

# COUNTRY: INDONESIA

SCORE: 40.67 | RANK: 23/24

Indonesia continues to update and reform laws and regulations in the information technology (IT) sector, and the result is not always positive for cloud computing.



Regulations impose significant barriers for cloud service providers, including requirements for providers to register their services with a central authority and rules that force some providers to establish local data centers and hire local staff.

Copyright law in Indonesia is now mostly aligned with international models. However, several key aspects of the new law await more-detailed regulations before they can be implemented. In addition, improvements could be made in the areas of enforcement and safe harbor protection for intermediaries.

A gap in Indonesian regulatory environment exists in the areas of interoperability, free trade, and government procurement, negatively affecting cloud computing.

The Indonesian Broadband Plan was finalized in December 2013 and implementation began in 2014 with the objective to increase “meaningful” broadband penetration. However, information on implementation of the plan is limited.

Overall, Indonesia fell three places in the Scorecard rankings (from 20th to 23rd), as the country’s rank was overtaken by others.

# INDONESIA	RESPONSE	EXPLANATORY TEXT
<b>DATA PRIVACY (SCORE: 3.3/12.5   RANK: 22/24)</b>		
1. Is a data protection law or regulation in place?		The Law on Information and Electronic Transactions 2008 contains a very brief section on privacy (Article 26). The law is complemented by two regulations.  Regulation No. 82 of 2012 on the Operation of Electronic Systems and Transactions <flevin.com/id/Igso/translations/JICA%20Mirror/english/4902_PP_82_2012_e.html> provides that electronic system providers must ensure the protection of any personal data that they process. Such protection broadly includes obtaining necessary consent and ensuring that personal data are used only in accordance with the purpose communicated to data subjects.  Regulation No. 20 of 2016 on Personal Data Protection in Electronic Systems (PDP Regulation) provides a more comprehensive set of privacy principles. Although it only applies to companies that use “electronic processes” in relation to personal data, the definition of electronic processes is so broad that it will capture most businesses.  In addition to the legislation above, regulations concerning the protection of certain types of personal data are also addressed in part in a number of additional laws and regulations.  Indonesia is also considering a Draft Law on Data Protection that would replace all of these developments with a single comprehensive law, but progress of the bill is uncertain.
2. What is the scope and coverage of the data protection law or regulation?	Comprehensive	The combination of the Law on Information and Electronic Transactions 2008 and Regulation No. 20 of 2016 on Personal Data Protection in Electronic Systems provide comprehensive coverage.
3. Is a data protection authority in place?		Indonesia has yet to establish a stand-alone data protection regulator. Although the legislation is silent on the establishment of a regulator, this may be covered in future regulations. The Ministry of Communications and Informatics (MOCI) <www.kominfo.go.id> plays an important role in key aspects of the Regulation, including a potential role in audits, complaints, and the issuance of certificates.
4. What is the nature of the data protection authority?	Not applicable	No data protection authority is in place in Indonesia.
5. Is the data protection authority enforcing the data protection law or regulation in an effective and transparent manner?	Not applicable	The Ministry of Communications and Informatics (MOCI) has been given several important roles in relation to the new Regulation No. 20 of 2016 on Personal Data Protection in Electronic Systems. However, these only came into force in early 2017 and there is not yet any evidence of implementation and enforcement.

# INDONESIA	RESPONSE	EXPLANATORY TEXT
6. Is the data protection law or regulation compatible with globally recognized frameworks that facilitate international data transfers?	Not applicable	Indonesia's combination of various privacy laws and regulations cover some of the issues raised in the EU Directive, but Indonesia is missing some key components (such as an independent data protection authority). The Indonesian approach is not based on any international model, although the regulations are influenced by the APEC Privacy Framework, and Indonesia is an active member of the APEC Data Privacy Sub-Group <publications.apec.org/publication-detail.php?pub_id=39>.  Indonesia is also considering a Draft Law on Data Protection, which would replace all of these developments with a single comprehensive law, but progress of the bill is uncertain.
7. Are data controllers free from registration requirements?	✘	Under the Regulation No. 20 of 2016 on Personal Data Protection in Electronic Systems, companies must apply to the Ministry of Communications and Informatics (MOCI) <www.kominfo.go.id> for an "Electronic System Worthiness Certificate" for any system they use in relation to personal data. The details of this process have not yet been published, but it appears to be a prescriptive and burdensome registration requirement that will affect most businesses. The regulation allows the MOCI to outsource some of the registration process.
8. Are there cross-border data transfer requirements in place?	Brief requirements	Regulation No. 20 of 2016 on Personal Data Protection in Electronic System does not contain a full set of cross-border data transfer requirements (and exemptions), but it does contain specific reporting requirements for cross-border data transfers.
9. Are cross-border data transfers free from arbitrary, unjustifiable, or disproportionate restrictions, such as national or sector-specific data or server localization requirements?	✘	Under the Regulation No. 20 of 2016 on Personal Data Protection in Electronic Systems every cross-border data transfer must be pre-notified to the Ministry of Communications and Informatics (MOCI) <www.kominfo.go.id>, including information on the target country and the purpose of the transfer. Interestingly, a further report must be submitted following the transfer. These requirements appear onerous and will affect many organizations.  In addition, Regulation No. 20 of 2016 on Personal Data Protection in Electronic Systems requires data centers and data recovery centers to be "placed in Indonesia" if the organization is providing government services.
10. Is there a personal data breach notification law or regulation?	📌	Both the Regulation No. 82 of 2012 on the Operation of Electronic Systems and Transactions and Regulation No. 20 of 2016 on Personal Data Protection in Electronic Systems contain some data breach notification requirements.
11. Are personal data breach notification requirements transparent, risk-based, and not overly prescriptive?	📌	Regulation No. 82 of 2012 on the Operation of Electronic Systems and Transactions includes a requirement that Electronic System Operators (ESOs) must notify data subjects in writing in the event that there is any unauthorized disclosure or processing of personal data. "Personal data" is not limited to information that by itself enables the identification of individuals and is broadly defined under the regulation as any information of individuals that is kept, stored, and protected as confidential information.  Article 28C of the Regulation No. 20 of 2016 on Personal Data Protection in Electronic Systems requires organizations to notify individuals if any of their personal data is "leaked."  It is expected that these sections will be complemented by more detailed guidance in the future.
12. Is an independent private right of action available for breaches of data privacy?	📌	Article 26 of the Law on Information and Electronic Transactions 2008 does include a provision that allows individuals to make a claim in court for any infringement of their privacy. However, the terms of the article are broad, and the limits and scope of this process are unclear as no such case has yet been tested before the courts.
<b>SECURITY (SCORE: 6/12.5   RANK: 18/24)</b>		
1. Is there a national cybersecurity strategy in place?	✔️	Indonesia has a brief National Cybersecurity Strategy (December 2016) in place <dephub.go.id/post/read/paparan-indonesia-cyber-security-strategy,-kominfo>.  The Strategy has five key components: (1) Cyber resilience; (2) Cyber public services; (3) Cyber law enforcement; (4) Cybersecurity culture; and (5) Cyber secure market.  In May 2017, the government established a National Code Cyber Agency (BSSN) through the issuance of Presidential Regulation no. 53/2017.  BSSN's mandates include preparing, implementing, monitoring, and evaluating technical policies, coordinating ministries/agencies on cybersecurity matters, and coordinating regional and international partnerships.

# INDONESIA	RESPONSE	EXPLANATORY TEXT
2. Is the national cybersecurity strategy current, comprehensive, and inclusive?	📌	The strategy is up to date, but it has only limited details on key topics (especially in relation to finance and timing issues). Implementation has been stalled by the delay in the establishment of the National Code Cyber Agency (BSSN, which was created in May 2017).
3. Are there laws or appropriate guidance containing general security requirements for cloud service providers?	✅	Articles 15 and 16 of the Law on Information and Electronic Transactions 2008 include some very broad requirements relating to the organization of data systems. Regulation No. 82 of 2012 on the Operation of Electronic Systems and Transactions provides more detailed requirements.
4. Are laws or guidance on security requirements transparent, risk-based, and not overly prescriptive?	❌	Regulation No. 82 of 2012 on the Operation of Electronic Systems and Transactions includes some unique and onerous security and registration requirements for electronic service providers, which include cloud providers. For example, Article 17 (2) requires operators to place their data centers in Indonesia. Other provisions require firms to hire local Indonesian staff when dealing with sensitive public-sector data.
5. Are there laws or appropriate guidance containing specific security audit requirements for cloud service providers that take account of international practice?	✅	Article 18 of the Indonesian Regulation No. 82 of 2012 on the Operation of Electronic Systems and Transactions requires providers to supply regular audit records on "all Provision of Electronic Systems activities" to a government agency.
6. Are international security standards, certification, and testing recognized as meeting local requirements?	❌	Mandatory security certification is not required in Indonesia, although individual procurement opportunities may sometimes make reference to certifications.  Indonesia is not a participant in the Common Criteria Recognition Agreement (CCRA) < <a href="http://www.commoncriteriaportal.org">www.commoncriteriaportal.org</a> >.
<b>CYBERCRIME (SCORE: 9.5/12.5   RANK: 15/24)</b>		
1. Are cybercrime laws or regulations in place?	✅	The Law on Information and Electronic Transactions 2008 contains a number of key cybercrime provisions (Articles 29-37).
2. Are cybercrime laws or regulations consistent with the Budapest Convention on Cybercrime?	✅	The cybercrime provisions in the Law on Information and Electronic Transactions 2008 are very similar to key provisions in the Convention on Cybercrime.
3. Do local laws and policies on law enforcement access to data avoid technology-specific mandates or other barriers to the supply of security products and services?	✅	A proposed new law on interception has been under discussion in Indonesia since 2014, and made some limited progress in 2016. However, as of June 2017, the bill has not yet been formally tabled in Parliament.  In the meantime, law enforcement access to data is guided by MCIT Ministerial Regulation 11/PER/M.KOMINFO/ 02/2006 of 2006 on direct access to telecommunications networks and the very limited provisions contained in Article 31 of Law No. 11 of 2008 on Electronic Information and Transactions (EIT). None of these provisions are technology-specific and there do not appear to be any barriers to the supply of general security products in Indonesia (such as the provision of end to end encryption by cloud service providers).
4. Are arrangements in place for the cross-border exchange of data for law enforcement purposes that are transparent and fair?	📌	Indonesia has a small number of Mutual Legal Assistance Treaties (MLATs) in place with key trading partners, such as Australia, Hong Kong, and India. Indonesia also has Memorandums of Understanding (MOUs) in place with some countries on specific issues, for example the agreement between Indonesia and the United States on sharing information in relation to financial crime. Overall, Indonesia's arrangements for sharing data for law enforcement are gradually improving.
<b>INTELLECTUAL PROPERTY RIGHTS (SCORE: 6/12.5   RANK: 16/24)</b>		
1. Are copyright laws or regulations in place that are consistent with international standards to protect cloud service providers?	📌	Indonesia's new Copyright Law (Law No. 29 of October 16, 2014, on Copyright) strengthens copyright protection and enforcement processes in Indonesia. However, several key aspects of the new law are awaiting more detailed regulations before they can be implemented.  Indonesia is now broadly compliant with international standards.  Some very limited copyright "safe harbor" protection for intermediaries is contained in MOCI Circular No. 5 of 2016 on the Limitations and Responsibilities of Platform Providers and Merchants in E-Commerce Using User-Generated Content Platforms. The circular only applies to customer-to-customer (C2C) platforms, but it is expected that the provisions will be expanded to a broader range of services in the future.
2. Are copyright laws or regulations effectively enforced and implemented?	❌	Indonesia faces significant issues in relation to copyright enforcement. Criminal enforcement against copyright infringements is very rare. Civil cases have imposed very low damages, and legal expenses are not recoverable.  In practice, there is no intellectual property "safe harbor" that can be applied to cloud service providers.

# INDONESIA	RESPONSE	EXPLANATORY TEXT
3. Is there clear legal protection against misappropriation of trade secrets?	✓	Trade secrets are protected under Law No. 30 of December 30, 2000, regarding Trade Secrets. Trade secrets must fulfill three specific criteria: <ul style="list-style-type: none"> <li>• The information is confidential;</li> <li>• The information has real or potential economic value; and</li> <li>• Necessary measures have been taken to protect its secrecy.</li> </ul>
4. Is the law or regulation on trade secrets effectively enforced?	🔵	Enforcement of the trade secrets law is very limited in Indonesia and there have been few recorded cases. However, in early 2017 a high-profile trade secrets case resulted in a record fine of over US\$750,000, indicating the emergence of effective enforcement activity.
5. Is there clear legal protection against the circumvention of Technological Protection Measures?	🔵	Indonesian copyright law prohibits the circumvention of technological protection measures (TPMs), including both access controls and copy controls. However, the law does not include clear provisions prohibiting trafficking in devices, technologies, and services primarily designed to circumvent TPMs.
6. Are laws or regulations on the circumvention of Technological Protection Measures effectively enforced?	🔵	The legislation on technological protection measures has been tightened in Indonesia following the introduction of Regulations No. 14 and 26 in 2015 (implementing and strengthening provisions in the Copyright Law of 2014). However, enforcement remains very limited.
7. Are there clear legal protections in place for software-implemented inventions?	🔵	Patents for software-implemented inventions are not generally available in Indonesia.  Indonesia's new patent law (Patent Law No. 13 of 2016) fails to provide specific protection for software-implemented inventions generally, but does provide some limited protection for inventions involving computer programs that exhibit "problem solving" or contain instructions.
8. Are laws or regulations on the protection of software-implemented inventions effectively implemented?	🔵	The implementation of protection for software-implemented innovations is very restricted as a result of the gaps and limitations in the patents legislation.  In practice, the Indonesian Intellectual Property Office will sometimes grant a patent for a software-enabled invention where the patent has been granted in other countries (in accordance with the Patent Cooperation Treaty (PCT) of which Indonesia is a party).
<b>STANDARDS AND INTERNATIONAL HARMONIZATION (SCORE: 6.3/12.5   RANK: 23/24)</b>		
1. Is there a regulatory body responsible for standards development for the country?	✓	The National Standardization Agency of Indonesia (BSN) <www.bsn.go.id> has management and regulatory responsibility for standards in Indonesia. The BSN is a non-ministerial government institution.
2. Are international standards favored over domestic standards?	✗	Indonesia usually prioritizes compliance with international standards.  However, in the cloud computing sector, there are numerous additional testing and certification barriers.  Regulation No. 82 of 2012 on the Operation of Electronic Systems and Transactions <flevin.com/id/Igso/translations/JICA%20Mirror/english/4902_PP_82_2012_e.html> includes a complex system of certification and testing, based on three levels of certificates: Electronic Systems Capability Certificate, Electronic Systems Certificates, and Reliability Certificates. There is some potential for testing for Reliability Certificates to be provided by international providers, but most of the rules require local testing.
3. Does the government participate in international standards setting process?	✓	Indonesia participates in relevant International Standards Organization (ISO) and International Electrotechnical Commission (IEC) standard-setting processes and is a full member of the ISO. Indonesia is an observer in the top-level ICT standards committee (JTC-1) <www.iso.org/isoiec-jtc-1.html>.
4. Are e-commerce laws or regulations in place?	✓	The Law on Information and Electronic Transactions 2008 is an omnibus act that includes general e-commerce provisions.  The law was updated and amended by Law No. 19 of 2016 on the Amendment to Law No. 11 of 2008 on Electronic Information and Transactions. The changes took effect on November 25, 2016. The amendment clarified several definitions in the law and provided the regulator with a specific power to terminate access, or order a network provider to terminate access, to websites that are breaching Indonesia's content regulation laws.
5. What international instruments are the e-commerce laws or regulations based on?	UN Convention on E-Contracting	Key provisions are based on the UN Convention on Electronic Contracting.
6. Is there a law or regulation that gives electronic signatures clear legal weight?	✓	Article 11 of the Law on Information and Electronic Transactions 2008 provides legal recognition for electronic signatures that meet certain requirements.

# INDONESIA	RESPONSE	EXPLANATORY TEXT
7. Are cloud service providers free from mandatory filtering or censoring?	✘	<p>Regulation No. 19 of 2014 on Controlling Internet Websites Containing Negative Content, a regulation of the Ministry of Communications and Information Technology, contains provisions that require “negative content” to be filtered. The filtering is done at the ISP level, against a blacklist approved by the Director General of the ministry. No definition of “negative content” exists in the regulation; however, content that relates to privacy, child pornography, religious or ethnic violence, or else could result in social unrest qualifies as “urgent” and is fast-tracked through the filtering process. The process through which websites are listed on the blacklist is included in the regulation.</p> <p>In addition, Articles 27 and 28 of the Law on Information and Electronic Transactions 2008 prohibit the publication and distribution of certain categories of material, including “immoral” material and material that promotes gambling. This law was updated and amended by Law No. 19 of 2016 on the Amendment to Law No. 11 of 2008 on Electronic Information and Transactions. The changes took effect on November 25, 2016. The amendment provides the regulator with a specific power to terminate access, or order a network provider to terminate access, to websites that are breaching Indonesia’s content regulation laws.</p> <p>From 2015 to 2017, there were reports of attempts by the government to introduce mandatory filtering using the national domain name system (DNS) to automate the blocking process.</p>
<b>PROMOTING FREE TRADE (SCORE: 1.5/12.5   RANK: 22/24)</b>		
1. Is a national strategy or platform in place to promote the development of cloud services and products?	✘	<p>In November 2016, the Indonesian government set seven strategic issues to foster the growth of e-commerce as part of the E-Commerce Road-Map 2020, &lt;<a href="http://www.kominfo.go.id/content/detail/8356/siaran-pers-tentang-paket-kebijakan-ekonomi-xiv-peta-jalan-e-commerce/0/siaran_pers">www.kominfo.go.id/content/detail/8356/siaran-pers-tentang-paket-kebijakan-ekonomi-xiv-peta-jalan-e-commerce/0/siaran_pers</a>&gt;.</p> <p>The identified issues include logistics related to e-commerce deliveries, consumer protection, communications infrastructure, tax incentives for startups, education and human resource development, and the improvement of cybersecurity. The road map was generally silent on the promotion of cloud computing.</p>
2. Are there any laws or policies in place that implement technology neutrality in government?	📌	Indonesia introduced a brief technology neutrality requirement in Regulation No. 82 of 2012 on the Operation of Electronic Systems and Transactions.
3. Are cloud computing services able to operate free from laws or policies that either mandate or give preference to the use of certain products, services, standards, or technologies?	✘	Regulation No. 82 of 2012 on the Operation of Electronic Systems and Transactions introduces onerous requirements that are likely to act as barriers to many cloud service providers. For example, providers must register with a government agency and comply with requirements to establish data centers in Indonesia. There is also a requirement to provide source code (or to place source code in escrow) for certain types of applications in Indonesia.
4. Are cloud computing services able to operate free from laws, procurement policies, or licensing rules that discriminate based on the nationality of the vendor, developer, or service provider?	✘	<p>There are some instances where government procurement includes a preference for domestic suppliers.</p> <p>Regulation No. 82 of 2012 on the Operation of Electronic Systems and Transactions imposes requirements for providers to establish data centers in Indonesia and hire Indonesian staff for some roles.</p>
5. Has the country signed and implemented international agreements that ensure the procurement of cloud services is free from discrimination?	✘	In 2012, Indonesia became an observer to the World Trade Organization (WTO) plurilateral Agreement on Government Procurement < <a href="http://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm">www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm</a> >.
6. Are services delivered by cloud providers free from tariffs and other trade barriers?	📌	<p>There are no specific tariffs on services delivered by cloud services.</p> <p>Data localization requirements act as a form of trade barrier for some international cloud services that rely on access to personal data.</p>
7. Are cloud computing services able to operate free from laws or policies that impose data localization requirements?	✘	<p>Data localization requirements apply to some international cloud services that rely on access to personal data.</p> <p>For example, Article 17 (2) of the Regulation on Electronic System and Transaction Operation (2012) states that:</p> <p>“Electronic System Operation for public services shall place a Data Center and Disaster Recovery Center in the territory of Indonesia for law enforcement, protection and sovereignty of the state and its citizens”</p> <p>In addition, Regulation No. 20 of 2016 on Personal Data Protection in Electronic Systems requires data centers and data recovery centers to be “placed in Indonesia” if the organization is providing government services.</p>

# INDONESIA	RESPONSE	EXPLANATORY TEXT
<b>IT READINESS, BROADBAND DEPLOYMENT (SCORE: 8.2/25   RANK: 23/24)</b>		
1. Is there a National Broadband Plan?	<p>By 2019:</p> <ul style="list-style-type: none"> <li>• 71% of households in urban areas to have 20 Mbps</li> <li>• 49% of households in rural areas to have 10 Mbps</li> </ul>	<p>The Indonesia Broadband Plan 2014–2019 &lt;ppidkemkominfo.files.wordpress.com/2014/12/rencana_pitalebar_indonesia_2014-2019.pdf&gt; established a number of infrastructure and connectivity targets to be achieved by 2019:</p> <ul style="list-style-type: none"> <li>• 71% of households in urban areas connected to fixed broadband, at speeds of 20 Mbps</li> <li>• 49% of households in rural areas connected to fixed broadband, at speeds of 10 Mbps</li> <li>• 100% of business buildings in urban areas connected to fixed broadband at speeds of 1 Gbps</li> <li>• 30% penetration rate of fixed broadband in urban areas</li> <li>• 6% penetration rate of fixed broadband in rural areas</li> <li>• 100% penetration of mobile broadband in urban areas, at speeds of 1 Mbps</li> <li>• 52% penetration of mobile broadband in rural areas, at speeds of 1 Mbps</li> </ul> <p>A notable aspect of the Indonesian Broadband Plan is the focus on the public infrastructures and its aim of have 100% of schools, hotels, public administration and government buildings, public areas, and hospitals and health centers connected to a fixed broadband network at speeds of 1 Gbps by 2019. The flagship program of the plan is the extension of the “Palapa Ring — a fiber optic network that currently runs across much of western and central Indonesia. The extension to take in all major commercial areas and well as the eastern part of the country is intended to be built by a combination of government and commercial operators. Part of the network will use microwave technology.</p> <p>Additionally, it identified priority public sector programs and established goals for government agencies to adopt, including:</p> <ul style="list-style-type: none"> <li>• e-Government: install an interconnected network and database, create a public data center, and conduct government-wide training on new systems;</li> <li>• e-Education: link all schools, universities, and education offices through a national network, build a database to store education statistics, and develop online content;</li> <li>• e-Health: link clinics, hospitals, and health facilities through a national network, build a health-statistics database, expand universal health insurance coverage to rural areas, and launch a mobile e-Health treatment program;</li> <li>• e-Procurement: transfer all purchasing and catalogs online, establish a national e-Marketplace, and build the capacity of government workers to use the new processes;</li> <li>• e-Logistics: link inventories, supplies, demand, and prices for goods and services to a national data center and make it available to the public at local levels.</li> </ul>
2. Is the National Broadband Plan being effectively implemented?	✘	Information on implementation of the plan is limited. Construction of the US\$ 1.5 billion Palapa Ring optical fibre cable project has begun, but it appears implementation of many of the other initiatives has not yet commenced.
3. Are there laws or policies that regulate “net neutrality”?	No regulation	<p>Issues of net neutrality have not yet been the subject of significant consideration in Indonesia.</p> <p>Notably in 2015 a mobile telecommunications service provider, XL Axiata, ceased its partnership with the Internet.org initiative following international criticism, particularly in India, that its practices ran contrary to net neutrality.</p>
<b>4. Base Indicators</b>		
4.1. Population (millions) (2015) • Total for all countries in this scorecard: 4,700 million	256	In 2015, the population of Indonesia increased by 1.1%. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
4.2. Urban Population (%) (2015) • Average for all countries in this scorecard: 73%	54%	In 2015, the urban population of Indonesia increased by 1.4%. [World Bank, Data Catalog, Indicators, Urban Population (Jan. 2017) <data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS>]
4.3. Number of Households (millions) (2015) • Total for all countries in this scorecard: 1,249 million	63	In 2015, the number of households in Indonesia increased by 1.1%. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
4.4. Population Density (people per square km) (2015) • Average for all countries in this scorecard: 471	142	In 2015, the population density of Indonesia increased by 1.2%. [World Bank, Data Catalog, Indicators, Population Density (Jan. 2017) <data.worldbank.org/indicator/EN.POP.DNST>]

# INDONESIA	RESPONSE	EXPLANATORY TEXT
<p>4.5. Per Capita GDP (US\$ 2015)</p> <ul style="list-style-type: none"> <li>Average for all countries in this scorecard: US\$ 22,649</li> </ul>	\$3,346	<p>In 2015, the per capita GDP for Indonesia increased by 4.8% to US\$ 3,346. This was above the five-year compound annual growth rate (CAGR) from 2010–2015 of 1.4%.</p> <p>This ranks Indonesia 22nd for value of per capita GDP and 12th for growth (CAGR) for this indicator in this scorecard.</p> <p>[World Bank, Data Catalog, Indicators: GDP Per Capita, Current US\$ (Jan. 2017) &lt;data.worldbank.org/indicator/NY.GDP.PCAP.CD&gt; and GDP Growth, Annual % (Jan. 2017) &lt;data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG&gt;]</p>
<p>4.6. ICT Service Exports (billions of US\$) (2015)</p> <ul style="list-style-type: none"> <li>Total for all countries in this scorecard: US\$ 978 billion</li> </ul>	\$6	<p>In 2015, the value of ICT service exports for Indonesia decreased by 15.7% to US\$ 6.04 billion. This was below the five-year compound annual growth rate (CAGR) from 2010–2015 of 1.7%.</p> <p>This ranks Indonesia 20th for value of ICT service exports and 12th for growth (CAGR) for this indicator in this scorecard.</p> <p>[World Bank, Data Catalog, Indicators: ICT Service Exports US\$ (Jan. 2017) &lt;data.worldbank.org/indicator/BX.GSR.CCIS.CD&gt;]</p>
<p>4.7. Personal Computers (% of households) (2015)</p> <ul style="list-style-type: none"> <li>Average for all countries in this scorecard: 63%</li> </ul>	19%	<p>In 2015, 18.7% of households in Indonesia had personal computers. This is an increase of 8.1% since 2014 and ranks Indonesia 136th out of 236 countries surveyed. The growth from 2014 is below the five-year compound annual growth rate (CAGR) from 2010 to 2015 of 11.6%.</p> <p>This ranks Indonesia 23rd for the number of personal computers (as a % of households) and 2nd for growth (CAGR) for this indicator in this scorecard.</p> <p>[International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) &lt;www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx&gt;]</p>
5. IT and Network Readiness Indicators		
<p>5.1. ITU ICT Development Index (IDI) (2016)</p> <p>(score is out of 10 and covers 175 countries)</p> <ul style="list-style-type: none"> <li>Average for all countries in this scorecard: 6.58</li> </ul>	3.86	<p>Indonesia's ITU ICT Development Index (IDI) for 2016 is 3.86 (out of 10), resulting in a rank of 115th (out of 175 economies). The 2016 IDI for Indonesia increased by 6.3%, and the IDI ranking has remained the same since 2015.</p> <p>This ranks Indonesia 23rd in the ITU ICT Development Index and 2nd for growth (CAGR) for this indicator in this scorecard.</p> <p>[International Telecommunication Union (ITU), Measuring the Information Society (Dec. 2016) &lt;www.itu.int/net4/ITU-D/idi/2016&gt;]</p>
<p>5.2. World Economic Forum Networked Readiness Index (NRI) (2016)</p> <p>(score is out of 7 and covers 139 countries)</p> <ul style="list-style-type: none"> <li>Average for all countries in this scorecard: 4.77</li> </ul>	4.01	<p>Indonesia has a Networked Readiness Index (NRI) score of 4.01 (out of 7), resulting in a rank of 73rd (out of 139 economies) and a rank of 6th (out of 35) in the Lower middle income grouping of economies. The 2016 NRI for Indonesia increased by 2.5% and improved by 6 places from a rank of 79th since 2015.</p> <p>This ranks Indonesia 20th in the ITU ICT Development Index and 5th for growth (CAGR) for this indicator in this scorecard.</p> <p>[World Economic Forum, Global Information Technology Report (2016) &lt;reports.weforum.org/global-information-technology-report-2016&gt;]</p>
6. Internet Users and International Bandwidth		
<p>6.1. Internet Users (millions) (2015)</p> <ul style="list-style-type: none"> <li>Total for all countries in this scorecard: 2,330 million</li> </ul>	56	<p>[International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) &lt;www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx&gt;]</p>
<p>6.2. Internet Users (% of population) (2015)</p> <ul style="list-style-type: none"> <li>Average for all countries in this scorecard: 67%</li> </ul>	22%	<p>In 2015, 22% of the population in Indonesia used the Internet, resulting in a ranking of 150th out of 236 countries surveyed by the ITU. This is an increase of 28.2% since 2014 and is above the five-year compound annual growth rate (CAGR) from 2010–2015 of 15%.</p> <p>This ranks Indonesia 24th in the proportion of the population using the Internet and 3rd for growth (CAGR) for this indicator in this scorecard.</p> <p>[International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) &lt;www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx&gt;]</p> <p>Note: There may be some variations as to how countries calculate this. Some countries base this upon all or part of the population — such as between 16 and 72 years of age.</p>

# INDONESIA	RESPONSE	EXPLANATORY TEXT
6.3. International Internet Bandwidth (total gigabits per second (Gbps) per country) (2015) <ul style="list-style-type: none"> <li>Total for all countries in this scorecard: 117,736 Gbps</li> </ul>	370	Indonesia has increased its international Internet bandwidth by 37% since 2014 to 370 Gbps and is ranked 58 out of 236 countries surveyed by the ITU. The growth from 2014 is below the five-year compound annual growth rate (CAGR) from 2009–2014 of 41.6%.  This ranks Indonesia 24th for total international Internet bandwidth and 5th for growth (CAGR) for this indicator in this scorecard.  [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]
6.4. International Internet Bandwidth (bits per second (bps) per Internet user) (2015) <ul style="list-style-type: none"> <li>Average for all countries in this scorecard: 97,747 bps</li> </ul>	6,584	The international Internet bandwidth (per Internet user) of Indonesia has increased by 6% since 2014. The growth from 2014 is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 21.6%.  This ranks Indonesia 22nd for international Internet bandwidth per user and 12th for growth (CAGR) for this indicator in this scorecard.  [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]
<b>7. Fixed Broadband</b>		
7.1. Fixed Broadband Subscriptions (millions) (2015) <ul style="list-style-type: none"> <li>Total for all countries in this scorecard: 697 million</li> </ul>	3	Indonesia has decreased the number of fixed broadband subscribers by -7% since 2014 to 2.79 million, and is ranked 39th out of 236 countries surveyed by the ITU. The growth from 2014 is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 4.1%.  This ranks Indonesia 22nd for the number of fixed broadband subscriptions and 17th for growth (CAGR) for this indicator in this scorecard.  [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]
7.2. Fixed Broadband Subscriptions (% of households) (2015) <ul style="list-style-type: none"> <li>Average for all countries in this scorecard: 63%</li> </ul>	4%	[International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]  Note: This may be skewed by business usage in some countries.
7.3. Fixed Broadband Subscriptions (% of population) (2015) <ul style="list-style-type: none"> <li>Average for all countries in this scorecard: 21%</li> </ul>	1%	Indonesia has decreased its fixed broadband subscriptions (as a % of the population) by -8.5% since 2014, which is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 2.8%. This ranks Indonesia 154th out of 236 countries surveyed by the ITU.  This ranks Indonesia 24th for the number of fixed broadband subscriptions (as a % of the population) and 18th for growth (CAGR) for this indicator in this scorecard.  [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]
7.4. Fixed Broadband Subscriptions (% of Internet users) (2015) <ul style="list-style-type: none"> <li>Average for all countries in this scorecard: 29%</li> </ul>	5%	[International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]
7.5. Average Broadband Data Connection Speed (total megabits per second (Mbps) per country) (Q1 2017) <ul style="list-style-type: none"> <li>Average for all countries in this scorecard: 12 Mbps</li> <li>Average peak for all countries in this scorecard: 70 Mbps</li> </ul>	7	In Indonesia the Q1 2017 average broadband data connection speed was 7.2 Mbps and is ranked 90th out of 239 countries measured by Akamai.  This ranks Indonesia 20th for average broadband data connection speed in this scorecard.  Additional connection metrics for Q1 2017 in Indonesia include: <ul style="list-style-type: none"> <li>Average peak broadband connection speed: 66.12 Mbps (ranked 48th globally and 10th in this scorecard)</li> <li>Above 4 Mbps: 76% (ranked 82nd globally and 17th in this scorecard)</li> <li>Above 10 Mbps: 18% (ranked 92nd globally and 22nd in this scorecard)</li> <li>Above 15 Mbps: 5% (ranked 99th globally and 23rd in this scorecard)</li> <li>Above 25 Mbps: 1% (ranked 108th globally and 22nd in this scorecard)</li> </ul> [Akamai, The State of the Internet (1st Quarter, 2017) < <a href="http://www.akamai.com/us/en/about/our-thinking/state-of-the-internet-report/">www.akamai.com/us/en/about/our-thinking/state-of-the-internet-report/</a> >]



# INDONESIA	RESPONSE	EXPLANATORY TEXT
<b>8. Fiber-to-the-home/building (FttX)</b>		
8.1. Fiber-to-the-home/building (FttX) Internet Subscriptions (millions) (2015) • Total for all countries in this scorecard: 258 million	—	The ITU data for this indicator for Indonesia was not available at the time of publication. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]
8.2. Proportion of Fiber-to-the-home/building (FttX) Internet Subscriptions (% of households) (2015) • Average for all countries in this scorecard: 18%	—	The ITU data for this indicator for Indonesia was not available at the time of publication. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]
8.3. Proportion of Fiber-to-the-home/building (FttX) Internet Subscriptions (% of fixed broadband subscriptions) (2015) • Average for all countries in this scorecard: 23%	—	The ITU data for this indicator for Indonesia was not available at the time of publication. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]
<b>9. Mobile Broadband</b>		
9.1. Mobile Cellular Subscriptions (millions) (2015) • Total for all countries in this scorecard: 4,823 million	338	In 2015, Indonesia increased the number of mobile cellular subscriptions by 3.9% since 2014, which is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 9.9%. Indonesia is ranked 4th out of 236 countries surveyed by the ITU. The number of subscriptions account for 132% of the population.  This ranks Indonesia 4th for the number of mobile cellular subscriptions and 2nd for growth (CAGR) for this indicator in this scorecard.  [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]  Note: This figure may be inflated due to multiple subscriptions per head of population, but excludes dedicated mobile broadband devices (such as 3G data cards, tablets, etc.).
9.2. Number of Active Mobile Broadband Subscriptions (millions) (2015) • Total for all countries in this scorecard: 2,506 million	108	In 2015, Indonesia has increased the number of active mobile broadband subscriptions by 23%, which is above the five-year compound annual growth rate (CAGR) from 2010–2015 of 19.1%. Indonesia is ranked 6th out of 236 countries surveyed by the ITU.  This ranks Indonesia 6th for the number of active mobile broadband subscriptions and 13th for growth (CAGR) for this indicator in this scorecard.  [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]
9.3. Active Mobile Broadband Subscriptions (% of population) (2015) • Average for all countries in this scorecard: 77%	42%	Indonesia has increased the number of active mobile broadband subscriptions (as a % of the population) by 21% since 2014, which is above the five-year compound annual growth rate (CAGR) from 2010–2015 of 17.7%. Indonesia is ranked 98th out of 236 countries surveyed by the ITU.  This ranks Indonesia 22nd for the number of active mobile broadband subscriptions (as a % of the population) and 13th for growth (CAGR) for this indicator in this scorecard.  [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) < <a href="http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx">www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx</a> >]  Note: This refers to the sum of standard mobile broadband and dedicated mobile broadband subscriptions to the public Internet. It covers actual subscribers, not potential subscribers, even though the latter may have broadband enabled-handsets.
9.4. Average Mobile Data Connection Speed (total megabits per second (Mbps) per country) (Q1 2017) • Average for all countries in this scorecard: 11 Mbps	13	In Indonesia the Q1 2017 average mobile data connection speed was 12.8 Mbps and is ranked 23rd out of 70 countries measured by Akamai.  This ranks Indonesia 7th for average mobile data connection speed in this scorecard.  [Akamai, The State of the Internet (1st Quarter, 2017) < <a href="http://www.akamai.com/us/en/about/our-thinking/state-of-the-internet-report/">www.akamai.com/us/en/about/our-thinking/state-of-the-internet-report/</a> >]