

30 July 2019

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Dear James

DUE DILIGENCE ON STORING LANDONLINE DATA IN AN OFFSHORE PUBLIC CLOUD

Thank you for the opportunity of continuing involvement in the Landonline rebuild and in particular about upcoming considerations relating to storing Landonline and related data in an offshore public cloud.

S+SNZ has consulted its members and received mixed feedback to the proposal to store Landonline and other data (including geodetic data) in an offshore public cloud. The feedback ranges from support through to qualified support and opposition. We feel that members have raised very valid points across this feedback spectrum that would inform the due diligence phase of analysis. Consequently, it is not a matter of majority support or opposition but, rather, one of collecting the evidence, analysing the relevant issues and providing informed policy advice to decision makers as part of the due diligence process.

In summary, S+SNZ believes that its members' concerns could be addressed by a thorough cost benefit risk analysis that also identifies and rigorously evaluates risk mitigation measures for decision-makers to consider. Our members would like to see the results of such an analysis and, if appropriate, have the opportunity to provide comment.

In terms of specific feedback received from our members, the advantages of using an offshore cloud are:

- perceived cost effectiveness
- use of best service/technology/practices
- "insurance" if there is a catastrophic natural disaster in New Zealand and the data were only stored in New Zealand.
- consistency with government policy.

All of the above perceived benefits would need to be substantiated or quantified with supporting evidence/assessment details.

However, the benefits of moving to an offshore public cloud must be evaluated against the:

- cost and disadvantages of using a New Zealand based cloud
- risks of using an overseas-based cloud (which are generally well identified in the literature and need to be assessed for this particular proposal).

S+SNZ would like to suggest that the following be specifically addressed in the course of due diligence:

- a comprehensive risk assessment
- identification and evaluation of risk mitigation measures
- security in event of natural disaster
- cybersecurity in relation to hacking and potentially subsequent corruption or fraudulent use of information
- security in relation to the overseas country controlling the overseas-located cloud. This consideration would presumably inform the overseas location taking account of geopolitical stability and likelihood of disrupting legislation that may result in loss of ownership and/or access.
- reliability of and efficient (negligibly latent) access for authorised users
- back up and, in particular, assessment of the option of NZ-located back-up to data held in an offshore cloud (or vice versa, i.e. offshore back-up to data held in a New public cloud)
- back-up by a different provider than the primary storage provider
- access to back-up in event of catastrophic failure
- sovereignty
- evaluation of offshore public cloud options
- impact on Crown guarantee of title
- test whether the proposed system satisfies the integrity and security tests identified in NZ guidance and standards.

Of these, security aspects, of one kind or another, are the overarching concern to our members.

An important consideration that our members underscore is that the Title Register and Cadastre form the critical database components of the New Zealand property rights system that underpins the New Zealand economy. The Surveyor-General's "Cadastre 2034" strategy confirms that the efficiency and effectiveness of the current system cannot be overstated. New Zealand's financial system is tied to the security of defined titles. The consequences of loss of data or its corruption are dire; most people's single biggest investment would be at risk. Consequently, an understanding of the importance of the Title Register and the Cadastre to the New Zealand economy is paramount in undertaking any analysis of the proposed use of an offshore public cloud. It is simply not a case of citing examples of use of offshore public cloud by other government agencies as justification (e.g. the Department of Conservation) as the risks and consequences are vastly different for something so fundamentally important to New Zealand.

Finally, in relation to public data that is client-owned data for which LINZ is the custodian, a number of members have expressed concern that these data are proposed to be held in an offshore public cloud. Their concerns relate mostly to security (in the widest sense).

S+SNZ would welcome further involvement in this nationally important issue and would like to be a consulted party in relevant Cabinet papers as they are developed.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'Mark Dyer', written over the typed name and title.

Mark Dyer
Chief Executive