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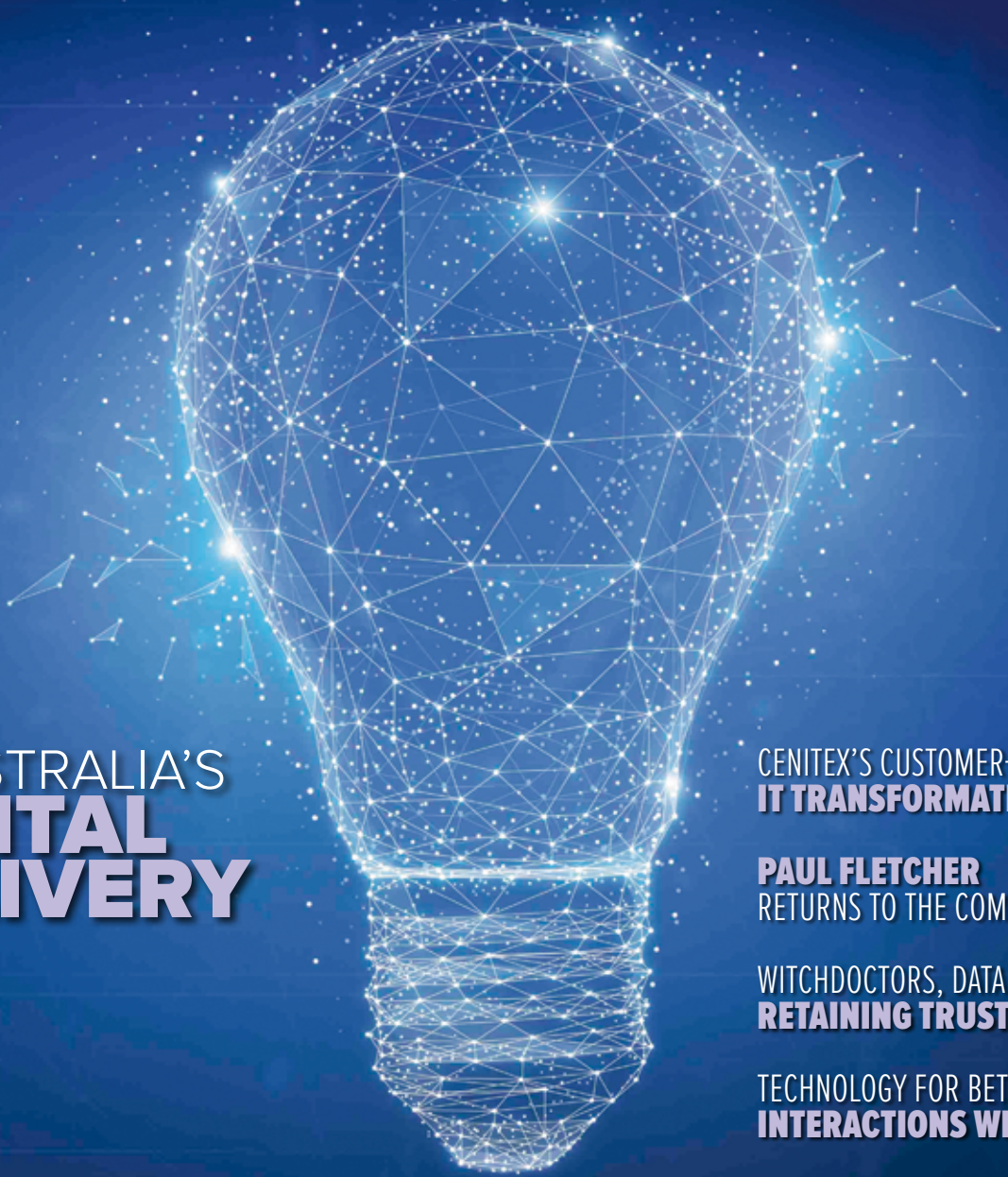

IP AUSTRALIA'S DIGITAL DELIVERY

CENITEX'S CUSTOMER-DRIVEN **IT TRANSFORMATION**

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Insider

When software-defined ate the world

We've all heard of the KISS principle — keep it simple, stupid. In today's ICT world, the mantra could easily be 'keep it software-defined, stupid'. Software-defined networking, cloud computing, network function virtualisation and various flavours of infrastructure-as-a-service are completely changing the way we conduct ICT operations. Of course, some of these functions have sort of been around for a very long time, but the never-ending increase in computing power and communications speeds has now brought them into their own. I think it's fair to say that the commercial world has had a long head start on the public sector in this regard, but government is quickly catching up.

Witness two success stories profiled in this issue. First we have IP Australia's highly successful efforts to modernise its digital transaction channels. With 800,000 transactions per year from Australia and overseas, the agency has a large job on its hands to make patent, trademark and design applications run smoothly. Six years ago, only 12% of transactions were digital — the figure now is 99%. That's a pretty impressive achievement in anyone's book. Another success story is Cenitex, the Victorian Government's shared-services ICT agency, which is modernising its public sector customers' networking, data and desktop environments. Known as Project Fortify, the program initially aimed to deliver more cost-effective, resilient services for its customers, but since then it has further developed into a fully integrated, hybrid cloud solution.

Speaking of public sector ICT customers, it's going to be interesting to see what Prime Minister Scott Morrison has in mind for his proposed 'Service Australia', modelled on NSW's so-far seemingly highly successful Service NSW model. What it might mean for outfits such as the Digital Transformation Agency remains to be seen. And would IT functions be taken away from individual departments and put into one super-department? Rationalisation of resources and consolidation of expertise is not a bad goal in itself, but I think we've all seen circumstances where it hasn't gone to plan. So we'll just have to watch this space to find out what will happen.

Make sure you stay up to date with the latest government-related IT news by regularly checking the GovTech Review website (govtechreview.com.au) and by signing up to our weekly e-newsletter (govtechreview.com.au/subscribe). I also recommend that you check out Public Sector Network's (events.publicsectornetwork.co) wide range of conferences, summits and professional development events — they're an ideal way to stay abreast of changes in the sector and to meet and network with public sector ICT colleagues from far and wide.

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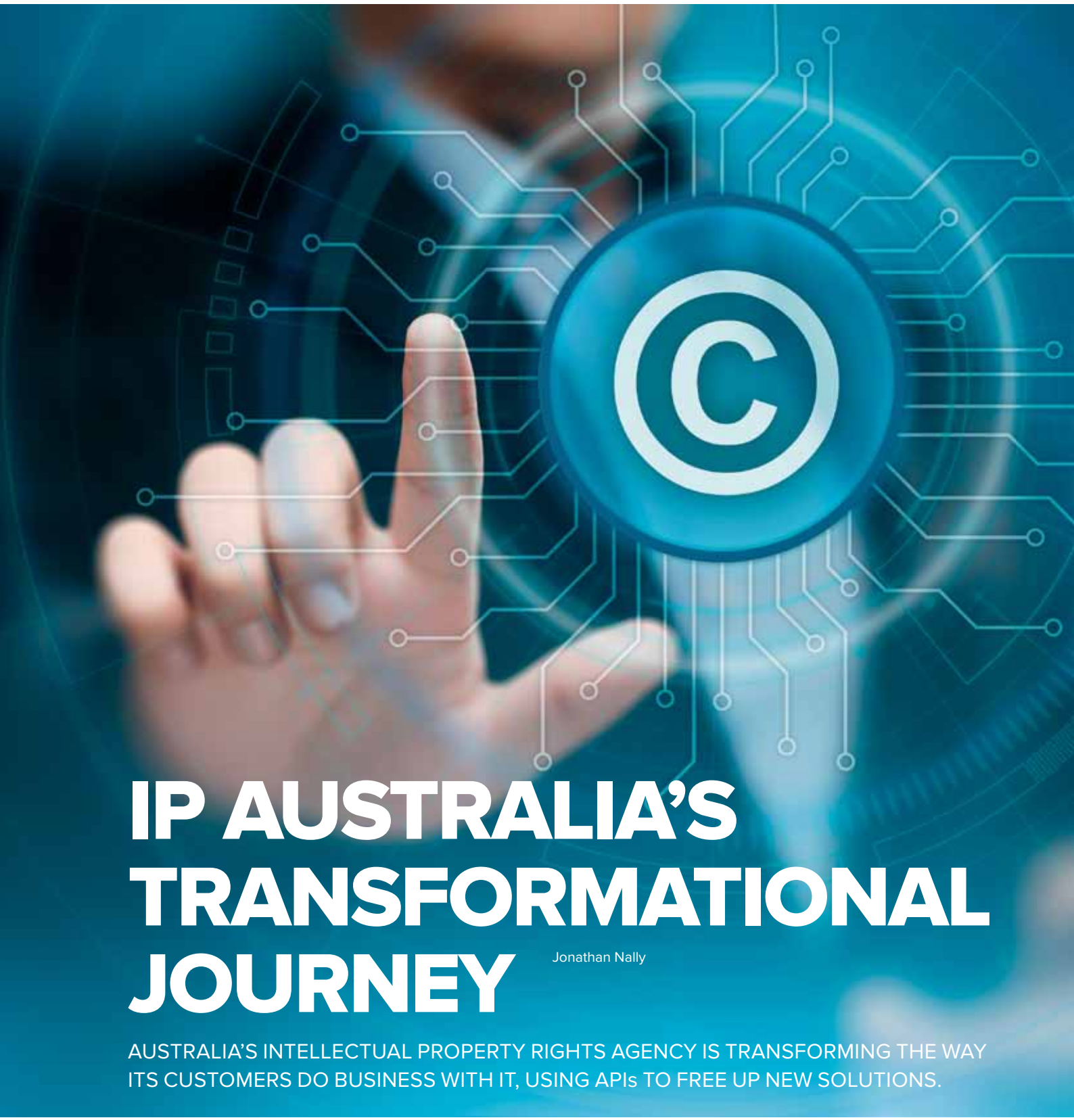

IP AUSTRALIA'S TRANSFORMATIONAL JOURNEY

Jonathan Nally

AUSTRALIA'S INTELLECTUAL PROPERTY RIGHTS AGENCY IS TRANSFORMING THE WAY ITS CUSTOMERS DO BUSINESS WITH IT, USING APIs TO FREE UP NEW SOLUTIONS.

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If you ever need to register or enquire about a trademark, patent or registered design, IP Australia is the agency you will turn to. Part of the Department of Industry, Innovation and Science, IP Australia manages Australia's intellectual property rights, from company logos to plant breeds.

IP Australia's transactional channel handles about 800,000 transactions per year coming from individual self-filers and from expert users. This includes a large number of overseas users, especially for patent applications, 95% of whom use an attorney or an agent. Some large firms can be responsible for up to 10% of filings.

For IP Australia's Chief Digital Officer, Damian Giuffre, that mix of customers — expert and casual, local and international — adds complexity to an already complex undertaking. Dealing with an ever-increasing number of applications and submissions, queries, amendments and so on, means finding new ways to increase internal efficiencies and make the customer experience smoother and easier. Not an easy job for a function which, for centuries, was paper-bound.

Which is why IP Australia is embarked upon a process of digital transformation, assisted by companies such as MuleSoft, which is aiding the customer-experience transformation side of things.

"We do a really, really good job of our core business, which is examining patents and trademarks," Giuffre said. "But [where] we've always struggled to maintain the pace of change is really at the level of customer experience.

"There's a lot of expectation I suppose from the modern customer, the modern citizen," he added. "One of my key remits is around redeveloping our customer-facing transactional systems and making sure that we do this in a very customer-centric way, putting a real focus on the user and putting them at the centre of what we do."

DIGITAL UPTAKE

IP Australia 'went digital' in 2012–13, but what exactly does that mean for this government body?

"There are a couple of different things that we do. We have informational things, but also transactional," Giuffre said. "When someone files for a new trademark or a new patent, that's our transactional space. At that time [2012–13] we had about 12% of people doing transactions with us through our digital channel, so there wasn't much uptake.

"So we developed a digital option for people, and since then we've moved to 99% digital uptake through those transactional channels," he said. "We've had a very significant success and we have a really powerful platform now... we've driven customers towards those digital channels. And people have embraced them, which has been really great.

"But we developed them originally without a real focus on the user, and it was very much a digitisation of our paper processes," he added. "I think it was probably the way things were done at the time, but it doesn't meet our modern customer expectations and it doesn't meet the efficiency needs of our larger customers, our B2B transactors.

"So what we're doing now is about the next steps, the next iteration of our evolution, and really transforming our digital business model."

THE API LAYER

IP Australia had found its existing platform increasingly challenging to maintain and improve, so it is in the process of moving from its 'old world' channels to a more modern customer experience.

"When things get more and more complicated, the more we try to manoeuvre things, the more tightly coupled they are... so we were really struggling to continue to modernise and meet those modern customer expectations," he said. "So we've started a new program of work to modernise,

and move away from, the old channels and build a new API-based transactional approach."

"And that's where MuleSoft comes in; that's where they're providing a lot of value for us, enabling us to expose our digital assets through APIs, for the first time," he added.

A prime reason for the move is to increase efficiency for larger trademark and patent filers who integrate their backend systems with IP Australia, so that their software developers can take advantage of the APIs and build on top of them.

IP Australia is building a new website, which will leverage the APIs to create a new user interface aimed at small-to-medium enterprise users. Giuffre says it will be user-centred and will focus on user experience. "Over time it will be much simpler and easier for us to maintain, evolve, modernise, update and keep in line with those modern expectations," he said.

"That's one of the challenges we've found. Our current system is working well, but the world is moving so fast and people expect so much more... and they see so much more [capability] in the private sector," he added.

"For us in government, we're struggling to keep up with that pace," he said. "We can do better; we can give people the experience they want, and we can enable them to interact with us, engage with us, in a variety of ways — not necessarily just our website, but potentially through a whole-of-government platform [and] third-party software developer applications.

"So when I talk about bringing software developers along for this journey, that's one of the key things that we've never really done before," he added. "I talk about transforming our digital business model and putting up our assets so that software developers can utilise them and actually build new applications on top of them, and maybe combine them with other government agencies, services or private sector services and create new value."

"So what we're doing now is about the next steps, the next iteration of our evolution, and really transforming our digital business model." — Damian Giuffre, CDO, IP Australia

THE BACKEND

Giuffre adds that while IP Australia has been pulling apart the front end to enable it to work more seamlessly at the customer experience layer, at the same time, "we have to reach further into our backend and decouple a lot of our backend systems as well".

"So whilst MuleSoft is helping us at the front end in terms of exposing those APIs, we're also re-architecting a lot of our backend systems and pulling apart all our applications. [This will] enable us to get more agility and break things down into smaller components and microservices and move away from some of the large monoliths we've got."

Giuffre added that the backend challenge "is something that I assume everyone else is dealing with as well across government".

"What we've seen as we've begun to implement MuleSoft and some other technologies is a real push around more agile approaches, more continuous delivery approaches and more DevOps approaches," he said. "I think that's actually having a really positive effect on the culture internally."

Giuffre said IP Australia is moving away from the old routine of infrequent system updates. "We don't do this enormous monolithic release that's chaotic at the end; we're trying to release value iteratively and deliver quickly and incrementally over time," he said. "It's a useful tool to galvanise an IT cohort and say, 'We can do things in a more contemporary way, in a more modern way.'"

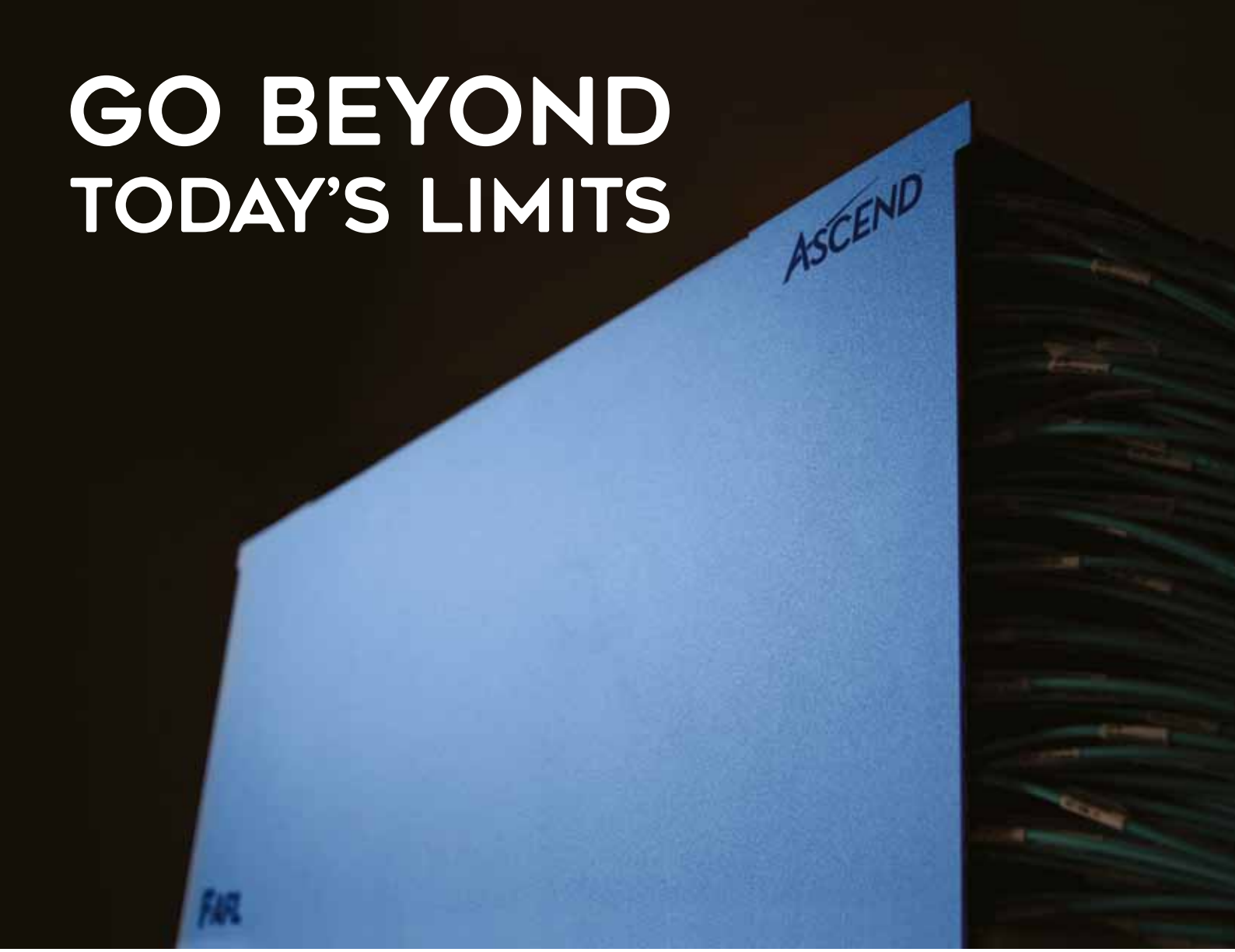
HAPPY CUSTOMERS

According to Giuffre, there's been a significant uptake in the digital channels, with a lot of customers finding value and benefit in what IP Australia has done over the last four or five years.

"We've added a lot of other cutting-edge digital things to our experience... such as Trade Mark Assist, our new trademark search system," he said. "There's a whole range of things we've done that have enhanced customer experience and we've done a really good job, I think, of enabling customers to make better decisions digitally.

"That's one of our key things, I suppose — we're not trying to sell more IP rights, we don't want more filings necessarily," he said. "We want people to be making better decisions on whether they need IP rights and whether they should file one, and when they do to make sure they do it right the first time.

"That's what all this digital transformation is really about — it's about enabling a better customer outcome for the users."



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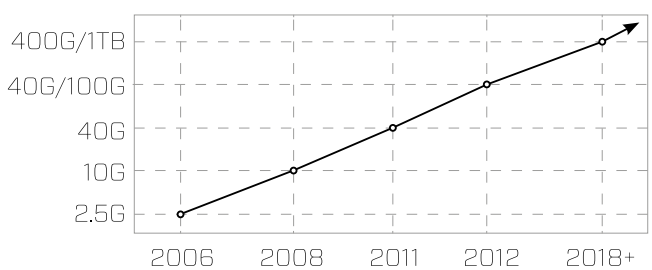

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76% of state MP websites have security issues

More than three-quarters of Australian state MPs' websites do not follow digital security best practices, according to a study from web hosting provider Network Dynamics.

A sweep of the web presence of 582 members of parliament found of the 237 with websites, nearly half (115) were hosted overseas.

A number of these are hosted through a US-based company called Nation Builder through an arrangement that effectively means Australian MPs' data are being held under foreign jurisdiction.

This is in contravention of best practice recommendations from the Australian Cyber Security Centre, which encourages organisations to choose vendors that only store, process and manage sensitive data within Australian borders.

In addition, 31 of the 237 websites either lack SSL encryption or have incorrectly installed security certificates, leaving the sites at risk of leaking data. Of the websites that do use SSL certificates, 133 use a free version.

Finally, 36% of MPs domain names list third parties as registrant contacts in the WHOIS database — typically web developers or agencies that have built their sites.

This opens the risk of more MPs losing control of their domains in the way Prime Minister Scott Morrison did in October last year when the domain was inadvertently allowed to lapse.

Network Dynamics said two separate attempts to inform state MPs of the findings of the sweep and recommend improvements to their security resulted in a mere seven human replies. The emails only had open rates of 25.2% and 32.6% respectively.

Smart City of the Year – Metropolitan winners announced

Newcastle (NSW) and Prospect (SA) have been jointly named Smart City of the Year – Metropolitan at this year's Smart Cities Awards.

The cities won the award over finalists Randwick, Townsville, Lake Macquarie and Moreland city councils.

To take the title, Newcastle and Prospect had to show that their councils' infrastructure digitisation and interconnection strategies were original, long term, cost-effective, improving residents' lives and using technologies to their full potential, according to the Smart Cities conference site.

"This award recognises our commitment to planning for the future and engaging widely with the Hunter's tech minds as part of the Smart City Strategy, adopted by Council in 2017, and the extent of our smart city development," Newcastle's Lord Mayor Nuatali Nelmes said.

"Whether investing in energy-efficient solar projects or rolling out electric-vehicle charging stations and bike-sharing initiatives, we're leading the way when it comes to investment in and uptake of technology."

"This includes the rollout of free Wi-Fi and low-power wide area networks that will link sensors and integrated technology to provide detailed real-time data to improve ease of access, efficiency and livability for residents, businesses and tourists."

"It's also important to move beyond the installation of technology alone, to also engage with the community around the future city. This is what we've seen with our catapult project working with innovative start-ups, and workshops and events aimed at ensuring our smart city is for everyone, such as the inaugural Humble Lecture being delivered Friday at our City Library."

The gong follows Newcastle's win of last year's Smart Cities Strategy Award for its Smart City Strategy 2017–2021.

Pictured: City of Newcastle Smart City Coordinator Nathaniel Bavinton with the award at the presentation.

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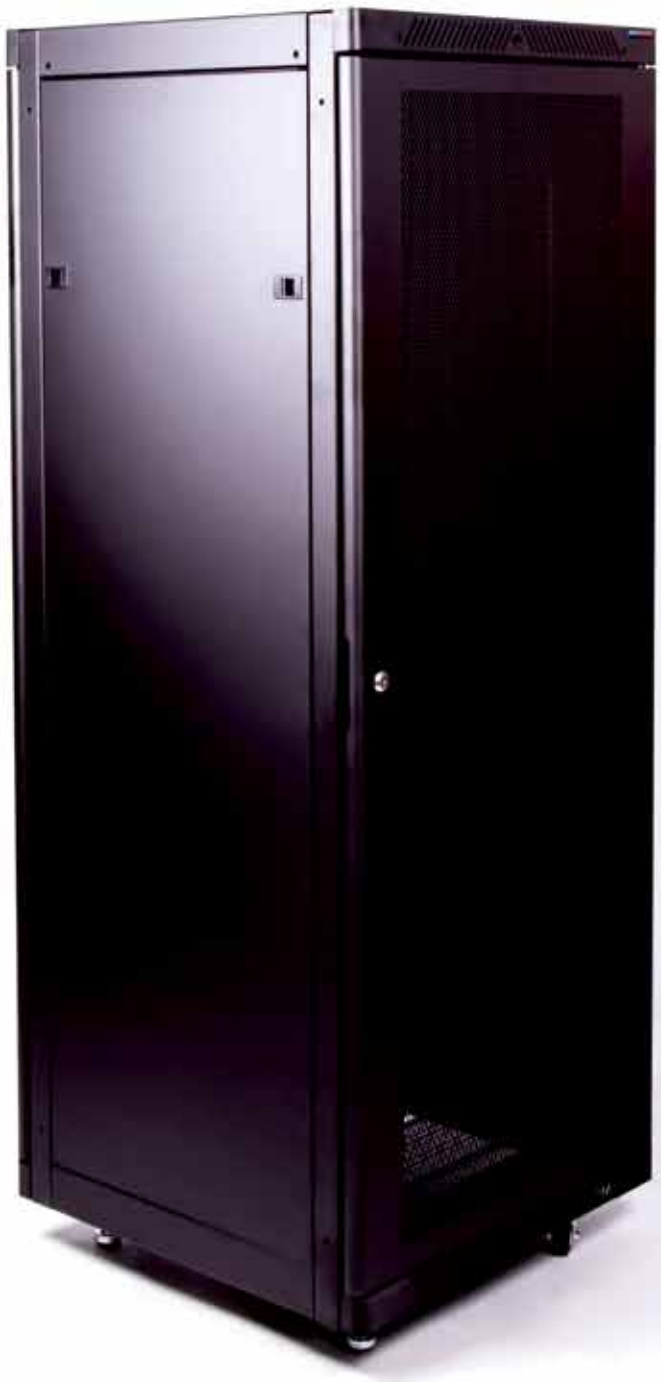

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Snowy Monaro council picks Civica for IT consolidation

The Snowy Monaro Regional Council has contracted business-critical software application developer Civica to provide an integrated solution for the council's current and future ICT needs.

The council has selected Civica Authority 7 to facilitate the process of merging multiple IT solutions from previously disparate councils into a single integrated suite of applications.

Snowy Monaro Regional Council was formed in 2016 through the merger of the Cooma-Monaro Shire, Snowy River Shire and Bombala Councils. As a result of the merger, the council's IT functions were spread across three separate systems.

As part of the consolidation process, the three systems — which include two earlier versions of Authority already in use — will be rolled into the Authority 7 solution. The implementation phase is now underway, and is expected to be complete in May 2020.

The implementation will also help the council meet its strategic ICT goals of improving customer interaction, building a connected community and providing self-service options for its almost 21,000 residents.

Civica Managing Director of State and Local Government Solutions Ben Cowling said that with the contract win the company now has more than 350 local government customers across Australia and New Zealand.

"We continue to look for more partners that will help us deliver the best solutions to our local government customers. We look forward to seeing Snowy Monaro benefit from being part of our rapidly expanding customer community."

New guide helps with transition to LED streetlights

As cities across Australia begin the transition to smart LED streetlighting, the Institute of Public Works Engineering Australia (IPWEA) has published guidance for local governments and others looking to put forward the case for following suit.

The new resource is designed to serve as a model business case for smart streetlighting upgrades that can be scaled for both large and small projects in urban or rural areas.

The resource was completed with support from the Clean Energy Finance Corporation (CEFC) and the Department of the Environment and Energy. It provides guidance for local governments, main road agencies, utility staff and others looking to make a compelling place for switching to LED streetlighting with smart controls.

IPWEA estimates that nearly 1 million conventional lights in Australia will be replaced with smart streetlights in the next three to four years, with adoption partly driven by replacements for old mercury vapour lights that can still be found on Australian roads.

"IPWEA modelling shows that if every streetlight in Australia were converted to LEDs, councils would slash $100 million off their annual streetlighting bills and reduce our streetlighting's energy use and greenhouse gas emissions by at least 52%," IPWA Acting CEO Ben Balov said.

"When you add in smart controls that allow streetlights to be dimmed when appropriate, that energy reduction can be as high as 72%."

Lured by the promise of the technology, a number of Australian cities — including Newcastle, Darwin and Canberra — have commenced projects to replace or upgrade existing streetlights.

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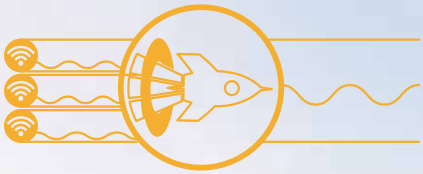

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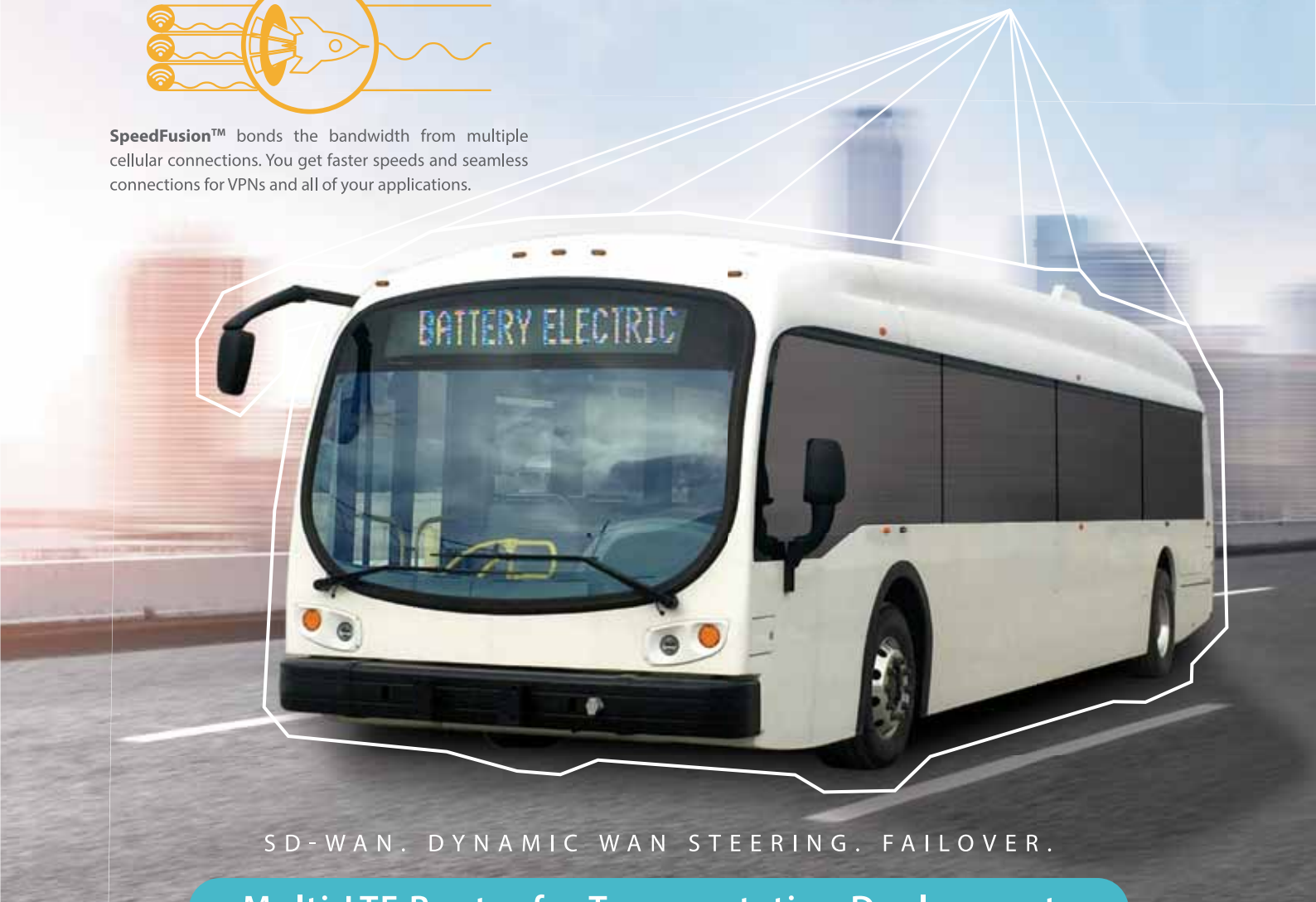

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MANAGING PROJECTS FOR SUCCESS

INNOVATIVE FUNDING AND SHARED-VALUE MODELS WILL HELP GOVERNMENT DELIVER FOR THE PEOPLE, SAYS ROGER ROONEY, THE ACT'S SMART PARKING SENIOR PROJECT MANAGER.

Roger Rooney, Senior Project Manager, Smart Parking, for the ACT Government, has had extensive experience in many public sector roles. After doing a political science degree, he joined the APS in Sydney and worked at the coalface of community services, before moving into a research role with the Refugee Review Tribunal where he read Amnesty International and Human Rights Watch reports on the abuses and persecutions committed by authoritarian regimes and war lords. He then took the Tribunal's best practice and helped the Irish Government set up its own refugee research unit, before moving into communications technology and joining NOIE/DCITA. "That started me off on the demand-side, user-focused crusade that we now call agile/human-centred/end-user UI/UX," he said.

TELL US ABOUT YOUR CURRENT ROLE AND WHAT IT ENTAILS?

After 17 years in federal service, I took a year off before jumping onto the city curb at ACT Government, where I designed and delivered the Digital Canberra Strategy, took an unfunded election commitment and turned it into a 700-access-point, free Wi-Fi network. I led the charge with smart parking and developed the digital economy by identifying best-of-breed technology vendors to help small businesses accelerate their use of digital.

My role is to be naturally disruptive, improve, get the best deal for the citizen and turn an idea into an outcome. Whether it's machine learning with data scientists or reducing emissions through decreasing travel times with a smart parking app, my role is to be 'half an hour in front of the plane' and pilot the project and product to delivery.

My next challenge is to scale up smart parking, deploy predictive services, integrate data nationally. My passion project is the electrification of transport — I want to apply the smart parking model to EVs and charge points to deliver the churn required to optimise the use of the asset, smooth demand and increase trip reliability... especially on long haul.

CAN YOU DESCRIBE A PROJECT YOU ARE WORKING ON OR RECENTLY COMPLETED?

Challenges came thick and fast in smart parking, which involved integrating five design layers and working across 15 organisations to install the 460 sensors in record time — three weeks. It took working through more than 200 issues to do it, the top three being:

- Light poles. The 'iPhones' of the smart city were pain points for

multiple reasons, even if you own them! We had only 12-hour unmetered supply where we wanted the Wi-Fi, street sign and sensor network, so we had to do power upgrades.

- All third-party arrangements are high risk, whether its app development, signs or subcontractors.
- Having a new project sponsor every year on a complex program of works makes it hard to create and maintain engagement.

I overcame the challenges with perseverance and by asking for help and for more resources.

WHAT DID YOU LEARN FROM THE PROJECT? WHAT DID IT ACHIEVE?

I learned that to deploy properly, I need an 'all in one' engineer on my side of the table with a combined degree in electrical, civil and mechanical engineering. I learned to ask for help earlier and that user acceptance testing is something that must be done by the city. But mostly I learned that the 'usage grenade' is still something that most people jump back from, and that to get adoption we need the city to do the change management at the start of the project; not just project manage the solution.

I'm proud to say I saved drivers' time (40% of the app users said it saved them two minutes and two-thirds now want predictive parking), made shop owners happier during hard times and developed a strong relationship with the vendor. That, and I was a leader in developing the predictive parking collaboration with Data61/CSIRO and with Dr Gary Au, where we crunched the five million data points from the sensored events and worked out what was happening, why it was happening and predicted it happening. Working with the data scientists was the best part of the job.

WHAT EXCITES YOU MOST ABOUT THE FUTURE?

I am going high-growth here and saying in 2–3 years over 10% of cars sold will be EVs; meaning 100,000 EVs running around cities and the countryside, but also ramping up demand — and congestion — at city street and shopping mall charge points.

To join up and integrate we need to prepare two years out if we are to get a scaled-up network, platform and funding in place, that is integrated across platforms and is integrated with connected cars… so that owning an EV doesn't mean hanging around creating congestion on the street because the bay is ICEd (where an internal combustion engine car takes up a place reserved for EVs) or suffering from idle time.

Hopefully we've moved beyond solutions selling and having navel-gazing cities fixated on ROI, and we are using innovative funding and shared-value models to get back to what government is all about — delivering for the people.

WHAT ADVICE WOULD YOU GIVE SOMEONE LOOKING TO FURTHER THEIR CAREER IN GOVERNMENT?

Strategically — to become a true generalist. The Irish Government make it mandatory to move every two years and serve in both policy and delivery roles. This will mean you can deliver end to end. It's my point of difference. Most projects fail at pre-project when policy people think it's a good idea and work up a business case, but no-one has sat down and thrashed out what value we are trying to capture and deliver, what the pain points are and their intensity, and to whom and where we need to get to.

Tactically — get into a new area, be the tip of the spear, build up knowledge and then use your rare combination of being able to think about digital issues in 3D and deliver 'time to value' to realise benefits for the community.

WHERE DO YOU LOOK TO FOR FURTHER EDUCATION?

Project management courses mainly. For brain food it's LinkedIn and colleagues, especially those who are 5–10 years down the smart city track. Podcasts such as *Solar Insiders* and *Energy Insiders* for renewable economy gear and *Friendly Fire* for war movies!

WHAT ARE YOU MOST LOOKING FORWARD TO AT THE SMART MOBILITY SERIES 2019 EVENT?

Learning, sharing and connecting.

Public Sector Network's Smart Mobility Series 2019 conferences, at which Roger Rooney will be speaking, will be held in six cities across Australia and New Zealand in September. Visit https://events.publicsectornetwork.co/events/smart-mobility-series-2019-2/ for full details.

PM'S PLANS FOR SERVICES AUSTRALIA

Dylan Bushell-Embling

SCOTT MORRISON WANTS TO OVERHAUL GOVERNMENT SERVICE DELIVERY.

Prime Minister Scott Morrison has announced plans to establish a dedicated federal government service delivery agency modelled after Service NSW.

The new organisation, Services Australia, will be part of the Department of Human Services' portfolio. It will be overseen by a dedicated minister, with Stuart Robert appointed as the first Minister for Government Services as well as Minister for the National Disability Insurance Scheme.

The new ministry effectively replaces the Minister for Human Service and Digital Transformation position. This role was previously held by Michael Keenan, who retired at the election, and has not been filled in the new ministry.

Announcing the new organisation, Morrison said its goal will be to make it easier for Australians to access the services that they rely on.

"I want to see congestion busting not only on our roads and across our major cities; I want to see congestion busting when it comes to bureaucratic bottlenecks and regulatory bottlenecks, so Australian can get access to those services in a more timely and efficient way for them, making better use of technology and better integrating service delivery across portfolios," he said.

Services Australia will take its cues from Service NSW, which Morrison called "a very important reform in New South Wales and made dealing with government much easier".

Service NSW was established in 2014 as a one-stop shop for digital government service delivery, bringing together services including births, deaths and marriages, roads and maritime services, energy rebate information and small business support.

At launch, the organisation was tasked with helping meet the state government's commitment to ensure 80% of transactions with government can be conducted through digital channels. The organisation believes it is on track to ensure 70% of transactions are digital by the end of this year.

Services Australia's remit will likewise also involve driving better use of IT and apps for government service delivery, Morrison said.

Morrison's surprise announcement could indicate that the newly re-elected government is planning a radical new approach to the digitalisation of government services. This has left the fate of the current Digital Transformation Agency up in the air. Observers have speculated that the agency could be subsumed within Services Australia, or that it could be dissolved, with the service delivery functions shifting to the new agency and the policy and procurement functions returning to its parent entity, the Department of Finance.

The DTA has faced challenges meeting its remit of helping the government enable end-to-end digital service delivery since it was established in 2015. These challenges have included objections from existing service delivery agencies, as well as challenges coordinating digital transformation projects across agencies.

Services Australia will regardless likely play a significant role in implementing the digital service reforms currently being spearheaded by the DTA, such as the myGov online services portal and the MyGovID whole-of-government digital identity system.

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Meeting Room Management for the Next-Gen Enterprise

The Current "State of the State"

When it comes to the proactive management of their global AV meeting room estate, most enterprises are flying blind.

In the typical enterprise today, the accountable support folks DO NOT have a full view of their AV and collaboration environment. Instead, they have a narrow, periscope-like, view of specific areas.

But wait — this is the world of cloud services and IOT. The roster of IP-ready AV devices keeps growing. And for just a few hundred dollars, I can remotely monitor and manage my home via the Internet. How can the AV world be so far behind?

The reason is that due to cost, complexity, and frankly choice, most AV meeting rooms were designed to operate independently. Monitoring and managing a single device (e.g. a group video system) using the vendor's management software is relatively straight-forward. However, things become far more difficult when …

- Multiple devices are connected to form a single system
- Each of the devices offer different functionality (e.g. a display vs. an audio amplifier)
- The pool of possible devices includes thousands of different products

The AV world is simply too open with too many choices and options. In the end, almost every AV system is a custom solution. Even so-called "standardized" AV systems are just custom designs that are re-used again and again to control cost, expedite deployments, and provide a consistent experience.

Traditional Ways to Solve the Problem

Historically, organizations had three ways to address the AV monitoring and management issues.

Method #1 — Throw People at the Problem

The simplest, most brute-force way to deal with this issue is to activate an army of support staff charged with inspecting, testing, and operating the installed AV equipment. This approach depends entirely on people, which makes it somewhat inconsistent and error prone.

Method #2 — Throw Money / Technology at the Problem

Another option is to deploy additional equipment and systems to make the AV environment visible and manageable.

Method #3 — Accept That Which We Cannot Change

Quite simply, this means accepting that some, much, or all of the AV environment will not be remotely monitorable or manageable.

But that was then … and this is now.

Today, organizations have the option of applying an IT-mindset to their AV environment. Instead of following the same old rules and methods, they can take a next-gen approach to meeting room management.

An IT-Mindset for AV Meeting Rooms

The IT-way to monitor and manage a global AV estate involves the following:

#1 — A Functionality-Oriented Approach

Almost every meeting room in the world has the same basic goal — allow people to gather, in one or more places and locations, and work together efficiently and effectively.

#2 — An IT-Based and IT-Best Practices Approach

IT folks seek solutions that look, feel, and act like standard IT-tools and technologies.

#3 — A Configured Vs. Programmed Approach

The IT world is all about configuration. Instead of buying raw processing power and programming a custom software solution, IT professionals prefer to configure solutions that are essentially ready-to-use right out of the box.

#4 — An "Automate Where Possible" Approach

An IT-friendly approach involves using systems instead of people whenever possible.

#5 — A Managed Services Friendly Approach

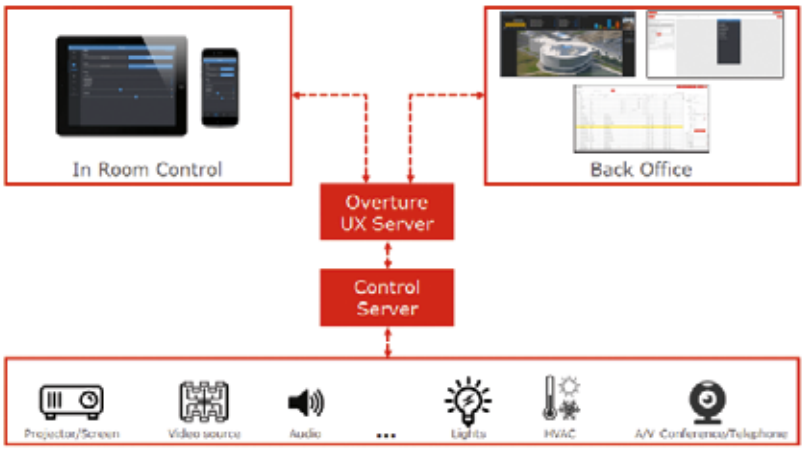
Long ago, organizations realized that some functions should be handled internally using internal staff, while others should be outsourced and handled by externals / contractors.

These are just some of the items that one should expect to find in an IT-centric monitoring and management platform.

Solution Spotlight — Barco Overture

Unlike most competing AV control solutions which require proprietary hardware and software, Overture was designed from day one to be an IT-friendly, enterprise-wide, centralized AV control solution.

For example, Overture runs as a Virtual Machine (VM) that can be hosted on most virtualization environments. Barco also offers Overture via a hosted / software-as-a-service model. In addition, unlike traditional AV control solutions, Overture is user-based, offering each user a personalized experience. And this centralized software approach allows Overture to support devices in thousands of meeting rooms around the world by leveraging the existing IT infrastructure and without the need for dedicated control hardware in each room.



A key differentiator of this solution is that Overture is designed to be configured — not programmed. Overture offers a web user interface that allows administrators, with just a few clicks, to define locations and meeting rooms, add and configure devices, and enable automated functions (dubbed Behaviours) and alerts within the system.

For example, Overture can be configured to notify IT support when a projector bulb burns, a video system goes offline, or a room's temperature exceed 85 degrees.

And like every AV control system, Overture supports multi-function script & automation functions.

For admins and support staff, Overture provides a centralized dashboard (see image below) including customizable widgets that provide real-time status information about devices and rooms (top of image), map-based navigation of your AV environment, and a dynamic activity window (lower right sidebar in image below).

Another differentiator is that Overture makes the meeting room's user interface (UI) accessible from any device connected on the network i.e. cell phones, tablets, or notebooks.

To ensure a consistent look and feel, regardless of who configured the system, Overture's UI is based on templates. This saves time by avoiding the need to create control panel designs from scratch.

And since the platform is based on HTML 5, advanced users and developers can easily provide a customized experience.

Overture also allows administrators to define scheduled behaviours to be applied to specific devices, systems, and/or locations. For example, the system can be set to turn off the lights in all meeting rooms on the 5th floor in the London office at 8 PM local time. Similarly, the system can be set to reboot all group video systems once a week at a pre-determined time.

Conclusion:

Overture's centralized, software-based, IT-friendly approach changes the long-standing rules of AV meeting room control, offering cost-effective and highly scalable global device monitoring and management.

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*Source: Wainhouse Research
*Original whitepaper: https://infopages.barco.com/201801-ENP-MKTG-OTH-OvertureWainhouseresearchwhitepaper_LP-01-Overture-Wainhouse-report.html

THE NEED FOR ADVANCED TECHNOLOGY IN CYBERSECURITY

AS CYBERCRIMINALS CONTINUE TO RAMP UP THEIR ATTACKS, TRADITIONAL SECURITY TOOLS ARE NO LONGER UP TO THE TASK OF PROTECTING ORGANISATIONS. IT'S NO LONGER A MATTER OF 'IF' AN ORGANISATION IS ATTACKED, BUT RATHER 'WHEN' — WITHOUT ADEQUATE SECURITY MEASURES IN PLACE, ALMOST EVERY BUSINESS IS LIKELY TO BECOME A VICTIM OF A SUCCESSFUL CYBER ATTACK.

Nick FitzGerald,
Senior Research Fellow, ESET

The ramifications of cyber attacks can range from mild inconvenience to catastrophic downtime. The importance of having a strong security posture can't be overstated, and most business leaders and IT managers are well aware of this. Unfortunately, this has led to a proliferation of vendors claiming to provide innovative solutions and dismissing established vendors as irrelevant, despite often building their own solutions on technology developed by established vendors.

However, given the rapid evolution of threats since these technologies were initially developed, it's important for today's solutions to go well beyond the technology of the 1990s. Antivirus, once the mainstay of IT security, is not sufficient to protect against

sophisticated threats. Therefore, IT security professionals need to understand the threat landscape and the advanced technologies that can help combat cyber attackers.

Attackers are currently exploring ways to use different platforms and processes to compromise their targets. Anything that runs executable code to process external data can potentially be hijacked by malicious data. This means Linux servers, Macs and even mobile phones are all increasingly popular targets for cybercriminals. Attacks on routers are becoming a serious threat and virtualisation, the Internet of Things and even web browsers are adding to this complexity.

The attack vectors have also evolved and there are myriad ways for attackers to distribute their malware. They can attack via attachments or links in emails; downloads from web pages; scripts in documents; removable devices like USBs; or by taking advantage of poor authorisation and weak passwords. Attackers can leverage exploits or use social engineering techniques to trick end users into installing malware.

Cybercriminals invest serious time and money into developing malware and ensuring they won't get caught. The sophistication of these techniques makes them increasingly difficult to detect. Thousands of variants of the same malware can make it even more difficult to combat effectively, and attackers often use clean software components or certificates stolen from legitimate companies so that their illegitimate code is harder to spot.

Decentralised control of botnets using peer-to-peer networking is commonly used, and encrypted communication makes it harder to identify attacks. Domain generation algorithms reduce the effectiveness of detection based on blocking known URLs. Attackers also take control of legitimate websites that have good reputations, and even legitimate advertising services are used to serve up malicious content.

With so much danger lurking in every corner of the digital environment, it's essential to have the right security tools in place to protect businesses.

The right tools must be based on a state-of-the-art scanning engine that is constantly being developed to cover modern threats. The scanning engine identifies possible malware and makes automated decisions about how likely the inspected code is to be malicious.

The scanning engine can't be based on manually crafted assembly code. Instead, it should use binary translation together with interpreted emulation. This approach is many times faster than older approaches and lets users analyse hundreds of different file formats to accurately detect embedded malicious components.

A multilayered, real-time solution is required to assure the highest level of security. This must include solutions that can detect threats at different points during their life cycles in the system.

For example, security tools should include a dedicated layer that protects the unified extensible firmware interface (UEFI). This layer checks and enforces the security of the pre-boot environment and can detect malicious components in the firmware and report them to the user. Given the control and stealth options a UEFI compromise provides an attacker, it's essential to protect it with a dedicated approach.

DNA detections are complex definitions of malicious behaviour and malware characteristics. These are based on collections of behaviours rather than pattern matching, performing deep analysis of code and extracting the 'genes' that are responsible for its behaviour. This provides far more information than indicators of compromise used by many so-called 'next-gen' solutions. In fact, a single, well-crafted DNA behavioural description can detect tens of thousands of related malware variants including new, previously unknown variants.

Solutions should use machine learning that combines the power of neural networks (such as deep learning and long short-term memory) with classification algorithms to generate a consolidated output and correctly label new files as clean, potentially unwanted or malicious. Machine learning should be fine-tuned to cooperate with other protective technologies to offer the best detection rates and the lowest number of false positives.

Blacklisting using hashing can work well for files and URLs. Solutions should take fuzzy hashing to the next level by not performing hashing of data but hashing of the behaviour described in DNA detections. This can help block thousands of different variants of malware instantly.

A cloud-based malware protection system collects samples and subjects them to automatic sandboxing and behavioural analysis, which results in the creation of automated detections if malicious characteristics are confirmed. The solution should alert users to these detections without having to wait for a regular update, and provide instant blacklisting.

Multilayered solutions should also include exploit blockers (especially at the network level), ransomware shields, botnet trackers and protection, and threat intelligence. The right solution will help users move to proactive protection instead of reactive mitigation. This will dramatically reduce the risk of being successfully targeted by cybercriminals, letting companies operate with confidence.

While there is no silver bullet for security, it's essential to remain flexible and proactive. Solutions should be based on intelligence (gathered over many years by experienced researchers) with different layers of protection to strike at different stages of the cybersecurity kill chain.

PROGRAM FORTIFY: CENITEX'S CUSTOMER-DRIVEN TRANSFORMATION

Jonathan Nally

CENITEX, THE VICTORIAN GOVERNMENT'S SHARED-SERVICES ICT AGENCY, IS MODERNISING ITS CUSTOMERS' NETWORKING, DATA AND DESKTOP ENVIRONMENTS.

Cenitex is a Melbourne-based provider of ICT services for 37,000 Victorian public servants across most major Victorian Government departments. Established as a shared-service state-owned enterprise in 2008, it is governed by a board, has approximately 550 staff and turns over around $170 million per year.

To improve the reliability, resilience and security of its core infrastructure, Cenitex has embarked on a project called Program Fortify, utilising technology from VMware. Program Fortify was launched at the start of the 2018–19 financial year and will see an investment of about $30 million over a two-year period.

"When complete in December 2019, Program Fortify will deliver greatly enhanced service resilience, lower costs, the ability to be far more responsive to our customers and a range of services that better support the changing needs of our customer base," said Michael Vanderheide, CEO of Cenitex.

Cenitex originally developed Program Fortify as a program to deliver more cost-effective, resilient services for its customers. Since then, it has further developed into a fully integrated, hybrid cloud solution.

While Program Fortify encompasses networking and cloud initiatives, it also involves automating workflows and processes in the VMware environment to make it easier for departments and agencies to consume and manage services. Additionally, the project will improve the desktop experience for public servants via a Digital Workplace service that will deliver rapid access to applications, information and cloud services from anywhere on any device.

Program Fortify has four main streams:

- Software-defined data centre — based on hyper-converged infrastructure with significant inherent resilience and redundancy as well as native automation capability.
- Software-defined networking — enabling higher levels of cybersecurity and the ability to adapt more rapidly to new customer requirements for service.

- Smart Internet Gateway — providing Cenitex's customers access to the internet and cloud-based services such as Office 365 directly and securely without traversing Cenitex's data centres.
- Digital Workplace — based on VMware's Workspace One service.

SOFTWARE-DEFINED DATA CENTRE

Program Fortify began with a focus on the software-defined data centre, using VMware Validated Design for SDDC, which enables optimisation of expansion and integration capabilities through incorporation of a range of products for a wide set of use cases.

VMware's vSphere enables Cenitex to connect and secure applications in a common operating environment across the hybrid cloud. The fully virtualised infrastructure enables a move to software-defined services, as well as a greater consolidation of virtual machines and automation, with a vital building block of the system being VMware's vSAN flash-optimised storage.

The software-defined data centre enables Cenitex to easily expand into the cloud and service its public sector customers quickly with a standardised environment, as well as providing 'self-service' features for the purchase and management of services.

"In today's environment, government agencies are increasingly digitised and need an IT service that will help them navigate through this with ease. Our customers are providing a community service and we want to enhance this through an innovation mindset, which we will be able to do in partnership with VMware," said Nav Pillai, General Manager, Design & Development, Cenitex.

SOFTWARE-DEFINED NETWORKING

Cenitex operates a software-defined network running on VMware's NSX, which enables it to have a fully virtualised networking solution with built-in security. The NSX virtualisation platform's attributes give Cenitex's IT experts visibility into users and activity on the network, without having to add a security layer on top. Traditional firewalls that once took weeks to provision are now inherent in the network.

CLOUD SERVICES

VMware Cloud on AWS will enable Cenitex to decrease its physical data centre footprint, while providing enhanced scalability and expansion capabilities. VMware's vRealize Automation will help Cenitex accelerate ticket time and reallocate resourcing to solve its customer's IT problems, reducing manual processes. The cloud system also boosts disaster recovery capabilities for critical customer applications.

But the move to the new system does not mean Cenitex will be entirely doing away with its own data centres; it will not be a complete move to the cloud.

"While cloud-based services are very much part of what we do today, our customers will continue to host many of their business applications in our data centres for a long time to come," Vanderheide said.

"What Program Fortify offers is a path to the cloud that is wholly non-reliant on our data centres and an environment for business applications that remain in our data centres that is more resilient and lower cost."

DESKTOP ENVIRONMENT

A vital part of Program Fortify is transforming Cenitex's customers' experience using VMware Horizon and Workspace One. Horizon delivers virtual or remote desktops and apps through a single VDI, easily, securely and on demand. Workspace One is being used to build Cenitex's new Digital Workplace, a process which is in alignment with the Victorian Government's digital workplace strategy.

Due for activation in July 2019, the Digital Workplace will provide Cenitex's customers the ability to access data, apps and cloud services from any location and with any device. Cenitex's teams will be able to access information on device health, see its location, encrypt and restrict access to data, and protect sensitive information.

GOING LIVE

As of May, Cenitex was piloting Project Fortify services internally, with an expectation that the pilot would be extended to its customers in June. "We expect to have the service available on our catalogue for customers to consume in July," Vanderheide said.

"We're delivering a better customer experience through a service that is responsive, resilient and cost-effective, and adaptable enough to meet their changing needs," he added. "They expect technological innovation that will provide them with reliable, accessible services well into the future."

Vanderheide said the public will benefit because it will be served by a government that is using IT that is highly resilient, available via any device, in any location and which enables collaboration among different government departments far more easily than is the case today.

He added that Cenitex's work with VMware has helped it reach a critical turning point in its digital transformation journey.

"We can now provide mission-critical services more efficiently to our government customers which service the people of Victoria. At the completion of this project, we will be delivering a truly digital government experience that positions us as an agency leading the way not just in Australia, but globally."

Strategic vs tactical enterprise service management explained

Stephen Mann, ITSM Analyst, on behalf of Axios Systems

Enterprise Service Management (ESM) — "the use of IT service management (ITSM) principles and capabilities in other business areas to improve performance, service, and outcomes" — continues to grow in popularity. If we consider this in the context of how the adoption of ITSM best practice within IT can range from purely how best to manage issues (incident management) to the use of many more ITSM capabilities, then the same is true for ESM.

And in addition to the varying levels of best practice adoption, ESM adoption has another dimension to consider. In our webinar, "Enterprise Service Management 101", adoption is split into two types — 'tactical' and 'strategic' — to represent this additional dimension that's needed to allow people to better understand the state of enterprise service management (especially the related adoption statistics) and to help guide organisations in their own initiatives. This article takes a deeper look at what strategic ESM is.

'Tactical' versus 'Strategic' ESM

ESM started out as the singular use of the corporate ITSM tool by another business function, such as the facilities team, to help with the efficiency and effectiveness of operations. This still happens in 2019. With this being simply a reactive and piecemeal approach to sharing the ITSM tool and maybe some ITSM best practice, we call this 'tactical' ESM.

However, with the visible service management successes and growing interest in the opportunities ESM can bring, a more proactive approach has developed. We can label this 'strategic' ESM, whereby a business-level decision is made to systematically share ITSM best practice and technology across the organisation. With

the intention of sharing to as many business functions as beneficially possible.
'Clear as mud' I hear you say. Here are a couple of examples that should simplify these two concepts.

A tactical enterprise service management example

Think of this as a one-time hit of improvement. An example would be the sharing of the corporate ITSM tool and practices with the Human Resources (HR) department to replace the currently unstructured management of employee-related issues/cases — perhaps using a communal email inbox and personal productivity tools such as spreadsheets. With the ITSM tool's proven workflow management, and wider work enhancement, capabilities making the previously-manual HR practices significantly 'better, faster, and cheaper' — including the improvement of the employee experience can be achieved.

A strategic enterprise service management example

With strategic ESM, the aim is to improve as much of the organisation's back-office capabilities as is economically possible. An example would be the strategic decision to share the corporate ITSM tool and practices throughout the enterprise (when considered advantageous). Perhaps starting, after gaining business-level agreement, with HR, then progressing to facilities, then the customer service team, and so on. This reflects the fact that many business functions offer service and support but don't have a formal technology that's designed to manage the related work. However, it's not just the common corporate functions that can be helped. If educational institutions are considered, not only do these organisations have all the opportunities across HR, facilities, etc, but there are also opportunities to enable and better manage service and support in other areas including medical centre and research department operations, for instance.

Split is not industry recognised

It's important to note that this terminology is not an industry standard — and one could argue the same is true of enterprise service management per se with other terms often used to denote the use of ITSM outside IT.
However, it is necessary to make the distinction between tactical and strategic ESM. Why? Imagine that 60% of organisations have adopted ESM. How many have simply used their ITSM tool in another business function and how many are strategically improving back-office operations? The answer is that we don't know without some form of differentiation in the questioning. Plus, we need to ensure that we're inclusive of those people and organisations that might call it something else (and consequently might say that they haven't adopted ESM when they have). Thus, we need to be careful when collecting ESM statistics, and even more careful when making decisions based on them. For example, if we know that 60% of ESM adopters have applied to it HR, say, then it's important to know the relative split between tactical and strategic adoptions when making decisions related to your organisation's strategic initiative.

How is a tactical adoption extended further?

Where an organisation started with a tactical approach to ESM — maybe simply using their ITSM tool in facilities — and now wants to share its ITSM capabilities more widely, does it continue with another tactical adoption (and then another, etc.), or does it effectively start again with a fresh strategic approach to enterprise service management (that has learned from the initial adoption)?
There's no definitive good practice but common sense can be applied. If the plan is for 'just one more business function,' then it's still a tactical need. However, if it's a case of 'one more business function, then another, then…' it ideally requires a more strategic approach to ensure that decisions and activities are undertaken optimally. With a better impact on costs and — more importantly — business outcomes. Ultimately, taking a strategic approach to enterprise service management is going to offer more opportunities for your organisation to benefit, with each business function involved likely to achieve a better state of operations than with a simple ITSM tool use-case scenario.

For further information regarding the opportunities ESM can deliver, industry advice and customer success stories, view the Webinar *"Position your organisation for Enterprise Service Management Success"* with Stephen Mann & Chris Burnside (Account Director UK, Axios Systems) https://hubs.ly/H0hNQY30

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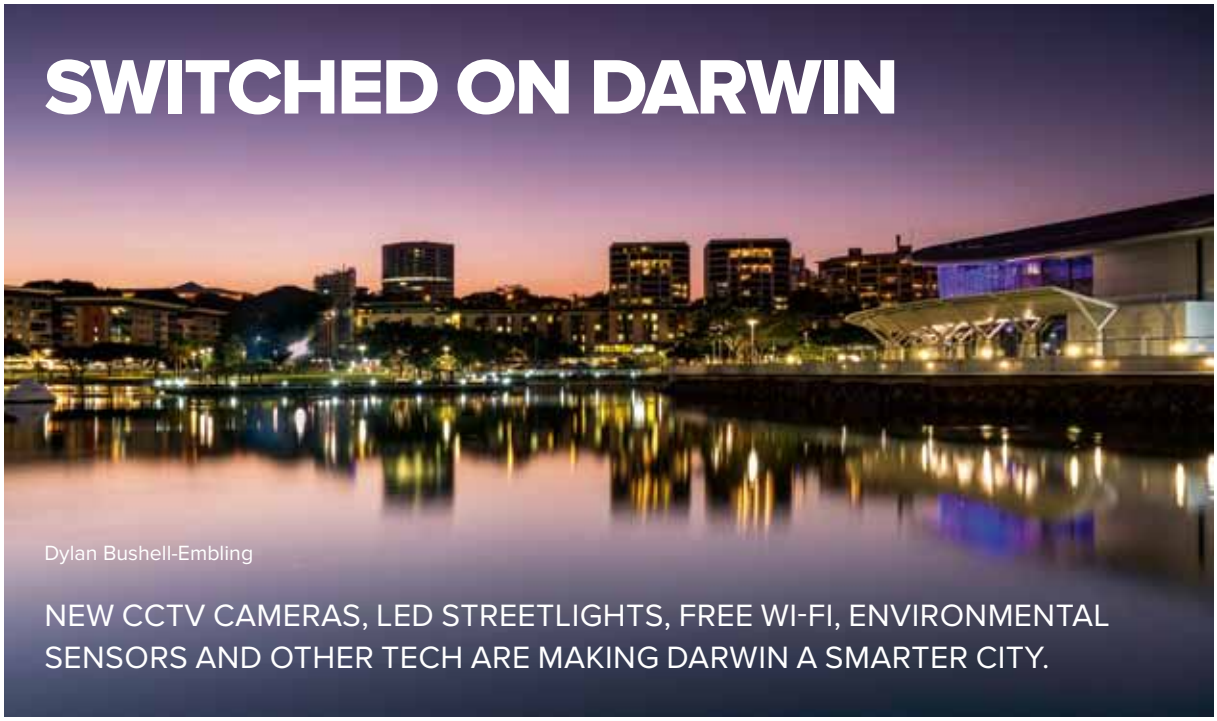


SWITCHED ON DARWIN

Dylan Bushell-Embling

NEW CCTV CAMERAS, LED STREETLIGHTS, FREE WI-FI, ENVIRONMENTAL SENSORS AND OTHER TECH ARE MAKING DARWIN A SMARTER CITY.

Construction of the $10 million Switching on Darwin smart city project has been completed, including the installation of 132 new CCTV cameras across the CBD. The project has now moved to the implementation and testing stage, and a fully integrated system is expected to be available by the end of June.

The project was jointly funded by the federal government — which contributed half its budget, as well as the Northern Territory Government and the city council, which provided $2.5 million each. The locations for the new CCTV camera network were planned in conjunction with NT Police, and will be used by the police force as additional operational tools.

As well as seeking to improve community safety, the new cameras will be used for purposes including tracking pedestrian movement, in order to provide data analytics to inform future city and community safety planning.

The CCTV system being installed for the project will not include facial recognition technology, the use of which by city police and government agencies is becoming increasingly controversial — the City of San Francisco last month became the first major US city to ban its use for these purposes.

The City of Darwin has also pledged to introduce 'appropriate policies and guidelines' to act as additional privacy protections.

As part of the project, 912 new LED streetlights have been deployed throughout the CBD to decrease costs and energy consumption associated with street lighting in the city. The new lights will give the city the flexibility to tailor lighting for events and activities being held in the CBD.

The city's free Wi-Fi network has also been expanded with 39 new hotspots, and 24 environmental sensors are being deployed in the CBD and other key areas to measure a range of environmental factors including rainfall levels, as well as CO_2, ozone, nitrogen oxide, dust and noise levels.

This data will be compiled into a dashboard and be analysed by the city, and will be made available at no cost to other organisations on request, with key data posted online on the city website.

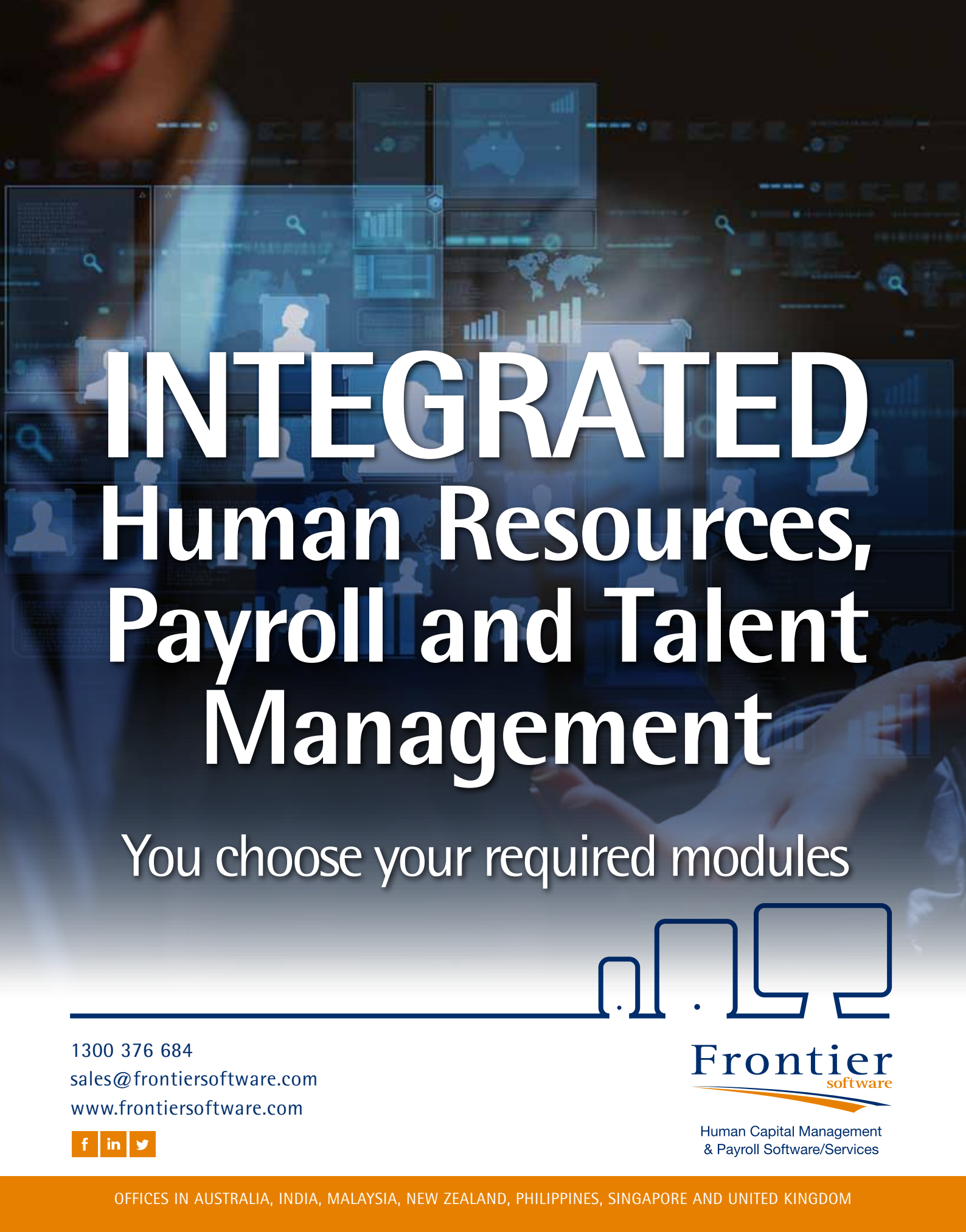
Other initiatives under the project included the deployment of smart sensors for vehicle and pedestrian movement analysis, and smart parking technology.

The city expects the project to enable it to deliver improved and more efficient council services. Providing analytics data to the community and private sector is also expected to stimulate data innovation.

"Completion of this project positions Darwin as a leader in innovation," Darwin Lord Mayor Kon Vatskalis said.

"We now have the tools to improve the livability of our city, the delivery of services to our community and to better understanding our local environment."

The Switching on Darwin project was launched in July 2018. It is one of a number of smart city initiatives being planned across Australia. The Sunshine Coast, Ipswich, Newcastle, Melbourne, Adelaide and other cities all have dedicated smart city initiatives in progress.



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KEEP CITIZENS HAPPY WITH A **SUPERIOR CONVERSATIONAL CHANNEL**

ACTING STRATEGICALLY AND ENCOURAGING LONG-TERM THINKING WILL RESULT IN AI-POWERED CONVERSATIONAL CHANNELS THAT CONTEXTUALISE AND PERSONALISE GOVERNMENT SERVICES.

Dean Lacheca, senior director, analyst at Gartner

Thirty per cent of government service interactions will be completed, at least in part, through an artificial intelligence (AI)-powered conversational channel such as a virtual assistant or chatbot by 2021, according to Gartner's research.

Motivated by ongoing pressure to improve citizen service delivery, governments are prioritising the implementation of conversational channels. Seventy-two per cent of government respondents to the 2019 Gartner CIO Survey indicate that they plan to deploy conversational platforms in the next one to three years, or are already in the process of deploying.

Primary uses to date have been chatbots on government websites or portals, but there are uses for other voice- and text-based channels. These include natural voice interactions through the contact centre; chat platforms such as WeChat and Facebook Messenger; indirect channels such as smart agents that listen and make recommendations to frontline workforces; and speaker-based virtual assistant devices like Amazon Echo and Google Home.

When done well, AI-powered conversational channels can contextualise and personalise government services, improve service delivery and augment the effectiveness of the government workforce.

From the user perspective, a conversational channel allows them to engage in a dialogue to get a response that answers their question or completes a transaction.

There are, however, many challenges to consider when implementing conversational channels, such as security and accuracy, which comes down to a combination of data quality and back-end integration. But like all government service channels, it's not simply a technology challenge.

AVOID USER REJECTION WITH GOOD DESIGN

Once a user accesses your conversational channel, their experience will dictate the success of that interaction and the likelihood of them using it again. Whether their experience is good or bad depends on the effort and forethought put into designing the experience.

Poorly designed conversational channels risk rejection by users and can negatively impact a government's reputation for service delivery. This results in lack of support for ongoing investment in emerging digital channels and no relief for internal workloads.

A well-designed conversational channel has some natural user experience (UX) advantages over websites and government portals. The user doesn't need to learn how to navigate the often-complex government website or application. The digital design process, however, doesn't change simply because there's no navigational component and only a limited visual component to the experience.

Design depends greatly on good-quality data to drive a quality experience. Each conversational channel is trained to understand many variations of a single question; understand technical language; request clarifications of questions that it doesn't understand; and respond with

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alternatives if it can't resolve the question or complete the transaction.

On top of frustrating the user, poorly chosen responses to errors or questions that aren't understood can evoke a negative emotional response, leaving the organisation with a reputation for being unhelpful, unsupportive or insensitive.

CONSISTENCY IS KEY

Users wants consistency, whether it be from a contact centre, a government website or government portal. Losing sight of citizens' expectations for predictable and consistent experiences across government services when developing conversational channels puts user engagement and participation at risk.

This desire is already largely understood and reflected in the establishment of digital design standards and systems for driving consistency across government. The Australian Government Design System was launched in April 2018 to speed up and bring consistency to government websites and services.

Citizens don't want to have to understand the structures of the department. They want consistency in the technical language that a conversational channel understands, as well as the language style used to respond to questions. If it can't deliver that consistency, the user will be frustrated. This challenge escalates when trying to deliver a whole-of-government conversational experience.

THINK LONG-TERM FOR SUCCESS

Avoid taking a short-sighted, channel-by-channel view on the potential of conversational channels. This approach to the architecture and design of emerging channels will drain resources, waste investments and increase future integration costs.

Evaluate existing and new channels that continue to emerge, to determine their role in service delivery. The UX should be co-designed and validated through insights from the organisation's customer experience (CX) program.

Also, evaluate the total cost of ownership (TCO) for each platform. Adopting an agile application architecture will maximise the re-use of components of the solution and support a more consistent UX across different channels.

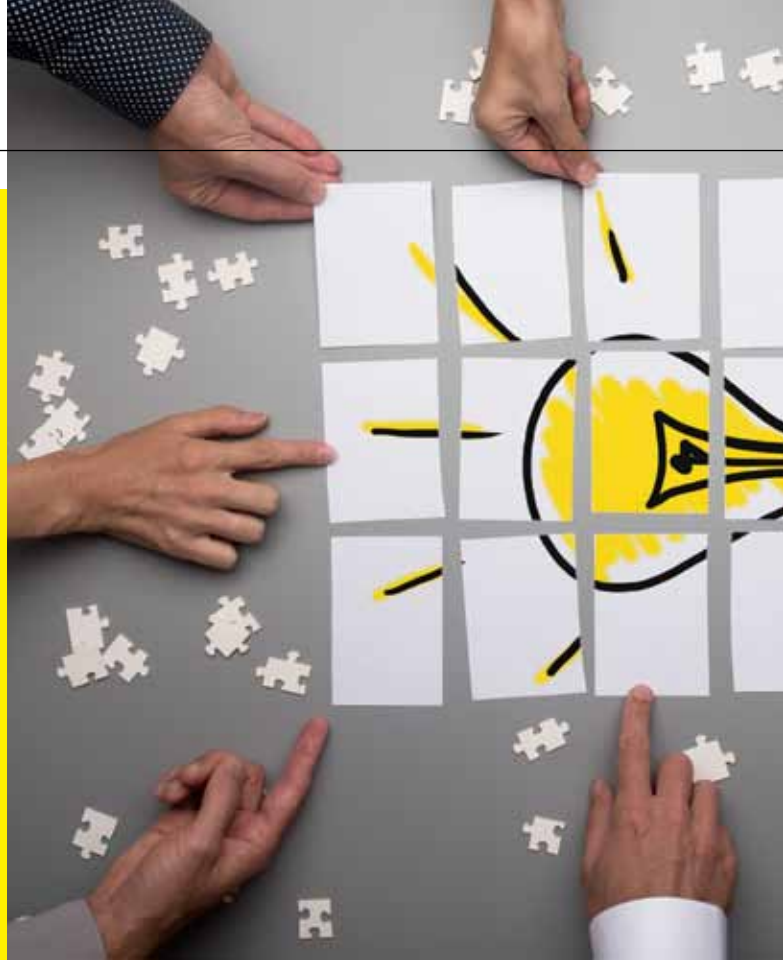
Each conversational platform has unique strengths and weaknesses, with specific peculiarities in terms of how they approach features such as user authentication, intent identification and their fundamental architecture. Consideration must be given to factors such as what user authentication is required for which type of services; and what information is appropriate to be passed through third-parties' platforms due to privacy and security requirements.

Act strategically, encouraging long-term thinking even in the early stages of adoption. Take an extensible channel approach to the emerging conversational channels to help optimise resources, maximise re-use and minimise future integration costs.

Dean Lacheca is a senior director analyst at Gartner, advising public sector CIOs and technology leaders on the transition to digital government. He covers topics including digital strategy, digital workplace, open data, government case management and citizen engagement.

CULTURE, CHANGE AND TRUST

BUILDING RESILIENT AND ADAPTABLE TEAMS, DEALING WITH CHANGE AND EARNING TRUST ARE ESSENTIAL FOR SUCCESS, SAYS MARIJA MAHER.



Marija Maher is the Chief Operating Officer for the Victorian Ombudsman's office. She began her career in the market and social research sector where she was responsible for training of field staff and the delivery of multiple research projects across different time zones. After five years she moved to the higher education sector where she spent 15-plus years before moving to the public sector.

In this interview, she shares her some of her experiences, philosophies and advice for others in public service.

TELL US ABOUT THE JOURNEY TO YOUR CURRENT ROLE AND WHAT IT ENTAILS?

Most of my career has been in newly created roles, borne through a restructure or organisational needs for a change (sometimes self-initiated by the organisation, other times by the market forces). For example, I spent 13 years at the University of Melbourne in eight different change-driven roles across strategy, operations, front-end client-focused service delivery and back-end, support and enabling services.

I started in my current role as the Chief Operating Officer for the Victorian Ombudsman 18 months ago. I am responsible for governance, risk and the corporate service delivery. One of the things that attracted me to this role is the legislative changes to the core functions of the Victorian Ombudsman and the budget independence that the Parliament of Victoria has recently passed. I play a key role in ensuring organisational readiness in embracing the new legislation next year.

Looking at my career to date, improving performance through effective leadership and cultural change is the common thread. I hope to have shown that it is possible to challenge the status quo in an organisational context and bring about change, while at the same time increasing staff engagement, diversity, productivity and organisational efficiency.

I am a passionate believer that individuals and organisations that don't change go backwards: individuals who don't change go backwards in their development and careers, and organisations that don't change or stay still go backwards in their bottom line and their societal relevance.

CAN YOU DESCRIBE A PROJECT YOU HAVE WORKED ON? WHAT CHALLENGES DID YOU FACE?

Since I have started in my current role, I have been building a resilient and adaptable team capable of embracing change and uncertainty. This started with some of the foundational elements of team dynamics, such as regular team meetings, team-building workshops and identification of working styles and communication preferences.

While the outcome was the creation of a 'social contract' of how we will

work together, combined with our team vision and goals, more importantly this resulted in:

- building of trust among team members and with me as the new leader, and also between different teams;
- gradual breaking down of silos;
- pivoting towards quality and value-add work (and away from reactive and busy work with not much to show for); and
- simplification and automation of processes.

This has led to a clear service orientation, and lines of accountability at the team, leader and individual levels. More importantly, we are creating a team culture that continually emphasises learning and innovation over fear of making mistakes.

WHAT DID YOU LEARN FROM THIS PROJECT?

While the leader's work of earning trust and then retaining it can never be finished, I am a firm believer that a culture of accountability and transparency is what builds trust. In an environment that has high trust, innovation flourishes, and that is how individuals grow and develop and how organisations evolve and thrive.

While this belief and a drive to shape such a culture in my team has driven me, I have learnt that trust is hard to gain but easy to lose. I have also learned that even when an organisation is going through a positive change of growth, it is still a change to the current environment.

A key challenge for us is how to evolve the organisation and embrace the new legislative mandate in an efficient way that addresses the community and public sector's needs, without adversely impacting on the good elements of our culture.

WHAT EXCITES YOU MOST ABOUT THE FUTURE?

It is the opportunity to contribute towards the realisation of our purpose to ensure fairness for Victorians in their dealings with the public sector and improve public administration. That is a weighty purpose and one we are not approaching lightly.

WHAT'S YOUR ADVICE FOR SOMEONE LOOKING TO FURTHER THEIR CAREER IN GOVERNMENT?

The advice I would give to someone looking to further their career, in government or elsewhere, is to get their three Cs right:

Credibility. Are you an expert in your line of work? Do you need further education and training? Are you respected for what you do and your advice? Take control of your own professional development; it is not your manager's job to drive this, it is their job to support it.

Capacity. Are you a curious person? Can you work smarter, not just harder? Are you completing your work not only on time but at a high level of quality? Are you reliable? If you are not working to your full capacity in your current organisation and you are not challenged, are you in the right job?

Connectivity. Do you have at least two mentors who are the right ones for you at this stage of your career? Are you investing in developing trusting relationship with your mentors? Do you have a good working relationship with your manager? Take charge of what you can control!

WHERE DO YOU LOOK TO FOR FURTHER EDUCATION?

I am a strong proponent of the importance of being curious, and I encourage that in my teams by regularly sending articles from the Harvard Business Review, MIT Sloan, McKinsey, LinkedIn etc.

Earlier in my career, I made significant investments in my formal education by completing a professional doctorate in leadership and talent management. I also did technically relevant accreditations such as the Train the Trainer and the Lead Quality Auditor in systems and processes. In the last six years or so, I have completed a directorship course through the Australian Institute of Company Directors.

WHAT ARE YOU MOST LOOKING FORWARD TO AT THE EMERGING LEADERS EVENT?

This is my first Public Sector Network event, so I do not have firm expectations. Having said that, I am pretty certain that there will a room full of curious people who want to further themselves and learn something new. Therefore, I think that we will have a lot in common!

Public Sector Network's Emerging Leaders 2019 Series conferences will be held in six capital cities across Australia and New Zealand in September. Visit https://events.publicsectornetwork.co/events/emerging-leaders-2019-series/ for full details.

PRACTITIONER MY HEALTH RECORD SIGN-UPS SKYROCKET

Dylan Bushell-Embling

More than nine in 10 general practitioners and more than four in five pharmacies across Australia have now signed up to use My Health Record, statistics from the Australian Digital Health Agency shows.

The agency said GPs are leading the charge in terms of signing up to the digital health system. As of the end of April, 92% of GPs were connected to My Health Record.

Of the 15,700 healthcare provider organisations registered at the end of April, 7060 were general practice organisations.

Queensland ranks highest terms of adoption, with 100% of GPs now connected to the system. Adoption rates were also high in Western Australia (98%), South Australia (95%) and NSW (92%), but were lagging in Tasmania (77%), the Northern Territory (78%), the ACT (85%) and Victoria (87%).

Meanwhile, over the 12 months ending in April there was a 13% increase in the number of shared health summaries uploaded to the system by GP organisations, according to the agency. The number of uploaded prescription records grew by 52% over the same period.

Adelaide-based GP and Australian Medical Association Federal Ethics Committee Chair Dr Chris Moy said general practice has long led the computerisation of Australia's health system.

"My Health Record now offers us the next big leap in the use of the computers on our desktops," he said. "Once GPs have that 'light bulb moment' when they realise, for the first time, that they can access information such as pathology results and hospital discharge letters, they will realise that they will be able to make better informed decisions about patient care in the future."

While adoption rates remain lower overall in the pharmacy sector, with 83% of pharmacies having registered with My Health Record by the end of April, this marks a substantial increase from the mere 33% recorded 12 months prior.

There has also been a 667% increase in the number of dispense records uploaded to the system and a 942% increase in the number of record views over the same period, the agency said.

In marked contrast to the GP adoption rates, the highest percentage of pharmacies registered to My Health Record can be found in Tasmania (97%) and the Northern Territory (97%), while the lowest adoption rate was recorded in Western Australia (74%).

"The agency has invested heavily to connect pharmacies to the My Health Record system to help reduce the number of medication-related hospitalisations each year," Agency Chief Medical Adviser Clinical Professor Meredith Makeham said.

"It can be easy to lose track of your medicines, particularly if you're taking more than one and don't have a regular GP or pharmacist to help you keep on top of what medicines you need. My Health Record ensures that no matter where you are, or which healthcare provider you see, your medication details are available in one place."

But the statistics also show that nearly 10% of Australians eligible for Medicare have chosen to opt out of the My Health Record system. The government was forced to extend the opt-out period for the system due to widespread privacy and security concerns among citizens, and the rush of Australians choosing to opt out ahead of the 15 November deadline crashed the hotline set up to manage opt-out requests.

The government was also forced to pass legislation that will allow Australians to opt out of the system at any time after the deadline and have their records permanently deleted.

The amendments also require law enforcement and other agencies to obtain a court order before accessing My Health Record information, and explicitly prevent access to the records by insurers and employers.

MOBILE IS EATING EMAIL, THE END OF THE BEGINNING^

When Apple launched the iPhone 6 in September 2014 it had 625 times the number of transistors installed in a 1995 Pentium PC. That first launch weekend Apple sold more transistors than had existed in every PC on earth in 1995.

Close to three quarters of all the adults on earth now have a smartphone/supercomputer to keep in their pocket and this puts enormous power in the hands of the mobile owner. Agility to respond to this consumer will produce winners and losers in the years ahead, and we are starting to see these now. Email, for example, is a product designed for Web and PC not specifically for mobile email. In the absence of alternatives, organisations have been forcing email as their B2C communication tool, as no-one wants to go back to paper and snail mail. However, there is change ahead as organisations will need to yield to the enormous power of what these supercomputer wielding consumers want.

GSMA's 2018 study into preferred B2C communications across 5 continents reported the staggering global consumer shift to messaging as the preferred comms engagement platform. Some takeaways from that study. 89% of consumers prefer text messaging above a phone call from business and 80% prefer messaging above email. 79% of those consumers find the idea of visual messaging appealing and 74% say they are more likely to communicate with a brand that communicates with them visually.

Businesses need the delivery ubiquity of SMS, MMS and RCS (when RCS achieves ubiquity) to counter the reducing value of B2C email as an engagement platform for the mobile consumer. There have been many challenges for organisations with A2P messaging as a communications platform. Messaging has historically been plagued by the

89% OF CONSUMERS PREFER TEXT MESSAGING ABOVE A PHONE CALL FROM BUSINESS AND 80% PREFER MESSAGING ABOVE EMAIL.**

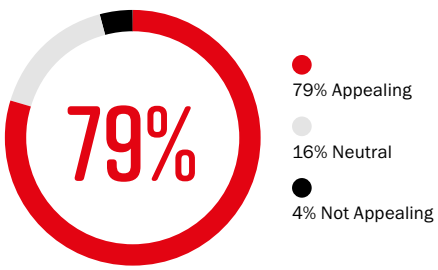
limitations of 160-character communications and organisational issues around fraud, trust and data security. There have been massive improvements in this area as the messaging industry rises to the A2P opportunity ahead. There is a very bright future for A2P messaging with forecasts expecting this market to grow by 42% CAGR*^ to over 1 trillion by the end of 2020 delivering functionality well beyond simple the transaction notification, emergency warning message or 2 factor authentication.

Consumer demand for text and visual B2C2B messaging is a natural progression from email mobile issues. SMS's utility is instant and delivery assured. Demand is also being driven from the industry side with the RCS propaganda engine being fed by the heavily invested MNO's, MVNO's, MEF, Google and GSMA. In a business communications context mobile messaging is tilting at being the next email.

In 2018 we announced and delivered a DIY visual messaging platform enabling organisations with the functionality of a MailChimp# type dashboard to design, personalise and send visual messages direct to consumer text inboxes with Telco grade point to point guaranteed delivery. Each message can contain 22 unique personalised data tags, 1000 characters, a VCARD, 2WAY SMS and MMS response capability as well as click links to immediate calls to action. Over 98% of the messages are seen, 95% are seen in 3 minutes and organisations get delivery receipts for every transaction.

There is no doubt that Vision Trumps all other Senses*, but that is only half the battle, what vision, when do I send it, can people reply, how do they reply how do I test all these things on small groups to maximise not only the delivery but the impact, engagement and response to a call to action.

If you are not convinced about personalised visual messaging. Here are a few thought starters for you: We hold our mobile phone numbers for an average of over 17 years, that's longer than email or residential addresses. Already in other countries invoices, reminders, fines, insurance premiums and status updates are sent as unique personalised visual and text messages with delivery guaranteed by receipt. All of these can then be stored and accessed on the mobile.



79% OF CONSUMERS FIND VISUAL MESSAGING MORE APPEALING THAN TEXT MESSAGING.**

Eibhlis Stuckey has a B.Eng (Robotics) from the University of Galway, she has worked as a software consultant in Europe and Australia, and in 2015 Founded MobileDigital an Australian owned software company that has developed, patented and supports SNIPER, a cloud based Communications as a Service Platform that enables all organisations to develop and send personalised visual and text messages direct to mobiles. Eibhlis will be speaking on the first morning of the Tech in Government Conference in Canberra August 2019

#Mailchimp is the registered trademark of Rocket Internet
**Dr John Medina, Brain Rules, Rule 10*
^Benedict Evans, Andressen Howitz
**^MobileSquared 2016, MEF*
***Source: GSMA*

SNIPER™ www.sniper.digital

Featured products

DIN rail enclosures

The Warren & Brown range of DIN Rail Enclosures allows for flexible, pay-as-you-grow network design and is suitable for housing pre-terminated cable assemblies and direct fusion splice cable assemblies. These compact and versatile enclosures support a full range of optical fibre connectivity including LC, LCA, SC, SCA, ST and MPO adaptors.

Warren & Brown's range of DIN Rail Enclosures is designed for easy installation, operations and maintenance within DIN Rail cabinets and provides maximum flexibility and scope to meet specific user requirements. The enclosures can vary in size, port density and configuration depending on the required application.

The enclosures are backed up by local technical support and innovative design solutions. The company's designers and engineers will worker with users to solve their network needs.

Warren & Brown Technologies
www.wbnetworks.com.au

Modular high-density platform

The AFL ASCEND platform is a high-density AFL global solution aimed at the enterprise/data centre market.

The platform comprises 144F/1RU MTP cassettes, splice and patch modules, as well as WDM/passive connectivity.

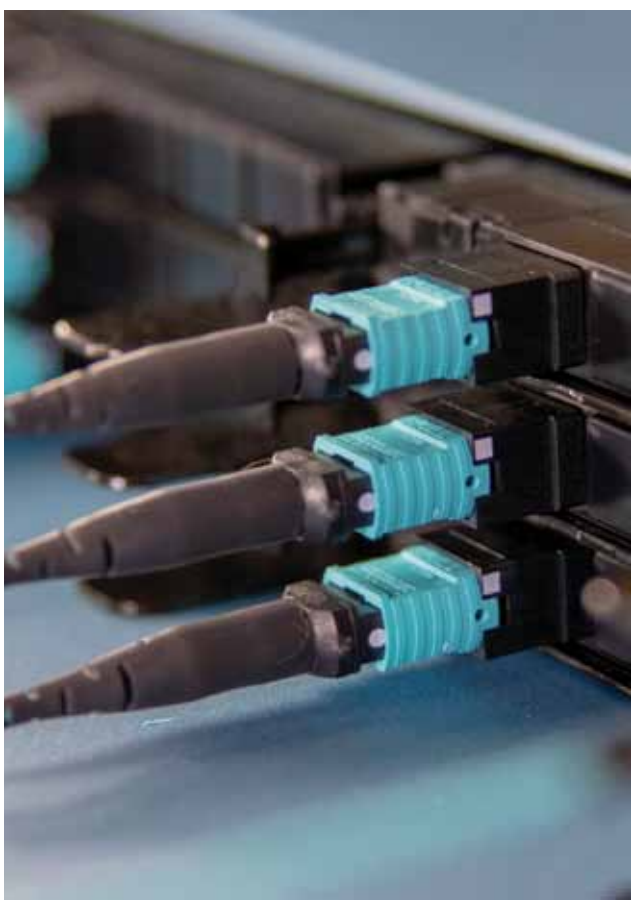
In addition to the above, the solution will include 1, 2 and 4RU enclosures/housings, platform specific MTP cable assemblies and new AFL branded LC Uniboot patch leads.

It is used in data centres, central offices, headends and structured cabling networks.

Main features include high-density 1RU/144F, 2RU/288F and 4RU/576F; 19/23″ rack-mountable; galvannealed steel construction; and hinged front and rear doors and removable back cover.

For more information: https://www.aflglobal.com/au/Products/ASCEND-High-Density-Platform.aspx.

AFL Telecommunications Pty Ltd
www.aflglobal.com/au



Physical security for preventing hostile attacks

Breakthroughs in low-penetration, shallow-mount hostile vehicle barriers are making facilities and public spaces more secure.

The profusion of hostile vehicle attacks directed at crowded public spaces has drawn urgent focus upon capacity to arrest hostile vehicles, whilst conceding the absolute minimum penetration achievable. This is particularly critical where public spaces expose predictable, high-density assemblies of pedestrians — obviously, the less penetration, the less potential for human collateral. In addition, sensitive ICT facilities such as data and communications centres are also potential targets that need protection from rogue actors wishing to disrupt public services. So it's important to make physical security the first layer of defence.

Ezi Security Systems has recently released the Truckstopper TS9-40 fixed or removable crash-tested bollard system, incorporating the massive spring steel componentry and highly adaptable triple array foundation system proven at 50 mph in the TS9-50.

The TS9-40 was successfully tested at the UK's MIRA Test Centre in August 2018. The system conceded unprecedented minimal penetration of 2.4 metres (dynamic) and 2.2 metres (static) for a shallow foundation (200 mm) bollard system, impacted at 40 mph by an N2A 7500 kg GVW Truck. The system was certified to the internationally recognised standard, **IWA 14-1 2013 Barrier V/7200[N2A]/64/90:2.4.**

This represents the new world benchmark in low penetration achieved in this class by a shallow mount bollard. The IWA test credential recorded is deemed equivalent to:

- PAS68-1:2013 Barrier V/7500[N2]/64/90:2.2/15.0
- ASTM F2656 M40:P2
- CWA 16221 Fixed bollard V/[N2]7500/64/90:2.2/15.0

Frequently, assessed risk areas are located within CBDs and cityscapes where underground services inhibit deep foundations. The TS9-40 system requires a foundation of only 200 mm in depth. The unique foundation design permits individual socket boxes to be swivelled, enabling the bollards to follow a curved barrier line during installation, even accommodating 'stepping' to elegantly follow the contour of sloping surfaces.

Emphasising Ezi's close collaboration with Safetyflex UK's design team and continuing our mutual focus on identified market priorities, Safetyflex in mid-May 2019 tested a further significant innovation incorporating the hugely robust TS9-40 bollard. Safetyflex's shallow mount retractable bollard system was adapted to combine the powerful spring steel core bollard assembly of the TS9-40 and subjected to impact by a 7500 kg truck at 40 mph (64 kph) at the UK's MIRA test laboratory.

This test was an astounding success; the hand drill-operable RB002-40 arrested the 7500 kg N2 truck containing penetration within one metre, attaining certification **IWA14-1:2013 Bollard V/7200[N2A]/64/90:1.0**. This is completely unprecedented by a retractable bollard system in this class, let alone one **deployable within 90 seconds from its 450 mm deep 'coffin enclosure' by one person with a battery drill**, without need of electrical power or connection of any kind. Equally amazing was that the RB002-40 was still in working order once the destroyed truck was prized from the bollard, then could be lowered back into its enclosure and raised as normal.

These spectacular truck stopping credentials bear testimony to ongoing research and development into emerging risks and customer applications, in Australia and our region, via Ezi Security Systems and based on truly innovative technology.

For further information about the extreme performance TS9-40 and RB002-40 HVB systems, visit www.ezisecurity.com.au.

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STATE OF THE NATION

Dylan Bushell-Embling

A NEW REPORT ON MAJOR FEDERAL AND STATE GOVERNMENT DATA AND DIGITAL TRANSFORMATION ACTIVITIES OUTLINES CURRENT AND FUTURE INITIATIVES.

The Australian Digital Council has published an overview of the main data and digital transformation initiatives across Australian federal, state and territory governments.

The State of the Data and Digital Nation report is designed to act as a snapshot of data and digital initiatives across six categories — policy and strategy, the user experience, products and services, service enablers, internal capabilities, and data sharing and linking.

The report found that the federal and each state and territory government are all engaged in at least one digital strategy. At the federal level, this includes the Digital Transformation Strategy, the Digital Economy Strategy, the Digital Capability Strategy, and the Digital Continuity, Information and Data Strategy.

Examples of policy and strategy initiatives at the state level include a South Australian Government initiative to digitise paper forms and save an estimated 850,000 pieces of paper annually, Western Australia's Regional Telecommunications Project to establish 231 mobile base stations across regional areas of the state,

User experience initiatives include multiple projects aimed at digitising the process of dealing with government during life events such as births, deaths and marriages.

For example, the Digital Transformation Agency has established life event communities of government agencies from across 30 federal, state and local agencies, with the long-term vision of designing seamless government services that work across all layers of government.

Digital products and services being developed, tested or deployed across Australia include the NSW Government's digital driver's licences, the Queensland Government's streamlined application process for working with children checks, and virtual assistants for welfare support at the federal level.

Service enablement initiatives comprise identity verification processes such as the federal Digital Identity Program and a 'Tell us once' authentication proof of concept being trialled in Queensland, as well as web, application development and other solutions aimed at improving service design delivery.

Internal Capabilities initiatives are aimed at building digital capability

within government and addressing skills shortages. These cover a wide range of initiatives including skills development programs and frameworks, cybersecurity strategies, API standards and frameworks, and digital investment roadmaps.

Finally, the report finds that most jurisdictions have implemented or are developing data sharing legislation aimed at providing a legal framework for agencies to share data.

These include the federal Data Sharing and Release reforms, the upcoming introduction of the Consumer Data Right and various initiatives to develop data governance frameworks and policies.

DIGITAL COUNCIL

The first meeting of the Australian Digital Council was held in Sydney in September 2018, and was formally opened by the Prime Minister, Scott Morrison. The Council comprises state and territory Ministers with responsibilities for public data and digital transformation. The Council met again in December 2018 and April 2019, with another meeting to be held at a time that was to be decided after the federal election.

A communiqué released at the conclusion of the April meeting made specific mention of efforts to make it easier for businesses to engage with government by improving procurement processes, and also efforts to address the 'digital divide'.

"A common theme across all jurisdictions is the complexity and cost of government procurement arrangements. It can be difficult and time-consuming for businesses to interact with governments at all levels. Ministers agree to a joint Commonwealth, State and Territory working group focussed on streamlining and improving these arrangements. The working group will liaise with the Australian Procurement and Construction Council and report on its findings later in 2019," the communiqué said.

"The Council noted the importance of ensuring no one is left behind in the digital transformation of public services. This was of particular importance for jurisdictions with large regional and remote communities. Ministers discussed the range of digital inclusion initiatives already underway across jurisdictions and considered opportunities for further collaboration.

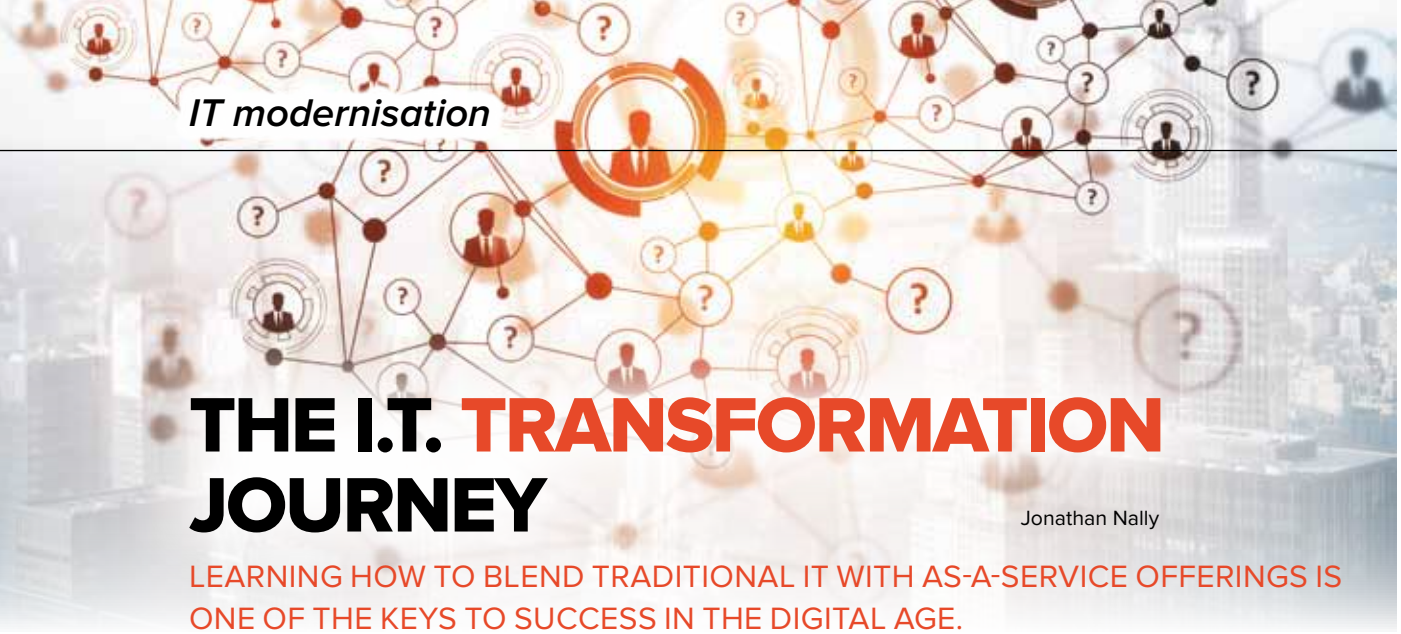
"Ministers agreed to continue to prioritise digital inclusion when agreeing future digital transformation initiatives."

The Ministers also settled on some new areas of future focus, including:

- Working towards national Application Programming Interfaces (API) design guides to simplify interactions between people, businesses and systems.
- Scoping a project to improve services associated with skilling up Australians to participate effectively in the workforce, including in STEM fields, taking into account actions being progressed by COAG councils with responsibility for skills and training.

The Ministers also agreed to consider the questions of e-invoicing and e-planning at the next Council meeting, and further agreed to consider prospects to collaborate on policy matters concerning emerging technologies where national approaches are required, "particularly where friction points exist".

- Facilitating the skilling of Australians to participate effectively in the workforce, particularly STEM fields
- Collaboration on e-invoicing and e-planning
- Collaboration on policy matters relating to emerging technologies.



THE I.T. TRANSFORMATION JOURNEY

Jonathan Nally

LEARNING HOW TO BLEND TRADITIONAL IT WITH AS-A-SERVICE OFFERINGS IS ONE OF THE KEYS TO SUCCESS IN THE DIGITAL AGE.

In today's digitally driven economy, organisations need to realise the benefits of IT modernisation to remain agile and efficient... otherwise they simply will not cope with the changes that their operations are facing. Part of that process is working out how best to bridge the gap between traditional IT systems and newer, as-a-service offerings. We asked Meridian IT Australia's Head of Architecture and Services, Robert Simione, to gives us his thoughts on how to achieve this.

HOW CAN TRADITIONAL IT WORK HAND IN HAND WITH IAAS?

When considering new IT systems, or even refreshing IT systems, organisations need to understand their workloads and lay the foundation in the platform to enable them to leverage hybrid or multi-cloud technologies. Analysing what workloads or applications are required, how you want to consume and the level of integration and management you wish to undertake are all requirements for determining the solution that is right for your organisation, whether it is hybrid cloud or multi-cloud, including SaaS models.

ALMOST EVERYTHING HAS AN AS-A-SERVICE COUNTERPART THESE DAYS. HOW MUCH FURTHER CAN IT GO?

There's virtually no limit to the extent of as-a-service models, and most service providers today are looking at how they can leverage this model to deliver recurring services to organisations.

Organisations benefit from the fact that this is 100% OPEX, and there are defined service levels and uptime objectives. The as-a-service models can be predictable in costs, or are generally based on a consumptive service. With the era of public cloud, the majority of organisations are wanting to 'consume' and they like the flexibility of pay-as-you-need or -use. While there could be an inherent higher cost, this is often negated by the fact that you are not needing to capitalise for future growth; you can simply scale your business when required. This gives organisations agility and flexibility, in terms of allowing them to transform, run more efficient IT operations, reduce operational costs and free up more funding for innovation and faster time to market.

IS THERE MUCH CORPORATE INERTIA OR RELUCTANCE TO EXPLORE NEW OPPORTUNITIES?

Most organisations are generally well informed of latest technology, but I think the role of the service provider in today's era is to work with the organisation to determine which technology is right for them — right for the specific use case, or workload. Modernising IT should be top of mind for any organisation.

Some data coming through with regard to IT transformation says that organisations which transform have an 18x faster time to market, 8x enhanced IT spending efficiency and 16x increased innovation (according to the Enterprise Strategy Group). This suggests that doing nothing is no longer an option.

WHAT ARE SOME OF THE HIDDEN BENEFITS OF IT TRANSFORMATION?

Although IT transformation is not synonymous with digital transformation, the two concepts are fundamentally linked, as digital transformation cannot happen without IT transformation. An organisation that transforms its IT infrastructure no longer has to rely on rigid, manual, siloed, legacy technologies. It sees a boost in IT operational speed, efficiency, scale and cost-effectiveness — tasks are automated, processes streamlined and resources are freed up. Those IT-level improvements fuel a larger-scale digital transformation, enabling the organisation to thrive in today's digital economy.

If you then combine IT transformation with cloud-like or as-a-service offerings, you are able to take advantage of the benefits of IT transformation faster, by leveraging ready-built or referenced architecture. However, for most organisations this a journey, and having a trusted service provider along the journey will make the task less daunting.

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BROADBAND FOR VICTORIAN COMMUNITIES

Dylan Bushell-Embling

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THE VICTORIAN GOVERNMENT HAS AWARDED SPIRIT TELECOM ITS SECOND GRANT UNDER THE CONNECTING REGIONAL COMMUNITIES PROGRAM.

The Victorian Government has awarded South Melbourne-based wireless broadband provider Spirit Telecom a $1.1 million grant to provide fixed wireless services in the town of Morwell in the south-east of the state.

Under the agreement, Spirit Telecom will provide a fixed wireless broadband service capable of providing speeds of up to 1 Gbps symmetrical covering the town.

The coverage area will include the CBD, Tech School & Innovation Precinct and Gippsland Logistic Precincts. Spirit Telecom Managing Director Geoff Neate said the company plans to deploy an internet ring around Morwell, and the network may in future be capable of serving neighbouring towns such as Traralgon and Moe.

"We believe our offering is market leading and will put to bed the mindset that 5G technology is purely a mobile play," he said.

"The project will reinforce Spirit as a leader of high-speed internet in the telco industry. It also fulfils the demands of businesses and consumers for a fast, reliable broadband service that delivers on what it promises."

Construction of the network is expected to be complete by 2020. Spirit Telecom uses wireless networking technology which incorporates

beamforming, a technique for improving signal strength used in 5G networks.

The $1.1 million grant has been provided as part of the Victorian Government's Connecting Regional Communities program.

This is the second grant Spirit Telecom has received under the program, with the company having secured a $1.7 million grant to provide wireless broadband services to the city of Horsham in western Victoria in October last year. The company said it is exploring more opportunities to work with the state government under the program.

The Victorian Government has committed $7 million as part of the program to pilot the delivery of higher-quality broadband networks for businesses to address gaps in the nbn in Morwell, Horsham and Geelong.

The Connecting Regional Communities program is designed to help close the urban–rural digital divide and address issues such as mobile black spots.

The Victorian Government has committed $7 million as part of the program to pilot the delivery of higher-quality broadband networks.

The Victorian Government aims to work with all nine of the state's Regional Partnerships, community groups, local governments, the federal government and commercial partners to help address disparities of access and affordability between regional and rural Victoria.

Connecting Regional Communities forms part of the state government's Connecting Victoria program. As part of the program, the government has also announced investments of over $44 million to reduce mobile blackspots, $18 million to improve mobile coverage on the Geelong, Ballarat, Bendigo, Seymour and Traralgon V/Line commuter train routes, and $8 million for free public Wi-Fi pilots in Ballarat, Bendigo, Shepparton and Geelong.

"Having access to fast internet in regional Victoria is a priority, and the Victorian Government is doing all it can to ensure better connectivity throughout the state," Victorian Minister for Jobs, Innovation and Trade Martin Pakula said.

"Congratulations to Spirit on being awarded the Connecting Regional Communities grant. Being better connected will help Morwell's businesses to boost the local economy and create jobs."

A MORE MEANINGFUL WORKPLACE WITH AUTOMATION

Tim Ebbeck*

RATHER THAN FEARING I.T., IT'S CRITICAL FOR ORGANISATIONS TO RECOGNISE THE ROLE RPA PLAYS IN GROWING AND ENGAGING THE WORKFORCE.

Today, 71% of the tasks performed at work are completed by humans. By 2025, it will be machines, not humans, that take on most of these tasks. Predictions such as these have, for years, been the root of angst among workers and those preparing to enter the workforce. This angst is based on a perpetual concern that if robots can do our jobs, where does that leave us humans?

I believe that concern is a myth.

It's so easy to forget that no period in modern history has been spared disruption. It was the First Industrial Revolution of the late 1700s that forced people to reskill for the first time. Ever since, there has been continual and consistent disruption. Less than 100 years ago, Australia's workforce was principally engaged in primary production, agriculture and manufacturing. Today, we're heading toward an economy with closer to 90% of people employed in services. And record employment levels!

So, perhaps data might actually tell a different story. That rather than destroying jobs, automation promises to make work more dynamic, less mundane — and more human.

ENTER ROBOTIC PROCESS AUTOMATION

Put simply, robotic process automation (or RPA) gives organisations the ability to create their own software robots to automate any business process. Think of these 'bots' as your digital workforce — show them what to do, then let them do the work. Smart bots can learn and interact with any system or application the same way human workers do, but faster, with more accuracy and for longer, free from coffee breaks and sleep. The idea is simple: allow machines to do what they do best — repetitive tasks performed quickly and accurately — and free up humans to deliver their best creative and decisive work.

THE RISE OF THE DIGITAL WORKFORCE

Fear that automation equals job loss is overblown. In fact, the World Economic Forum reports an evolution of machines

in the workplace has the potential to create 58 million net new jobs over the next four years.

The job market is a recycling machine, creating new jobs that sometimes stem from the phasing out of old ones. Word processors, typists, telephone operators and proofreaders are largely a thing of the past now. Still, a vast number of highly desirable jobs today — software engineers, financial advisors, analysts, chief digital officers — didn't exist 30 years ago.

According to a recent study we conducted with Goldsmiths, University of London, an overwhelming majority of global business leaders (3 in 4) say person-to-person collaboration is critical to business success. Despite this, employees today spend an average of 30% of their workday interacting with outdated, bloated technologies and machines rather than with one another!

Why? Because as a workforce, we've spent the past few decades teaching people to do jobs computers should be doing: checking and validating information, entering data, comparing fields in Excel spreadsheets, copying and pasting information. In short, we've taught people to do the jobs of computers and be more robotic.

Now with the rise of bots and what we're calling the 'digital workforce', technology is taking on mundane tasks, freeing up people to hone their truly human skills that can't be automated — identifying problems and how to solve them, and collaborating with other people.

RPA IN THE REAL WORLD

For organisations, the benefits of a blended workforce of humans and bots are clear: reduced operating costs, increased productivity and improved quality by eliminating human error. But the benefits extend far beyond the bottom line.

Contrary to popular belief, rather than feeling undervalued, employees in automated workplaces are 38% more engaged than their peers in non-automated environments. Not only are they more engaged, 70% of respondents in our research claim automation has actively improved the wellbeing of their teams.

In some ways, these figures are unsurprising. As humans, we're creative beings, and out-of-the-box thinking, collaboration and passion are all traits that distinguish us from machines. One industry that remains ripe for RPA is human resources (HR).

The role of HR professionals is inherently people-focused — hiring, training and sustaining employee engagement. But this, and recruitment in particular, brings huge volumes of paperwork — from data gathering and form filling, to request processing. There's no system readier for automation than human resources management systems (HRMS).

One organisation that realised the benefits of automation for its HR function was a global financial institution providing financing, policy advice and technical assistance to developing countries. With more than 10,000 employees hailing from 170 different countries, and stringent compliance requirements, a team of five workers was used to manually sort, file and enter thousands of forms on the company's HRMS.

By deploying a digital workforce, the HR team was able to automate these processes and schedule daily deployments to manage these tasks and enter files into the HRMS automatically. The result? Cost savings of $1 million, zero errors and 70% time savings on form filling.

ARE BOTS RIGHT FOR YOUR WORKFORCE?

For organisations starting out, there are four cultural characteristics that influence the success of an RPA rollout:

1. **A learning culture.** An organisation that values a learning culture enables and encourages workers to continually develop their skills in ways that benefit the organisation while increasing employee satisfaction and engagement. Workplaces with an open culture that fosters learning are also more likely to augment and to do it successfully.
2. **Growth mindset.** Our research found a positive correlation between organisations that fostered a growth mindset — collectively and in their individual employees — and the ability to maximise benefits from RPA-based augmentation within the workforce.
3. **An engaged workforce.** Engagement is when employees are passionate about and feel a personal connection to their job, investing energy and their personality into their work. Our survey found that organisations planning to adopt RPA and artificial intelligence-based augmentation show lower levels of engagement than those who already invest in it. For instance, augmented enterprises were 41% more likely to encourage their employees to seek opportunities for professional growth.
4. **Ethics first.** There is a strong link between successfully creating a culture of engagement and valuing organisational ethics. Augmented enterprises were 31% more likely to prioritise high ethical standards in their business and their interactions with employees.

In the same way that many of us had to learn to work with computers, working alongside bots will one day become second nature. So rather than fearing it, it's critical for organisations to recognise the unique role RPA plays in growing and engaging the workplace, and how they can bring their workforce along this journey.

**Tim Ebbeck is Senior Vice President and Managing Director for Australia New Zealand at Automation Anywhere.*

CONNECTIVITY IS KEY FOR DATA CENTRE EFFECTIVENESS

FOR A DEPARTMENT MORE ACCUSTOMED TO CONTROLLING BORDERS, BREAKING DOWN BARRIERS IN CONNECTIVITY WAS THE KEY TO IMPROVING DATA CENTRE EFFICIENCY.

The Australian Department of Home Affairs' headline mission is to implement immigration and border control policy, but it is also responsible for national security, emergency management, federal law enforcement, as well as Australia's humanitarian program, citizenship, trade and customs, offshore maritime security and revenue collection. One of its operational enforcement arms, the Australian Border Force, is responsible for investigations, compliance and immigration detention operations offshore and onshore, across air and seaports and land and maritime domains. It's a wide-ranging and very important portfolio.

Several years ago, after outsourcing the operation and management of its secure gateway, the Department decided to move to a dual-site active/active gateway and bring the technology back in-house. For this, it needed to establish high-speed connections between its data centres within the Canberra region.

But there was a major problem at that time — acquiring the fibre would take too long, up to six months. The Department couldn't wait for its technology infrastructure to play catch-up; it had only six weeks to allocate budgets for upgrading its systems before the fiscal year ran out. So its ICT experts scoured the market for a solution that would bridge the gap. They called in several leading players to present ideas, but all offered carrier-level solutions that were too complex and too costly.

In the end, a Smartoptics M-Series multiplexer solution was chosen as the best fit, as it would provide the right level of speed and flexibility by increasing capacity through wave division multiplexing (WDM) to optimise the existing network infrastructure. Independent Data Solutions (IDS), the exclusive Australian distributor for Smartoptics, was prominent in the design and build stages of the Department's solution, with the installation and procurement completed through a reseller as per IDS's preferred go-to-market model.

The approach chosen combined the simplicity of a passive multiplexer with the features of a more traditional transponder-based Dense WDM platform, which is exactly what the Department needed for its connectivity — its data centres can now synchronously connect all of their storage and data traffic together with minimal signal latency. And traffic monitoring through the fully automated SmartOS management system provides all the features necessary to handle the monitoring of the fibre network, automatically adjusting to the correct power levels.

The Department was able to carry out a complete network refresh and load the new environment without any disruptions. Network capacity increased significantly, with 12 channels all running simultaneously at 1–10 Gbps with additional capacity available for growth. The initial deployment gave the Department the volume it needed to respond quickly to its changing data centre needs, and it has recently invested in an expansion of its Smartoptics capabilities.

"We've found that Smartoptics systems have proven very popular with dozens of Australian Government departments and agencies, and we've worked closely with leading resellers and integrators such as Dimension Data, Data#3, ForwardIT, Amnesium, Cirrus Networks, Dell/EMC and others to provide solid solutions that work first time," said IDS's Director of Sales, Ian Deane.

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RETURNING TO

THE FORMER PARLIAMENTARY SECRETARY TO THE MINISTER FOR COMMUNICATIONS HAS RETURNED TO THE DEPARTMENT TO TAKE UP THE TOP JOB.

The newly re-elected Morrison government has appointed Paul Fletcher as Minister of Communications, Cyber Safety and the Arts. Fletcher, who has been a member of parliament since 2009, was most recently Minister for Families and Social Services.

He has prior experience in the portfolio, having served as Parliamentary Secretary to the then Minister for Communications Malcolm Turnbull from 2013 until September 2015, when Turnbull mounted his coup and took over as Prime Minister.

During that tenure, Fletcher established the initial implementation of the Mobile Black Spot Program, and helped introduce a number of deregulatory reform measures.

After leaving the role, he served as Minister for Major Projects, Territories, and Local Government in the first Turnbull ministry, and as Minister for Urban Infrastructure and Cities in the second.

Fletcher also has extensive experience in telecommunications in the private sector, including an eight-year stint as Director of Corporate and Regulatory Affairs at Optus. Fletcher also founded telecommunications industry strategy consultancy Fletchergroup Advisers.

Fletcher will replace Mitch Fifield in the Communications and Arts portfolio. Prime Minister Scott Morrison has revealed he intends to recommend Fifield be appointed as Australia's next ambassador to the UN.

According to the Prime Minister, leaving the role was Fifield's decision, as he has elected not to join the current Cabinet.

"I would have been very happy for Mitch to continue to serve in Communications and the Arts. I think Mitch has done an outstanding job in what has been a very difficult task in the nbn," he said during a press conference.

"As the National Broadband Network nears full rollout and social media becomes an even more prominent front in the fight to keep Australians safe, Paul Fletcher, as Minister for Communications, Cyber Safety and the Arts brings extensive experience and insight to the task."

In a statement, Fletcher said he is "deeply honoured" to have been appointed to the role, and noted that a key priority of his term as Communications Minister will be completing the nbn rollout.

"In 2013 we inherited a shambles from Labor with barely 50,000 premises connected to the fixed network. Today, 9.28 million premises around Australia are able to connect to the nbn and almost 5.3 million premises are connected," he said.

"Another priority will be to continue the Morrison government's work to make the internet a safer place for the millions of Australians who use it every day."

As Minister of the Department of Communications and the Arts, Fletcher will lead up a department that acts as the Australian Government's key advisor on communications. The agency is

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responsible for regulatory management, program and grants management, as well as engagements with stakeholders including Australia Post, NBN Co, ABC, SBS and regulator ACMA.

Industry body the Communications Alliance has welcomed the appointment, with the body's CEO, John Stanton, stating that Fletcher's commercial experience in the sector should be a great help as the government engages in a range of necessary reforms to regulations covering the sector.

"I think Paul recognises, better than most, that a balance needs to be struck between the imposition and costs imposed on industry and consumers by additional layers of regulation, compared with the benefits that can be generated," he said. "We look forward to working with the new Minister."

Stanton added that outgoing Minister Mitch Fifield "maintained a strong focus on the interests of telecommunications consumers and on improving coordination and execution in the broadband supply chain" during his time in the role.

The Australian Communications Consumer Action Network (ACCAN) has urged the incoming Minister to act to address the incoming challenges and opportunities for the Australian telecommunications sector.

"From the rollout of 5G, to the anticipated completion of the nbn network, we look forward to working with Minister Fletcher during this exciting time to achieve better outcomes for consumers," ACCAN CEO Teresa Corbin said.

She urged Fletcher to continue work on the Consumer Safeguards Review, noting that despite consultations for the second part of the review closing in January, there has yet to be a report released that identifies the way forward.

"Australians have a right to reliable home broadband. However, without a clear framework that identifies time frames for connections, fault repairs and compensation, consumers are left confused as to what protections they have when things go wrong," she said.

ACCAN also welcomed the opportunity to work with the Minister who initially established the Mobile Black Spot Program, and expressed hope that the program will be continued. Another pressing priority is the need to ensure timely migrations to the nbn, Corbin said.

"With 2020 fast approaching, there are over a million households who are at risk of not making the switch over to the nbn. The Minister and his team need to understand the negative consequences that this will have on everyday Australians who need access to affordable broadband for school, work, and to use government services."

Another member of Morrison's ministry who will help shape the government's technology policy is Senator Jane Hume, who has been moved to the role of Assistant Minister for Superannuation, Financial Services and Financial Technology. Karen Andrews is also continuing on in the cabinet position of Minister for Industry, Science and Technology.

CLOUD BECOMING A REALITY FOR MORE AGENCIES

Yun Zhi Lin, Head of Engineering – APAC, Contino

AUSTRALIAN GOVERNMENT AGENCIES SHOULD STOP BEING HAMSTRUNG BY LEGACY VENDOR RELATIONSHIPS AND INSTEAD IN-SOURCE AND OWN THEIR INNOVATION CAPABILITIES.

Governments across the world — Australia's included — have high ambitions for digital transformation, and understandably so. The value of service exploration and innovation is potentially astronomical to citizens and delivery teams. However, to effectively achieve transformation, governments must overcome legacy technology stacks, a lack of automation and information security concerns.

A fundamental part of the public sector's digital transformation is the use of scalable and reliable public cloud services. The Australian Government recognised the many benefits of the public cloud in its 2017 Secure Cloud Strategy. But the reality is public sector delivery in Australia still bears the scars of 'big IT', along with its legacy systems and outsourced teams. Why is that?

CLOUD AS AN EXIT STRATEGY

A public sector department that is locked into an expensive contract with an outdated vendor, delivering in accordance with outdated delivery models, represents incredibly poor value for money for the taxpayer. Taxpayers are essentially funding large consultancies for the privilege of keeping the public sector stuck in old, inefficient ways of working. At Contino, we have even seen forward-thinking teams within government have to innovate around the dominant vendor.

Migrating to the cloud — besides the up-front benefits of improved visibility, agility and scalability — is an opportunity to break up with outdated vendors and, instead, bring back home core technological competencies that were previously outsourced.

WHAT'S THE DIFFICULTY?

In the public sector, there is a line between difficult and impossible — and that's where effective innovation sits.

One of the most significant challenges is the tight coupling between the outcome for citizens and funding. This allows for a clear association between funding and ROI, but limits the ability for teams to do the kind of experimentation that is needed to produce digital services that are truly aligned with citizens' needs.

Within the DevOps world, multidisciplinary teams are responsible for delivering small, well-defined packages of work all the way from the drawing board to the user. Public sector innovation could be best served by doing similar — focusing on incremental policy changes, testing their impact through hypothesis-driven feedback and refining accordingly.

When it comes to cloud, innovative teams often find themselves set back by the security concerns that still linger. Amazon Web Services recently became the sixth company, and second international tech giant, to be certified to carry protected federal government data. Hopefully, the award of 'Protected Cloud' status to more cloud vendors will help allay some of these concerns. Cloud does not imply a 'wild west' security model. In fact, controls intrinsic to cloud platforms can augment a government agency's security posture.

The best approach is to pick a low-risk application or service that can be moved to the cloud and to use that project as a proof of concept. This kind of approach can be a catalyst for the changes to people and processes that must accompany new tech projects.

ENGAGING CITIZENS THROUGH TECHNOLOGY

There is massive potential for public sector organisations to use the cloud to enhance the relationship between citizens and the agencies they rely on. The federal government has reiterated time and time again its commitment to delivering services that are fit for the digital age. Achieving this will require a technological renaissance, largely driven by migration to the cloud and cloud-native architecture.

It is time Australian Government agencies stopped being hamstrung by legacy tech vendor relationships and use the cloud to ditch these toxic relationships and instead, in-source and own their innovation capabilities.

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TELL YOUR OWN STORY, INTERPRET YOUR OWN DATA, CREATE THE LENS YOURSELF AND, ABOVE ALL ELSE, BE A TRUSTED SOURCE, SAYS LGAQ'S GREG HALLAM.

Greg Hallam is CEO of the Local Government Association of Queensland. With more than 25 years' service under his belt, he has visited every settlement in Queensland. This article is a lightly edited version of that which appeared in the LGAQ's regular newsletter, and is republished with permission.

Over the last week I've been involved in a series of different but remarkably similar conversations with the most senior members of the Queensland public service, academia and the private sector. The central lesson is the world is converging rapidly into a data-driven, analytics-led, hyper-knowledge existence. We are all on the same journey whatever our role or calling in life, some more quickly than others, but convergence it is unless we unplug and live in a cave.

As consumers, we demand the very best right here, right now. Whether we live in the outback, a Torres Strait Island or the teeming SEQ corner of Queensland, we all have access to the newest and greatest online has to offer. Second-best simply won't cut it anymore. We are digital and then some. If it is not possible physically to swim on the Great Barrier Reef, ski the slopes of St Moritz or experience the frenetic madness of the New York Stock Exchange trading floor, we can do it sitting at home and using a virtual reality device.

It's also highly likely that within a decade every man-made and natural object or structure in our world will have a digital twin — unbelievable. With the invention of 3-dimensional microchips the storing of information is virtually limitless. In lots of ways, as citizens and consumers, we've never been more enfranchised and enabled, but at the same time frazzled. Every choice, every minute of every day — aargh!

Many of us feel overwhelmed by data, endless information and increasingly, the spin thereon. Who do we believe? Who do we trust? Every day we rely more and more on others to interpret that information for us because to do otherwise would be to drown in it. It's the age of what the American academic, Robert Reich, 25 years ago called "gold collar workers" or information analysts, the tea leaf readers or soothsayers of past centuries.

Information is not knowledge, it is stored images, dots and dashes or binary notations. Knowledge is the distillation and analysis of that information, interpreting and making sense of it if you wish. Think of courtiers in palaces, even witch doctors, and you can see the significance gold collar workers have enjoyed through the ages. Those who had the ear of the rich and powerful. These days, they exist inside pieces of technology.

This isn't a harangue against those who write mathematical algorithms, or the big tech companies. Nor is it a conspiracy theory about an elite controlling us. It's simply recognising trillions of dollars will be spent creating that new world. To stay on top of an information-boundless digital world, interpreting and framing information into knowledge is everything. He or she who makes or shapes the lens through which we look has enormous influence.

At the Local Government Association of Queensland (LGAQ) we get that. We also have a higher goal of working in the public interest and earning the councils' and the community's trust. It's the journey that we have been on for a few years, with Sherlock, state-wide Internet of Things networks, online community engagement tools, customisable best practice benchmarking tools and, of course, our own 11-channel media company.

The moral of the story is that both as a sphere of government and as individual councils, tell your own story, interpret your own data, create the lens yourself and, above all else, be a trusted source. If you create a void someone else will fill it for you, and not on your terms. That is why the LGAQ is headed down the road we are on.

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