

# Cloud Computing

Government of Jamaica's Perspective

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## Outline

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- ☞ Characteristics
- ☞ Service Models
- ☞ Issues
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- ☞ Steps in the Right Direction

## NIST Definition of Cloud Computing

- ∞ Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

## Essential Characteristics

- ∞ *On-demand self-service.*
- ∞ *Broad network access.*
- ∞ *Resource pooling.*
- ∞ *Rapid elasticity.*
- ∞ *Measured Service.*

## Service Models

- ☞ *Cloud Software as a Service (SaaS).*
- ☞ *Cloud Platform as a Service (PaaS).*
- ☞ *Cloud Infrastructure as a Service (IaaS).*

## Deployment Models

- ☞ *Private cloud.*
- ☞ *Community cloud.*
- ☞ *Public cloud.*
- ☞ *Hybrid cloud.*

## Issues

- ✎ The Government's current Information and Communications Technology (ICT) environment is characterized by a fragmented demand for resources, duplicative systems, environments which are difficult to manage, and long procurement lead times.

## Issues

- ✎ Cloud computing has the potential to play a major part in addressing these inefficiencies and improving government service delivery.
- ✎ The cloud computing model can significantly help Public Sector Entities which are grappling with the need to provide highly reliable, innovative services quickly despite resource constraints.

## Benefits

- ⌘ Services will be more scalable
- ⌘ Innovation improvements will be more rapidly enhanced and effected
- ⌘ Leveraging shared infrastructure and increased economies of scale.
- ⌘ Cloud computing will not only make our ICT services more efficient and agile, it will also serve as an enabler for innovation

## Benefits

- ⌘ Cheaper processors, faster networks, and the rise of mobile devices are driving innovation faster than ever before.
- ⌘ Just as the Internet has led to the creation of new business models unfathomable up to 20 years ago, cloud computing will disrupt and reshape entire industries in unforeseen ways.

## Benefits

- ∞ By leveraging shared infrastructure and economies of scale, cloud computing presents the Government with the opportunity to:
  - Improved asset utilization
  - Improved productivity in application development, application management, network, and end-user
  - Shift focus from asset ownership to service management
  - Tap into private sector innovation
  - Encourage entrepreneurial culture
  - Better link to emerging technologies

## ICT now a Commodity?

- ∞ Government must move away from expensive, long-duration bespoke solutions to a common approach
- ∞ The broad scope and size of the cloud transformation will require a meaningful shift in how government organizations think of ICT.

## ICT now a Commodity?

- ✎ ICT can no longer only be seen as an investment in locally owned and operated applications, servers, and networks will now need to think of IT in terms of services, commoditized computing resources, agile capacity provisioning tools, and their enabling effect for Jamaican citizens.

## Steps in the Right Direction

- ✎ GovNet
- ✎ ICT Policy
- ✎ Single Regulator
- ✎ Infrastructure and Application Standardization