

CASE STUDY: DIGITAL REALTY

Digital Realty Pushes Limits with Symmetry Access Control and CompleteView Video

Digital Realty is a data center ecosystem business and colocation services provider that delivers a complete range of interconnected global scale solutions that best fit their customers' needs. At the same time, they connect their customers to the cloud on an open platform which include 198 buildings in 32 global markets.

In 2006, Digital Realty started its journey with AMAG Technology when they searched for an integrated solution to install throughout their global business. The components needed to include best-in-breed solutions from each area: access control, alarm monitoring, digital video, building management system, a monitoring system and computerized maintenance and monitoring.

Consulting firm Guidepost, helped Digital Realty develop an integrated solution that would become the platform to control their facilities and provide centralized building management. Guidepost and Digital Realty selected AMAG's Symmetry Access Control software to provide the backbone of their system. AVS Technology, a diverse and progressive security design and installation company, installed the system, and still manages it today.

AN EFFICIENT INTEGRATED BUILDING SOLUTION ALLOWS A BUILDING TO OPERATE WITH MINIMUM TO NO INTERRUPTION AND PROVIDES MANY BENEFITS.





Several companies were asked to cooperate and deliver a fully integrated platform for Digital Realty. These include AMAG Technology's Symmetry Security Management System for Access Control and Symmetry CompleteView Video Management, Schneider Electric's Tac Building Management System (BMS), Critical Point Monitoring System, and Equipment Pipeline's Computerized Maintenance and Monitoring System. The Symmetry Access Control Solution provides the integration platform for all of the systems to work in a converged environment.

Symmetry is currently installed in 110 Digital Realty sites. Each site operates independently, controls its own Symmetry server and can easily authorize, assign and change who has access to their facility. Some sites have several buildings that are linked and report back into the main site.

According to Digital Realty, Senior Director-Portfolio Security, Jack Jones, five critical elements make up a data center: space, electricity, cooling, connectivity and security. Digital Realty's distributed security model ensures all systems are monitored 100% of the time.

"We have a distributed security model in how we use Symmetry," said Jones. "The system needed to work on the local area network because there is redundancy to the BMS."

Data centers use a tremendous amount of power, and it is critical to keep servers cool. If a cooling system fails, a customer's whole network could go down, resulting in lost business. A cooling system failure would prompt an alarm in the BMS, and then the BMS alarms are transferred to Symmetry.

Digital Realty deploys the concentric ring security model using four to five layers, which includes physical barriers, systems, processes and people. Symmetry controls access to each ring and monitors all systems. A customer or visitor must swipe a card to enter the main building. They then need to show their badge to the security team, where it is determined whether the person needs to be escorted to their server room. All employees have access, and all visitors and contractors require an escort. They must request to enter via ServiceNow, a cloud-based digital workflow platform, and be approved before being allowed into the

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DIGITAL REALTY, SENIOR DIRECTOR-
PORTFOLIO SECURITY





building. If escorted, they wait at the security station for a Digital Realty employee who must stay with them the entire time. Some customers do not need an escort and can proceed directly to their server room.

Biometric readers are used at all server room doors. They are in the process of rolling out Suprema fingerprint readers, which integrate with Symmetry Access Control.

Keeping an auditable record of activity within each concentric ring is critical to maintain compliance for a number of government issued standards.

"Symmetry helps us meet the Payment Card Industry Data Security Standard (PCI DSS) for credit card processing," said Jones. "We rely on Symmetry CompleteView Video Management to record the required number of days needed to meet PCI's compliance demands, and we are audited to ensure that happens. We also must show who is entering a suite with proper access credentials and correlate that information with the video."

Digital Realty understands the importance of having clear, intelligent audio as part of their integrated security solution.

The Zenitel AlphaCom Intelligent Communication solution is integrated to Symmetry, and uses Zenitel IP intercoms for audio communication to all entrances. Customers, employees or visitors can drive up to the guard shack, press a button and speak to the security department. Each lobby uses audio at the front door so employees and visitors can call if they need assistance. The shipping and receiving departments also use audio to communicate with delivery drivers and manage shipments. With built in active noise reduction and auto volume control, both the visitors and those receiving the calls can hear, be heard and be understood no matter how noisy the environment is outside.

VIDEO CHALLENGE

Digital Realty experienced rapid growth through acquisitions. As they acquired more companies, they were operating six different video management systems. It was difficult to learn and manage each system. They needed a scalable video solution.



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CS: DIGITAL REALTY



“We have such a great relationship with AMAG that it made perfect sense to migrate our video systems to Symmetry CompleteView Video Management,” said Jones. “CompleteView was easy to install, maintain and manage.”

Cost was another consideration, and it integrated with Symmetry Access Control. The security team was already familiar with Symmetry and could use it to manage CompleteView.

It also offered advanced video capabilities that customers were requesting. Customers choose what they want to view, how they want to see it and the resolution or framerate. CompleteView provided the most flexibility to meet customer’s demands.

Migrating to Symmetry CompleteView offered many benefits:

- One place to program cameras, making for a speedier deployment.
- Only one license required between the two systems provided a great cost savings.
- One phone number to call for support for both access control and video.
- Consolidation of Site Support Agreements – only needed one.
- Ensures cameras and readers are operating correctly.
- Enhanced partnership with AMAG.

SYMMETRY HELPS IMPROVE PROCESSES AND SAVE MONEY

In the past, Digital Realty was concerned about the high number of false alarms it received, and because the industry doesn’t have a standard on how to manage, they weren’t sure if they were experiencing an acceptable amount of alarms or not. They decided to measure the percentage of alarm activity to total events (card access, door held open, etc.) Using Symmetry data to analyze where the problems occurred and the response to those problems, Digital Realty reduced their false alarms to 12%. They discovered repair work that needed to be made to doors, and changed several design philosophies to eliminate some of the problems.

“Over the past several years, we’ve used Symmetry’s transaction records to create a dashboard that tells us where the problems are,” said Jones. “It’s helped us improve our security program globally.”

Through data mining and analyzing trends using the visitor registration model database, Digital Realty studied visitor activity. Visitors start coming at 7 a.m., peak at 11 a.m. and reduce from there. At 3 a.m. one site received .3 visitors an hour.

“Using this good data, we were able to reduce the number of guards at night, and shave almost \$5 million from our company-wide guarding budget,” said Jones. “Our understanding of Symmetry and its reporting capability helped us save money, yet provide tight security at peak times.”

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COMPLIANCE

Using ServiceNow, Jones and his team implemented a customer portal that allows customers to request a service, such as giving a new person access to their data center area. Once approved, a profile is created and the person given a badge and granted access only to the areas where they are allowed. The dashboard allows Digital Realty's customers to grant or terminate access to their own areas, and populate profiles. They can monitor the BMS to make sure temperatures are accurate and data secure.

"Automating the manual process improved efficiencies and saved time and money," said Jones. "A data center is bought by the kilowatt (versus by the square foot), and you pair the power to the cooling to keep it cool, so that premise is what our customers will now manage using the dashboard."

To meet compliance requirements, Digital Realty must keep 93 days of video. Symmetry CompleteView Video Management helps Digital Realty remain in compliance when it automatically notifies security staff if there is something wrong with a camera's video signal or recording of video with an alarm event. CompleteView also generates an alarm to alert operators when a camera or NVR goes offline.

Symmetry Access Control keeps all history and alarm logs. Digital Realty must keep transactional logs for two years to meet compliance requirements.

FUTURE

Digital Realty originally selected AMAG's Symmetry Access Control and Symmetry CompleteView Video Management Systems because they were easy to use and their guard force preferred it. While that is still true today, Jones is happy because Symmetry can keep up with their exponential growth, changing security demands and compliance requirements.

"Last year we had over 300,000 visitors and 63 million card transactions," said Jones. "We have 6,000 cameras connected to our system, 11,000 readers and 1,900 panels. Symmetry easily handles all of it."

Digital Realty is not stopping there. Plans are in the works to migrate 2,000 more readers and 7,000 cameras to Symmetry. After completing a workshop with AMAG, AVS Technology and Salient Systems, they are also planning to upgrade to Symmetry Access Control V9 and Symmetry M4000 panels. Using Symmetry CONNECT Identity Management to streamline operations is under consideration as well.

Integrator AVS Technology delivers exceptional support to Digital Realty. Jones has come to rely on both AVS Technology and AMAG Technology to support him and his team throughout their expansion of physical offices and use of Symmetry.

"AMAG is evolving its delivery and I think it's a good thing," said Jones. "If I have a problem, I make one call and I get the support I need. It's an important relationship that I highly value."

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THE CHALLENGE

- Management and training for six disparate video systems.
- Managing different security systems via acquisition.
- Meeting compliance requirements.
- Integrating several business systems.
- Managing different video vendors.
- High number of false alarms, using officers efficiently.

THE SOLUTION

- Symmetry Access Control provided the backbone for all systems.
- Symmetry CompleteView VMS is easy to install, manage and maintain. Can operate through Symmetry Access Control head-end.
- Concentric circle security with biometrics where Symmetry manages all levels.
- Implement Suprema fingerprint readers to provide a higher level of security.
- Use data from Symmetry to analyze processes and procedures.

THE RESULTS

- More efficient security process.
- Tightly integrated, simple and easy to use security system – easy to manage and train officers.
- Reduced false alarms to 12%, visitor data resulted in a \$5M savings in guarding while improving security.
- One license between Symmetry Access Control and Symmetry CompleteView provided a great cost savings.
- One phone number for support.

