

Cloud Strategy - Executive Summary Document

Government of Israel

May 2018



The project was delivered over 3 distinct phases

Scope

- Phase 1 – Review, Analyze and Update Existing Policies
- Phase 2 – Analyze the Current State
- Phase 3 – Roadmap and Plan

Main Objectives

- Validate and refine the current Cloud policy
- Create Cloud guidelines
- Create a Cloud transition roadmap
- Provide guidelines for the rest of the journey

Lets start with a reminder – key characteristics of a government Cloud platform



Dynamic

On-Demand Provisioning. The ability to add capability and capacity as rapidly as business requires



Self-Service

Creating environments, enhancing capabilities, adding capacity with less labor and reduced lead times



Multi-Business

Cloud computing delivers shared capacity across business lines, reducing duplicate environments



Scalable

React quickly to increased business demand, acquisitions, or new business models without large CapEx expenditures and increased long run-off periods



Flexible Pricing

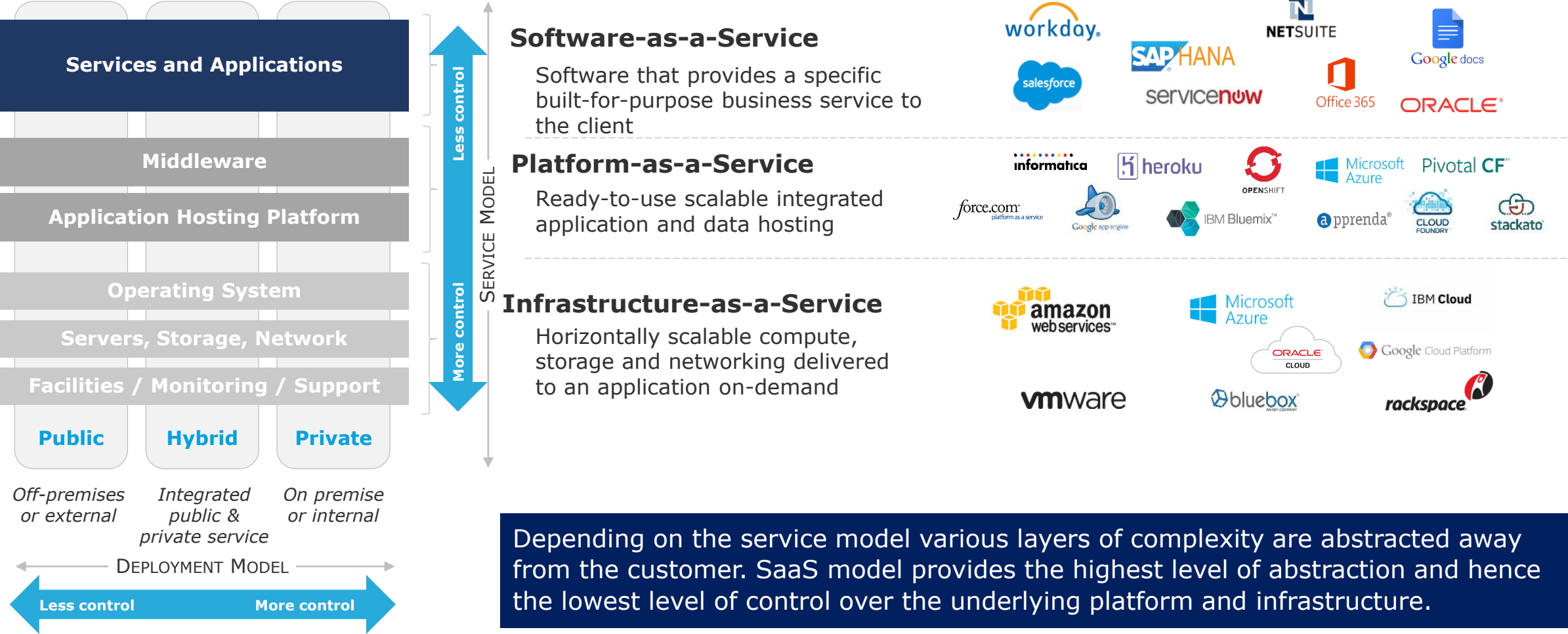
Recapture capacity and spend for use in other areas as business demands fluctuates



Digital-Based Architecture

Cloud architectures are based on virtualized environments defined by their use not by hardware

Cloud is consumed in an “as a service” model



Digital government initiatives are key drivers for Cloud

Digital Government is here, and Cloud computing is the imperative to making a real difference in citizens lives, while enabling cost effectiveness and IT agility.



Governments world-wide are realizing Cloud's potential to drive cost savings, work around budget reductions, and ultimately deliver more with less.

Cloud drives numerous benefits for Governments



Increased Ministry agility

Gain greater flexibility on architecture and sourcing, scale up and down as needed, maximize efficiency, accelerate time to value, reduce time to start up and complete projects



Reduce IT capital spending

Use of “pay-as-you-go” model instead purchase / lease and move IT costs from CAPEX to OPEX



Develop the Israeli technology economy

Develop the ecosystem of technology providers within Israel through firms supporting the Government Cloud initiatives



Innovation

Shift focus from asset ownership to services; tap into private sector innovation and encourage an entrepreneurial culture to better link to emerging technologies



Reallocation of resources

As routine processes are automated through Cloud, resources can be re-positioned to higher value-add activities

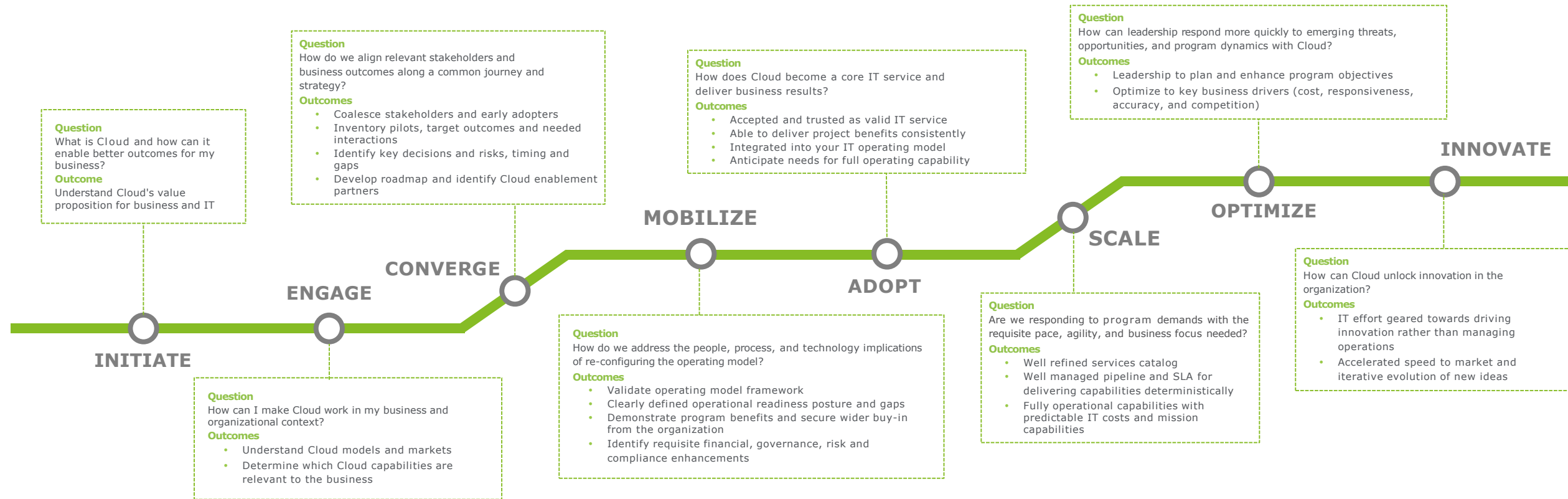


Drive job creation in Israel

Drive job creation through leveraging local technology companies as part of the solution delivery

Numerous governments such as US, UK, Australia, Hong Kong, India, Estonia and others are driving significant benefits from moving to the Cloud

The Government will need to undertake a “journey” in order to be successful in it’s adoption of Cloud



A series of deliverables were developed during the project

Phase 1 - Review and analyze

- Review and update the current Cloud& security policy
- Review Cloud infrastructure pros & cons
- Risks analysis

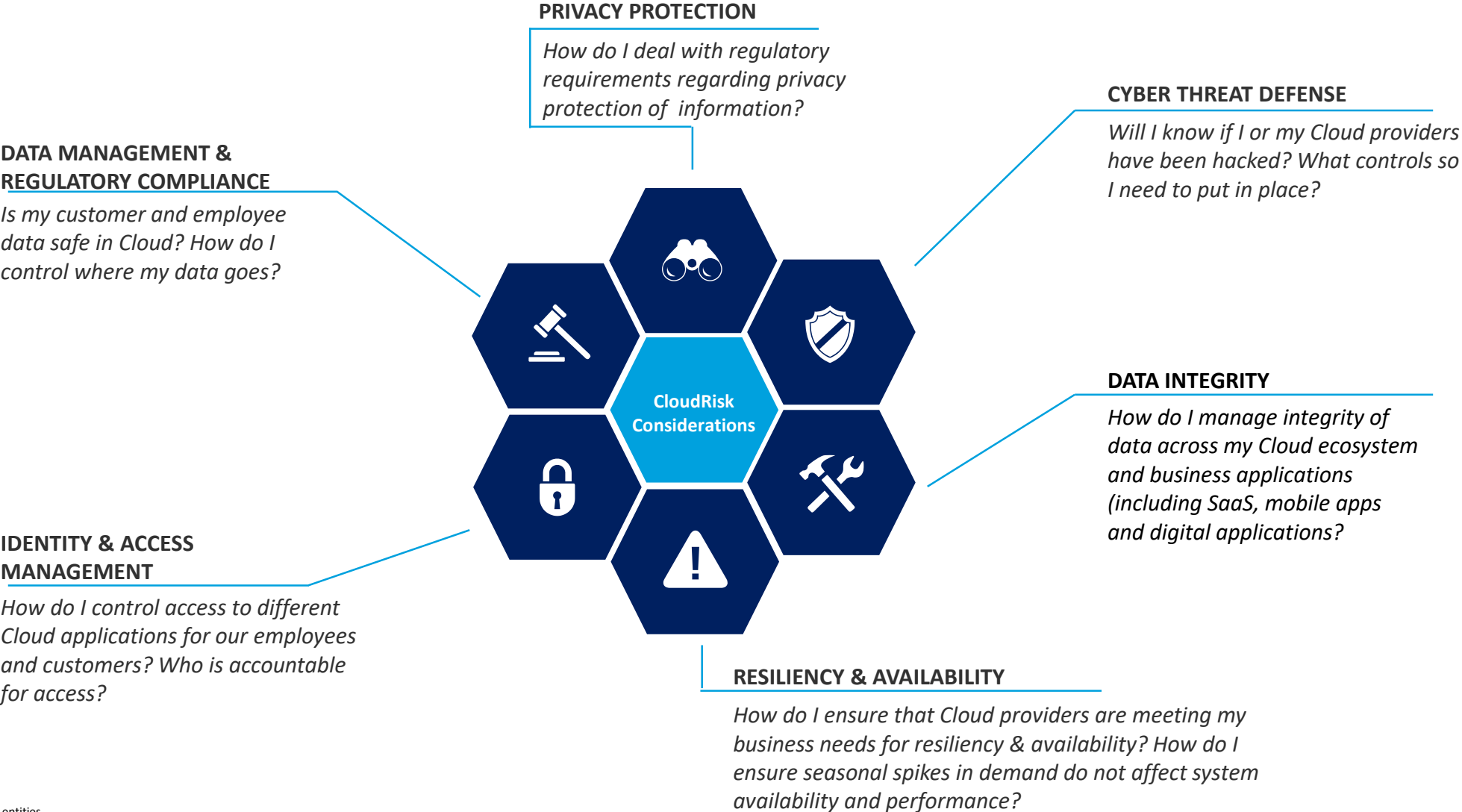
Phase 3 - Roadmap and Plan

- Detailed analysis of 3 precedents
- Future Cloud landscape
- High Level cost & sizing estimations
- High level business case
- Cloud transition roadmap
- Identification of activities required by the government agencies to prepare for the Cloud migration
- Service catalog guidelines

Phase 2 - Collect data

- Develop a template to be used to gather the requirements
- Cloud requirements summary and analysis based on the above collected data
- analysis of the requirements gathered, to develop a draft view of the required services and solutions to be delivered by the Cloud solution
- Bidders mapping with a reference to potential vendors
- Recommendations to systems categories that will not migrate to the Cloud infrastructure
- Guidelines to monitor and control mechanisms Cloud infrastructure
- Guidelines for Cloud contracting
- Guidelines for RFP creation
- SLA guidelines

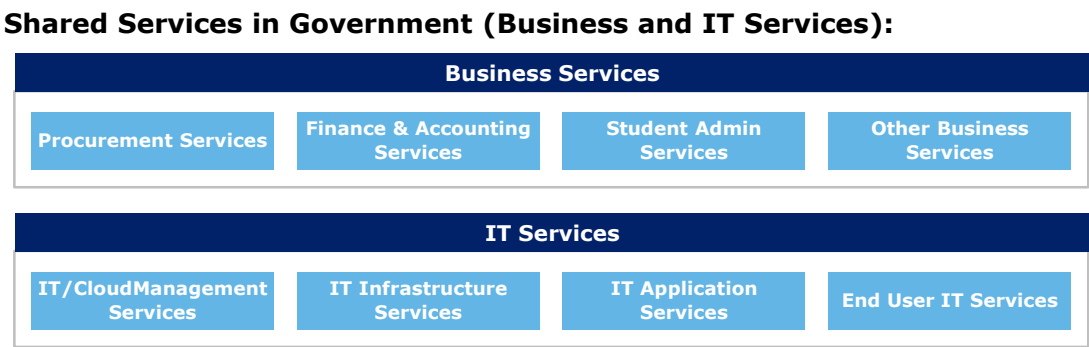
As the Israeli government starts their migration to Cloud security and privacy protection continues to remain one of the key risk considerations for government Cloud deployments



The Government will need to continue to move towards a Shared Services model so they can realize benefits and manage risk moving forward

Overview

- Shared Services involves sharing common IT services across multiple agencies or across multiple locations or divisions of the same agency
- Public sector organizations implement Shared Services primarily as a means to reduce costs and improve service delivery
- While Shared Services delivery models have historically been used for back-office, transactional services, they are increasingly broadening in scope and in the complexity of services included



Typical benefits of Shared Service Delivery:



Increased effectiveness

- Enhanced customer service focus
- Access to specialized skillsets (that may not be available at each agency or in the local labor pool)
- Management free to focus on business issues and strategic initiatives (e.g. enhancing student and faculty experience) over day-to-day IT operations
- Enhanced external and internal compliance (e.g. IT security, student privacy regulatory requirements)



Increased efficiency

- Best practice IT service delivery processes
- Economies of scale
- Cost savings through potential headcount reductions of internal IT staff
- Elimination of redundant technology investments
- Standardization
- Integrated procurement

Typical complexities of Shared Service Delivery:

- Designing and delivering service levels based on the differing needs of the agencies
- Delivering services at a price point which satisfies the service quality and performance requirements of all agencies
- Establishing a Governance Model and Governing Bodies with equitable representation from participating agencies
- Organizational change management implications (e.g. changing user behavior to adopt modified, standardized processes, operating model changes, staff retention and development)

Establishing and sustaining Shared Infrastructure Services for the agencies will be dependent on managing a number of critical success factors



Funding / Chargeback Model

Establishing a mutually agreeable Funding / Chargeback Model for upfront Shared Infrastructure set-up costs and ongoing operations



Governance Model

Establishing a Governing Body with equitable representation from participating agencies which is accountable for decision making, issue resolution, cost management, and performance standards / recourse



Operating Model

Defining the Operating Model for delivery of the Shared Infrastructure Services (including roles and responsibilities of the participating agencies & the governing body, the shared infrastructure services catalogue, the Interaction Model between the stakeholders and the governance structure)



Accounting / Budgeting Changes

Understanding the implications of moving from capital expenses to operating expenses for IT infrastructure, including the impact to the agencies funding model, accounting policies and budget allocations



Agency Participation Rates

Ensuring a minimum baseline volume for infrastructure services would be essential for realizing cost savings (e.g. by securing volume discounts and by distributing operational costs) and delivering services at an appealing price point to the agencies. This may require committed participation from some of the Large and Moderate agencies



Agency Onboarding Timelines

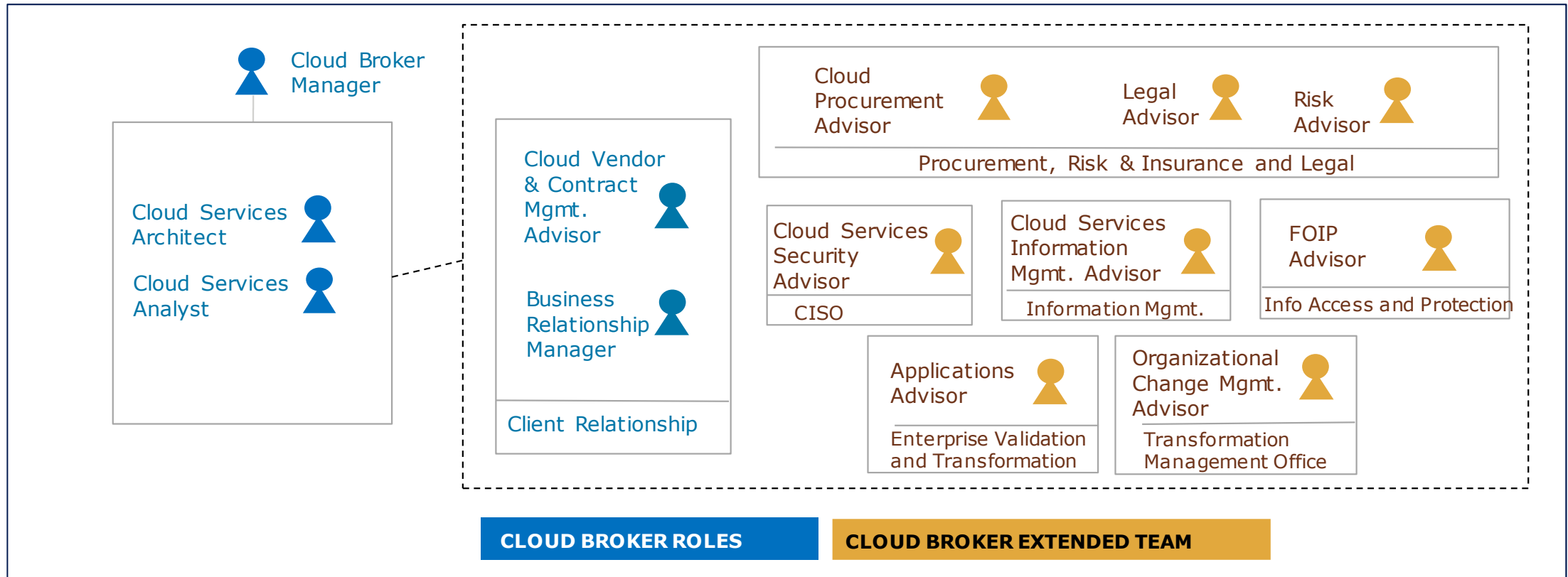
The timing of onboarding agencies needs to align with a number of factors, including their utilization of existing investments in IT infrastructure, their funding cycles, and their short-term to long-term priorities



IT Staff Development

Existing IT Infrastructure staff at the agencies will need to be trained on the new / shared infrastructure services (e.g. Cloud architecture skillsets), the changed delivery model and the corresponding changes to their roles, responsibilities and operations processes

In addition to the required Cloud service components, the Cloud Broker business model will provide services that support the Ministries move to cloud



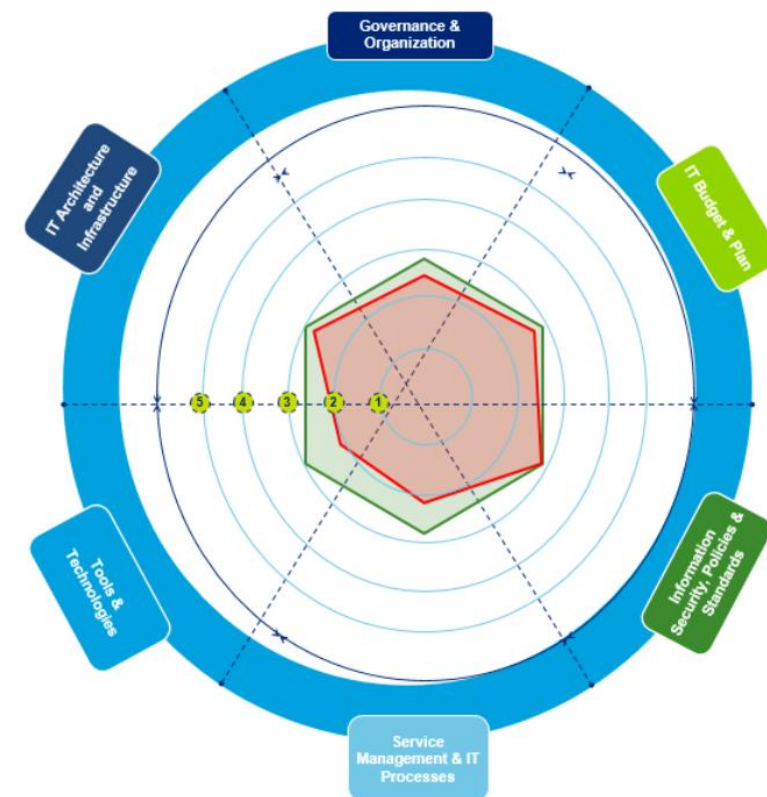
- The Broker must be a **Government entity**
- The broker can **leverage external providers to deliver Cloud services**
- In each contracting model the Broker will deliver a **different subset of services**

Some of the surveyed government agencies lack necessary Cloud capabilities to enter the Cloud journey. Interview results show that most agencies have plans to address those gaps.

Aggregated Results

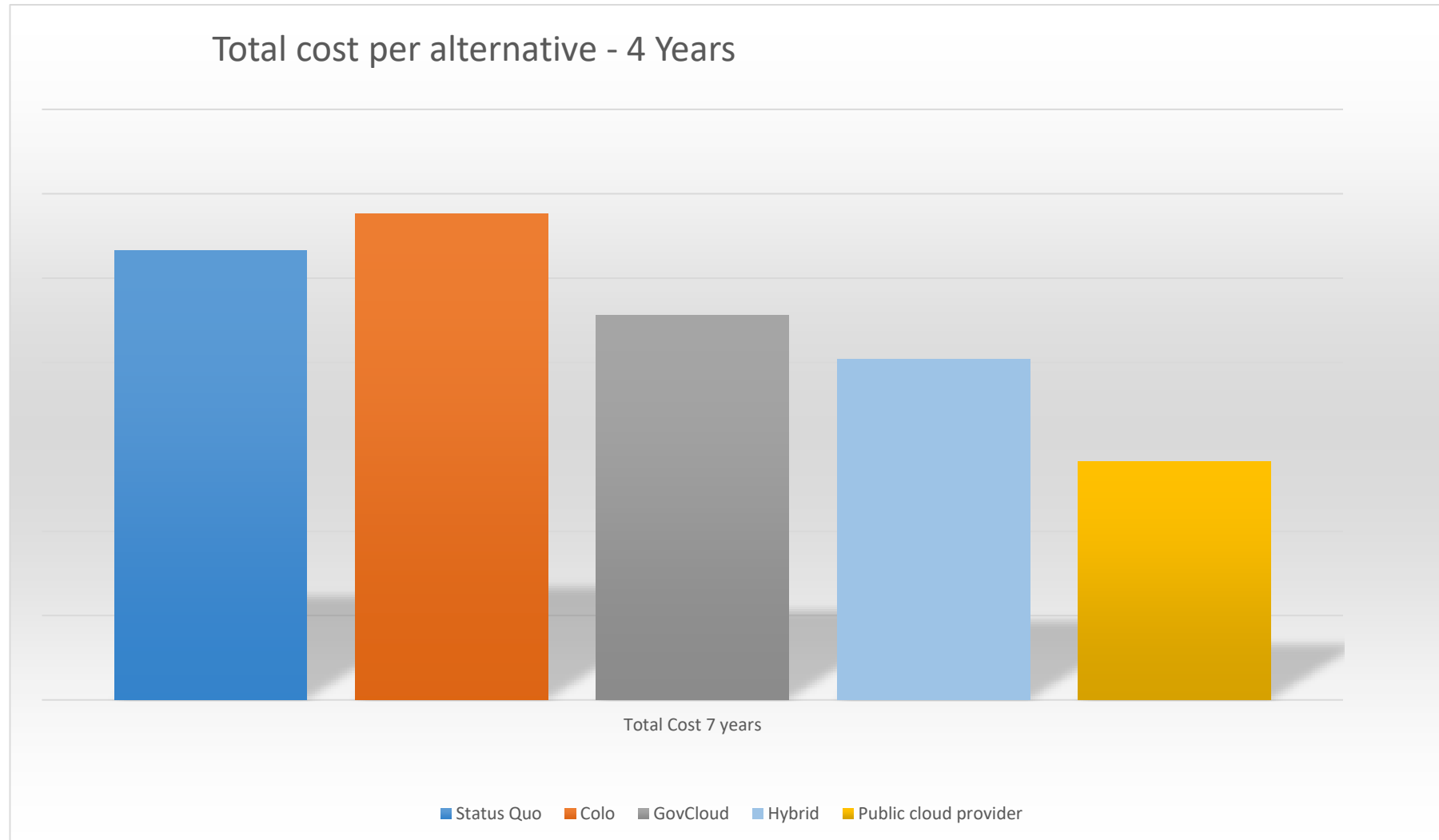
The **Cloud readiness maturity model** represents a specific combination of IT resources and processes necessary to operate Cloud environments.

- Some of the key readiness capabilities are already in place
- Mature organizations are considered to have the majority of the base operational competencies in place to support major Cloud adoption when three or more maturity levels per capability group cross the 60% standard levels
- The Agencies meet these criteria in three capability groups:
 - Governance & organization oversight
 - Information security, policies & standards
 - IT architecture and infrastructure
- Three capability groups have room for improvement, though some agencies have made and continue to make strides in these groups towards overall readiness:
 - Tools & technologies
 - Service management & IT processes
 - IT budget & plan



■ Baseline readiness standard
■ The Government results

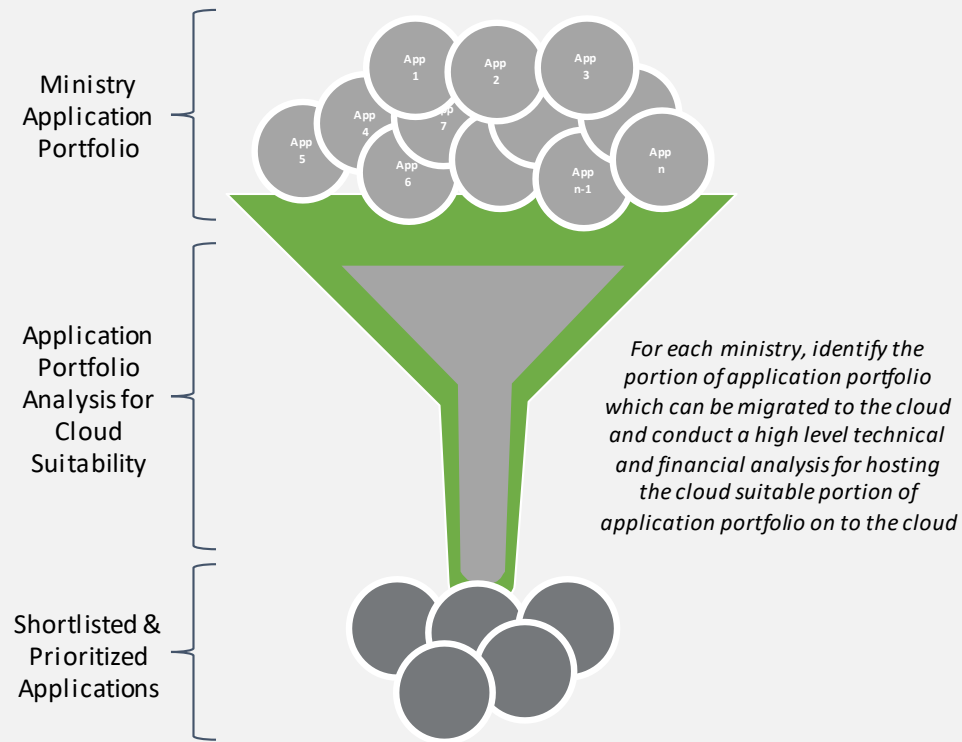
While Public Cloud was identified as the least cost option, Hybrid Cloud is viewed as the most viable alternative for the Government as it supports public Cloud and on premise workload hosting models



The Ministries will need to undertake an analysis of their existing application portfolios to determine their suitability to move to the Cloud

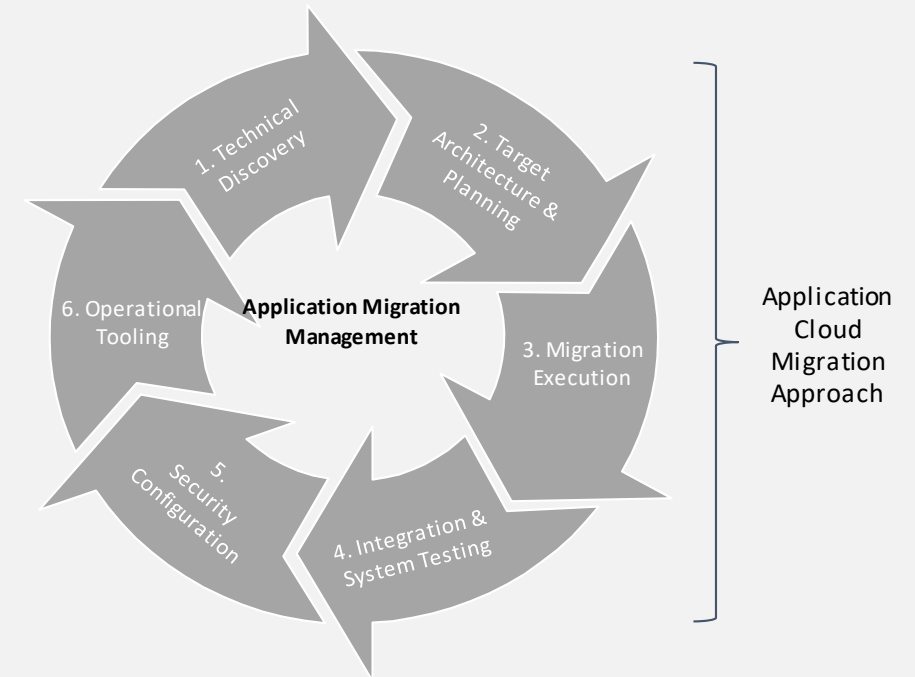
Phase 1. Application Portfolio Analysis

The application portfolio is analyzed based on a number of application characteristics to assess cloud suitability, optimal target platform, and migration path. The applications are then prioritized based on complexity, criticality, cost savings, and migration effort required

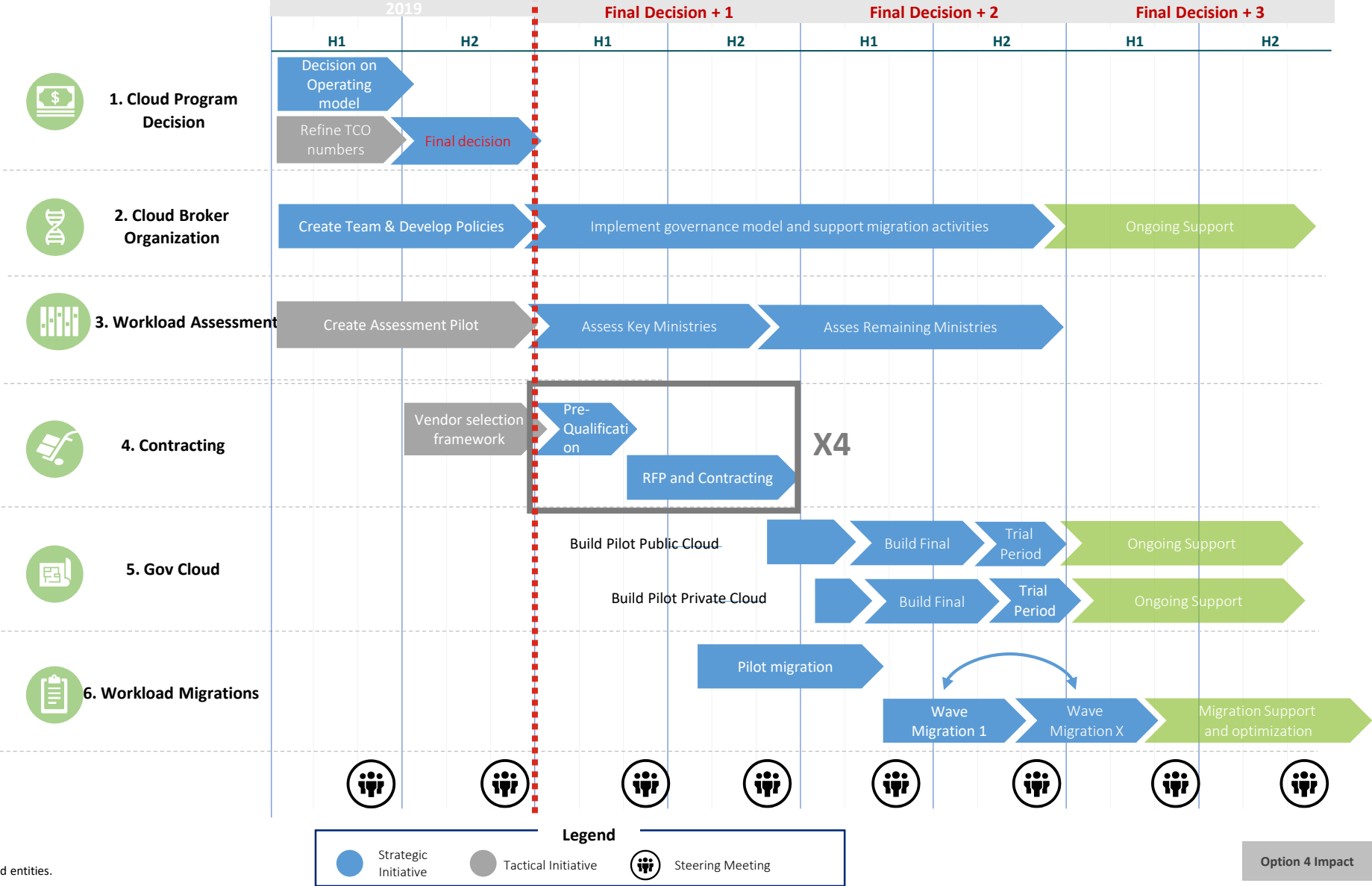


Phase 2. Application Cloud Migration

For each shortlisted application, the cloud migration effort is performed, which involves re-architecting the application for cloud platforms and executing the migration through multiple workstreams to ascertain that the performance of the target state migrated application is on par or better than in the current state



Execution of the high-level roadmap should enable the Government of Israel to achieve their Cloud strategy goals



So what's next for the Government in their Cloud journey?



Aggregate issues into internal decisions and finalize business case



Create support circles (treasury, offices, etc.)



Perform a comprehensive TCO analysis



Initiate a pilot assessment project with a selected ministry



Build vendor selection framework and create list of possible vendors



Build a team to write the tender



Initiate RFI/RFQ process

Deloitte.