

Historic City a Technology Leader

FLORENCE CREATES METROPOLITAN AREA NETWORK TO OPTIMIZE FIBER RESOURCES

The City of Florence is best known for its cathedrals, museums and rich history, but that hasn't stopped it from leading the way in the adoption of cutting-edge technology.

In 2001, the City laid the foundation for a video surveillance system by installing 30 analog cameras at strategic locations to alert police to traffic congestion problems. The cameras, linked to digital video recorders at a police operations center by 40 kilometers of fiber-optic cable, revolutionized traffic monitoring in the city and quickly led to requests for more cameras.

Although originally conceived as a traffic management solution, the system was soon being used to protect the city's artistic heritage and keep citizens and tourists safe in public places.

Faced with requests for an expanded video surveillance system and the high cost of continuing with a point-to-point fiber-optic network, the City worked with Cieffe, the Milan-based company acquired in March 2008 by March Networks®, to create a much more economical and efficient Metropolitan Area Network made up of subnets with ring redundancy and various primary and backup interconnection paths. Software for the new fiber backbone is capable of constantly monitoring the network traffic and reporting anomalies directly to the Site Manager software that manages the entire system.

The hybrid recording and audio-video data management system is capable of integrating analog and digital signals, enabling the City to utilize existing video infrastructure while adding the latest IP technology.

Rather than running fiber from each new camera to the monitoring center in a point-to-point configuration, the City of Florence is now able to deploy analog or IP cameras using Ethernet cable and Ethernet to fiber-optic converters to link to the nearest point on the fiber ring.

The current 120-kilometer fiber network provides connectivity for 100 cameras, including 17 IP cameras, and links to the city, state and national police monitoring centres, allowing for a co-ordinated response in crisis situations.

Thanks to IP technologies, the ratio of analog video cameras installed to fiber optic cables used (one cable for each camera) has been massively optimized. Now it's possible to route the data of approximately 70 IP cameras with a single pair of fiber-optic cables, freeing up resources for use by the city's hospitals, the university and other public services.

Police at the monitoring center are able to view traffic, control signal lights, and dispatch officers to the scene of traffic tie-ups or accidents. The national police, the Carabinieri, use the video surveillance system to keep an eye on the city's historic sites and monuments, and respond to incidents of vandalism, disorderly conduct and criminal activity.

For example, the video surveillance system was successfully used by the Carabinieri to capture evidence of valet parking gangs that were threatening drivers to pay for their service. Video evidence presented at trial was instrumental in rendering judgment against the accused.

Residents of Florence are even asking police for video clips to assist in obtaining evidence of who was at fault in traffic accidents in which they were involved.

The system continues to be updated – most recently through the acquisition of 17 of Cieffe's Nettuno Dome PTZ cameras with 26x optical zoom. Intelligent video analytics and megapixel network cameras can also be accommodated.

"We selected Cieffe because of the reliability of its technology," said Sandro Campolmi, Technical Engineer with the City of Florence. "Some vendors are happy to make a sale, but aren't very responsive when something goes wrong. Whenever we have an issue, we have found that the Cieffe technical support team is always very helpful." ✨



City of Florence

The City of Florence (www.comune.fi.it), the capital of the Italian region of Tuscany, is widely regarded as the birthplace of the Italian Renaissance. Renowned for its art and architectural treasures and recognized by UNESCO as a World Heritage Site, the city attracts millions of tourists every year. Florence was founded by Julius Caesar in 59 BC, and currently has a population of 365,000.