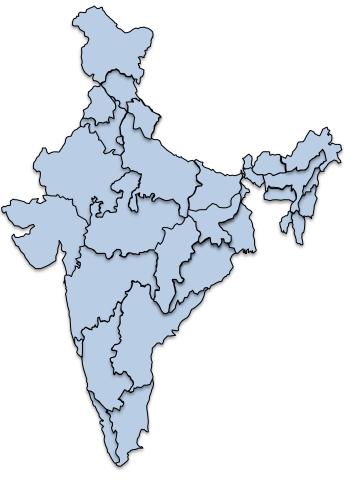
AI & IOT Impact on Businesses and Industry

AI & IOT India 2018 International Conference 14th December 2018 New Delhi India

India - An opportunity

- Population: 1.3+ billion
- 650,000+ villages, 70% population rural
- Multi-ethnic, Multi-religious society
- Multi-lingual: 22 Official languages
- 36 States & UTs; 250,000+ Local Bodies
- One of fastest growing major economies
- Explosive telecom and IT growth
 - Internet user base : 462+ million
 - Mobile Users : 1.2 billion
 - Smartphone : 375 million
 - E-commerce : USD 35 billion



Digital India Pillars





e-Governance

Reforming government

through technology

Broadband

Highways 121,453 Gram Panchayats Connected through Optical Fibre 1 Mn km OFC to be laid to connect 250K GPs



access to phones **375 million**



Public Internet

Access Program

Electronic Delivery of services

eKranti

306 **K**





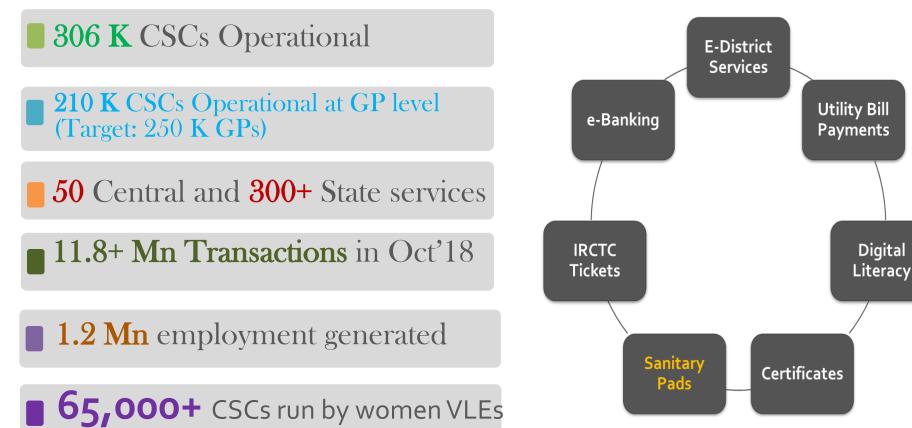
Make in India Electronics + Software



Digital Payments for Economic Growth

Common Services Centers: Employment & Access

WORLD'S BIGGEST RURAL eSERVICE CENTERS



India's Cloud Revolution (Meghraj + DigiLocker)

Cloud First Policy

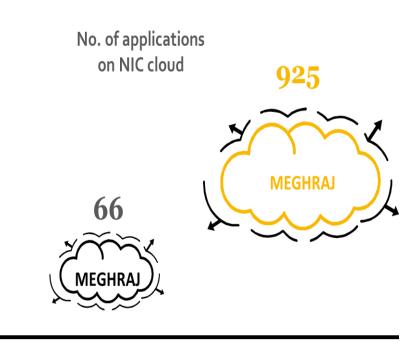
925 Applications on NIC cloud; **15,825 virtual**

DigiLocker provides dedicated cloud space to every citizen

13 Private Cloud Service

Providers empanelled

50+ Ministerial & PSU's applications on Pvt. Cloud



2014

2018*

Electronic Transaction Aggregation and Analysis Layer



Total Number of e-Services Integrated

Digital Payment Platforms

- Internet Banking
- Mobile Banking
- Cards Debit / Credit / Prepaid
- Point of Sales
- Payment Gateways

Innovative Digital Payments Platforms

New payment modes launched to cater to varying payment needs











Wallets

Other Key Products

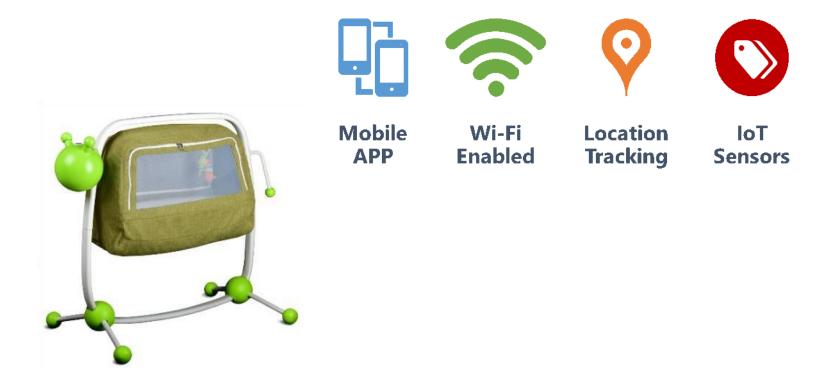
- **BHIM Unified Payments Interface (UPI) (Launched** in Aug 2016)
- BHIM USSD (Launched in Dec 2016) Aadhaar Enabled Payment System (Launched in 2013)
- BHIM Aadhaar for Merchants (Launched on
- 14th April 2017) Low-cost interoperable acceptance mechanism (Launched in Feb 2017)
- 469 Toll Plazas as of Nov 2018



- **Bharat Bill Payment System for Utility bill Payments**
 - (Launched in Sep 2016)
- **48 Non bank Pre Paid Instrument Providers** licensed by RBI
- **National Common Mobility Card- Standards** finalized

Innovation at CoE for AI & IOT

IoT, AI, Data Science, Big Data, AR/VR, Machine Learning, Robotics



Summarize the Role of Digital Economy: Why Digitize Businesses



Reduce Transaction Costs:

Average **transaction cost** in **web** is a mere **\$0.01**, while through **telephone** is **\$0.54**.



Access to Global Markets:

Connecting Local Artisans to Global Markets.

Green Shopping:

E-commerce *reduces carbon* footprint by approximately **50**% compared to traditional shopper.



Efficient Medium of Business:

Seamless *access to information* resulting in *better comparison, easier location* of products, & *less time* taken.

The 24/7 Shop:

More orders, Greater convenience.

Impact of Digital Economy

Mapping the Growth of E-commerce

Mobile is leading the growth:

Mobile commerce, accounted for \$161 bn in 2016, set to jump to \$319 bn in by 2020.

E-commerce represents **11.9%** of all **retail** sales.



Shifting Trends in Digital Economy: Geographic & Demographic



E-commerce growth is shifting from the **West to East** as **Asian countries** are increasingly **adopting internet-based technology.**



1.4 bn people will join the **global middle class** by **2020: 85**% from **Asia-Pacific.**



Close to **half** of **B2B** buyers are **millennials** Millennials comprise **one-fourth** of the **Asia Pacific workforce** and are a **rapidly growing** source of **spending** power.



- Among Asian Nations:
- Advanced in Digital Adoption: Singapore, Hong Kong, Japan, and Sou Korea

- Low Adoption but Fastest Momentum: India, Malaysia, Bangladesh, Philippines, Indonesia.

Key Cybersecurity Issues Facing Asia



Fraudulent Wire Transfer



Online Brand Impersonation



Security as an Afterthought:

Only 1 in 4 organizations in Asia take cybersecurity measures after an attack.

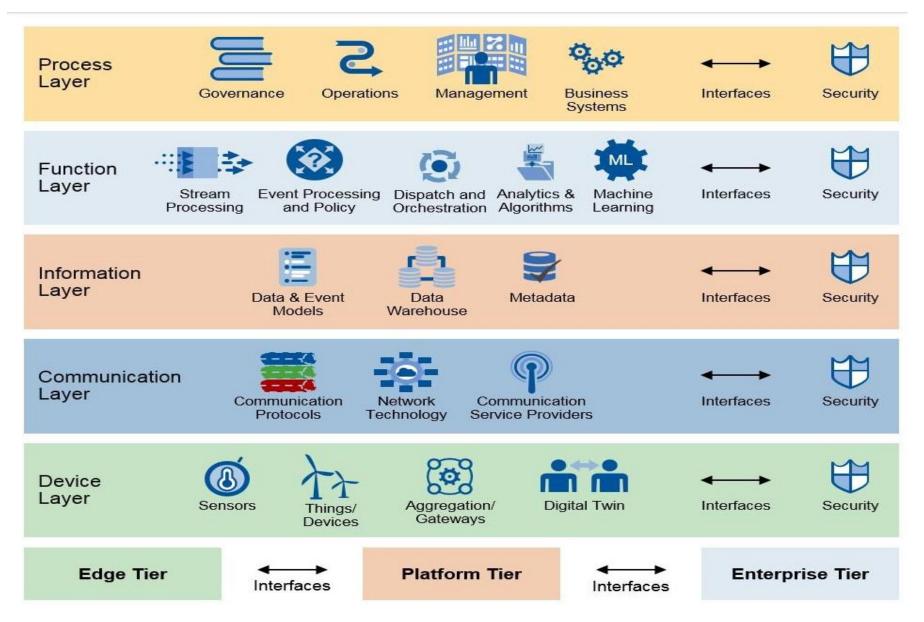


Complex Cybersecurity Environment



Lack of Comprehensive National and Regional Strategies

AI & IOT - Space





THANK YOU

