

Cover story

Streamlining government

Pittsburgh CIO
Howard A. Stern

Efficiency Expert

Pittsburgh uses HP technology
to save time and money.



Pittsburgh police use HP digital cameras to capture graffiti images.

Photo by Kelly LaDuke

“If we do go down, the power requirements of the new blade servers will give us the ability to keep all applications up and running. With the old technology we had to be selective about what stayed up if something bad were to happen.”

Howard A. Stern, CIO, Pittsburgh

Founded in 1758, Pittsburgh played a pivotal role in much of American history. Built at the confluence of the Allegheny, Monongahela and Ohio rivers, the city is known for its beautiful natural surroundings, historic structures and generations of steel workers.

Like most other American cities, Pittsburgh must manage shrinking budgets and increasing demand for government services. In 1996, the operating budget for city IT was \$5.8 million. Last year, because of aggressive cost-cutting, the budget was reduced to \$4.5 million.

City CIO Howard A. Stern believes by implementing strategic planning and innovative solutions, services can be increased and quality improved. Stern is leveraging HP technology to tackle the challenges of modern government while reducing costs.

Stern and his staff consolidated old servers using HP blade server technology, saving space and reducing backup and maintenance time. Stern’s team is also streamlining

a reporting process for law enforcement that used to soak away hours of officer time, and has implemented a digital imaging system to fight a costly graffiti problem.

In less than a year’s time, Stern and the city are already seeing results.

Compact size yields big benefits

Manually backing up old servers ceased to be an efficient process long ago. Nevertheless, many government IT shops still suffer through weekends spent in cramped computer rooms filled with monolithic servers to back up data.

Besides wasting time, manually backing up old servers is not exactly cost-effective. By moving to blade servers from HP and automating the backup process, the city of Pittsburgh is cutting costs and improving efficiency.

The city also reduced its total number of servers from 50 to 25, reducing software licensing costs, while increasing reliability and capability.

“Every server requires its own license,” explained Pittsburgh’s Network Manager Mike Bauer. “So what we’ve been doing is moving to the blade servers. For example, we can take four old servers and put them on one new blade server. And we’re running a storage area network (SAN). This gives us the ability to move storage around without having to take the extremely large amount of man-hours other systems require.”

Stern agreed. “We can now allocate disk space in minutes instead of many hours.”

Blade server technology is proving a powerful tool for the city. Beyond facilitating much improved backup processes, the blade server solution drastically increases system uptime.

“With the blade technology, we can keep everything running smoothly,” said Stern. “We

Customer snapshot

Agency: Pittsburgh

Mission: The city provides a full range of municipal services to approximately 370,000 residents.

Business case

Requirement: Improve services for citizens and streamline operations to reduce expenses.

Solution: The city replaced legacy servers with efficient HP blade servers. And IT staff implemented a streamlined reporting system for law enforcement and a digital imaging solution to help fight a costly graffiti problem.

Results: Server modernization and consolidation reduces software licensing costs and reduces staff time spent on maintenance and backup. New law enforcement applications save officers hours on incident reporting and manual graffiti comparisons to catch repeat offenders.

HP ProLiant DL360 G4

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- 1U rack
- Intel® Xeon™ processor 3.0 GHz/800 MHz
- One standard, two supported
- 1 GB ECC PC2700 DDR SDRAM (8 GB max memory)
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- Add \$373 for three-year, 13X5, four-hour response
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- Up to 8 attached SATA enclosures can provide the user with up to 24 TB of raw capacity

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HP ProCurve 3400cl-24G Managed Stackable Switch

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- 20 RJ-45 10/100/1000 ports
- Supports a maximum of 24 10/100/1000 ports and two 10-GbE ports
- Four dual personality ports—each port can be used as either an RJ-45 10/100/1000 port or an open mini-GBIC slot (for use with mini-GBIC transceivers)
- One open module slot
- One RS-232C DB-9 console port
- Mounts in a standard 19" rack with optional four-way mounting kit
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\$92/mo. ITFlex price

For the latest contract and pricing information, see www.hp.com/go/govcatalog or call 888/887-2081.

Efficient infrastructure solution

Pittsburgh's IT consolidation initiative reduced the city's total number of servers from 50 to 25, cutting software licensing costs and boosting reliability. Efficient HP infrastructure technology solves IT consolidation challenges.



have a generator system and an uninterruptible power supply (UPS) so if we do go down, the power requirements of the new blade servers will give us the ability to keep all applications up and running. With the old technology, we had to be selective about what stayed up if something bad were to happen."

The most daunting challenge posed by old servers is overcoming the need for operators. Many older systems require round-the-clock monitoring by systems operators. For a large municipality like Pittsburgh, it often meant a

dozen operators working in shifts just to keep the systems up and running. Clearly it was an operational model that was ineffective and not sustainable.

Stern said the city's consolidation plan led to the creation of a smaller, highly automated computer room.

"That's another initiative that saved a lot of money for the city of Pittsburgh," he said. "We had 12 operators at one time running three shifts seven days a week. What we are doing now is looking to significantly reduce the size of our com-



Turning the corner

A first quarter report on 2005 expenditures and revenues held good news for Pittsburgh Mayor Tom Murphy.

"We have good reason to be cautiously optimistic that Pittsburgh has indeed turned the financial corner," said Murphy. "The city of Pittsburgh is on track to end 2005 with an approximately \$11 million surplus."

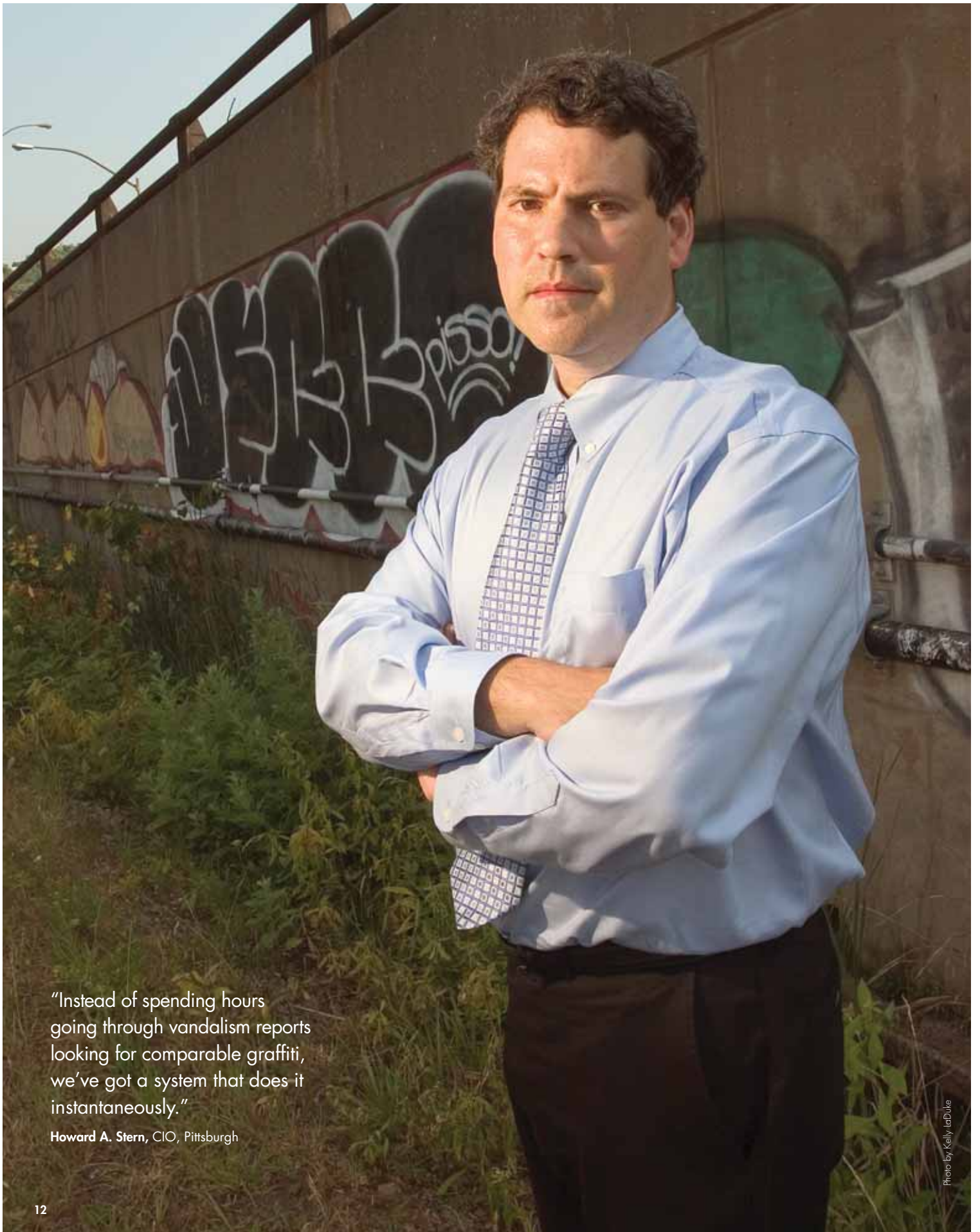
As recently as 2003, the city grappled with a \$60 million revenue shortfall.

The first-quarter report, released in May, details city revenues and expenditures for January, February and March 2005.

"Pittsburgh will have a surplus this year because of the strict controls we have placed on spending, and revenues coming in stronger than predicted," continued Murphy. "Our revenues for the year will be \$2.6 million more than budgeted and our expenditures are projected to be approximately \$8.4 million under budget."

While expressing continued optimism about the city's financial recovery, the mayor again cautioned that the city must wait until second-quarter numbers are completed before making a final judgment about the city's fiscal health.

In addition to projecting a budget surplus for 2005, the report includes expenditure projections for all city departments. The report shows that every single department in the city is projected to keep its expenditures below the agreed-upon levels.



“Instead of spending hours going through vandalism reports looking for comparable graffiti, we’ve got a system that does it instantaneously.”

Howard A. Stern, CIO, Pittsburgh

Photo by Kelly LaDuke

"We have developed a graffiti system that allows us to track taggers," explained Stern. "If the police catch someone marking up a wall, the officer isn't likely to know if the vandal has done it before. What we do is take a picture of the graffiti. We put it in the system and cross-reference it with images of similar vandalism. So when we take this person before a judge, he or she can be charged with multiple crimes instead of one crime."

The city hopes the solution will act as an effective deterrent. In addition, the system saves time and money—quite a bit of both in fact.

"There's some real potential for savings and deterrence there," said Stern. "More importantly, instead of spending hours going through vandalism reports looking for comparable graffiti, we've got a system that does it instantaneously."

Pittsburgh Police Commander Kathy Degler agrees. "In the past, detectives could spend hours going through graffiti reports. With this new system, information is generated in minutes."

Overcoming the paradox

Stern's goal is to create a city IT infrastructure that allows Pittsburgh to offer more services with better quality using fewer resources than before. Solutions like those from HP help cities make the most of existing funds and enable them to reach their goals.



Anti-graffiti solution

Pittsburgh Police use HP digital cameras to document graffiti and compare it to other images in a central database. HP imaging and handheld solutions support applications that improve quality of life and strengthen public safety.

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"Every government is in the same boat," said Stern. "There's less money, greater accountability, and IT is playing a larger role in helping government reduce costs."

With server, imaging and other solutions from HP, Pittsburgh is accomplishing what many others hope to do as well. "It makes us more effective with fewer resources," said Stern.

Doing more with less and doing it successfully—now that's innovation. ■

HP Photosmart M717 Digital Camera

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- Resolution: 6.2 megapixels
- Memory: 32 MB internal
- Zoom capability: 24x (3x optical, 8x digital)
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- Connectivity: 1 USB
- HP Instant Share™ technology included

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\$20/mo. ITFlex price

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For the latest contract and pricing information, see www.hp.com/go/govcatalog or call 888/887-2081.



Pittsburgh Police use an automated system to produce reports in the field on mobile computers.