

PUBLIC SECTOR

# TheRecord



TIM TURITTO: MICROSOFT

Facing dwindling budgets, an ageing and retiring workforce and increased expectations from the public, there's no question that government organisations are under a lot of pressure at the moment. Success requires a new level of mobility – both to foster productivity and to attract a new generation of millennial workers.

In the following pages we take a look at how Microsoft and its partners are providing solutions to these challenges and more, helping shape the connected governments of the future.

# Flexible citizen services

To tackle service delivery challenges and better meet the diverse needs of today's citizens, government agencies are turning to technology that supports collaboration and boosts productivity. Microsoft's Tim Turitto explains what steps are being taken to serve populations in a more effective and efficient way

BY SEAN DUDLEY



Across all geographies, local and national government agencies are having to deal with changing populations. Communities are growing and becoming more diverse in nature, and the need for public sector organisations to provide the best education, healthcare, work and social care services is only increasing.

“Government agencies are facing dwindling budgets and an ageing and retiring workforce,” says Tim Turitto, worldwide general manager for Government at Microsoft. “At the same time, there continues to be increased expectations from the public for an expanded set of more citizen-centric services.”

Within government services, there is an inherent need to move with citizens as their expectations and way of life changes and develops. For example, with millennials now entering the workforce, it's vitally important that agencies operate on the levels that this new type of citizen is most familiar with.

“Collaboration and productivity tools are at a premium, but technology solutions that enable mobility are allowing governments to enable a modern workplace and attract the millennial workforce,” Turitto says.

Furthermore, government organisations often have complex networks of people in different roles and locations. By identifying and adopting



## VIEWPOINT



## Doing more with less

Melissa Topp of ICONICS explains how modern automation software solutions can help government agencies tackle the challenges they face

Government agencies are constantly tasked with the expectation to 'do more with less', and frequently required to find ways to cut costs without sacrificing productivity. Another emerging trend for government agencies is the move towards public transparency of services and project costs, including complete visibility into the corresponding results and benefits.

These challenges can be tackled using modern automation software solutions. Agencies with cost-cutting demands might be interested in implementing energy management or fault detection and diagnostics analytics software, both of which can help reduce related expenses with regards to energy and maintenance spending.

Government agencies faced with department service management consolidation may consider

industrial internet of things-connected, web-based key performance indicator dashboards and controls. Modern HMI/SCADA software can handle the security and role-assignment considerations required in such situations. Agencies taking on budget transparency efforts can use a combination of these software solutions.

ICONICS has long been a supplier of automation software solutions to government agencies around the world, and recently worked with the Department for Business, Energy & Industrial Strategy in the UK on such a project (see more on page 81).

*Melissa Topp is senior director of Global Marketing at ICONICS*

effective technologies that boost levels of connection and help enhance work processes, government agencies can stay one step ahead of the game, while remaining inclusive.

“Governments are dealing with the challenges of an ageing population and providing the necessary and specialised services to meet their needs along with a growing millennial population that demands real-time and personalised services,” he says. “Data analytics and the cloud provides government with the ability to design these specialised services in such a way to meet the needs of a particular demographic.”

Though government agencies are always looking to improve their internal processes, it’s vital they continue to connect with citizens. Doing this in a personalised and empathetic way can enhance the user experience and ensure citizen services are used effectively and frequently, with technology playing a key role.

Turitto explains: “Given the ever-changing demographics of citizens for governments all

over the world, technologies such as multi-lingual chatbots are increasing the ability of government agencies to communicate more effectively with a diverse citizenry.”

**“There continues to be increased expectations from the public for an expanded set of more citizen-centric services”**

One key area government agencies are consistently looking to improve is transportation. Finland-based Microsoft partner PayiQ delivers a mobile payment solution running on the Microsoft Azure cloud platform that allows citizens to move around their cities in a more streamlined and efficient way. This presents government organisations with the opportunity to revolutionise transportation in urban areas.

## VIEWPOINT



## Focusing on the ‘three D’s’

Paal Christian Myhre of Meshcrafts explains why government agencies are prioritising digitalisation, democratisation and decarbonisation

Government agencies are facing a high number of issues, including air pollution, traffic congestion, volatility in power supply due to increased production of renewable energy, and constraints on the electricity grid.

To provide a better service to citizens, government agencies are focusing on the ‘three D’s’ – digitalisation, decarbonisation and democratisation.

By embracing digital, governments and service providers can change to an event-based system. This can be applied to energy management, mobility and traffic management for example. By optimising available resources, citizens can get better services at a lower economic and environmental cost.

Decarbonising the transport sector will help reduce local air pollution. This will also positively impact the amount of greenhouse gasses released, leading to slower growth in global temperature increase. This gives a better and more stable environment.

When it comes to democratisation, by making data available to citizens, they can interact with and follow

government agencies. Not only can they access data, but they can visualise it and act on it. With real-time information on transport or consumption, they can adjust their lives accordingly, or can file a suggestion on how to improve the operation of the city or its subsystems. With open data, citizens can follow political and governmental decisions and actions, keeping an eye on deliveries and, if promises are kept, possibly restoring their faith in politics.

Meshcrafts’ technology enables government agencies to better operate critical infrastructure related to e-mobility and consumption and traffic monitoring. With our SmartCharge solution, governmental agencies can control and make predictions based on data from electric vehicle charging and traffic, instead of having to make assumptions. This can help optimise the use of available infrastructure and in turn help agencies avoid expensive and unnecessary investments.

*Paal Christian Myhre is CEO and co-founder of Meshcrafts*



“Our solution offers multi-modal ticketing for transport and helps increase the usage of public transportation, thereby reducing pollution and minimising traffic jams,” says Tuomo Parjanen, CEO of PayiQ. “We’ve seen an increase in digital tickets on mobile platforms combined with common digital payments methods. There’s also been an increased focus on offering ticket validation to minimise fraud. Another trend is ride shares via things like city bikes and on demand taxi services. Our ticketing-as-a-service platform supports all the above requirements and can be built into third party applications.”

An example of Microsoft technology being harnessed by a government organisation to bring about a series of positive changes comes from the Netherlands, where the municipality of Hollands Kroon has embraced the concept of digital transformation.

The city chose to build its infrastructure in the Microsoft cloud, and now uses a variety of Microsoft cloud and productivity services including the Microsoft Azure cloud platform.

This has actively helped increase the mobility of government workers in Hollands Kroon.

“Our employees take advantage of mobile apps to work from anywhere, and we use Microsoft collaboration tools to streamline workflows and manage documents here in the office,” said Arthur Cremers, director for the municipality of Hollands Kroon, in a Microsoft blog post. “The tools make it easy for teams to work together and to collaborate with colleagues on other teams, and the fact that so much is done digitally makes the office virtually paperless. We are more efficient – with fewer meetings but more collaboration – and our rates of sickness and absence are extremely low. Our IT team is freed up from day-to-day systems management so they can spend more time focusing on projects that serve our citizens.”

This is the kind of shift in operations Microsoft is aiming to introduce to more and more municipalities moving forward, and ultimately support the efforts of government agencies when it comes to serving citizens. ■

# Keeping things moving

A US county teamed up with EastBanc Technologies to create a solution harnessing the Microsoft Azure cloud platform to support citizens during snow disruption

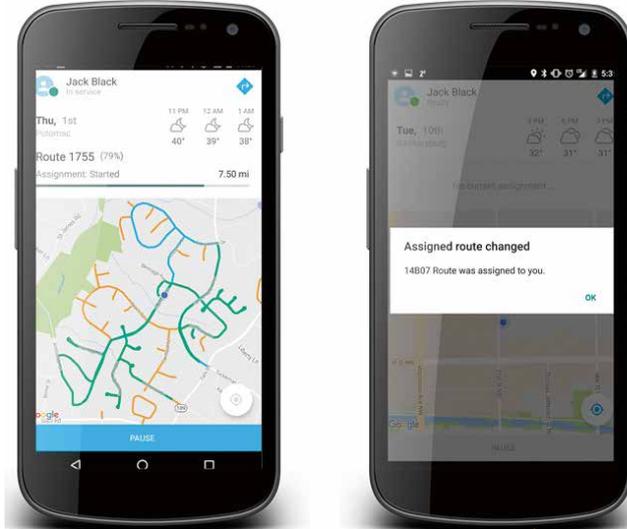
As much as four feet of snow fell during a major storm in Montgomery County in Maryland, US, back in January 2016. This acted as the catalyst for the Montgomery County Department of Transportation (MCDOT) to look into the best way of keeping citizens informed as to current traffic and transportation situations during such an event.

“The snow removal process, when you have that much snow, is going to be pretty slow,” explained Reza Zarif, information technology specialist at MCDOT. “County residents are not able to get out of their homes, they need more data and information in terms of how soon their neighbourhood streets are going to be cleared.”

The county engaged Microsoft CityNext partner EastBanc Technologies with the aim of creating “a very scalable platform and architecture that could handle large volumes of data and public inquiries during major events”. Another requirement was for the system to work on mobile devices.

The Microsoft Azure cloud platform was quickly identified as a potential option. “There were many facets of Azure that made it an attractive choice for us,” said Zarif. “We really wanted to have a system that was built on cloud services to be able to withstand the volume of data.”

“We needed a cloud solution that allows us to quickly react to requests from our customers



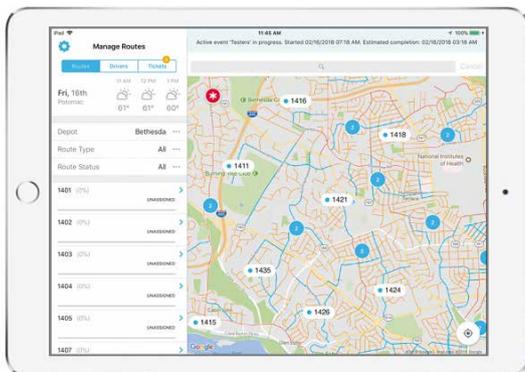
The SNOWiQ app harnesses the Microsoft Azure cloud platform

without the unnecessary overhead of datacenter and system administration,” said Peter Shashkin, director of solutions at EastBanc Technologies. “Microsoft Azure, being a leader in platform-as-a-service technology, provides everything we need to accomplish this goal.”

The development of what would become SNOWiQ started in 2016, and the system was well received by staff from the off. “With SNOWiQ, it doesn’t matter whether drivers have done it a hundred times or if this is their first time – they know exactly where they need to go and what to do,” said Zarif.

EastBanc Technologies worked with the county to refine SNOWiQ over the course of 2017, with the system now in place at all five county depots. Zarif is confident 2018’s statistics will make for pleasant reading once compiled at the year’s end.

“Through SNOWiQ, we can not only assign a driver’s current route, we can queue up all subsequent routes – through the push of a button on a mobile device,” he said. “There’s tremendous savings in terms of time from our field staff. Our drivers are just in love with the product because it makes their jobs so much easier.” ■



# Managing estates in the cloud

ICONICS and Microsoft Azure give UK Government’s Department for Business, Energy and Industrial Strategy a new way to manage data from multiple property estates

Responsible for promoting trade and boosting innovation across the UK’s science, business and industrial sectors, the UK Government’s Department for Business, Energy and Industrial Strategy (BEIS) helps to provide citizens with the skills and education they need to start and grow businesses. To this end, BEIS has 2,500 core staff and oversees 49 partner organisations that collectively employ more than 14,500 people. Each of the partner organisations has its own property estates, which means that BEIS’s Property Asset Management team manages offices across London, Sheffield, Cardiff, Manchester, Nottingham and several other UK cities. (and facilities-related data sets)

BEIS’s main holistic aim was to shrink its carbon footprint by reducing the number of buildings it owned, while optimising the performance of those it retained. However, the data and reporting processes for BEIS’s entire building portfolio were fragmented and its team had to compile hundreds of incongruent spreadsheets for 70 disparate data sources across 180 buildings. This meant it had little time to digest data and act accordingly. Consequently, BEIS needed a new way to capture all sorts of operational data – including everything from occupancy counts, energy statistics and meter readings, to project information, financial reporting and lease agreements. To do this, it turned to Microsoft partner ICONICS.

ICONICS ran a short Microsoft Azure-hosted proof of concept to demonstrate the capabilities of its GENESIS64 solution. BEIS chose three data sources and, within a week, saw that the dashboards ICONICS had built, combined with the flexibility of visualising spreadsheets with different formats, were exactly what it needed.

Today, BEIS uses the Microsoft Azure-hosted solution to gain an integrated view of all its



building assets. The Property Asset Management team can drill down to any property by geographical area and see more than 70 different data types in building dashboard summaries within Microsoft Azure. BEIS can manage all data entry via an online interface, so there’s no longer a need for staff to trawl through hundreds of different spreadsheets to see the buildings occupancy counts, energy consumption statistics, or lease agreements – the data can be accessed within a couple of clicks. This allows BEIS to easily identify the most underused and least energy efficient of its 180 buildings.

ICONICS used Microsoft’s Azure Table storage and Event Hub to configure the cloud solution, which means that it can be easily scaled if BEIS wants to add more data sources as it grows across the government in future. ■

# Make it simpler and safer to manage your highly-regulated logistic processes

**The AX for Pharma Advanced Warehouse Management module integrates with Microsoft Dynamics AX to support the needs of highly-regulated industries.**

*Ready for  
Microsoft  
Dynamics 365  
for Operations*

To excel in today's highly competitive market, your company needs a flexible and integrated warehouse management solution. **AX for Pharma supports all industry-specific logistic processes**, helps you receive, pick, pack and deliver your products easily and quickly, with fewer errors along the way.

Having an advanced warehouse management system that also integrates with your ERP system has been an ultimate desire for this industry. The AX for Pharma Advanced Warehouse Management module makes this desire a reality.

**The module integrates with Microsoft Dynamics AX, the ERP suite from Microsoft**, and makes it simple to manage complex activities; helping you to boost productivity, reduce costs, shorten order fulfillment times, and **increase customer satisfaction in a GMP-compliant way**.

Complex logistic processes can only be managed efficiently and safely if all required functionalities are integrated within one reliable system and if data is available in real-time. **AX for Pharma guarantees information flows easily through your organization, giving you better business insight, control, and supports your growth**. On top of that, the Advanced Warehouse Management module is fast to deploy, easy to use, and very scalable.

The Advanced Warehouse Management module supports your logistics processes with extensive functionality for product receipt, put-away, picking, transfer, consumption against production orders, label printing, and real-time information for inventory on hand and lot/container status. **It also integrates seamlessly with the AX for Pharma Weighing & Dispensing module.**

The fundamentals of warehousing never change, but the need for real-time information, efficiency and mobility have never been greater. **The Advanced Warehouse Management module enables a completely paperless warehouse and supports all your logistics processes**. It gives your company:

- Faster order cycles
- More control over the movement of materials
- Improved visibility of inventory
- Reduced inventory and labor costs
- Increased data and order accuracy
- Streamlined processes
- Shorter (and more accurate) cycle counts and physical counts
- Improved warehouse reporting.

## Solution Benefits

### **Inventory control and management**

The Advanced Warehouse Management module makes inventory management a faster, easier, and safer task by providing real-time information. It is designed to control all of the warehouse's activities, in order to track every unit in the warehouse at any stage of the order. Because of this, companies are able to respond quickly to the demands of their customers with exact information on their product.

### **Streamline processes and inefficiencies**

The Advanced Warehouse Management module covers both inbound and outbound processing. This includes sales orders, purchase orders, and transfer orders. In addition, warehouse operations

are supported for cycle counting, inventory movements and adjustments, weighing and dispensing, and production operations.

### **Reduce operational costs**

The Advanced Warehouse Management module can ensure that expiring or perishable inventory is picked up first, thus saving products from going to waste. By ensuring that all the products are stored correctly and used in the right order, waste can be minimized, leading to a more balanced inventory.

### **Strengthen logistic compliance**

Whether materials are entering the warehouse, being shipped out, or being moved around, companies have to meet increasingly stringent

codes of compliance. The Advanced Warehouse Management module strengthens these capabilities, ensuring companies are able to comply with regulatory mandates while being able to trace specific components.

### **Reduction in inventory paperwork**

Implementation of the Advanced Warehouse Management module will significantly reduce the paperwork associated with warehouse operations, as well as ensure timely and accurate flow of inventory and information. Reports, tickets, packing lists, etc., can all be maintained electronically.