BSA Global Cloud Computing Country Checklist Ves * No Partial

# QUESTION	Argentina	Australia	Brazil	Canada	China	France	Germany	India	Indonesia	Italy	Japan	Korea	Malaysia	Mexico	Poland	Russia	Singapore	South Africa	Spain	Thailand	Turkey	United Kingdom	United States	Vietnam
DATA PRIVACY																								
1. Is a data protection law or regulation in place?	V	✓	Draft	V	0	V	V	•	•	✓	V	V	V	V	V	✓	V	V	V	Draft	V	V	•	•
2. What is the scope and coverage of the data protection law or regulation?	Comprehensive	Comprehensive	Not applicable	Comprehensive	Sectoral	Comprehensive	Comprehensive	Sectoral	Comprehensive	Comprehensive	Comprehensive	Comprehensive	Sectoral	Comprehensive	Comprehensive	Comprehensive	Sectoral	Comprehensive	Comprehensive	Not applicable	Comprehensive	Comprehensive	Sectoral	Sectoral
3. Is a data protection authority in place?	V	V	×	V	×	V	V	•	×	V	V	V	V	V	V	V	V	V	V	×	V	V	V	×
4. What is the nature of the data protection authority?	Sole commissioner	Sole commissioner	Not applicable	Sole commissioner	Not applicable	Collegial body	Sole commissioner	Other government official	Not applicable	Collegial body	Collegial body	Other government official	Other government official	Collegial body	Sole commissioner	Other government official	Sole commissioner	Collegial body	Sole commissioner	Not applicable	Collegial body	Sole commissioner	Other government official	Not applicable
5. Is the data protection authority enforcing the data protection law or regulation in an effective and transparent manner?	•	~	Not applicable	~	Not applicable	•	~	•	Not applicable	V	•	•	•	V	•	•	~	•	~	Not applicable	•	•	V	Not applicable
6. Is the data protection law or regulation compatible with globally recognized frameworks that facilitate international data transfers?	EU framework	APEC framework & EU framework	Not applicable	APEC framework & EU framework	Not applicable	EU framework	EU framework	Not applicable	Not applicable	EU framework	APEC framework & EU framework	APEC framework & EU framework	APEC framework & EU framework	APEC framework & EU framework	EU framework	APEC framework & EU framework	APEC framework & EU framework	EU framework	EU framework	Not applicable	EU framework	EU framework	APEC framework	Not applicable
7. Are data controllers free from registration requirements?	×	✓	V	V	×	×	•	V	×	•	V	V	×	V	•	×	V	0	×	V	×	×	V	V
8. Are there cross-border data transfer requirements in place?	Detailed requirements	Detailed requirements	No requirements	Detailed requirements	Detailed requirements	Detailed requirements	Detailed requirements	Brief requirements	Brief requirements	Detailed requirements	Detailed requirements	Detailed requirements	Detailed requirements	Detailed requirements	Detailed requirements	Detailed requirements	Detailed requirements	Detailed requirements	Detailed requirements	No requirements	Detailed requirements	Detailed requirements	No requirements	Brief requirements
Are cross-border data transfers free from arbitrary, unjustifiable, or disproportionate restrictions, such as national or sector-specific data or server localization requirements?	•	•	•	•	×	•	v	•	×	•	~	•	~	~	•	×	~	~	•	•	✓	~	•	×
10. Is there a personal data breach notification law or regulation?	×	✓	Draft	/	•	•	•	×	•	•	•	✓	×	~	•	×	×	/	•	×	×	•	✓	•
11. Are personal data breach notification requirements transparent, risk-based, and not overly prescriptive?	Not applicable	V	Not applicable	V	•	•	•	Not applicable	•	•	•	•	Not applicable	V	•	Not applicable	Not applicable	V	•	Not applicable	Not applicable	•	•	•
12. Is an independent private right of action available for breaches of data privacy?	✓	×	✓	V	V	✓	✓	✓	•	✓	V	V	*	<u> </u>	V	✓	*	V	✓	✓	✓	✓	✓	✓
SECURITY							1						1									1		
1. Is there a national cybersecurity strategy in place?	Draft	V	~	V	V	V	V	V	~	V	✓	V	•	*	V	•	V	V	V	V	V	V	V	*
2. Is the national cybersecurity strategy current, comprehensive, and inclusive?	Not applicable	V	•	*	/	V	V	/	•	V	~	•	•	×	/	0	V	0	~	V	V	V	V	*
3. Are there laws or appropriate guidance containing general security requirements for cloud service providers?	•	V	•	0	V	•	V	V	•	V	•	•	V	V	V	V	•	*	•	*	•	•	0	V
4. Are laws or guidance on security requirements transparent, risk-based, and not overly prescriptive?	•	V	•	V	×	•	•	•	×	•	•	•	•	V	0	×	V	×	•	×	•	V	•	×
5. Are there laws or appropriate guidance containing specific security audit requirements for cloud service providers that take account of international practice?	0	0	•	0	0	0	0	•	V	0	0	0	0	*	•	*	0	*	*	*	*	V	0	*
6. Are international security standards, certification, and testing recognized as meeting local requirements?	*	•		V	*	•	V	*	*	V	V		V	*	•	*	•	*	•	*	<u> </u>		•	*
CYBERCRIME 1. Are galacterism a large acceptable and in place?								•										•						
1. Are cybercrime laws or regulations in place? 2. Are otherwise laws or regulations are still that Budget Convention on Cybercrime?	•	•	•		•	•		V	•	•	•	•	•	•	V		V		•	•	4	•		
Are cybercrime laws or regulations consistent with the Budapest Convention on Cybercrime? Do local laws and policies on law enforcement access to data avoid technology-specific mandates or other	<i>V</i>	0	•	0	0	0	0	V	<i>V</i>	<i>V</i>	<i>V</i>	•	*	<i>V</i>	~	*	0	0	<i>v</i>	*	*	*	<i>V</i>	*
barriers to the supply of security products and services? 4. Are arrangements in place for the cross-border exchange of data for law enforcement purposes that are	✓	V	~	V	V	~	V	~	0	V	V	~	~	V	~	•	V	V	~	v	V	~	V	_
transparent and fair? INTELLECTUAL PROPERTY RIGHTS																								
Are copyright laws or regulations in place that are consistent with international standards to protect cloud																								
service providers? 2. Are copyright laws or regulations in place that are consistent with international standards to protect cloud service providers?	0	0	0	V	•	V	V	0	•	V	V	•	0	•	•	•	V	0	•	0	•	V	V	0
Are copyright laws or regulations effectively enforced and implemented? Is there clear legal protection against misappropriation of trade secrets?		4	∠		4			*	~ •			→	*	~ •	V		V		→	→	•		V	
3. Is the law or regulation on trade secrets effectively enforced?	×	4		*				*				<u> </u>	*	V	4								4	*
Is the faw of regulation on trade secrets enectively emorced: Is there clear legal protection against the circumvention of Technological Protection Measures?		V	×	~ ~	0	~	V	~ ~		✓		V	<i>V</i>				V				*	V	V	~
6. Are laws or regulations on the circumvention of Technological Protection Measures effectively enforced?	×	~	×	~	×	0	~	V	0	~	0	~	V	×	0	×	V	×	0	×	×	V	0	×
7. Are there clear legal protections in place for software-implemented inventions?	~	V	V	V	0	V	0	×	•	V	•	V	*	··	0	0	V	0	V	•	V	V	V	V
8. Are laws or regulations on the protection of software-implemented inventions effectively implemented?	•	V	•	V	0	V	0	×	•	V	•	~	*	•	×	0	•	×	V	×	•	~	0	0
STANDARDS AND INTERNATIONAL HARMONIZATION	-			1					<u>-</u>	<u> </u>	·				1	<u> </u>		1			<u> </u>	· · · · · · · · · · · · · · · · · · ·	-	
Is there a regulatory body responsible for standards development for the country?	V	V	V	V	V	V	V	V	V	V	V	V	✓	V	V	V	V	V	V	✓	V	V	V	V
2. Are international standards favored over domestic standards?	•	V	•	V	•	~	V	•	×	V	V	•	✓	•	V	•	•	V	✓	~	V	V	V	•
3. Does the government participate in international standards setting process?	✓	V	V	V	V	V	V	✓	✓	V	V	V	✓	V	V	V	V	V	✓	✓	V	V	✓	✓
4. Are e-commerce laws or regulations in place?	×	V	×	V	Draft	V	V	✓	V	V	•	V	✓	V	V	•	V	V	✓	✓	•	V	✓	V
5. What international instruments are the e-commerce laws or regulations based on?	Not applicable	UN Convention on E-Contracting	Not applicable	UNCITRAL Model Law on E-Commerce	UN Convention on E-Contracting	UNCITRAL Model Law on E-Commerce	UNCITRAL Model Law on E-Commerce	UNCITRAL Model Law on E-Commerce	UN Convention on E-Contracting	UNCITRAL Model Law on E-Commerce	Not applicable	UN Convention on E-Contracting	UN Convention on E-Contracting	UNCITRAL Model Law on E-Commerce	UNCITRAL Model Law on E-Commerce	UN Convention on E-Contracting	UN Convention on E-Contracting	UNCITRAL Model Law on E-Commerce	UNCITRAL Model Law on E-Commerce	UNCITRAL Model Law on E-Commerce	Other	UNCITRAL Model Law on E-Commerce	Other	UNCITRAL Model Law on E-Commerce
6. Is there a law or regulation that gives electronic signatures clear legal weight?	✓	V	~	V	V	~	V	✓	~	V	V	V	✓	V	✓	V	V	V	V	✓	~	~	✓	V
7. Are cloud service providers free from mandatory filtering or censoring?	✓	V	V	V	×	•	V	•	×	•	V	×	×	V	V	×	×	0	•	×	×	✓	V	×
PROMOTING FREE TRADE																								
1. Is a national strategy or platform in place to promote the development of cloud services and products?	×	✓	•	V	V	*	•	/	×	•	•	V	×	V	0	×	•	×	×	✓	V	V	•	×
2. Are there any laws or policies in place that implement technology neutrality in government?	×	•	×	/	×	•	V	•	•	•	•	*	•	/	0	×	•	0	V	*	×	•	✓	*
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?	~	~	~	V	×	•	v	×	×	•	V	×	•	V	•	×	V	•	~	~	V	×	V	×
						i l	I.	1				1	1		1		•	_				1		I
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?	•	•	×	~	×	·	~	•	*	/	V	~	•	×		*	•	0		*	*	•	•	*
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? 5. Has the country signed and implemented international agreements that ensure the procurement of cloud services is free from discrimination?	• *	• x	×	•	* *	•	•	*	×	•	•	•	*	*	•	×	•	*	•	×	×	•	•	•
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?	• * *	* * *	* *	0	* *	0	0	* * * * * * * * * * * * * * * * * * *	* •	•	•	0	*	× ×	•	×	•	* ·	•	*	×	•	•	•

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# QUESTION	Argentina	Australia	Brazil	Canada	China	France	Germany	India	Indonesia	Italy	Japan	Korea	Malaysia	Mexico	Poland	Russia	Singapore	South Africa	Spain	Thailand	Turkey	United Kingdom	United States	Vietnam
IT READINESS, BROADBAND DEPLOYMENT																								
1. Is there a National Broadband Plan?	The 2010 Argentina Conectada plan promoted digital inclusion, but did not include specific national targets. No national broadband strategy is in place.	By 2020: The National Broadband Network (NBN) is forecast to provide 8 million connections at speeds of 25–50 Mbps	-	By 2021: - Universal broadband of 50/10 Mbps and unlimited data to 90% of premises By 2026–2031: - Coverage to remaining 10% of premises	By 2020: Fixed broadband penetration rate of 70% Mobile broadband penetration rate of 85% 1 Gbps for households in developed cities 50 Mbps in cities and 12 Mbps for rural areas	- All households and businesses to have connections of at least	By 2018: All households to have speeds of at least 50 Mbps By 2025: A gigabit national FttH optical fiber network enabling multiple Gbps upload and download speeds	By 2016-2017: Fiber network to reach 250,000 local government areas.	By 2019: 71% of households in urban areas to have 20 Mbps 49% of households in rural areas to have 10 Mbps	By 2020: 85% of the population to have speeds of 100 Mbps 100% of the population to have speeds of 30 Mbps	Japan's successive broadband plans have delivered comprehensive fiber (FttH) deployment. The Smart Japan ICT Strategy and Japan Revitalization Strategy now focus on developing knowledge economy.	Successive information master plans have resulted in ubiquitous high-speed broadband with extensive FttH/B infrastructure. A number of ICT strategies now focus on developing the ICT ecosystem.	By 2020: 100% of households in capital cities and high-impact growth areas to have access to speeds of 100 Mbps 50% of households in suburban and rural areas to have access to speeds of 20 Mbps	n national broadband plan. No speed or connectivity targets have been published.	By 2020: Universal access to at least 30 Mbps 50% of premises to have access to 100 Mbps	By 2018: 80% of Russian households to have at least 100 Mbps	Singapore's successive broadband plans have delivered comprehensive fiber (FttH) deployment and the goal is nationwide ultra-high-speed broadband access of 1 Gbps to all physical addresses By 2019–2021, Heterogenous Network (HetNet) for convergence of Mobile and WiFi After 2021, convergence of fixed and mobile broadband	By 2016: 50% of population with access to speeds of 5 Mbps By 2020: 90% of population with access to speeds of 5 Mbps 50% to speeds of 100 Mbps By 2030: 100% of population with access to speeds of 10 Mbps 80% to speeds of 100 Mbps	By 2020: 100% of population to have access to speeds of at least 30 Mbps By 2025: 50% of households at 100 Mbps	By 2020: Extend broadband coverage to 95% By 2020: Provide broadband Internet access of at least 100 Mbps in economically importan provinces	By 2018: Proportion of Internet users increases to 70% Number of fiber Internet subscribers increases to 4 million Number of LTE subscribers increases to 10 million Proportion market share of alternative DSL operators increases to 25% GDP per capita rate of broadband access costs lowered to 1%	By 2018: Provide superfast broadband (at least 24 Mbps) to 95% of the UK	By 2020: At least 100 million homes to have affordable access to download speeds of 100 Mbps and upload speeds of 50 Mbps Every household to have access to download speeds of 4 Mbps and upload speeds of 1 Mbps	By 2020: Fixed-line broadband to reach 40% of households 95% of residential areas with 3G/4G coverage at speeds of 4 MBps for urban and 2 Mbps for rural 60% of Internet subscribers have at least 25 Mbps 100% of public access points to offer broadband, with half delivering 50 Mbps
2. Is the National Broadband Plan being effectively implemented?	•	•	•	V	•	✓	V	*	×	V	V	✓	•	Not available	V	✓	V	×	V	•	*	✓	•	Not available
3. Are there laws or policies that regulate "net neutrality"1?	Extensive regulation	No regulation	Extensive regulation	Extensive regulation	No regulation	Extensive regulation	Extensive regulation	Regulation under	No regulation	Extensive regulation	Limited regulation	Limited regulation	No regulation	Extensive regulation	Extensive regulation	No regulation	Limited regulation	Regulation under	Extensive regulation	No regulation	Limited regulation	Extensive regulation	Limited regulation	No regulation
A Decibilitation								consideration										consideration						
4. Base Indicators 4.1. Population (millions) (2015) – Total for all countries in this scorecard: 4,700 million	42	24	204	36	1.402	45	02	1.282	256	61	127	50	21	125	20	142	6	52	47	67	77	64	325	93
4.2. Urban Population (%) (2015) – Average for all countries in this scorecard: 73%	92%	89%	86%	82%	56%	80%	75%	33%	54%	69%	93%	82%	75%	79%	61%	74%	100%	65%	80%	50%	73%	83%	82%	34%
4.3. Number of Households (millions) (2015) – <i>Total for all countries in this scorecard: 1,249 million</i>	12	9	60	14	393	27	39	259	63	24	47	19	6	28	14	52	1	13	16	20	17	27	123	19
4.4. Population Density (people per square km) (2015) – <i>Average for all countries in this scorecard: 471</i>	16	3	25	4	146	122	234	441	142	207	348	519	92	65	124	9	7.829	45	93	133	102	269	35	296
4.5. Per Capita GDP (US\$ 2015) – Average for all countries in this scorecard: US\$ 22,649	\$13,432	\$56,311	\$8,539	\$43,249	\$8,028	\$36,206	\$41,313	\$1,598	\$3,346	\$29,958	\$32,477	\$27,222	\$9,768	\$9,005	\$12,555	\$9,093	\$52,889	\$5,724	\$25,832	\$5,815	\$9,126	\$43,876	\$56,116	\$2,111
4.6. ICT Service Exports (billions of US\$) (2015) – Total for all countries in this scorecard: US\$ 978 billion	\$6	\$9	\$19	\$32	\$83	\$98	\$104	\$105	\$6	\$30	\$37	\$23	\$8	\$0.2	\$14	\$17	\$39	\$3	\$32	\$9	\$0.5	\$132	\$171	-
4.7. Personal Computers (% of households) (2015) – Average for all countries in this scorecard: 63%	65%	83%	54%	85%	50%	82%	91%	14%	19%	73%	80%	77%	68%	45%	78%	73%	87%	20%	76%	30%	56%	90%	87%	22%
5. IT and Network Readiness Indicators																				1				
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	6.52	8.19	5.99	7.62	5.19	8.11	8.31	2.69	3.86	7.11	8.37	8.84	6.22	4.87	6.65	6.95	7.95	5.03	7.62	5.18	5.69	8.57	8.17	4.29
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	3.79	5.49	4.01	5.56	4.24	5.34	5.55	3.75	4.01	4.43	5.65	5.57	4.91	3.99	4.50	4.54	6.04	4.16	4.77	4.20	4.39	5.72	5.82	3.93
6. Internet Users and International Bandwidth																								
6.1. Internet Users (millions) (2015) – Total for all countries in this scorecard: 2,330 million	29	20	120	32	705	55	72	333	56	40	115	45	22	72	26	100	5	28	37	26	41	59	242	49
6.2. Internet Users (% of population) (2015) – Average for all countries in this scorecard: 67%	69%	85%	59%	88%	50%	85%	88%	26%	22%	66%	91%	90%	71%	57%	68%	70%	82%	52%	79%	39%	54%	92%	74%	53%
6.3. International Internet Bandwidth (total gigabits per second (Gbps) per country) (2015) – Total for all countries in this scorecard: 117,736 Gbps	1,350	1,650	5,250	4,300	4,604	7,153	8,500	1,909	370	3,100	7,411	2,091	743	1,500	2,250	2,800	3,400	4,100	3,900	1,720	2,433	22,000	24,000	1,200
6.4. International Internet Bandwidth (bits per second (bps) per Internet user) (2015)Average for all countries in this scorecard: 97,747 bps	46,145	81,564	43,634	135,496	6,530	129,973	117,540	5,725	6,584	77,322	64,180	46,894	34,119	20,855	86,573	28,113	737,006	147,630	105,006	64,907	59,034	374,554	99,147	24,374
7. Fixed Broadband			1			1	ı	I					l											I
7.1. Fixed Broadband Subscriptions (millions) (2015) – <i>Total for all countries in this scorecard: 697 million</i>	7	7	25	13	277	27	31	17	3	15	39	20	3	15	7	27	1	1	14	6	10	25	101	8
7.2. Fixed Broadband Subscriptions (% of households) (2015) – Average for all countries in this scorecard: 63%	59%	75%	42%	96%	71%	100%	79%	7%	4%	63%	83%	104%	48%	53%	53%	52%	118%	11%	84%	32%	54%	92%	82%	41%
7.3. Fixed Broadband Subscriptions (% of population) (2015) – Average for all countries in this scorecard: 21% 7.4. Fixed Broadband Subscriptions (% of Internet users) (2015) – Average for all countries in this scorecard: 29%	16% 23%	29% 34%	12% 21%	36% 41%	20% 39%	41% 49%	37% 42%	1% 5%	1%	24% 37%	31%	40% 45%	10%	12%	19%	19%	26% 32%	3% 5%	29% 36%	9%	12% 23%	39% 42%	31% 42%	8% 15%
7.4. Fixed Broadband Subscriptions (% of internet users) (2013) — 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	6	11	7	16	8	11	15	6	7	9	20	29	9	8	13	12	20	7	15	16	8	17	19	10
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	0.1	0.6	1.3	0.7	166.4	1.4	0.4	0.2	-	0.4	27.9	14.3	1.0	1.5	0.4	18.4	1.0	0.02	3.2	0.9	1.7	5.4	11.1	-
8.2. Proportion of Fiber-to-the-home/building (FttX) Internet Subscriptions (% of households) (2015) – Average for all countries in this scorecard: 18%	1%	7%	2%	5%	42%	5%	1%	0.1%	-	2%	59%	74%	16%	5%	3%	36%	79%	0.2%	20%	4%	10%	20%	9%	-
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%	2%	9%	5%	5%	60%	5%	1%	1%	-	3%	72%	71%	33%	10%	5%	68%	67%	1%	23%	14%	18%	22%	11%	-
9. Mobile Broadband																								
9.1. Mobile Cellular Subscriptions (millions) (2015) – Total for all countries in this scorecard: 4,823 million	62	32	258	30	1292	67	96	1001	338	87	160	59	44	108	55	227	8	88	51	103	74	79	382	122
9.2. Number of Active Mobile Broadband Subscriptions (millions) (2015) – Total for all countries in this scorecard: 2,506 million	33	27	180	22	778	49	58	120	108	50	162	55	28	64	22	101	8	36	39	60	39	56	376	36
9.3. Active Mobile Broadband Subscriptions (% of population) (2015) – Average for all countries in this scorecard: 77%	78%	113%	89%	61%	56%	75%	71%	9%	42%	82%	128%	110%	91%	51%	57%	71%	143%	67%	83%	89%	51%	88%	115%	39%
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	5	16	5	10	9	17	24	5	13	12	16	12	4	8	10	10	9	7	14	9	10	26	11	5

IT Readiness (Country Ranking Out of 24)

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