About Me

- ✓ ISACA Member Since : 2014
- ✓ Executive Team of Research and Education Office 2019 -2021

- ✓ GM Transport Operation 2019 - Now
- ✓ Manager Datacomm Engineering 2012 – 2019
- ✓ Manager Datacomm Operation 2010 - 2012

CISSP, SABSA SCF, CISA, CISM, Six Sigma Green Belt, PMP, Procurement Expert

Outline

1. **Statistic and Impact Pandemic Covid-19**
2. **Response Covid-19 of Telco Industry**

BENCANA INDONESIA 2020

BNPB — BADAN NASIONAL PENANGGULANGAN BENCANA

SEBARAN KEJADIAN BENCANA ALAM 1 JANUARI - 13 SEPTEMBER 2020

Sampai tanggal 13 September 2020 Pkl. 15.00 WIB, tercatat jumlah kejadian bencana sebanyak 2.012 kejadian. Kejadian bencana alam mendominasi adalah bencana banjir, kemudian diikuti berturut-turut puting beliung dan tanah longsor. Bencana alam menimbulkan terdampak dan mengungsi 3.943.869 jiwa, sedangkan sebanyak 301 jiwa meninggal dan hilang, serta luka-luka 425 jiwa. Selain bencana alam, pada tanggal 13 April 2020 pemerintah menetapkan penyebaran Covid-19 sebagai **Bencana Nasional** non alam.

TOTAL BENCANA TAHUN 2020
Periode 1 Januari - 13 September 2020

2012

Map markers (frekuensi kejadian bencana):
213, 55, 8, 23, 25, 36, 21, 12, 14, 84, 13, 36, 50, 24, 7, 43, 7, 42, 15, 7, 10, 27, 14, 102, 44, 15, 342, 359, 9, 286, 24, 25, 12, 7

FREKUENSI KEJADIAN BENCANA :
- <50
- 50 - 150
- >150

JUMLAH KEJADIAN PER-JENIS BENCANA TAHUN 2020

BENCANA ALAM

GEMPA BUMI	13
ERUPSI GUNUNGAPI	5
KARHUTLA	285
KEKERINGAN	21
BANJIR	760
TANAH LONGSOR	370
PUTING BELIUNG	533
GELOMBANG PASANG & ABRASI	24

BENCANA NON ALAM

EPIDEMI COVID-19	1

DAMPAK BENCANA ALAM PERIODE 1 JANUARI - 13 SEPTEMBER 2020

- **277** MENINGGAL DUNIA
- **24** HILANG
- **3.943.869** MENDERITA & MENGUNGSI
- **425** LUKA - LUKA

DAMPAK KERUSAKAN BENCANA ALAM TAHUN 2020

RUMAH RUSAK TOTAL 30.466
- 6.585 RUMAH RUSAK BERAT
- 4.657 RUMAH RUSAK SEDANG
- 19.224 RUMAH RUSAK RINGAN

FASILITAS RUSAK TOTAL 1.392
- 617 FASILITAS PENDIDIKAN RUSAK
- 649 FASILITAS PERIBADATAN RUSAK
- 126 FASILITAS KESEHATAN RUSAK

KANTOR & JEMBATAN RUSAK
- 128 KANTOR RUSAK
- 339 JEMBATAN RUSAK

DAMPAK BENCANA NON ALAM EPIDEMI COVID-19

- **218.382** KONFIRMASI COVID-19
- **8.723** KASUS MENINGGAL
- **155.010** KASUS SEMBUH

No : 261/U140/099/Ben-Indonesia/BNPB/13092020

COVID-19 DI INDONESIA

INFO TERKINI : **Uji PCR** sebanyak **1.860.768** orang sudah diperiksa dan hasil **negatif** sebanyak **1.593.923** orang. Terkonfirmasi **COVID-19** mencapai **266.845** orang, **sembuh 196.196** orang, dan **meninggal dunia 10.218** orang, yang tersebar di **34 provinsi** dan **494 kabupaten/kota**. Pengujian antigen berbasis *real time Polymerase Chain Reaction* (PCR) dilakukan di seluruh Indonesia. Gunakan masker untuk lindungi diri dan lindungi sesama, **cuci tangan** pakai sabun, **hindari kerumunan** dan **jaga jarak**.

#ProduktifAmanCovid19 #CuciTangan #MaskerUntukSemua #JagaJarak #AdaptasiKebiasaanBaru

JUMLAH TERPAPAR COVID-19 DI INDONESIA

Update 25 September 2020 Pkl. 12.00 WIB

4.823	4.343	113
266.845	**196.196**	**10.218**
KONFIRMASI	SEMBUH	MENINGGAL DUNIA

TERSEBAR DI 34 PROVINSI, 494 KABUPATEN/KOTA

Sumber: Kementerian Kesehatan

DAERAH TELAH MENETAPKAN

GUGUS TUGAS PENANGANAN		PEMBATASAN SOSIAL BERSKALA BESAR	
34	**496**	**2**	**5**
Provinsi	Kab/Kota	Provinsi	Kab/Kota

Sumber: Gugus Tugas COVID-19, 15 September 2020

UJI PCR

26.419	46.133
1.860.768	**3.120.947**
ORANG	SPESIMEN

Sumber : Kemenkes

LOGISTIK DAN RELAWAN

TOTAL DISTRIBUSI ALMATKES	TOTAL RELAWAN MEDIS DAN NON MEDIS
55.795.546	**43.399**
TERSEBAR DI 34 PROVINSI	TERSEBAR DI 26 PROVINSI

Sumber : Gugus Tugas COVID-19

SEBARAN KUMULATIF KASUS AKTIF

Test PCR ~36% (WHO 1/1000 penduduk/minggu)
Positive Rate ~14% (WHO 5%)
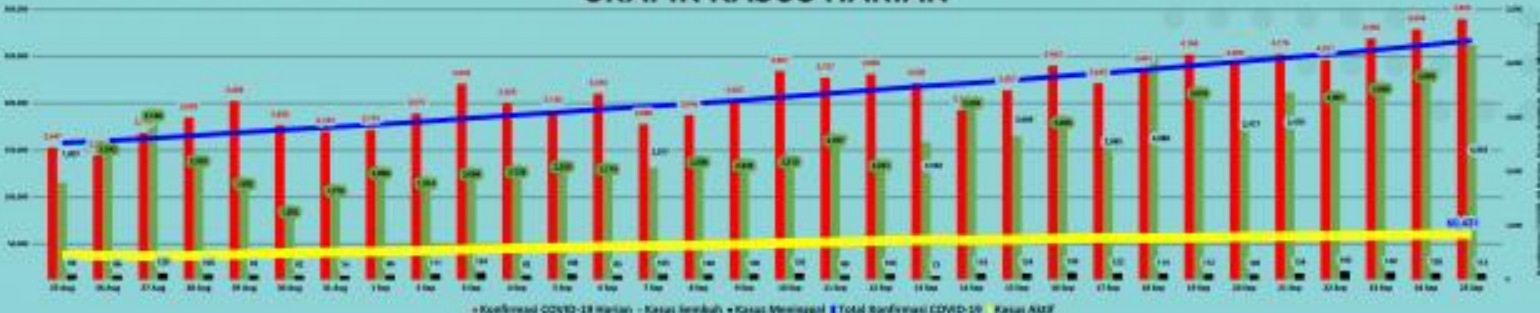Fatality Rate ~3.7% (Global 2.98%)

FREKUENSI DAERAH JUMLAH KUMULATIF KASUS AKTIF COVID-19
- 1 - 100
- 101 - 500
- 501 - 2.000
- > 2.000

JUMLAH KUMULATIF KASUS AKTIF COVID-19
(JUMLAH KUMULATIF KONFIRMASI DIKURANGI JUMLAH KUMULATIF KASUS SEMBUH & MENINGGAL)

UPDATE TERPAPAR COVID-19 DI DUNIA

TERSEBAR DI 216 NEGARA DAN WILAYAH/ TERITORIAL
Update 25 September 2020 Pkl. 12.00 WIB

No.	Negara	Total Kasus	Meninggal	Jumlah Penduduk	Kematian / 1 Juta Penduduk
	Dunia	31.798.308	973.653	7.796.798.739	125
1	Amerika Serikat	6,828,785	199,600	331,002,651	603
2	India	5,732,518	91,149	1,380,004,385	66
3	Brasil	4,591,604	138,108	212,559,417	650
4	Rusia	1,128,836	19,948	145,934,462	137
5	Kolombia	777,537	24,570	50,882,891	483
6	Peru	776,546	31,568	32,971,854	245
7	Meksiko	705,263	74,348	128,932,753	2255
8	Spanyol	693,556	31,034	46,754,778	664
9	Afrika Selatan	665,188	16,206	59,308,690	273
10	Argentina	652,174	13,952	45,195,774	309
23	Indonesia	266,845	10,218	269,603,400	38

Sumber : World Health Organization (WHO), worldometers.info (UN Population Division), BPS

DANA YANG MASUK

REKENING DALAM NEGERI	REKENING LUAR NEGERI	DONASI
Rp. 56,38 M	Rp. 104,65 M	Rp. 77,2 M

Sumber : Gugus Tugas COVID-19 25 September 2020

TOTAL Rp. 238,28 M

GRAFIK KASUS HARIAN

Konfirmasi COVID-19 Harian · Kasus Sembuh · Kasus Meninggal ■ Total Konfirmasi COVID-19 ■ Kasus Aktif

INFORMASI COVID-19

SITUS RESMI www.covid19.go.id

CALL CENTER 119

Proteksi Kewaspadaan COVID-19

No : 146/U136/099/COVID-19/BNPB/25092020

STRUKTUR DAN PERTUMBUHAN PDB MENURUT LAPANGAN USAHA
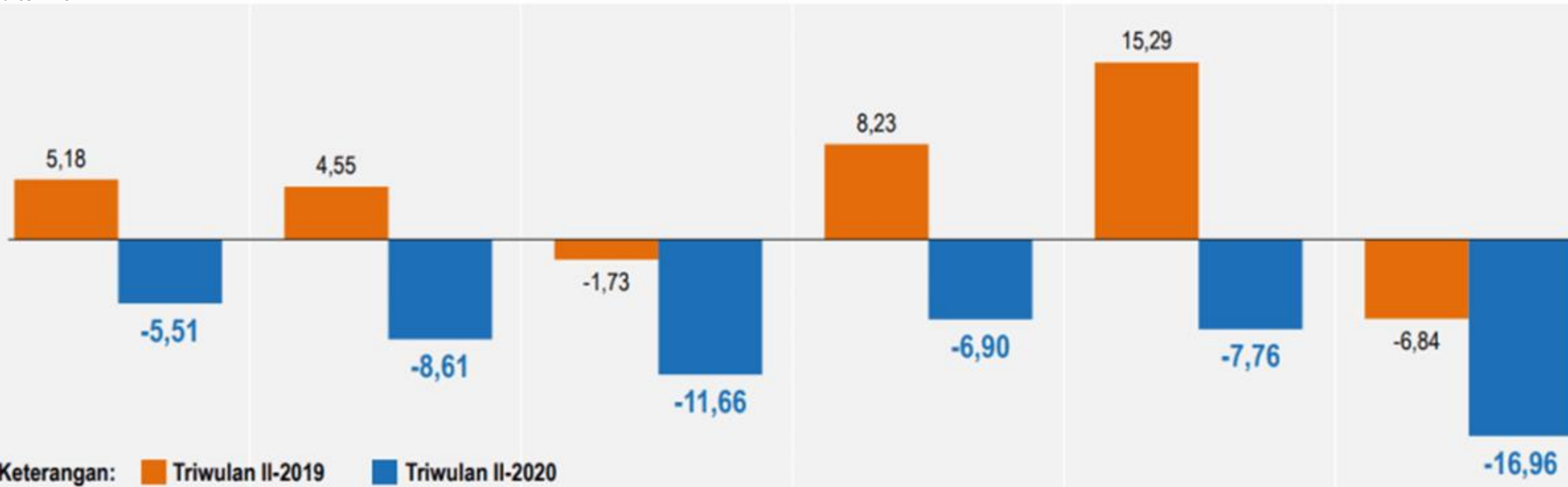## TRIWULAN II-2020 (Y-on-Y) : -5,32%

Source : BPS

Q1-2020 (2.97%)

Keterangan: ■ Triwulan II-2019 ■ Triwulan II-2020

Pertumbuhan PDB (y-on-y, %)

Industri	Pertanian	Perdagangan	Konstruksi	Pertambangan	Infokom	Jasa Keuangan	Adm. Pemerintahan	Transportasi & Pergudangan	Jasa Pendidikan	Real Estat	Akomodasi & Makan Minum	Jasa Lainnya	Jasa Perusahaan	Jasa Kesehatan	Pengadaan Listrik & Gas	Pengadaan Air

Struktur PDB Triwulan II-2020 (%)

19,87	15,46	12,84	10,56	6,28	4,66	4,44	3,80	3,57	3,54	3,06	2,28	1,86	1,83	1,23	1,14	0,08

Source : BPS

5,18	4,55	-1,73	8,23	15,29	-6,84
-5,51	-8,61	-11,66	-6,90	-7,76	-16,96

Keterangan: ■ Triwulan II-2019 ■ Triwulan II-2020

Pertumbuhan PDB (y-on-y, %)

Konsumsi Rumah Tangga	PMTB	Ekspor	Konsumsi Pemerintah	Konsumsi LNPRT	Impor
			Struktur PDB Triwulan II-2020 (%)		
57,85	30,61	15,69	8,67	1,36	-15,52

Pandemic Telco Industry Global Impact

YoY GDP Growth in 2020Q2

China	Indonesia	Australia	US	Germany	Thailand	Singapore	Phillipines	India
3.2%	-5.3%	-6.3%	-9.1%	-11.3%	-12.2%	-13.2%	-16.5%	-23.9%
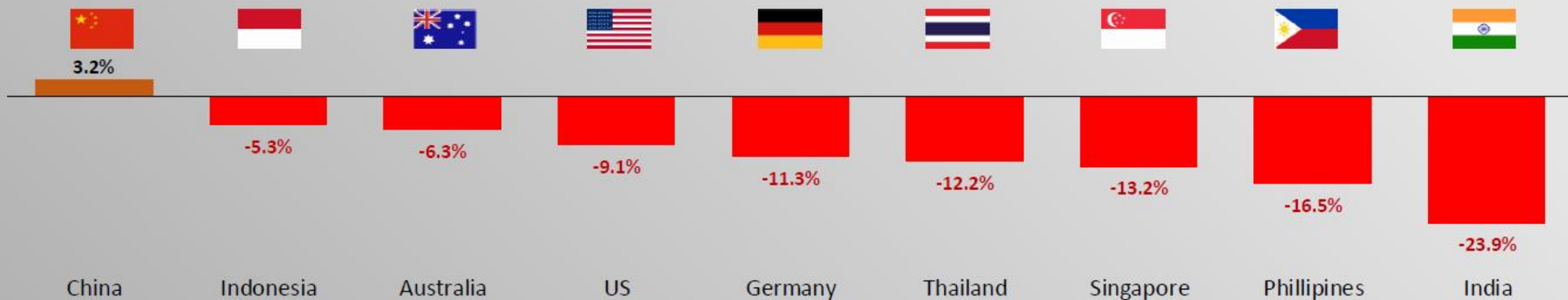
YoY Revenue Growth in 2020Q2

Jio	Bharti	China Mobile	Deutsche Telekom	AT&T	AIS	Telkomsel	Optus	Globe	Singtel
44%	19%	2%	-1%	-2%	-5%	-6%	-14%	-16%	-30%
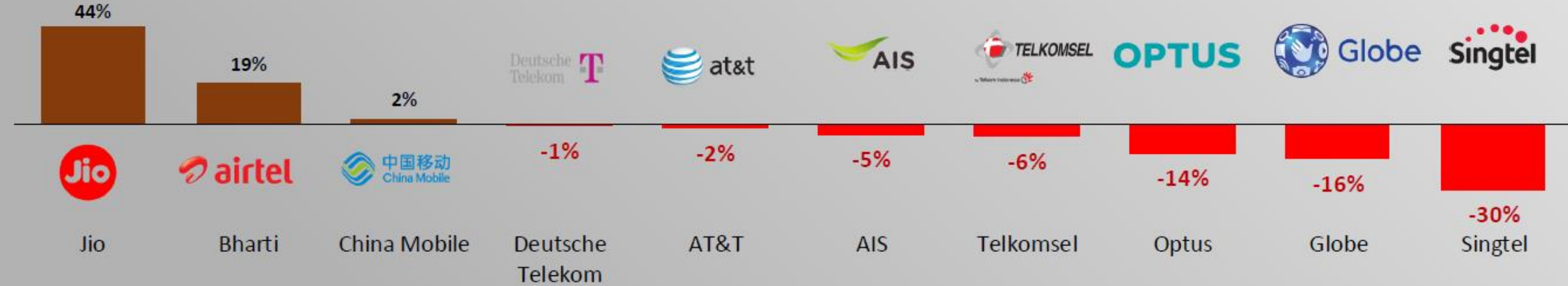
Surge Broadband since WFH

Payload (PB)

Legend: 4G | 3G | 2G · cellular | Wifi

+7.7%

+14.8%

Jan | Feb | Mar | Apr | May | Jun | Jul | Aug

WFH period

Source : Ookla

Mar | June | Aug
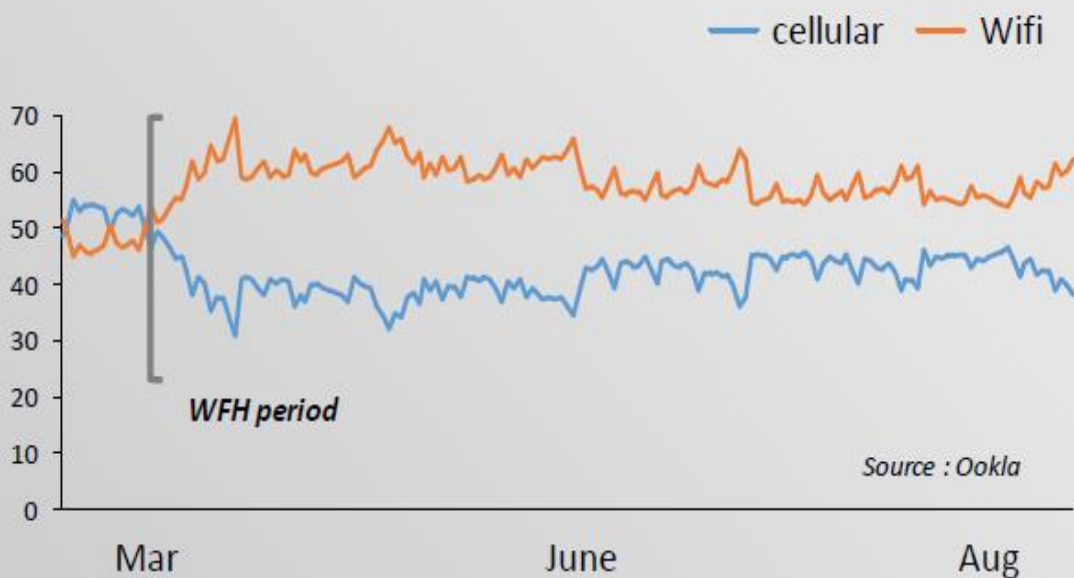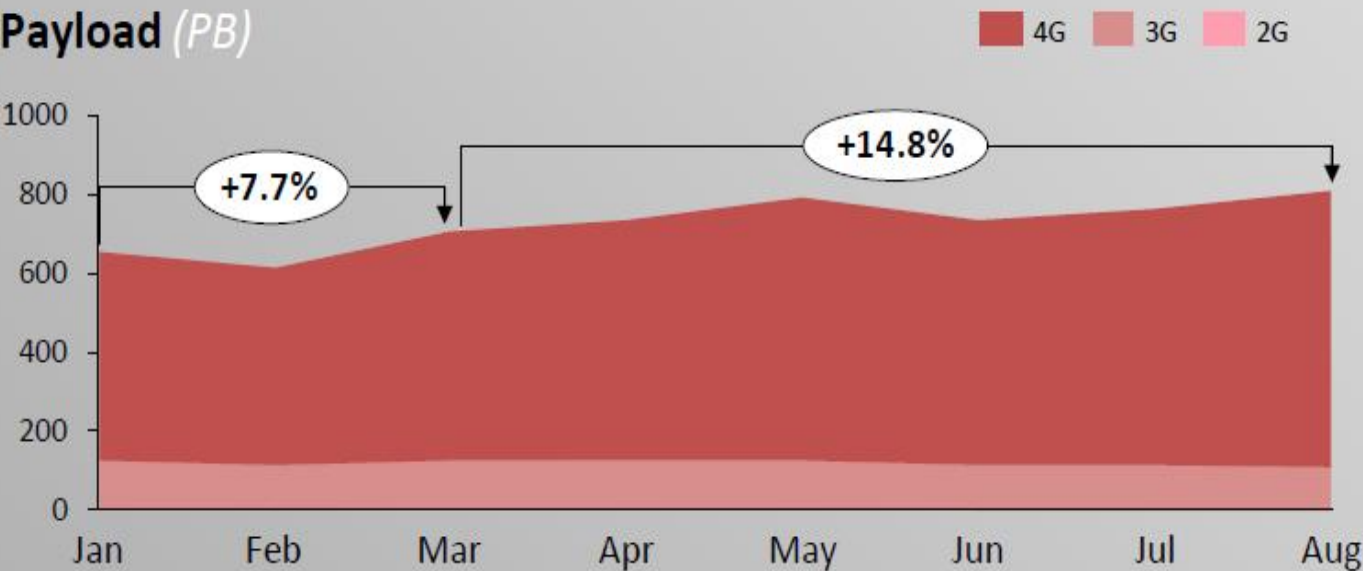
Payload Growth since WFH

Data Traffic   Avg. Growth ▲ +14.5% *)

WFH period

0% 0% 0% -2% 0% 1% 4% 4% 5% 14% 12% 15% 15% 8% 13% 14% 14% 15% 14% 15% 19% 12% 10% 24% 17% 16% 15% 25% 21% 9% 21% 15% 17% 8% 8% 9% 10% 10% 11% 11% 13% 17% 16% 16% 25% 14% 11% 20% 20% 15% 13% 8% 21% 15% 23% 28% 26% 25% 23% 21% 23% 25% 20%

| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 21 | 31 | 1 | 2 | 3 | 5 | 14 | 21 | 24 | 28 | 29 | 30 | 1 | 2 | 3 | 7 | 14 | 23 | 24 | 25 | 26 | 31 | 1 | 2 | 3 | 7 | 14 | 21 | 30 | 1 | 2 | 3 | 7 | 14 | 21 | 28 | 31 | 1 | 2 | 3 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 21 | 24 | 25 | 26 | 27 | 28 | 29 |
| Mar | Mar | Mar | Mar | Mar | Mar | Mar | Mar | Mar | Mar | Apr | Apr | Apr | Apr | Apr | Apr | Apr | Apr | Apr | Apr | May | May | May | May | May | May | May | May | May | May | Jun | Jun | Jun | Jun | Jun | Jun | Jun | Jul | Jul | Jul | Jul | Jul | Jul | Jul | Jul | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug | Aug |

*) Avg. growth during social distancing period 15 Mar- 29 Aug 20 (compare to baseline: 28 Feb-5 Mar 20)

Telco Industry

Business Continuity Management Program Approach

A strategy that meets the business objectives to continually assess and develop effective planning, testing, and recovery of critical services (People, Processes and Technology)

processes by which business can be maintained to an acceptable level until full processes and systems are restored

minimizing the impacts of critical events on an organisation and its stakeholders

Organizational Resilience Risks:
A Pandemic Is an Operational Risk

Crisis/Disaster Type :

- Environmental
- Natural Disasters
- Facility
- Country
- Biohazard
- **Biological Disease/ Pandemic**
- Geopolitical
- Social Unrest/Networking

RISK :

- Information Technology
- Cybersecurity
- Legal and Regulatory
- Third Party
- Business Process
- Separation of Duties
- Workforce
- Corporate Culture

Reputation Risk

Strategic Risk

Operational

Credit
- Customers
- Suppliers
- Compliance

Market
- Materials/Supplies
- Interest Rates
- Competition
- Economy
- Currency
- Liquidity

TELCO HAS ALWAYS BEEN CRITICAL, BUT NEVER MORE CRITICAL THAN IT IS TODAY

Traffic spikes and busy hours shift under confinement regimes

> 40% — Increase in fixed IP traffic (in part driven by video and gaming)

50% — Uptake in mobile voice services

5x — More traffic from instant messaging platforms (eq. WhatsApp's)

5x — More traffic from instant messaging platforms (eq. Whatapps)

4x — Increase in traffic from remote work platform

Source : global research

Telco is mission critical to keep the economy moving

Provide business critical connectivity and provide resiliency

Keep business and the economy up and running by means of video and remote collaboration tools

Keep families together (and entertained) during increasing levels of social isolation

BEYOND DONNING PROTECTIVE GEAR FOR CUSTOMER-FACING STAFF, BEST PRACTICES FOCUS ON RISK MANAGEMENT AND LIMITING EXPOSURE

Best Practices – Network Focused
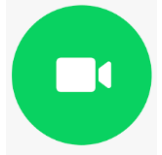
Limiting exposure by remote diagnostics and pushing self-install/repair, e.g. support through video calls and instruction videos

Risk management by qualifying customer contacts, e.g. call customer ahead of visit to confirm appointment and check if there are infected people on premises, check again when at the door

Provide technicians with protection equipment for themselves AND for the customer: gloves, face masks, hand sanitizers and hand washing protocol at minimum, protective gear and googles when entering infected residences

Virtualize non-critical jobs and re-assign vulnerable workforce to back office duties, e.g. move older or otherwise vulnerable workforce to back office duties, virtualize office jobs immediately

Physical Distancing

Set up work-shift structure to limit exposure risk, e.g. two or more non-overlapping groups to manage critical infrastructure, focus on outdoor, smaller work teams

## Best Practices – General and Commercial

Refreshing business continuity plans, e.g. most Telco's report having benefitted from having good BCM in place (including with 3rd party suppliers)

Early identification of critical personnel/activities and aggressive protection, e.g. contact limitation, shifts etc

Force shift to working from home early in the process to protect employees and limit viral spread: e.g. virtualize call centers, fast deployment of laptops and collaboration/video tools (Zoom/Webex/Skype/Microsoft Teams/Cloudx most used), remote NOC, etc.
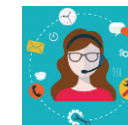
Re-assigning retail workforce to customer care or telesales, e.g. telesales contacting efficiency has never been so high

Limit opening hours and close shops not only for protection but also because of footfall decrease
Move to "vending machine" approach, to limit exposure risk, e.g. work with service window in shops avoiding customer contact

Prime the supply chain, e.g. maximize stock levels to support ~8 weeks of business

"SOCIAL DISTANCING" OPERATORS PREPARE TO GO TO "QUARANTINE" MODE

Personnel and business protection measures vary with degree of confinement

"Social distancing" countries

Austria	Brunei	Chile	Croatia	Finland	Germany	Indonesia	Kuwait
Mexico	Netherlands	Poland	Slovakia	Sweden	Thailand	UK	U.A.E
US							

1. Protective measures (gloves, masks, disinfectant, etc) of customer facing work force
2. Segregation of vulnerable segments of workforce to avoid contacts
3. Virtualization of (back) office work
4. Limitation of shop opening hours

"Quarantine" countries

Belgium	France	Italy	Spain	Portugal

1. Full virtual workforce with only critical activities supported (stop build)
2. Critical workforce working shifts to limit infection probability
3. Protective gear and risk control procedures for customer contact
4. Shops closed or vending machine-style
5. SIM delivery through messengers
6. Re-assignment of retail staff

RESPONSES SUGGEST EMERGENCE OF COMMON TELCO COVID RISK MANAGEMENT

1 Reconfirm business continuity programs to identify and protect critical personnel and infrastructure; prepare to shift to full virtual working mode for an extended time

2 Redeploy retail workforce idled by shop closure or footfall reduction to customer care and reactive sales

3 Reinvest commercial windfall in bill relief, limit removals and free service/trials; with an eye to provide up-and cross-selling paths after the crisis has passed

4 Accelerate Regulatory and Public Policy strategy refresh for a post-COVID world focusing on elevating telecom to be recognized as critical national infrastructure

5 Start planning for global recession and demand deceleration after the crisis has passed

EVERY CLOUD HAS A SILVER LINING –TELCOS CAN STRENGTHEN THEIR POSITION WITH CUSTOMERS, REGULATORS AND SOCIETY AT LARGE

ISACA
Indonesia Chapter

Strengthen connection with customers

1. Real opportunity to **gain service and reputational ground with customers** through billing relief, entertainment and broadband provisioning for quarantined families

2. **Reallocate** lowerSAC/SRC/Commercial activity cost savings **to existing customers and create post-crisis up-and cross-selling paths:**
   - Free content/entertainment (kids, news, learning, education, series,…)
   - Remove throttling and bundle limits
   - Extra data allowance, upgrade in fixed speed levels no out of bundle data charge

3. **Increase backbone capacity to deal with extra traffic**

Achieve critical national infrastructure designation

1. COVID crisis presents clear rationale **to designate telco as critical infrastructure at the same level as other critical services**(e.g. gas, electricity, etc..)
   - Similar access and intervention rights to solve faults as water or gas services

2. Fast fixed and mobile broadband networks are a **critical component of national resilience** and need government support to ensure full access
   - Improve access to rights of way and to private infrastructure
   - Find financing solutions to bridge digital divide
   - Curtail excessive indirect taxation through expensive spectrum auctions

Increase adoption of new services by enterprises and society

1. The crisis presents an **opportunity to increase telco relevance for society and enterprises by providing business continuity solutions**
   - Business critical communication for Health Centre's and remote patients diagnostics
   - E-learning tools for educational centers to keep permanent contact with students
   - Sharing and remote working solutions for small and medium enterprises to remain connected to their teams and clients –even in confinement situations

INI PERINTAH!
BUKAN HIMBAUAN

JAGA JARAK
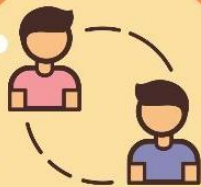
CUCI TANGAN

PAKAI MASKER

JOKOWI nomics .id

GAMBAR = A

GERMAS

BIASAKAN
CUCI TANGAN
PAKAI SABUN
Dengan Air Mengalir

5 Langkah Cuci Tangan Pakai Sabun

1 Basahi seluruh tangan dengan air bersih mengalir

2 Gosok sabun ke telapak, punggung tangan dan sela jari

3 Bersihkan bagian bawah kuku-kuku

4 Bilas tangan dengan air bersih mengalir

5 Keringkan tangan dengan handuk/ tisu atau keringkan dengan diangin-anginkan.

Cuci tanganmu sebelum dan sesudah makan atau beraktifitas