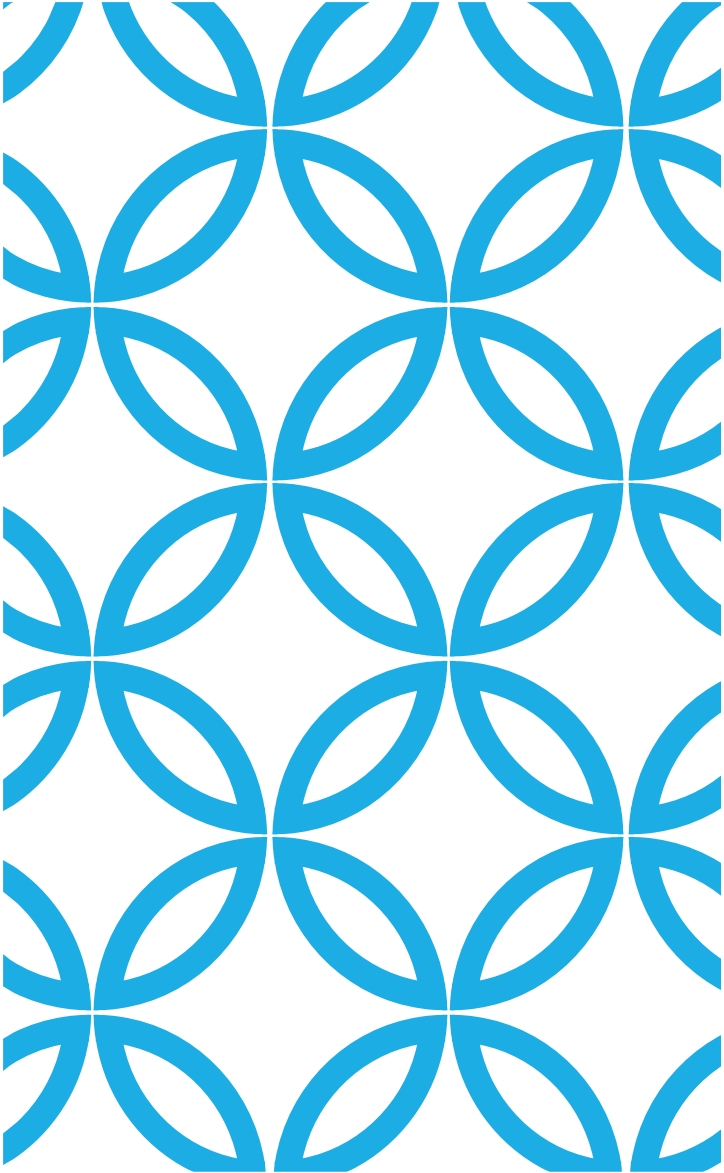




INDONESIA INTERNET LANDSCAPE (BRIEF INTRODUCTION)

Willy Sutrisno

Peering Asia 3.5v

12th November 2020

T.O.C

- Indonesia Geopolitics
- Network Connectivity
- Summary (What Changes and Challenges)

INDONESIA GEOPOLITICS

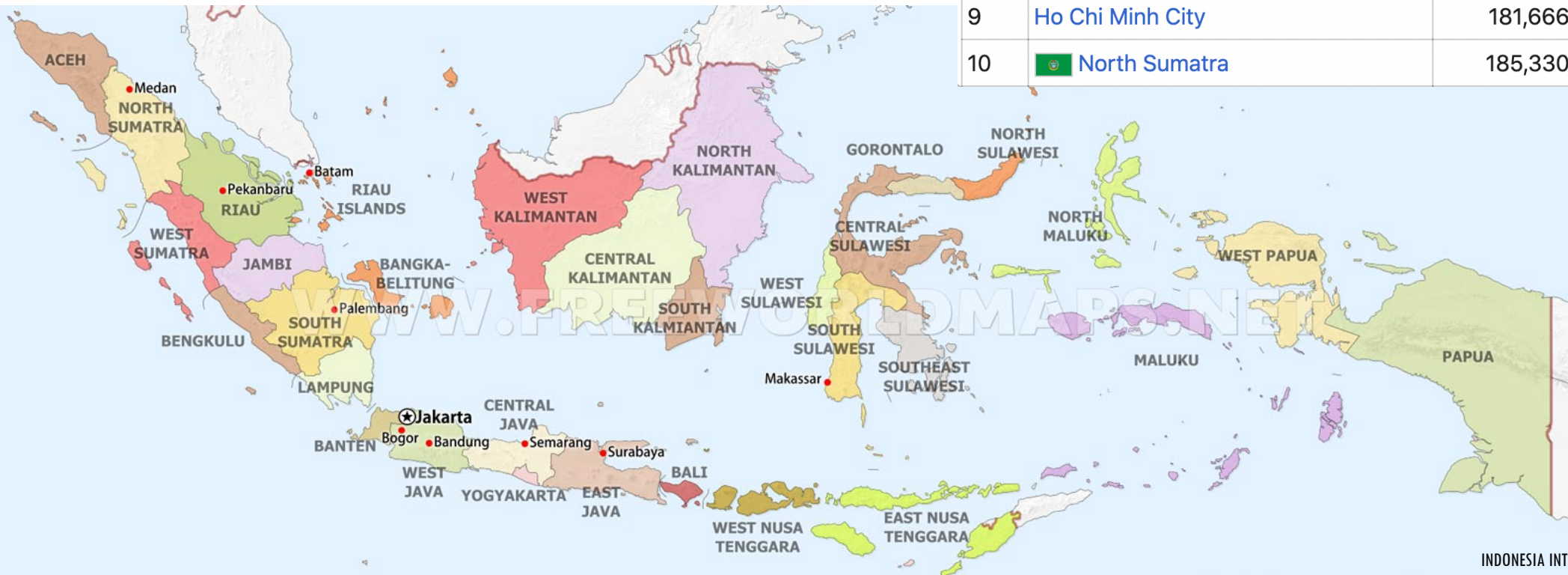
GEOPOLITICS OF INDONESIA



Rank	Country	Population in million	GDP (PPP) millions of USD	GDP (PPP) per capita USD
—	 ASEAN	654.306	8,454,651	12,921
1	 Indonesia	266.998	3,328,288	12,345
2	 Thailand	67.913	1,261,485	18,073
3	 Philippines	108.307	933,913	8,574
4	 Vietnam	95.494	1,047,318	10,755
5	 Singapore	5.670	578,204	#1 95,603
6	 Malaysia	32.801	943,336	#3 27,287
7	 Myanmar	53.019	275,513	5,179
8	 Cambodia	16.494	74,348	4,441
9	 Laos	7.163	59,736	8,221
10	 Brunei	0.447	28,470	#2 61,816

- Population: 267 million
- The 5 big islands:
 - Java 141m
 - Sumatra 50m
 - Kalimantan 15m
 - Sulawesi 17m
 - Papua 3m

Rank	Subdivision	GDP PPP		Region
		(in billion \$)	PPP Per Capita	
1	 Jakarta	660,320	62,549	 Indonesia
2	 East Java	546,800	13,775	 Indonesia
3	 West Java	493,970	10,017	 Indonesia
4	Bangkok	403,020	46,056	 Thailand
5	National Capital Region (Metro Manila)	357,990	27,433	 Philippines
6	 Central Java	316,690	9,123	 Indonesia
7	Eastern Thailand	229,300	40,179	 Thailand
8	 Selangor	221,977	35,624	 Malaysia
9	Ho Chi Minh City	181,666	20,201	 Vietnam
10	 North Sumatra	185,330	12,798	 Indonesia



NETWORK CONNECTIVITY

INTERNATIONAL SUB-SEA CABLES

Indosat Ooredoo

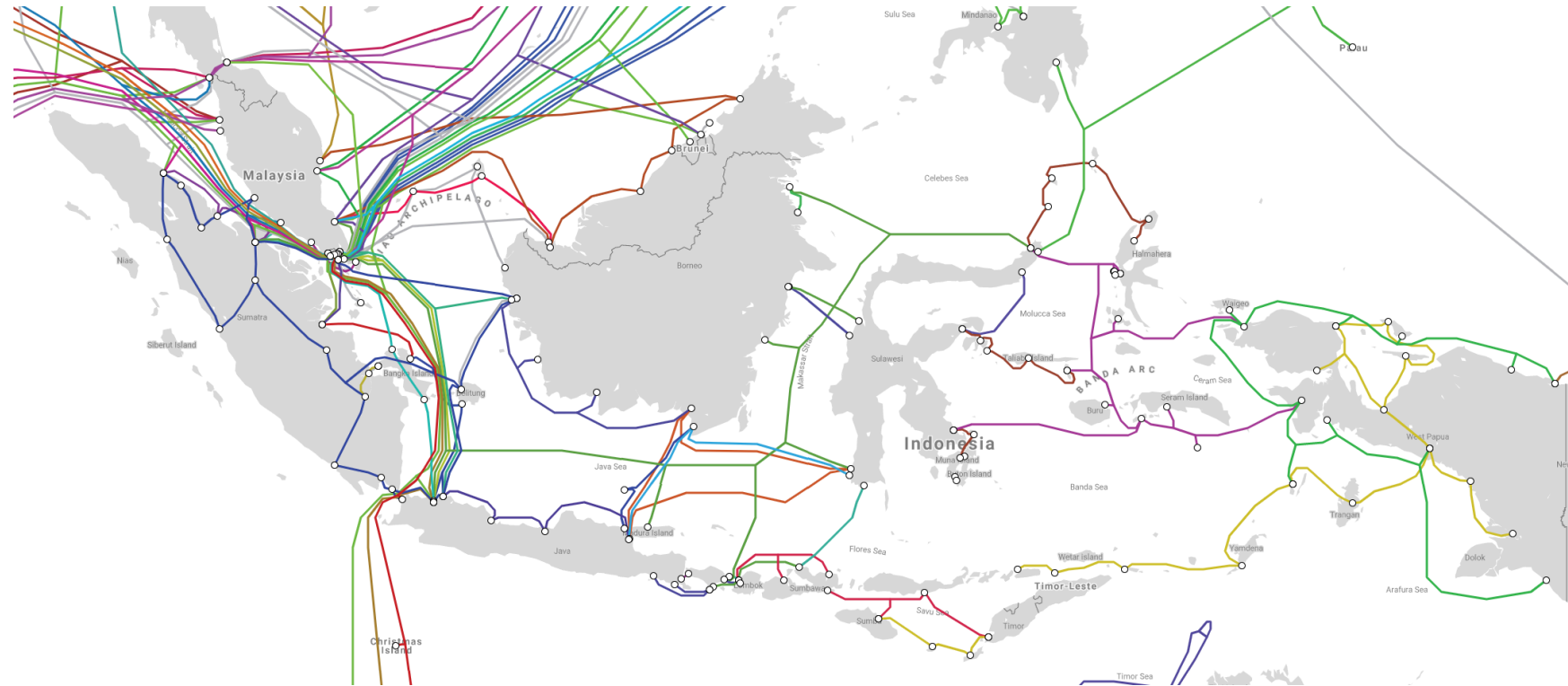
- SMW3 (1999)
- JAKABARE (2009)
- INDIGO West (2019)

Telkom Indonesia

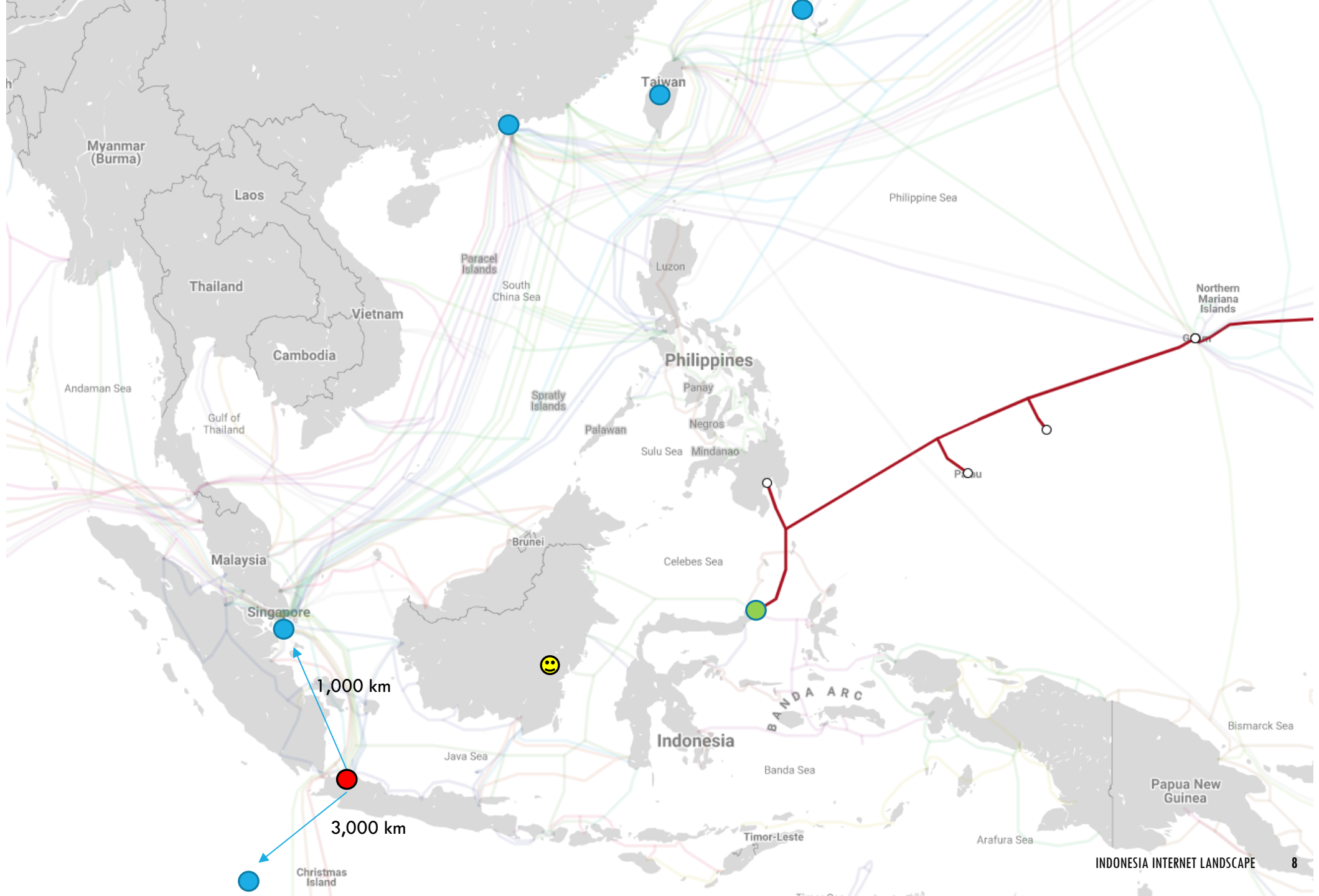
- TIS – Thailand Indonesia Singapore (2003)
- JASUKA – Jawa SUMatra KAlimantan (2006)
- BSCC – Batam Singapore Cable System (2009)
- SEA-US – South East Asia – US (2017)
- IGG – Indonesia Global Gateway (2018)

Non incumbent cables

- MCS - Matrix Cable System (2008)
- MIC-1 - Moratelindo International Cable 1(2008)
- BDM – Batam Dumai Malaka (2009)
- PGASCOM (2010)
- B3JS – Jakarta Bangka Bintan Batam Singapore (2012)
- ASC – Australia Singapore Cable (2018)



Credit: Submarine Cable Map

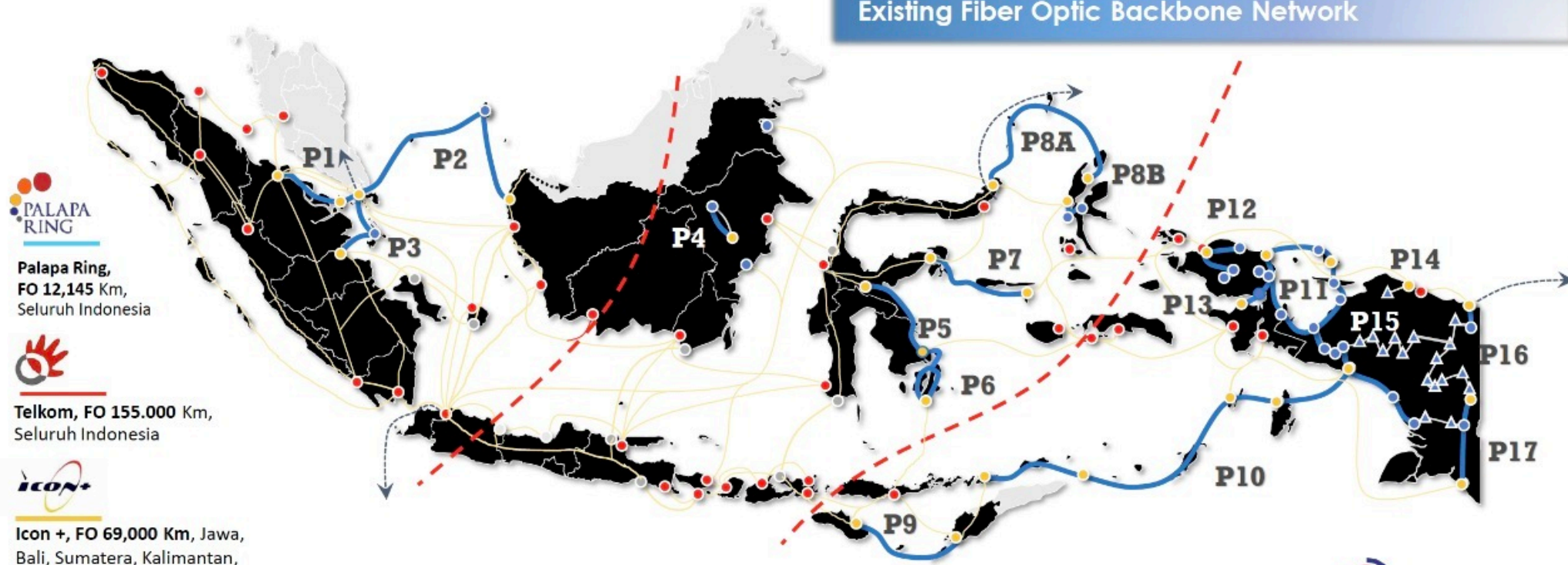




FIBER OPTIC PENETRATION FOR BACKBONE & BACKHAUL

4

PALAPA RING PPP Project as Complement to the Existing Fiber Optic Backbone Network



Palapa Ring,
FO 12,145 Km,
Seluruh Indonesia



Telkom, FO 155.000 Km,
Seluruh Indonesia



Icon +, FO 69,000 Km, Jawa,
Bali, Sumatera, Kalimantan,
Sulawesi



Moratel, FO 30,000 Km,
Jawa, Bali, Sumatera



Biznet, FO 21,000 Km,
Jawa, Bali, Sumatera



Fiberstar, FO 3,400 Km,
Jawa, Bali, Sumatera



Pgas COM, FO 4,000 Km, Sumatera,
Jakarta



LintasArta, 200 Kota, di
Indonesia



BADAN AKSESIBILITAS
TELEKOMUNIKASI DAN
INFORMASI

SATELLITE

Indosat Ooredoo

- Palapa D (2009), EOL July 2020

Telkom Indonesia

- Telkom 3 – fail to reach orbit (2012)
- Telkom 3s (2017)
- Telkom 4 (2018)

Bank Rakyat Indonesia

- BRISat (2016)

Pasifik Satelite Nusantara

- Nusantara Satu – high throughput satellite (2019)
- Nusantara Dua – fail to reach orbit (2020)



INTERNET EXCHANGES

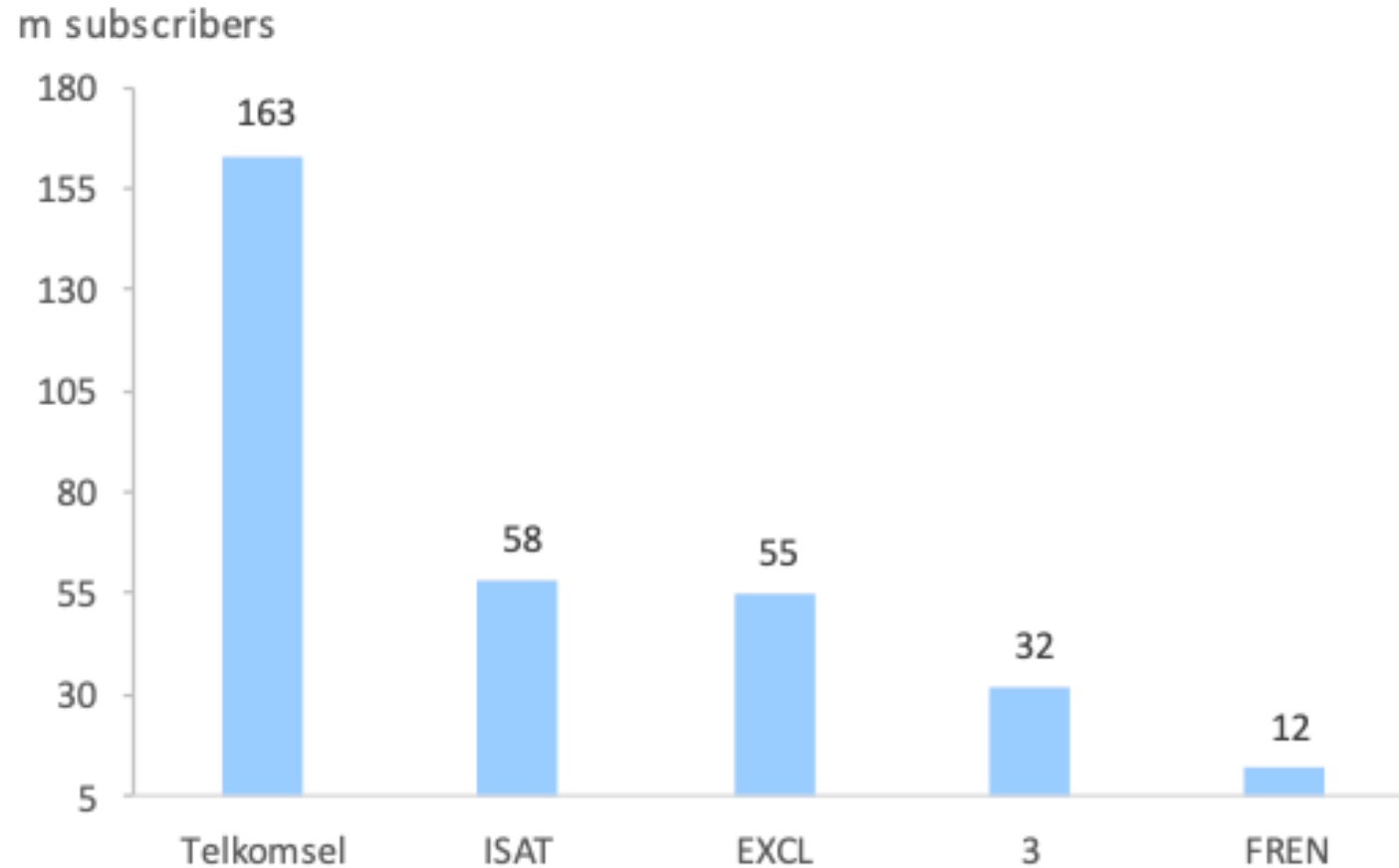
Jakarta

- OpenIXP – 243 members
- IIX Jakarta – 223 members
- CDIX – 120 members
- JKT-IX – 36 members

and many more https://www.peeringdb.com/advanced_search?country_in=ID&ref=ix

THE BIG 5 (MNO)

1.  **TELKOMSEL**
2.  **INDOSAT OOREDOO**
3.  **XL AXIATA**
4.  **3**
5. **smartfren.**



SUMMARY

WHAT CHANGES

- Explosion of e-commerce and apps



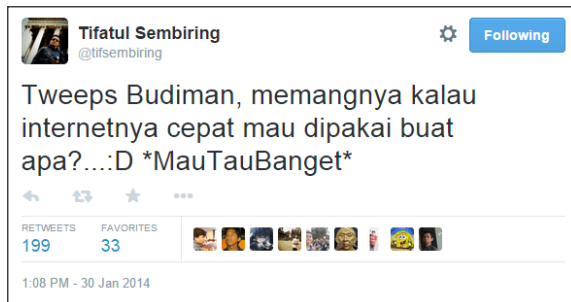
- Massive demand in colo space



- OTT get closer to eye balls

CHALLENGES

- Inequal spread of **population, wealth** and **infrastructure**
- **Priorities** of the incumbent government and minister
- **Investment** friendly environment



“what’s the use of fast internet?...”