

# ITU Regional Workshop 2019 “Strengthening Capacities in Internet Governance in Arab Region”

Manama – Bahrain, 01-03 Oct. 2019

## Digital Financial Inclusion & Digital Economy Governance Issues

Presented by:

Rajalakshmi MBA, PMP, BCCE

Hosted by



1



# Overview

1. Why Digital Economy?
2. What is Digital Financial Inclusion and how the access to financial services through ICTs can benefit societies ?
3. Regional perspective
4. Governance
5. Key challenges and hurdles in data centered economy.
6. Initiatives in Oman

# Why We are talking about Digital Economy?

# Digital Economy

Largest driver of innovation, competition, and growth worldwide

**90% of the data in the world today has been created in last 3 to 5 years**

*Source: IBM marketing cloud*

Digital universe to reach 44 zettabytes by 2020.

By 2020, **212 billion things** will be connected

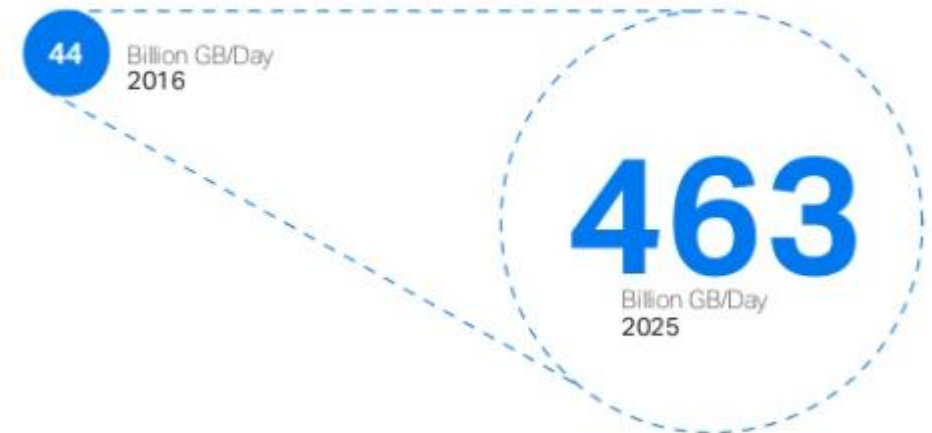
**6.1 billion smartphone users** in the world

In 2015, 51% of workloads were processed in the cloud

Source: Transactives

## Global Data Created Each Day

44 billion GB of data was created per day in 2016.



+ IDC predicts growth to **463 billion GB** of data created per day in 2025

As of June **2019**, there are 4.4 billion internet users. This is 83% increase in just five years!

*Source: Microfocus*

# A DAY IN DATA

The exponential growth of data is undisputed, but the numbers behind this explosion - fuelled by internet of things and the use of connected devices - are hard to comprehend, particularly when looked at in the context of one day

**DEMYSIFYING DATA UNITS**

From the more familiar 'bit' or 'megabyte', larger units of measurement are more frequently being used to explain the masses of data.

Unit	Value	Size
<b>b</b> bit	0 or 1	1/8 of a byte
<b>B</b> byte	8 bits	1 byte
<b>KB</b> kilobyte	1,000 bytes	1,000 bytes
<b>MB</b> megabyte	1,000 <sup>2</sup> bytes	1,000,000 bytes
<b>GB</b> gigabyte	1,000 <sup>3</sup> bytes	1,000,000,000 bytes
<b>TB</b> terabyte	1,000 <sup>4</sup> bytes	1,000,000,000,000 bytes
<b>PB</b> petabyte	1,000 <sup>5</sup> bytes	1,000,000,000,000,000 bytes
<b>EB</b> exabyte	1,000 <sup>6</sup> bytes	1,000,000,000,000,000,000 bytes
<b>ZB</b> zettabyte	1,000 <sup>7</sup> bytes	1,000,000,000,000,000,000,000 bytes
<b>YB</b> yottabyte	1,000 <sup>8</sup> bytes	1,000,000,000,000,000,000,000,000 bytes

\*A lowercase "b" is used as an abbreviation for bits, while an uppercase "B" represents bytes.

**500m**  
tweets are sent every day  
Twitter

**4PB**  
of data created by Facebook, including  
**350m** photos  
**100m** hours of video watch time  
Facebook Research

**463EB**  
of data will be created every day by 2025  
IDC

**95m**  
photos and videos are shared on Instagram  
Instagram Business

**294bn**  
billion emails are sent  
Radicati Group

**320bn**  
emails to be sent each day by 2021

**306bn**  
emails to be sent each day by 2020

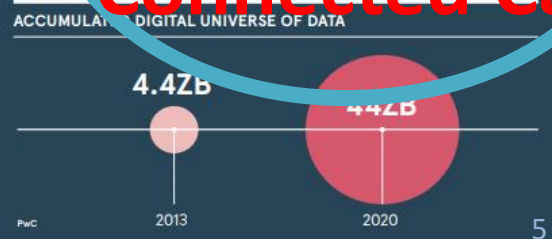
**65bn**  
messages sent over WhatsApp and two billion minutes of voice and video calls made  
Facebook

**3.9bn**  
people use emails

**4TB**  
of data produced by a connected car  
Intel

**5bn** searches made a day  
**3.5bn** searches made a day from Google  
Smart Insights

**28PB**  
to be generated from wearable devices by 2020  
Statista



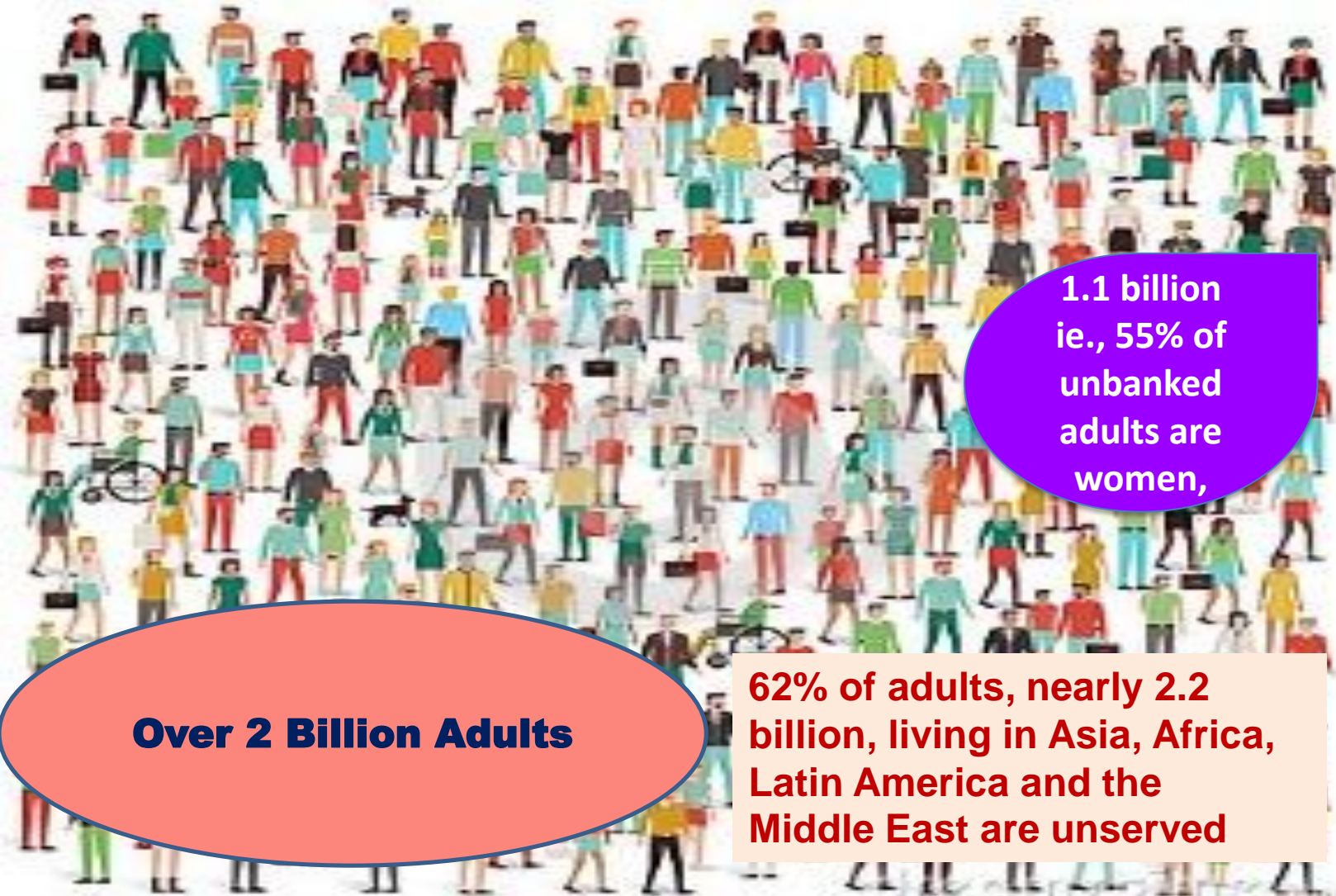
# 2019 *This Is What Happens In An Internet Minute*



Created By:  
[@LoriLewis](#)  
[@OfficiallyChadd](#)

**What is Digital Financial Inclusion and how the access to financial services through ICTs can benefit societies ?**

# Almost half of the world is unbanked!



1.1 billion  
ie., 55% of  
unbanked  
adults are  
women,

**Over 2 Billion Adults**

62% of adults, nearly 2.2 billion, living in Asia, Africa, Latin America and the Middle East are unserved





Formal financial services are unavailable to people



WHY ARE PEOPLE UNBANKED?

The Global Findex shows 3/4 of the world's poor do not have a bank account, not only because of poverty, but also due to costs, travel distance and paper work involved.



59% of adults in developing economies



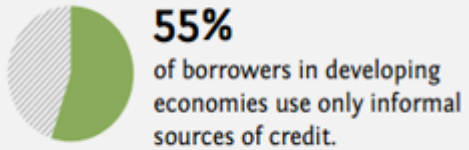
77% of adults earning less than \$2 a day



11% in high-income economies

DON'T HAVE AN ACCOUNT AT A FINANCIAL INSTITUTION

In all regions, with the exception of high income economies, borrowing from friends and family is the most commonly reported source of credit for current loans



55% of borrowers in developing economies use only informal sources of credit.



# Benefits to Economy

Under Served population gets digital access to use formal financial services

**Affordable cost for customers and sustainable for providers.**

Key components include a **digital transactional platform, retail agents, and device** (commonly a mobile phone)



BCG Estimate that  
1% increase in  
financial inclusion  
increase the real  
GDP Per capita by  
3.6%



## Regional Perspective

**69% adults in Arab world is unbanked**

**Financial Inclusion is critical in Middle East and North Africa (MENA) region, for employment creation, and for raising incomes and reducing poverty.**

**Outreach of formal financial services in the Arab world stands at 21 %, when excl. GCC countries, the lowest worldwide .**

At 74 % account ownership, GCC countries are above the global average of 61% account ownership, still below the 94 % OECD average

Limited penetration of insurance services especially in the low income group

Account ownership in the entire Arab world remains low at 29 %.

Savings takes place outside formal channel

Arab world lags behind in terms of access to credit from formal financial institutions, 44% adults borrow, 6% borrow from formal institutions, where as globally 42% adults borrow and 11% borrow from formal institutions.

In 2001, the UAE launched first eService - eDirham card – as a mode of payment for govt. & non-govt. services.

**Low financial inclusion** as financial services are unattended even though financial activity is high

**92 Million borrow through informal channels**

# Interesting facts on Middle East

Innovation across the Middle East is **accelerating**

Top digital users are the youth segment, and with 60% of the population aged under 30

Over half regularly use the internet and mobile penetration is extremely high

Young population use modern technologies , YET the financial and banking side is lagging.

14% of adults in the Middle East have an account at a financial institution

More than 85 million adults in the region remain unbanked.

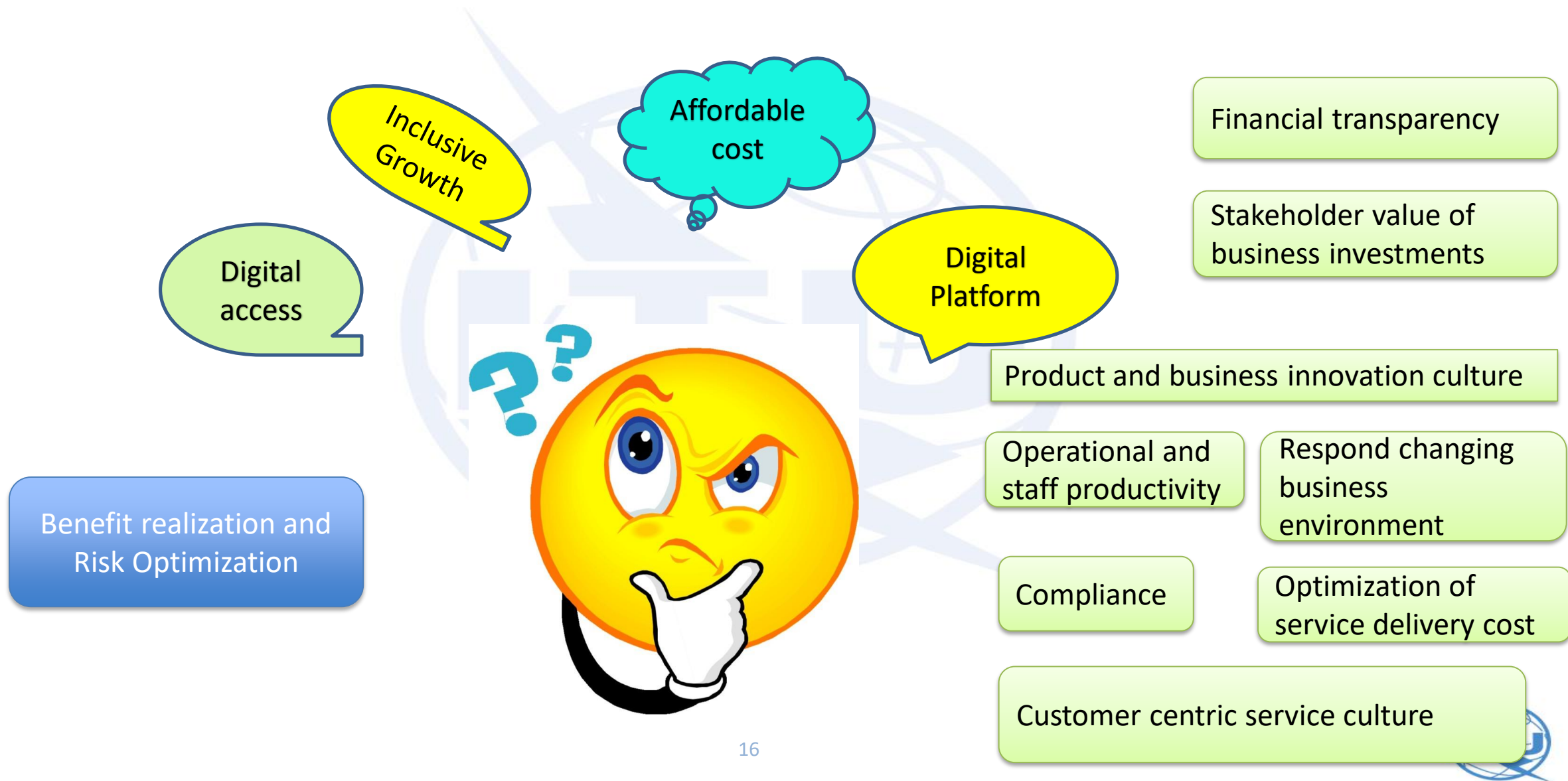
Women's access to banking services is extremely low compared to access in developed countries.

9% of women have an account in the Middle East compared to an average 47% globally.



# Governance

# What is Governance? Why ?



# Key Components

Direct & control

Accountability

Due diligence

- KEY PRINCIPALS
- Direct Governance Strategies
  - Formulate and maintain policies
  - Commission Governance Framework
  - Ensure Compliance
  - Recommendations

- PURPOSE
- Deliver business value
  - Manage and communicate Risk
  - Utilization of resources
  - Performance measured and monitored

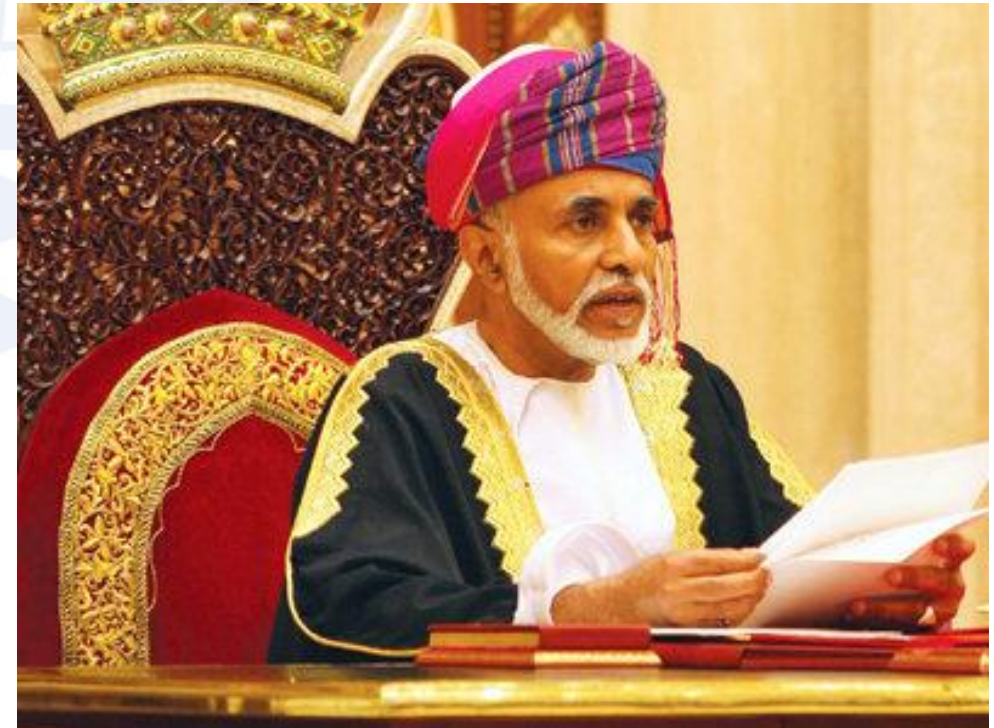




# Few Initiatives in Oman

*'We call upon all government institutions to speedily enhance their performance, and to facilitate their services, by applying digital technology in order to usher the Sultanate into the constantly evolving spheres for applying knowledge'.*

His Majesty Sultan Qaboos bin Said  
The Annual Session of the Council of Oman  
11th November 2008  
, November 2008



## Governance & Compliance



18 policies, frameworks and guidelines have been issued, 8 of which are not yet released.

## National Digital Certification Center



المركز الوطني  
للسلامة المعلوماتية  
Oman National CERT



- 14 million certifications issued in the ID card and MPKI
- 12 million transactions using PKI
- 30 Entities integrated with PKI
- 659 Token generated to Government employees

## National G-Cloud



Private Cloud shared IT infrastructure for Government entities.

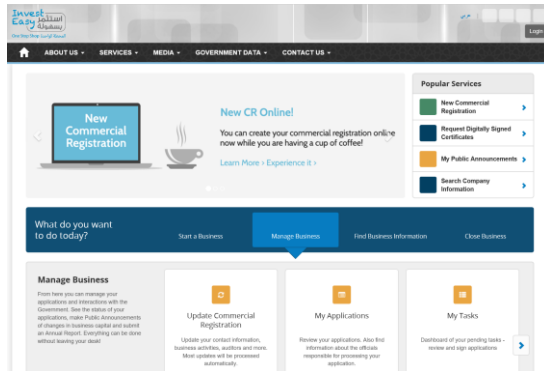
## e.Transactions Law



- 2011 - Cyber Crimes Law promulgated under Royal Decree No. 12/2011 to curb IT crimes.
- 2008 - Promulgation of the eTransactions Law by Royal Decree 69/2008.



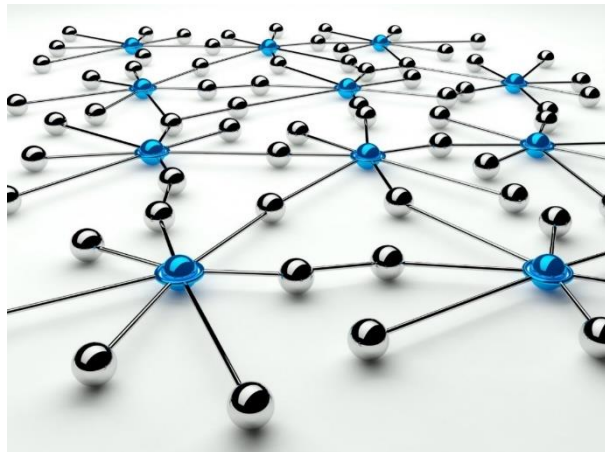
# Enhance eGovernment & e.Services Invest Easy



- 45 e-Services ; 18 Mobile Services
- 4000 Digitally Signed certificates downloaded.
- 11 Entities integrated.
- 36% of New Companies in Oman started using Online Portal.

## National Infrastructure Development

### ➤ Oman Government Network



- 1060 connected sites for 70 Govt Entities
- 19 entities part of high speed network (Oman Broadband)

**The Central Bank of Oman (CBO) launched, the mobile payment clearing and switching system on 23rd July 2017.**





# Key Challenges

# Challenges and Governance Issues in a data centered Economy

Governance of the Internet economy and the global internet – who owns

competition policy- demand driven network effects, rapid technological changes ,anti trust

intellectual property rights – globalization and innovation driven competition

taxation of cyber activities– what constitute a business presence in a country and how to determine relevant portion of the business profit that is attributable for that presence

consumer protection- illegal ads via internet, defamation issues, cross border disputes? Immaterial and transnational activities

broadband and digital convergence

**Privacy ???**

# Mitigating the challenges through Governance

- ✓ Stakeholder buy -in for the implementations
- ✓ Follow up & compliance
- ✓ Key stakeholder to be part of the instrument development
- ✓ Senior Management buy -in

- ✓ Comprehensive Legal framework for consumer protection
- ✓ Flexible /supportive open regulator environment & regulations enabling innovation & entrepreneurship

- ✓ New technology brings new responsibility for the regulators
- ✓ 69% of financial inclusion services launched in 2015 are operationally run by Mobile Network Operators, and 58% of all live services are MNO-led.  
Hence regulators should continue to create flexibility for mobile money services, which allow both banks and non-bank providers to offer these services.

- ✓ Good national identification system
- ✓ Efficient and fast settlement systems between financial service providers
- ✓ Government support for digital financial service adoption

# Data Sources

Reports from the following sources were used in this presentation

**McKinsey's ResearchGGM:**

- Bank for International Settlements International Banking Statistics
- Barro-Lee Educational Attainment database
- IMF International Financial Statistics
- International Energy Agency Energy Balances
- International Labour Organisation ILOSTAT
- McKinsey Global Institute Financial Assets database
- OECD databases
- UN World Population Prospects
- UN System of National Accounts database
- UN World Income Inequality database
- UNIDO Industrial Statistics database
- World Bank Global Financial Development database
- World Bank World Development Indicators (2016 and multiple vintages)

■ **McKinsey Global Payments Map.**

A key source for our analysis of the channels of GDP

impact was the McKinsey Global Payments Map, a database covering a variety of topics in the payments <sup>?</sup>

**Other data sources.**

To develop the inputs to GGM, we used a variety of sources across publicly available datasets, data from national governments,

- Mark Suzman times
- BCG Reports
- <http://www.worldbank.org/en/news/press-release/2015/04/15/massive-drop-in-number-of-unbanked-says-new-report>
- <https://www.linkedin.com/pulse/financial-inclusion-arab-world-iv%C3%A1n-aguado-trujillo>







عمان الرقمية  
e.oman

# Thank You

Rajalakshmi MBA, PMP, BCCE.

[lakshmi@ita.gov.om](mailto:lakshmi@ita.gov.om)