

5 Channel Opportunities in the Smart Cities Era

By Kevin Casey

Channel Partners...

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Channel Partners

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5 Channel Opportunities in the Smart Cities Era

FROM CITYWIDE HIGH-SPEED WI-FI ACCESS TO "SMART" TRAFFIC SIGNALS THAT CAN ADJUST WITH COMMUTER

patterns to huge touchscreen information kiosks on city streets and plenty more, the Smart Cities trend — and the broader Internet of Things (IoT) movement — have been blazing hot topics in recent years.

And it's not limited to the biggest and most famous metropolitan areas, either. Take Kansas City, Missouri, for example: A recent Digital Trends feature on the city <u>highlights</u> a wealth of "smart" innovations there, from intelligent street lights to data visualizations of traffic patterns and other public info.

Here's a lesser-known characteristic of this nationwide trend: For boots-on-the-ground government IT pros, the fundamentals of "smart" cities are nothing new.

"Cities have been doing data collection and tracking data literally for decades," says Jonathan Feldman, CIO for the <u>City of Asheville, North Carolina</u>.

Well before IoT became a massively hyped tech trend, governments were using telemetry in all sorts of ways. Feldman notes that most government IT shops are responsible for their cities' public safety radio systems; so, cities are long-experienced with necessities like tracking and monitoring important data, such as how much gas is in the generators that provide backup power to critical public-safety systems in the event of a power outage.

You probably won't see that example on many "smart cities trends" pieces, but it's certainly how governments have been tracking and using data in the past — telemetry about site health on the city's water systems or other infrastructure is another example.

It's also the backbone of the newer notion of "Smart Cities." Many of the same principles are at work, just with newer technology enabling these kinds of use cases — as well as plenty of brand-new initiatives, such as the aforementioned smart traffic signals or touchscreen information kiosks for visitors.

"Just about every city is a smart city," Feldman says. "It's just a question of how deep you're going into it."

That level of depth will no doubt vary from city to city, but it's almost inevitable that it will increase over time — and partners can play a role, especially for government IT shops that, like many of your business customers, face ongoing budget constraints.

What's the Problem?

Respondents to the U.S. Department of Transportation **Smart City Challenge survey** cited six top challenges that can be addressed by IoT:

- Providing first-mile and last-mile service for transit users to connect underserved communities to jobs
- Coordinating data collection and analysis across systems and sectors
- Facilitating the movement of goods into and within a city
- Limiting the impacts of climate change and reducing carbon emissions
- Optimizing traffic flow on congested freeways and arterial streets
- Reducing inefficiency in parking systems and payment

Source: U.S. DOT, Smart City Challenge report

Partners Can Help Cities Grow Smarter

Municipal government IT shops, like their counterparts in plenty of private-sector organizations, are constantly being asked to do more with less. So there's most definitely a role for channel partners to play in the Smart Cities trend — one that extends, of course, to the broader IoT revolution.

Let's take a closer look at five key groups of opportunities and strategies for partners in this space. These are specific areas where partners can help CIOs and other IT leaders. And while we're focused here on working with municipal governments and agencies, bear in mind that each of these can translate into the private sector, too — this is more than just a government market opportunity.

1. Device Installation & Maintenance

Smart Cities and IoT in general depend on a whole lot of hardware (and the software that runs on it.) From sensors to wireless hot spots to smart streetlights and just about any other piece of tech that might fall into the Smart Cities category, there's a considerable opportunity for partners equipped to install and set up this new generation of devices, says Gregory Morawietz, CIO at managed services provider <u>Single Point</u>

of Contact. And as any IT pro can tell you, rare is the hardware that requires zero maintenance. Managing these devices is an ongoing project, one that many municipal agencies don't have the staff to do entirely in-house.

"The first place [where partners can help] is at the ground level where you can do installations for these locations," Morawietz says. "The second place is maintenance. You can maintain those devices: upgrade, update, patch and repair anything that's broken in the field."

That latter piece is significant not just because it creates a potential recurring revenue stream for

the partner (though, sure, those are always good). That opportunity exists, Morawietz notes, because it's filling a need; more on that in a moment. The point is, cities and other municipal agencies typically don't have robust tech support teams in-house.

Feldman, the Asheville CIO, offers a specific area of focus within the broad category of infrastructure: "I think IT organizations, if they don't have a maturity in terms of telemetry, they need a lot of help there."

2. Help Desk and Support

This goes hand in hand with the ongoing maintenance of various devices in the field. Partners can deliver a help desk function and other tech support services to agencies that need them. The help desk could serve government employees themselves, or citizens that need support when interacting with or using Smart Cities tech in everyday life.

Where's the Money?

Over the past year, the U.S. Department of Transportation has leveraged nearly \$350 million in public and private funds for smart city and advanced transportation technologies.

-Source: U.S. DOT, <u>Smart City</u>

<u>Challenge</u> report

This solves a challenge that comes from the vendor side of the IoT equation, according to Morawietz.

"A lot of the problem with IoT [devices] is that they don't have great tech support," he says. "A lot of these small and medium-size [IoT manufacturers] may produce a great product, but they don't have a help desk. Usually, you end up emailing or calling into a system that is directing you to go to a website to fill out a form. If it's a traffic light issue and you need to fill out a form, you know, it's going to be tough."

Being able to offer responsive phone support to employees and constituents could be a real boon, yet it's an opportunity that the vendors themselves may not be serving today. "Having MSPs or other technology service providers trained in how to support all of these devices is going to be a lot better for the city," Morawietz adds.

3. Securing Infrastructure and Data

Smart traffic lights and similar tech might sound great to a city planner — but they could turn nightmarish if a malicious hacker gains control of them. The same could be true of just about any IoT scenario in a municipal context (or the private sector, for that matter). Cities and public agencies are dealing with inherently sensitive data, such as health and legal information, and highly critical infrastructure, such as water systems, emergency services and other functions. As cities grow smarter, they also need to grow more secure. As more and more connected devices come online, the threat landscape expands.

Big Projects, Big Thinking

Pittsburgh plans to convert 36,365 street lights to LED technology, providing an energy saving of 60 percent.

- Columbus, Ohio, aims to reduce infant mortality in Franklin County by 40 percent by creating smart corridors and smart payment projects that improve access to prenatal care for individuals in underserved neighborhoods.
- Austin, Texas, will create a Mobility Marketplace that will improve access to mobility services for unbanked users, older Americans, and those with disabilities.



Source: U.S. DOT, Smart City Challenge report

Helping to secure IoT devices themselves as well as the potentially massive amounts of data they may generate in a city is another tremendous opportunity, says Morawietz. In general, he sees a growing need for MSPs and other partners to enter the rapidly growing security field.

One area of focus that's especially relevant to Smart Cities and IoT at large: wireless.

"Wireless security is probably the most underrated [threat area] — people completely take it for granted," he says. That's a mistake, though: "If you have Wi-Fi-connected devices, and you have a visible wireless infrastructure, it's super simple to break into. Wi-Fi security infrastructure has to be tight in these environments."

4. Cloud and IoT: A Perfect Pair

Both Feldman and Morawietz point out that cloud is a natural match with IoT. Therefore, partners that help cities move to the cloud are likewise better enabling those cities to pursue IoT initiatives, now or later.

"When you're using cloud already as an organization, it makes you IoT ready," Feldman says. That could include everything from an infrastructure-as-a-service platform like AWS, which Asheville uses extensively, to something as simple as Google Sheets, according to Feldman.

Tools like Google Apps with robust APIs naturally play well with IoT vendors — you can vacuum device data into a spreadsheet, for example — especially relative to older paradigms, such as an office that still stores everything on a shared drive.

"How the heck is the Internet of Things going to talk to the G: drive?" Feldman asks.

Feldman also notes that cloud apps can help solve another pesky problem that hinders truly smart cities: the notion that any technology use case needs an IT person to implement it. Cloud apps like Google Data Studio, for example, could enable a nontechnical business analyst to do data analytics and visualization of all manner of loT-generated information. Similarly, cloud apps can help a municipal agency self-provision, say, instant customer surveys via touchscreen devices, without necessarily needing IT intervention to get started or to manage data collection and analysis.

Partners can play a role in helping governments, and just about any organization, become more cloud ready and lay the foundation for new IoT implementations going forward.

5. Want to Hook the CIO? Stop Focusing on the Technology

Don't make the mistake of thinking municipal IT pros are a bunch of old-school dinosaurs. Just like their private-sector counterparts, the modern government CIO is increasingly asked to be an innovative, strategic driver of city initiatives.

"A CIO that's only interested in the technology is not a CIO that's going to solve business problems," Feldman says. "Solving a business problem is what's going to create a great reference for you as a partner; just doing a technical implementation is not."

Portland's Accessibility Map App

Portland, Oregon, has developed a mobile app for people with disabilities that can help them navigate the city's system of ADA-compliant ramps by offering trip planning based on accessibility and highlight locations with audible traffic crosswalk signals. The app would also provide the city with data on where people with disabilities are traveling, to help with development of its ADA transition plan.

Similarly, selling on the hype or trendiness of Smart Cities and IoT in general isn't going to fly. You need to translate these trendy categories into solutions to government goals and challenges.

"Very few of us have the discretionary time to do something just for the fun of it," Feldman says. "Peddle a business solution."

If you can implement something that helps increase customer responsiveness — or, in municipal terms, that helps a government agency become more responsive to its citizens — that's helping to meet a government goal or solve a government problem, as one example scenario. Just selling cool touchscreen menu technology on the basis of its coolness is not.

Feldman also points to a persistent problem for cities where partners can help: Cities are always working with tight budgets, which creates efficiency challenges for their IT teams. "If you can help a city solve a problem for \$1 instead of \$100, that's always very compelling," he says.

But it's not just about cutting costs; it's also about making people happy.

"Anything that creates delight for citizens is going to be very popular," Feldman says. "Most citizens are used to being treated like [they're at] the DMV. When people are *not* treated like that, when they're treated like valued citizens and residents whose opinions matter, that's the way they wanted to be treated."

<u>Techaisle</u> principal analyst Anurag Agrawal concurs that both IoT infrastructure and security are significant opportunity areas for partners, and adds data — both integration and analytics — to the list.

He offers some parting advice, too: You can't be a dabbler.

"If channel partners want to take advantage of smart city projects then they have to be fully-focused and invested in the initiative," Agrawal says. "They cannot be periphery partners and hope to reap the benefits of such projects."

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