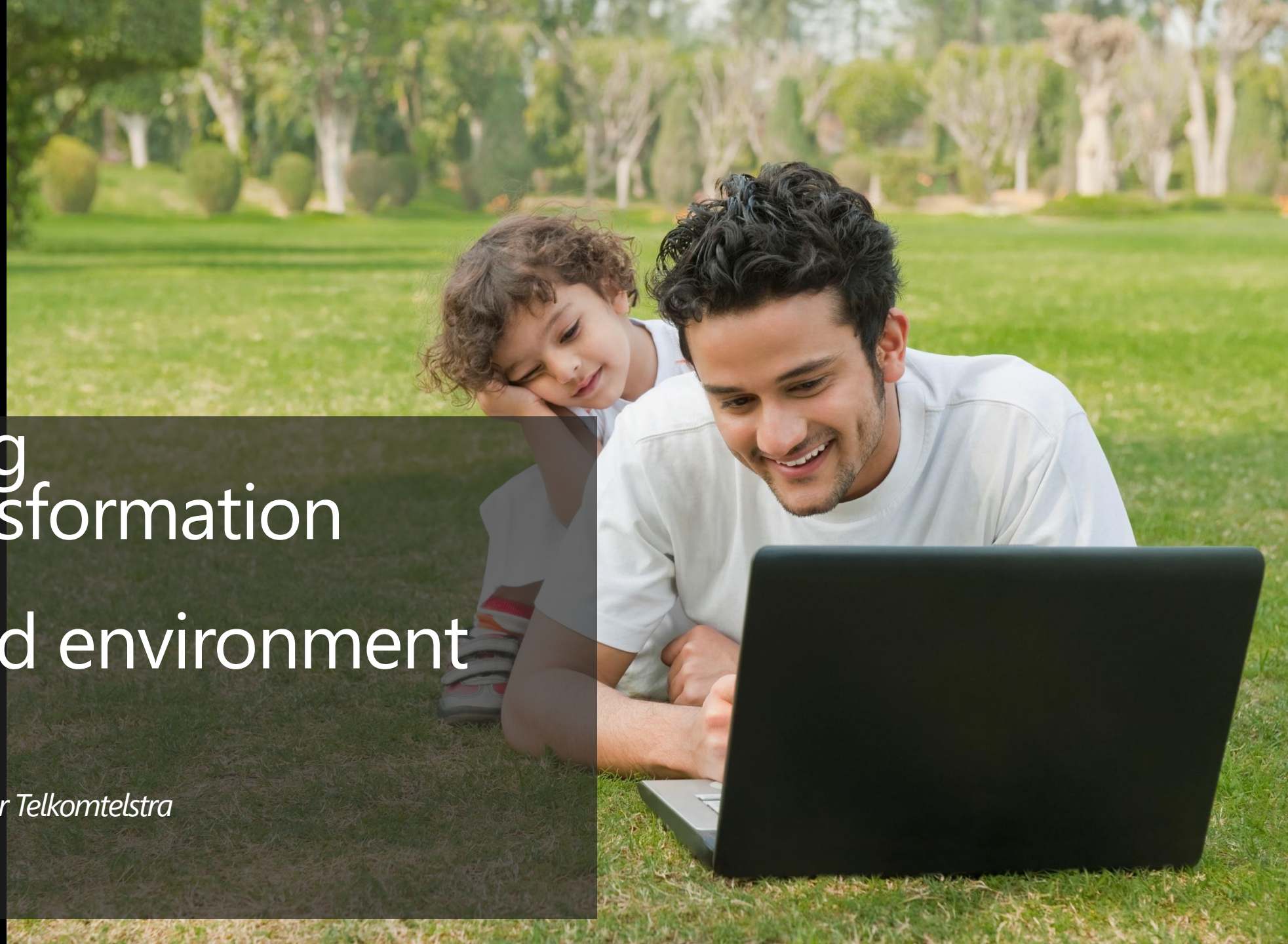**telkom**telstra

Accelerating Digital Transformation Journey in the hybrid environment

By, Agus F. Abdillah
Chief Product & Synergy Officer Telkomtelstra
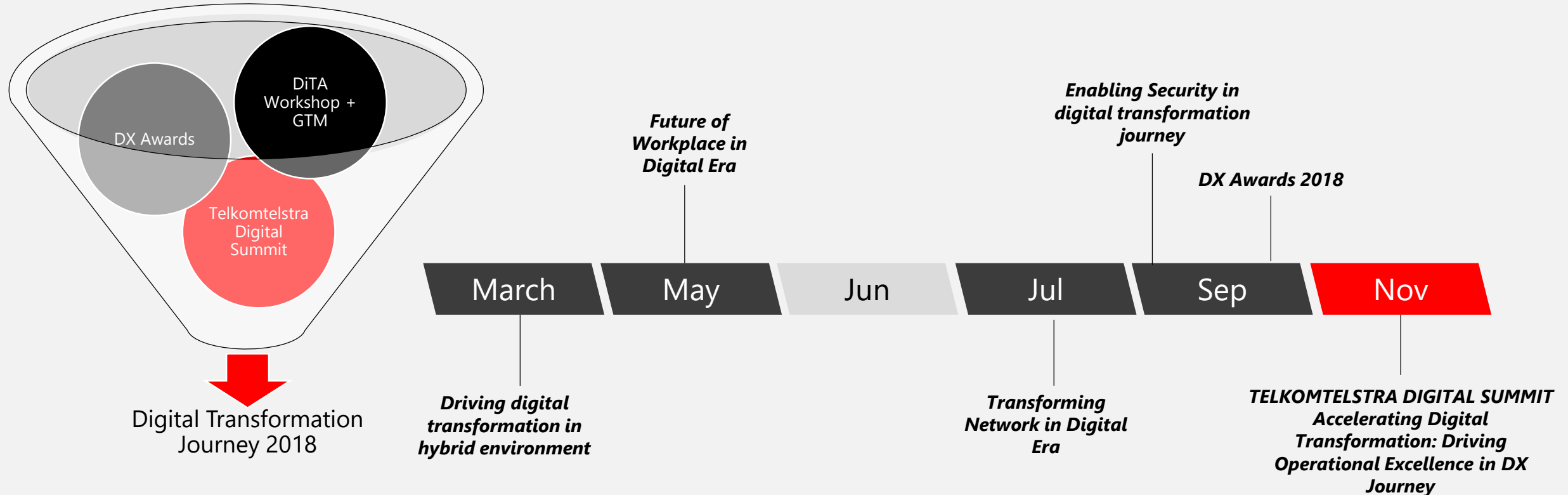Jakarta, 10 April 2018

- Digital Technology become driver of disruption which bring new business model and disrupt many industries.

- Digital transformation is a must for any companies or organization to exist and it is a journey.

- Cloud become the driver and its adoption is fast becoming a new trend across the industries. Although it has existed for years before.
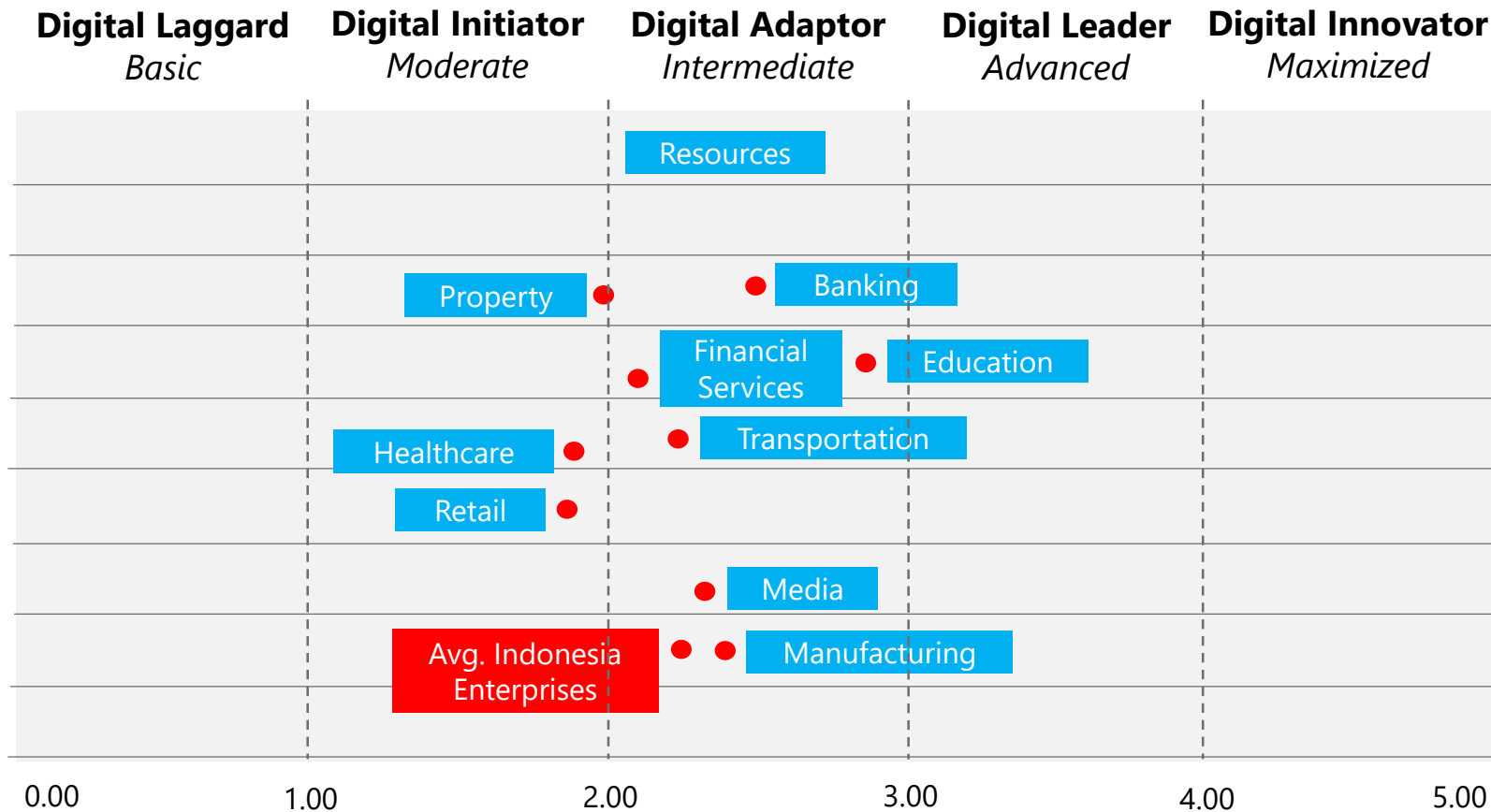
Telkomtelstra Digital Transformation Program

Digital Tranformation (DiTA) is a annual continuous program designed for helping customer provide insight a transformational journey within their organization.

DiTA Workshop + GTM

DX Awards

Telkomtelstra Digital Summit

Digital Transformation Journey 2018

Future of Workplace in Digital Era

Enabling Security in digital transformation journey

DX Awards 2018

| March | May | Jun | Jul | Sep | Nov |

Driving digital transformation in hybrid environment

Transforming Network in Digital Era

TELKOMTELSTRA DIGITAL SUMMIT Accelerating Digital Transformation: Driving Operational Excellence in DX Journey

Last year (2017) we successsully invited more than 100+ participants from 80 companies to attended series of Digital Transformation workshop. This year (2018) we have 4 series and a Telkomtelstra Digital Summit, and planned to invite more participants than last year.

Digital Readiness Assessment by Vertical Industry

telkomtelstra

Digital Laggard	Digital Initiator	Digital Adaptor	Digital Leader	Digital Innovator
Basic	*Moderate*	*Intermediate*	*Advanced*	*Maximized*

Resources

Property — Banking

Financial Services — Education

Healthcare — Transportation

Retail

Media

Avg. Indonesia Enterprises — Manufacturing
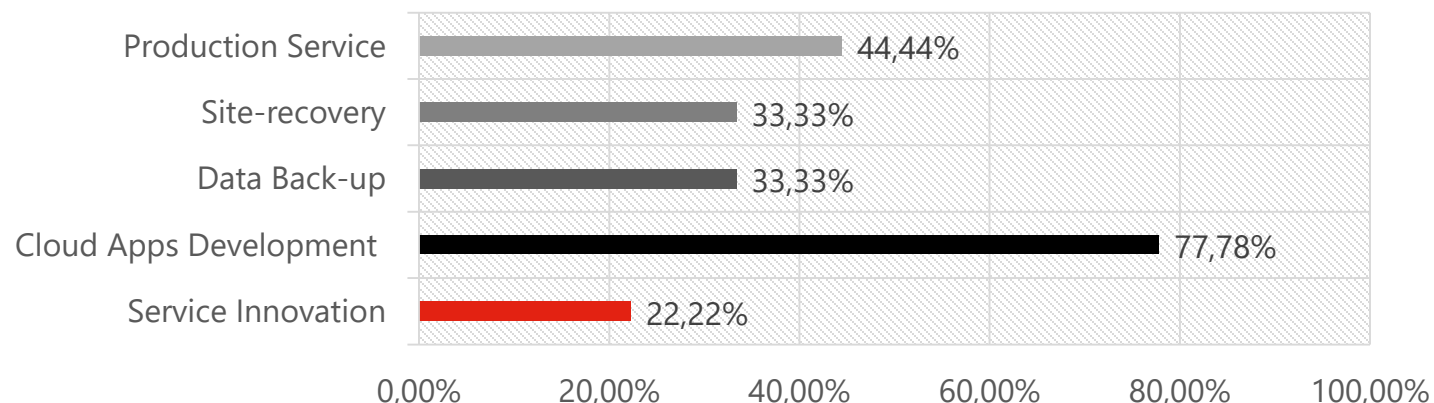
0.00   1.00   2.00   3.00   4.00   5.00

In average, Indonesia's enterprise are in intermediate stage where organizations are already aware and looking for adoption to digital environment through the consistency of using emerging technology
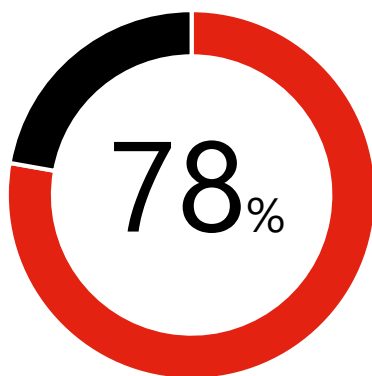
Cloud Survey: for IaaS

What DiTA attendees say about IaaS

telkomtelstra

WHAT DO YOU USE Iaas/ PaaS FOR?

Production Service	44,44%
Site-recovery	33,33%
Data Back-up	33,33%
Cloud Apps Development	77,78%
Service Innovation	22,22%

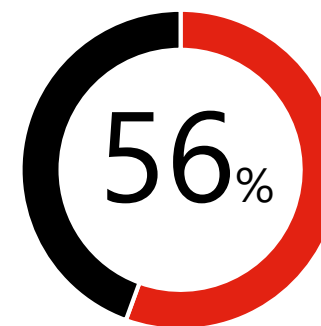0,00% 20,00% 40,00% 60,00% 80,00% 100,00%

Majority respondents uses IaaS/PaaS for Cloud Apps Development. Surprisingly, IaaS/PaaS are also used as Production Service environment.

HAVE YOU USE IaaS/ PaaS?
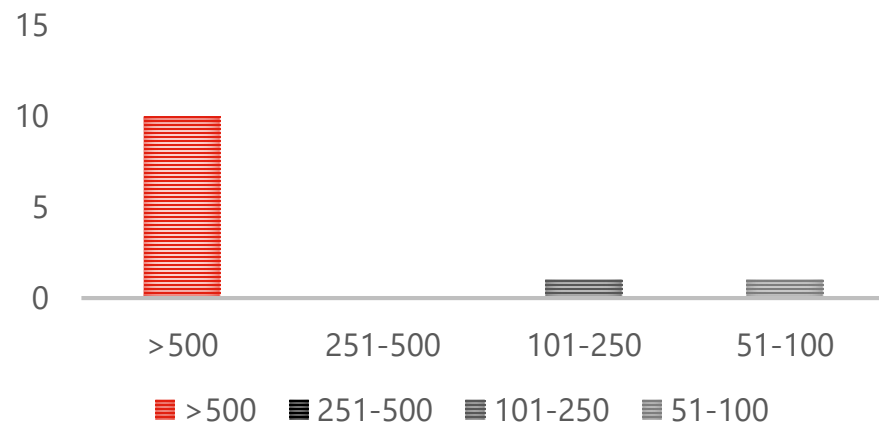
78%

Most of them are using IaaS/PaaS recently.
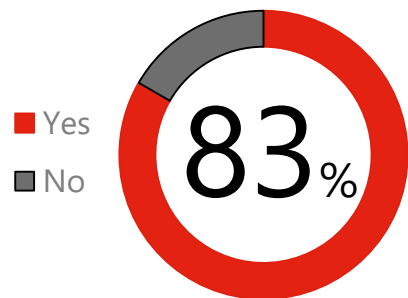
DO YOU PLAN TO ADD IaaS/ PaaS SERVICE IN THE FUTURE?

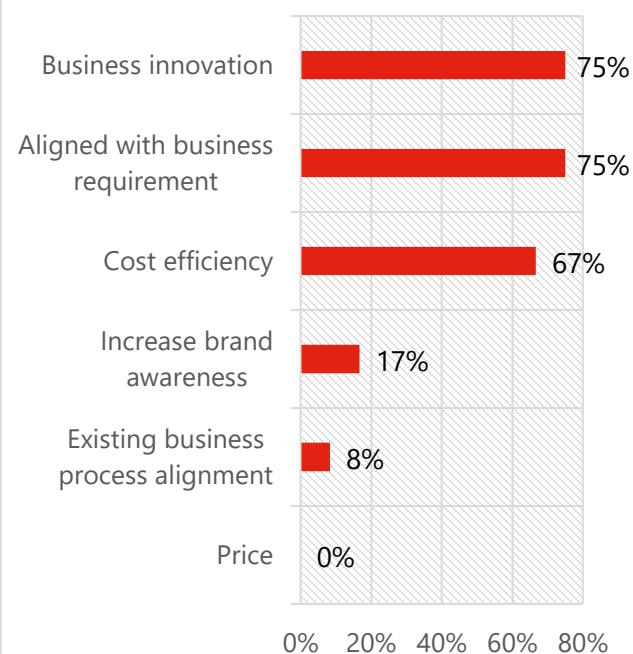**56%**

Cloud Survey: for SaaS
What DiTA attendees say about SaaS

telkomtelstra

COMPANY SIZE BY NUMBER OF EMPLOYEES

Legend: >500, 251-500, 101-250, 51-100

ARE THEY USING Saas NOW?

83%

- Yes
- No

58%
will purchase SaaS this year

WHAT ARE THE KEY DRIVERS FOR YOUR COMPANY TO USE SaaS?

Driver	Value
Business innovation	75%
Aligned with business requirement	75%
Cost efficiency	67%
Increase brand awareness	17%
Existing business process alignment	8%
Price	0%

Business innovation and alignment with business requirement are the top key drivers for company to use SaaS

WHAT KIND of SaaS PRODUCTS THAT YOUR COMPANY USE/ WANT?

Product	Value
Office Suites (words, presentation, spreadsheet)	75%
Web Conferencing, Teaming Platforms, and Social...	58%
Project and Portfolio Management	25%
Enterprise Resource Planning	25%
Digital Content Creation	25%
HR Application	17%
Customer Relationship Management	17%
Business Intelligence Application	17%
Supply Chain Management	0%

6
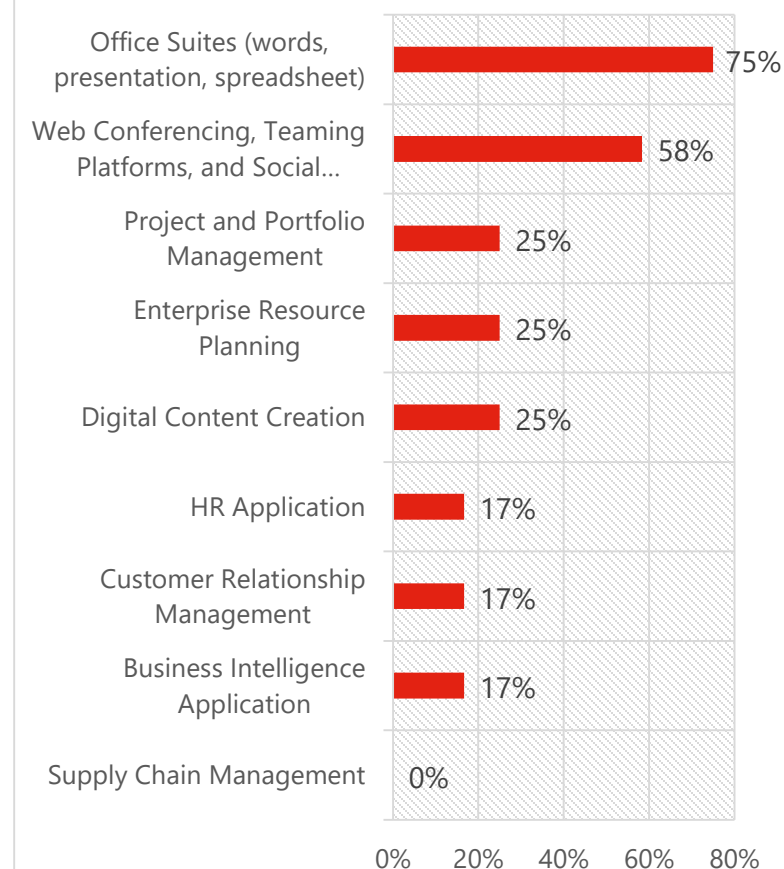
ECE – Engaging Customer Experience and strengthen relationship.

API – Apps Programing Interface to connect and scale to ecosystem.

IoT – Intelligent of Things to sensors/ monitor by connecting things surround you.

IDA – Intelligent Data Analytics to decide by creating smart intelligent model.

ITO – IT operation to Operate Automate and Build Digital Operation Center

Design from Gartner Digital Enterprise Business framework

| Industries	BFSI	Manufacturing	Resources	Retail	Government	Education
ECE	• Dynamic 365 • App Service	• Cortana • AI Solution • Dynamic 365	• Dynamic 365 • App Service	• Web Apps • Azure Media Service	• Web Apps • Mobile Apps • Cloud Service	• Web Apps • Cloud Service • Azure Media Service
IoT	• IoT Hub • Data Lake Storage	• IoT Suite • IoT Hub • Windows IoT	• IoT Suite • IoT Hub • Stream Analytics	• IoT Hub • IoT Edge • Data Lake Storage	• IoT Hub • IoT Edge • Stream Analytics	• IoT Hub • IoT Edge • Stream Analytics
IDA	• Power BI • SQL Database	• SQL server database • Power BI	• Machine Learning • Cloud Service	• Machine Learning • Bot service • Power BI	• Data Lake Analytics • Machine Learning	• Power BI • Machine Learning • SQL Database
ITO	• Office 365 • Active Directory	• Office 365 • DevTest Apps • Visual Studio	• Active Directory • Visual Studio • Logic Apps	• Office 365 • SQL Database • DDoS Protection	• Office 365 • Security Center • SQL Database	• Office 365 • Active Directory
API	• Notification Hubs • API Management	• API management • Computer Vision API	• API Management • Face API	• API Management • Cloud Service • Loct Based Service	• API Management • Azure Location Based Services	• API Management • Face API

ECE API IDA IoT ITO

Education – Virtual Desktop and Hybrid Identity
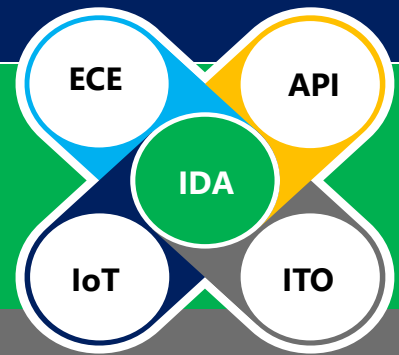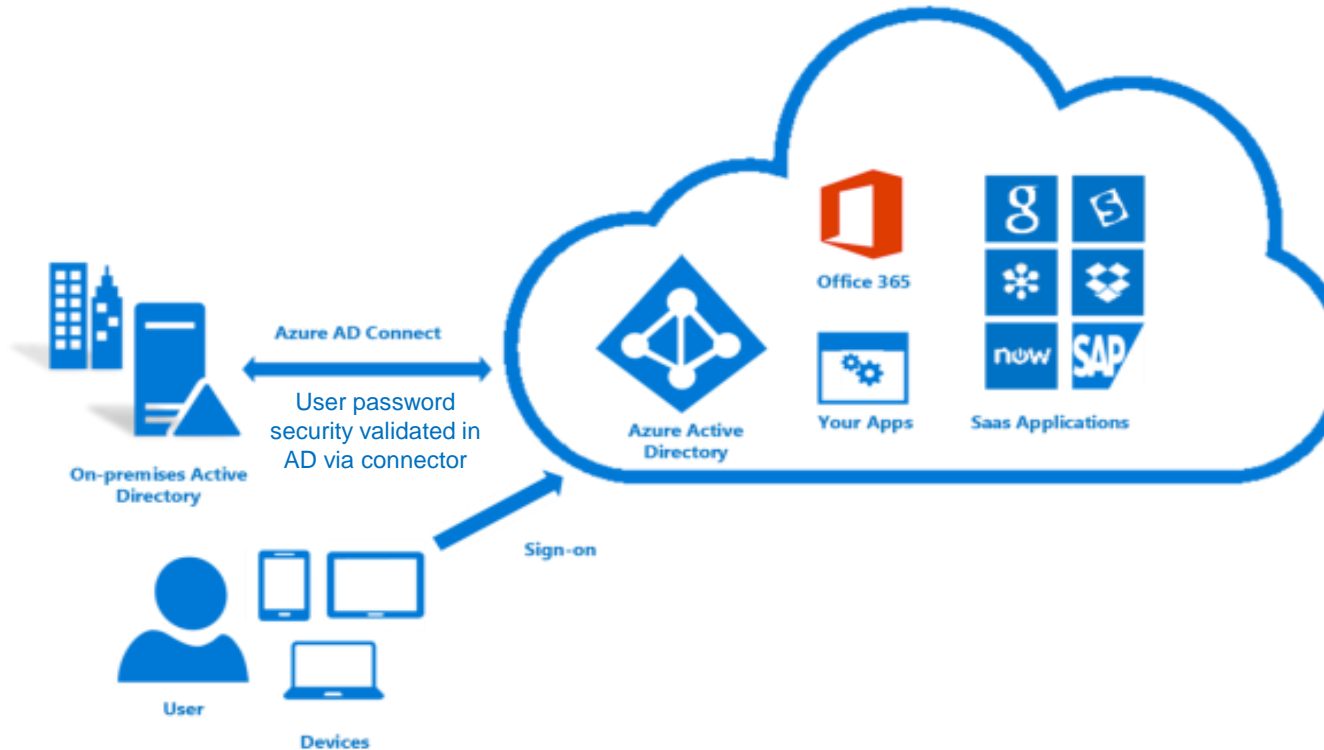
Challenges
- ID Syncronize with all university apps: Office 365, WiFi, library, student data, campus portal, etc.
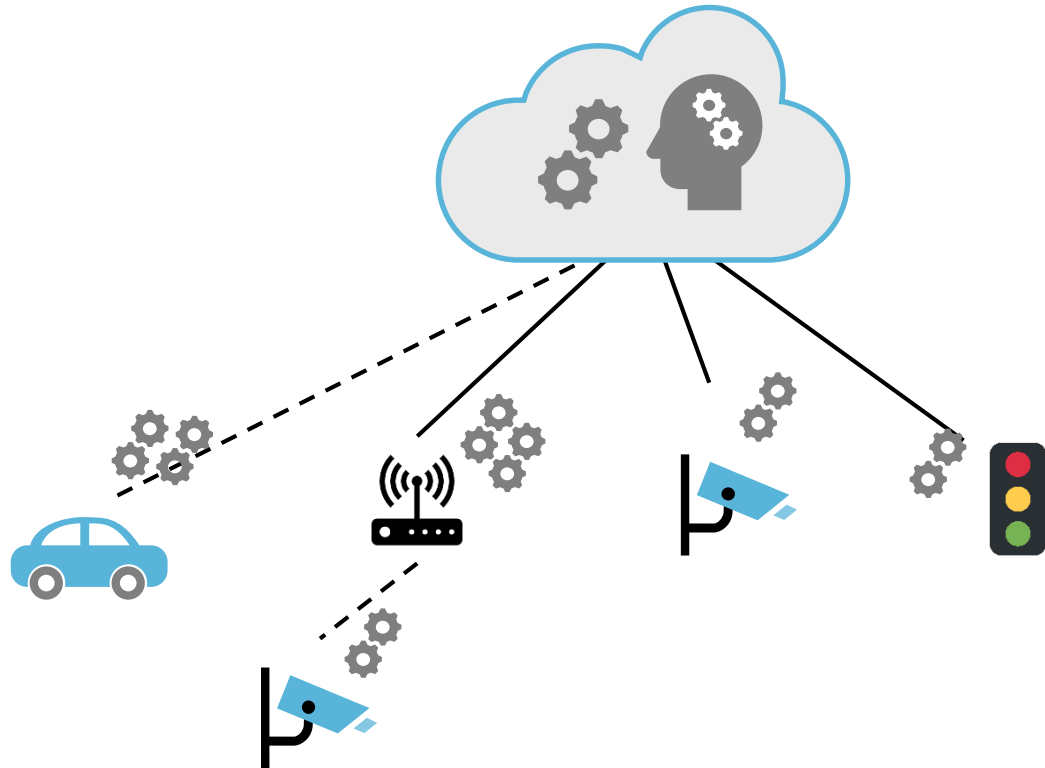- Placing AD on-premise for security matter

Solution
- Hybrid Identity solution
- Identity of all university apps

Products & services
- VDI
- Azure Active Directory
- Azure AD connest
- Office 365

Benefits
- Decrease un-sync between to resource (on-premise & cloud)
- Focus & managed only single Active Directory
- Sync students & teacher ID into single ID

Values: Enhancing user experience | Integrating Information in campus environment

9

Government – Traffic & Safety Management

Challenges
- Handling city traffic and citizen safety
- Utilize city devices : CCTV, Wifi, traffic light, cars, etc.
- Public information of traffic

Solution
- Traffic Management Controler
- Citizen Traffic Viewer

Products & services
- App services
- IoT Hub
- IoT Edge

- Data Lake Analytics
- Stream Analytics
- Machine Learning

- Storage
- Event Hubs

Benefits
- Departement of Transportation can easily managed & control city traffic & safety
- Citizen have access to view city traffic

Values: Safer Roads | Low Budgets | Traffic forecast

Retail – Automated Customer Service
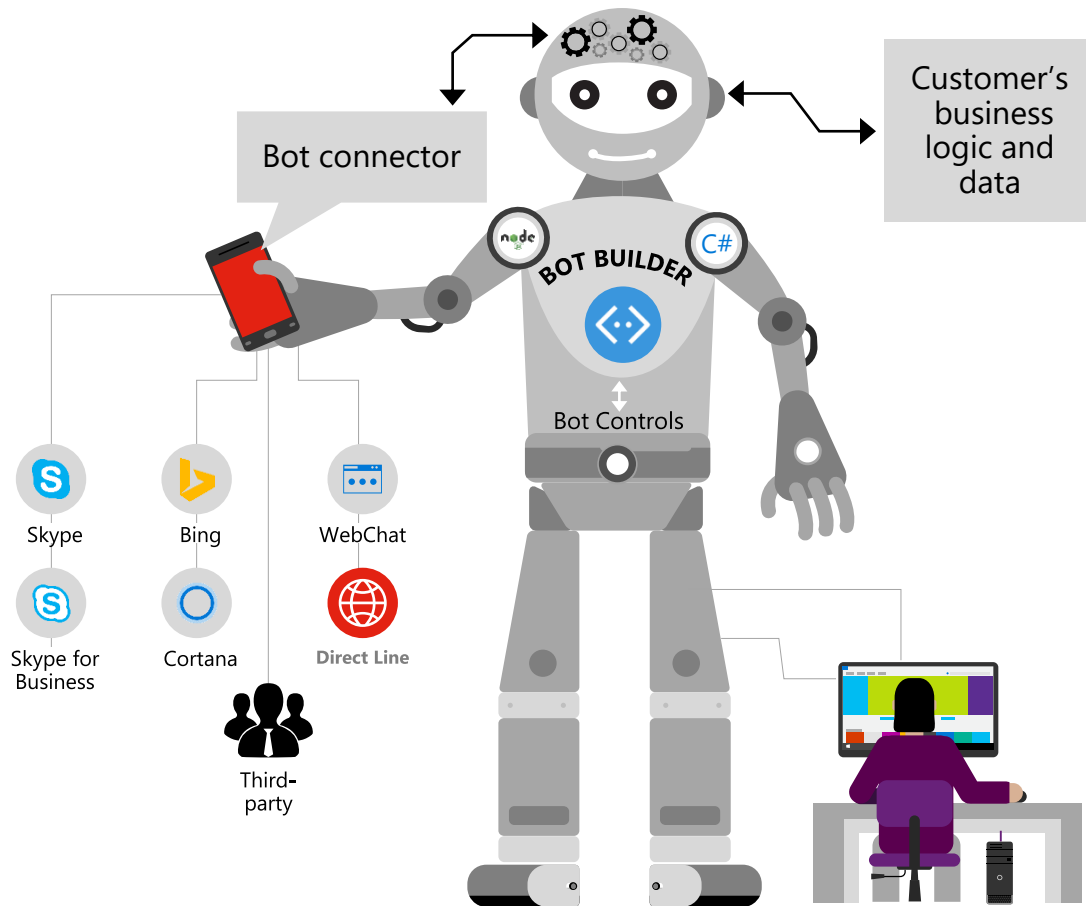
Challenges
- Take advantage of customers' increasing use of mobile channels to interact with its brand
- Integrating with multiple messaging apps

Solution
- Customer service chatbot
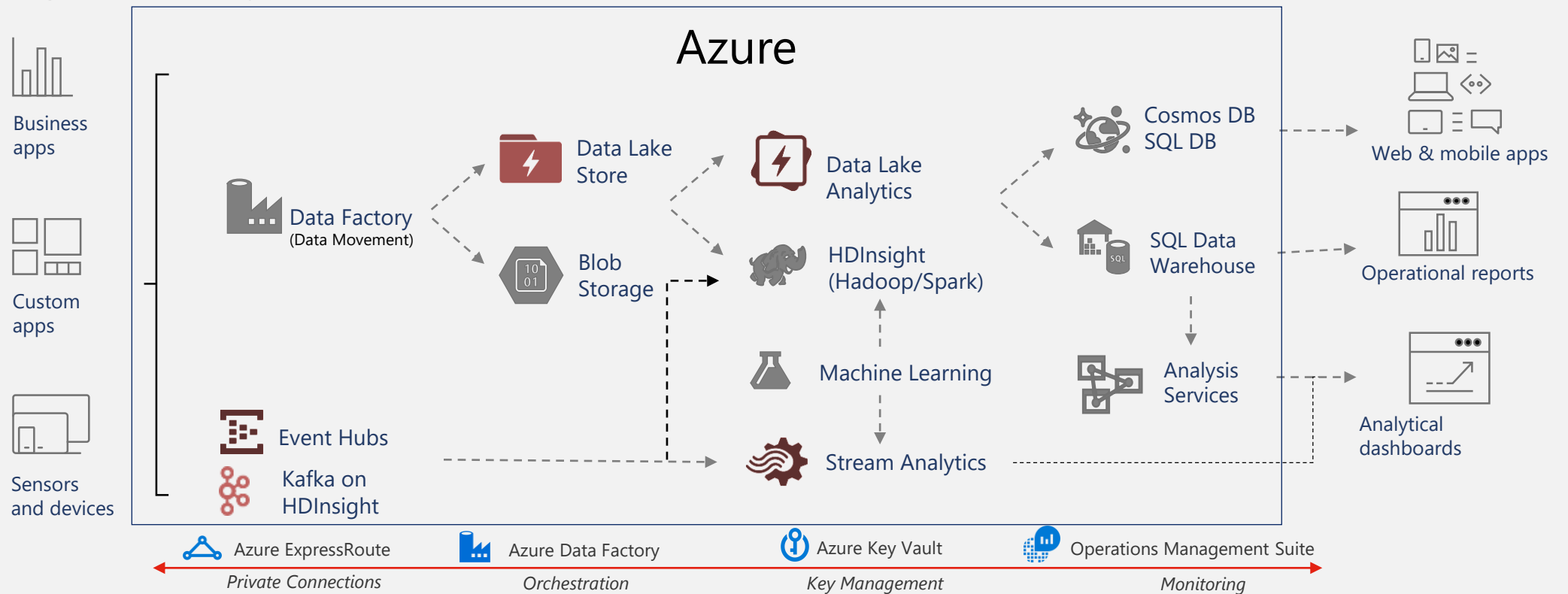- Conversation bot

Products & services
- Bot services | • Cortana
- Cognitice service

Benefits
- Better customers experience
- Lower budget with resource maintenance

Values: Extending the chatbot to better engage with more customers

Retail – Big Data Analytics

Challenges
- Capturing structure and unstructred data
- Lack of insight for targeted campaigns
- Inability to support data growth

Solution
- Modernizing a data warehouse with big data
- Instant analysis of social sentiment and customer feedback

Benefits
- Reduced time to customer insight
- Ability to make changes to campaigns or adjust product rollouts based on real-time customer reactions
- Personalized experience & promotion

Values: Rich Insights & campaign optimization | Truly personalized experience

Retail – Business Intelligence with data security
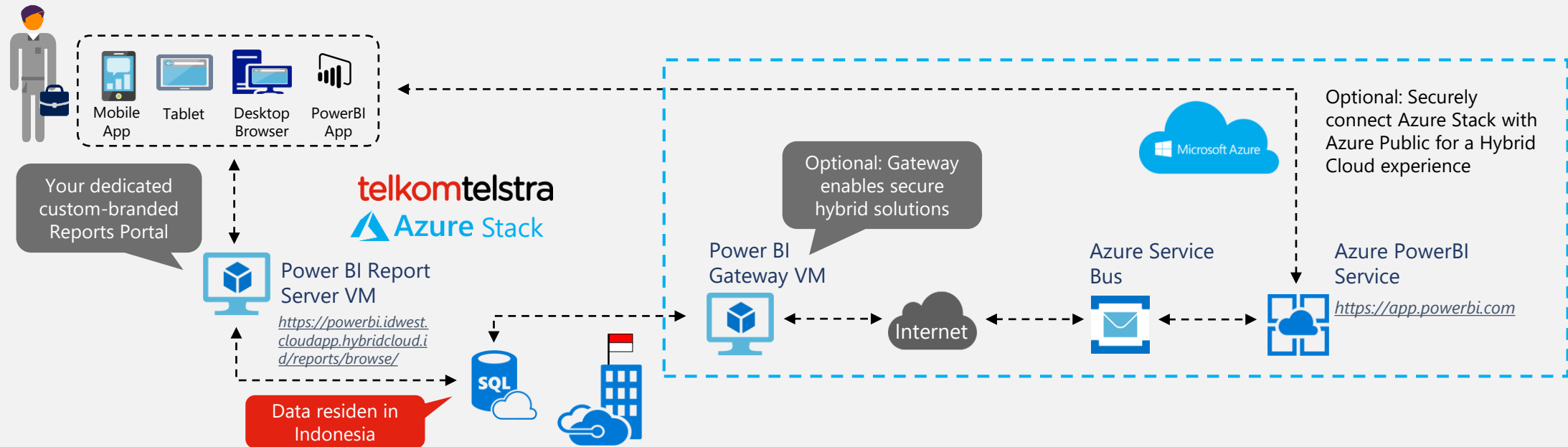
Challenges
- Build anvanced data analytics while also securing data in local DC
- Combining other data and hosted in local DC

Solution
- Advanced reporting portal
- Securing credentian data

Benefits
- Secure sensitive data in local DC
- Comply government regulation PP82/12 of data sovereign
- Fokus on analytics not data gathering

Values: Keep your location-sensitive Business Intelligence data in Indonesia

BFSI: Banking – e-Payment with notification

Challenges
- Marketplace sites cooperate with banking to ease customer payment
- Decrease risk of payment with wrong ID/ person
- Notifiy customer before and after payment transaction
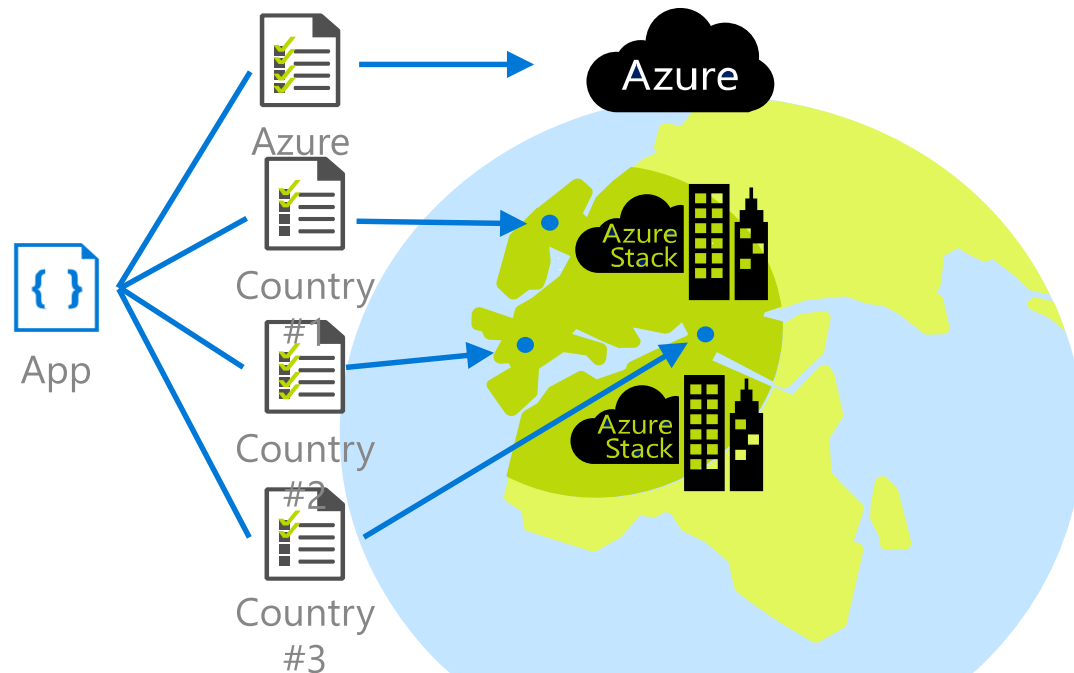
Solution
- e-Payment model with third party
- Payment notification

Products & services
- API Management
- Notification Hub
- SQL Database

Benefits
- Customer safety of right payment process and ammount
- Increase customer satisfaction

Values: Personal touch to customer

BFSI: Insurance – e-Claim management

Challenges
- Company have to use that same apps that used globally
- Government regulation of data sovereignty
- Complicated claim process

Solution
- E-Claim management
- Customer Relationship Management

Products & services
• App services	• Power BI
• Mobile App	• SQL Database
• Dynamic 365	

Benefits
- Customers can easily and without complicated process
- Papeless and modernise claim process

Values: Driving business results through digital technology | Enhanced better customer experience

Manufacture – Smart Devices and Monitor

Challenges
- Want improve user satisfaction, user insight and company efficienty
- Difficulty on updating patch for better security & performance
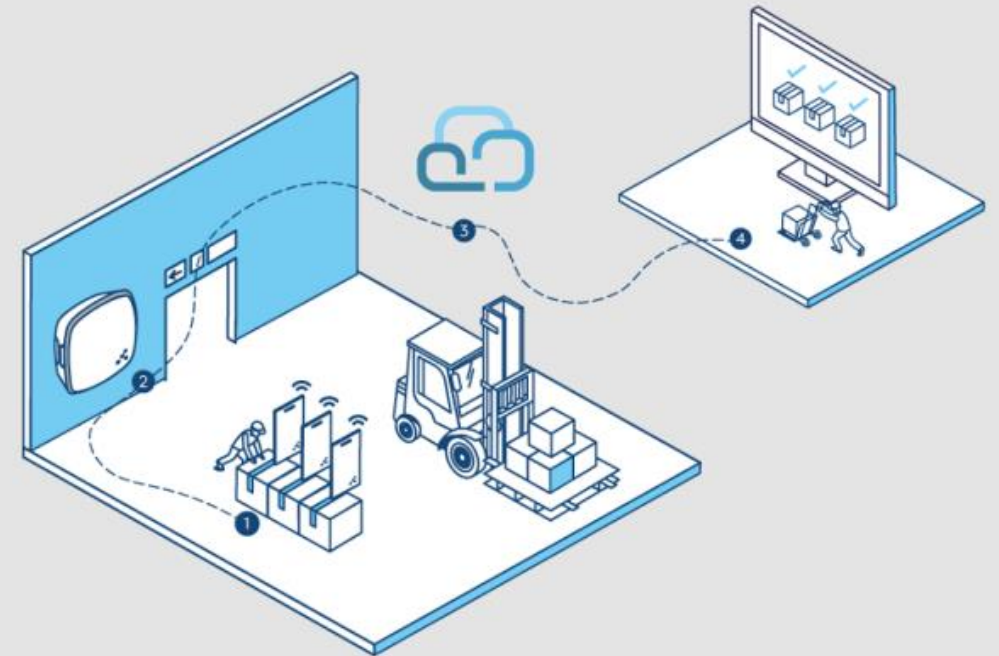
Solution
- Cloud-based IoT central gateway

Products & services
- App services | • Stream Analytics
- IoT Hub
- Windows IoT

Benefits
- Using IoT gateway to update devices
- Gather user behaviour as feedback further product innovation

Values: Optimize technology for better use and security

Resources – Sensor Data for Power Restoration

Challenges
- Want to improve power restoration effor and manage its fleet
- Utilize exsisting equipment, vehicle, container and crew to collect data
- Want combine with others tech solution

Solution
- Analyze data in motion from multiple real-time sources
- build an Internet of things (IoT) app to track truck and crew locations for its distribution assets

Products & services
- Stream Analytics | • IoT Hub
- Cloud Service | • Event Hub
- Storage

Benefits
- Reduce data and make decisions in real time
- Great analytics to restore service efficiently and quickly

Values: Securing service for better customer satisfaction

Cloud Deployment Model

Cloud Provider

Public External

Hybrid

Private
(Service Provider)

Private On-premise
(Customer)
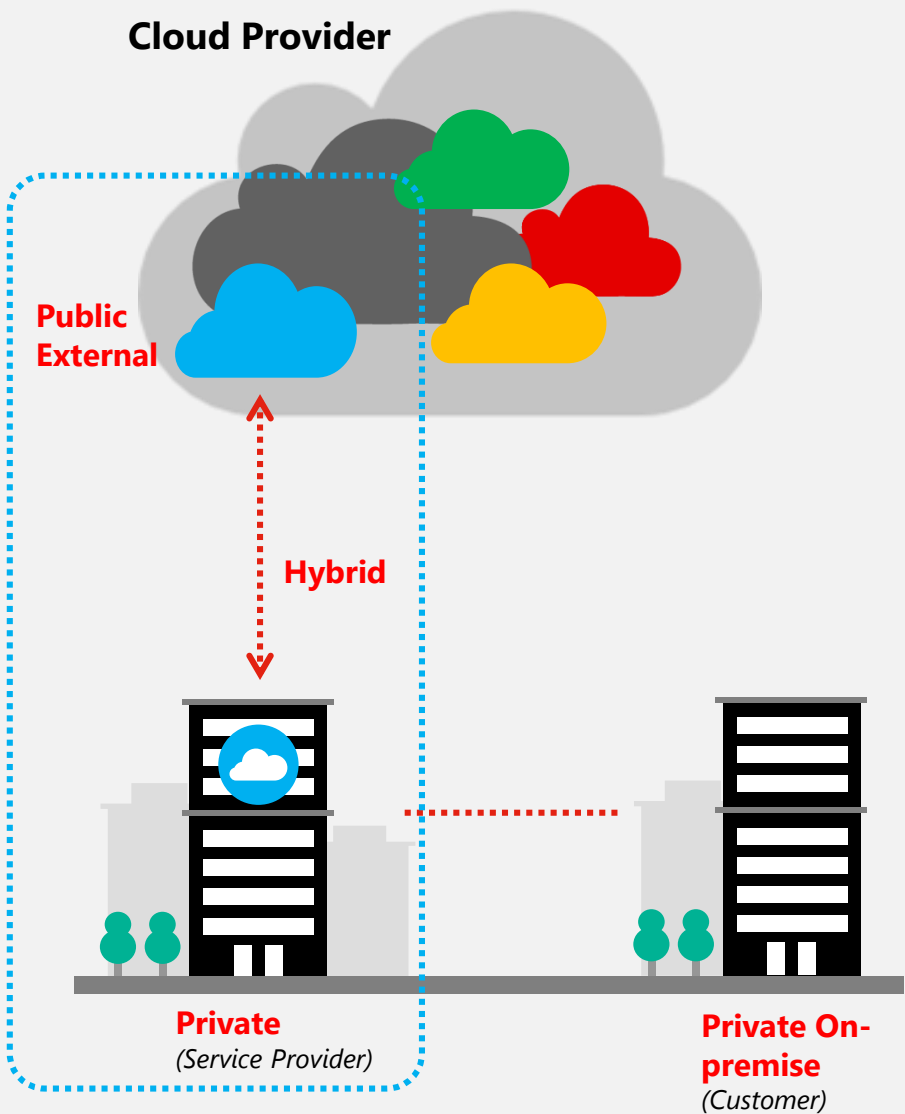
public
Cost
★★★

Service & infrastructure provided publlicly for multiple client. Most economical solution, but security and compliance concerns.

💬 Share infrastructure accross different users

✈ Inexpensive and easy to setup

private
Control
★★★

The hosting infrastructure is provided exclusively for one customer (either locally or at en external provider). Most expensive solution for security requirements.

💬 Does not share infrastructure

✈ Mission critical workload, security, uptime, etc

hybrid
Both
★★★

Customized combination of private and public cloud services. Most flexible system, but difficult to implement.
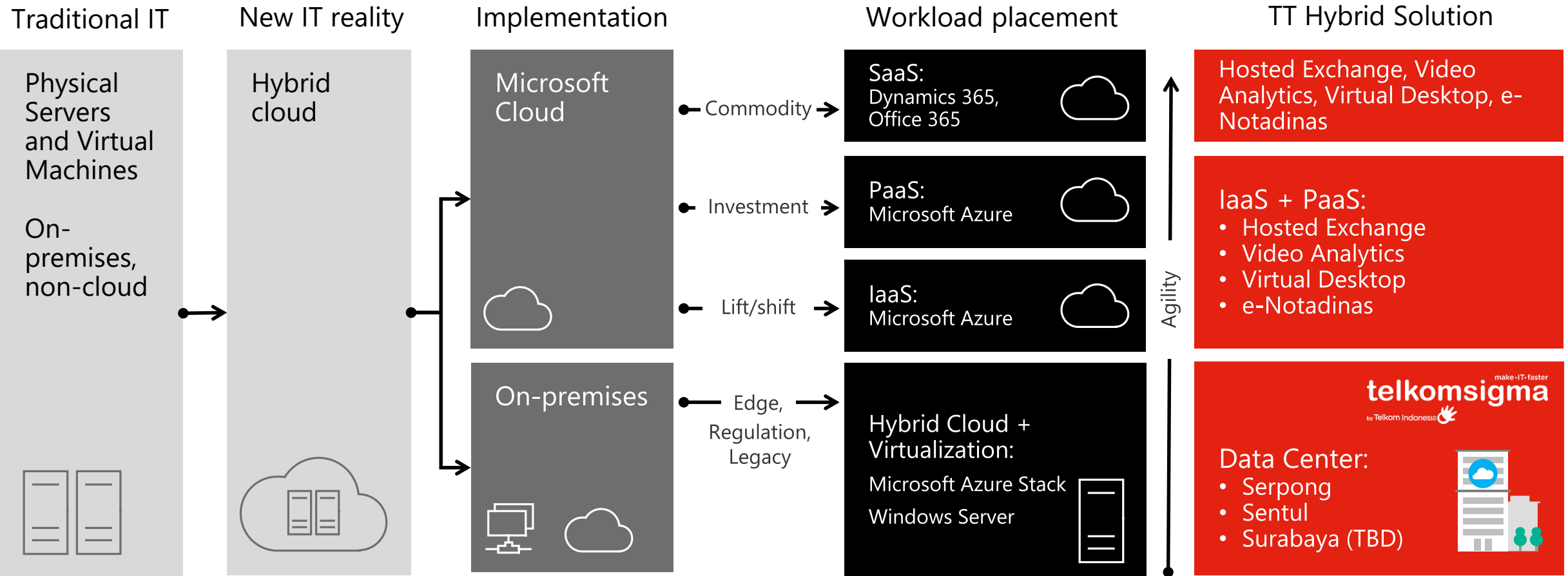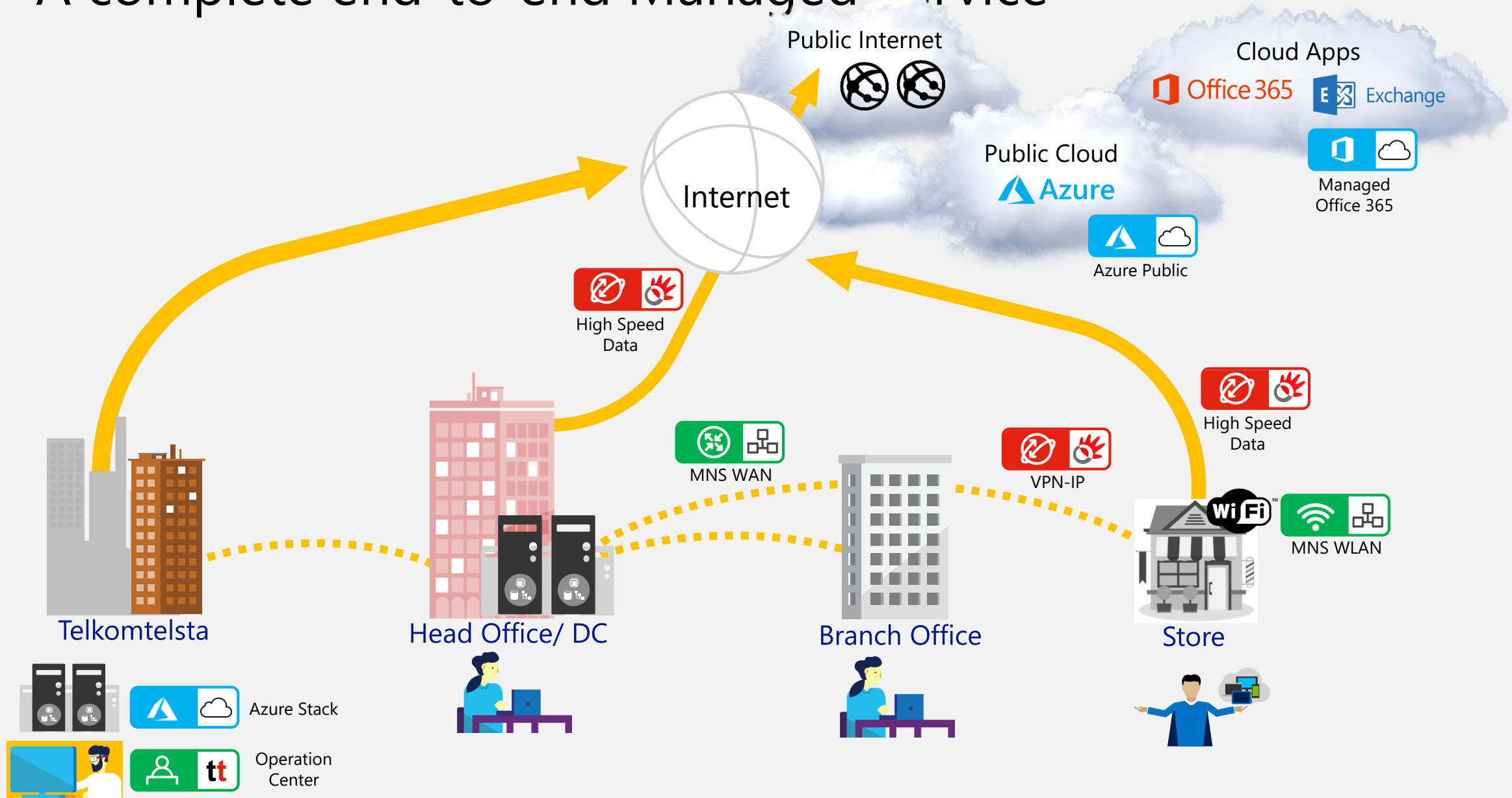
💬 Data residence based on classificaiton

✈ Dynamic and highly changeable workload

Hybrid Cloud Platform

telkomtelstra

Traditional IT	New IT reality	Implementation	Workload placement	TT Hybrid Solution

Physical Servers and Virtual Machines

On-premises, non-cloud

Hybrid cloud

Microsoft Cloud

← Commodity →

SaaS:
Dynamics 365, Office 365

← Investment →

PaaS:
Microsoft Azure

← Lift/shift →

IaaS:
Microsoft Azure

On-premises

← Edge, Regulation, Legacy →

Hybrid Cloud + Virtualization:
Microsoft Azure Stack
Windows Server

Hosted Exchange, Video Analytics, Virtual Desktop, e-Notadinas

IaaS + PaaS:
• Hosted Exchange
• Video Analytics
• Virtual Desktop
• e-Notadinas

telkomsigma
make·IT·faster
by Telkom Indonesia

Data Center:
• Serpong
• Sentul
• Surabaya (TBD)

Agility

A complete end-to-end Managed Service

Why Choosing Telkomtelstra Cloud Solution

Powered by Microsoft

Telkomtesltra Cloud Paltform powered by Microsoft, leader in cloud technlogy. Provided a trusted and an innovation driven to support your business

Roadmap on the First True Hybrid Cloud in Indonesia

Telkomtelstra will be the first Cloud Service Provider in Indonesia with a true hybrid cloud technology.

Telkomtelstra Cloud Solution

Powerful on Cloud, Stable in Network

Combining network capabilities by TelkomGroup, in order to keep your business stable accessing cloud services.

Combining other Capabilities

Combining and integrating other telkomtelstra services to create better cloud experience, such as business productivity apps, network services, security services and professional services

Telkomtelstra Service Operations you can count on

telkomtelstra

Reliable and resilient service delivery

Reliability

- 99.5% or greater uptime
- Control over planned maintenance
- Pro-active monitoring

Availability and DR

- Redundancy and resilient design
- Data and process isolation
- Disaster recovery through geo-replication

Supported SLAs

- SLAs achieved through software resiliency
- Financially backed
- Partner and customer support

Empower Your Business With Confidence

Get started today with telkomtelstra

telkomtelstra