



# Undertake a Total Cost of Ownership for Transition to the Cloud

## Cloud Policy Fact Sheet 5.2

A Total Cost of Ownership (TCO) comparison is a tool to help buyers of cloud services determine the direct and indirect costs of a product or system against their current operating model. A TCO not only considers the costs of software acquisition, staff and maintenance but many hidden costs which are not normally considered, for example electricity, cooling, staff training and ICT footprint. It produces a financially accurate starting point to then compare the costs of cloud services.

### Objective

**Undertake a total cost of ownership comparison of your existing arrangements against transition and operational costs of cloud services.**

### Process

An agency must determine their business needs and objectives prior to approaching the market. Comparing the products being offered by various cloud service providers can be complex as each provider will determine and customise products based on an agency's business needs. These products may be packaged differently by each provider and therefore cannot be directly compared against each other as they would under traditional procurement arrangements.

*Determine TCO of the current state of operations - This will define the scope for transition as well as clearly identify the components that need to be transitioned.*

The New Zealand Government GCIO have produced a Cloud TCO Calculator which can assist in determining the costs of cloud services with your current ICT structure. The calculation model can be used to input the following:

- On premise and data centre costs (including rent);
- Energy and power use/costs including cooling and electricity;
- Capital costs such as hardware;
- Recurrent operating costs:
  - Server and storage hardware and maintenance;
  - Operating system, database, security, backup software and maintenance;
  - Administrative ICT costs for applications and databases;
  - Salaries;
  - Training;
  - ICT footprint, including space, cooling electricity etc.;
- Back up and disaster recovery requirements.

*Determine the TCO of each cloud option. Depending on your agency's processes, this could involve getting estimates from vendors or using estimated pricing.*

Many factors influence products and price, including:

- Size and type of virtual machine;
- Platform type - IaaS, PaaS, SaaS or a hybrid of these;
- Redundancy/business continuity requirements;
- Performance requirements;
- Any cost implications associated with the location of your provider; and
- Contract length.

When considering the costs of acquiring cloud you will need determine:

- Cloud costs (including ongoing maintenance, application support not just hosting support and increase internet usage) vs license costs;
- Migration costs and transferability of existing licence assets to cloud;
- Configuration and deployment;
- Integration and testing of apps;
- Hosting support; and
- Training costs – user and administrative training.

*Identify the benefits and risks*

Determine the benefits and risks associated with the transition to the identified cloud services. How will the risks be managed or mitigated? Refer to the Fact Sheet Assessing offerings from cloud providers for further assistance.

*Go to market for preferred option*

Once you have an understanding of your operating costs and with your business objectives and needs in mind you can confidently collaborate with service providers to further develop fit-for-purpose products for your agency. Refer to the Fact Sheet Risk assessment for cloud transition for further assistance.

## Useful tools

[Government Chief Information Officer \(GCIO\) in New Zealand. TCO calculator](#)

[New Zealand Government Procurement. Total Cost of Ownership: An introduction to whole-of-life costing. October 2013.](#)

Related Cloud Policy Fact Sheets:

- 4.1 Risk assessment for cloud transition
- 5.1 Assess offerings from cloud service providers