

From Emergency Response to Mobile Offices

Mobile Satellite Communications & C-COM Satellite Systems Presence in Asia Pacific

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Every year, Mr. Zhong, the head of the communications department of the provincial land resources administration will receive a number of assignments from the Ministry of Land Resources. The Ministry is responsible for overseeing the usage and development of China's scarce arable land resources. This assignment will ask Mr. Zhong's land resources administration, to investigate particular land usage, with a request for pictures, GPS coordinates and even streaming videos of a particular location. This information is requested to be sent back the Ministry of Land Resources in Beijing on an urgent basis.

Due to rapid economic development in China which tends to use up the limited availability of large tracts of available arable land, land resource management in China is of very high importance to the Beijing government. At the same time, pollution impact is also another major concern of land resources management.

As the head of communications department of this provincial land resources administration, Mr. Zhong's tasks are challenging. He needs a powerful real time solution that can on demand rapidly transmit over 8Mb of data and video back to his headquarters in Beijing, from anywhere within 200,000 square km area. Mobile satellite is the only option that can meet all his requirements.

Mr. Zhong's case is a typical example of Asia's booming

demand for mobile satellite applications. While satellite based emergency response applications are still the mainstream, satellite mobile office applications in various forms have now been emerging as the next wave of large scale development for mobile satellite applications.



A 1.2m iNetVu mobile antenna deployed in the Ministry of Land Resources' Vehicle

The following is a short list of vertical market segments that are presently using mobile satellite applications:

- Fire Rescue, Police, Special Operations
- Disaster Management/First Responders
- Homeland Security
- Military
- Border Patrol
- Oil and Gas Industry
- Mobile Marketing Vehicles
- Mobile Banks
- Bookmobiles, Mobile Computer Labs
- Event Management Teams
- Sporting Events / Race Teams
- Traveling Sales / Mobile Office
- Educational Vehicles
- Media Command Centers
- Insurance Claims Vehicles
- Specialty Coaches/RV Market
- Satellite News Gathering

Internet has changed everything

These vertical markets could not have existed ten years ago; this development is possible largely due to the Internet. The Internet has shaped a new behavior and working style among business and government communities. The ability to send reports via email instantly to hundreds of co-workers who could be working in many different agencies thousands of kilometers away, and for them to be able to respond immediately to requirements and be able to post updates of incidents instantly on the web to be shared among different groups, one has to admit that the Internet is one of the most powerful means of communicating today far surpassing other methods of communication such as fax or mobile phone.

“Once we began to utilize satellite communications for large incident command, we quickly realized the benefits it would bring to our command unit, such as voice, video and remote access. More importantly the flow of information in real time is essential when managing an incident on a significant scale such as the floods during the summer of 2007.” commented by one of C-COM’s customers who has deployed a number of the iNetVu Mobile antenna systems during the flooding disasters in Mexico.

The most useful applications are the ones customers use most often, even if they are the simplest one, such as Internet access and email, which have brought untold benefits to incident management or a mobile office.

Internet also provides universal platform for various applications that are needed for an emergency response and mobile office. Such applications include:

- Video Conferencing;
- Telemedicine / e-Health;
- Distance Learning/training;
- VoIP;
- and Digital Signage.

The Internet does not only enable these useful applications but it also makes it easy to use and affordable. This directly contributes to a widespread use of mobile office applications in Asia.



Primetech (a C-COM’s Dealer in UK) installed the equipment on a trailer for Gloucestershire Fire Brigade

The use of Internet in Asia is rapidly expanding. According to the China Internet Information Center, by the end of 2007, China had 210 million Internet users, which accounted for more than 1/10 of total world users of the Internet. There was an increase of 73 million new Internet users in 2007 alone. The Internet is not only getting bigger, but it is also getting faster. The truth is that the Internet penetration is still accelerating even after a rapid 10 year's growth. The table below clearly shows this trend in China.

Source: CNNIC Annual Report 2007

	# of Internet Users in Millions	Growth Rate
2004	94	
2005	111	18%
2006	137	23%
2007	210	53%

Table 1. Number of China's Internet Users and its Growth Rate 2004-2007

The growing economy is also another powerful force for satellite mobile applications which command a considerable purchasing power. In 2007, there were 17 cities in China whose GDP has exceeded \$42 billion while this figure in 2006 was only 10. \$42 billion GDP, in other words, the city could be able to join the top 100 cities club in the world. This is just an example how Asia is playing a more important role in the world economy. In fact, when the Chinese government had started to purchase satellite mobile applications, their purchasing power has proven to be very impressive.

Another reason why Asia's governments favor mobile satellite applications is due to the unpredictability of the environment. As an example, the unexpected severe snow storm that affected China's Southern provinces for over a month caused major power failures which affected millions of people's lives and caused an estimated \$10 billion in losses. During this snow storm, the Ministry of Police mobilized five mobile satellite command centers from other provinces to support the affected areas. China learned an expensive lesson from this snow storm, the Governments of China's Southern provinces, which are more affluent than most other provinces, have decided to reinforce their own emergency response capabilities and thus the next wave of capacity building is on the way.

The growth of satellite mobile applications in Asia will be increasing continuously and it is expected that this growth will be extremely strong in the Asia Pacific region.

What are the types of mobile satellite antenna systems that will be deployed by the Asian Customers?

Technology

C-COM's iNetVu Mobile satellite antenna technology has been extremely well received by its dealers and customer in Asia. The technology does not only deliver automatic satellite acquisition at a press of a button in as little as a few minutes, but also makes the system easy to use, highly reliable and easily maintainable.

"Our customers like iNetVu. It is simply the best," said Gordon Yuan, one of the best performing C-COM dealers in China. "iNetVu's one button, two minutes feature is something our customers are looking for and there are many other very useful features that come standard with all of the iNetVu platforms and customers are happy with it."



An iNetVu 1.8m antenna used in a trailer for military communications

Brand

When it comes to a decision to procure a mobile satellite auto-pointing antenna, Asia's buyers are very sophisticated. Brand plays a very important role in the selection process especially when high ranking officials are involved in the selection process.



Photo Credit : NASA and Carolina Satellite Networks

C-COM's iNetVu mobile antenna is a leading brand of auto-pointing satellite mobile antennas in the world; it has been widely used by first tier customers around the world. These include: US Border Patrol, NASA, FEMA, EPA, MCI, FBI, US Army, US Navy, NATO forces, Russian Internal Security, Halliburton, Schlumberger and many others world wide. At the same time, the first tier governments in Asia who are also C-COM's customers further strengthen the C-COM brand. These customers are: the Ministry of the Land Resources of China, the Government of Zhejiang and Anhui Provinces, the State Safety Administration of China and many others.

When SATNET, a C-COM's reseller in China, won the bid for a mobile command center for Beijing government's 2008 Olympic Games, the President of SATNET regarded C-COM's strong brand as a winning factor of his bidding; "The iNetVu is a strong brand in the world market; its reliable performance and high quality provide our customers with confidence in their iNetVu System. The synergies of our marketing efforts with C-COM's iNetVu have proven a great success in 2007. As one of China Netcom partners, SATNET is always seeking out the best and most reliable products around the world for mission critical applications such as emergency response for use during the 2008 Olympic Games. C-COM's iNetVu Mobile System is the most logical and dependable choice for this application."

Reliability

In many cases, satellite mobile applications are deployed either in a remote location where communications is an essential life saving service, or are used in a critical mission application where success or failure of the mission depends on reliable communications. In China, the people sitting in front of the display monitors reviewing images that are sent by remote mobile satellite command centers using systems such as the iNetVu, are all high ranking government officials including ministers. Reliability and dependability in situations like this is crucial.

Before NASA started to use C-COM's iNetVu mobile antenna on their mobile Telescience lab for communications of video, voice and data services from the Kennedy Space Center, they have gone through a very demanding evaluation process. NASA selected the iNetVu Mobile antenna for their Telescience lab which is also used as a telecommunication emergency back up solution in case of a total power failure at the Space Center.

The selection of the iNetVu by NASA has proven to be the right choice. The iNetVu on top of their mobile lab has traveled over the past few years more than 200,000km without a single failure.

The South African Police is another satisfied customer

who has acquired a number of iNetVu mobile antennas which are deployed across South Africa.

Many have logged over 80,000km in just over a few months on top of Mercedes vans traveling all over South Africa into many small villages with terrible road conditions. All of the deployed systems have performed flawlessly and have found satellite 100% of the time each and every time they have been used by the police.

The South African reseller of the iNetVu is so pleased with the performance of C-COM systems, that their support team has the police units displayed on their screen savers. The iNetVu Mobiles operating in South Africa have also been used countless times by many different government agencies and Telco's there without any failures.

Service

Every great product is backed by exceptional service and support. C-COM provides first level 24/7 technical support which is backed by a very professional and well trained second level multilingual support team.

C-COM also provides free training at their Ottawa, Canada facility to all resellers who purchase iNetVu Mobile systems from C-COM.

The iNetVu Mobile units are constantly improved both mechanically and also through controller enhancements via software and firmware upgrades as the product evolves and improves with each new release.

"The iNetVu has been designed to be easily maintainable. iNetVu's advanced diagnostic log file feature, monitoring the performance of each of its crucial components every time the iNetVu is deployed. The ability to communicate with the satellite modem and locking on the satellite, customers and support staff can immediately identify problems and suggest solutions by simply analyzing the log file report and decide on corrective action instantly." Said Jason Wei, VP for customer services of HiSTARs Technology Co. Ltd, a C-COM's dealer in China. C-COM's high part standardization for all of its models makes part replacement among different models, simple and economical and allows its dealers to utilize their

active demonstration units as a spare part source for all models, when required.

Happy Customers

"I have sold many different types of satellite systems, and the iNetVu is the easiest one to sell" said Alwin Wang, the President of HiSTARs, who also is responsible for a large number of systems sold in China last year. "I never need to worry about customers calling me in the middle of the night complaining about the product. Instead, I see a group of happy iNetVu customers who love the performance and the reliability of the systems and this in turn makes me very happy as well, which gives me added confidence in selling this product."



It is C-COM's ultimate goal to keep its dealers and customers happy and satisfied with every product purchase. C-COM is trying very hard to make this happen with every sale and with every support call they get. When a C-COM's sales rep asked a dealer who just finished an iNetVu installation for a new customer in a remote town on China's Southern border about what the customer's reaction was, the answer was very simple, "you cannot imagine how happy they are." 🙄



Jonathan Lee has worked for C-COM Satellite Systems, Inc. as Senior Consultant, Asia Pacific. He has over 15 years of experience in international business, including as Country Director, China with Shin Satellite Plc; and Business Development Manager with Shinawatra International Plc. He has an MBA from the Asian Institute of Technology, and a B. Eng from the Beijing Institute of Technology.