CSA APAC CONGRESS 2019:

AN UPDATE ON THE MALAYSIAN CYBERSECURITY & CLOUD SECURITY LANDSCAPE

IR WAN MURDANI, DIRECTOR MALAYSIA DIGITAL ECONOMY CORPORATION
Championing Malaysia’s Digital Economy

Our role is to build a vibrant digital economy and ensure that Malaysia plays a leading part in the global digital revolution. We are passionate about digital technology and its potential to transform the future of our nation and the world.

Through attracting technology investment, supporting technology champions and helping Malaysian organisations and talent to embrace digital, we are fuelling a sustainable digital ecosystem that will drive nation’s digital economy forward.
“DIGITAL MALAYSIA AS THE NATIONAL DIGITAL TRANSFORMATION INITIATIVE”

Advocate Policy

Build Ecosystem

Create Communities

Drive Growth Through Programs
GLOBAL ATTACKS ARE INCREASING AND COSTS ARE RISING

Risk of cyber attacks can cost business up to $3 trillion a year.

Cybercrime extracts between 15-20% of the value created by the Internet.

More than 800M individual records were breached in 2013.

The number of recorded data breaches is 78% in 2014.

91% agree consumers have lost control over how personal information is collected and used by companies.

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**What is the Cloud?**

<table>
<thead>
<tr>
<th>House</th>
<th>Hotel Services</th>
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<tr>
<td><img src="image1.png" alt="House Image" /></td>
<td><img src="image2.png" alt="Hotel Services Image" /></td>
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CLOUD SECURITY: CATALYSING DIGITAL INNOVATION

Cloud Service Providers

Server | Storage | Apps | Security | Services

Internet Of Things

Robotics

Data & Analytics

Autonomous Vehicles

E-Commerce

Artificial Intelligence

Blockchain

FinTech
WE CANNOT IGNORE CLOUD ANYMORE

“By 2020, a corporate ‘no-cloud’ policy will be as rare as a ‘no-internet’ policy is today.”

Gartner

“The question is no longer: ‘How do I move to the cloud?’ Instead, it’s ‘Now that I’m in the cloud, how do I make sure I’ve optimized my investment and risk exposure?’”

KPMG

“By 2020 clouds will stop being referred to as ‘public’ and ‘private’. It will simply be the way business is done and IT is provisioned.”

IDC
MOTIVATION MOVING TO CLOUD

Greater Cyber Security Posture
CSPs provide a comprehensive cyber security platform based on technology and talent and provide all the tools for their customers to secure and protect their data.

Eases Adoption Of Emerging Technologies
Agencies able to tap to world-leading technologies and deploy the projects at scale within shorter period

Inter-agency collaboration for greater efficiency and better citizen services
Resources can be shared across agencies easily for greater efficiency and delving innovative government services

Optimizing Cost
IDC reported on average organisation can lower 5-year cost of operation by 51% under proper planning and governance
Digital Cities and Highways in East Asia and ASEAN

Sources: Telegeography, Microsoft, Google, AWS
<table>
<thead>
<tr>
<th>Privacy</th>
<th>Security</th>
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<tr>
<td>• Privacy as good as corporate policy and implementation</td>
<td>• Budget Limited as a Cost Centre</td>
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<tr>
<td>• Which has the higher priority, profits or customer privacy?</td>
<td>• Technology acquisition &amp; integration from 3rd party</td>
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<td>• Privacy by design?</td>
<td>• Talent challenges</td>
</tr>
<tr>
<td></td>
<td>• Corporate services are different from consumer services</td>
</tr>
<tr>
<td></td>
<td>• Protection of customer data is top priority</td>
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<tr>
<td></td>
<td>• Privacy is designed into the systems</td>
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<td></td>
<td>• Spend billions</td>
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<td>• Often the leaders in secure tech</td>
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<td>• Hire some of the best talent</td>
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<td>• Under attack 24x7x365</td>
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<td>• More capacity than the attackers</td>
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<tr>
<td></td>
<td>• 24x7x365 capability?</td>
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<td>• DDOS mitigation?</td>
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Companies today increasingly use Cloud Computing services where their data is not fixed to a physical location but is distributed for cost savings, market reach and efficiency and encrypted for protection and security.
DATA GOVERNANCE

- Personal Data Protection
- Data Sovereignty
- Regulation directed at Cloud Computing
- Sector-Specific Regulations
- Intellectual Property Rights
- Content Regulation
- Data Security
ENGAGEMENT SESSION - KEY FINDINGS

CHALLENGES IN ADOPTING CLOUD

1. **42%**
   No clear directions or guidelines to adopt cloud

2. No clarity on data classification management in cloud environment

Note: Data tabulated during awareness sessions
n = 92 (awareness session) with 29 agencies
Source: MDEC Survey
MOST GOVERNMENT DATA IS CLOUD READY

- Hyperscale cloud solutions with industry standard security & logical separation
- Private and/or hybrid cloud solutions with enhanced security controls
- Custom, hardened on-premises systems

Source: Microsoft - Cloud Computing Forum 2018
OTHER COUNTRIES APPROACH IN ADOPTING CLOUD

UK

Before
Government protective Marking Scheme (Pre-Cloud Adoption 2014)

Top Secret
Secret
Confidential
Restricted
Protect
Unclassified

After
Higher security level

All level of data can be stored in cloud –
• Different level will require different security taken.

PHILIPPINES

Before
Classified Matters 1964

Top Secret
Secret
Confidential
Restricted
Unclassified data

After
Cloud First Policy 2017

Tier 3 - Top Secret, Secret & Confidential
Tier 2 - Restricted Data
Tier 1 - Unclassified data

Data classification structure was amended with higher security

No changes in Data classification structure however the grouping is optimized for cloud

Before
After

Allow to store on accredited commercial cloud or GovCloud with different security levels

WHY CHOOSE AN ACCREDITED CSP?

Inspire Trust

Agency to choose a CSP whose certifications address the specific challenges of Cloud i.e. ISO 900

Ensure public sector satisfaction

Offer satisfaction for Agency if CSP can demonstrate 3rd party validation of their service

Address Security Issue

ISO shows that the CSP is take it seriously when dealing with Agency and Government data

Improve efficiency and effectiveness

Certification will enhanced operational efficiency and subsequent cost savings
Global Standards to be Considered as Minimum Security Requirements for Cloud Adoption
Objective: To discuss and collate input on Outsourcing Exposure Draft 2018 and Risk Management in Technology (RMiT) Exposure Draft issued by BNM in driving cloud adoption in the Malaysia financial services industry.

Over 50 representatives from more than 15 FI, Association of Islamic Banks and CSPs (AWS, Google, Microsoft, Alibaba).

Executives Board Room, MDEC Cyberjaya
19th October 2018
MALAYSIA : LOCAL EXISTING POLICY OR GUIDELINES

- Dasar Keselamatan ICT MAMPU - 2010
- Data Terbuka Sektor Awam - 2015
- Rangka Kerja Keselamatan Siber Sektor Awam (RAKKSA) – 2016
- Arahan Keselamatan 1967 (Semakan 2017)
- **BNM Oursourcing** – Jan 2019
- **BNM RMiT** (Risk Management in Technology) – July 2019
- **ISO 27036-4** (InfoSec for Supplier Relationships – Cloud) - 2016

- Cloud Is Significantly Different From Conventional IT Infrastructure
- It Is Imperative to have New Policy & Guidelines that Support the Adoption Of Cloud
CLOUD FIRST STRATEGY: MALAYSIA’S WAY FORWARD

To Adopt a Cloud First Strategy

Public Sector to adopt
Cloud First Policy in IT services procurement

Regulators to facilitate cloud adoption through issuance of progressive guidelines
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