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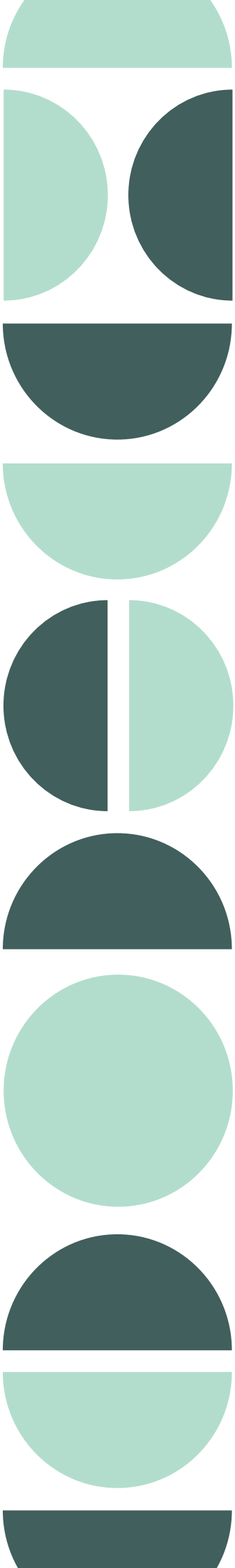
Modernizing central government through IT service management



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Over 77 percent of survey respondents spent more than a quarter of their day on manual administrative tasks

—**ServiceNow's 2017 report**, Today's State of Federal Automation

Digital transformation is a major trend across all industries and sectors, and government is no different. Government departments and agencies are looking for ways to provide faster, more effective public services with more transparency at lower costs.

Like most enterprises, these organisations have spent the last decade or more building online services and mobile apps, and are now looking at what's next; the opportunities offered by big data, analytics, machine learning and the Internet of Things (IoT). In a 2015 Deloitte survey of over 1,200 government officials from over 70 countries, three quarters of respondents reported that digital technologies were disrupting the public sector, with 96% characterising the impact on their domain as significant.

In fact, digital transformation is a priority around the globe.

As ServiceNow CEO John Donahoe told technology news publication Diginomica in October 2017, "I talked to governmental leaders in Australia, the UK, Netherlands, where governments are starting to have to go through the same digitisation process that companies go through."

Yet not all nations, or indeed public-sector agencies, are at the same level of maturity. Many don't even have a clear strategy, with Deloitte's survey finding that only 46% of public sector agencies had a coherent plan in place.

So, what's holding back the late movers, and in what way can these technologies aid this digital transformation?

Digital transformation – what's at stake?

Technology is already transforming societies and enterprise culture. We're seeing the impact of cloud computing, social media, mobile computing, voice recognition and big data analytics, while a new wave of technologies – including machine learning, 3D printing, robotics, computer vision and Internet of Things – will bring further disruption. It's only natural then that governments will follow.

In the words of the McKinsey report Digital by default: A guide to transforming government, "By digitizing, governments can provide services that meet the evolving expectations of citizens and businesses, even in a period of tight budgets and complex challenges.

"Not only do citizens prefer digital services and interactions with governments, but digital services can also empower citizens and broaden their engagement."

Digitization is already kick-starting this transformation, simplifying and optimising the most expensive, labour-intensive interactions between citizens and governments.

When Singapore digitised the company registration process, it brought the time required to register down to under fifteen minutes. By combining digitisation with a revision of tax categories, Denmark ensured that 98% of the workload of registering a new company could be finished in seconds without any human intervention involved.

Through the country's X-Road platform, Estonia's 1.4 million residents can vote, pay taxes and access more than 160 government services online. The Mayor's Office of Data Analytics in the City of New York, meanwhile, is harnessing the power of big data to prioritise building inspections or detect business licenses obtained through fraudulent means. According to McKinsey's report, Sweden's social insurance agency has digitised the five processes that accounted for more than 60% of all manual processing work and drove more four-fifths of its call-centre interactions.

Yet the greatest benefits could be still to come, through machine learning, AI-driven analytics and augmentation of the human workforce with AI and chatbots.

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ITSM enables government organisations to spend less time on 'keeping the lights on' and more time on strategies that could modernise and transform.

A 2017 study by Deloitte, How much time and money can AI save government?, predicts that even low-level adoption of these technologies could save government workforces between 2 to 4 percent of all their labour hours, by targeting high-volume tasks such as documenting and recording information, or time-wasting supplemental tasks. With a mid-range investment, which the authors considered more realistic, those savings could extend to 13 to 15 percent within five to seven years. With strong support, they could reach 26 to 30 percent within the same timeframe, resulting in millions of working hours saved and potential annual savings of up to $41.1billion.

As Deloitte concluded, "AI-based applications could potentially reduce backlogs, cut costs, overcome resource constraints, free workers from mundane tasks, improve the accuracy of projections, inject intelligence into scores of processes and systems, and handle many other tasks humans can't easily do on our own." These would include 'predicting fraudulent transactions, identifying criminal suspects via facial recognition, and sifting millions of documents in real-time.'

Governments need modern technology. ServiceNow's 2017 report, Today's State of Federal Automation, found that over 77 percent of survey respondents spent more than a quarter of their day on manual administrative tasks. 77 percent said that they would need to automate with intelligent machines in the next five years just to keep up with the pace of work at their agency, while 43 percent reduced that timescale down to just twelve months.

What are the barriers to digital transformation?

Given the cost—and time-savings—involved in digital transformation, the advantages seem clear. Why, then, are some governments lagging behind?

ServiceNow's report cites legacy technologies, with 42 percent of those surveyed saying these would significantly impact their agency's efforts, costs and staff. Deloitte, meanwhile, places competing priorities, insufficient funding and security concerns as the top three barriers, with lack of an overall strategy and organizational ability lurking underneath. Many real-world initiatives have already been stymied by resistance and inertia within government departments or a lack of buy-in from ministers and officials.

Some of these challenges can only be met with a wider strategy or a deeper organisational shift, but others might not be so impervious to change. Take legacy systems and their costs. There's no question that these are serious barriers to transformation. IDC Research Director, Shawn P. McCarthy, noted back in 2016 that between 75 percent and 80 percent of the US government's $80bn IT budget was spent on operation and maintenance of outdated systems, leaving only 20% for investing in new systems and development. In 2017, he found that while the government was spending more on IT, new development still only accounted for 21.1 percent of federal IT spending.

What's more, McCarthy suggests, the US government's Data Centre Optimization Initiative is likely to put even more pressure on government IT directors, pushing them 'to upgrade at a time when the government seems to be spending significantly less money on upgrades.' Legacy IT systems and processes are standing in the way of modernisation, but modernisation itself could be the answer.

ITSM paves the way for digital transformation

By optimising and modernising IT, using the same emerging technologies – the cloud, automation, machine learning – companies can break down the barriers that hold their wider modernisation efforts back. The way forward lies in IT Service Management (ITSM), and its potential to cut down IT workloads, replace or optimise legacy systems and streamline costs. ITSM enables government organisations to spend less time on 'keeping the lights on' and more time on strategies that could modernise and transform.

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With a cloud-based platform, ITSM solutions like ServiceNow can deliver ITSM modernisation without adding to IT costs or workloads...

ServiceNow's cloud platform enables departments and agencies to replace or consolidate legacy processes with intelligent, automated workflows that speed delivery and make it easier to prioritise and deliver IT support. The platform enables customers to build a single system of record accessible across a range of applications, sharing the same data model and code. This reduces fragmentation, breaks down silos and improves service delivery. Meanwhile automated, user-focused services and self-service tools improve the user-experience. Both productivity and transparency are boosted.

Some government agencies and departments are realising the benefits already.

For example, in Belgium, the federal government and social security institutions decided to set-up ITSM-as-a-service—using ServiceNow technology—within its G-Cloud program, a combination of commercial public cloud services, private cloud services, and managed ICT services hosted in government data centres.

These hybrid cloud services provide up to 80,000 government users with communications and collaboration services, and G-Cloud includes a self-service portal to request applications, services, and infrastructure.

Within the G-Cloud service portfolio, the designated service manager Smals offers a cloud-based IT Service Management (ITSM) tool that is fully managed, or a dedicated instance for individual government agencies. This supports agencies in their ongoing efforts to consolidate the different tools, spreadsheets, and manual processes that may exist in their organization.

"We were faced with older tools with a lot of redundant data and little integration between them," says Luc Billion, Operational Director Infrastructure, Systems, Services & Support for Smals. "Our call centre staff and IT support team used separate systems, which sometimes resulted in information being duplicated or unavailable.

"We needed to change our culture and we needed more transparency. We wanted to make our environment easier to manage by moving to a single cloud-based toolset."

Also in Belgium, The Federal Public Service for Public Health, Safety of the Food Chain, switched to ServiceNow and saw benefits including faster resolution of problems.

"We target the KPIs for service management and this indicates that the results are extremely good. We see that 60% of the incidents are now already reported via self-service, easing the pressure on the helpdesk," says Patrick Delhaye, Manager Service Desk ICT.

"The helpdesk manages to deal with 72% of the reports adequately itself, so only a small percentage of incidents are escalated."

Thanks to ServiceNow, Delhaye obtains a wide view of the performances. He analyses the reports monthly and notes that in general the KPIs are achieved.

There are other examples, across the globe. In New South Wales, Australia, GovDC uses ServiceNow to provide applications and services to over 400,000 government staff, driving savings and improved performance from IT across schools, hospitals, transport and law enforcement.

"Improvements come primarily through having less human intervention and more automation" says Derek Paterson, Director of GovDC.

"Exposing APIs between different technology vendors and products allows for that unification of end-to-end system implementations."

At the US Department of Energy, meanwhile, ServiceNow has delivered additional capabilities to manage assets, facilities and the workforce more effectively.

Not only has adopting the platform saved 40 percent over the cost of upgrading legacy software; it's provided superior process automation and a single system of record. Senior department leaders have subsequently been able to make data-driven decisions on facilities management, asset management and human resources, while the department has transformed into a service-oriented enterprise.

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This, however, might only be the beginning. Machine learning, as in ServiceNow's Agent Intelligence applications, can be used to categorise and prioritise incidents and cases, reducing resolution times and minimizing human error. Not only does it use existing data to create accurate predictive models, but incoming data to keep improving these models over time.

ServiceNow has been using Agent Intelligence within its own business, and within two weeks the agent was outperforming human accuracy on incident categorization and routing, while freeing up customer support engineers to solve real problems.

"We think there is just an enormous number of use cases where the machine learning capability can take some of the more redundant, repetitive parts of work that people are working on" says CEO John Donahoe, adding that it "also enables the IT professionals, the HR professionals, the security analysts, the customer support agents, to focus their energies on higher value-added activities and really delivering great experiences."

As time goes on, expect further optimisations, as machine learning applications isolate new patterns, cross-reference with earlier problems and provide predictions and recommendations. In some cases, automated resolution may be possible.

Combine this with chatbots, responding as a first touchpoint, sharing knowledge and directing inquiries to appropriate solutions, and there are even more opportunities to save time and money. These agents won't just recognise problems, but the limits of the requester's knowledge and expertise. This will ensure they get help at the right level.

With a cloud-based platform, ITSM solutions like ServiceNow can deliver ITSM modernisation without adding to IT costs or workloads by requiring investments in new infrastructure or maintenance to support it.

This leaves CIOs and their IT teams with more time and budget to focus on projects for more far-reaching digital transformations; projects that the ServiceNow platform is already ready to support. If modernisation starts with optimisation, ITSM lays the road ahead.

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