

NZTECH ADVANCE GOVTECH SUMMIT

Technology to Transform / Data.Citizen.Cloud

BRIEFING PAPER

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NZTECH ADVANCE GOVTECH SUMMIT: Technology to Transform / Data. Citizen. Cloud.

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This NZTech briefing paper provides insights from the recent NZTech Advance Government & Technology Summit in Wellington, an event organised and hosted as a joint venture between NZTech and Conferenz. The paper includes key observations from roundtable discussions involving senior executives and public sector leaders from a broad cross section of government agencies and the tech sector.

EXECUTIVE SUMMARY

Digital transformation is no longer optional as technology is now disrupting our everyday lives. Data is increasing exponentially and advances in big data and analytics creates immense opportunities for governments. Technology is now truly at the heart of improving productivity of government services.

The Leader's Forum at the NZTech Advance Government & Technology Summit reinforced that managing data and better data sharing needs to be a key priority in government. In the immediate future, an increased emphasis on data sharing is essential, with an ongoing commitment to truly collaborate and work together. The tech industry believes that more can be done to work alongside government to help bring about positive outcomes.

The strong need for inter-agency data sharing, was identified by the Leader's Forum. This raised a set of key questions such as:

- Do we know what data is available and whether it can be shared?
- How restrictive is legislation?
- Can a differentiation be made between the perceived and real challenges?

Discussion at the Leaders Forum identified key areas of concern with regard to managing and sharing data for a citizen centric experience, including:

- The challenge of data collection
- Accessibility of data
- Privacy and ownership concerns

The Leader's Forum offered several comprehensive recommendations including developing data leadership, improving data accessibility and accelerating change through leadership investment.

SHARED CHALLENGES

The Leaders Forum at the Summit was organised in collaboration with the office of the Government Chief Information Officer at the Department of Internal Affairs. The Forum brought together C-suite leaders from both the government and the tech sector to discuss common challenges across the government when it comes to managing and sharing data.

At the 2016 NZTech Advance Government & Technology Summit, leaders identified the key challenge of agencies was better use of data. Improved practices for sharing data was, at that time, identified by the forum as one of the areas that could make the biggest impact. Twelve months later, on review, this challenge remains, with very little forward movement.

IMPROVING PRODUCTIVITY

Technology is at the heart of improving productivity of government services. Discussions between government and industry are now far more open, but the environment in many government agencies does little to nurture innovation. While there is a proliferation of data in government agencies, a resistance, or inability, to share and collaborate is undermining the value of the data.

The tech industry believes that more can be done to work alongside government to help bring about positive outcomes. Discussions at the Summit are central to both the government's aspiration for the economy and transforming the way government operates and delivers public services.

Digital transformation is no longer optional as technology is now disrupting our everyday lives. A global conversation is now being had regarding the Fourth Industrial Revolution and the impact of rapidly advancing technologies. Likewise, data is increasing exponentially and advances in big data and analytics creates immense opportunities for governments. The ability to discover hidden insights from data is greater than ever before. This is only set to increase with the uptake of machine learning for predictive models, artificial intelligence and the Internet of things.

LESSONS FROM SINGAPORE'S GOVTECH

During the Summit's international keynote, Singapore's [GovTech](#) Chief Executive, Jacqueline Poh shared how digital transformation within the public sector is at the heart of what GovTech does. GovTech has 5.5m users and 1800 ICT professionals in six capability centres. GovTech's mission is to empower a nation of possibilities through technology and this digital government model is powered by data. GovTech works with a wide range of government agencies to deploy digital, data science, IoT and other technologies to deliver public impact, as well as to ensure the resiliency and cybersecurity needs of government systems.

While our nations differ in many ways, Ms Poh's observation is that most governments are facing similar issues and challenges. In order to succeed as both a smart nation and digital government, she says it is imperative to leverage data and take a multi-disciplinary approach. Singapore, for example, has over 100 individual agencies, including health, housing, Police and tax. Each collects data separately in its silos, but data sharing has become essential. Data science embedded in public policy aids evidence based policy making through advanced computational methods. From a government data steering committee to data sharing by default there is a genuine need for data literacy for public servants.

Ms Poh provided numerous case studies highlighting the success of their digital transformation in real terms. Using GovTech's *Nowcast* for a pulse of the economy, utilising real time data, smart sensors, transport and people movement data the government was able to successfully predict the spread of the mosquito-borne Zika virus. Data modelling enabled the government to get ahead of the outbreak and provide appropriate assistance to citizens. Another key digital initiative is Moments of Life, a platform that anticipates when citizens will require certain government services based on significant life stages.

LEADER'S FORUM INSIGHTS

The Leader's Forum was asked to consider inter-agency data sharing; what are leaders observing? Do we know what data is available? How restrictive is legislation? Can a differentiation be made between the perceived and real challenges? Is there an increased expectation of data sharing?

The discussion at the Summit highlighted some key areas of concern relating to managing and sharing data for a citizen centric experience, including:

The challenge of data collection

The Forum agreed that many inherent challenges are simply due to the way data is collected in the first instance. It was acknowledged that data is used for numerous purposes and because of this, not all datasets are collected in the same way. The way agencies are funded, managed and incentivised creates a silo effect that impacts both data collection and sharing. Most agreed that more work needs to be done on how datasets are collected across government to ensure it can be more easily aggregated.

A paradigm shift is also required, from government agencies as a collector of historical data to a forward facing data enabler. Discussion ensued on the possibility of the role for a new agency to be a data enabler with a Chief Data Officer at the helm providing leadership. Currently Statistics New Zealand is reviewing its role in this regard and is looking at what it will take to become a cross-government data enabler.

Accessibility of data

Before meaningful analysis can be undertaken, accessibility of data is fundamental. From the outset, appropriate data needs to be identified and then the challenge becomes gaining suitable access. Discussion was had regarding what prevents agencies from utilising data and mechanisms for better sharing. In part, privacy and legislative issues are perceived as an obstacle, however other notable barriers are at play including culture and leadership. There is a strong need for leadership throughout government for better data awareness and leadership development as technology continues to develop at a rapid pace.

Meanwhile, the citizen should control accessibility. When governments deliver services based on the needs of the people, they can dramatically increase public satisfaction whilst reducing costs.

However, the forum queried why, as a nation we aren't better centrally connected, given that it can be done. For example, the recently launched [SmartStart](#) is teaching parents and the next generation how to collect data so they can best leverage government services. SmartStart provides step-by-step information for new parents to access the right services at the right time including parental leave, housing, health, child support and registering births online. In conjunction, [RealMe](#) already allows citizens to enrol to vote, apply for passports, apply for student loans/allowances and order birth, marriage and death certificates. Conceptually, this single login to multiple online services provides a tool for additional data sharing across agencies.

Privacy and ownership concerns

The Leader's Forum acknowledge that legislation can often be perceived as the key obstacle in sharing data. However, this is not always the case. Whilst privacy issues surrounding data collection and use are paramount, leadership is pivotal. The Forum identified that great stewardship across government is required. Leadership needs to place importance on quality centralised data with a citizen centric focus.

While security challenges need to be understood and addressed, the Forum held the view that a clear focus is needed on the benefits of data rather than focusing on data breaches. This requires education and culture change.

While there is often a perception that privacy is a major issue, there is evidence in non-governmental life that privacy is easily and often traded for a service. While citizens are aware of the risks, there appears to be a high comfort level in trading data in everyday life. Many are happy for their data to be shared if it means the provision of better services.

As citizens of New Zealand, the public regularly provide access to data in exchange for a service. One of the fundamental challenges for the government is its internal culture with its assumptions of single use permission. The government “thinks like a government, not an single large organisation trying to provide valuable services that customers desire.” The public often assume that once they have provided information to one agency, the government has access for other agencies to use. A great example of a “one government” experience is at border control at international airports where the public interacts seamlessly with multiple agencies like customs, immigration and Police without being made aware of this.

The example of being admitted to hospital in an emergency situation was discussed. Leaders agreed that most citizens would assume that agencies can access important information about them in a critical time to help provide the best outcome possible. This however, is not always the case. Often, during a crisis, like natural disaster response, data is aligned and agencies share well to provide a one-government approach. Not only can lessons be learnt from data management during times of crisis but new processes adopted for the better use of services.

RECOMMENDATIONS

The Leader's Forum reinforced that managing data and better data sharing needs to be a key priority in government. In the immediate future, an increased emphasis on data sharing is essential, with an ongoing commitment to truly collaborate and work together. Ultimately, a realignment is required to use data to better serve our citizens. There is a strong need to further develop the citizen-centric approach to deliver government services.

Priority #1 - Develop data leadership

The Leader's Forum identified a strong need for data leadership and increased education efforts. It is essential for the government in its entirety to develop a thorough understanding of the importance of data. There is a general need to raise the maturity of skills across the sector.

- Consider the appointment of a Chief Data Officer as a data enabler.
- Invest across government in data literacy and education at all levels, including professional development for public servants and senior leaders.
- To accelerate leadership understanding and alignment continue to engage agency leadership in data sharing sessions, data education and discussions to help evolve from “government think” to “thinking like your customers”.

Improve data accessibility

It is our belief that the government needs to create a paradigm shift, helping to refocus citizens away from sensational breaches to the tangible benefits. Improving accessibility will help pave the way for more meaningful data analysis across government.

- Focus on data driven, cross agency life events and prioritise their uptake as a means of developing tangible services for real citizen needs.
- Identify and accelerate the use of other citizen-centric models.
- Invest in public education on the importance of data and how it translates to services.
- Use a data driven approach to understand citizens feedback.

Accelerate change

Despite New Zealand being recognised as a digital leader as part of the Digital 5, we cannot afford to be complacent. While there is a strong need for leadership and increased awareness, the pace of change also needs to be prioritised through initiatives like the Partnership Framework.

- Ensure solid governance structures for encouraging data sharing through inter agency collaboration.
- Emphasise and prioritise data sharing in the government Four Year Plans.
- Continue to engage with the tech sector as an industry on how to best accelerate digital transformation.

CONCLUSION

The Leader's Forum at the NZTech Advance Government & Technology Summit identified a key priority of developing data leadership. In addition to investment in data literacy across government, the appointment of a Chief Data Officer as an enabler of data was also recommended. Improving accessibility will also help pave the way for more meaningful data analysis across government. While there is a strong need for leadership and increased awareness, the pace of change also needs to be prioritised.

Technology is at the heart of the transformation the government aspires to. NZTech and the tech sector as a whole are committed to working with government to enable this transformation. Together, government and industry leaders can help create a culture within government to support tech transformation and become a strong digital nation. While it is important that data is shared across government, better models also need to be built to ensure improved prediction and modelling. A citizen driven approach will help deliver tangible services and better outcomes for New Zealanders.