CASE STUDY

SECURITY SYSTEM IN JAPAN - MOBILE SURVEILLANCE WITH SOLITON'S SMART-TELECASTER AND MILESTONE'S VIDEO MANAGEMENT SYSTEM

MILESTONE SYSTEMS is an industry leader in video management solutions (VMS) utilised by many security and law enforcement agencies on a global level. Given there are many International sports events scheduled for 2020 in Japan and coupled with the backdrop of a big increase in tourists that will visit Japan, a risk assessment for security and threats has been studied and identified. As part of this overview, technology was identified to mitigate against these potential threats that includes high quality surveillance systems ranging from fixed surveillance cameras, bodyworn cameras and video enabled smartphones. The mobile cameras and phones will be equipped to security guards and law enforcement agencies to live stream back to a command centre.

Sightseeing   **Sports event**   **Tokyo 2020**

Initially as part of the trails, a range of surveillance options were utilized including fixed-point observation by surveillance cameras. This allowed high quality video images to be viewed by security personnel in real-time from various locations that can be viewed and recorded by the Milestone system. It also allowed, via collaboration of other technology partners, to start looking at real-time image recognition as well as sensor information and analysis of video.

-Wearable Cameras-
An additional source of video was identified by using body worn cameras which allowed more flexibility in choosing where to stream from. For example, as part of the tests, security personnel became runners at marathon events and tested mobile equipment that could live stream video back to a command centre and ultimately to a Milestone system. Initially, a small camera was connected to the tablet to distribute the video, but the bandwidth on one mobile line proved unreliable and the video transmission was not stable with poor picture quality, which resulted in failure.

ABOUT SOLITON SYSTEMS

Soliton System is Japanese technology company specialising in both outside broadcast solutions, mobile video surveillance and IT security solutions. The Smart telecaster range of products provides an H.265 encoding solution for live broadcasting, especially from remote and mobile locations by being able to use 3G, 4G, LTE, WiFI, BGAN, BSAT and LAN connections to reliably stream good quality HD live video with minimal latency.

ABOUT MILESTONE

Milestone Systems is a global industry leader in open platform IP video management software. The XProtect platform delivers powerful surveillance that is easy to manage, reliable and proven in thousands of customer installations around the world.

With support for the widest choice in network hardware and integration with other systems, XProtect provides best-in-class solutions to video enable organizations – managing risks, protecting people and assets, optimizing processes and reducing costs.

There are more than 100,000 installations around the world.

It was then the Soliton Systems "Smart-telecaster" products were utilised, which supports video high compression technology and multiple cellular lines. The Zao-S system, weighing at only 400 grams, was connected to the wearable camera and provided high quality video over multiple mobile phone networks simultaneously. It proved to be highly reliable with excellent picture quality, which is required for such applications as facial recognition in real-time.
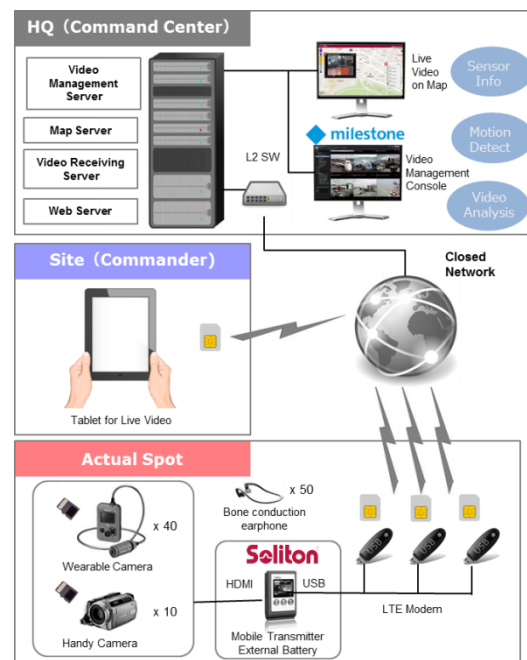
- Solution Overview -

The Smart telecaster products are used for live transmission from the wearable or mobile camera to the server in the control center. It is a video transmission system that allows decoding of the encrypted stream and subsequent viewing of the live stream. The video can also be overlaid onto a map server application displayed on a large screen inside the center where the source could be a device (tablet) or body worn camera from the mobile location.

- High quality mobile live relay -

・ By using a proprietary protocol that can stably transmit video over multiple communication lines, The system works reliably even with large fluctuations such as experienced on LTE and satellite connections.

・ Uses the latest high compression standard of H265 (HEVC) which has been proved successful in broadcasting applications.

・ One of the features is its small size and that it easy to use by anyone. It can start streaming by simply turning on power and pushing a button.

- Collaboration with Video Management System -

・ From the receiving server in the control center, video can be streamed to the server of Milestone Xprotect allowing it to be reviewed and recorded.

Total Solution Image for Security operation

Smart-telecaster *Zao-S*

Soliton's Smart-telecaster Zao-S is a mobile H.265 encoder that only weighs 400 grams and can be fully manged by a remote browser. It can support up to 3 SIM cards from different mobile phone carriers which are bonded as a single connection. Latency back to the command centre, can be as low as 240ms, and can even work when bit rates drop below 500kb per second, making it ideal to operate for Security Video Management System.

MINIATURE MOBILE ENCODER
- **3 Lines** Mobile Network **Multi-Link**
- **Extra USB for dongle/WiFi/LAN**
- Soliton Original **RASCOW** Technology
- HEVC (H.265) **Hardware Encoder**
- Maximum bitrate **5 Mbps**
- Internal battery/External power source
- **HD-SDI input** and **HDMI input**

http://solitonsystems.com
Mobile Broadcast Division
2-4-3-Shinjuku, Shinjuku – ku
Tokyo 160-0022 Japan
Email: stc-sales@list.soliton.co.jp