

Turning the pages on inaccurate statistics.

McArthur Public Library counts on network video analytics to deliver the reliable data necessary to demonstrate its value to the community.



Organization:
McArthur Public Library

Location:
Biddeford, Maine, USA

Industry segment:
Government, Nonprofit

Application:
People counting

Axis partner:
Griffon Security
Technologies of
Kennebunk, Maine

Mission

Established in 1863, McArthur Public Library in Biddeford, Maine, was one of the first public libraries in the state, occupying a single room in City Hall before moving to its current location in a former church building. To comply with federal requirements and demonstrate its value to the community and various stakeholders, virtually every library counts foot traffic using a wide range of products and procedures, some of which are unreliable and can be prone to human error.

The library had questions about the integrity of the data from its own solution, which counted people using an invisible infrared beam, particularly if staff members forgot to reset the counter. Tired of relying on an outdated and inefficient product, the library sought a solution that would be more accurate, easier to use and wouldn't require human intervention.

Solution

While working with its new security provider, Griffon Security Technologies, to evaluate and maintain Axis cameras installed throughout the building, McArthur Public Library was introduced to AXIS People Counter and AXIS Store Reporter software. Coupled with a ceiling-mounted AXIS P32 Network Camera, the cost-effective solution provides a more accurate, hands-free approach to counting foot traffic coming through the library's entrance.

Result

Since deploying the video analytics solution, the library has been able to quickly generate reports to demonstrate usage and staff can be confident in the accuracy of the data the system generates. This has translated to more efficient staffing and budgeting, and with no manual interaction required to keep the system up and running, staff are able to dedicate their time to helping the hundreds of patrons who come through the library's doors each day.



Accurate counting and reporting depend on reliable data

Starting as a single room located in Biddeford's City Hall, McArthur Public Library was one of Maine's first public libraries in 1863. Following a fire about 30 years later, a private association purchased a former church on Main Street and reopened the library in 1902.

Named after Robert McArthur, a local mill agent and philanthropist who was integral in its establishment and growth, McArthur Public Library relies in part on public funding from the city to provide the community with access to more than 59,000 printed volumes, 7,000-plus e-books, 4,200 downloadable audiobooks, 100 magazine subscriptions and an extensive collection of more than 9,000 CDs and DVDs. The library also offers more than 20 public access computers with internet connectivity, literacy software and free wireless internet access throughout the building.

Like all libraries, particularly those that rely on public funding, McArthur must quantify its use to demonstrate its value to the community, determine budget needs and make decisions about operating hours and staffing levels. As is fairly standard with libraries, McArthur relies on foot traffic statistics as one measure to do this.

"Most libraries are required to complete a federally required report for their individual state that includes foot traffic data. It's a basic statistic, but it's very important for measuring use and illustrating value to the community and various stakeholders," says Jeff Cabral, McArthur Public Library's director. "There are a lot of good reasons to collect that data and make sure it's accurate."

Unfortunately, counting foot traffic can be prone to inaccuracy. Most methods and technologies for counting people are low-tech, such as staff recording tally marks on a piece of paper or solutions that rely on patrons breaking an invisible infrared beam.

"There are lots of opportunities for human error and equipment failure. For example, some solutions are battery-operated, so if you forget to check it, you may not have counted foot traffic for days," Cabral says.

Time for a change

For many years, McArthur Public Library employed an infrared beam solution. Among the many challenges the library faced with that solution was the tendency for the reflector that ensures a constant beam to be knocked out of line, which happened every time someone bumped into it.

"No matter how many times we affixed that reflector to the wall, it just wasn't a very robust piece of equipment. And if it wasn't reflecting perfectly, it would beep non-stop," he says.

Additionally, if the library wanted to gauge the popularity of a particular program or event, such as its annual Halloween program, or measure foot traffic for a particular day or time, staff had to remember to record the number on the counter before and after. Unfortunately, this wasn't always top of mind.

"Needless to say, we had questions about the integrity of our data, because it certainly seemed like we were busier than some of the numbers were showing, so we knew we needed a better solution – one that would allow us to have more confidence in its integrity and accuracy," Cabral says.

The quest for an ideal solution

In his quest to find a more accurate, reliable and easy-to-use solution, Cabral researched several potential products, including a newer version of its existing infrared beam solution paired with a camera-based system, which proved to be too expensive to purchase and install. Dissatisfied with what he'd found, rather than replace the existing system, Cabral chose to continue his search until he identified an ideal solution.



Using the web-based AXIS Store Reporter solution, Jeff Cabral can easily view up-to-the-minute usage statistics and generate reports with the click of a button. This allows him to make quick decisions about staffing, operating hours and other factors.



When Griffon Security Technologies, took over as the library's new security provider, the firm conducted an audit of the Axis surveillance cameras installed throughout the building. Cabral mentioned his desire to upgrade the library's solution for people counting. Because the library already had Axis cameras, the team considered the possibility of an Axis solution for the job.

"We knew Axis had a people counter analytic, so we started thinking about whether it would work for a library and then it just snowballed. When we looked at the value and what it would entail to install a camera, the cost was very reasonable," says Sheryl Watson, Outside Sales Engineer, Griffon Security Technologies.

After an on-site demo, McArthur Public Library found its new solution with AXIS People Counter embedded on an AXIS P32 Network Camera to count individuals coming into the library. Staff then use AXIS Store Reporter to view and manage the metrics.

"Based on the demo and the fact that the Axis solution was much less expensive, more accurate and provided more robust reporting features than what we'd previously looked at, we knew we had found what we'd been looking for," Cabral says. "Also, there's definitely a comfort level when you're working with an existing provider and products you're already familiar with and knowing you're going to be able to have it serviced by the same people who are servicing your security cameras."

Confidence in data integrity

Using the Axis software, McArthur Public Library was able to draw a specific area where it wanted the camera to count individuals and set it to count only patrons entering the building, eliminating the need to divide the total count by two.

"The technology that exists within the Axis camera allows us to make sure we're counting everyone, whether they enter alone or in a group, without our staff having to remember to do anything," Cabral says.

One of the greatest benefits of having accurate counts has been the ability to gauge the popularity of library programs. This helps staff to better plan events and understand usage among particular groups or at certain times of day.

Thanks to the intuitiveness of the software, Cabral says he was able to use the video analytics solution shortly after installation. He also likes the ability to easily break down visitor counts by day and by time of day.

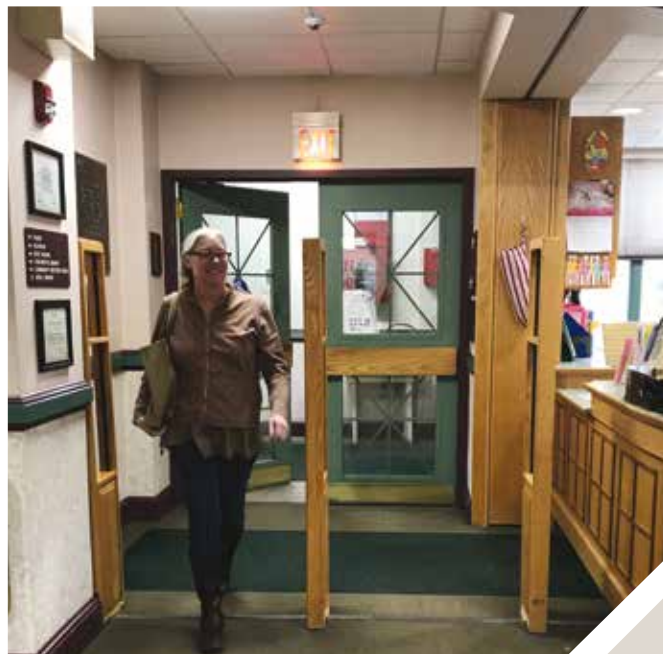
"The software is very straightforward. It's nice to have a solution that allows us to set it and forget it," he says.

Gathering the data for compiling reports, which used to be a time-intensive process, can now be done with a simple click.

"We still report the data monthly and now we just have to run a quick report. We know the data is there and that we can be confident in its accuracy," Cabral says.

"No matter their size, every library has to quantify use, and foot traffic is one important way to do that. The Axis analytics suite allows us to report that number more accurately and at a much more granular level than we ever could before."

Jeff Cabral, Director, McArthur Public Library.



AXIS People Counter installed on the Axis network camera mounted above the door automatically counts every person walking into the building. Since replacing its outdated and labor-intensive solution, the library has benefited from greater confidence in the accuracy and integrity of the data it collects.



About Axis Communications

Axis enables a smarter and safer world by creating network solutions that provide insights for improving security and new ways of doing business. As the industry leader in network video, Axis offers products and services for video surveillance and analytics, access control, and audio systems. Axis has more than 3,000 dedicated employees in over 50 countries and collaborates with partners worldwide to deliver customer solutions. Axis was founded in 1984 and has its headquarters in Lund, Sweden.

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