DISCUSSION PAPER

towards a digital strategy for the Northern Territory

NORTHERN TERRITORY GOVERNMENT

How you can provide input

You can give us your ideas through any of the following channels.

ONLINE:

You can go online to www.haveyoursay.nt.gov.au to comment.

EMAIL:

You can lodge written comments via email to digital.territory@nt.gov.au

IN PERSON:

You can attend an ICT Forum to hear more information and have opportunity for direct interaction. Two ICT Forums are planned for the last week in September – one in Darwin and one in Alice Springs (registration details are available on www.haveyoursay.nt.gov.au)

Face-to-face discussions may be available where there is a strong interest on some specific issues with key groups. Please call or email via the above channels to request a meeting.

PHONE:

If you want to speak directly to us, please call us during business hours on 8924 3863.

Connecting through Digital Business, Digital Community and Digital Government to jobs, kids, community, bush and trust

MINISTER'S FOREWORD

There is no doubt that we are in the midst of a digital revolution with digital technologies driving innovation, enabling new services and transforming the ways we learn, work, and interact with family, friends and the community.

Government has an essential role to play in harnessing the opportunities that digital transformation offers to improve services, reduce costs, and provide educational and training possibilities so our kids have the foundations to build engaged, creative and productive lives in the new economy.

The Territory Government believes that government policy and practice must be aligned to ensure that Territorians are supported and enabled to take advantage of the opportunities, and manage the changes we experience, from the digital revolution.

The Northern Territory Government is developing a Digital Territory Strategy to identify the objectives and priorities for digital services over the next five years and outline a roadmap of actions we can work towards together to achieve the objectives. The strategy will create the frameworks to promote and enable digital capabilities for Territory businesses and citizens that will improve our communities, protect our environment, create jobs and grow the economy.

This discussion paper seeks your views on these important opportunities, and contribution to the development of the strategy.

Now is your chance to influence our digital direction and consider ways we can effectively harness technology into the future to:

- help local businesses to thrive and create more jobs

- strengthen government delivery of better services in the bush

- support our children through their digital lives to take full advantage of emerging career opportunities

- create and support safe, sustainable, vibrant communities

- enable local ICT and digital industries to diversify and strengthen

- improve accountability and restore trust in government.

The Digital Territory Strategy will link with the digital elements of other NT Government strategies including the Economic Development Framework, NT Business Innovation Strategy and the NT Libraries Vision for Connected Communities.

As technology will continue to increase its impact on all our lives, it is important that all Territorians have the chance to contribute to the strategy and shape our future together.

I encourage and invite you to **have your say** on digital services that are important to you and how the Territory Government can make a difference. Your views are important, so please submit a response to this discussion paper and come along to a community forum if you can.

Lauren Moss
Minister for Corporate and Information Services

Government's 5 Priority Areas

JOBS	CHILDREN	BUSH	COMMUNITY	TRUST

INTRODUCTION

The Northern Territory Government is seeking input for the development of a Digital Territory Strategy. This discussion paper has been prepared to guide feedback and to continue the conversation with government on where we all should focus our efforts.

In this digital age reliance on Information Communications and Technology (ICT) is second nature and embedded within our everyday lives and actions. The convergence of communications and computing technologies means we are connected and have information available to us anytime, anywhere and via a range of devices.

The use of digital technology has increased exponentially over the past decade and continues to accelerate. ICT has moved from being used primarily to meet business and government computing needs to a social focus, providing highly personalised services accessed frequently and shared between billions of people across the globe.

New digital innovations and solutions are changing our world in new and exciting ways and at a faster pace than ever seen before. Through the Internet of Things, which puts internet-connected devices in everyday household objects, digital technology is set to explode and open up new horizons.

Developing a strategy provides the opportunity to engage local industry and the community in clarifying our combined aspirations for the Territory as a digital economy.

The final strategy will set out the future goals and actions plans over the next five years that will bring all sectors of the Territory economy together to work on closing the digital divide and establishing the Territory as an active contributor to the global digital economy.

Vision

A Northern Territory Government that:

1. delivers government services more efficiently for Territorians

2. employs information and communications technology (ICT) intelligently to:
   - create jobs and support economic development
   - support our children in their increasingly digital childhood
   - improve the lives of Territorians living in the bush
   - create safe and vibrant communities
   - restore trust in Government

3. practices, supports and drives a culture of innovation both within and external to government.

Why do we need a digital strategy?

Whilst we cannot predict what the digital environment will look like in the future, governments, businesses and Territorians must adapt, welcome the changes and seek ways to exploit the potential that digital advances and emerging technologies can deliver.

The strategy will help shape government policy and set the direction, goals and action plans over the next five years that will bring all sectors of the Territory economy and community together to embrace the digital opportunities and challenges ahead in a planned and cohesive way.

ICT can enable new ways of doing business, provide possibilities to re-think traditional models; open up access; and establish completely new connections. Business and community requirements will drive the use of ICT, with government having a strong supporting role.

The strategy will provide the framework to establish the Territory as an active contributor to the global digital economy.

9 the average number of internet-connected devices in Australian households in 2015[1]

2.9% the average annual growth in ICT workers needed in NT to 2022[2]

What we've done so far... industry consultation

In preparing for this discussion paper, government has extensively consulted the local ICT industry, digital industry groups and government departments over several months. This has included:

· Advice from the Ministerial ICT Advisory Council with an ICT Issues Paper submitted to the Economic Summits to inform discussion.

· Two dedicated summit workshops for members of the local ICT industry, digital businesses and the ICT profession to input to the Territory Economic Development Framework.

· Contribution to government's Infrastructure Strategy and 10 Year Infrastructure Plan.

· Advice from government departments and research into other governments' digital initiatives.

· Collation of digital stories from across the Territory.

What we're doing now... community consultation

Now is your chance to have your say, to get involved and help shape the digital direction of the Territory.

We want to hear from members of the public about your vision for a digital future and the actions you believe the Northern Territory should take to achieve this vision and help inform the development of a Digital Territory Strategy.

The discussion paper is framed around the government's five priority areas of jobs, children, bush, community and trust. For each, the digital landscape and emerging issues are presented with a series of questions posed to seek your ideas and input. You can review and comment on the areas that interest you and, of course, general comments are welcome.

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We want your digital story

The best way to showcase success, learnings and visualise what can be done is by example.

We would like to hear your digital story; whether it is business, personal or community focussed.

We are collating digital stories from across the Territory to supplement the future strategy and make this a real and relatable plan.

We can write the story for you, take a photograph, or even video the experience. Or you can provide your own.

If you are keen to share your story with the NT community and be part of the Digital Territory Strategy, please contact us via one of the above channels.

What happens next

Closing date for feedback is 13 October 2017.

All comments and information received will be collated and the Digital Territory Strategy will be launched in early 2018.

DIGITAL DRIVERS

79% of NT households have internet access at home[15]

97% of applications for NT Government jobs are lodged online[16]

Throughout the discussion on the digital opportunities and challenges across government's five priority areas it is clear that a core set of digital drivers will underpin the progression of digital initiatives and shape the forthcoming Digital Territory Strategy.

Suggested digital drivers are outlined below for feedback.

DRIVER	DESCRIPTION	
Enable	Provide the tools or means that allow people to make better use of digital technology	
Innovate	Find new and different ways to apply digital technology that creates fresh new solutions	
Share	Make knowledge and data available to others to reuse and exploit for benefit of all	
Protect	Safeguard digital information that is entrusted, including personal, sensitive, commercial-in-confidence and legally protected data	
Educate	Build Territorians digital skills and knowledge to maximise opportunity to prosper in the digital economy, develop rewarding careers and sustain future workforces	

Have your say

If you have an interest in the drivers that will underpin a digital strategy for the NT Government, please go to www.haveyoursay.nt.gov.au and respond to the questions below.

What are your ideas for:

· The key digital elements that will drive the Digital Territory Strategy?

· Other principles that could be used to underpin the Strategy?

· Capturing a vision for the Territory's digital future (noting that a draft vision statement is presented on page 4)?

· Any other matters not covered in the following sections that will be important in framing a digital strategy for the Northern Territory Government?

JOBS

Technology is changing the landscape of our workforce. While some jobs will become automated, the digital shift will continue to create many new jobs and new business opportunities, with new ways of working and doing business.

People in the NT have always been innovative, often through necessity. The combination of Territorians' 'can-do' attitude with help from modern technology and tools will produce new products and services that are bound to excite and inspire and open up job opportunities. Increasing jobs is dependent on growing businesses. The digital shift will impact across business sectors; requiring businesses to become digitally savvy and confident with using emerging technology to transform into digital entrepreneurs.

Digital advances represent a real opportunity to reduce disadvantage, remove the impact of 'tyranny of distance', access global markets, and improve education and health outcomes. Education and training are key to helping workers transition into new digital jobs. Experts predict that people will need to have high ICT skills to succeed in the workforce of the future.

The Territory has a strong and growing local ICT industry that can provide the essential support to business to establish digital service channels, effectively leverage technology and assist with skills development and job creation. Government can assist, encourage and facilitate the innovative spirit through programs, services, advice and appropriate policy settings.

$139bn
forecast economic contribution of the digital economy in Australia, 2020[3]

721 886
ICT workers in Australia predicted by 2022[4]

Digital outlook

BUSINESSES

Harnessing technology effectively will enable NT businesses to be dynamic and growing contributors to the economy.

The potential for digital advances in the industry groups identified in the Economic Development Framework through clever adoption and application of emerging technologies enabled by the local ICT industry, is clear and significant. Examples include use of drones, sensors and biometrics for managing crop growth and animal husbandry. These industries will be a major source of future private sector investment and jobs growth in the Northern Territory with a role for both the public and private sectors to play in growing the Territory economy.[5]

Territory businesses need to utilise digital channels to create niche markets, attract customers and improve profitability. To be relevant and competitive businesses must operate confidently in the digital marketplace.

The local ICT industry has a pivotal role to play in working with business owners to build their digital capability and confidence, with government providing a strong supporting role. The industry is well positioned to assist businesses to develop skills, knowledge and digital tools which will create jobs and help nurture the next generation of digital entrepreneurs.

WORKFORCE

Preparing for a digital workforce starts in school and continues with adult learning. The pace of digital advancement requires ongoing and highly adaptive learning programs.

Students need to learn digital skills to prepare them for future careers. They need access to ICT and related subjects in schools, training opportunities and pathways in industry and government.

Career pathways for entry level ICT knowledge workers can include internships, graduate programs, secondments and constructive employment options for international students.

It is well known that women are notoriously underrepresented in the ICT industry. According to the Australian Computer Society's 'Australia's Digital Pulse 2016,' women made up only 20% of all ICT workers compared to 43% across all professions. It is important that young women, women returning to the workforce and girls be encouraged to study ICT to achieve greater parity of women in ICT in the Territory.

New skills take to the sky in research

Drone technology is taking Northern Territory marine researchers to new heights when it comes to studying coastal dolphins.

The Department of Environment and Natural Resources' Marine Eco System group has been using drones as part of a pilot study into dolphin species found along the coast. They include humpback, snubfin and bottlenose dolphins.

The team, headed up by Dr Carol Palmer, Senior Scientist – Marine Mammals, purchased two drones after receiving funding in 2015.

Since then, the devices have proved to be effective tools in helping the researchers learn more about dolphin populations, health and behaviour in the wild.

Drone technology allows the user to launch the aircraft from a boat and capture high quality photos and video of marine mammals while maintaining a safe and respectful distance.

The operator is then able to access live footage on their iPad.

This has given the team a real insight into dolphins' behaviour, health and school size.

The quality imagery from the drone has also allowed researchers to spot pregnant dolphins or calves within a pod, and even identify injuries and skin diseases on the mammals.

The team will continue to use the drones for the duration of the pilot program, which is expected to run for another year.

Increasing the number and breadth of digital skills development programs available through academic and vocational training institutions will enable more workers to access training to take up digital careers and improve their employment options.

Partnering between local ICT businesses, other business sectors and government will create synergies, leverage skills and grow capabilities.

Enticing ICT professionals to the Territory will expand our knowledge base and help upskill other workers. Collaborative approaches with industry and government that promote the benefits, including the Territory lifestyle, can be considered.

DIGITAL INNOVATION

Developing innovative solutions will increase the economic benefits of ICT to business and the broader Territory economy, leading to more high-value jobs.

Automation, robotics and virtual reality are examples of disruptive innovations that are changing the employment and economic landscape and the speed of change is accelerating. These shifts, and others still to come, will have a big impact on employment opportunities in the future and for meeting the future workforce needs of most industries.

Making government data publicly available will create the opportunity for innovation and local digital entrepreneurs, which can lead to more businesses and more jobs.

Exploring ideas collaboratively, with business, the ICT industry and government across the NT will help jointly solve problems, and deliver the best results.

Encouraging and supporting digital start-up companies and entrepreneurial ventures will contribute to employment, innovation and economic growth.

Have your say

If you have an interest in the digital economy and the impacts for jobs and business in the Territory, please go to www.haveyoursay.nt.gov.au and respond to the questions below.

What are your ideas for:

· Preparing our workforce for the digital jobs of the future, addressing the shortage of workers with technical ICT skills and increasing digital literacy so that local jobs can be maximised and local people employed?

· Increasing employment in traditional industries, such as agriculture, mining, construction and tourism, through expanding the use of technology and improving digital capacity?

· Digitally enabling Aboriginal businesses and the creative, cultural and environmental industries to enhance their capabilities to develop new products and markets?

· Fostering innovation and adoption of new ideas and technologies in the public, private and social sectors?

· Encouraging digital service providers and the local ICT industry to help Territory businesses improve digital skills, develop digital solutions and create jobs that will support growth across all sectors of the economy?

· Training and skills development pathways that will upskill the Territory workforce and enable workers to maintain contemporary digital knowledge?

CHILDREN

Our kids are growing up immersed in a global digital world. They are digital natives - switched on, plugged in and hyper-connected in all aspects of life: at home, in school and in the community.

The impacts of digital technology for our children and future workforce are becoming clearer with over half of the jobs in the next 10+ years requiring significant digital skills and many jobs of today ceasing. Digital skills will be a core competency for the jobs and businesses of the future.

By 2030, one in two Australians will need skills in programming, software development and building technology to remain competitive.[6]

We need to ensure our kids develop their tech skills to prepare them for the changing workforce and encourage students to value and pursue Science, Technology, Engineering and Mathematics (STEM) subjects. This is a priority at both the Federal and Territory level and will require cross-sectoral partnerships to create the education, training, employment and business ecosystems needed to reverse the decline in STEM student numbers.

Use of 'cool' technologies and techniques, such as robotics, virtual reality and gamification, can improve learning outcomes and spark interest in STEM through fun activities.

80% of adolescents in Australia aged 14-17 have a smart phone[7]

7 out of ten Australians use Facebook[8]

But as we acknowledge the benefits of a digital future and meeting skilled workforce needs, we must also recognise the need to provide children with the skills to keep their online environment safe and secure. Striking the balance for children between digital activities and old-fashioned play will continue to be important for their well-being.

Digital outlook

DIGITAL SKILLS

Our kids need to be more than digitally-literate; they need to be digital masters. We need to encourage them to become digital creators, not just consumers of the digital world.

Our education systems need to be geared towards the development of skills required for the future.

Coding forms an important part of digital literacy. It is the language used to communicate with computers and tell them what to do. It's not about transforming every student into professional computer programmers; it's about equipping them with important skills like critical thinking and problem solving.

Robotics provides an interactive and stimulating way for students to apply coding and critical thinking to solve problems and produce real outcomes.

Participating in hackathons, code fairs and robotics competitions can be a great way for children to showcase their ICT skills, network with industry leaders and meet other like-minded individuals. These events encourage children to unleash their imagination and give-it-a-go.

STEM CAREERS – THE JOBS OF THE FUTURE

It is predicted that STEM subjects will drive the future of the nation, with most jobs requiring some combination of STEM skillsets. However, over recent years the gap between students taking up STEM subjects and the need for STEM-based knowledge to fill jobs has been increasing.

Reversing this trend is necessary to position children for taking up the jobs of the future.

STEM needs to be available, accessible and promoted in schools, vocation training (VET) and higher education. Encouraging students to participate in STEM programs will require guidance and persistence.

Showcasing skills

More than 1000 students were flying, buzzing and puzzling their way through Parliament House for Skills 2021 with drones, robots and 3D objects taking over the Main Hall.

The interactive event provided students with Science, Technology, Engineering and Mathematics (STEM) skills, and hands-on experience using innovative, state of the art technology.

The Territory Government believes that the next generation of local leaders need to be at the forefront of technology and innovation.

Government initiatives like Skills 2021, implementing coding in all Territory schools, and upskilling teachers and trainers in digital literacies, are so important because our kids need skills in all areas of STEM to be prepared for the jobs of the future.
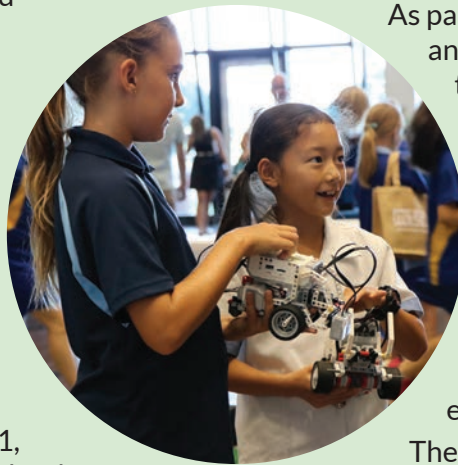
Skills 2021 helps inspire students to take on STEM subjects by making learning interesting and giving them the chance to see what is possible at the cutting edge of technology.

As part of Skills 2021, students and teachers participated in technology workshops on coding, robotics, 3D design, gaming and video production.

Industry experts such as Microsoft, CASA, Adobe, Telstra and Brainery are partnering with schools and the Department of Education to showcase industry ideas and experience to Territory kids.

The objective is to equip students with the skills to successfully live and work in the 21st Century and ensure our students will be not only able to consume digital technology but produce it as well.

STAYING SAFE ONLINE

Education and awareness of online risks are important to keep our kids safe.

While the internet has the potential to be of great benefit, it also has potential dangers, including cyberbullying, internet scams and computer viruses.

Access to safety online programs and personal cyber security advice is crucial so children can explore and learn safely and avoid the dangers of the internet.

Have your say

If you have an interest in the digital future for children, please go to www.haveyoursay.nt.gov.au and respond to the questions below.

What are your ideas for:

· Best supporting Territory children in the digital age through education, opportunity and balance to stay happy and healthy in an increasingly online lifestyle?

· Encouraging young people, especially girls, to take-up STEM subjects and develop the digital skills required for the workforce of the future?

· Enabling children to have the confidence to be creators as well as consumers of digital content?

· Keeping kids safe online and helping them to make good decisions to be equipped to deal with issues they may encounter online?

· Helping parents and carers to help their kids get the most from the digital world?

BUSH

All Territorians, regardless of where they live, should have access to the same digital opportunities as other Australians. The Territory's vast size and small, highly dispersed population creates complex and significant health, education and infrastructure challenges, including telecommunications infrastructure.

Telecommunications plays a vital role in servicing and connecting people in rural and remote communities. The tyranny of distance can finally be reduced through connecting to the rest of the world online, and this requires investment in infrastructure.

Over recent years, the NT Government has committed major investment to the bush, through its infrastructure and co-investment programs with Telstra; to introduce mobile and broadband services to many remote communities.

The NT Government also introduced the STARS satellite network (Satellite to All Remote Sites) in communities without optical fibre connections via a grant from the Australian Government. STARS has been delivering high speed internet and video conferencing services for remote schools, health clinics, police stations, ranger stations, and power and water facilities across the NT since 2006. STARS also enables the interactive distance learning services provided by the Alice Springs and Katherine Schools of the Air to over 200 students in remote homesteads and communities.

These initiatives are resulting in easier and faster access to a range of services across the board, from healthcare to education, enabling people living and working in the remotest of places to access the services that other Australians take for granted.

It's also ensuring that Territorians stay connected with each other and can communicate with government about issues that matter to them.

Technology can support the growth of grassroots businesses and budding entrepreneurs in remote locations by connecting them to a wider audience and giving them access to global markets.

People in the NT have always been innovative and self-reliant, often through necessity and this is especially true for those living in our remote areas. People living in remote communities, on cattle stations, working in mines and operating tourism and other remote businesses know full well the isolation and hardships that come with living in the bush. Communications are improving but much remains to be done.

Through the National Broadband Network the Territory will continue to be serviced through a mix of telecommunications services including optic fibre, fixed wireless and satellite services.

Digital outlook

DIGITAL ACCESS

Connecting all Territorians at the same standard as other communities in Australia is the long-term goal which, realistically, will require further technology advances to be achievable.

Innovations in the future that can improve satellite services and/or reduce the cost of delivering telecommunications infrastructure in remote locations will be needed to increase the standard and reliability of connections across the whole Territory.

Providing residents in rural and remote NT with access to affordable broadband and internet services will give them the same opportunities, benefits and challenges as other Australians.

Availability and access to digital literacy programs in rural and remote areas will enable residents to be skilled and ready for a digital future.

27 remote NT communities connected through Telstra/ NT Government programs[9]

40% of NT population lives outside the greater Darwin area[10]

Keeping connected in the bush

More than 20 mobile phone hotspots have been rolled out in regional and remote NT in the last two years, providing vital mobile phone coverage for residents and visitors.

The low-tech mobile phone signal amplifiers are part of a project developed by the Centre for Appropriate Technology (CAT) and funded through the NT Government.

Since 2015, CAT has installed 22 hotspots throughout remote locations in Central Australia and the Top End where there is little or no mobile coverage.

These include the Mt Polhill roadside area along Stuart Highway, Palm Valley in the Finke Gorge National Park and Werenbun outstation.

The hotspots work by using a satellite dish to amplify the signal from nearby mobile phone towers and can extend the range of mobile services to about 30km. It provides a cost-effective alternative to installing a mobile tower.

CAT's simple but innovative design means the unit does not require power and has no moving parts or electronics, making it ideal for outback use.

The hotspots are providing vital services to residents and visitors travelling through the bush who rely on accessing coverage through their mobile phones, whether for safety or just to stay in touch.

DIGITAL BUSH BUSINESSES

Leveraging digital technology to enable businesses in the bush to promote products online and use digital sales channels will allow their products and services to reach a much bigger potential customer base, improving business viability and enabling businesses to grow in the bush.

Pastoralists, Aboriginal artists, farmers, miners and tourism operators are examples of businesses in the bush that are already harnessing digital technology to grow their business operations. Finding further new ways to use technology such as drones, sensors, social media for online marketing, and virtual reality will open up new markets.

Combining Territorians' 'can-do' attitude with modern technology and tools will produce new products and services that are bound to excite and inspire.

Have your say

If you have an interest in the digital future for the bush, please go to www.haveyoursay.nt.gov.au and respond to the questions below.

What are your ideas for:

· Helping to make our bush communities safe, connected and less isolated through digital technology?

· Digital tools that can best contribute to and drive economic development in the bush?

· Providing digital advances in the bush to assist existing and emerging businesses compete effectively in a global market?

· Partnering with community and business to improve access to digital services in the bush?

· Working to bridge the digital divide so that affordable and reliable ICT services can be delivered across the Territory?

· Delivering better government services digitally in the bush?

COMMUNITY

Digital innovations and solutions are quickly changing our world in new, exciting and sometimes challenging ways.

The internet is transforming the way government, business and citizens interact making it a faster, easier and more convenient for people to access services and information. Better access is just the start.

Location will no longer be a barrier for employers, workers or customers. Digital technology now allows people to connect and transact from different parts of the world at any time.

Digital tools like social media provide choice and empower citizens by making it easier to engage in policy development and service delivery. The community can now influence policy and services almost immediately and is increasing its digital voice.

The community, rightly, is expecting consultation and active contribution to shaping government and consumer services and products before they are delivered.

People want to obtain services online and transact their business 'on the move' and at their convenience, 24/7. Territorians, whether in urban centres or remote communities, want to be online, mobile and connected.

Citizens are looking for more government services to be available online and to be easy to use, from renewing a car registration to applying for a job.

The business sector also needs to respond effectively and rapidly to consumers' changing needs.

Digital communication channels are providing new opportunities for community groups to network, get their messages out and attract members.

As the community grows in this digital age the need to protect personal information and be vigilant to cyber threats is increasing as the array and intensity of cyber-crime is escalating. Safety is a shared responsibility.

Digital outlook

DIGITAL SERVICES

Transforming more government services onto digital channels, incorporating community co-design principles, will deliver services that meet users' needs and can be accessed at their convenience.

Adoption of digital service standards by the NT Government will ensure a consistent approach to digital service development across government.

The recent creation of one prime website for the Government (NT.GOV.AU) focused on a user perspective to make government information easier to find with less jargon. Citizens can access government services and information, give critical feedback and resolve issues in an efficient and timely manner.

Moving to a 'tell us once' approach wherever feasible and supported by the community will make it easier for citizens to access government services, reducing repetition and red tape.

PERSONAL SAFETY ONLINE

Accessing safety online programs and personal cyber security advice will be crucial to gaining the most from digital advances and avoiding the dangers of cyberbullying, internet scams and viruses.

Focusing cyber safety programs and messages for the more vulnerable members of the community, including children, disadvantaged persons, people who are not familiar with digital technology such as some elderly people and those with low levels of literacy will be necessary.

29 the predicted number of internet-connected devices in Australian households by 2020[11]

8 million adults in Australia bought or sold something online in the four weeks to June 2016[12]

Making our communities safer

The Banned Drinker Register (BDR) came into effect on 1 September as part of the Northern Territory Government's efforts to make our communities safer by cutting the flow of takeaway alcohol to problem drinkers.

The aim of the BDR is to reduce harm to individuals, families and the wider community from unacceptable rates of alcohol related crime and violence. All Territorians and visitors to the NT now have to provide approved ID for all takeaway alcohol sales.
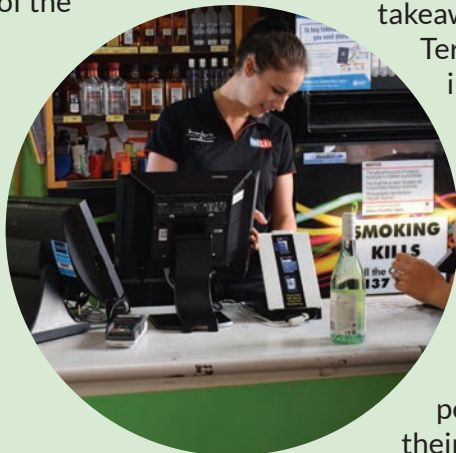
The BDR operates using online scanners that are able to read approved forms of photographic ID, and are installed at all locations offering takeaway alcohol sales across the Territory. Scanners are able to process information and display whether someone is on the Banned Drinker Register by displaying a no-sale with a red banner.

To cater for drive-through locations, a new mobile App solution will be trialled at 28 sites across the NT as a portable solution. This allows people to remain in their cars while their ID is checked by the system.

CLOSING THE DIGITAL DIVIDE

Removing barriers for people in remote locations through using technology to improve access to healthcare, education and other government services in the community will enhance quality of life and reduce the need to travel for services.

Finding ways to assist disadvantaged and low income citizens access digital information and services will make their life easier.

Collaboration between business, government and community groups to share knowledge and provide technology training to those in need will deliver benefits across the community.

FEEDBACK AND CONTRIBUTION

Empowering citizens to have their say about key issues and encouraging more conversation and community participation through online apps and social media platforms will enable open communications and improve decision making.

Extending self-service channels, such as online sites and mobile apps, will better meet the needs of consumers.

Have your say

If you have an interest in the Territory as a digital community, please go to www.haveyoursay.nt.gov.au and respond to the questions below.

What are your ideas for:

- Using digital technology to make our communities across the Territory safe, vibrant and sustainable?
- Partnerships between the community, business and government to improve access to digital services for disadvantaged citizens?

- Sharing skills and knowledge of business and the ICT industry to deliver results for the community?
- Delivering better government services through digital channels?
- Engaging Territorians in policy development and program delivery?
- Improving citizens' awareness of cyber safety and readiness to deal with cyber-crime threats?
- Using technology to make our Territory lifestyle even better?

TRUST

The digital future presents both opportunities and challenges. In meeting community, citizen and business needs in the digital age, government has a role to provide open and accountable decisions and processes.

Government can promote greater transparency by providing users with access to information held about them. Enabling more information to be accessed and digital transactions to be tracked will improve visibility and build trust. This enables individuals to have more responsibility and authority in their dealings with government.

Every day, citizens transact online for all sorts of business, from paying bills to updating their medical records. This means regular sharing of personal information and data.

Users expect access to safe and secure online processes when transacting with government and with the business sector.

Balancing community and business expectations for more information, faster and online with the need for ICT security and data protection is becoming increasingly complex as the cyber threat environment expands. The focus is moving from trying to make systems hack-proof as this is becoming increasingly untenable, to making digital tech users savvy to cyber threats, aware and prepared for how to deal with them.

The NT Government has learned lessons from ICT project failures and strengthened project governance with a comprehensive *ICT Governance Framework*. Investment decisions for agency business systems are validated through a robust governance process and subject to rigorous ICT project assurance oversight, managed by the newly-established Office of Digital Government. The Office will provide ICT leadership and direction setting across government.

Digital outlook

OPEN DATA

Creating a central open data portal and bringing more NT Government data into the public domain will build trust with the community and enable digital innovators to use the data in new ways to provide new services and apps.

Citizens and businesses can already access information and records government holds about them through the *Information Act*.

DATA INTELLIGENCE

Making better use of government data through sharing, analysing and researching will provide the evidence that could unlock solutions for some of the community's big issues.

Finding ways to effectively interrogate multiple datasets, match data and establish causal links will inform government policy setting and allow resources to be focused on the areas of greatest need and benefit.

DIGITAL GOVERNANCE

The Office of Digital Government will work on making more government data open, setting standards for digital services, developing cyber security design and ICT project governance.

Moving more transactional service delivery online will enable people to check their transaction history and access information held about them. Not only will this improve efficiency and reduce costs for both the user and service provider, it will provide the transparency necessary to develop trust.

Extending ICT project governance to encompass data protection through establishing a cyber-security framework for the NT Government will increase the focus on security requirements.

90% of 113 organisations surveyed faced some form of attempted or successful cyber security compromise during 2015-16[13]

$2.8 bn Australia's ICT services exports in 2015-16[14]

Restoring trust

An independent review found significant flaws in the Asset Management System (AMS). DCIS was tasked with establishing a replacement system to manage government's infrastructure assets worth around $11 billion. DCIS established a highly robust governance model and processes to ensure the success of the future project. Government needed to learn lessons from the AMS project failure.

The Asset Systems Nexus (ASNEX) is being developed to provide an integrated, intuitive and fit-for-purpose technology solution. ASNEX is making good use of some existing functionality while substantially expanding the services and information available. ASNEX incorporates real-time data integration through a contemporary, user interface.

ASNEX is significantly enhancing the way government manages and maintains infrastructure assets, using a central portal to provide a single access point for users; integrating asset data and spatial information; and developing mobile apps to enable use in the field.

Costs to date have come in under budget and the project is tracking on time for completion in mid-2018. The project has a stringent governance model, involving key infrastructure asset departments and regular reporting to the NTG ICT Governance Board.

The ASNEX mobility solution won a national spatial excellence award in 2016.

Plans are underway to make some ASNEX applications available to contractors and make public some information works being carried out on buildings and roads.

CYBER SECURITY

Territorians want their online transactions to be safe and secure.

Maintaining security online and protecting data is critical to all sectors of the digital economy – businesses, community and government.

Adopting an appropriate security posture with rigorous cyber security controls and authentication frameworks will provide government with the foundations to protect confidential data holdings and uphold trust with citizens.

Have your say

If you have an interest in ways digital technology can contribute to accountability and build trust, please go to www.haveyoursay.nt.gov.au and respond to the questions below.

What are your ideas for:

- Restoring trust in government through better use of technology?
- Government datasets that should be open and publicly accessible?
- Making effective use of government datasets to solve community problems?
- Standardising digital services across government?
- Improving decision making through online interactions with citizens and consumers?
- Ensuring the privacy of personal and confidential information is protected in increasingly digital relationships?

References

1   *Internet Uninterrupted: Australian Households of the Connected Future*; A Telsyte research paper commissioned by NBN, 2015

2   *Australia's Digital Pulse: Policy priorities to fuel Australia's digital workforce boom*, Australian Computer Society, 2017

3   *NT Government's Economic Development Framework*: https://edf.nt.gov.au/growth-sectors

4   *Australia's Digital Pulse: Policy priorities to fuel Australia's digital workforce boom*, Australian Computer Society, 2017

5   *Australia's Digital Pulse: Policy priorities to fuel Australia's digital workforce boom*, Australian Computer Society, 2017

6   *The Future of Work: setting kids up for success*; Report by Regional Australia Institute, commissioned by NBN, 2016

7   Australian Communications and Media Authority (ACMA), 2015

8   https://www.socialmedianews.com.au/social-media-statistics-australia-january-2017/

9   Department of Corporate and Information Services

10 Australian Bureau of Statistics: *Regional Population Growth, Australia, 2014-15* (cat. no. 3218.0)

11 *Internet Uninterrupted paper*, A Telsyte research paper commissioned by NBN (2016)

12 http://www.acma.gov.au/theACMA/Library/researchacma/Research-reports/communications-report-2015-16

13 https://www.acsc.gov.au/publications/ACSC_Cyber_Security_Survey_2016.pdf

14 *Australia's Digital Pulse: Policy priorities to fuel Australia's digital workforce boom*, Australian Computer Society, 2017

15 Australian Bureau of Statistics: *2016 Census QuickStats; Northern Territory* http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/7RNTE?opendocument

16 Department of Corporate and Information Services

Acknowledgments