

# Miami-Dade Committed to Technology Leadership

## March Networks Meets Transit Agency Requirement for 30 Days of Onboard Storage

Miami-Dade Transit Agency adopted digital video surveillance technology before most other transit authorities. Now, the Agency is reaffirming its reputation for technology leadership with the acquisition of March Networks™ 5412 Mobile DVRs.

“We began acquiring digital video surveillance technology for our buses in 1998, a full three years before 9/11,” says Colin Armorer, an engineer with the authority’s Field Engineering and Systems Maintenance Department. At the time, video recording was seen as useful for investigating liability claims, accidents and passenger complaints. Global terrorism wasn’t an issue.

In recent years, video surveillance has gone from being “a nice-to-have technology to being an absolute must-have,” says Armorer. Since 1998, mobile recording systems have seen tremendous improvements in quality, reliability and performance, prompting early adopters like Miami-Dade Transit to look for new and more technologically advanced solutions.

“There were two factors that caused us to begin looking for a new system,” recalls Armorer. “First and foremost was the real need for more onboard storage capacity. In the best of circumstances, our legacy systems are able to store no more than four or five days of video. Our executives felt we needed a minimum of 30 days of onboard storage.”



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“The second requirement was for a recording and playback frame rate higher than the three or four frames per second that we are getting with our first generation DVRs.”

Armorer began researching the market for a new vendor in the first quarter of 2006, but soon discovered that the 30-day storage requirement for a mobile DVR was a tall order to fulfill. March Networks’ mobile offering at the time was limited to the 5308 MDVR with maximum onboard storage of 120 GB. Hoping that the company had something else in development, Armorer contacted Marc Holden, March Networks’ Vertical Business Manager for Mobile Solutions, and learned that the company was just months away from introducing the 5412 MDVR with 1.5 TB of storage and frame rates of up to 30 fps per camera.

“The March Networks 5412 was the first DVR we were aware of that offered anything remotely close to what we were looking for,” recalls Armorer. “The hard drive capacity it offered was greater than any other mobile DVR we researched. No one else even came close.”

A 5308 MDVR was installed on one of Miami-Dade’s buses in June 2006 and, a few months later, March Networks replaced it with a beta version of the 5412.

**“Anytime I have picked up the phone and called March Networks, they’ve always been able to resolve any problem I’ve had. They’ve been very responsive.”**

**- Colin Armorer**

Field Engineering and Systems Maintenance, Miami-Dade Transit

### Buy-in

“It was my task to identify a new platform, and once that was accomplished, I had to get buy-in from my colleagues. In the end, we all agreed that the 5412 was the way to go.”

The 14th largest public transit agency in the U.S., Miami-Dade Transit operates a fleet of 1,030 buses, a 22-mile elevated light rail system and a 4.4-mile downtown people mover system. It expects to transport approximately 114 million passengers in FY 2006/2007.

The authority is factory installing the March Networks 5412 on 35 new buses and will eventually retrofit the rest of its fleet as older recorders either fail or cease to be supported by their manufacturer.

The 5412’s built-in wireless capability will dramatically increase operating efficiency, notes Armorer. Capturing video of reported incidents from its legacy DVRs requires Miami-Dade staff to board buses, swap out the datapacks, and bring them back to a viewing station. Health checks and software upgrades also require the intervention of transit authority staff.

With the March Networks 5412 and wireless LANs at Miami-Dade’s service depots, tagged or scheduled video and health alerts can be downloaded



## MIAMI-DADE TRANSIT

Miami-Dade Transit ([www.miamidade.gov/transit](http://www.miamidade.gov/transit)) provides public transportation services to the 2.4 million residents of Miami-Dade County. The transit authority operates 1,030 buses, an elevated 22-mile light rail system, a 4.4-mile Metromover light rail system serving down-town Miami and a paratransit service. The 14th largest public transit system in the U.S., Miami-Dade Transit has 4,000 employees and is expected to transport approximately 114 million passengers in FY 2006/2007.

automatically. Using March Networks Enterprise Service Manager software, authority staff are also able to wirelessly upload software patches and upgrades right from their desks.

When changes in the beginning and end dates for Daylight Savings Time came into effect earlier this year, Miami-Dade staff had to board each vehicle to apply the necessary software patch to update their legacy DVRs. With the 5412s and wireless LANs at authority service depots, that task could have been entirely automated.

Ultimately, the vision is to be able to access live video from buses in service through a wireless, wide area network. Several county agencies having jurisdiction over that endeavor are currently in the process of defining the requirements for the wireless network.

Miami-Dade Transit is using eight of the 5412’s 12 video inputs for cameras on its 32-foot buses, but will likely use all 12 channels for a fleet of articulated 60-footers it hopes to acquire for a proposed bus rapid transit service. In the eight-camera configuration, three cameras are positioned to record front and side views outside the vehicle and five cameras are positioned to record activity inside the buses. One of the 5412’s two audio channels also records audio from the bus driver’s station.

### GPS

A GPS option package acquired by Miami-Dade Transit allows investigators to pinpoint the precise location of a vehicle when using March Networks’ Mobile DVR software suite.

“This is useful to investigators doing incident reviews,” notes Armorer. “It shows the speed of the vehicle, the longitude and latitude and the actual location of the vehicle on a map.”

With a minimum of 30 days worth of onboard storage, the March Networks 5412 all but eliminates the risk that essential video will be overwritten before authority staff are able to extract and save it. At the same time, the ability to record and playback video at much higher frame rates significantly increases image quality and delivers the evidence needed to successfully resolve liability claims, passenger complaints, accidents and other onboard incidents.

Armorer is pleased with the performance of the 5412 and singles out the March Networks technical support team for its expertise and professionalism.

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