

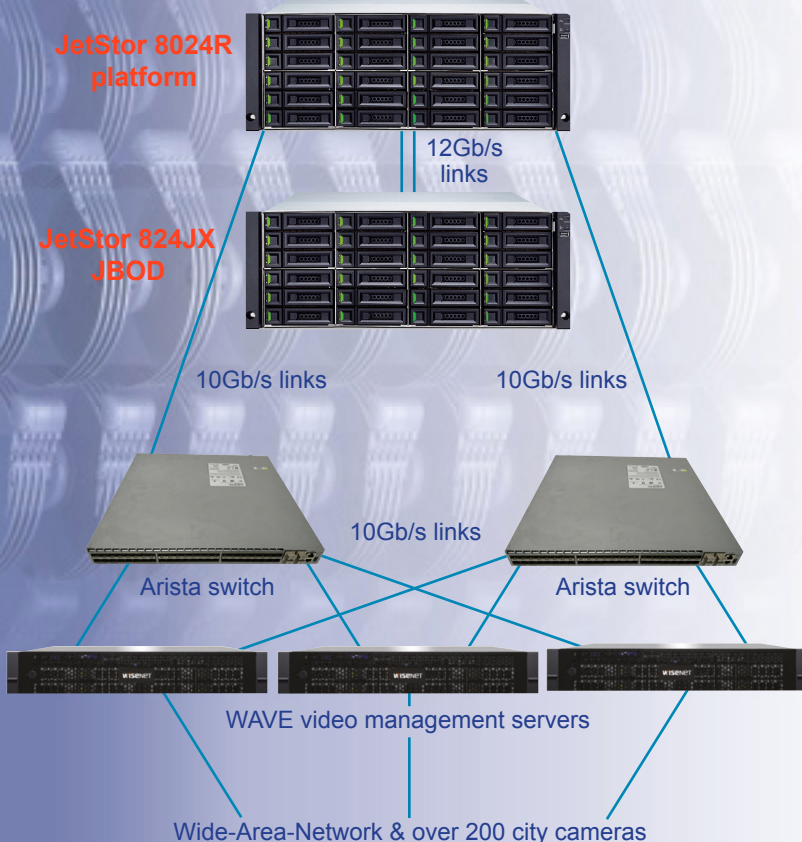
JetStor®

Storage. Solutions. Support.



Anchoring City-Wide Video Surveillance with Fast, Scalable JetStor Storage

The City Data Center



CUSTOMER TESTIMONIAL

City Boosts Safety by Supporting Video Surveillance with JetStor® Solutions

THE ORGANIZATION

Beachwood, Ohio, located 11 miles east of Cleveland, is not your typical city. Spanning six square miles and with a population of some 13,000, the municipality is home to nearly 2,500 businesses, ranging from high-tech start-ups to Fortune 500 companies, that employ over 25,000 workers. Every day, an estimated 100,000 people visit Beachwood to work, shop, and visit. The city has been cited as one of the best places in Ohio to start a business and its schools are among the best in the region. Among its attractions is the Maltz Museum of Jewish History.

THE CHALLENGE

Being forward-thinking, Beachwood enhanced safety by installing video cameras at all city buildings, parks, key intersections, the shopping mall, and other locations, all of which can be centrally viewed by law enforcement. To store their footage, however, the analog cameras had to physically connect to a spate of network video recorders (NVRs) throughout the city, each with its own hard drive for storage. When a NVR crashed or required maintenance, its cameras were down, creating a safety risk, until administrators could rush to the location to address the issue.

As a remedy, Beachwood replaced the analog cameras with over 200 IP cameras, but it needed a more trouble-free storage strategy than the NVRs and their hard drives scattered across the city. Moreover, the NVRs lacked the performance and capacity to store surveillance feeds from digital cameras that ranged from two to five megapixels in resolution.

"The best approach would be storing our video surveillance in one central location, but this demanded a solution sufficiently robust to ingest continuous feeds from hundreds of cameras and large enough to preserve several months of video," said A.J. Allen, assistant IT manager for the City of Beachwood. "And, of course, a critical consideration was cost. We always strive to give citizens maximum value for their tax dollars."

Beachwood performed its due diligence on solutions from a variety of vendors. A Dell NAS product was costly and scaling a Synology system would be expensive. Synology and QNAP platforms used SATA drives, which were not as fast or reliable as SAS drives. The city also considered devices from Veracity and Pivot3.



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"At the end of the day, one vendor presented a solution that is not only fast and scalable for our needs, but is also the most affordable," said Allen.

THE SOLUTION

- **JetStor 8024R NAS Array** from AC&NC
- **JetStor 824JX JBOD** from AC&NC

SYSTEM CONFIGURATION

- One **JetStor 8024R NAS Array** with 24 16Tb drives
- One **JetStor 824JX JBOD** with 24 16Tb drives
- Two Arista DCS-7050TX-48-R switches
- Three WAVE Video Management Servers

BENEFITS IMMEDIATELY REALIZED

To meet its needs, the City of Beachwood anchored its video surveillance infrastructure with a **JetStor 8024R NAS platform** linked to a **JetStor 824JX JBOD** (Just a Bunch of Disks) system from AC&NC, a GSA contract holder. The cameras send their surveillance footage over the city's fiber-optic wide-area-network directly to the two **JetStor systems**. The platforms easily ingest over a gigabyte of video surveillance that the web of cameras generates every second of every day.

Beachwood achieved cost-effective scalability by extending the **JetStor 8024R system** with the **JetStor 824JX JBOD**. Combined, the two systems provide well over 600 terabytes of usable capacity, and the city can simply add another **JetStor 824JX JBOD** platform should it ever require more storage.

"The **JetStors** slashed our storage footprint from all over the city to a single rack in our data center," said Allen. "They've proven very reliable and are a great complement to our city-wide video surveillance. With them, we're ensuring security across our municipality without the hassles and complexities of our legacy systems. Moreover, the **JetStors** offered the best cost per terabyte of all the solutions we looked at, allowing us to deliver excellent value for our taxpayers."

HOW WE DID IT

Allen and his colleagues linked the **JetStor 8024R** device to the **JetStor 824JX JBOD chassis** at 12Gb/s speed. Each device features 24 bays, all of which are populated by 16Tb SAS drives for optimal capacity and performance. All components are redundant and for greater data protection, the systems are configured for RAID 6. No data will be lost if two drives fail simultaneously. Both platforms store a total of 200 terabytes of video footage.



The **JetStor 8024R NAS Array** and **JetStor 824JX JBOD** at the City of Beachwood's data center

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AC&NC JetStor 8024R NAS Array



AC&NC JetStor 824JX JBOD



Administrators connected the **JetStor 8024R array** to two Arista DCS-7050TX-48-R switches with 10Gb/s iSCSI links. These connect at the same speed to three virtualized Hanhwa servers running the WAVE Video Management System, which allow staff to manage the video feeds as they are sent to the **JetStor storage platforms**. These servers link to a LAN and then the WAN and the cameras. Should a server be removed from service for maintenance or updates, video feeds are automatically and transparently routed to the other two servers, providing continuous availability.

"Installation of both **JetStor** products was plug'n play," said Allen. "The few questions we had were promptly answered by AC&NC's Customer Service. We were up and running within an hour."

CONCLUSION

Video surveillance systems are an excellent investment in municipal safety, but video must be saved for a period of time for forensic and law enforcement reasons. The more cameras, the greater the community-wide visibility, but also the greater the need for robust storage.

"AC&NC excels in the video surveillance space," explained Allen. "In these times of tight city budgets, **JetStor storage platforms** offer ideal solutions for keeping our streets secure. They deliver the performance, scalability, and availability that we demanded, as well as strong customer service, all at market-leading costs. For municipal safety, **JetStor** has been a shrewd investment."

ABOUT ADVANCED COMPUTER & NETWORK CORPORATION (AC&NC)

AC&NC™ / JetStor meets the evolving needs for data storage, protection, and management. We leverage leading technologies to offer high-value solutions for NAS, SANs, clouds, and hyper-converged infrastructures (HCIs). Since 1994, our customers have spanned virtually every industry, and range from Fortune 500 enterprises to small and medium-sized firms. We support environments from data centers and clouds to branch offices and remote sites.



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