COUNTRY: TURKEY

SCORE: 54.3 | RANK: 16/24

Turkey's Law on the Protection of Personal Data came into force in April 2016. Turkey has also signed the Convention on Cybercrime, which came into force in the country in 2015. These developments help create a positive environment for building trust in cloud services.

However, Turkey continues to have some gaps in other areas that affect cloud computing. For example, rules on Internet content regulation may act as a barrier to cloud services.

Intellectual property protection in Turkey is reasonably up-to-date, but enforcement is patchy.

Turkey's progress toward integration with the European and international communities has stalled, and some domestic preferences are still in place for government procurement opportunities.

The government has an ambitious target of providing fast broadband to 95 percent of households by 2020.

Turkey's overall ranking rose from 19th in 2016 to 16th in 2018 mostly because of its new privacy law, which came into force in 2016, and the rebalancing of the Scorecard methodology.

# TURKEY	RESPONSE	EXPLANATORY TEXT
DATA PRIVACY (SCORE: 5.5/12.5 | RANK: 17/24)		
1. Is a data protection law or regulation in place?	✔	The Law on the Protection of Personal Data numbered 6698 (Data Protection Law) <www.judiciaryofturkey.gov.tr/Sayfalar/Law-on-Protection-of-Personal-Data> came into force in April 2016.
2. What is the scope and coverage of the data protection law or regulation?	Comprehensive	The law provides comprehensive coverage.
3. Is a data protection authority in place?	✔	The law establishes two bodies to watch over and regulate data processing and transfer activities. These are the Data Protection Board and the Data Protection Authority.
4. What is the nature of the data protection authority?	Collegial body	The Data Protection Board consists of members appointed by the government. The final members of the board were appointed in early 2017.
5. Is the data protection authority enforcing the data protection law or regulation in an effective and transparent manner?	◑	The regulator has strong enforcement powers available. The law only came into force in 2016. It is too early to fully assess the enforcement activity of the Data Protection Authority.
6. Is the data protection law or regulation compatible with globally recognized frameworks that facilitate international data transfers?	EU framework	The law is based on the EU Data Protection Directive.
7. Are data controllers free from registration requirements?	✖	Organizations must register with the Data Controllers Registry. The requirements appear quite burdensome, including a requirement to list the likely parties to whom data may be transferred.
8. Are there cross-border data transfer requirements in place?	Detailed requirements	Detailed provisions are in place 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?	✔	The law allows data to be transferred abroad with explicit consent. For all other transfers, the law contains two alternate tests. Either: The country to which personal data will be sent must have sufficient protection; or Data controllers in Turkey and the third country must guarantee protection of personal data in writing. The Data Protection Board is expected to issue further guidance on which countries have "sufficient protection." Overall, the requirements are in line with international practice regarding cross-border data transfers.
10. Is there a personal data breach notification law or regulation?	✖	There are no data breach notification requirements in place in Turkey.

# TURKEY	RESPONSE	EXPLANATORY TEXT
11. Are personal data breach notification requirements transparent, risk-based, and not overly prescriptive?	Not applicable	There are no data breach notification requirements in place in Turkey.
12. Is an independent private right of action available for breaches of data privacy?	✔	Some limited privacy rights are available in Turkey. Article 20 of the Turkish Constitution on the Confidentiality and Protection of Private Life states that "every person has the right to confidentiality and personal privacy and these rights are untouchable." This regulation also states that "every person has absolute freedom to decide whether to provide or not his/her personal data and in the latter case he/she shall not be compelled to do so." A range of exemptions apply. Article 24 of the Turkish Civil Code also states that a person whose civil rights are violated can claim protection. In practice, these private rights are very difficult to enforce in Turkey.
SECURITY (SCORE: 9.3/12.5 | RANK: 9/24)		
1. Is there a national cybersecurity strategy in place?	✔	The 2016–2019 National Cyber Security Strategy and Action Plan <www.udhb.gov.tr/doc/siberg/UlusalSibereng.pdf> is an update of the 2013–2014 Strategy and Action Plan. It is aimed at determining, coordinating, and implementing efficient and sustainable policies to guarantee national cybersecurity.
2. Is the national cybersecurity strategy current, comprehensive, and inclusive?	✔	The 2016–2019 National Cyber Security Strategy and Action Plan <www.udhb.gov.tr/doc/siberg/UlusalSibereng.pdf> is comprehensive but brief and contains high-level principles and concise statements of policy intent. Some of the key 2016–2019 strategic objectives are: • Creating a national critical infrastructure inventory, meeting security requirements of critical infrastructures, and supervision of these critical infrastructures by the relevant regulatory board. • Creation of a legislation conforming to international standards, which also contains cybersecurity auditing standards. • Improving the regulatory and supervisory awareness and competencies of sector regulating institutions, ministries, etc. in scope of cybersecurity. • Making arrangements to protect information systems of institutions not only from attacks, but also from human errors and disasters. • Bringing each institution to a level of competency in operating its own information security management process. • Raising executives' level of awareness in the area of cybersecurity. • Training qualified personnel in cybersecurity and encouraging personnel, researchers, and students who aim to specialize in this field. • Creating cybersecurity awareness in every level of society, implementing written and visual works in media on awareness in addition to the efforts of education institutions.
3. Are there laws or appropriate guidance containing general security requirements for cloud service providers?	◑	The Data Protection Law obliges data controllers to take "appropriate" technical and administrative measures to protect personal information. The law does not prescribe any specific technical requirements. There are no other enforceable security requirements in place in Turkey.
4. Are laws or guidance on security requirements transparent, risk-based, and not overly prescriptive?	◑	There are no specific or prescribed security requirements in place. The legal requirements are minimal.
5. Are there laws or appropriate guidance containing specific security audit requirements for cloud service providers that take account of international practice?	✖	There are no security audit requirements in place in Turkey. However, Objective 2 of Turkey's 2016–2019 National Cyber Security Strategy <www.udhb.gov.tr/doc/siberg/UlusalSibereng.pdf>, states that Turkey aims to create "legislation conforming to international standards, which also contains cyber security auditing standards."
6. Are international security standards, certification, and testing recognized as meeting local requirements?	✔	In 2010 Turkey was accepted as a Certificate Authorizing Member (the highest level) of the Common Criteria Recognition Arrangement (CCRA) <www.commoncriteriaportal.org>. The use of certifications for technology products in Turkey is small, but growing.

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# TURKEY	RESPONSE	EXPLANATORY TEXT
CYBERCRIME (SCORE: 8.5/12.5 | RANK: 18/24)		
1. Are cybercrime laws or regulations in place?	✔	The Turkish Penal Code (as amended in 2005) includes numerous computer-related offenses. The controversial Regulation of Internet Publications and Combating Crimes Committed through such Publications (2007) also covers some cybercrime activities.
2. Are cybercrime laws or regulations consistent with the Budapest Convention on Cybercrime?	✔	Turkey signed the Council of Europe Convention on Cybercrime in 2010 and ratified it in 2014. It came into force in Turkey in 2015.
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?	✖	In 2011, the Information and Communications Authority (BTK) <www.btk.gov.tr> issued regulations on the use of encryption titled By Law on the Procedures and Principles of Encoded or Encrypted Communication between Public Authorities and Organizations and Real and Legal Persons In Electrical Communication Service. Providers are required to hand encryption keys to state authorities before they can offer their products or services in Turkey. Potential penalties include fines and imprisonment. There have been occasional news reports that individuals, including journalists, have been arrested on terrorism-related charges for using encrypted devices and encryption software.
4. Are arrangements in place for the cross-border exchange of data for law enforcement purposes that are transparent and fair?	✔	Turkey has signed a number of bilateral and regional Mutual Legal Assistance Treaties (MLATs) and agreements, including several high-profile agreements (for example with Russia) in recent years. A full list is maintained by the General Directorate of International Law and Foreign Relations within the body of the Ministry of Justice <www.uhdigm.adalet.gov.tr/english/Criminal_Rogatory.html>.
INTELLECTUAL PROPERTY RIGHTS (SCORE: 5/12.5 | RANK: 23/24)		
1. Are copyright laws or regulations in place that are consistent with international standards to protect cloud service providers?	◑	Law No. 5846 of December 5, 1951, on Intellectual and Artistic Works is the main copyright law in Turkey. Turkey's Copyright Law is partially compliant with the WIPO Copyright Treaty. A draft amendment to the copyright law has been under consideration for some years in Turkey, but as of June 2017 there is no sign of progress toward implementation. There is no specific copyright "safe harbor" protection for intermediaries such as cloud service providers in place. However, Law No. 5846 on Intellectual and Artistic Works, as amended, does include a broad notice and takedown regime for digital copyright infringement, which acts as a partial "safe harbor."
2. Are copyright laws or regulations effectively enforced and implemented?	✖	Turkey has an extremely poor record in relation to copyright infringement, resulting from a combination of an out of date law and inadequate resources for enforcement. Turkey regularly appears at the top of intellectual property watch lists maintained by key trading partners, such as the European Union. A limited intellectual property "safe harbor" applies to some cloud computing activities.
3. Is there clear legal protection against misappropriation of trade secrets?	◑	There is no specific trade secrets law in Turkey. The Commercial Code has been amended to include provisions stating that disclosing trade secrets or confidential information causes unfair competition. The Criminal Code and employment law also provide a limited basis for protecting trade secrets. Turkey has been working on developing a Draft Law on Trade Secrets, Banking Secrets, and Client Secrets for many years, but there is little sign of progress toward implementation.
4. Is the law or regulation on trade secrets effectively enforced?	◑	Article 56 of the Commercial Code provides several remedies, including injunctions, compensation, and destruction of the stolen material. In practice, protecting trade secrets using unfair competition law only provides very limited opportunities for enforcement, and Turkey is looking to revise its law and approach in relation to trade secrets.
5. Is there clear legal protection against the circumvention of Technological Protection Measures?	✖	Turkey does not have an effective law in place regarding the circumvention of technological protection measures. Some very limited provisions may be applied, but only to computer software (not to other copyright materials or any other type of media). A draft amendment to the copyright law has been under consideration for a number of years in Turkey, but as of June 2017 there is no sign of progress toward implementation.

# TURKEY	RESPONSE	EXPLANATORY TEXT
6. Are laws or regulations on the circumvention of Technological Protection Measures effectively enforced?	✖	Turkey has very high rates of copyright infringement across all sectors, and the sale and distribution of circumvention devices is common. There is virtually no enforcement in this field, and the law fails to cover the most common forms of circumvention devices.
7. Are there clear legal protections in place for software-implemented inventions?	✔	Law No. 6769 on the Protection of Industrial Property Rights (known as the Industrial Property Law) was passed in December 2016 and only entered into force on January 10, 2017. Under the law a computer program is not patentable, but patents can be granted for software-related inventions and computer-implemented inventions, provided that a technical problem is solved in a novel and non-obvious manner.
8. Are laws or regulations on the protection of software-implemented inventions effectively implemented?	◑	The new law makes significant changes to the administration of patents in Turkey, including the establishment of the Turkish Patent and Trademark Office <www.turkpatent.gov.tr> and the expansion of the system for approval and enforcement of patents. However, these changes are recent and it is difficult to assess their effect at this early stage.

STANDARDS AND INTERNATIONAL HARMONIZATION (SCORE: 8.5/12.5 | RANK: 19/24)

# TURKEY	RESPONSE	EXPLANATORY TEXT
1. Is there a regulatory body responsible for standards development for the country?	✔	Turkish Standards Institution (Türk Standardlari Enstitüsü (TSE)) <www.tse.org.tr>.
2. Are international standards favored over domestic standards?	✔	Turkey favors a mix of internationally based EU and international standards over domestic standards.
3. Does the government participate in international standards setting process?	✔	Turkey is an active participant in International Standards Organization (ISO) committees and working groups. Turkey 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 of Electronic Signature (No. 5070 of January 15, 2004) contains some limited e-commerce provisions.
5. What international instruments are the e-commerce laws or regulations based on?	Other	The Law of Electronic Signature is limited; the signature sections are based on the UNCITRAL Model Law on Electronic Signatures.
6. Is there a law or regulation that gives electronic signatures clear legal weight?	✔	The Law of Electronic Signature (No. 5070, dated January 15, 2004) contains the key provisions. The Ordinance on the Procedures and Principles Pertaining to the Implementation of Electronic Signature Law 2005, contains the procedures and principles for the legal, technical aspects, and implementation of electronic signatures.
7. Are cloud service providers free from mandatory filtering or censoring?	✖	Internet censorship is common in Turkey, and has increased in recent years. Sites are blocked for a number of reasons — many of which appear politically motivated — under the Law on the Internet (No. 5651/2007, amended 2014). The Information and Communication Technologies Authority (BTK) <www.btk.gov.tr> provides a system where all Internet users are offered a "choice" of filters ("child" or "family"). However, blocking of specific sites by the government remains common and would still occur where a user opted for the "standard" feed. Internet cafes and kiosks are also subject to mandatory filtering requirements.

PROMOTING FREE TRADE (SCORE: 6.5/12.5 | RANK: 15/24)

# TURKEY	RESPONSE	EXPLANATORY TEXT
1. Is a national strategy or platform in place to promote the development of cloud services and products?	✔	In July 2016, the Turkish government set out several cloud computing initiatives in its 2016–2019 National e-Government Strategy and Action Plan <www.edevlet.gov.tr/wp-content/uploads/2016/07/2016-2019%20National-e-Government-StrategyAnd%20Action-Plan.pdf>. The two key initiatives are a plan to build a government cloud infrastructure and a program to support cloud computing adoption by small- and medium-size enterprises (SMEs).
2. Are there any laws or policies in place that implement technology neutrality in government?	✖	There are no specific laws or policies on technology neutrality in Turkey.
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?	✔	There are no relevant mandatory product requirements or product preferences in Turkey.

# TURKEY	RESPONSE	EXPLANATORY TEXT
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?	✖	Turkey's public tender law provides a price preference of up to 15 percent for domestic bidders.
5. Has the country signed and implemented international agreements that ensure the procurement of cloud services is free from discrimination?	✖	Turkey is an observer, but not a full member, of the World Trade Organization (WTO) plurilateral Agreement on Government Procurement <www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm>.
6. Are services delivered by cloud providers free from tariffs and other trade barriers?	✔	Turkey now follows EU policy on setting tariffs, and there are no relevant tariffs or other barriers in the ICT sector.
7. Are cloud computing services able to operate free from laws or policies that impose data localization requirements?	◑	Turkey's E-Payment Law (Law No 6493 on Payment and Security Settlement Systems, 2013) requires companies providing e-payment services to conduct all of their data processing in Turkey. The law has acted as a barrier to several innovators in the payments sector operating in Turkey, and may have an effect on some cloud products and services.

IT READINESS, BROADBAND DEPLOYMENT (SCORE: 11.1/25 | RANK: 18/24)

# TURKEY	RESPONSE	EXPLANATORY TEXT
1. Is there a National Broadband Plan?	By 2018: • Proportion of Internet users increase to 70% • Number of fiber Internet subscribers increase to 4 million • Number of LTE subscribers increase to 10 million • Proportion market share of alternative DSL operators increase to 25% • GDP per capita rate of broadband access costs by lowered to 1%	As of June 2017 a new national broadband strategy is being developed. In March 2017, study meetings for developing a new National Broadband Strategy for Turkey were held by the Information and Communication Technologies Authority (ICTA) <www.btk.gov.tr/en-US/Pages/future-of-fiber-infrastructure-in-turkey-was-discussed>. The Information Society Strategy and Action Plan (2015–2018) <www.bilgitoplumustratejisi.org> was released in March 2015 and set out the following national broadband targets: • By 2018, the proportion of Internet users increase to 70% • By 2018, the number of fiber Internet subscribers increase to 4 million • By 2018, the number of LTE subscribers increase to 10 million • By 2018, the proportion market share of alternative DSL operators increase to 25% • By 2018, the GDP per capita rate of broadband access costs by lowered to 1% The previous 2013 target, set out in the Ninth Development Plan of Turkey (2007–2013) of having the broadband subscriber rate increase to 20% was achieved, and while the second target of having the proportion of Internet users increase to 60% was not met by 2013, that number has subsequently been surpassed, according to the Turkish Statistical Institute <www.turkstat.gov.tr>.
2. Is the National Broadband Plan being effectively implemented?	✖	Turkey's national broadband strategy is only in the early stages of development. An early stage evaluation report by independent advisers was submitted to the government in January 2017, Turkey's Digital Future: Vision for the Broadband Plan <axonpartnersgroup.com/images/PDF/AxonVodafoneTurkey.pdf>. The report concludes: "Conclusion 1: Under the current circumstances, there is a risk that Turkey will miss the opportunity associated to the high growth potential of the Turkish fixed broadband market, with up to 15,16 million households being left without access to FTTH/B networks."
3. Are there laws or policies that regulate "net neutrality"?	Limited regulation	Issues of net neutrality in Turkey are managed by the Information and Communications Technologies Authority (ICTA). The Authority has issued regulations that require Internet service providers to maintain net neutrality. In practice, the issue is complicated by overlapping restrictions on online content in Turkey

# TURKEY	RESPONSE	EXPLANATORY TEXT
4. Base Indicators		
4.1. Population (millions) (2015) • Total for all countries in this scorecard: 4,700 million	77	In 2015, the population of Turkey 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>]
7. Urban Population (%) (2015) • Average for all countries in this scorecard: 73%	73%	In 2015, the urban population of Turkey increased by 0.7%. [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	17	In 2015, the number of households in Turkey 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	102	In 2015, the population density of Turkey increased by 1.5%. [World Bank, Data Catalog, Indicators, Population Density (Jan. 2017) <data.worldbank.org/indicator/EN.POP.DNST>]
4.5. Per Capita GDP (US$ 2015) • Average for all countries in this scorecard: US$ 22,649	$9,126	In 2015, the per capita GDP for Turkey increased by 4% to US$ 9,126. This was above the five-year compound annual growth rate (CAGR) from 2010–2015 of -2%. This ranks Turkey 15th for value of per capita GDP and 17th for growth (CAGR) for this indicator in this scorecard. [World Bank, Data Catalog, Indicators: GDP Per Capita, Current US$ (Jan. 2017) <data.worldbank.org/indicator/NY.GDP.PCAP.CD> and GDP Growth, Annual % (Jan. 2017) <data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>]
4.6. ICT Service Exports (billions of US$) (2015) • Total for all countries in this scorecard: US$ 978 billion	$0.5	In 2015, the value of ICT service exports for Turkey decreased by 27.6% to US$ 0.46 billion. This was below the five-year compound annual growth rate (CAGR) from 2010–2015 of -8.7%. This ranks Turkey 22nd for value of ICT service exports and 17th for growth (CAGR) for this indicator in this scorecard. [World Bank, Data Catalog, Indicators: ICT Service Exports US$ (Jan. 2017) <data.worldbank.org/indicator/BX.GSR.CCIS.CD>]
4.7. Personal Computers (% of households) (2015) • Average for all countries in this scorecard: 63%	56%	In 2015, 55.6% of households in Turkey had personal computers. This is a decrease of -0.7% since 2014 and ranks Turkey 81st out of 236 countries surveyed. The growth from 2014 is below the five-year compound annual growth rate (CAGR) from 2010 to 2015 of 4.7%. This ranks Turkey 16th for the number of personal computers (as a % of households) and 10th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>]
5. IT and Network Readiness Indicators		
5.1. ITU ICT Development Index (IDI) (2016) (score is out of 10 and covers 175 countries) • Average for all countries in this scorecard: 6.58	5.69	Turkey's ITU ICT Development Index (IDI) for 2016 is 5.69 (out of 10), resulting in a rank of 70th (out of 175 economies). The 2016 IDI for Turkey increased by 4.4%, and the IDI ranking declined by 1 from a rank of 69th since 2015. This ranks Turkey 17th in the ITU ICT Development Index and 8th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), Measuring the Information Society (Dec. 2016) <www.itu.int/net4/ITU-D/idi/2016/>]
5.2. World Economic Forum Networked Readiness Index (NRI) (2016) (score is out of 7 and covers 139 countries) • Average for all countries in this scorecard: 4.77	4.39	Turkey has a Networked Readiness Index (NRI) score of 4.39 (out of 7), resulting in a rank of 48th (out of 139 economies) and a rank of 5th (out of 34) in the Upper middle income grouping of economies. The 2016 NRI for Turkey decreased by -0.5% and the ranking has remained the same since 2015. This ranks Turkey 15th in the ITU ICT Development Index and 12th for growth (CAGR) for this indicator in this scorecard. [World Economic Forum, Global Information Technology Report (2016) <reports.weforum.org/global-information-technology-report-2016>]

# TURKEY	RESPONSE	EXPLANATORY TEXT
6. Internet Users and International Bandwidth		
6.1. Internet Users (millions) (2015) • Total for all countries in this scorecard: 2,330 million	41	[International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>]
6.2. Internet Users (% of population) (2015) • Average for all countries in this scorecard: 67%	54%	In 2015, 54% of the population in Turkey used the Internet, resulting in a ranking of 97th out of 236 countries surveyed by the ITU. This is an increase of 5.3% since 2014 and is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 6.2%. This ranks Turkey 18th in the proportion of the population using the Internet and 11th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>] 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.
6.3. International Internet Bandwidth (total gigabits per second (Gbps) per country) (2015) • Total for all countries in this scorecard: 117,736 Gbps	2,433	Turkey has increased its international Internet bandwidth by 46% since 2014 to 2,433 Gbps and is ranked 19 out of 236 countries surveyed by the ITU. The growth from 2014 is above the five-year compound annual growth rate (CAGR) from 2009–2014 of 44.2%. This ranks Turkey 14th for total international Internet bandwidth and 3rd for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>]
6.4. International Internet Bandwidth (bits per second (bps) per Internet user) (2015) • Average for all countries in this scorecard: 97,747 bps	59,034	The international Internet bandwidth (per Internet user) of Turkey has increased by 38% since 2014. The growth from 2014 is above the five-year compound annual growth rate (CAGR) from 2010–2015 of 34.2%. This ranks Turkey 14th for international Internet bandwidth per user and 3rd for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>]
7. Fixed Broadband		
7.1. Fixed Broadband Subscriptions (millions) (2015) • Total for all countries in this scorecard: 697 million	10	Turkey has increased the number of fixed broadband subscribers by 7% since 2014 to 9.5 million, and is ranked 15th out of 236 countries surveyed by the ITU. The growth from 2014 is above the five-year compound annual growth rate (CAGR) from 2010–2015 of 6%. This ranks Turkey 15th for the number of fixed broadband subscriptions and 11th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>]
7.2. Fixed Broadband Subscriptions (% of households) (2015) • Average for all countries in this scorecard: 63%	54%	[International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>] Note: This may be skewed by business usage in some countries.

# TURKEY	RESPONSE	EXPLANATORY TEXT
7.3. Fixed Broadband Subscriptions (% of population) (2015) • Average for all countries in this scorecard: 21%	12%	Turkey has increased its fixed broadband subscriptions (as a % of the population) by 6% since 2014, which is above the five-year compound annual growth rate (CAGR) from 2010–2015 of 4.7%. This ranks Turkey 90th out of 236 countries surveyed by the ITU. This ranks Turkey 16th for the number of fixed broadband subscriptions (as a % of the population) and 11th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>] The Organisation for Economic Co-operation and Development (OECD) figures below present a breakdown of the type of fixed broadband connections in Turkey as of June 2016. In the OECD, Turkey was ranked 34th (out of 35) for fixed broadband subscribers as a percentage of population [OECD Broadband Subscribers (Feb. 2017) <www. oecd.org/sti/broadband>] • DSL: 9.6% • Cable: 0.9% • Fiber/LAN: 2.3% • Satellite: 0.0% • Fixed wireless: 0.0% • Other: 0.1% Total: 12.8% (9.9 million subscriptions) and well under the OECD average total for June 2016 of 29.8%. This reflects an increase in DSL, fiber, and cable subscriptions and decrease in fixed wireless connections. The fixed broadband growth for the June 2015–2016 period was 4.81% (ranked 10 out of 35 for growth), above the OECD average growth of 3.42%. In Turkey, fiber makes up 17.9% of fixed broadband subscriptions (ranked 17 out of 35), below the OECD average of 20.1%. The growth in fiber subscriptions for the June 2015–2016 period was 14.1% (ranking Turkey 25 out of 35 for growth) and below the OECD average of 15.94%. Note: From July 2015 OECD adjusted its definitions of fixed and mobile broadband by transferring the categories Satellite and Fixed Wireless from Mobile to Fixed Broadband. Note: Fiber subscriptions data includes FttH, FttP, and FttB, and excludes FTTC. Note: There may be minor variations in the ITU and OECD subscriber totals due to definition or timing differences.
7.4. Fixed Broadband Subscriptions (% of Internet users) (2015) • Average for all countries in this scorecard: 29%	23%	[International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>]
7.5. Average Broadband Data Connection Speed (total megabits per second (Mbps) per country) (Q1 2017) • Average for all countries in this scorecard: 12 Mbps • Average peak for all countries in this scorecard: 70 Mbps	8	In Turkey the Q1 2017 average broadband data connection speed was 7.56 Mbps and is ranked 87th out of 239 countries measured by Akamai. This ranks Turkey 18th for average broadband data connection speed in this scorecard. Additional connection metrics for Q1 2017 in Turkey include: • Average peak broadband connection speed: 50.04 Mbps (ranked 89th globally and 17th in this scorecard) • Above 4 Mbps: 76% (ranked 83rd globally and 18th in this scorecard) • Above 10 Mbps: 19% (ranked 85th globally and 18th in this scorecard) • Above 15 Mbps: 8% (ranked 86th globally and 18th in this scorecard) • Above 25 Mbps: 2% (ranked 87th globally and 19th in this scorecard) [Akamai, The State of the Internet (1st Quarter, 2017) <www.akamai.com/us/en/ about/our-thinking/state-of-the-internet-report/>]

# TURKEY	RESPONSE	EXPLANATORY TEXT
8. Fiber-to-the-home/building (FttX)		
8.1. Fiber-to-the-home/building (FttX) Internet Subscriptions (millions) (2015) • Total for all countries in this scorecard: 258 million	1.7	Turkey has increased the number of FttX subscribers by 15% since 2014 to 1.673 million, and is ranked 14th out of 236 countries surveyed by the ITU. This ranks Turkey 8th for the number of FttX subscriptions and 16th for growth (from 2014) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>]
8.2. Proportion of Fiber-to-the-home/building (FttX) Internet Subscriptions (% of households) (2015) • Average for all countries in this scorecard: 18%	9.6%	Turkey has increased the proportion of FttX subscribers to households by 15% (since 2014) to 9.58%. This ranks Turkey 9th for the proportion of FttX subscriptions to households and 16th for growth (from 2014) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>] Note: This may be skewed by business usage in some countries.
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%	17.6%	Turkey has increased the proportion of FttX subscribers to fixed broadband subscribers by 15% (since 2014) to 17.6%. This ranks Turkey 9th for the proportion of FttX subscriptions to fixed broadband subscriptions and 16th for growth (from 2014) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>]
9. Mobile Broadband		
9.1. Mobile Cellular Subscriptions (millions) (2015) • Total for all countries in this scorecard: 4,823 million	74	In 2015, Turkey increased the number of mobile cellular subscriptions by 2.4% since 2014, which is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 3.6%. Turkey is ranked 21st out of 236 countries surveyed by the ITU. The number of subscriptions account for 96% of the population. This ranks Turkey 15th for the number of mobile cellular subscriptions and 11th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>] 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	39	In 2015, Turkey has increased the number of active mobile broadband subscriptions by 21%, which is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 40.2%. Turkey is ranked 17th out of 236 countries surveyed by the ITU. This ranks Turkey 15th for the number of active mobile broadband subscriptions and 8th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/ publications/wtid.aspx>]

# TURKEY	RESPONSE	EXPLANATORY TEXT
9.3. Active Mobile Broadband Subscriptions (% of population) (2015) • Average for all countries in this scorecard: 77%	51%	Turkey has increased the number of active mobile broadband subscriptions (as a % of the population) by 19% since 2014, which is below the five-year compound annual growth rate (CAGR) from 2010–2015 of 38.5%. Turkey is ranked 82nd out of 236 countries surveyed by the ITU. This ranks Turkey 20th for the number of active mobile broadband subscriptions (as a % of the population) and 8th for growth (CAGR) for this indicator in this scorecard. [International Telecommunication Union (ITU), World Telecommunication/ICT Indicators Database (Dec. 2016) <www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>] 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. The OECD figures below present a breakdown of the type of mobile broadband connections in Turkey as of June 2016. In the OECD, Turkey was ranked 29th (out of 35) for mobile wireless broadband subscribers as a percentage of population [OECD Broadband Subscribers (Feb. 2017) <www.oecd.org/sti/broadband>] • Standard mobile broadband subscriptions: 56.8% • Dedicated mobile data subscriptions: 1.7% Total: 58.5% (45.3 million subscriptions and accounting for 3.7% of all OECD subscriptions of 1.21 billion) and well below the OECD average total for June 2016 of 95.1%. Mobile broadband growth in Turkey for the June 2015–2016 period was 27% (ranked 1 out of 35 for growth) and well above the OECD average growth of 10.7%. Note: From July 2015 OECD adjusted its definitions of fixed and mobile broadband by transferring the categories Satellite and Fixed Wireless from Mobile to Fixed Broadband. Note: The OECD wireless broadband figure includes both data and voice subscriptions (referred to as Standard Mobile Broadband) and data-only subscriptions (referred to as Dedicated Mobile Data). Note: The OECD figures include mobile data subscriptions, which are not as consistently reported in the ITU indicators.
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	10	In Turkey the Q1 2017 average mobile data connection speed was 10.3 Mbps and is ranked 33rd out of 70 countries measured by Akamai. This ranks Turkey 11th for average mobile data connection speed in this scorecard. [Akamai, The State of the Internet (1st Quarter, 2017) <www.akamai.com/us/en/about/our-thinking/state-of-the-internet-report/>]