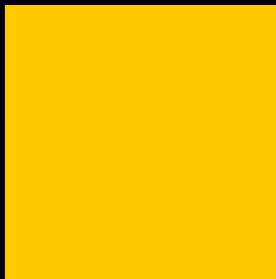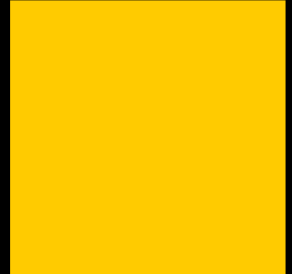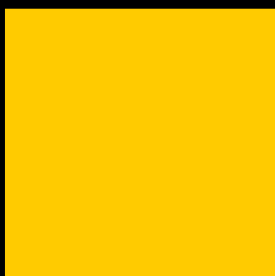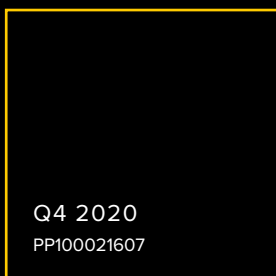# gov◯tech
review

LEADERS IN TECH

OUR EXPERTS' PREDICTIONS FOR 2021

Upcoming Public Sector Virtual Events Schedule:

PUBLIC SECTOR NETWORK

Certified B Corporation

JANUARY/FEBRUARY

EA/PA Summit 2021
28 January

Improving Customer Experience and Customer Engagement
2 February

RPA and IA for Government
3 February

Bots and the Future of Customer Experience
4 February

Securing the Cloud
5 February

Driving Public Healthcare Procurement Capabilities
9 February

Blockchain Application in the Public Sector
10 February

Workforce Transformation in the Public Sector
11 February

Developing Stronger Field Services Management
16 February

Finance Analytics
17 February

Critical Infrastructure Protection
24 February

MARCH

Asset Management Excellence
2 March

Data Visualisation and Dashboards
3 March

Digital Inclusion in the Public Sector
4 March

Improving Remote & Telehealth Services
9 March

Utilising Edge Computing in Data Management Practices
10 March

Diversity and Inclusion
11 March

Building Green and Sustainable Cities
16 March

Workplace Health and Safety
17 March

Cyber Security for Critical Infrastructure
23 March

Defence Procurement
24 March

APRIL

Process Excellence and RPA
6 April

Data Science and Machine Learning
7 April

Digital Product Management
8 April

FoW in Healthcare
13 April

Driving Efficiency through Hyperautomation
14 April

Human Capital and Robotic Process Automation
15 April

Planning Ahead of Demand with Smart Infrastructure
20 April

Shared Services 2.0
21 April

Risk Management
27 April

Space Technology & Capability
28 April

MAY

Mitigating Cyber Security Risks
4 May

Data Warehousing
5 May

Digital Reality in the Public Sector
6 May

Hospital Management Improvement
11 May

Sustainable IT Service Management
12 May

Strategic Workforce Planning
13 May

Exploring the Potential of Spatial Data
18 May

Public Sector Governance, Risk and Compliance
19 May

Securing Your Networks
25 May

Defence Communication Systems
26 May

JUNE

Procurement and Contract Management
1 June

Public Sector Data Governance & Privacy
2 June

Healthcare Infrastructure
8 June

Data Centre Design and Distribution
9 June

Talent Management in the Public Sector
10 June

Strategising Sustainable Infrastructure and Asset Management
15 June

Process Transformation and Excellence
16 June

Improving Citizens Life Journeys
17 June

Applying Patching for Government
22 June

Next-Gen Forensics
23 June

About PSN

The Public Sector Network is a social learning platform that exists to help government around the globe break down silos, collaborate, and work together for better outcomes for citizens

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INSIDE

FEATURES

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LEADERS IN TECHNOLOGY

Insider

The year of disruption

What a weird year it has been. Who could have seen any of this coming? A global pandemic, economies disrupted and the biggest shift in work practices in decades. Coming hot on the heels of the summer bushfires (no pun intended), the COVID-19 pandemic struck Australia and the wider world like Thor's hammer.

One of the things that has helped so many people get through this time has been the ability to rapidly shift to working from home — at least, for those fortunate enough to be able to do so. That ability is solely due to our modern world's IT capabilities. Can you imagine what things would have been like if the pandemic had struck in the pre-internet era?... before the days of Zoom and Teams and Slack and Dropbox and Google? Either our economy would have ground to a halt or office workers would have been succumbing to the virus in their thousands.

What's important now is to look towards 2021 and try to work out how we will live and work in a strange new normal. Perhaps the vaccines in development will largely solve the problem and we'll all be able to mingle and work together again as we always have done. Or maybe there will need to be permanent changes to work practices and other daily activities. It's too soon to tell.

But at least we can make some educated guesses, which is just what our panel of experts does in this issue. Our annual Leaders in Technology interviews canvass a wide range of professionals from all corners of the IT sector, each of whom gives their predictions for what's ahead and what our national IT priorities should be. They have lots of good advice to share, and we should all take careful note of what they have to say.

What do you think will happen in IT in 2021? Will most people return to the office? Do you think nation state cyber attacks will escalate? Will 'fake news' become worse or will it have run its course? Do you think cybercriminals will come up with a killer new way of stealing money or intellectual property or causing malicious disruption? Will the global IT giants finally be forced to pay their fair share of tax in the jurisdictions in which they operate?

One thing's for sure — 2021 promises to be anything but a dull year.

Jonathan Nally, Editor
editor@govtechreview.com.au

Headlines

Australian Government Digital Awards winners announced

The Digital Transformation Agency has announced the government department winners of the Australian Government Digital Awards 2020 as part of this year's Digital Summit.

The annual awards recognised excellence in government digital products, services, partnerships and individuals across eight categories.

Services Australia won in the outstanding digital and product or service category for its Aged Care Provider Portal. Meanwhile, the Australian Securities and Investment Commission (ASIC) won in the outstanding digital methodology or approach category for Next Gen MoneySmart.

Other federal government winners include the Department of Health for its Electronic Prescribing project and the eSafety Commissioner for its Helping Older Australians Get Online initiative.

The NSW Department of Education won two categories — the outstanding government platform award for its Education NSW Digital Connect Network and the outstanding use of emerging technology award for its Schools Video Livestreaming project.

The Queensland and Victorian governments were also represented. The Department of Premier and Cabinet Victoria's Meagan Carlsson picked up the emerging digital talent award, and Department of Transport and Main Roads Queensland's Michael Ashforth won the digital profession award.

The awards were presented by the ANU's Professor Elanor Huntington, the AIIA's Ron Gauci and the Department of Prime Minister and Cabinet's Stephanie Foster.

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ADHA commences digital health overhaul

The Australian Digital Health Agency has launched a new tender aimed at replacing the gateway services for the My Health Record system and other digital healthcare services.

The tender marks the first step in the new National Infrastructure Modernisation work program, which is aimed at modernising the nation's digital health infrastructure.

According to agency CEO Amanda Cattermole, the turbulent events of 2020 have demonstrated the tangible benefits of a better-connected healthcare system.

"In addition to the benefits from telehealth and electronic prescriptions, healthcare providers are, in increasing numbers, using My Health Record as a safe and secure way to upload and access documents to support patient care," she said.

"The modernisation of the national digital health infrastructure will provide the framework for future innovation."

The new program is based on feedback from the agency's request for information inviting stakeholders to contribute to a conversation about the future of the national infrastructure in 2019.

The program will have three key objectives, including building a secure and sustainable digital infrastructure capable of supporting the delivery of digital health capabilities nationwide.

Meanwhile, the program will seek to ensure that digital health needs for all users are further progressed through a modern digital platform, and to ensure that the benefits of digital health technologies and services supported by the national infrastructure are realised for consumers and clinicians.

GLOBAL CITIZEN DATA SYSTEMS AT PIVOTAL POINT

Dylan Bushell-Embling

Global citizen data systems could evolve along any of four widely divergent scenarios by 2030, the UK's Government Office for Science has predicted in a new report.

The report, which seeks to inform the UK government's efforts to set national policies for citizen data and data systems, asserts that the world is in the middle of a "data revolution" that leaves the future hard to predict.

Governments today are taking very different approaches to data systems. China, for example, has prioritised national economic and social security, with strong government coordination and control of citizen data combined with restrictions on international transfers.

By contrast, the EU has prioritised citizen rights and competition within the internal market, and has been a first mover in developing rules and regulations on data use such as the General Data Protection Regulation.

The US has taken a less interventionist, more laissez faire approach. There is currently no comprehensive federal data protection law, which has supported the growth of new industries such as data brokerage.

But the report does acknowledge the US has levied large fines for data-related reasons such as the FTC's $5 billion fine on Facebook for data privacy issues in 2019.

While there is some evidence that citizen values may have played a role in helping shape data systems — with people in China generally indicating higher levels of trust and lower levels of concern over data use and privacy than those in the EU and US — it is unclear how far this is influenced by their governments' approaches in the first place.

The report also notes a disparity between citizens' expressed values around data privacy and the way they interact with services that require data sharing — as they often require little incentive to share personal details online. This represents a "privacy paradox" that must be addressed.

Data systems are also shaped by the incentives to use citizen data to create business models and extract value from large datasets, the report states, citing the presence of companies that extract large value from data such as Google and Facebook in the regulation-light US.

By contrast, citizens in EU nations largely rely on these US companies for major online services.

Other factors influencing data systems include trade negotiations and agreements, the rise of "data diplomacy" involving countries using their geopolitical power to spread their preferred data governance models and the emergence of new technologies and innovative approaches to data.

In the context of these competing pull factors, the report predicts that global megatrends such as the continued shift eastwards of the "world's economic centre of gravity" and major shifts in the distribution of internet traffic and users will shape how data systems develop over the next 10 years.

Wider geopolitical trends could potentially play out in data systems, while the success of efforts to further expand global trade may depend on developing a global consensus on data systems, or at least improving interoperability between different systems.

With national prosperity likely to become increasingly tied to the effectiveness of data systems, this could become a critical priority.

These long-term trends influencing the shape of data systems could be accompanied by unpredictable shocks caused by events such as the development of new technologies, economic or political crises, and the development of new models of data governance.

Data rights

The COVID-19 pandemic is already changing the use of citizen data in ways which could have profound and long-lasting impacts, and represents a "disruptor event that may significantly influence the future of citizen data systems".

As a result, the report predicts that the future global citizen data landscape could evolve around one of four scenarios, all of which have potential implications for the UK — and by inference Australian — economy, security and society in 2030.

The first involves a trend of divergent data nationalism. This would be a world without citizen engagement on data privacy and trust issues, a rise in nationalistic data policies, little technological innovation and disruption of existing business models by regional government interventions.

The second is a multipolar world with moderate but mainly government-led citizen engagement on data privacy and trust issues. In this scenario, the report envisages "a hardening of the three main regional data systems, varied uptake of emerging data-driven technologies, and consolidation of market power for incumbent dominant players".

A third potential scenario is based on deregulation — a world with moderate but mainly individualistic and business-led citizen engagement on data privacy and trust issues. This would be accompanied by a relaxed global regulatory environment, high technological innovation and consumer-led emergence of new business models.

The final scenario is multilateralism. This would be "a world with high collective citizen engagement on data privacy and trust issues, increased international collaboration on data policies, resistance to some emerging data-driven technologies, and disruption to existing business models by international interventions and a change in the value of large datasets".

Meanwhile, the report gives some recommendations for UK policymakers to consider while navigating an uncertain future.

One key recommendation is that the government seek to clearly articulate to the public what it wants to achieve with its data system.

This would involve laying out the economic, social and security-related ambitions it has for better use of citizen

data and what objectives for security, inclusion and individual rights it will prioritise.

Policymakers should also adopt a holistic approach to data systems in developing this strategy; one that acknowledges the complex interactions between businesses, government, the wider public sector and the public.

This should be accompanied by an active consideration of the trade-offs between competing policy objectives for a data system. For example, policymakers should be aware that seeking to maximise the benefits its citizens gain from global trade may mean not being fully free to set their own citizen data arrangements unilaterally.

The report also recommends that the UK government look for opportunities to steer the formation of new global citizen data norms, and treat members of the public as an active and engaged part of the UK's data system.

Finally, the report urges policymakers to ensure that resilience and agility are built into data policy development, and work towards continually improving the government's understanding of the data system.

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LEADERS IN TECHNOLOGY 2021

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

The disruptive changes we have faced this year have opened our eyes to a new, hybrid way of working. Our communications infrastructure has coped with the massive spikes in usage from the rapid and wholesale shift to remote work. We have seen the largest uptake globally in new users of telemedicine services. Educational institutions at all levels pivoted effectively to remote learning. Organisations like software company TechnologyOne were able to send 50% of its workforce to work from home pre-lockdown and maintain business as usual operations.

This hybrid approach also insulates organisations from any further waves of this current pandemic, or something similar occurring in the future. But it comes with one major caveat: organisations have to focus on the total employee experience — their systems of experience — for all staff, no matter where they are working. That includes continually improving their remote workers' access to resources and collaborative tools, to create a 'connected culture' so that people stay engaged with their organisation and their colleagues.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

There have been several announcements recently at a federal and state level on major digital transformation or 'restart' investments. At their heart, most of these digital initiatives are focused on better or more efficient service delivery and improved access to information. That's all well and good, provided these projects aren't undertaken with a siloed approach. One of the best ways to tackle this is to take a 'Tell Us Once' customer experience approach that unifies and integrates internal and external communications and access to information. To achieve this requires cross-departmental collaboration amongst the entire leadership team from the top down; not just the CIO executing on a siloed IT project.

HOW CAN I.T. BE MORE ENVIRONMENTALLY FRIENDLY, SOCIALLY RESPONSIBLE AND PRIVACY CONSCIOUS?

Adopting a hybrid workplace or work-from-anywhere operation has a lot of potential environmental benefits. The corporate office floor space and environmental footprint can be reduced; there is less travel and reduced congestion from all staff commuting to a central hub; and the adoption of cloud-based services will continue to accelerate, creating greater efficiencies in both hardware and energy consumed in the switch from traditional on-premise infrastructure. At the same time, organisations need to be far more vigilant about their employees' wellbeing, safety and privacy. Communications applications and systems need to be secure and encrypted when users are connecting via home or wireless networks. Managers need to be far more focused on their team's mental and physical wellbeing, which is much harder to monitor with a remote workforce.

WHAT'S ON YOUR WISH LIST FROM GOVERNMENT, INDUSTRY AND INNOVATORS?

With so many government digital transformation projects planned to open up access to information and streamline services for Australian citizens, it's critical that internal communications and collaboration capabilities keep pace with the change. The open nature of today's unified communications platforms enables extensive integration — so if I had just one wish, it would be that governments, innovators and the wider industry look for every opportunity to integrate and unify their communications, their applications and their systems. That's where we will see the biggest benefits from digital acceleration in Australia in 2021.

Peter Hughes has more than 30 years' experience working with enterprises in the communications and collaboration space. Prior to joining RingCentral, Peter was vice president of strategic alliances for independent software vendor, Local Measure. He also held senior sales and management roles at Cisco for 16 years, and prior to that was national sales manager for Siemens in Australia.

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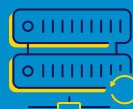
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PHIL DAWSON
MANAGING DIRECTOR, AUCLOUD

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

What strikes me most about COVID is the irrefutable agility and value of cloud services to deliver business continuity when it's needed most. That AUCloud could stand up within one week, a virtual desktop to support around 20,000 students and staff at the Australian National University — letting them remotely access their teaching labs — immediately vindicated the ANU's investment. An otherwise six-month project, including access to 120 applications, was operational within six days. This isn't just about reduced costs from charging services over a shorter timescale; it's also the five months and 24 days of additional time that the project outcome is operational and the value that creates. Here, and for customers turning to compute-as-a-service to enable effective remote working, the agility of cloud services literally kept them in business. There is no going back.

WHAT MORE CAN GOVERNMENTS DO TO COUNTER CYBER ATTACKS?

The answer is straightforward: government agencies simply need to implement/integrate world-leading technologies in alignment with the ACSC's clear, unambiguous best practice advice. This includes the requirements of the Information Security Manual, the Protective Security Policy Framework and the new Cloud Assessment and Authorisation Framework — underpinned by the integrity of an effective IRAP process. It really is as simple as that.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

Every efficiency-conscious CEO and CIO must start acknowledging the role of cloud in driving tech costs down and work efficiency up. Cloud service solutions compress massive inefficiencies from traditional approaches through economies of scale that improve asset utilisation; DevSecOps-orientated automation and orchestration; and standardisation of design and operations.

The significant efficiencies that can be achieved across the end-to-end digital native design, development, deployment and operating cycle saves time and delivers sustainable cost reductions; the ability to literally do more with less.

HOW CAN I.T. BE MORE ENVIRONMENTALLY FRIENDLY, SOCIALLY RESPONSIBLE AND PRIVACY CONSCIOUS?

It's time the environmental benefits of cloud technology are factored into the cloud value equation. Cloud services are premised on the virtualisation of software to create virtual (rather than physical) versions of operating systems, servers, storage devices etc. The more efficient use of a reduced physical infrastructure footprint significantly reduces carbon emissions. This is fundamental to how we operate at AUCloud.

WHAT'S ON YOUR WISH LIST FROM GOVERNMENT, INDUSTRY AND INNOVATORS?

Pretty much what it has been for the last few years — that government and industry understand the economic, security and adaptability benefits of cloud-based infrastructure and applications. Nothing is more powerful in today's fast-paced, mission-critical world than the ability to develop and rapidly deploy applications premised on cloud/digital native platforms and principles.

API-centric, containerised micro-service applications deployed on standards-based cloud infrastructure underpinned by smart automation are key to enhancing Australia's sovereign resilience. They address the immediate imperative government faces resulting from COVID — the need to deliver innovative, sustainable services despite increasingly constrained budgets. They are also the modern pillar on which to architect and build the capabilities government requires to do its job more cost-efficiently and quickly, on platforms that are more resilient, responsive and adaptive.

Phil Dawson is Managing Director of AUCloud, a leading sovereign cloud IaaS provider exclusively supporting the requirements of Australian Government and CNI organisations. He was formerly co-founding CEO of UKCloud, a leading provider of IaaS to UK government and the fastest-growing technology business in the UK 2012–15.

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LEE THOMPSON

MANAGING DIRECTOR AUSTRALIA AND NEW ZEALAND, NUTANIX

LEADERS IN TECHNOLOGY 2021

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

Australia was ahead of the curve when the pandemic forced large swathes of the population to work from home almost overnight. In our recent Enterprise Cloud Index (ECI) report, we surveyed thousands of IT technology leaders from across the globe and found Australian organisations were better prepared than most. Consider this: a year before the pandemic, only 8% of Australian organisations had no employees regularly working from home compared to the global average of 27%.

Looking toward 2021 and beyond, it is clear that working from home is here to stay. While there will be some workers returning to the office, regular remote work will be a prominent feature of the new normal. In fact, our ECI report found only 1% of local organisations expected they would cease offering regular working-from-home arrangements next year.

WHICH NEW TECHNOLOGIES WILL REACH CRITICAL MASS IN 2021?

One side-effect of COVID-19 was a rapid acceleration in cloud investment. Our 2020 ECI report found that as a direct result of the pandemic, 54% of Australian organisations increased their investment in public cloud, 41% increased hybrid cloud investment and 36% invested in additional private cloud capabilities. As a result, 38% of Australian organisations will be using two or more public clouds — in addition to their private cloud or on-premises infrastructure — in 2021.

After the dust settles on 2020, IT leaders will need to gain control over these complex environments and seek technologies that allow them to manage applications and infrastructure in private and multiple public clouds as a single cloud from a single management plane. Operating these disparate environments as a unified multi-cloud architecture will enable seamless application mobility and unlock flexibility, simplicity and cost efficiencies.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

Another finding from our ECI report was that the pandemic had raised the profile of IT within organisations across the country. More than three-quarters of Australian respondents said COVID-19 had caused IT to be viewed more strategically. CIOs must leverage this new-found respect and buy-in from senior decision makers to continue to drive change into 2021 and beyond.

With the critical role IT teams across the nation played in ensuring their organisations could continue operating throughout one of the most turbulent years in living memory, CIOs have more influence than ever and should use this clout to drive additional transformation initiatives.

WHAT'S ON YOUR WISH LIST FROM GOVERNMENT, INDUSTRY AND INNOVATORS?

I hope that the importance placed on digital infrastructure is not just a short-term love affair. While there has been recognition from the highest levels of government of the critical role digital transformation and digital technologies will play in our nation's post-pandemic recovery, this embrace of next-generation technologies should guide our thinking for decades to come.

Rather than see 2020 as a lost year, we should consider it a watershed, a clean slate to seize the opportunity and reject a 'business as usual' resumption of the economy. Instead, Australia must develop a long-term, data-led, digital economy for the future.

Lee Thompson is Managing Director, ANZ, at cloud and hyperconverged infrastructure leader Nutanix. With more than 20 years of sales leadership, and over a decade of cloud computing experience, Thompson intimately understands the challenges facing modern businesses. He has held leadership positions in high-tech companies including Oracle/NetSuite, Salesforce and TechnologyOne.

CHRISTIAN LUCARELLI
VICE PRESIDENT OF APAC SALES, NINTEX

LEADERS IN TECHNOLOGY 2021

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

Overall, Australia has coped well. Australian organisations instantly responded to lockdown by introducing remote working, which put them under pressure to innovate and drive investment in the digital workspace. Suddenly digital technologies, such as Microsoft Teams, Zoom and even automated processes, rested in the hands of employees. An expected dip occurred during March and April due to market uncertainty, while people adjusted and organisations defined their new working normal. Since then we've seen a steadying of activity for many local, state and federal governments, as they stabilise. We're likely to face 'COVID-normal' in 2021, requiring organisations to undergo changes that prompt the merging of people, culture and technology. This could result in practices such as distributed working and managing teams digitally on a long-term basis.

WHICH NEW TECHNOLOGIES WILL REACH CRITICAL MASS IN 2021?

In reaction to COVID-19 and as general market progression, digital process automation (DPA) is gaining momentum in the market as we drive citizen developers and automated solutions. We're currently seeing a consolidation within companies in the DPA market and there is clarity around what that market can provide to technology and organisational buyers. What Nintex — and the DPA market as a whole — has done is refine the messaging, taking a technical tool geared towards technical people and making it a value proposition for organisations and users. I see this becoming a more dominant approach as they commit to making better use of the technology they have invested in.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

Traditionally, IT has functioned independently, delivering its own technology projects. The efficiencies and competitive advantages available through information technology are irrefutable. Now, more than ever, leaders can drive advantage by partnering with IT, outlining what the organisation aims to achieve and what customers require in order to be successful. Organisations are being charged with the need to innovate, build their digital capabilities and drive their strategic aims to avoid failure or — at best — stagnation. IT's responsibilities include providing the C-suite with assurances that they have secure, governed systems that can help the organisation to grow and operate efficiently.

WHAT'S ON YOUR WISH LIST FROM GOVERNMENT, INDUSTRY AND INNOVATORS?

The opportunities for government to embrace digital solutions are immense and right now the public sector can ensure success by continuing to embrace a digital format, providing excellent services despite the constraints of COVID-19. Customers want quick, efficient interactions with government services via their devices and mobile phones, not paper forms and waiting in call centre queues. There is no longer any reason for the government sector to be less innovative than the private sector. In 2021, I hope we can make a leap forward, implement the right tech to address the right problems, to ensure the right engagements.

Christian Lucarelli has nearly 15 years of IT experience, including a number of large-scale enterprise implementations. Since joining Nintex in 2015, he has helped many CIOs deliver platforms such as Microsoft SharePoint and Office 365. In his role as Vice President of APAC Sales, he works with customers to better define and deliver digital transformation initiatives.

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LEADERS
IN TECHNOLOGY
2021

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

No organisation has been immune to the COVID-19 pandemic; however, Acer Australia has coped well in our ability to keep our operation running throughout this calendar year. Acer is unique in being the only hardware technology vendor that assembles its commercial grade products in Australia at our Homebush West facility. As demand for computer hardware rapidly grew in the April to June period in particular, driven by 'working from home' and 'learning from home', Acer was able to supply this unprecedented demand into the government, education and consumer retail sectors.

Normality returning in 2021 will largely depend on the business sector. I would say the education sector, particularly primary and secondary, will see a resumption of normal practices. However, the commercial and government sectors will have to adapt to a hybrid model of working in the office and from home due to key learnings throughout COVID-19 of the benefits and efficiencies of giving flexibility to employees.

WHICH NEW TECHNOLOGIES WILL REACH CRITICAL MASS IN 2021?

Acer believes artificial intelligence, whilst it has been growing in recent times, will continue to expand rapidly as more organisations understand and embrace its benefits. From an Acer perspective, globally we are working on AI solutions to bring to market, and closer to home in Australia we are working with subject matter experts at the University of Technology Sydney.

WHAT MORE CAN GOVERNMENTS DO TO COUNTER CYBER ATTACKS?

The key must be a strong federal government policy on the subject with robust frameworks and governance. Australia has the ability to be a world leader in this matter, and there is sufficient industry expertise for government to consult with to be fully informed on best current and long-term practice.

HOW WILL IT IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

The one key learning from the COVID-19 experience has been organisations managing organisational efficiency in the working-from-home environment. At Acer we have been running rostering teams to work in alternating weeks in order to ensure adequate social distancing. Many of our partners and clients have been actioning similar practices throughout this year as it has become apparent that it is possible to still function normally and in many cases with improved efficiencies. However, moving into 2021 and beyond as we enter a return-to-normal stage, organisations large and small will inevitably change manage their traditional practices to bring greater impacts on their organisational efficiencies.

HOW CAN IT BE MORE ENVIRONMENTALLY FRIENDLY, SOCIALLY RESPONSIBLE AND PRIVACY CONSCIOUS?

Acer believes IT needs to lead the environmental charge for best practices. It commences with designing environmentally efficient and socially conscious products, from packaging right down to the way products function. Organisations need to also have e-waste practices that are socially conscious and factor in the privacy of data, particularly at disposal stage. Acer currently offers these types of services for our commercial and government clients.

Rod Bassi has been a senior executive with Acer for over 15 years, and as Oceanic Sales Director he oversees overall sales strategy across all market segments. Has previously held the key strategic portfolio roles, General Manager of Commercial Sales, General Manager of Consumer Retail Sales and Country Manager of Acer New Zealand.

The cloud-enabled future of government data analytics

A new strategic partnership between SAS and Microsoft is helping the public sector harness the power of analytics in the cloud.

The advent of robust analytics and flexible cloud strategies is giving governments the ability and the agility to stand on equal ground with the more nimble private sector — particularly during the disruption caused by the COVID-19 pandemic.

"Never before have we seen enterprises adapt and transform as rapidly as they have since the arrival of COVID-19. In the private sector, these decisions have come relatively easily, even if the execution is hard — meet the customer where they are, expand infrastructure to meet ballooning digital demand, and enable legions of employees to work remotely," said Steve Bennett, Director of Global Government Practice at SAS.

"But to truly understand the scale of the moment, watch as governments — sometimes perceived as slower to adopt digital transformation — become agile champions of the cloud."

To help governments achieve this, SAS has formed a strategic partnership with Microsoft to combine and harness the power of the former's data analytics capabilities and the latter's flexible Azure cloud environment. Of course, analytics and cloud are not new concepts, but what's different is the urgent move away from siloed and legacy infrastructures that are simply not capable of reacting fast enough in the current environment, says Bennett.

"When I worked at the US Department of Homeland Security in bio-surveillance, we were using analytics to understand new health threats, and we had two challenges that were a constant headache," said Bennett. "One was how we store data and remain compliant. The other was managing a large collection of tools — one to enable visualisation and dashboards, another for optimisation, and yet another for machine learning and predictive analytics.

"Even then, it was clear that we needed an end-to-end analytics solution that brought these tools together, and a secure and scalable platform to host them on. That is why I'm so excited about the new SAS and Microsoft partnership," he said.

Daniel Sumner, Worldwide Director of Smart Infrastructure at Microsoft, agrees. Sumner has spent the past 15 years helping cities around the world build innovative solutions using cloud-native analytics. He says he can see clearly how the future will be defined by data analytics, particularly with the Internet of Things taking off and the data flood beginning.

"For someone to make sense of all that data and see patterns in it is a monumental challenge — let alone making predictions from it," said Sumner.

"There's so much potential with SAS who has that inherent knowledge of understanding and interpreting data analytics, with the ability to execute on that data."

And of course, when talking about government-held data, compliance and security are at the top of the list of requirements, making Microsoft's certified Azure solutions all the more important. Azure provides control of the data, and SAS Viya — a data analytics platform designed for Azure — enables analytics across the entire spectrum.

Public sector analytics in the IoT age

"You may not think of a government or city council as having a large IoT estate," Sumner said, "but think of light poles, luminaires, air quality sensors, water meters and water quality management systems. All of these are connected and generating a huge amount of data."

Keeping on top of these assets and sensors is vitally important for city, state and federal governments, especially those committed to dealing with climate change or other

serious challenges such as the COVID-19 pandemic.

Consider The Netherlands. One third of the country is below sea level, so it's vital that authorities are able to keep an eye on flooding. That's where sensor analytics comes in.

"SAS helped analyse streaming data in real time from 15,000 sensors to identify changes in infrastructure and water flow, so the government could act quickly and with precision, to mitigate potential flooding," said Bennett.

"With SAS Viya on Azure, we can be more efficient in identifying patterns and, even better, we can make predictions about them."

Pandemics, the present one or any other, seem tailor made for analytics solutions.

"We're using analytics to find anomalies in public health, figure out how to optimise hospital bed usage, and manage a supply chain for personal protective equipment in the wake of COVID-19," said Bennett. And then there are other fields such as fraud prevention, crime investigation and so on, which also are ideally suited to analytics solutions.

"The possibilities of powerful analytics in government are truly exciting," he added. "Our focus now is helping those public institutions embrace the cloud quickly to drive tangible results."

Deep integration

The need to respond quickly to COVID-19 has helped everyone in the sector to realise that digital transformation can happen anywhere, on any timeline, says Bennett.

"I've had one client who had a seven-year plan for digital transformation, but they had to run that plan in four days to get new benefits out for citizens," he said.

"Likewise, when the UK government needed to distribute stimulus cheques, SAS helped Her Majesty's Revenue and Customs (HMRC) run their entire national tax system in reverse."

And it doesn't have to be at nation-state scale. Local government is equally well suited to capitalising on the benefits of cloud-enabled analytics.

"Cities don't have the expertise internally to deploy these tools, so we're not asking customers to invest in huge data centres and spend their precious budget on data capture and data storage," said Microsoft's Sumner. "We've reached a point where Microsoft and SAS can offer this as a service."

That service offering is built on deep integration of the SAS Viya platform with Azure services such as including Azure Kubernetes Services (AKS), Microsoft Active Directory, Azure Synapse, enabling the delivery of a fully integrated, end-to-end, cloud-native analytics solution.

"Now, cities can transform their analytics while consuming on a per-unit, per-sensor, or even per-square mile basis," said Bennett. "This affords a government [the ease] to go to one place to manage all of the data headaches, as well as all of the insights they gain."

Keeping the end in mind

It's important to remember just who is the ultimate beneficiary of all this technology — the citizen. Cloud-enabled analytics needs to be employed in such a way that dealing with government agencies becomes easier and more streamlined. As Sumner points out, "citizens are expecting a level of performance that they experience in the consumer world". That performance can now be achieved faster and at lower cost thanks to partnerships such as that formed between SAS and Microsoft.

"Governments have an enormous responsibility to keep citizens safer, to reduce unnecessary spending, and frankly, to make daily life more enjoyable," said Bennett.

"We, at SAS, take that responsibility seriously, and are hard at work on the next generation of analytics technology that will help the public sector reap the benefits of the cloud, and improve the citizen experience."

To learn more, download the free e-book: Reimagine Analytics in the Cloud With SAS® and Microsoft Azure from https://www.sas.com/reimagine-analytics-cloud-ebook.html.

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LINDSAY BROWN
VP APAC, LOGMEIN

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

This year we've discovered a lot of new ways of working out of necessity. First, not being able to work face-to-face has challenged the way we collaborate. Organisations were required to put substantial effort into integrating their virtual meeting solutions with technologies such as instant messaging and live document sharing to help people to work asynchronously, while balancing the 'working from home' lifestyles (home schooling, remote locations, disparate time zones, etc).

Second, the perimeter of the office has been redefined by employees working from their home offices. People are accessing their work applications using unsecured networks or their own devices, and this has driven organisations to implement tools to help adequately manage the identity of their employees while providing safe access to sensitive information.

Lastly, with the increased use of work on personal devices in a remote setting, organisations have implemented technologies to ensure their employees are supported at all times and from anywhere. This is especially important for government organisations as they ensure continuity to the services they provide for their constituents while keeping everyone safe.

WHAT MORE CAN GOVERNMENTS DO TO COUNTER CYBER ATTACKS?

Based on the findings of the most recent Notifiable Data Breaches (NDB) report produced by Verizon, 81% of the data breaches globally occur due to compromised or stolen credentials. This trend is consistent in Australia; the OAIC reported 67% of cyber incidents in 2020 were attributed to compromised or stolen credentials. It's a fact, hackers aren't hacking in, they are logging in, and password management is the Achilles heel of the cybersecurity landscape.

The Australian Government has recognised this risk and has put in place several programs to help their constituents to be educated about the multiple ways their personal data is vulnerable and can be used maliciously. The government needs to continue driving those initiatives. At an organisational level, institutions need to invest in solutions that help shift

into passwordless environments. This can be achieved by integrating their exiting single sign on and multifactor authentication technologies with a password manager such as LastPass by LogMeIn.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

Organisational efficiently is a cross-functional effort. Leadership defines culture and culture defines performance. All the leaders within the organisations need to work together to determine the vision and policies in which the employees will operate going forward (remote working, hybrid or full time in the office). From that point of view, leaders in IT need to take the necessary steps to build or re-build the ecosystem with hardware and software to enable people do their best work.

WHAT'S ON YOUR WISH LIST FROM GOVERNMENT, INDUSTRY AND INNOVATORS?

This year we've seen organisations embracing digital transformation like never before; however, there is an opportunity for governments to increase access to better self-service solutions so that constituents get instant access to solutions tailored to their particular needs. This is particularly important during uncertain times when people are looking for answers and the only place they can find them is by going online. This can be done by implementing AI-powered virtual assistants, chat bots and content repositories that work as an extension of customer experience and support teams.

Lindsay Brown has over 20 years of sales and executive management experience, with a track record in growing and scaling both emerging and established multinational technology companies. He joined LogMeIn in February 2017 through the Citrix GetGo acquisition, having joined Citrix in January 2014 where he led the business to have the fastest growing region globally.

PETER O'CONNOR

VICE PRESIDENT OF SALES ASIA PACIFIC, SNOWFLAKE

WHICH NEW TECHNOLOGIES WILL REACH CRITICAL MASS IN 2021?

The notion of data sharing will see massive acceleration in the year ahead, as more organisations adopt processes to ensure they have complete visibility of all datasets, both internal and external. Having an acute awareness of data from the entire ecosystem including partners, customers and the wider industry will be key. However, organisations will also be able to capitalise on their data where we'll see a shift of people no longer just searching for data, but also curating it for others to access.

WHAT MORE CAN GOVERNMENTS DO TO COUNTER CYBER ATTACKS?

COVID-19 has completely shifted the notion of location, and with it, how security will be viewed and tackled in the year ahead. No longer is the corporate network the main point of security, but now with a large number of users telecommuting from home, identity should be adopted by organisations as the primary layer for robust security. Identity will truly become the new perimeter, enabling organisations to make deeper decisions about who a user is and what they should have access to.

While identity is one step towards improved security, the pandemic will also drive organisations to adopt data governance models in a preventive manner, rather than being pressured by external factors such as legislation. The more an organisation can futureproof its security before a problem arises, the better it will be in adapting to any changes that may occur as a result of the pandemic.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

Self-service systems will improve organisational efficiency when it comes to data, and the CIO will be key in leading this charge so that everyone in the organisation can service their data needs in near real time. Thanks to advances in cloud data platforms, anyone can instantly access data to run a report for example, or access third-party data from another department or external to the organisation with ease. Data will be democratised throughout the organisation, empowering employees to get the most of data in a timely manner, rather than relying on IT or data teams to provide this insight.

WHAT'S ON YOUR WISH LIST FROM GOVERNMENT, INDUSTRY AND INNOVATORS?

Both federal and state governments should progress with real-time data sharing initiatives (including weblog, IoT, GPS and weather data) that today can be securely delivered across multiple public cloud platforms. More organisations should value multi-public cloud relationships and not commit exclusively to one.

At the same time, with government 'cloud-first' initiatives now in place, public sector enterprises should use the new year as an opportunity to invest time in understanding how SaaS contracts work and rethink the multi-year government panel process. Increasingly, decision makers should also leverage consumption cloud services versus legacy infrastructure that has traditionally been delivered with expensive operational overheads.

Finally, it would be great to see a realisation that secure sharing data through private and public data marketplaces delivers financial reward and opportunity to blend and join data for deeper knowledge.

Peter O'Connor has more than 30 years' experience in the IT industry and 25 years' experience starting and leading tech businesses in the Asia Pacific. Since 2017, Peter has led the management and expansion of Snowflake's Asia Pacific business. He was previously Asia Pacific VP for Nimble Storage, VP for NetApp Australia & ASEAN and VP Asia Pacific at Macromedia.

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RAMESH JAYARAMAN

VICE PRESIDENT AND GENERAL MANAGER, APAC, HARMAN PROFESSIONAL SOLUTIONS

LEADERS
IN TECHNOLOGY
2021

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

In our work with Australian government and defence organisations we've seen our clients cope relatively well. Many have adapted their operations and are still proceeding with digital transformation and update projects with HARMAN audio visual technology. Other areas have struggled, for example, the education sector. But we are seeing them starting to plan post-COVID recoveries and are bullish about the prospects for AV technology in education.

For 2021 it's extremely difficult to say what will happen, but I am cautiously optimistic. There was clearly a big shift to working from home in 2020 and our products serving this area saw a strong uptick in demand in Australia. The technology we provide is essential to ensure the continuity of conversations, so a lot of our discussions with customers this year were around how best to harness HARMAN technology to do that.

WHICH NEW TECHNOLOGIES WILL REACH CRITICAL MASS IN 2021?

As large government institutions look to get increasingly networked, we believe there will be an increasing adoption of AV-over-IP technology. It's already in place in several places, but we're expecting interest to rise. If you think about 'audio visual', we're really talking about conference calling and live video and that is dependent on seamless connectivity. So networked video and audio will become an even more crucial part of operations. HARMAN has been a leader in networked video and was one of the first companies to enter the space. With our SVSi range, which is part of AMX, we will be launching new solutions to accelerate our presence in this market.

WHAT MORE CAN GOVERNMENTS DO TO COUNTER CYBER ATTACKS?

The most crucial thing to do is work with a trusted technology brand that will give you the foundation to run strong and secure operations. We know this first-hand because our AMX equipment has been granted formal certification by Australia's ICT Security Branch and the Head of ICT Operations. We're also certified by the US

Department of Defence's Joint Interoperability Test Command (JITC), with over 50 models approved to this standard. We are the only AV company to receive this certification.

So, in terms of technology hardware, it is essential that governments work with trusted technology brands but also select a good integrator for the installation work. Because even with the best equipment in the business, if it is not installed correctly then you are still vulnerable.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

Enterprise technology, such as the kind we offer through HARMAN brands including AMX, SVSi and JBL, will produce new levels of workforce efficiency and productivity, reducing cost levels and improving outputs. So IT will continue to transform work, and the increasing adoption of technologies such as AI, machine learning and voice activation in conjunction with trusted data systems will accelerate that.

In terms of whose responsibility it is to drive that, I feel that technology is an integral part of the whole management agenda, not just the responsibility of the CIO or CEO. It should be part of the discussion at the Board and C-suite levels, as they look at economic levers and how to improve their operations.

Ramesh Jayaraman is Vice President and General Manager, APAC, at Harman Professional Solutions. He leads the organisation across the region, including in Australia and New Zealand. He has an MBA from the University of Illinois in the US and currently lives in Singapore with his family.

The Missing Piece in the Australian Government's Cloud-First Strategy

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BUDD ILIC

REGIONAL DIRECTOR, GOVERNMENT FOR AUSTRALIA AND NEW ZEALAND, ZSCALER

LEADERS IN TECHNOLOGY 2021

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

I believe Australia has coped reasonably well with the COVID-19 pandemic and its fallout. Many organisations initially had to scramble to get people into work-from-home mode and so a lot of the IT solutions put in place were by necessity temporary. Many are now assessing what might be the best solution for the future, and this includes finding the most effective way to connect remote users with both centralised and cloud-based resources. This is important because the new 'COVID normal' will require much greater flexibility.

WHICH NEW TECHNOLOGIES WILL REACH CRITICAL MASS IN 2021?

I strongly believe that zero-trust network access will increasingly replace VPNs as the preferred remote access technology within many organisations. By 2021, it will have achieved a critical mass in the Australian marketplace.

WHAT MORE CAN GOVERNMENTS DO TO COUNTER CYBER ATTACKS?

This is a very hot topic at the moment. Most federal and state governments have a cloud-first mandate and are following this to achieve performance improvements and cost reductions. However, they are also facing increasing numbers of cyber attacks against their critical systems. Rather than departments and agencies trying to create and manage their own IT security infrastructure, they should leverage best-of-breed, cloud-based security platforms that will remove complexity and ensure effective protection.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

The current trend towards cloud platforms and SaaS-based offerings should be continued as it can give a positive boost to organisational efficiency. Managing on-premise IT infrastructure is not the core business of most organisations and so shifting to trusted cloud platforms can have a significant impact. This will help not only in the delivery of new and better services to clients but also reduce the overheads associated with IT infrastructure management.

HOW CAN I.T. BE MORE ENVIRONMENTALLY FRIENDLY, SOCIALLY RESPONSIBLE AND PRIVACY CONSCIOUS?

Shifting IT infrastructures out of corporate data centres and into highly scalable and very efficient cloud platforms can reduce power consumption and therefore greenhouse gas emissions. This is both environmentally friendly and socially responsible. When it comes to privacy, many SaaS-based platforms have been built from the ground up with privacy and security in mind. For this reason, storing critical data within them rather than in potentially less secure servers in offices and other locations is a positive move.

WHAT'S ON YOUR WISH LIST FROM GOVERNMENT, INDUSTRY AND INNOVATORS?

My main wish is for better co-operation and communication. Many organisations move slowly and are set in their ways when it comes to their use of technology. They will achieve much more if they open communication channels to others and seek to understand what they are achieving through more innovative IT deployments. Learning from others who are already seeing significant benefits will be a great way to progress through the new year, and this sharing of knowledge and experience needs to happen more regularly between governments, innovators and the wider industry. Let's aim to make this sharing a reality in 2021.

Budd Ilic is Zscaler's Regional Director, Government for Australia and New Zealand. He has more than 25 years' experience in the IT industry having worked in senior consulting, pre-sales, and sales management positions for organisations including VMware, EMC, Dimension Data, Ferntree, and most recently as ANZ Regional Manager at Actifio.

Charting the course to cloud-first public sector

Balancing the transformation of government services while at the same time protecting citizen security is a key challenge facing public sector leaders. Digital Transformation programs that include security from the beginning are far and few in between and this severely impacts an agency's cybersecurity capabilities. Learn why 'secure by design' is the only true defence against the war on cyber crime.

When COVID-19 forced social distancing restrictions upon the nation — while exponentially increasing the demand for government assistance — the only way to deliver vital public services was to do so digitally.

Consider Coviu, the telehealth platform spun out of CSIRO. In just one week, traffic on the platform surged 10,000% as Australians flocked to book doctor's appointments via videoconference.

While just one example of the shift taking place, across all levels of government there is strong impetus for change.

In recognising the rapid acceleration of digital transformation initiatives, and the cloud technologies underpinning them, Government Services Minister Stuart Robert tasked the Digital Transformation Agency with refreshing its digital strategy.

"The pandemic brought millions of Australians into contact with government, and due to social distancing restrictions, it became a necessity for people to access the services they needed through digital channels," Minister Robert said. "The settings, expectations and needs of businesses and individuals have dramatically changed over the last 12 months."

So as public sector agencies across Australia transition from legacy approaches to the cloud-based, data-driven, digital infrastructures that will transform them entirely, it is important to consider three key milestones along the journey to a cloud-first public sector.

Starting the journey

Two key elements underpin any digital transformation: People and Culture.

Next-generation infrastructure enables agencies to gain real-time, actionable insights from their data to help them better serve citizens and inform key decisions such as which new services to deliver, how to deliver them, and where they're needed most. Organisations with the size and scale of government departments have immensely large data sets, so the insights waiting to be discovered are potentially limitless.

Key to this approach is first recognising the enormous value data can bring when harnessed correctly. Consider the experience of Redland City Council which has embarked on its own transformation journey in a bid to democratise its data while improving internal systems and processes to best serve its constituents.

"Becoming a data-driven organisation was an absolute priority for us," said Glynn Henderson, CIO at Redland City Council.

"By using our data effectively, the possibilities are endless — we can improve internal efficiency, deliver strategic benefits, or drive greater economic, community, and environmental value."

While still early in its cloud journey, the council is laying the foundations with a strategy that puts data at the centre of its roadmap. Importantly, Redland City Council sought to partner with vendors that understood its desired future state and had roadmaps that aligned with its vision of becoming a data-driven organisation.

So, the first fundamental step in kickstarting a digital transformation is understanding the data an agency owns, the value it can bring, and how it can be harnessed to empower both its own people and the citizens it serves every day.

Minimising risks

In a recent survey, Perceptions of Cloud Computing in Government, security concerns were the biggest impediment to public sector cloud adoption.

While frameworks such as the Digital Transformation Agency's Secure Cloud Strategy aim to support agencies as they move towards next-generation infrastructure, many initiatives stall due to this fear of cyber threats. According to the Australian Cyber Security Centre's (ACSC) latest Annual Threat Report, ransomware had become one of the most significant threats facing Australian businesses and governments. As more Government processes come online, ransomware poses perhaps the biggest risk to business continuity. Earlier this year, we released research — Building Business Resiliency in Australia and New Zealand — exploring ransomware's impact on public and private sector organisations.

It found 83% of government respondents agreed ransomware remediation and recovery was just as important as prevention, and 33% of recent ransomware attacks had impacted backup data.

These findings are important to understanding how to minimise risk — in the words of the ACSC report highlighted earlier; "recovering from ransomware is almost impossible without comprehensive backups." Backups are crucial to digital transformation as this data becomes an 'insurance policy' against ransomware, allowing an organisation to simply refresh its environment from a point-in-time before the infection.

Again, consider Redland City Council and how it has minimised the risk of ransomware.

"We're witnessing an unprecedented level of ransomware attacks targeting our organisation which I chalk up to attackers thinking councils are too preoccupied with COVID-19 to mount an effective defence. While a cryptolocker attack would have severe consequences from a regulatory and reputational point of view, Rubrik's immutable backups and the ability to rapidly restore if an attack were successful, make me feel a lot more comfortable — it's like an insurance policy against ransomware." Glynn

Henderson, CIO, Redland City Council. Rather than increase risk to the business, as is the perception of some government IT leaders, when undertaken thoughtfully, digital transformation actually serves to improve an organisation's risk profile. With new technologies in their corner, government agencies can increase business resilience and allow IT teams to focus their attention on where it's needed most.

Realising the benefits

When it comes to cloud there is a prevailing idea the majority of government data is people's personal information and there's a strong apprehension around losing control of that data once it 'leaves the building'.

This is the most significant hurdle to public sector cloud adoption.

Despite this fear of the unknown, agencies have much to gain. This includes accelerating the delivery of new platforms, improving access to services, and reducing the effort and cost of maintenance while allowing agencies to focus on improving service delivery.

For example, with improvements in data integrity, Glynn Henderson at Redland City Council said a culture of data-driven decision making had blossomed.

"Across the council, proactive use of data to drive decisions has become the first port of call," he said. "Rubrik ensures that wherever our data is, in whatever form it is, it is at our fingertips when we need it. It's created excitement in the business, and it all comes back to data integrity."

"With the data now at our fingertips, we're on the front foot creating open data sets and ideating internally around what data we can proactively provide the community."

Ultimately, a mature approach built upon the knowledge of what data an agency holds, the value it can bring, and how it should be protected, can enable any department to confidently pursue digital transformation initiatives and reap the benefits of next-generation digital infrastructure.

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Public sector finance leaders must think like CDOs

Matt Goss

Public sector agencies need real-time data insights that enable them to be more agile and responsive.

The role of public sector finance leaders has evolved. Traditionally, they managed the department's financial reports and forecasts. Now, they're using data to advise on organisational decisions and strategic direction. In public sector agencies, the data-led insights that chief financial officers (CFOs) can provide are even more critical to leading the organisation's strategic direction, and the resulting community impact, in the post-COVID-19 world.

The events of 2020 have put public sector agencies under extreme financial pressure, so accurate, timely data has become crucial to supporting longer-term decision-making. According to PwC, half of CFOs expect a revenue decrease of up to 25% as a result of COVID-19, with 81% considering implementing cost containment actions.[1] To manage such rapid change, public sector finance leaders recognise they need real-time visibility into where, how and why money is being spent. This is becoming even more important as public sector organisations are mandated to replace manual processes with e-invoicing by July 2022.

The reality for all public sector agencies is that they will continue to face ongoing financial challenges in the fallout of the 2019–20 summer bushfires and COVID-19, combined with a looming deadline to adopt an automated e-invoicing solution and completely change their supplier invoicing processes within 18 months.

Considering that most Australian organisations have embraced digital transformation, it makes sense for government agencies to adopt digital solutions that provide real-time, data-led insights while also achieving the compliance requirement for e-invoicing.

There are several benefits for public sector agencies that replace manual processes with automated, cloud-based solutions. These include:

- significant cost, time and process efficiencies
- greater organisational agility
- the ability to return cash flow to Australian businesses much faster.

Automated solutions give government agencies access to extensive data sets that can be used to drive real community solutions. There are three key ways that public sector finance leaders can use data-led insights to help rebuild the nation's economy.

Demonstrating consistent and trustworthy information

Through accurate, timely data insights, public sector agencies have factual information that supports decision-making and assists community engagement. While it's easy to argue about information based on guesswork, it's much more difficult to make a case against solid statistical data. This is where data-led insights can help public sector agencies build a strong case for investment or non-investment in projects.

Let data foster collaboration

Public sector agencies are building more pathways to collaboration and, in many cases, using automated technologies to achieve this. Moving forward, automation will support finance teams across agencies to foster greater levels of data sharing and the development of new national data standards.

A more transparent government

All levels of government come under public scrutiny, making information transparent and traceable. While government agencies aim to provide publicly accessible data as much as possible, often this data can be many months old, leading to further scrutiny and distrust. Public sector financial officers can now use secure, cloud-based tools that deliver real-time data analytics, which can be shared sooner. E-invoicing technologies can also help public sector agencies reduce the time it takes to make supplier payments from 30 or 60 days down to five days, which demonstrates a greater commitment to getting cash flow back into the community faster. This ability to speed up cash flow further demonstrates a more responsive, transparent government.

Like all organisations, public sector agencies must adapt to the post-COVID-19 world. This means being able to deliver real-time data insights that enable them to be more agile and responsive to community and market needs. Automated, cloud-based tools are the key to empowering public sector financial leaders to behave like chief data officers (CDO).

1. https://www.pwc.com/us/en/library/covid-19/pwc-covid-19-cfo-pulse-survey-global.html

Matt Goss is Managing Director, SAP Concur Australia and New Zealand.

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MATT GOSS

MANAGING DIRECTOR, SAP CONCUR, AUSTRALIA AND NEW ZEALAND

LEADERS
IN TECHNOLOGY
2021

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

Australian and New Zealand organisations have generally coped well with the move to remote work, and the rapid adoption of digital technologies that have let them replace manual processes with automation. Even as workers slowly return to offices, the workplace won't be the same as it was before COVID-19. Organisations have now wholeheartedly adopted digital transformation and are realising the cost, process and compliance efficiencies of automated, cloud-based solutions. Employees will also demand a more flexible workplace with the ability to work from home more often. Considering this was achieved so well during lockdowns, it will be very difficult for organisations to argue that employees can't have greater workplace flexibility.

WHICH NEW TECHNOLOGIES WILL REACH CRITICAL MASS IN 2021?

At SAP Concur, we have seen a sharp rise in the demand for artificially intelligent (AI) expense and invoicing solutions. This has been a key change during lockdowns because organisations realised that manual and paper-based processes didn't work when employees were geographically dispersed. Considering all Australian Government agencies must have e-invoicing in place by July 2022, and private sector organisations will want to drive greater cost and process efficiencies by eliminating manual processes, we can clearly see that cloud-based expense and invoice applications driven by AI will reach critical mass and become dominant by mid-2021.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

New automated, cloud-based applications are driving greater cost, time, process and compliance efficiencies across organisations of all sizes, especially for financial processes. From SAP Concur's experience, we can see that organisations are much more streamlined and responsive to market changes when they adopt automated financial solutions, compared to those that continue to rely on manual processes. Automation is part of a transformational journey, so it needs to be led from the top down. CEOs

must realise the cost, efficiency and compliance gains that the organisation can achieve, not to mention the ability to drive higher levels of employee productivity, engagement and innovation through automation. This sentiment needs to permeate across the organisation, led by the CEO with support from the CFO.

WHAT'S ON YOUR WISH LIST FROM GOVERNMENT, INDUSTRY AND INNOVATORS?

I'd like to see manual processes across the board replaced by cloud-based automated solutions that focus on the lower value work, and free up humans to do what they do best: create and innovate. Too often, especially in long-established organisations such as public sector agencies, change is feared or avoided. However, as 2020 showed, if we don't drive change it will be forced upon us or legislated, such as the case for e-invoicing with public sector agencies. It's better to be at the front and plan for change, rather than react to it. In 2021, governments, innovators and the broader IT industry have new opportunities to develop and use new cloud-based technologies to enhance the employee experience and drive levels of innovation that we haven't seen in the past.

Matthew Goss has been Managing Director of SAP Concur, Australia and New Zealand since 2013. He has been with SAP Concur for over 18 years in variety of roles, including, vice president, client services, Asia Pacific and senior director, client services, Asia Pacific. Matt has extensive experience in providing automated financial solutions for government and private sector organisations.

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STEPHEN DARRACOTT

VICE PRESIDENT & COUNTRY MANAGER – JAPAN, AUSTRALIA & NEW ZEALAND, PITNEY BOWES

LEADERS IN TECHNOLOGY 2021

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

2020 has been challenging as many businesses had to adapt to serving customers in a virtual way. Pitney Bowes quickly moved to working from home as COVID-19 spread in Australia and across the globe. Fortunately, most staff were equipped to work from home and collaborate virtually.

As the situation improved, we developed an extensive plan for a safe return to office, as the safety and welfare of all our staff is our paramount priority. We communicated regularly, so everyone was well aware of the measures.

When we reopened, we took a flexible approach, offering the choice to work from the office, home, or a combination. This has been successful so it's unlikely we'll change this in 2021 and many other businesses are doing the same.

Our recent pulse surveys have highlighted increased employee engagement. People have adapted to the new normal, with a newfound flexibility and work-life balance resulting in increased productivity. Our learnings and best practices are now being rolled out in other countries.

WHAT MORE CAN GOVERNMENTS DO TO COUNTER CYBER ATTACKS?

The government is already taking steps to combat attacks. Cybersecurity is a collective issue. The business community needs to maintain heightened vigilance when it comes to security as the threat never sleeps.

Pitney Bowes faced a malware attack in 2019, which heightened our awareness of the importance of cybersecurity. Sharing information about cyber attacks with other businesses and governments will continue to be key in fighting cybercrime, as well as educating people on the threats.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

Automation remains key to drive organisational efficiency, and should come from levels including CEO, CIO and line-of-business. Pitney Bowes helps organisations automate, streamline and digitise business processes including document management, mailing, shipping and tracking.

To comply with data privacy regulations, businesses and governments need watertight processes to manage, store and access customer details. Manual processes can result in errors and inefficiencies. This risk can be eliminated by implementing technologies that automate folding, inserting, document scanning and archiving. Furthermore, solutions that enable multi-channel communications — physical and digital — can increase internal efficiencies and the customer/citizen experience.

Automating processes like visitor and contractor management can also improve security and reduce risk. Digital solutions make it easier to manage people and increase administration staff productivity. Particularly during the pandemic, and beyond, it will continue to be critical to keep accurate people records (to enable contact tracing).

HOW CAN I.T. BE MORE ENVIRONMENTALLY FRIENDLY, SOCIALLY RESPONSIBLE AND PRIVACY CONSCIOUS?

Pitney Bowes' motto, 'We do the right things the right way', relates to everything we do: the solutions we develop, how we work and interact with customers and partners. It's been the red thread throughout our 100 years' history and it's a statement that makes complete business sense.

Our CEO Marc Lautenbach has said, "Companies that have longevity take care of their clients, their employees, and their suppliers, and they also have the right relationship with their communities." We all have to continuously work to be more socially and environmentally responsible so we can create sustainable businesses and thriving communities.

Stephen Darracott leads Pitney Bowes in Australia, New Zealand and Japan. As country manager, he has the added responsibility of overseeing the leadership program for the region supporting employee engagement and culture, diversity and inclusion. He is a seasoned technology executive, with more than 25 years' experience in leadership roles in Asia Pacific and Europe.

Breaking down silos for smart city success

Jacques Der Ohanian

Understanding citizens' needs, simplicity of use and good communications can ensure the successful adoption of services and apps.

I have been fortunate to participate in many smart city events over the years. My take-away from these events is that cities around the world are interested in increasing their sustainability, attraction and liveability. Today, smart city initiatives are one of the most important digital transformation undertakings in the public sector. As a cornerstone of a smart city project, technology is important as it addresses hot topics, including IoT, AI, security breaches and protocols, to name a few.

However, the success of a smart city initiative is highly dependent on end-user adoption and experience. That's why cities are focusing on the citizens at the centre of their projects. Understanding the services that citizens choose provides cities with experienced-based information. After all, if the citizens don't adopt or use the services or apps, the entire project could be placed at risk, as well as public funding for future initiatives.
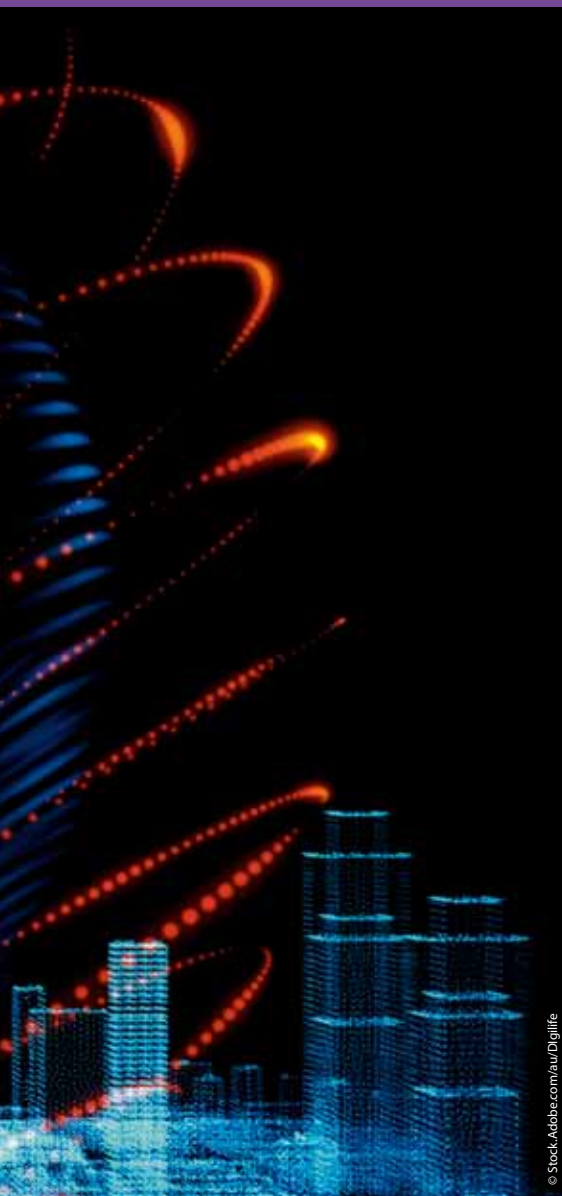
Choose your battles

To achieve success cities need to have clear goals with measurable objectives. Whether you are targeting climate change, sustainable transition, social integration, health and education, participative governance and active citizenship, public safety, or tourism, you need to choose your battles to stay focused. Municipalities need to involve citizens, elected representatives and public sector employees to create a vision for their future city and help prioritise initiatives.

Culture and structure, more challenging than deployment

In my travels I've spent a lot of time talking to smart city project managers and I've

Build on user adoption and experience

A solid understanding of citizens' needs, simplicity of use and good government-citizen communications can ensure the successful adoption of services and apps. These services and applications can:

- Facilitate civic engagement, enable community influence in city decisions and provide connection to elected representatives
- Increase social connectivity and inclusiveness often lost with urbanisation
- Provide access to around-the-clock, on-line services to all (especially to vulnerable groups)

We believe everything relies on easy connectivity. Being able to easily connect people, objects, algorithms and processes effectively is key in a smart city transformation. What is essential for any community is the ease of communication, by any means, whether it is integrated into business applications to help enhance public or security agents' efficiency, or into citizens' applications.

Digital tools such as Alcatel-Lucent Rainbow™ help ease communications and build a connected social community. As well, digitalisation can improve overall safety with IoT and AI integration to provide enhanced notification speed and emergency response time. Making the move toward a digital government with a connected city can bring together citizens and public safety solutions to help anticipate emergencies.

Alcatel-Lucent Rainbow Communications Platform as a Service (CPaaS) for smart cities provides a very simple way to integrate communications and enter the IoT-enabled communications paradigm. Development teams can connect to the Rainbow hub to easily create mock-ups, integrate proof-of-concepts into living labs, and ensure the new services address both citizens' and agents' needs. Proper testing and broadcasting can enable easier adoption by a wider population.

> " Being able to easily connect people, objects, algorithms and processes effectively is key in a smart city transformation.

The numerous smart city solutions available today, as well as the need for interconnectivity across much broader areas add complexity to the smart city integration process. Selecting a vendor with expertise and experience gets your smart city project on the right track. With more than 100 years of experience in delivering technology solutions, Alcatel-Lucent Enterprise has provided resilient, real-time government solutions to assist hundreds of public administrations in their digital and cultural transformations.

Inclusiveness and collaboration can help attract creative entrepreneurs and new citizens to cities. Combining a variety of skills from a variety of stakeholders, as well as providing the ability to collaborate and innovate will help guide them toward a common future. How they co-create and co-experience new services through living labs can accelerate adoption and decision making as they embark on their new smart city.

Jacques Der Ohanian is senior Director, Head of Communications Vertical Solutions at ALE. He is responsible for creating digital solutions to address needs in government, education, healthcare and hospitality as well as content creation to support sales.

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learned that technology challenges are not the first challenges they encounter. Even before the complexity of integration begins there are long discussions about decision processes, public organisation complexities and organisational culture challenges that must be dealt with.

At ALE we believe collaboration tools can provide an entry way to digital transformation. And so, to address these challenges we've explored a number of ways to break down the silos between public services by using collaboration to make the move to a culture of diversity and inclusion.

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CLOUDERA
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NICK HOSKINS
ANZ COUNTRY MANAGER, CLOUDERA

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

Every organisation is facing a perfect storm of radical change, supercharged by the impact of COVID. Organisations that embraced technology are generating more data than ever, at every point of business. This will not slow down as we transition to the 'next normal'. Organisations are becoming hyper digitalised and old data and models have become inaccurate, so the need for new, real-time insights is vital.

One thing we recently learnt was the importance of flexibility. The IT world will continue to rapidly change, and we need to move with it to continue to ensure security and governance. The 'next normal' is still unfolding, but remote working is here to stay. And while organisations have embraced distributed workforces, there needs to be more investment to support the expansion of high-quality internet to keep people and data securely connected.

WHICH NEW TECHNOLOGIES WILL REACH CRITICAL MASS IN 2021?

The acceleration of cloud will continue as organisations turn to it to provide flexibility with a greater focus on cost management and security. This is critical when it comes to how we define and store IP data. New management systems for streaming data will increase adoption of the IoT and determine how organisations use it. This will be valuable when it comes to citizen services, through the discovery of human behaviour trends that can be used to reduce costs.

Additionally, containerisation will enable the flow of vast amounts of data, and this will be vital for organisations to have the right data strategy with a distributed workforce as data volume and value continue to accelerate.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

Organisational efficiency and productivity only work when teams are aligned, it should never be just one person working down their own path. Organisations need to introduce more tech-savvy leaders into management groups and bring teams together to gain real benefits from IT.

For organisations to thrive, they need to be able to do more with their data and make better sense of it. This is the time to leverage good data and make clear, actionable insights across every on-premise and cloud environment for a successful digital transformation. Doing so will allow leaders to accurately measure progress and use the information to predict progress.

WHAT'S ON YOUR WISH LIST FROM GOVERNMENT, INDUSTRY AND INNOVATORS?

With the acceleration of IT, the industry needs to offer better security to protect our information. An abundance of data comes at a cost because threat actors know how valuable that information is, which is why organisations need to have access to stringent data protection tools. Organisations also need to be able to process their data in real time to get believable information to help them back investments. As the IT sector continues to flourish, this is the time for the government and business to invest in the talent pool and create the future IT leaders who will secure our digital future.

Nick Hoskins leads the field organisation and is responsible for overall Cloudera strategy and business in this region. His charter is to expand Cloudera's customer base and help organisations realise the measurable benefits of a modern platform for machine learning and analytics, on-premise or in the cloud.

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ADAM GORDON
COUNTRY MANAGER ANZ, VARONIS

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

The recent pandemic has forced companies to transition their staff to work from home, resulting in an unprecedented increase in VPN services to secure home internet connections. There has also been a huge surge in the use of cloud services such as Microsoft Office 365 and Microsoft Teams.

Maintaining business continuity became the number-one priority for IT departments. Unfortunately, this resulted in security taking a back seat, giving attackers an opportunity to take advantage of security gaps in systems.

Employees will likely be returning to their offices in 2021; however, for many organisations, remote working will continue at well above pre-pandemic levels. So we don't expect a significant decrease in the risks associated with remote work environments.

WHAT MORE CAN GOVERNMENTS DO TO COUNTER CYBER ATTACKS?

The Australian Government is taking the increase in cyber attacks very seriously, as evidenced by the release of the latest National Cyber Security Strategy in early August. It has committed to investing $1.67 billion over the next 10 years, which is another step in the right direction.

We're also seeing increased privacy regulation, which is driving customers to focus on securing their data. In Australia, a key contributor is APRA's CPS 234, which is a step towards an Australian version of GDPR. CPS 234 aims to ensure that APRA-regulated entities take measures to be resilient against cyber attacks by maintaining an information security capability commensurate with vulnerabilities and threats, putting the responsibility back on the company board.

HOW WILL I.T. IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

Cybersecurity is no longer the responsibility of the CISO or Security Manager alone: it's crucial that boards take responsibility for reducing cyber risks.

Every organisation needs a clear strategy, set by the CEO, limiting employee access to sensitive data to minimise risk. A clear cybersecurity strategy increases the efficiency with which an organisation can deal with a cyber attack, ensuring it can block threat actors before they have a chance to cause serious damage. In successfully countering attacks, organisations are saving themselves precious time, resources and, of course, their reputation.

A prerequisite for limiting data access is visibility: seeing who has access to what data and under what circumstances. A Varonis Data Risk Assessment provides this visibility, along with a custom security assessment based on an organisation's needs, regulations and configurations. With this insight, companies can move forward with a plan to identify, secure and restrict access to their most sensitive data.

WHICH NEW TECHNOLOGIES WILL REACH CRITICAL MASS IN 2021?

I don't believe there is one cybersecurity technology that will dominate. Cybersecurity is a holistic approach that embraces multiple technologies that work together to limit risk across the organisation.

That said, any technology that secures remote access will continue to be in high demand as organisations mitigate the risks of remote working. In 2021, organisations will need to review how these systems could be increasing the risk of data breaches by exposing their data to new threats, such as attacks on employees' Wi-Fi networks.

Also, expect to see increased uptake of technologies that support data classification. It's a mammoth task for a CISO in a large organisation to implement cast-iron security for every file. Data classification identifies the most sensitive data, enabling companies to prioritise them for protection.

Adam Gordon has more than 20 years' IT experience in Australia and New Zealand working for global IT leaders such as Dell EMC, McAfee and Palo Alto Networks. Adam took on the role of Country Manager ANZ for Varonis in May 2020 to deliver data security and analytics solutions to sectors including financial services, health care, manufacturing, education and government.

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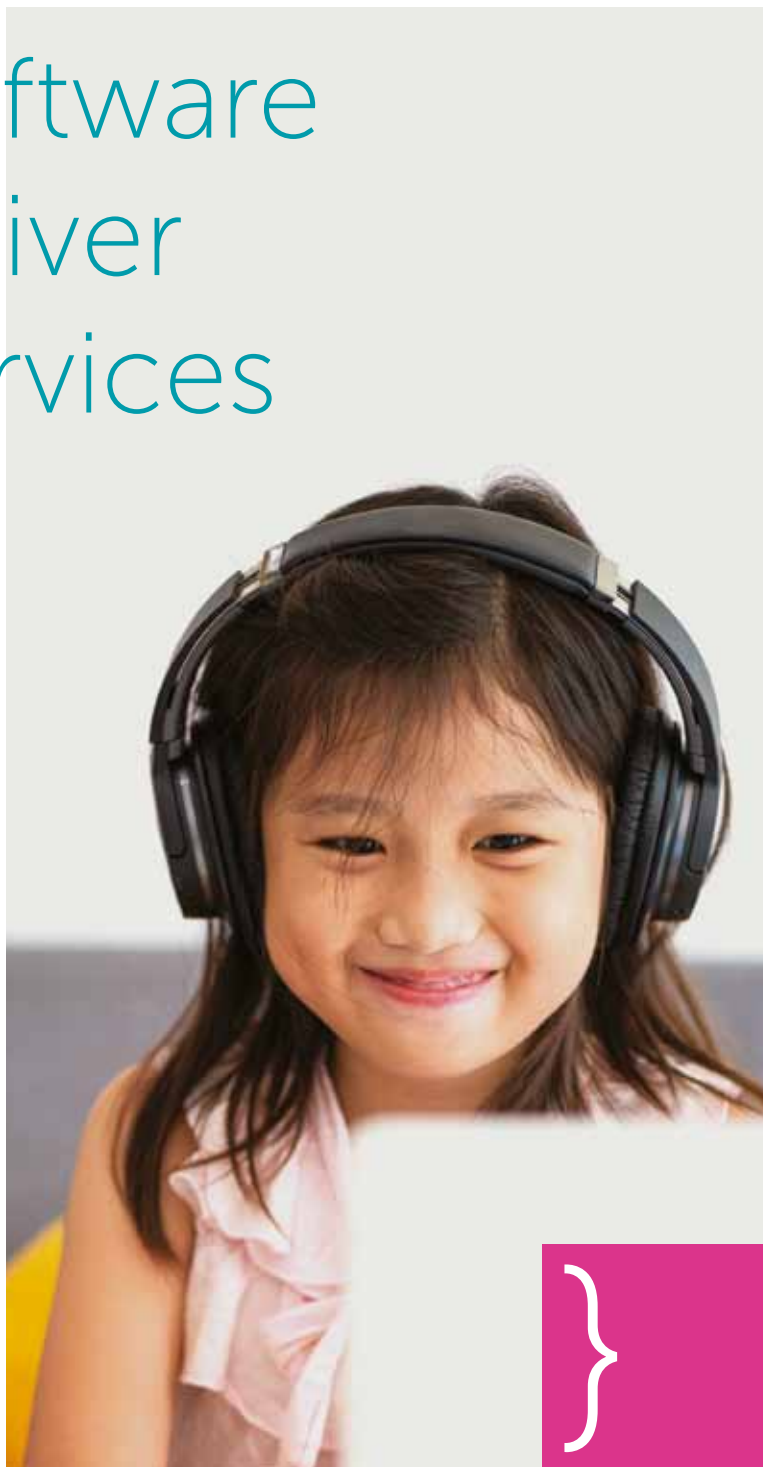
BRETT BARNINGHAM

MANAGING DIRECTOR, LOCAL AND STATE GOVERNMENT, CIVICA ANZ

LEADERS IN TECHNOLOGY 2021

HOW HAVE AUSTRALIAN WORKPLACES COPED WITH COVID? WILL THINGS GO BACK TO NORMAL?

In the public sector we saw some organisations that were well prepared and organised for a disaster recovery event and were operational within one to two weeks after lockdowns were ordered. Those that were not were running around trying to buy laptops and get remote access organised for staff. It was six to eight weeks before these organisations were operational.

In many ways I hope things don't go back to 'normal'. Many councils we work with have learned that their citizens are more than happy to consume services remotely and that this doesn't have to impact service delivery. I expect we'll see more councils looking at how they can extend the use of e-services as a result.

I also expect we'll see more councils enabling their people in the field with the kind of mobility tools that will make them more efficient, so they don't have to come into the office to do paperwork. Lastly, I expect we'll see local government doing more to support staff who want to work remotely long term, coming into the office from as little as two days a week.

WHICH NEW TECHNOLOGIES WILL REACH CRITICAL MASS IN 2021?

In my view neither AI nor robotic process automation (RPA) will be anywhere near critical mass in 2021. Many local councils are just at the start of their journey to move to the cloud. I do think the adoption of cloud could hit critical mass in local government, given the need to get data and critical apps into an environment that allows for greater agility and flexibility.

Bringing in technologies like AI and RPA will become a lot easier once an organisation is in the cloud. However, what I think will happen somewhat sooner is the adoption of smart city technologies. We're already seeing smart products become more prominent… whether it's used to look at the quality of water, or counting people so that you know where to invest in infrastructure.

HOW WILL IT IMPROVE OPERATIONAL EFFICIENCY IN 2021, AND WHO SHOULD LEAD THE CHARGE?

I think one of the biggest opportunities for greater efficiency is having citizens enter in as much of their data as possible during the first engagement. People are happy to fill out forms once, especially if it then populates everywhere that data is needed. Giving citizens access to those tool kits and automation will enable a huge increase in organisational efficiency.

As far as who should lead the charge, it should be led by a leadership group that has a vision for where they want to take their citizens and those services. Another key point is that achieving efficiency isn't all about technology, it's also about saying no to things. As local councils add certain new services, they have to look at which other services can now be switched off.

WHAT'S ON YOUR WISH LIST FROM GOVERNMENT, INDUSTRY AND INNOVATORS?

Regardless of what technology you're implementing, any transformational change involves people and far too often organisations do not take people along with them. This is why at the top of my wish list is that local governments place additional focus on change management — and put the budget behind it that's needed to make it work.

Brett Barningham has over 15 years' experience in the technology industry providing enterprise software, cloud solutions and managed services helping organisations improve their businesses. He brings a passion for achieving through people, with a strong focus on innovation, organisational values and the customer. He believes that innovative and intelligent technology can transform the way we do things.

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WHAT THE CLOUD CERTIFICATION MODEL MEANS FOR YOU

Adam Misiewicz

FEDERAL GOVERNMENT AGENCIES ARE NOW REQUIRED TO UNDERSTAND, ASSESS AND AUTHORISE THE CLOUD SERVICES THEY WISH TO CONSUME.

As of July 2020, the Australian Government's Cloud Services Certification Program (CSCP) has been wound down in a move that promises to unlock the country's cloud market. The announcement was made in March by the Australian Signals Directorate (ASD) and the Digital Transformation Agency (DTA), following the findings of an independent review of the program and the Information Security Registered Assessors Program (IRAP) commissioned by the ASD.

For many years, the CSCP acted as the gatekeeper for cloud service providers (CSPs) to compete for government contracts requiring secure cloud services. CSPs that were accepted as 'secure' were listed in the Certified Cloud Services List (CCSL), which meant they were able to pitch for government contracts.

Whilst the ASD is no longer the Certification Authority for secure cloud services for Commonwealth entities, new guidance to help government, cloud providers and IRAP assessors in making decisions about cloud vendors and services has been released.

WHAT DOES THIS MEAN FOR GOVERNMENT?

Theoretically, the end of the CSCP and CCSL — and the adoption of the new cloud security guidance — will allow Commonwealth entities to choose from a wider range of CSPs and cloud services. This means that a CSP which previously

"This new decentralised model also means that Commonwealth entities are now responsible for their own cloud assurance and risk management activities."

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Some commentators have suggested that the decentralised model could increase risk and reduce the cyber resilience of organisations. Also, some claim decentralising compliance may lead to the application of inconsistent standards during the self-certification process.

On the other hand, advocates of the new model point to the outdated relevance of the CCSL, arguing that the model was due for a change.

THE LIKELY IMPACT IN FY21

The new decentralised and deregulated regime means government organisations will have to manage their own risk. In other words, the onus will be on the agencies to make sure that they are cyber secure.

There are at least two scenarios which may play out.

First, given the challenges around COVID-19 and the now tighter budgets to deliver core services, CISOs and CIOs will need to develop a greater understanding of how to approach the new responsibility around self-certification. This could result in delayed decisions around new technologies and services.

On the opposite end of the spectrum, there will be CISOs and CIOs that are experienced and well versed in the scope, size and type of cybersecurity risks that new technologies and cloud services attract. This cohort will be extremely familiar with the previous CSCP and CCSL and understand how the new changes will empower them to make their own risk-based decisions.

Due to experience, they will make faster decisions around risk, and those that make the decisions will be comfortable in working with IRAP assessors. This group will proactively approach new self-certification and act as leaders for their industry peers. I think this is good news.

HOW WILL MSSPS HELP?

Both scenarios should drive managed security service providers (MSSPs) to become more engaged with their clients, cloud and technology vendors, regulatory authorities and industry partners. In some respects, the new Cyber Security Strategy 2020 already alludes to deeper engagement to support innovation and capability development, and this shift also means that over time, a more defined set of roles and responsibilities may be placed on service providers to support clients.

In the short term, the expertise of MSSPs that are able to provide advisory services, risk assessments and support for technology decisions and implementations can prove crucial to making the right changes.

MSSPs will be required to work more closely with cloud vendors to obtain guidance on specific cloud technologies, and the risks associated with them.

While IRAP assessors will continue playing a pivotal role in assessing and certifying services, MSSPs will continue playing the role of trusted advisor in helping guide technology decisions that enable the organisation to achieve its operational requirements.

Adam Misiewicz is National Security Lead at ASG Group.

didn't make the 'shortlist' can now be considered by buyers. All things being equal, competition is usually a good thing as it leads to greater innovation and more cost-effective sovereign cloud services.

On the flip side, this new decentralised model also means that Commonwealth entities are now responsible for their own cloud assurance and risk management activities.

While the CCSL unintentionally allowed Commonwealth entities to transfer risk to the ASD, the onus has now returned to those entities to accept and own the risk. In other words, agencies are now required to understand, assess and authorise the cloud services they wish to consume.

PRIVACY GUIDANCE
FOR GOVERNMENT AGENCIES

Sarah Ghali

A PRIVACY IMPACT ASSESSMENT BUILDS PUBLIC TRUST AND CONFIDENCE IN AN AGENCY'S PROGRAMS AND POLICIES.

The Privacy (Australian Government Agencies – Governance) APP Code 2017 requires Australian Government agencies to conduct a privacy impact assessment for all "high privacy risk projects". A privacy impact assessment is a systematic assessment that identifies the impact a project might have on the privacy of individuals. It also sets out recommendations for managing, minimising or eliminating that impact.

But what is a high privacy risk project? And should privacy impact assessments only be reserved for projects that meet this threshold?

The Office of the Australian Information Commissioner (OAIC) recently released a privacy resource that provides guidance on both of these questions. The resource describes how Australian Government agencies can screen for potentially high privacy risk projects. It also sets out the benefits of conducting a privacy impact assessment, even when a project doesn't meet the high privacy risk threshold.

WHAT IS A HIGH PRIVACY RISK PROJECT?

A project may be a high privacy risk if it involves new or changed ways of handling personal information that are likely to have a significant impact on the privacy of individuals. Determining whether a project

meets this threshold requires a thorough understanding of all aspects of a project.

The term "project" covers the full range of activities and initiatives undertaken by agencies that may have privacy implications. This could include new policy proposals, new or changed legislation, programs or activities, implementing IT systems or databases, or new or changed methods or procedures for service delivery or information handling. It might also include restructures or changes to business-as-usual activities.

"New or changed way of handling personal information" should be interpreted broadly. If a project involves a new or changed way of collecting, using, disclosing, storing, destroying or de-identifying personal information, the agency will need to consider whether the project has the potential to be a high privacy risk project.

Perhaps the most important concept to understand, however, is what may constitute a "significant impact". A privacy impact in this context is anything that could adversely affect individuals' information privacy. Impacts include interferences, such as the collection of new or additional types of personal information, or when the handling of personal information results in an individual losing control over their personal information. An impact on the privacy of individuals will be "significant" if the consequences of the impact are considerable.

The consequences of a privacy impact could be significant for one individual or a group of individuals, such as negative impacts on physical and mental wellbeing or identity theft. Sometimes projects can even have a significant collective impact on society — for example, increased surveillance and monitoring activities.

There isn't a definitive threshold to determine when an impact is significant. Agencies are advised to screen for factors that may raise a project's risk profile, such as handling large amounts of personal information, handling sensitive information and sensitivities in the context in which the project will operate, among others.

Whether a project has the potential to be a high privacy risk project is a contextual assessment based on the agency's circumstances. It is the responsibility of each agency to be able to justify why a new or changed way of handling personal information does not have the potential to be high privacy risk.

PRIVACY IMPACT ASSESSMENTS DON'T NEED TO BE DIFFICULT

If an agency considers that there is the potential that a project is a high privacy risk project, it should undertake a privacy impact assessment.

It's important to note this doesn't mean the project can't proceed. Rather, a privacy impact assessment will help to ensure that privacy risks and impacts that may be associated with the project are identified and mitigated. It will also help an agency consider whether any limitation on the right to privacy is reasonable, necessary and proportionate to its objective.

What's more, not all privacy impact assessments need to be long or complex. Instead, the approach taken should be proportionate to the level of risk. A privacy impact assessment is intended to be a flexible and scalable tool that can be adapted based on the size, complexity and risk level of the project.

BENEFITS BEYOND BOX-TICKING

Privacy impact assessments are more than just a compliance exercise. Our Australian Community Attitudes to Privacy Survey 2020 shows that privacy is a major concern for 70% of Australians and almost nine in 10 want more choice and control over their personal information.

This, combined with our finding that there's been a general downward trend in

trust in personal information handling by federal government departments since 2007, sends a strong signal that agencies should adopt a privacy-by-design approach.

Agencies should view the process of undertaking a privacy impact assessment as a good way to assess privacy risks more broadly and demonstrate a commitment to and respect of individuals' privacy.

Not only can privacy issues impact the community's trust in an agency, they can also undermine a project's success. The risks of not undertaking a privacy impact assessment also include:

- non-compliance with privacy laws, potentially leading to a privacy breach and/or negative publicity;
- damage to an agency's reputation if the project fails to meet expectations about how personal information will be protected; and
- identification of privacy risks at a late stage in the project development or implementation, resulting in unnecessary costs or inadequate solutions.

Weigh these with the potential benefits of undertaking a privacy impact assessment — of which there are many more not listed above — and it's easy to see why undertaking a privacy impact assessment is increasingly being seen as a matter of best practice, regardless of whether one is required.

Effective privacy practice requires ongoing commitment and effort from agencies. The process of undertaking a privacy impact assessment demonstrates a commitment to accountable and transparent privacy practices and builds public trust and confidence in an agency's programs and policies.

Find the privacy resource at oaic.gov. au/privacy/guidance-and-advice/when-do-agencies-need-to-conduct-a-privacy-impact-assessment.

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CAN THE CYBER TASKFORCE ACHIEVE ITS GOALS?

Garry Barnes

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BASIC GOVERNANCE AND RISK MANAGEMENT FUNDAMENTALS AND ROOT CAUSES, BEYOND THE TASKFORCE'S REMIT, NEED TO BE ADDRESSED.

The new Cyber Taskforce comprising the NSW Government, AustCyber and Standards Australia focuses on three pillars of cyber strategy: prioritisation, regionalisation and harmonisation. These are commendable goals and ones which can provide an important and timely uplift to cybersecurity and the businesses and agencies that are dependent upon it.

However, to fully benefit from the work of the Taskforce, there are some critical points that need to be addressed, outside of cybersecurity, in the governance and risk management of enterprise IT.

Success in cybersecurity is highly dependent upon an effective governance system — one that understands enterprise outcomes and objectives and the contribution of IT in achieving them. ISACA's COBIT 2019 model is one such example of a governance framework that can provide guidance in this space.

The resources, competencies and processes that support IT goals are fundamental to cybersecurity as well. Numerous problems in cybersecurity today can be linked, in part, to ineffective governance and IT risk leadership.

For example, in government today, many legacy systems are still in use and many IT departments are under-funded and/or under-skilled to drive their agency's IT and cybersecurity

plans. Uplifting of IT and cybersecurity fundamentals is required, such as:

- providing ongoing capability development to securely architect, configure and maintain an increasingly complex portfolio of IT services for their customers;
- replacing (or implementing countermeasures to protect) unsupported and legacy systems; and
- improving supplier lifecycle management.

To really benefit from a harmonised set of cybersecurity standards, satisfactory funding of security programs in agencies is also required. Security funding should be incorporated into any proposed digitisation program, so that all new digitised services are 'secure by design' and in line with harmonised standards.

There is also the challenge of accountability for achieving any new harmonised standard. Ministers, secretaries and agency heads are accountable for agency outcomes, and cybersecurity should be no different, just as board directors and the C-Suite are held responsible in the private sector.

While NSW agency executives are required to sign-off the Agency Attestation report on implementations and current Essential 8 status, does this infer executive-level risk acceptance for all gaps in their agency's cybersecurity maturity?

The Taskforce needs to be careful when it states it is aiming for 'minimum standards'. In my opinion, minimum security requirements are a weak option when you consider the hostility of the operating environment for agencies.

Optimal security (ie, secure by design) is about making value-based decisions, and by determining the right level of security for the service's/product's purpose and for the environment in which it operates. In the physical world, we expect that a product is fit for purpose, and this should be no different in the cyber landscape.

Lastly, where organisations have low cyber maturity, causal problems often exist in IT and risk management and the governance of enterprise IT. For harmonised standards to succeed, governance and risk capabilities must also be lifted.

I applaud AustCyber and the agencies involved in the Taskforce for their desire to make standards compatible across industries in order to be more secure, assist businesses and be more successful. It's a task that many have tried previously.

For their work to be successful, other basic governance and risk management fundamentals and root causes, beyond their remit, also need to be addressed.
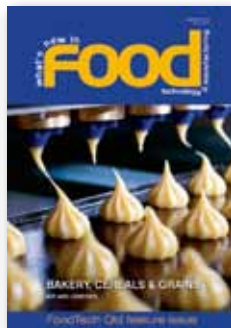
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