

# APJII CLOUD CONFEDERATION

## *APJII for Indonesia BIG DATA*

Jamalul Izza

APJII



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network  
information  
centre



lembaga  
sertifikasi  
profesi



online  
trust mark  
IDNIC-APJII



Domain Name  
Service  
bersih selektif  
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# Internet Indonesia

INFOGRAFIS

HASIL SURVEY 2017

**TEKNOPRENEUR**  
www.teknopreneur.com

**APJII**  
Asosiasi Penyelenggara  
Jasa Internet  
Indonesia  
INDONESIA INTERNET SERVICE PROVIDER ASSOCIATION

## PENETRASI PENGGUNA INTERNET



**143,26**  
**JUTA Jiwa**



**DARI TOTAL POPULASI  
PENDUDUK INDONESIA**

**54,68%**

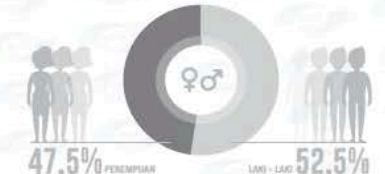


**262 JUTA ORANG**

2016

**PENETRASI PENGGUNA  
INTERNET INDONESIA 2016**

**132,7**  
**JUTA Jiwa**



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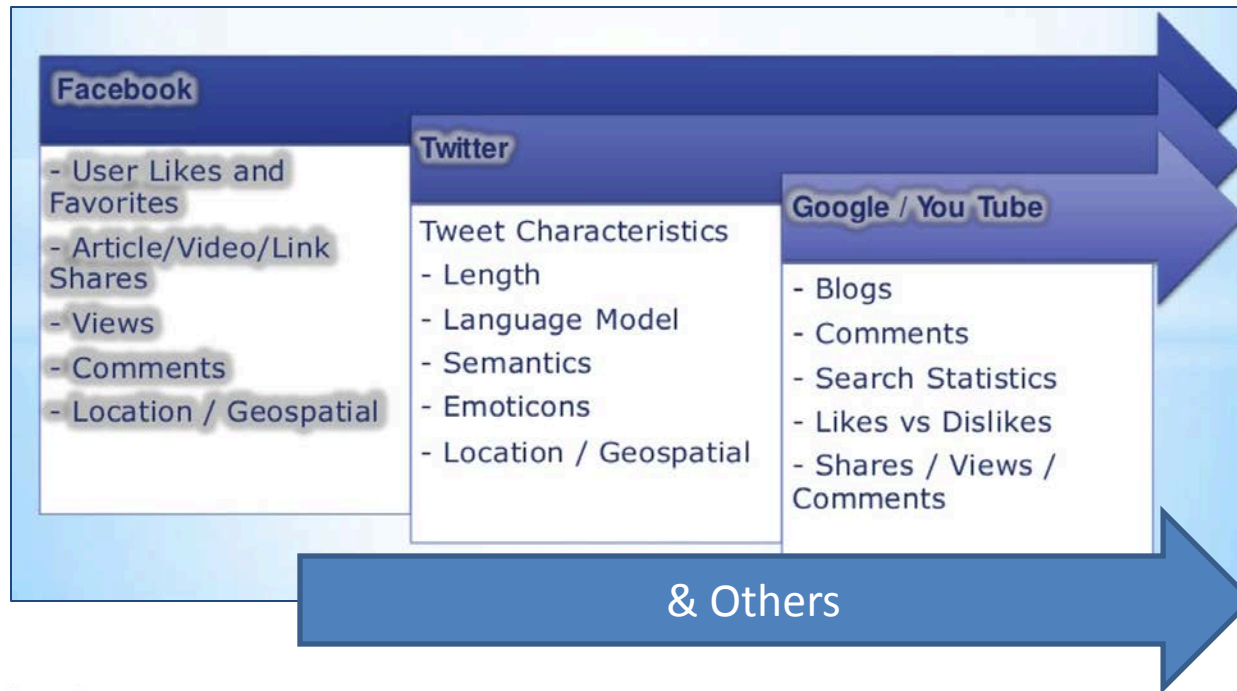


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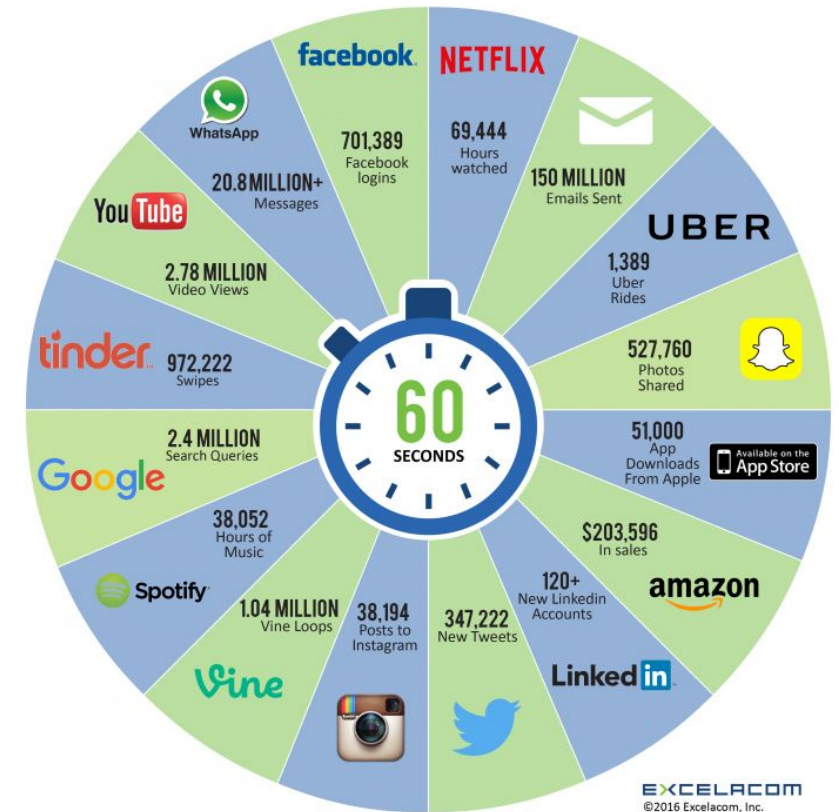


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# Data Processed



## 2016 What happens in an INTERNET MINUTE?



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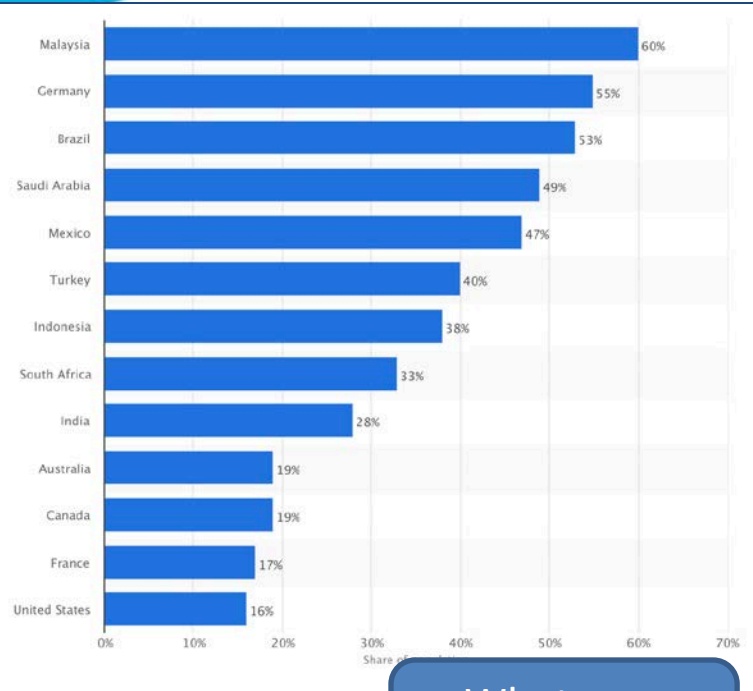
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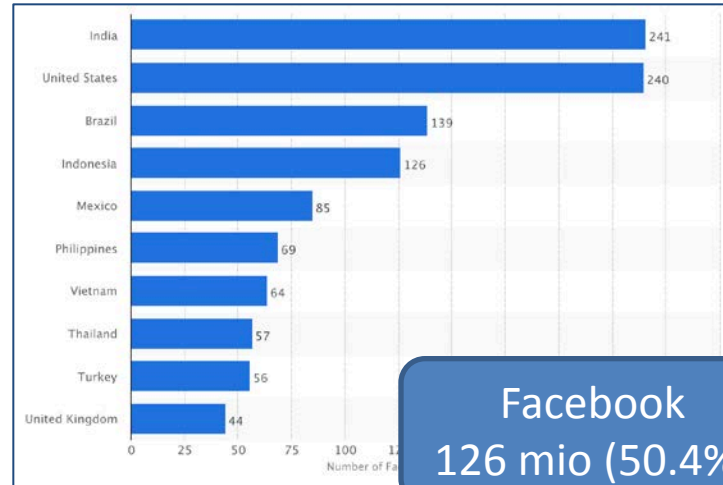




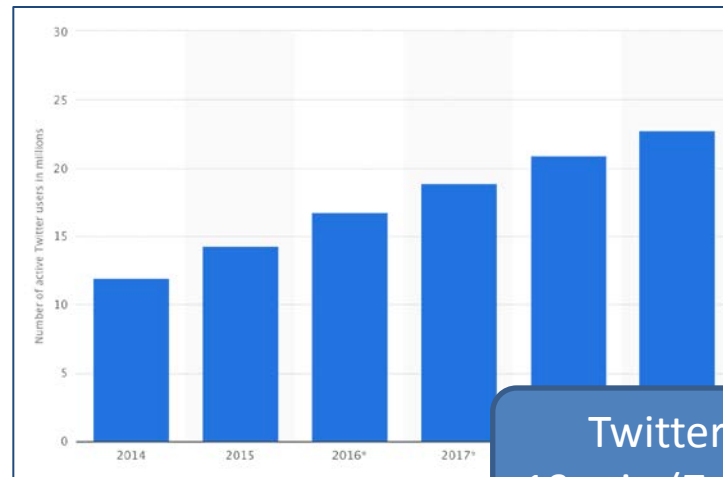
# INDONESIA & GLOBAL APPS



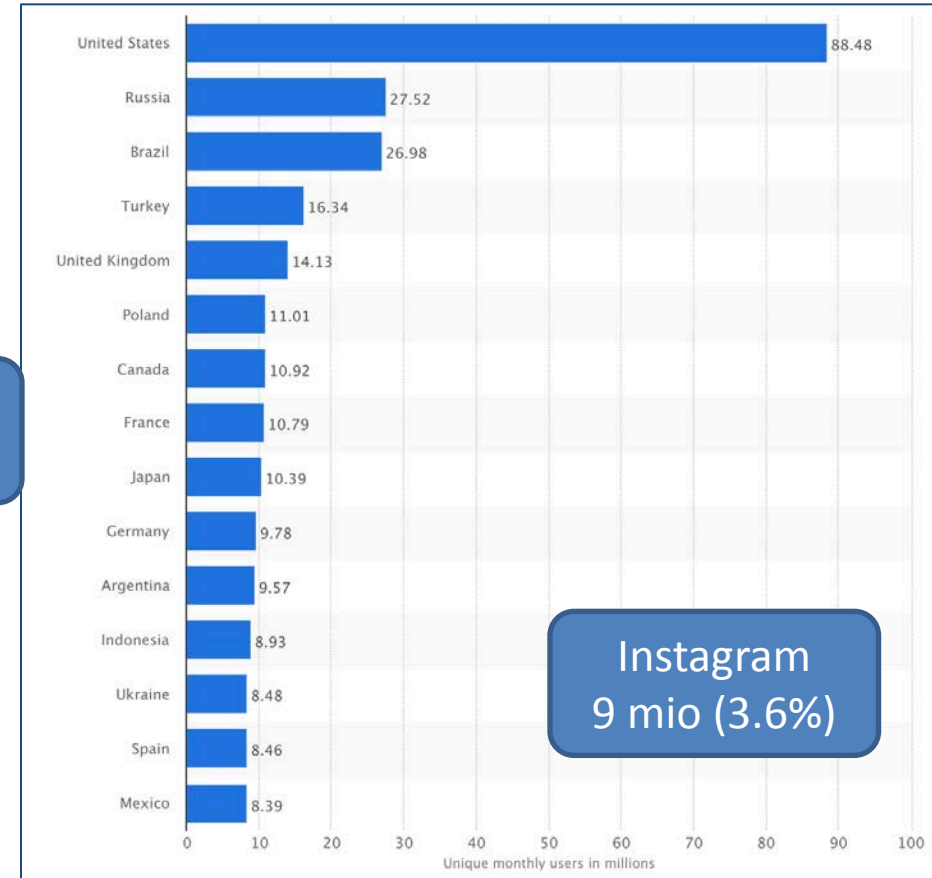
**Whatsapp**  
100 mio (40%)



**Facebook**  
126 mio (50.4%)



**Twitter**  
19 mio (7.6%)



**Instagram**  
9 mio (3.6%)



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# Where is our Big Data ?

## Google Data Centre

### Data center locations

We own and operate data centers around the world to keep our products, services, and community running smoothly. We have a strong commitment to environmental responsibility, community involvement, and job opportunities in our locations around the world.

#### Americas

Berkeley County, South Carolina  
Council Bluffs, Iowa  
Douglas County, Georgia  
Quilicura, Chile  
Mayes County, Oklahoma  
Lenoir, North Carolina  
The Dalles, Oregon

#### Asia

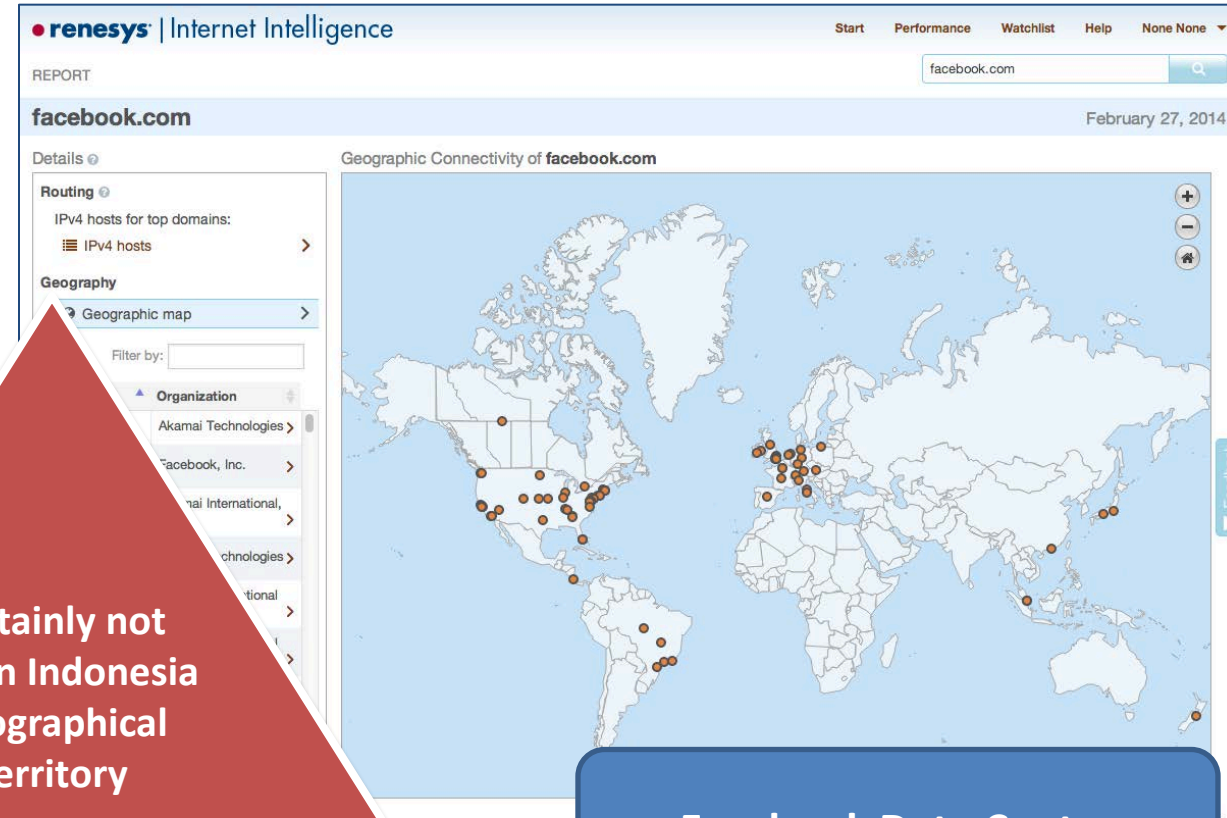
Changhua County, Taiwan  
Singapore

#### Europe

Hamina, Finland  
St Ghislain, Belgium  
Dublin, Ireland



Certainly not  
within Indonesia  
Geographical  
Territory



## Facebook Data Centre

**EVEN INDONESIA is ALWAYS TOP 5 USER BASE**



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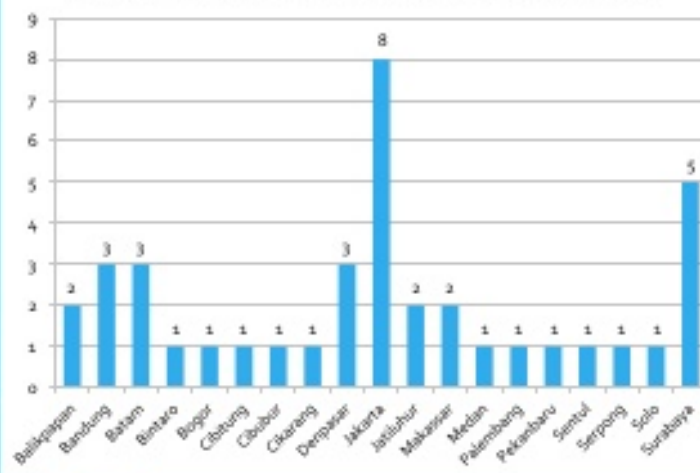


# Typical Global Apps Excuse for not locating their Data in Indonesia : Condition in Indonesia is not suitable for a Reliable Data Centre

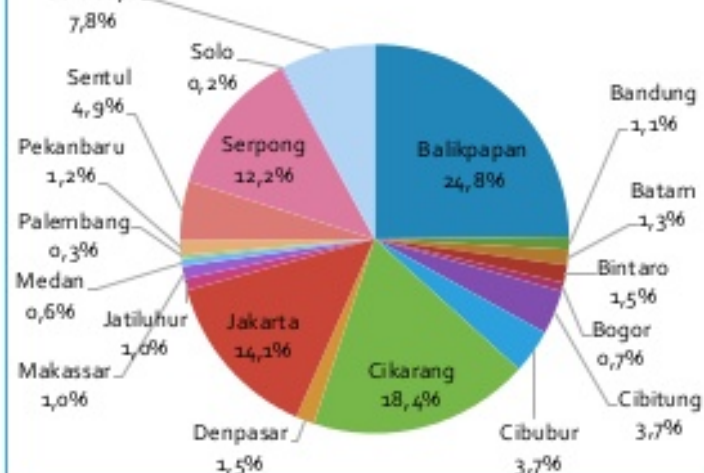
## Distribusi Data Center Nasional Tahun 2014



Distribusi Data Center Berdasarkan Jumlah



Distribusi Data Center Berdasarkan Luas



\*Note: Exclude Telkom



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# Indonesia Regulation : Personal Data Protection



## Pasal 17

- (1) Pusat data (*data center*) dan pusat pemulihan bencana (*disaster recovery center*) Penyelenggara Sistem Elektronik untuk pelayanan publik yang digunakan untuk proses perlindungan Data Pribadi sebagaimana dimaksud dalam Pasal 3 wajib ditempatkan dalam wilayah negara Republik Indonesia.
- (2) Pusat data (*data center*) sebagaimana dimaksud pada ayat (1) merupakan suatu fasilitas yang digunakan untuk menempatkan Sistem Elektronik dan komponen terkaitnya untuk keperluan penempatan, penyimpanan, dan pengolahan data.



**The Data Centre and The DRC used to store and process Personal Data is required to be located within Indonesia Territory**



# Regulasi Indonesia : DATA LOCALIZATION



PERATURAN PEMERINTAH REPUBLIK INDONESIA

NOMOR 82 TAHUN 2012

TENTANG

PENYELENGGARAAN SISTEM DAN TRANSAKSI ELEKTRONIK

DENGAN RAHMAT TUHAN YANG MAHA ESA

PRESIDEN REPUBLIK INDONESIA,

## Pasal 17

- (1) Penyelenggara Sistem Elektronik untuk pelayanan publik wajib memiliki rencana keberlangsungan kegiatan untuk menanggulangi gangguan atau bencana sesuai dengan risiko dari dampak yang ditimbulkannya.
- (2) Penyelenggara Sistem Elektronik untuk pelayanan publik wajib menempatkan pusat data dan pusat pemulihan bencana di wilayah Indonesia untuk kepentingan penegakan hukum, perlindungan, dan penegakan kedaulatan negara terhadap data warga negaranya.
- (3) Ketentuan lebih lanjut mengenai kewajiban penempatan pusat data dan pusat pemulihan bencana di wilayah Indonesia sebagaimana dimaksud pada ayat (2) diatur oleh Instansi Pengawas dan Pengatur Sektor terkait sesuai dengan ketentuan peraturan perundang-undangan setelah berkoordinasi dengan Menteri.



Home Nasional Internasional Ekonomi Olahraga Teknologi Hiburan Gaya Hidup

"Aturan lama mengatur tentang data center. Kami inginnya data apa saja yang nggak boleh di luar, bukan fisik data center-nya yang kita atur. Kalau pemerintah butuhkan itu datanya, kalau data center nggak ada datanya gimana?" papar pria yang dulu menjabat ketua Asosiasi Penyelenggara Jasa Internet Indonesia (APJII) ini lagi.

Lihat juga: Kominfo Ubah Aturan yang Haruskan Taruh Server Lokal

Dengan demikian, revisi PP ini menurut Samuel akan menitik beratkan pada penempatan data. Bukan pada penempatan fisik dari pusat data itu sendiri.

Pemerintah tak lagi memusingkan lokasi data center ada dimana. Tapi, datanya sendiri harus ada di Indonesia. Saat ini, menurut Samuel Kementerian Komunikasi dan Informatika masih melakukan pembicaraan internal terkait dengan perubahan PP No.82 tahun 2012 itu.

Lihat juga: 'Omong Kosong Pemerintah Tentang Aturan Server Lokal'

Sebelumnya, pada pasal 17 ayat 2, disebutkan bahwa penyelenggara Sistem Elektronik untuk pelayanan publik wajib menempatkan pusat data dan pusat pemulihan bencana di wilayah Indonesia.

**PP82/2012 Revision : THE DATA IS STILL REQUIRED TO  
BE LOCATED WITHIN INDONESIA TERRITORY**



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**Explicit Data Localization Requirements**

An explicit data localization requirement is one that requires entities that process data regarding that country's citizens to have servers physically located within the country's borders.

Russia, China, Nigeria, Indonesia, Brunei, and Vietnam, among others, all have laws that contain explicit data localization requirements.

**Russia**

Russia's data localization law (Russian Federal Law No. 242-FZ, effective Sept. 1, 2015), contains an explicit requirement that companies collecting personal information about Russian citizens must "record, systematize, accumulate, store, amend, update and retrieve" the information using servers physically located within Russia.

**China**

China, a country keenly interested in data localization measures, has several data localization laws in effect, with additional restrictions under active consideration. Today, Chinese law:

- prohibits off-shore processing and storage of citizens' personal financial and credit information;
- prohibits cross-border transfer of citizens' personal information without user or government consent;
- prohibits cross-border transfers of citizens' medical information; and
- requires online publishers to locate web servers within China.

Additional data localization requirements are looming in China. Early drafts of China's 2015 anti-terrorism law contained data localization mandates; however, these were removed in the final version of the law. Nevertheless, evidence of continuing interest in data localization can be found in the **latest draft** (English translation by AmCham China) of a proposed Chinese cybersecurity law. The measure would require operators of "key information infrastructure" to store "citizens' personal information and important business data" on in-country servers. The extent to which the law would create data localization mandates is currently unknown, due to uncertainty surrounding the meaning of key terms and the potential that the law will be modified in response to public comments.

**Kazakhstan**

Effective Jan. 1, 2016, an amendment to Kazakhstan's personal data protection law creates a data localization mandate in that country. The law provides "Storage of personal data shall be carried out by the owner and/ or operator, as well as by a third party in the database, which is kept in the territory of the Republic of Kazakhstan."

**Nigeria**

Nigeria does not have a data protection law. However, the National Information Technology Development Agency included data localization requirements in May 2014 guidelines designed to promote local online content development. The **Guidelines for Nigerian Content Development in Information and Communications Technology (PDF)** require that all information and communications technology (ICT) providers "Host all subscriber and consumer data locally within the country." The guidelines also require all government data to be hosted within Nigeria.

ICT services are described broadly as "a combination of equipment and services that enables remote gathering, processing, storage, conveyance and delivery of various forms of information."

**Indonesia**

In Indonesia, the Information and Electronic Transaction Law requires companies providing online services to residents to physically locate their servers within the country.

**Vietnam**

Vietnam's Decree 72 (effective Sept. 1, 2013) states that Internet service providers must store locally at least one copy of all information on Vietnamese citizens, and that organizations and enterprises must have "at least one server system in Vietnam serving the inspection, storage, and provision of information at the request of competent authorities."

**Malaysia**

Personal information regarding Malaysian citizens must be stored on local servers. Brunei Companies may lawfully store data collected within Brunei on servers located within the country.

**Greece**

A 2011 Greek law provides, "Data generated and stored on physical

# Data Localization Regulation :

## A norms that has been done by many nations

### Countries With Some Data Localization Requirements

✓ Argentina	✓ France	✓ Peru
✓ Australia	✓ Germany	✓ Russia
✓ Belarus	✓ India	✓ South Korea
✓ Brazil	✓ Indonesia	✓ Taiwan
✓ Canada	✓ Kazakhstan	✓ Turkey
✓ China	✓ Malaysia	✓ Uruguay
✓ Colombia	✓ New Zealand	✓ United States
✓ EU	✓ Nigeria	✓ Venezuela
		✓ Vietnam

### What is Data Localization?

- 1) A requirement (however created) **to** store, route, process, or otherwise use data only within a politically defined area
- 2) A requirement (however created) to **retain** data within a politically defined area
- 3) A requirement (however created) to **not** store, route, process, or otherwise send or allow access to data
  - In a Politically Defined Area
  - By a Defined Entity or Person

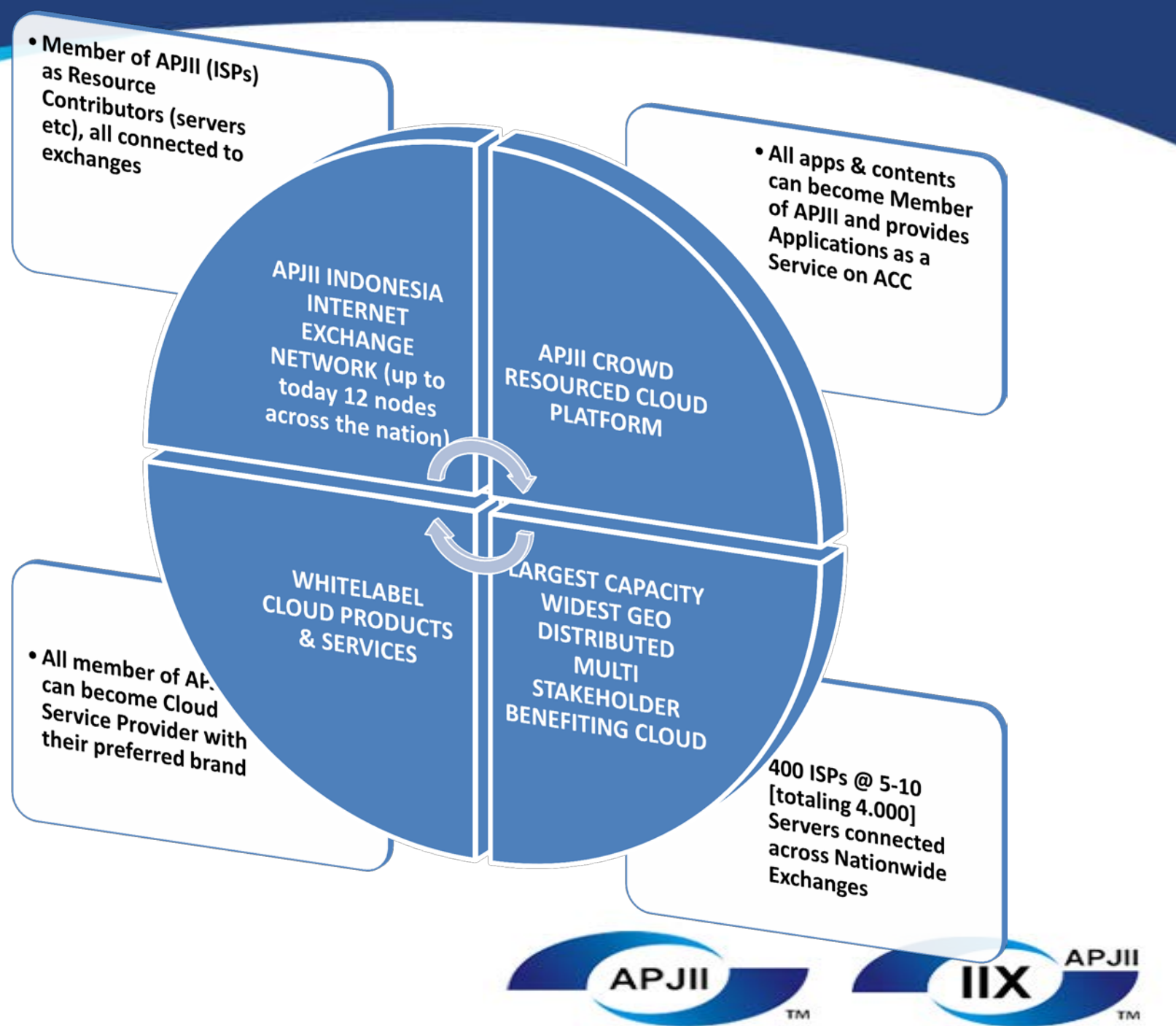
### Some Examples of Data Localization

- Regional
  - ✓ EU
- Country
  - ✓ Russia
- State / Province
  - ✓ Ohio
  - ✓ B.C. Bill 73
- Sector
  - ✓ US Financial
  - ✓ US Health Care
- Other
  - ✓ ITAR
  - ✓ Export Controls
  - ✓ OFAC



# APJII CLOUD CONFEDERATION (ACC)

*Ready For Service  
Q2/2019*



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# THANK YOU



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