), you wouldn't choose to be a LEO (low-Earth orbit operator). We could have another round of bankruptcies."

Photo by Lisa Czaplicki

MSS operators remain confident they can all find a niche in different areas of the mobile services market.

This understandably bought a response from the LEO operators. "As far as LEO versus [geostationary], we have potentially one of the most valuable architectures in the world, said Iridium CEO Matt Desch. "It is about doing something that others can't do. I think it has proved to be a valuable business. There are a lot of partners who want to work with us. We will take advantage of our highly unique proposition."

Desch believes the Iridium business has been growing strongly, and its growth has not been at the expense of just picking up subscribers from its rival Globalstar, which has coverage issues. "We have been growing quite rapidly," he said. "I think there is an underlying global growth that we have overachieved on. We are growing in Asia like 50 percent. I think we operate

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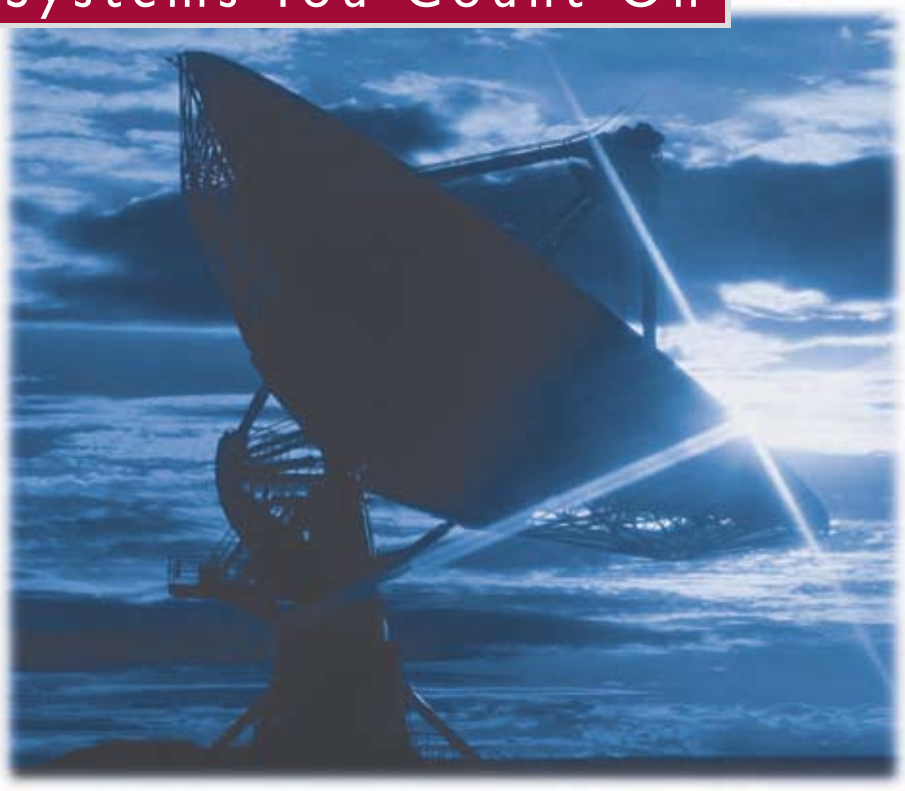

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SATELLITE 2008 Provides Strong Start To Year

As SATELLITE 2008 closes, the industry is on solid footing and ready to take advantage of opportunities as well as tackle challenges that will arise throughout the year.

But before you leave, the final day of the show features a pair of panels that will examine more of the trends affecting the industry.

The industry is on solid footing and ready to take advantage of opportunities as well as tackle challenges.

The day opens with "Satellite Broadband: Is Ka-Band the Way to Grow?" – a comprehensive look at a technology that has dominated many conversations at SATELLITE 2008. A panel that includes executives from several satellite operators will examine the factors behind the growing demand for Ka-band services in North America and Asia and whether that mix of technology and business plans can be transferred to other regions of the globe.

The closing panel, "Satellite SWOT: Challenges and Opportunities for Satellite-Enabled Communications," will bring together industry leaders to discuss the most interesting topics that arose during SATELLITE 2008 as well as what innovations will drive "The Sixth Decade." The executives from various industry segments will look at how satellite networks will compete against as well as complement terrestrial infrastructure, the impact new competitors will have in the market and, of course, whatever questions you propose.

We trust that SATELLITE 2008 has met all of your business and networking needs, and look forward to seeing you March 24-27, 2009, for SATELLITE 2009. ■

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December 21 - Ariane 5	
INTELSAT / JSAT	Horizons-2
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MDA	RADARSAT-2
November 14 - Ariane 5	
paradigm	Skynet 5B
Star One	Star One C1
October 21 - Soyuz	
Globalstar	Four Globalstars
October 5 - Ariane 5	
INTELSAT	Intelsat 11
'yes' OPTUS	Optus D2
August 14 - Ariane 5	
HUGHES	SPACEWAY™ 3
B-SAT	BSAT-3a
May 30 - Soyuz	
Globalstar	Four Globalstars
May 4 - Ariane 5	
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Schedule of Events At-A-Glance

Thursday, February 28, 2008

Start Time	End Time	Room No.	Session
8:00 AM	1:00 PM		Registration Hours
8:00 AM	9:00 AM		Rise-n-Shine Coffee Service

GENERAL SESSION

9:00 AM	1:00 PM		**Exhibit Hall Open**
9:00 AM	10:30 AM	202	**Satellite Broadband:** Is Ka-Band the Way to Grow
10:30 AM	11:00 AM		**Coffee Break** (In Exhibit Hall)
11:00 AM	12:30 PM	202	**Satellite SWOT:** Challenges and Opportunities for Satellite-enabled Communications

MSS

from page 1

in a robust market but not a mass market."

However, Desch, like many others, is cautious about the impact satellites could have in terms of wireless services to the mass market. "It takes a lot longer for things to happen," he said. "You can take the 3G example. It was supposed to be here in the late 1990s."

Globalstar is confident that once its next generation of satellites is in orbit, it will be in business for many years, said Jay Monroe, Globalstar's CEO. "Because of the nature of the build of our system, we have a slower, less capital-expenditure-intensive funding plan for our satellites," he said. "We are comfortable with a LEO platform that we have a great future and we will be around for 20 years. Right now, we have to defend our customer base. [But ultimately], it will be the voice quality of Globalstar that will differentiate it. The market that Globalstar and Iridium anticipated 15 years ago is only happening now."

Most of the companies in this space appear to have been in a transitional phase. The recent deal between MSV and Inmarsat potentially hints at greater collaboration. Mattingly called the deal with Inmarsat one of the "highlights" for MSV in the last year.

"I think the deal with MSV creates a clear path to deploy a terrestrial system on a nice piece of spectrum," said Sukawaty. "What we did with MSV was very opportunistic. I think it is a roadmap. It will benefit others. When one [ancillary terrestrial component] deal happens, others will happen."

ICO CEO Tim Bryan said the operator is fully funded until 2009, and that 2008 would be a big year as ICO began to execute its business plan. The operator could be one of the pioneers in bringing mobile video services to customers in the United States once its satellite is placed into orbit in April. "ICO really believes we have to stay focused and get the satellite, ICO-G1, up ," he said. "We are shooting off in a different direction [than other operators]. We have to go some place where we think we can execute. We are focused more on a mass-market opportunity."

But Robert Brumley, CEO of TerreStar, expects consolidation of the MSS operators to begin soon. "I still believe consolidation is important in the industry. I think 2008, as we all execute on our plans, is going to be a big year for the industry and there will be a lot of changes. I think this panel in 2009 may be a little smaller," he said. ■

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Satellite Data Players
Strive To Lower Cost Of Bandwidth

BY SAM SILVERSTEIN

The high cost of satellite bandwidth compared with terrestrial data networks has made it difficult for the satellite industry to settle on transmission standards that could make it easier for equipment from different suppliers to work together — and lower the cost of serving customers.

But the clear benefits that would stem from lowering the cost of satellite bandwidth are spurring the development of new systems that could dramatically improve the satellite data industry's competitive position, said executives Tuesday during the "Satellite Ground Segment CEO Session: The Terrestrial Connection" at SATELLITE 2008.

"We are not in the good-enough phase in the bandwidth dimension" yet, said Mark Dankberg, chairman and CEO of ViaSat. Dankberg's company provides ground systems for satellite broadband networks operated by companies such as Telesat, Eutelsat and WildBlue, and recently announced plans to launch its own broadband satellite, ViaSat-1, in 2011.

"We've always talked about the cost of bandwidth being a barrier to home users and enterprise and government applications," Dankberg added. "Now we have the opportunity to bring low-cost bandwidth to the industry."

One challenge facing satellite providers is the fact that ground-based data connectivity is so inexpensive that many applications have become inefficient in terms of how they transmit information, Dankberg said. "You're swimming against the tide when you say you can do it bandwidth-efficiently."

ViaSat rival Hughes Network Systems also hopes new technology can improve the ability of satellites to provide transmission capacity that does not cost more than terrestrial alternatives. After years of preparation, Hughes' Spaceway broadband data system is due to begin commercial operation in the next few months, heralding a new era in how satellite systems transmit large amounts of data, said Pradman Kaul, the company's CEO.

The Spaceway-3 Ka-band satellite, which reached orbit in August, features onboard processing systems that allow controllers to target capacity where it is needed most.

Kaul said, however, that even satellites that lower cost of bandwidth may not help the industry to standardize, because ground systems have become so inexpensive that customers do not see much benefit from adopting common hardware. "The industry has done a good job driving down costs. … Nobody's going to pay you $5 more because [a system is based on] a standard," he said.

Another player in the satellite data arena, iDirect, is staking its future on hybrid technologies that allow space- and ground-based equipment to work in tandem so providers can focus on bringing service to as many areas as possible.

"Our goal is to support much larger networks" operated by companies such as Verizon, said Mary Cotton, iDirect's CEO. "Seamless IP and terrestrial networks provide a tremendous amount of value."

However providers bring bandwidth to users, the key is to make people happy without using any more capacity than necessary, Dankberg said. Yet with applications such as video demanding more bandwidth than in the past and terrestrial services such as digital subscriber lines offering high transmission capacity at ever-lower prices, satellite companies will continue to face a challenge as they try to compete, he said.

Satellite broadband today "doesn't really meet [customer] expectations, but they don't have an alternative," which is why the next-generation systems now taking shape hold such promise, Dankberg said. "We [have to make] bandwidth cheaper so we can afford to give people more bandwidth." ■

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ITAR Impact: What The Future Holds

BY GREG BERLOCHER

The delicate balance between national security and the export controls was discussed by a blue ribbon panel assembled to review the U. S. Department of State's International Treaty in Arms Regulations (ITAR). While the panel of satellite manufacturers, launch provider, research professor, and State Department Director agreed that there needs to be a compromise between national security interests and the free flowing export of satellite technology, everyone agreed that ITAR is a major hindrance to satellite manufacturers and changes are necessary.

"The problem with ITAR is once you list a satellite as munitions, every subsystem, down to a two-inch bolt, is then considered munitions," said Pierre Chao, Senior Fellow with the Defense Industrial Initiatives Group. "ITAR is a very blunt tool."

Chao pointed to a recently completed Center for Strategic & International Studies (CSIS) study which investigated the health of the satellite industry and whether ITAR has had any adverse effects. The report includes a number of findings and recommendations, and will be released in the near future. Hertzfeld summarized, stating: "We didn't find a smoking gun, but we caught a definite whiff of gunpowder and saw the chalk outline on the floor. The strategic intent of ITAR is not being met."

Chao went to explain that 1st tier contractors can jump through all of the hoops the government requires but that 2nd and 3rd tier contractors can't afford the cost of compliance. As such, many companies are abandoning the international market. "It is the small companies where much of the raw research comes from," he said. "ITAR is causing counterproductive behavior."

Robert Kovac, Managing Director, United States Department of State – Bureau of Political-Military Affairs, is tasked with overseeing the administration of ITAR. Kovac, who was appointed two months ago, is tasked with the clear mission of improving the current quagmire. Kovac will be putting new processes in place over the next twelve months and fully expects the situation to improve. Ceding the argument that ITAR is onerous and pledging to make it better, Kovac pledged his commitment to enforcing the law.

Kovac pointed out that the satellite industry is special and contrasted spacecraft technology to that used in commercial airliners. "A foreign country can't buy a 787 and then have 60% of the technology to build a jet fighter; but a good deal of the technology used in commercial satellites can be used for military satellites."

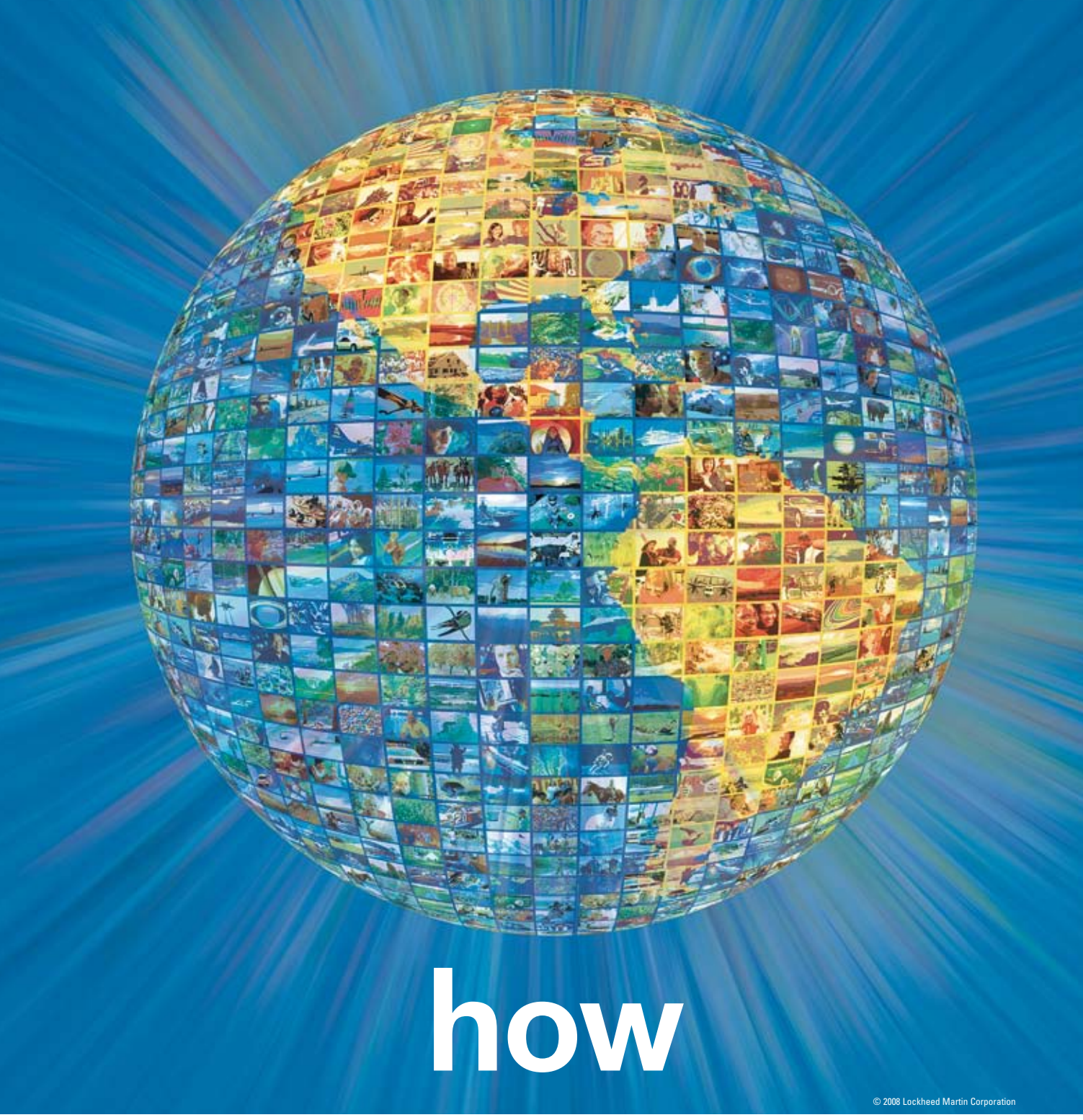
Mark Bitterman, Senior Vice President of Orbital, noted the refreshing sea change in the attitude and demeanor at the State Department and posed the question regarding the best way to restore the balance between the executive and legislative branches. "Having a better interface between State and Congress will help companies like Orbital."

Henry Hertzfeld, Research Professor at the Space Policy Institute at George Washington University, agreed that there is critical technology that needs to be protected but suggested that a bottoms up approach of listing only the technology that needs to be protected rather than putting everything on a list and then deciding what can be removed.

Hertzfeld noted that 80-85% of the technology used in satellites is available on the world market and that other nations are growing strong space programs. He pondered whether satellite components are becoming commonplace like those used in consumer products.

John Pisa-Relli, Senior Counsel for Thales North America, explained that although his firm is European, ITAR has a dramatic impact on the company. "Over 80% of the components used in our satellites are ITAR related," he said. Pisa-Relli stressed that while Thales works diligently to comply with regulations, he would like to put to rest the concept that there is a "bogey man" out their trying to get basic satellite technology.

Kent Bossart, Director Trade Compliance with Intelsat, noted that a recent GAO study revealed that 71% of all applications submitted came from companies which submitted 10 or fewer applications per year. "To get things done in Washington you need to play the game." ■



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Satellite Players
Hoping For More From IPTV

BY MARK HOLMES

"We are getting out of the Wild West cowboy days of IPTV," said Walter Davis, IPTV product manager, SES Americom – IP-Prime.

SES hopes for a breakout year for its IP-Prime service, which receives and encodes video from any source, formats the content, and distributes it to any media platform. "We expect great things in 2008 (for IP-Prime)," Davis said Wednesday during the "IPTV: Ready for Prime Time" session. "Things are moving in the right direction. We are out of the phase of small compa-

Photo by Lisa Czaplicki

Satellite industry players discuss opportunities to generate revenues in IPTV.

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nies looking to change the world. We are getting into more mainstream offerings. There are a number of telcos doing IPTV."

While the IPTV market is evolving, the transition could produce some interesting competitive dynamics.

EchoStar is preparing to launch its IPTV service April 1, and this could create competition for EchoStar's mainstay Dish service, said Daniel Daines, general manager for VIP TV at EchoStar. This is a short-term risk that EchoStar is willing to take, he said.

"We are really going after cable customers more than Dish customers, but there will be collateral damage."

—Daines, EchoStar

The offer "will compete with Dish network," Daines said. "We want to bring IPTV to a wider audience. There is room for a lot of competition. … We think there is a lot of room for shakeout in the industry. … But in terms of cannibalization, we are really going after cable customers more than Dish customers, but there will be collateral damage."

For some telecommunications companies, being successful in the IPTV arena could prove far from easy.

Eagle Broadband filed for Chapter 11 bankruptcy protection late last year. Acting CEO and general manager of IPTV solutions Brian Morrow said the company's entry into the IPTV market did not lead to bankruptcy, instead citing "historical baggage," but the operator clearly faces an uncertain future.

"We launched IPTV in Miami and have targeted [multi-vendor units]," said Morrow. "We provide the IPTV portion of a triple-play offer. We have 100 rights contracts with studios. We are also expanding in other parts of Florida." However, the company's plans are in a state of flux due to the bankruptcy issue.

Jon Romm, COO of Avail Media, a provider of content aggregation and IPTV transport services, said he expected the company to have a strong year in 2008.

"Avail provides a video aggregation and distribution platform," said Romm. "We anticipate we will be able to roll out over 50 gateways by the end of this year. What is important to us is that everyone of those clients has an HD (high-definition) package and an integrated [video-on-demand] package."

HD will be a key component of IPTV services going forward. In terms of HD channels being carried, Davis said, "We have transport agreements with over 50 HD channels under agreement." Eagle Broadband is delivering 20 HD channels, according to Morrow, while Avail has 24 HD channels on its platform, Romm said.

The operators also see opportunities coming from areas other than residential customers. Romm cited the hospitality market as one such target market for IPTV services, while Shane Pierce, director of video for Falcon IP Complete, added, "We have had interest from colleges and universities for our IPTV solution."

While IPTV may be a strong growth market, there are a number of challenges ahead, particularly for traditional satellite companies who are seeking to get more out of this space, Davis said. "There are things like billing system integration, which is a mess," he said. "You are bringing in different vendors."

There also are potential issues with set-top boxes, said Morrow. "I think you need [set-top boxes] that can download different content from different sources," he said, while Romm was not so sure whether giving vendors more influence was a good thing. "I think it is risky to allow the [set-top box] manufacturer to control the functionality," he said.■

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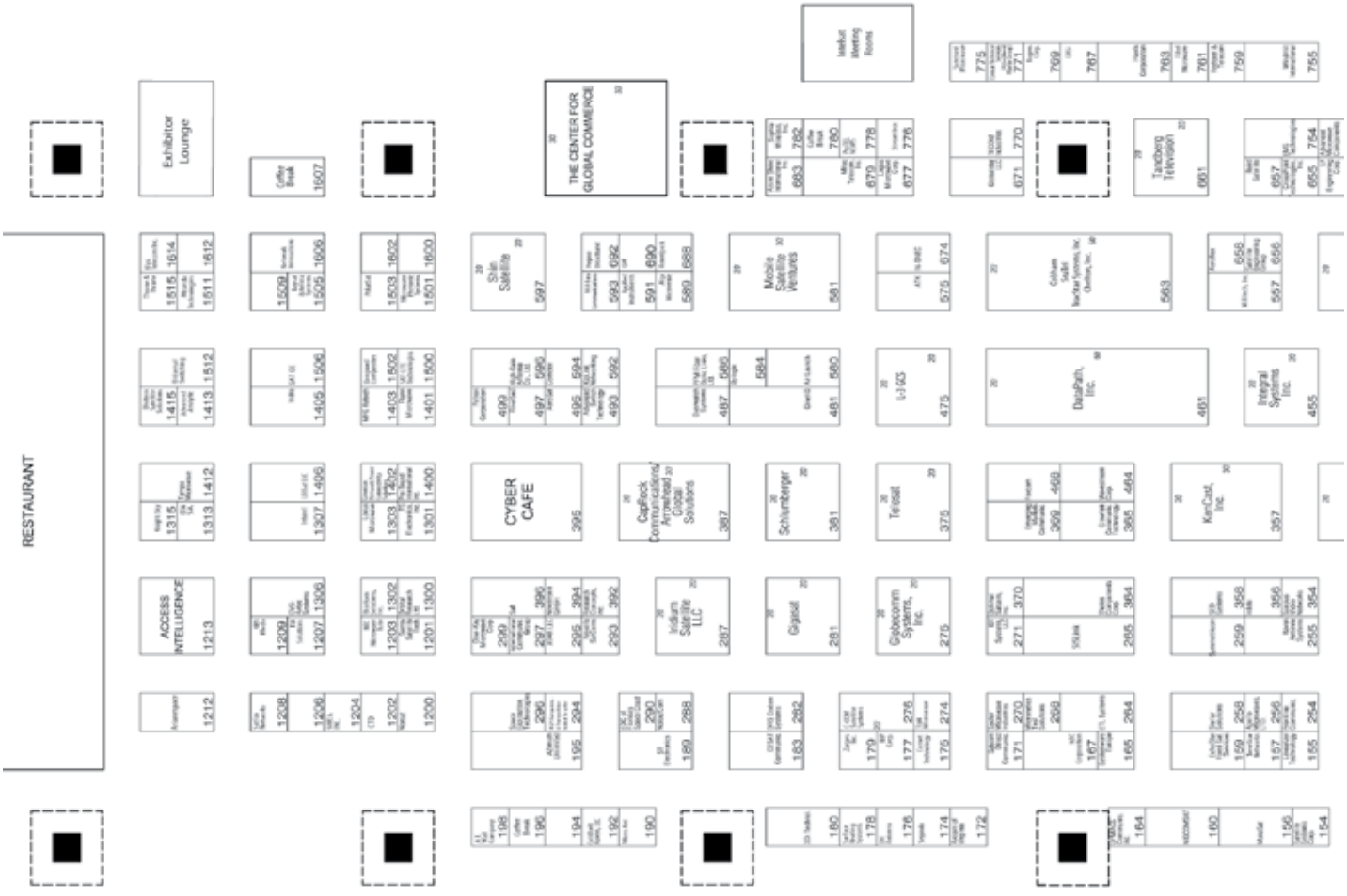

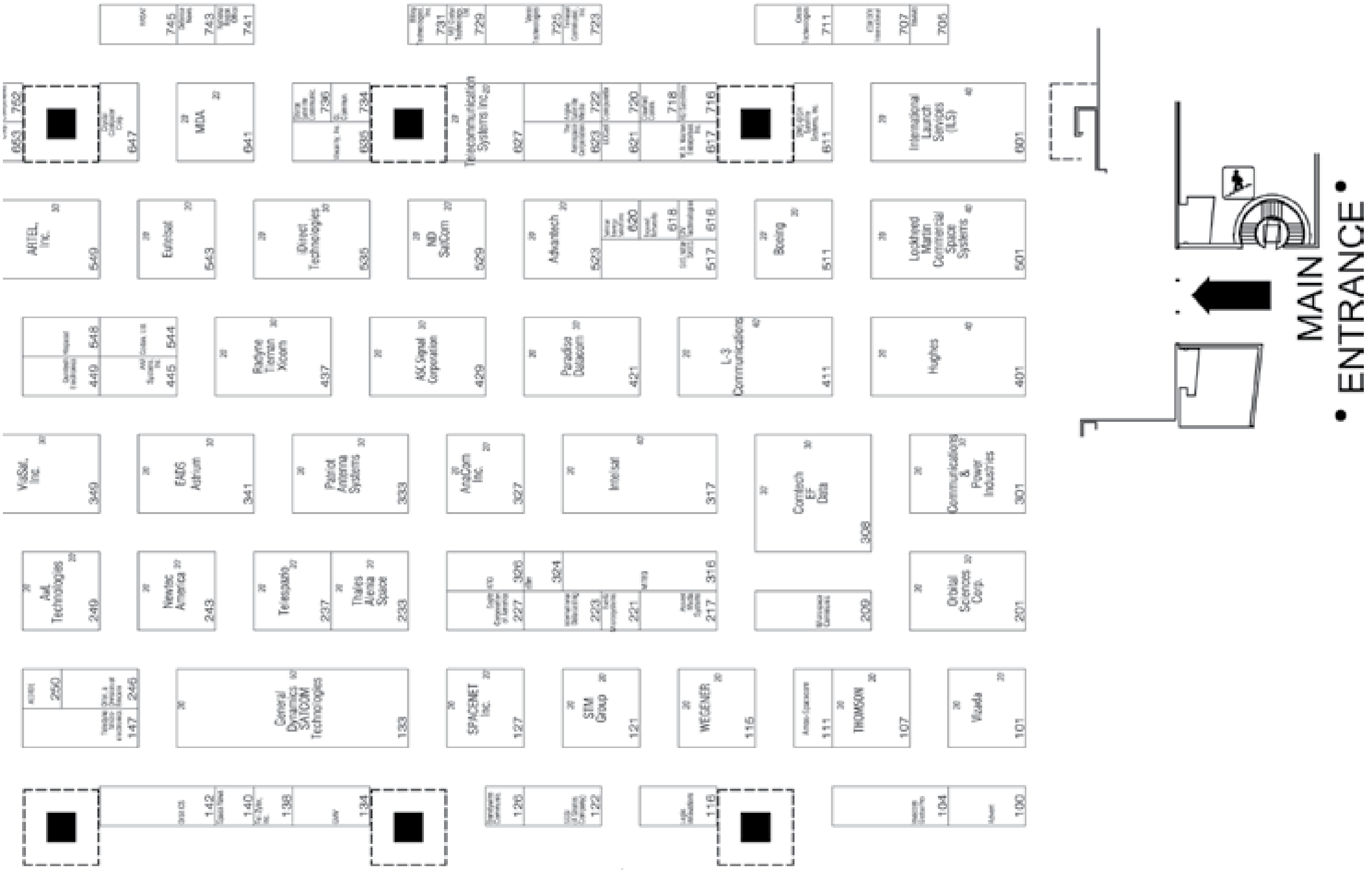
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GSA Contracts: The Basics

BY JESSICA PEARCE

A U.S. General Services Administration (GSA) Schedule Contract can provide your business with an efficient way to sell your products and services to government agencies, says Lynn de Seve, president of GSA Schedules Inc., a consulting service based in Maryland.

While there are benefits to getting on the GSA schedule, there are a lot of misconceptions of what the GSA actually is, de Seve said during the "GSA Scheduling Contracting 2008" session Wednesday.

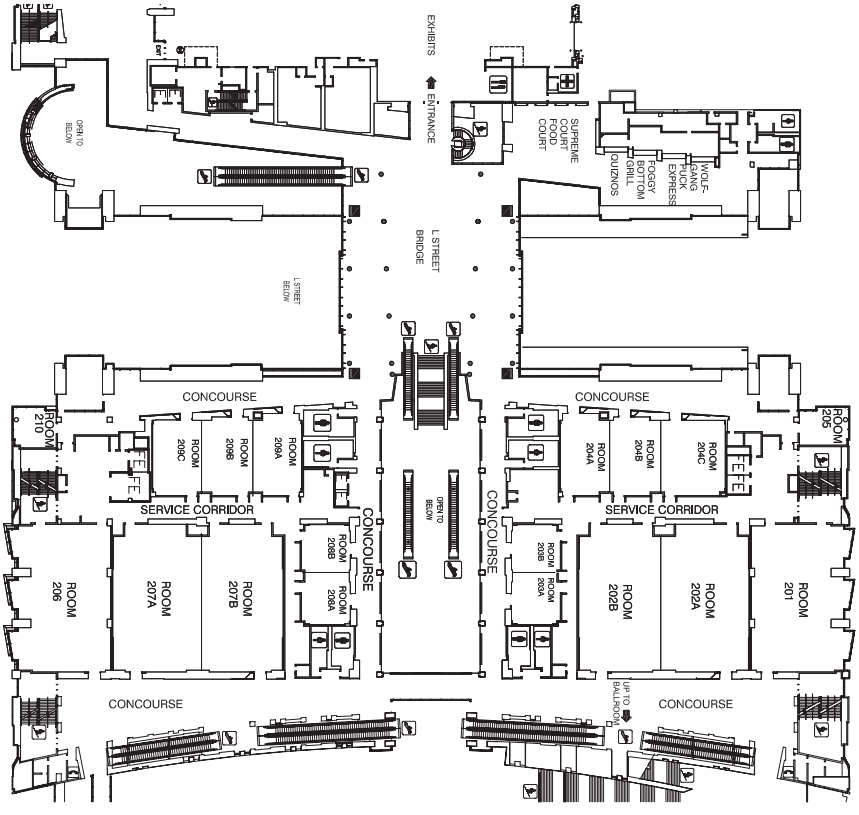
"The GSA schedule is not a certification of your product, it's not a list and it doesn't eliminate your competition," de Seve said. "What it is, is a negotiated agreement between the GSA on behalf of all federal government agencies with contractors for goods and services."

There are several different levels to a GSA contract. If a government agency needs to purchase something that costs less than $3,000, the agency can acquire can the goods or service from anyone without a bidding process. If the item costs between $3,000 and $100,000, the agency must procure three quotes before making the decision. Most often, de Seve said, the agency will look through GSA contract holders for those three quotes.

In order to get onto that contract holders list, a company first must register on the Central Contractor Registration list. The company must disclose performance information for the last three years, commercial sales practices, literature, safety information and country of origin information. After the company enters the information, it will show up on the GSA Web site as a contractor. From there, the company will be available to government agencies as a contractor. After the company has been awarded a GSA contract, it must create a GSA price list to distribute to customer agencies, prepare a GSA advantage file within six months of the award and report quarterly sales for as long as it remains on the list.

"There's a lot of money out there in the federal agencies," de Seve said. "And most of it goes to the companies on the GSA lists." ■

Meeting Room Floor Plan



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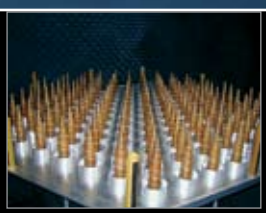

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ATC Brings Challenges, Opportunities For Mobile Players For MSS Sector

BY SAM SILVERSTEIN

Mobile satellite players are excited about the promise of using ground-based systems to extend their reach, but agree that significant hurdles remain before such hybrid communications systems can become a reality.

Among the key challenges for companies such as ICO, Globalstar and Inmarsat that are planning to deploy ancillary terrestrial component (ATC) technology is weathering the uncertainty that is likely to define the marketplace as it evolves throughout the next few years, said Leo Mondale, Inmarsat's vice president of business development and strategy, said Wednesday during the "ATC: The Magic Bullet?" session.

In particular, merging satellite and ground-based business models is proving to be a moving target that promises to keep industry players on their toes, Mondale said. But it is that very instability that can be expected to keep regulators and executives moving forward.

"It takes a lot of confidence and a lot of backbone to make billion-dollar decisions with all these unknowns," said Mondale.

The uncertainty likely will subside as companies refine their ideas about how to merge satellite and ground-based systems to provide applications people are willing to pay for, said David Bacino, vice president of marketing operations for Terrestar Networks. "As satellite and terrestrial networks become integrated, the landscape will be evaluated differently," he said.

Globalstar, a long-established mobile satellite player, is eager to use ATC technology to enhance its global voice and data business but has yet to determine how best to use ground- and satellite-based systems to serve its current and anticipated customers, said Bill Adler, the company's vice president of legal and regulatory affairs.

ATC "is not a magic bullet, but it's a potentially significant source of revenue," Adler said. "It's an evolving situation."

As a result, Globalstar is working hard to determine what the consumer market wants, so it can invest in the kinds of services most likely to justify the investment in building transmission towers and deploying other ground-based infrastructure, he said.

Adler noted that the marketplace has changed significantly since U.S. telecommunications regulators approved the ATC concept five years ago. Globalstar initially thought voice-based services probably would define the market but now believes that data poses a better opportunity.

One big consideration for operators planning to develop ground-based networks is the cost of building hundreds, or even thousands, of antennas to transmit signals on the ground.

Mariam Sorond, director of network systems for ICO, said her firm could spend at least $600 million to build enough towers to serve the United States. That figure could easily balloon to several billion dollars depending on a company's partners and intended coverage area, said Brian Deobald, vice president for technology strategy at Mobile Satellite Ventures.

The potentially high costs could prove to be an obstacle, but the fact that investors have shown interest in supporting ATC-based projects is encouraging, said Mondale. "To a large extent there's a big competition for early-risk capital, … but I think the investors think there's something there," he said.

Mondale added that Inmarsat will approach the ATC concept gingerly, taking steps not to disturb its already successful satellite business as it looks at new possibilities. ATC is a much a threat to Inmarsat's business as it is an opportunity, "so we're going to be very careful."

Inmarsat's prospering mobile satellite services business means the company can afford to take a less aggressive approach to deploying services that use ATC, Mondale said. "As [a mobile] operator that has a healthy and sustainable business and excellent access to capital markets, we're able to take a more luxurious look at this. It's not life or death for Inmarsat." ■

Companies Lining Up For DSTS-G
Current Contract Expires In 2011

BY GREG BERLOCHER

The DSTS-G (Defense Information Systems Network Satellite Transmission Services-Global) contract, a 10-year agreement that provides commercial fixed satellite services (FSS) to the U.S. military, will expire in February 2011, and companies already are jockeying to position themselves to win a portion of the new contract. But exactly how the new award will be structured remains open for discussion, according to network integrators, service providers, spacecraft owners and hardware vendors on the panel, "DSTS-G The Sequel: Predictions, Insights and Anticipation for 2011." .

The current DSTS-G contract, administered by the U.S. Defense Information Systems Agency (DISA), focuses heavily on bandwidth and teleport services, but panel members suggested structuring the new contract differently to focus instead on a total solutions approach to include space segment and ground terminals as well as ongoing program and network management support.

Mike Wheeler, president and CEO of Segovia, coined the phrase of the day when he noted that the military needs one "belly button to push" for services such as hardware integration, network management and professional services, all of which are not explicitly covered under the existing

contract. "When the contract started, it focused on FSS services, but now we must provide netcentric solutions. It's all about the delivery of applications over the network. Our clients want one provider to contact to resolve an issue," he said.

Ed Laase, director of communication services for Boeing Service Co., said he would like to see less focus on space segment and terminals in the new contact and more focus on turnkey services with integrated service level agreements (SLA). "Spell out the service to be provided and then leave it up to the engineering team of the service providers to determine the best way to get the job done," he said.

Barry Botts, director, business development at DataPath, expanded on the value of service level agreements, noting: "Once an SLA is in place, contractors become more accountable. Outlining a total service will force contractors to be more cost competitive and strive to use the best tools to drive down costs."

Current DSTS-G contractor holders do not see a need for a radical overhaul. The industry partnership with DISA has evolved throughout the years and the two-tier, multiple system integrator model has worked and provides the military solutions which are extremely competitive in terms of price, Abbas Yazdani, President & CEO of Artel, said. He stressed that a delicate balance must be struck between being able to respond quickly to the military — sometimes within hours — and also to financial stakeholders.

Bandwidth availability was a point of contention. Ron Samuel, CEO of Eutelsat America Corp., said that the tremendous uptake in new video services, especially high definition (HD), is reducing overall space segment capacity. In short, government applications are competing with video for space segment. Samuel noted that Eutelsat has been forecasting this need and new satellites are already on order.

Tom Eaton, president, government services, for Arrowhead Global Solutions and a DSTS-G contract holder, challenged Samuel's assertion that HD content was absorbing all of the available spectrum and challenged Eutelsat and their competitors to come up with an effective business model to provide space segment for military applications. ■

Teleport Operators Find Innovative Ways To Use IP Technology

BY LINDA THORNBURG

Satellite companies have come up with uses for Internet Protocol (IP) technology that IP providers never dreamed of, according to executives at the "IP on the Edge: Media, Mobile, Networking and More" session Tuesday.

One project uses IP technology to provide for increasing Internet demand in Africa, where there is a limited terrestrial infrastructure and sparse satellite capacity. Dubbed Bushnet, the initiative uses DVB-2 technology to provide Internet service providers in Uganda, Kenya and Rwanda with Internet, Voice Over IP and broadcast services, said Jean Robert Barallon, vice president of sales, Americas, Newtec Americas Inc.

Each service is encoded and modulated with its own set of parameters on the same carrier, and transition parameters can be optimized for each site. Different antenna sizes and older satellite technology do not present as much of a problem in this environment, Barallon said.

The e-government sector is driving a whole segment of the market in South America, said Robert Feierbach, managing director of Latin America & EMEA for ViaSat. The company offers a technology that reduces the number of round trips for data by placing the content it in a proprietary transport, compressing it and then optimizing it for the customer, which produces 40 percent to 80 percent bandwidth savings, he said.

In Pegaso, Mexico, ViaSat provided 680,000 primary school students with Internet access. In Brazil, the company provided Internet access for schools, communities and hospitals and in Ecuador, Internet access for rural areas. Latin America has been shown to be a bit of a star in obtaining this type of access for populations that traditionally are not served by terrestrial communications, and the prospects for

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expansion are good, Feierbach said.

ViaSat has to support fixed buildings, mobile, vehicles, ship at sea and other environments and system integration is challenging. "You want to make it seamless for the customer, who is buying a communications solution that solves business problems," Feierbach said.

The beauty of IP is that it allows for the convergence of voice, video and data transmission, said David Myers, senior vice president, Spacenet, which used IP technology in an oil field environment to integrate phone service via satellite with data networking.

> **"The joy of IP networking is that it allows for broader applications, but it extends the responsibility of the provider."**
> **— Myers, Spacenet**

One of the challenges for Spacenet was making fax technology work as well, which was a demand of the customer. It was also difficult to keep up with the changing regulatory environment. "The joy of IP networking is that it allows for broader applications, but it extends the responsibility of the provider," he said.

Schlumberger, a large oil company, is a customer that has found the answers it needed in IP technology. Schlumberger was looking for solutions to problems it faced in well construction such as lack of manpower experience, rapidly increasing rig costs and communication in remote locations, said Pete Shaw, teleport and resource manager, remote connectivity global group, Schlumberger. The IP solution helps the company's operation support centers deliver communications, consulting and surveillance to the field using monitoring software and collaboration tools.

George Spohn, vice president, North American sales and marketing for Thrane & Thrane Inc., spoke about his company's ability to provide Internet connectivity and voice communications over a small, portable terminal that can be used in environments where traditional wireless is not available. This is good for armored vehicles, emergency management and disaster recovery situations, and for executives who want access to the same technology available in their offices while on the move, he said. ■

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Middle East Operators
Look Past Oil For Opportunities

BY JESSICA PEARCE

Governments in the Middle East are beginning to funnel more of their oil revenues into investments such as satellite TV, government initiatives such as E-learning and telecommunications.

"People say the Middle East's economy is all about oil," said Stephane Chenard, senior analyst for Euroconsult and moderator for "The Middle East: Oil, Commerce and Other Enterprise Applications" session. "That was true in the 70s, however, in the last few years the government in the Middle East is paying more attention to the non-oil economy. Services like distance learning, improving hospitals, ATM networks and trucking companies are gaining importance. The oil industry brings in money, but it does not bring jobs. Those trends turn out to be quite favorable to satellite."

One of the strongest markets in the Middle East remains satellite TV. According to Mohamed Youssif, vice president and chief commercial officer for Arabsat, 78.4 percent of people in Saudi Arabia receive their TV channels via from satellite. Of those, 94 percent are watching TV on individual satellite dishes. Youssif said he thinks it's become a trend for wealthy businessmen in the region to own their own channels.

> "With all the cash available, people are trying to invest it one way or the other. We have seen that in different ventures, and we'll continue to see it in the future."
>
> — Youssif, Arabsat

"There's a lot of TV stations coming up that are more specialized," he said. "There has also been a change in the behavior of the viewers and broadcaster. It's not as expensive as it used to be to do a TV station. Capacity is not as expensive. People don't need a huge staff, they do channels on tape and broadcast it."

One of the biggest challenges for European or American businesses who want to move into the region is the difference in the way business operates.

"Business practices are different in the [Middle Eastern] region," said Howard Farr, vice president of sales for Europe, the Middle East and Asia, for Telesat. "Local customers tend to rely more on relationships and handshake business deal versus legal contracts. Global customers operate as they do in other regions."

The way to get around that, said Farr, is to establish relationships with local partners who already are established in the area. "If you are able to maintain direct personal relationship, that's the way to go," he said. "The handshake issue can't be underestimated. It comes down to a personal bond. All the companies use similar technology, so it comes down to 'Who do I have a very good personal relationship with?'"

The biggest question for the region is the future of Iraq and Afghanistan. The United States military is a huge consumer of VSAT services, and there is some concern that as troops leave the area the bandwidth requirements will drop and there will not be anything to fill the gap. Youssif said that the environment shouldn't dissuade people or businesses from working in Iraq, but that certain costs need to be factored in.

"It is a challenging environment," he said. "Anyone who is interested in pursuing opportunity in a high-risk war zone need to project about 50 percent of their budget for security costs."

The Middle East in generally a young, fast-growing region. In some areas, two-thirds of the population is under the age of 25, and opportunities for women are fueling government initiatives of E-learning programs that further drive businesses. Youssif thinks companies interested in expansion should keep an eye on the area.

"I believe that the golden years are yet to come for the Middle East," Youssif said. "With all the cash available, people are trying to invest it one way or the other. We have seen that in different ventures, and we'll continue to see it in the future." ■

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