Cloud Readiness Toolkit Overview

June 2016

Table of Contents

Disclaimer

The Toolkit is a diagnostic and planning tool intended to provide recommendations for action based on existing good practice. It does not constitute technical or legal advice and no inference should be drawn as to the completeness, adequacy, accuracy or suitability of the underlying assessment or recommendations. Without limitation to the immunities and privileges of the Bank under its Articles of Agreement and other applicable laws, the Bank shall not be liable for any loss, cost, damage or liability of any kind as a result of this Toolkit or its use.

Introduction

Many countries that are interested in implementing a cloud platform are either uncertain where to start or are focused on building a national data center, or equivalent; however, a government may not be ready to leverage the cloud, even if they have one available. In order to assist governments with this gap, the World Bank Cloud Readiness Assessment Toolkit provides a series of questions that determines where a country is in terms of overall readiness, what deployment model they may wish to pursue based on their current regulatory environment, and recommendations on how they can better position their government to take advantage of cloud computing. Once a government is ready to implement a cloud platform, the application and infrastructure assessment can be used to build out a roadmap both at the department/ministry level and the application level.

Cloud Computing

According to the National Institution of Standards and Technology, cloud computing is a model for enabling ever present, convenient, on-demand network access to a shared pool of configurable computing resources (i.e., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction (U.S. Department of Commerce, 2011). In other words, cloud computing can also be referred to as on-demand computing. It is a way for users to get continual access to shared computing resources, such as servers, storage, and sometimes services, as needed.

Toolkit Overview

Overview

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environment, and recommendations on how they can better position their government to take advantage of cloud computing.

The toolkit is comprised of five documents, two of which are the assessments that are the foundation of the recommendations. Each assessment should be answered accurately to the best of the individual's knowledge. It is important to have someone who can understand and fully answer the questions complete the assessments. Incomplete or inaccurate responses will skew the results. As a result, the roadmap and recommendations provided by the toolkit may not be applicable.
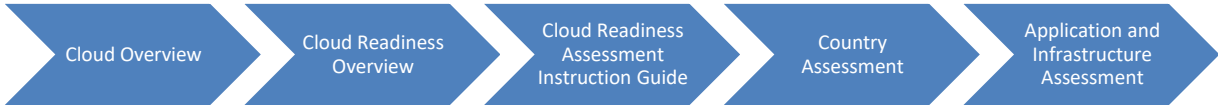
The aim of this Government Cloud Readiness Toolkit is to assist countries by:
- Identifying policy and regulatory gaps
- Providing recommendations around next steps to take towards implementation of a cloud computing system that meets a country's specific needs
- Recommending a deployment model (private, hybrid, public, or local public)
- Providing recommendations around applications that might be good candidates for migrating to the cloud
- Providing some guidance on how to ensure transactions using the cloud would be enforceable and that an individual's data will be protected

This toolkit **will not**:
- Provide an in depth assessment of country's legal and enabling environment for cloud computing
- Replace an in depth assessment or business case
- Provide steps for building a private data center or selecting a public cloud provider
- Provide estimates for migrating to the cloud
- Provide guidance on budgeting for migrating to the cloud
- Recommend a specific cloud provider
- Recommend a service model

Toolkit Process Flow

Cloud Overview → Cloud Readiness Overview → Cloud Readiness Assessment Instruction Guide → Country Assessment → Application and Infrastructure Assessment

Audience	Audience	Audience	Audience	Audience
• IT Director • Government Officials	• IT Director • High Level Government Officials	• IT Director • Legal • Application Lead • Infrastructure Lead • Application Owners • Infrastructure Leads	• IT Director • Legal • Application Lead • Infrastructure Lead	• Application Owners • Infrastructure Leads
Objective High level overview of the cloud and key considerations when migrating	**Objective** Overview of Toolkit	**Objective** Instructions on completing the toolkit	**Objective** Assess overall country readiness to migrate to the cloud	**Objective** Assess application portfolio for cloud readiness

Cloud Overview

This Word document provides a high level overview of the basics of cloud computing and key considerations for a government when considering migrating to the cloud.

Cloud Readiness Overview

This Word document provides a high level overview of the various toolkit components along with guidelines on who might be the best choice to complete the various sections.

Cloud Readiness Assessment Instruction Guide

This Word document provides detailed instructions on completing the Country Assessment and the Application and Infrastructure Assessment.

Country Assessment

The country assessment is a questionnaire used to assess the government's overall cloud readiness. By answering the questions around regulation, security, infrastructure, etc. the assessment identifies gaps in a country's policies, regulations, or current IT infrastructure that would impact a migration to the cloud or prevent a country from fully realizing the potential of such a migration. Research on government cloud migrations show that countries frequently do not see the full expected savings or benefits when migrating to the cloud due to gaps in readiness.

The country assessment is broken down into seven key categories. Different sections can be filled out by different individuals based on their area of knowledge. Recommendations are provided in the table below.

Section	Best Person to Complete	Estimated Time to Complete
General	IT Director or Equivalent	20 minutes
Resources	IT Director or Equivalent	15 minutes

Security	IT Director or Equivalent	30 minutes
Regulations	Legal	45 minutes
Governance of ICT Systems	IT Director or Equivalent	30 minutes
Data	IT Director or Equivalent	30 minutes
Infrastructure	Ministry or Department of Telecommunications	45 minutes

The assessment also contains a recommendation section that highlights where a country falls along the road to cloud readiness as well as recommendations for three key phases along that road – walk, run, fly.

Application and Infrastructure Assessment

The application and infrastructure assessment is a questionnaire used to assess the government's overall application landscape. By answering the questions for each application being considered for a migration to the cloud, and any servers associated with those applications, the assessment helps determine the fitness, effort and recommended deployment type.

This assessment is broken up into two sections – application and infrastructure. The questions in the assessment cover both functional, application level questions, as well as in depth infrastructure, server level questions.

The application section is geared towards application owners, whereas the infrastructure section is geared towards the infrastructure team.

How long it will take to complete the assessment for each application owner or infrastructure lead will depend upon the number of the applications and servers for which they are responsible.

Section	Best Person to Complete	Estimated Time to Complete
Application	Application Owner(s) (May be multiple individuals)	20 minutes per application
Infrastructure	Infrastructure Lead(s) (May be multiple individuals)	10 minutes per server