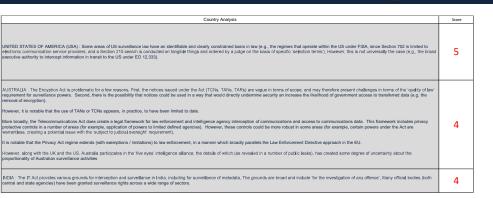
	Data Transfer As	sessment		R
se indicate the <b>name of the data transfer assessed</b> (e.g. making reference to elevant service/contract to which the data transfer relates to)		Ser	rviceNow ticket administration system	
Identify specific circumstances of the proposed data transfer				
Step, we will confirm the specific circumstances of the data transfer, which will ountries - jurisdictions involved in the processing	feed into later stages in the methodology			
ease select the number of countries/jurisdictions in which the data exporter is loca	ated from the drop down list	1	3	
ease select the countries / jurisdictions in which the data exporter is located from	the drop down list, and, where	Country	State/Region	
evant, indicate the specific Region/State		Denmark		_
ses select the number of countries/jurisdictions in which the <b>data importer</b> is loca ses select the countries / jurisdictions in which the <b>data importer</b> is located from		5	1	
levant, indicate the specific Region/State. Please only take into consideration coun hich no adequacy decision pursuant to Art. 45 GDPR has been issued.	tries outside of the EEA and for			
	Business name (e.g. in case of subsidiary/affiliate of the data importer)	Country	State/Region	To be included in step 2?
	ServiceNow Inc.	United States of America (USA)		Yes
	ServiceNow UK Ltd. ServiceNow Australia Pty Ltd ServiceNow Software Development India	United Kingdom (UK) Australia India		No Yes
	Private Limited ServiceNow Japan G.K	Japan		Yes
	ServiceNow Japan G.K	Japan		NO
see add any er comments in the box.	ServiceNow solutions instance and the pury tring a ticket handling system utilized by the	cose for which it uses ServiceNow's service + data exporter.	es. The personal data is accessed remotely by non-EU ServiceNc	ж
ase answer the questions below, filling the corresponding cells with the required in	nformation			
What is the full business name of the data exporter?			Kamstrup A/S	
In which economic sector does the data exporter operate? (e.g. public vs.			whom colutions for amout	_
In which economic sector does the data exporter operate? (e.g. public vs. ivate, adtech, telecommunication, financial, etc.)		Manufacturer of sy	ystem solutions for smart energy and water metering	
) In what privacy role is the data exporter acting (e.g. data controller, data present sub-processor)?			Data Processor to its customers	
cessor, sub-processor)?				
nformation on data importer se answer the questions below filing the corresponding cells with the required in	formation			
What is the full business name of the data importer?				_
			ServiceNow Group entities	
In which economic sector does the data importer operate? (e.g. public vs. vate, adtech, telecommunication, financial, etc.)		Delivery of b	ousiness-to-business digital workflow solutions.	
In what privacy role is the data importer acting (e.g. data controller, data ccessor, sub-processor)?			Sub-processor	
What is the relationship between the data importer and data exporter (e.g. liate of data exporter, service provider, other)?		The data in	mporter is a market leading service provider.	
) is there a contractual relationship directly between the data exporter and th	e data importer? If the answer is			
b, please provide the details of the contractual counterparty in section 1.3.1 below			Yes	
Information on onward transfers asse answer the questions below, selecting the adequate options from the drop do tich no adequard decision pursuant to Art. 45 GDPR has been issued. Will the data importer perform any onward transfers (i.e. to third parties / we counties)?	wn list and filing the corresponding cells wi	th the required information. Please only tak	xe into consideration countries/jurisdictions outside of the EEA and	d for
ther countries)?				
S wature of personal data				
ategories of personal data	sss, talephone,)	Work wcords	Financial characteristics (bank account, credit card data (s,)	eisure activities and interests
ategories of personal data		□ Medical records	Electronic identification data (e-mail, IP-addresses, cookies,)	Professional interests
<ul> <li>Pensonal characteritatica (age.</li> <li>Physical data (height, overgita,</li> </ul>	pender, civil status,)	Medical records Health records	Electronic identification data (e-mail, IP-addresses, coolies,)      Electronic identification deta (GPS posten,)	Professional interests Consumption habits
Presond shortschriftika (page,     Prysiad data (height, weight,     Presiad and (height, weight,     Practar or entries data	pender, civil status,) )	□ Medical records	Electronic identification data (e-mail, IP-addresses, coolies,)      Electronic identification deta (GPS posten,)	Professional interests
Presental characteristics (oper, Presental characteristics (oper, Presental characteristics) Presentation (hereistics) Pr	pender, civil status,) )	Matical records     Health records     Bonetic Matin Records     Genetic Matin Advance (Ingerprints, Irits scens,     Genetic data     Data concerning sexual life	Bectores identification data (press), Pradresses, contex,	Professional interests Consumption habits
Presand bivisatinitias (eps. Physical data (height a vegita) Radial or estimic data	pender, civil status,) )	Madical records Health records Bornetric identification data (fregerprints, iris scans, Genetic data	Bectrunci Linetification data (area), (II-adhreases, contex,)      Bectrunci Lonatina data (1975 position,)      Web Natory and login     Web Natory and login     Appendences, Soluble, Calindra Eriferia     Appendence, de Veberga, en webster,)      Tangas, CCPV, etc.)	Pedesional interests. Consumption habits Honoling characteristics (honore hyper,)
Personal characteristics (ope, Personal data (height, weight, Personal data (height, weight, Personal data (height, weight, Personal data (height), P	profer, civil tables,) ) Sidaren,)	Hedical records     Hedical records     Hedical records     Genetic identification data (lingreprints, ris scores,     Genetic data     Data concerning sexual life     Ruligious or philasophical convictors	Bectrunci Linetification data (area), (II-adhreases, contex,)      Bectrunci Lonatina data (1975 position,)      Web Natory and login     Web Natory and login     Appendences, Soluble, Calindra Eriferia     Appendence, de Veberga, en webster,)      Tangas, CCPV, etc.)	Professional interests Consumption habits
Present devictorités (ops, Present des Ounges, veryit, Catalier artistes da Entre à table Production and tables Production and particip Production and particip Control constitution (and participants)	ynder, cel (talaa,) ) aldron,) al accurly kinetificition number	Heddal records     Heddal records     Bonero: Veterification deta (l'oproprinta, ris scons,     Genero: Veterification deta (l'oproprinta, ris scons,     Data concenning servail title     halipous or philasophical convictions     Patical operions		Pedesional interests. Consumption habits Honoling characteristics (honore hyper,)
Present distribution of the subjects Present distribution of the subjects Present and any of the subjects Present and any of the subjects Present and any of the subjects In the bits </td <td>prior, rel data,) ) Materia,) al accely destification number as</td> <td>Hafad see h Hafad see h Hafad</td> <td></td> <td>holosoma interests Consurgets heads Itsoury characteristics from type,</td>	prior, rel data,) ) Materia,) al accely destification number as	Hafad see h Hafad		holosoma interests Consurgets heads Itsoury characteristics from type,
Present distribution of distributions (oper, □ Prevent distributions of distributions and plane) □ Productions and plane) ■ Productions and p	prote; not steen)	Hafad see h Hafad	Betwee destication data (area), Phatessam, context,)      Betwee destication data (area), Phatessam, context,)      Betwee destication data (area), Phatessam, context,)      Betwee destication data (area), Context, Conte	holosoma interests Consurgets heads Itsoury characteristics from type,
Precond devicements (ope,	prote; de deen,	Hafad see h Hafad	Betwee destication data (area), Phatessam, context,)      Betwee destication data (area), Phatessam, context,)      Betwee destication data (area), Phatessam, context,)      Betwee destication data (area), Context, Conte	holosoma interests Consurgets heads Itsoury characteristics from type,

ssessment			

Data Transfer A

1.8 Data storage and limitation of access to data			
Please answer the questions below, filing the corresponding cell with the required information A) Please describe the steps taken to ensure the limitation of access to data (e.g., whether restricted access is possible or ful access to whole catalastic is necessary) and the transfer is adequate, relevant and limited to what EXX.W will be possible including details on the storage locations of data transferred and transmission channels used, where available	The data importer will access the personal from the jurisdictions specified in section 1.1. Personal data will be stored at the ServiceNow datacentries in Amsterdam (EUEAArregion) and the non-EU ServiceNow entities will access the personal data in order to provide the agreed services. The data importer will have wide access to the IT systems of the data exporter for the purpose of its tasks. The data importer will, however, be restricted access to IT systems not necessary for its tasks.		
1.9 Data format Please answer the questions below, filling the corresponding cell with the required information			
A) Bease indicate the level of protection ensured by the format in which the data are transferred, in transit and at rest, (e.g. plan text, pseudonymased or encrypted).	Data will be remotely accessed by non-EU ServiceNow Affiliates.		
1.10 Envisaged transfer tool Please answer the questions below filling the corresponding cells with the required information			
A) What is the proposed legal basis for transferring the data under Art. 46 GDPR, e.g. EU standard contractual clauses (SCCs), Binding Corporate Rules (BCRs)? Please select a choice from the drop down list.	EU SCCs Controller to Controller (Commission Decision (EC) 2010/871) or Controller to Processor SCCs (Commission Decision (EC) 2010/87)	]	
1.11 Applicable laws and practices specific to the transfer			
Please answer the questions below, filing the corresponding cells with the required information A) Please include details on the application of laws and practices of the third country requiring the disclosure of personal data builde authorities or granting public authorities access to personal data relevant in light of the specific circumstances of the transfer.	NIA	]	
Step 2. Consider the laws and practices in the destination country/countries In this Sep, askes the extert to which the persave legit framework ind practices in each of the third countres to which the to the guarantees (ESG) offered which the ESA and constraint which the fitters of the straint external level of adeguates and the ave or practices specific the indicationatives of the traints, which will be assessment will follow the principles set out in Affaid-45(2) GDPR (the test for adeguary of a third country); take into ac unveillance makes of the principles set out in Affaid-45(2) GDPR (the test for adeguary of a third country); take into ac upweils the fitter of the principles set out in Affaid-45(2) GDPR (the test for adeguary of a third country); take into ac upweils transfer:  2.1 Regulation on the processing of personal data	rovided for in the relevant transfer terms (e.g., EU SCCs of Commission Decision No. 2021/014), In case there are licet any peculiarities of each flagit regime in the comment tox below each section. This Stap 2 will not assess the account the criteria set out in the EDPB Recommendations 02/2020 on the European Essential Guarantees for	:	4
The extent to which <b>local laws</b> offer legal clear, precise and accessible safeguards	- 1- high level of safeguards in place, essentially equivalent to the level available in the EU		
to the processing of personal data equivalent to the protections offered in the EXPLVK. This will include an analysis of the local taws, practices, and data protection law framework, including constitutional rights to privacy and how those laws apply both the data importer but also third partice (a, requiring to disclose data to law enforcement/public authorities or authorizing access by such authorities) who may seek to secure access to the data following transfer, as well as the applicable limitations and safeguards.	<ul> <li>2 - Ingh Nevi of andiquarks in places, but below the loss of those available in the SL ()</li> <li>3 - may lead and the inplaces, but below the loss of a flow available in the SL ()</li> <li>4 - way inmittaindiguarks in places, quarksawly below the loss of those available in the EU ()</li> <li>5 - no analysis in place.</li> </ul>	Comp Coun Analysi	try
In this context, note the EEA/ UK has a developed saw that specifically recognises legal inpits to protection of personal data' consistent with the principles of data protection set out in OECD Convention 108+.			
· · · · · · · · · · · · · · · · · · ·	cuntry Analysis	Hide Analysis	s <b>m</b> i
Please add any further comments in the box			
→ UNITED STATES OF AMERICA (USA) : In general, while many privacy laws exist, the balance of federal a thread of the state privacy laws do solid, they do not of the doctors by the state of the state thread of the state of the state Many states have bare shat accore privacy and security laws in particular. Moreover, California has imposed both privacy and security laws that are general in nature, applying to con-		4	
to the previous Directive 95/46/EC than GDPR. Whilst the breadth of application of the Act is not as wide (	is data protection principles, and its definition of personal information. However, the majority of the Privacy Act is closer for example, the turnover based limit on application to private sector entities), this is compensated in part by additional		
sector and state specific laws. There are also subject specific laws in areas that mirror equivalent laws in i Whilst the Privacy Act does create some data subject rights, these are not as comprehensive as those unc		3	
Further, there is no fundamental or constitutional right to privacy or data protection (equivalent to rights un	der the EU Charter and the European Convention on Human Rights).		
contained in the Privacy Rules), and there is no specific regulatory authority in charge of enforcement. Ho rights to privacy and data protection under the Charter and the ECHR.	nino any yet. As such, users is no equivalent registance instrument governing data procedual, coller that what is wever, the right to privacy is recognized by the Indian constitution, offering some alignment with the 'constitutional'	4	
2.2 Regulation of public authority access to private data			4
The extent to which the level of access legally permitted and conducted in practice by public auto strikes to personal data (e.g., to secure discloses or other extension) is subject to subject and extension of the EARLY. The will consider specifically whether the right of public autometies to access data is: (i) underpresent by a legal framework that is publicly available and sufficiently chart (conducted in accordance with law). (ii) carding out in provider display available and sufficiently chart (conducted in accordance with law). (iii) carding out in provider display the available and sufficiently chart (conducted in accordance with law). (iii) carding out in provider display the available and sufficiently and any interference with brackness and effective oversight from courts or other redependent autometric line out provider and public to the provider sufficience the subject to adeparate and effective oversight from courts or other redependent autometric line out their access can in pracisio be exercised by public authorities. The assessment will consider the provider precedent.	1 - Nigh head of allegunds in place, assertially equivalent to the level available in the EU     1 - Nigh head of allegunds in place, but heats whe level of beau available in the EU     3 - some adequards in place, but materially below the level of these available in the EU     # 4 - way limited antippands in place, dignificantly below the level of these available in the EU     * 5 - re-safegunds in place.	Comp Coun Analysi	itry



Data Transfer Assessment

#### 2.3 Regulatory supervision

Please add any further commen in the box

# The extent to which courts, regulators and/or supervisory authorities enforce the rule of law and/or rights guaranteed in relation to the protection of data in an independent and effective manner, with evidence of meaningful resources and

0 1 - high level of safeguards in place, essentially equivalent to the level available in the EU  $\hat{\Omega}$  2 , birth level of safety ands in place, but below the level of those available in the EU 3 - some safeguards in place, but materially below the level of those available in the EU 0 4 - very limited safety ands in place, significantly below the level of those available in the EU 0 5 - no safeguards in place



ow Description

DLA PIPER

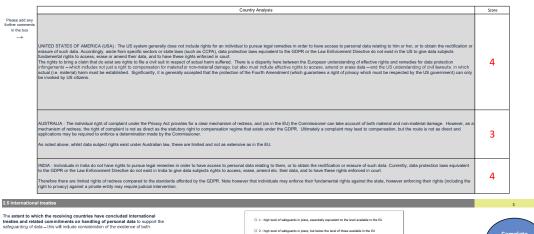
Country Analysis Score Please add any further comments in the box → 3 Unit LD 1 AT LS OF WARTACH (USA): In the immediates where the US exempts data privately protections, there is evenetic or a cave emportant and other significant mes. In the surveillance context, judicial oversight (through the FISC) is applied to Section 702. However, the CJEU was critical of the high-level nature of this oversight, given that it operates at the level of approving an overall surveillance program (and not individual requests for communications data). There is no judicial oversight of the toda descutive authority to intercept information in transit to the US under ED 12,333. AUSTRALIA : The Commissioner appears to be an independent regulator, with a broad range of powers essentially equivalent to those of an EU supervisory authority. The total extent of its powers (including in respect of its ability to penalize infingements via fines) may not be as robust as for an EU authority, atthough this is to some extent miligated by the parallel activity of the ACCC. However, the Commissioner is relatively inactive and the viaue of them issues to data are low. 3 INDIA : There is not yet a specific supervisory authority in India which governs the enforcement of data protection laws, and this does not align with regulatory supervision in the EU. In relation to surveillance, individuals can approach the high courts if they suspect they have been subject to illegal surveillance. 4 2.4 Rights of redress 1 - high level of safeguards in place, essentially equivalent to the level available in the EU

The extent to which individuals can easily and effectively enforce rights and seek refores by raising compliants, claims and / or appeal and enforce decisions in relation to both data protection infingements and public discolarer's surveillance advity through judical and/or administrative processes (e.g. help from local data protection automatic producing whether the data surveillance applied in practice and are not threated by local laws and/or practices. This section will also conside whether data subjects and easily and the practices and the threads of local laws can be effectively invided and relead only dividuals.

#### O 2 - high level of safeguards in place, but below the level of those available in the EU 3 - some safeguards in place, but materially below the level of those available in the EU · 4 - very limited safeguards in place, significantly below the level of those available in the EU 0 5 - no safeguards in place



Show Description	÷



Country Analysis

(i) international treaties that relate to the protection of data generally consistent with principles entrined in EEAUK Isw, and (ii) any specific anrangements concluded to provide safeguards in relation to country to country transfers (e.g. UK-US. Bilateral Data Access Agreement which birrings into effect the 'quashing' provisions of 18 USC 5 2703h(2)?)

3 - some safeguards in place, but materially below the level of those available in the EU O 4 - very limited safeguards in place, significantly below the level of those available in the EU O 5 - no safeguards in place



Show Description

Score

	Data Transfer Assessment		
Please add any further comments in the box →	UNITED STATES OF AMERICA (USA) : The US has limited commitments in this area and appears to clearly fail short of equivalence with the EEA.	4	
	AUSTRALIA : There are no international treaties comparable to Convention 108+ to note. However, the DAIC's participation in the APEC Privacy Framework and the Cross-border Privacy Enforcement Arrangement does provide for some degree of additional protection.	3	
	INDIA : There are no international treaties comparable to Convention 108+ to note. However, the natification of the Universal Declaration of Human Rights does provide for some degree of additional protection.	3	

#### Step 3. Consider contractual, organizational or technical supplemental measures to safeguard the data

At this Step, assess the extent to which any additional safeguards adopted by the parties provide meaningful protection to the personal data and millipate any of the risks exposed in Step 2. This stage will consider three criteria

#### 3.1 Contractual Whether the particles have agreed additional contractual contractions are including communities anothered within the data transfer of in place (as within the SCO<sub>4</sub>—whether (page) or new - or the BCRs), commitments in line with those contained in the EDPR Recommendations, which enhance (or in any way underming) (the guarantees defined in the SCCs and/or mitigate the risk posed by anothis within the distillation contracting language manages may include: O additional safeguards in place which provide a high level of additional protections to the personal data (i) a process to be applied when there is a subpona / legal process requiring the importer to challenge or demand individual review of an order to the extent # additional safeguards in place which provide a limited level of additional protections to the personal data (ii) an obligation to inform the exporter of the subpoena / legal process in a manner whereby the exporter can suspend the transfer / withdraw the data before a disclosure is made (to the extent not prohibited by law, e.g. an anti- tipping off law); (iii) an obligation to routinely report to the exporter that there have been no disclosure requests made by authorities in the preceding period (varrant canary); Q me rbate the risk to personal data (og contractual clauses which expressly permit standing dis (iv) requiring or requesting the requesting authority -Io the othert permissible by low - to use a MLAT process. (iv) - notices that the exports' right to conduct audits or inspections of the data processing facilities of the importer, on-site andre remotely, to writy data was disclosed to good authorities and under which conditions. Doesding to reade backdoors or similar programming that could be used to access the systems used for the processing of acid any ensuing data. (2) It has not purposeduity created backdoors or similar programming that could be used to access the systems used for the processing systems, and (3) that into jumposituly created or changed its business processes in a manner that facilitates access to requere the data importer to relate or marking backdoor or to facilitate access to requere the data importer to relate or marking backdoor or to facilitate access to respect. pressure and a subject of the subject of the subject of any material ((a)) an obligation to provide compensation to data subjects for any material and non-material damage suffered in circumstances where the data importer disclosed personal data transferred in violation of the commitments contained und the chosen transfer tool. nents contained unde Similarly where there are unhelpful contractual provisions, this would have a negative effect on the score.

Process ad any international transfer mechanisms. Both the adequacy decisions and the SCCs are legal safeguards to ensure that international Transfers are alforded essentially equivalent protection, when personal data is in the two in the SCCs in particular corrands. The data importer to a range of onerous obligations, granting a number of rights and redress options for data subjects. As outlined above, ServiceNov relies on SCCs for its international Transfers. These are incorporated into the data importer to a range of onerous obligations, granting a number of rights and redress options for data subjects. As outlined above, ServiceNov relies on SCCs for its international Transfers. The data importer on introduced into extinction of the international production be detained in contract and arrangements. Journal of the international production is to obtain the detaination control income (where the Affaites are located) for failest legalative changes, to assess the respect for data protection required by Ecopean law and the data importance in the data importance in the estimation control income (where the Affaites are located) for failest legalative changes, to assess the respect for data protection required by Ecopean law and the data importance in the data international and regularizational safeguares. The data importer control is obtained by Course I takes into account or correct operational structure, the circumstances of the limited International Transfers, and numerous ingal, lepinical and regularizational safeguares in the active the date within the EU; and (3) the guarantees provided for in the relevant transfer terms (SCCs) can be satisfied.

O additional safeguards in place which provide a high level of additional protections to the personal data

ited level of additional protections to the new

data (eg operating pr

#### 3.2 Organisational measures

#### The extent to which Interesting to which: organisational safeguards applied contribute to ensuring consistency in the protection of personal data or which otherwise provide additional protective measures for data subjects, including those contained in the EDPB Recommendations on supplementary measures, for example:

(i) adoption of internal poticies with class allocation of responsibilities for data transfers, reporting channels and standard operating procedures for cases of formal or informal requests. Construction is charge of managing requests for access (ii) braining procedures, becamer and another thange of managing requests for access another than the standard standard standard access requests to data, supported by a transparent disclorure request policy. (ii) access controls and confidentiality policies in place which are monitored with audits and enforced through disclorure measures. Unplated by scheme or codes of conduct in thematomatic standards such as ISO norms and best practices such as those published by ENISA.

Note that where the safeguards act to facilitate disclosure (e.g. a policy to disclose without a court order, a policy to permit unfettered access to stored data, etc.) this would have a negative effect on the score.

Please add any the control of the grant of t customes. Strong affiliate relationships: The nature of the relationship between ServiceNow Affiliates means that there is a high level of communication and a ochesive approach to the protection of customer data. This is express for example, through the ServiceNow intra-Group Data Transfer and Processing Agreement (which incorporates the SCOs), which the ServiceNow Affiliates have concluded with each other. So Lots Agreement to the customer serviceNow in the Customer and the

#### 3.3 Technical measures

The extent to which: - privacy enhancing ob incomes or susdoprind by the parties to integrate risk, - privacy enhancing ob incomes or susdoprines the particular of the where the selence and of incidentification which are been or by the data experient outside the destination country and outside the reach of the laws of the destination country, and / or otherwise privating the import from being able to data experient outsides the dust an encryption keys being keys (only by the data exporter in another juridication, beaming in mind that any from for old ariant access that may change the sense of the data experient outside the encryption of the data information of the data expertent in the import of old ariant access that may change the data expertent in the import of old ariant access that may change the data expertent in the import of the data expecter in another juridication, beaming the country of the data expecter in another information of the data expecter in the data expecter in another information of the data expecter in the data expecter in another information of the data expecter in the data expecter in another information of the data expecter in the data expecter in another information of the data expecter in the data expecter in another information of the data expecter in another in another information of the data expecter in another additional safeguards in place which provide a high level of additional protections to the personal data (e.g. encryption key stored out of jurisdiction or paradoxymisation in a menue where the sole means of neidentification are held only by the data exporter outside the destination country and outside the of the laws of the destination country. additional safeguards in place which provide a limited level of additional protections to the personal data

# additional safes

0 no ad 0.00

Similarly where the measures act to facilitate disclosure (e.g. a policy to disclose without a court order, a policy to permit unfettered access to stored data, etc.) this would have a negative effect on the score

measures adopted exacerbate the risk to personal data (eg State-owned network infrastucture which can be exploited for investig ation by authorities or policy implemented to automatically fulfil government information requests).

Security Service/Soviet Security Service/

	Data Transfer Ass	sessment				
b. Tenant Architecture: ServiceNow (or the Now Mattorm) Insta private cloud on which the Now Ratform is deployed as a subscri	toes are derivered in a nighty secure manner	from the moment they are first provisioned.	Servicenow's architecture provides			
supporting services, such as networking and other logical infrastr single customer and accessible only by that customer. Additional foundations of all processes:	ucture supporting a defence in-depth model, 3	ServiceNow's cloud exclusively hosts instan	es of the Now Platform. Fundamen	tally each instance is dedicated to a		
Isolation     Region Specific     Layered Authentication     Transport Authentication						
Standard Mitigations     Managed Processes     Monitoring						
<ul> <li>Security by Design Each ServiceNow instance records a unique compliance score as Dashboard (ISC), available free of charge on every ServiceNow in 6. Security by Default: ServiceNow employs automation extensi</li> </ul>	a percentage of completeness against a bes stance. Customers can use the dashboard to elv when conflouring new hardware, operatin	It practice set of configuration properties and o obtain more information on these settings, to systems, and software, and in ensuring the	I other settings. This score is maint or to make changes to them. ev remain in accordance with the n	ained on the Instance Security		
baseline on an ongoing basis. This ensures a consistent and con applied and systems are configured with the minimal capabilities only those that are absolutely required.	ormant global infrastructure and software ser necessary for them to function in accordance	vices configuration footprint, aiding manage with their purpose, meaning that software s	ment, support and troubleshooting. ervices, physical and software ports	The principle of least privilege is and other elements are kept to		
<ol> <li>Access to Customer Data: ServiceNow only processes custo the purposes of providing outcomer support and/or systems main related to that data – or incidentally, whilst resolving an unrelated provide our services. When it comes to infrastructure level proce</li> </ol>	enance. Customer data may be accessed du matter such as infrastructure configuration 1	ring customer support activity performed on his type of processing is done using Servic	their behalf - either directly, in the Now's global network of locations.	course of addressing an issue technology and employees to		
human intervention, using our global network of Affiliates. 8. Logical access to the infrastructure hosting: The ServiceN reviewed requiarly. In accordance with separation-of-duties good	ow cloud and all hosted customer data acces practice. ServiceNow personnel with physical	s is provided on a per-role basis, in accorda access to data centres do not have logical	nce with specific job functions and a access to data environments, and s	a least privilege model, and is taff with logical access to data do		
not have physical access to data centres. The private cloud envil from which employees cannot extract or copy data. Access occur during support activities is not processed outside what is permitte 9. Access Control Plug In and the High Security Plug In: The	onment is both physically and logically isolate s on a case-by-case basis and is strictly cont d contractually or under relevant statutory ob	d from ServiceNow's corporate environmen rolled, with activity being logged and monito ligations, such as the General Data Protect	<ul> <li>Access takes place from managered by a separate security team. Cron Regulation.</li> </ul>	d secured virtualized jump hosts ustomer data accessed incidentally		
Please refer to the attached decriptions provided by ServiceNow			uata.			
Step 4. Taking account of the specific circumstances of the tra						
In this Step we will consider the potential risk of harm that may be caused to a data Step 1, and the level of protection provided for in the safeguards as identifier context to the relative risks posed to the data subject given the particularities of the	I in Steps 2 and 3, and considering any ne	stential shortfall thereof and other real-life	variables. This element of the asse	esement is important to help place		
transfers. In order to perform this assessment please take into consideration any relevant pra transferred, if applicable.	tical experience with prior instances, or the a	bsence of requests for disclosure from publ	c authorities received by the data in	nporter for the type of data		
This part of the assessment will consider two factors: 4.1 Severity of harm					1	
The potential severity of harm that could occur to the data subject taking into consideration relevant factors identified in Step 1, such as the nature of the data /		<ul> <li>low severity of harm</li> </ul>				
data subject and the identified shortfalls in Steps 2 and 3, including the likely distress an individual might suffer due to the loss of privacy in the data, possible sanction faced as a result of processing, such as capital or corporal punishment, length and severity of custodial sentence, size of financial penalty, imposition of		$\boldsymbol{O}$ -medium severity of harm				
financial sanctions, etc., with a score assigned depending on the perceived severity of the risks.		high severity of harm				
Please add any						
further comments in the box						
Taking into account the specific circumstances of the transfer suc organizational safeguard measures applied to the processing, the decreased.	h as the nature of the data transferred (perta magnitude of potential adverse effects, inclu	ining to service tickets), the purpose of the p ding material and non-material effects and in	rocessing, and considering the abo npacts of data processing on the fu	we mentioned technical and ndamental rights and freedoms, is		
4.2 Likelihood of harm		Iwy orstability of harm.		1	1	
The likelihood / probability of harm arising to the data subject, given the circumstances in which the transfer is made and in light of the third country law and		<ul> <li>Iow probability of harm</li> <li>medium probability of harm</li> </ul>				
practices. This will take into consideration relevant factors identified in Step 1, such as the nature of the data / data subject and its interest to law enforcement / security establishment, and further elements such as: the likelihood that law enforcement / security establishment would request		bich probability of harm				
the personal data from the importer or a processor / sub-processor rather than from the exporter directly; - whether the data importer will (to the extent the law permits it) successfully						
exercise any rights it has to challenge the order for disclosure issued by law enforcement / security establishment (by legal means or otherwise) causing such authorities to give up their requests for the data in plain text; - the probability that employees of the data importer, or subsequent recipients						
(subcontractors. affiliates/subsidiaries) technically have access to personal data in plain text outside the envisaged scenarios (e.g. beyond maintenance purposes using admin privileges) or are able to obtain such access (e.g., by installing a						
backdoor or similar programming to access the system and/or personal data); elements demonstrating that a third country authority will seek to access the data with or without the data imposter's knowledge, in light of reported precedents, legislation and practice; for example, in the U.S., requests for access to						
data under Section 702 of FISA are targeted at "electronic communication service providers". This ferm encompasses (i) telecommunications carriers; (ii) providers of electronic communication services (e.g. a provider of internet based messaging						
services); and (iii) providers of remote computing services (i.e. cloud computing providers). Accordingly, FISA does not apply to all recipients of personal data in the U.S.;						
<ul> <li>elements demonstrating that a third country authority will be able to access the data – at rest, or in transit – through the data importer or through direct interception of the communication channel in light of reported precedents, legal powers, and technical, financial, and human resources at its disposal; and</li> </ul>						
<ul> <li>elements demonstrating that the envisaged technical measures are effective in the specific countries involved in the transfer (e.g. Import of encrypted data is permitted in the data importer's country and state of the art encryption techniques</li> </ul>	•					
are used which can be considered robust against cryptanalysis/active and passive attacks with resources known to be available to the public authorities).						
Please add any further comments in the box						
Taking into consideration the absence of available relevant practi	al experience up to the date of this assessm	ent indicating the absence of prior instances	of requests for disclosure from put	lic authorities received by the data		
importer for the type of data transferred and considering the abov Particularly taking into account that data is not stored (in rest) at to be low.						
Step 5. Final Decision						
	Summary of Step 1					
Data exporter location	Denr	nark,				
	ServiceNow Inc United States of Amer Kingdom (UK), ServiceNow Australia P	rica (USA), ServiceNow UK Ltd United				
Data importer location	Kingdom (UK), ServiceNow Australia P Development India Private Limited - I					
Full name of the data exporter Sector in which the data exporter operates		up A/S or smart energy and water metering				
Privacy role of the data exporter Full name of the data importer Sector in which the data importer operates	Data Processor ServiceNow ( Delivery of business-to-busin	to its customers Group entities ess digital workflow solutions.				
Privacy role of the data importer Relationship between the data exporter and data importer	Sub-pro The data importer is a mark	ccessor et leading service provider.				
Purposes for which the data importer intends to process the data	solutions offered and will be accessed ren the delivery of the ServiceNow offering, na	mely supporting a ticket handling system.				
Categories of personal data involved in the transfer	Identification data (name, address, teleph mail, IP-addresses, cookies,) - Persona ) - Family & household (spouse, child	one,) - Electronic identification data (e- il characteristics (age, gender, civil status, Iren,) - Electronic location data (GPS				
	position,) - Consumption habits - The Se and the data exporter may decide to sub needed to fulfill the purpose of the contract.	mit personal data at its own discretion as				

	Data Transf	er Ass	essment	DLA PIPER	
Categories of data subjects whose personal data are involved in the transfer	relate to the end-users of the Kan	nstrup me	he personal data transferred will primarily ters (the customers of the data controller). e data exporters organisation may be erred.		
Data Format	Data will be remotely a	ccessed t	oy non-EU ServiceNow Affiliates.		
Envisaged transfer tool	EU SCCs Controller to Controller to Processor SCCs	(Commis (Commis	sion Decision (EC) 2004/915) or Controller sion Decision (EC) 2010/87)		
Applicable laws and practices specific to the transfer		N	A		
Data storage and limitation of access	1.1. Personal data will be stor (EU/EAA-region) and the non-EU order to p The data importer will have wide a purpose of its tasks. The data	ed at the ServiceN rovide th iccess to importer	from the jurisdictions specified in section ServiceAlva datacentres in Amsterdam we entities will access the personal data in e agreed services. the IT systems of the data exporter for the will, however, be restricted access to IT sarry for its tasks.		
Summary of Steps 2, 3 and 4					
Consider the adequacy of the legal regime in the destination count		18	1		
Consider supplemental measures that may available to safeguard	the data	0,38	1		
Consider the risk of harm to which a data subject may be exposed		0,75	]		
Total risk score			5,18	The residual risk is likely to be low. You may decide to proceed with the transfer given the safeguards that are in place, but ensure the supplementary measures which have been adopted are maintained at all times.	
		F	inal Risk Score analysis		

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# **Data Encryption**

Encryption technologies for data protection on the Now Platform









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# Introduction

ServiceNow provides robust data security and privacy capabilities to protect its customers data. However, in today's environment there is no single encryption solution to address all data protection needs. Therefore, in order to meet the data security requirements of modern enterprises, ServiceNow provides customers with a suite of encryption options. These can be used individually or in conjunction with each other to address a variety of data confidentiality use cases:

- Column Level Encryption Enterprise is applied to data as it is added to an instance within the ServiceNow network
- Edge Encryption encrypts data before it leaves your network, ensuring that neither ServiceNow personnel nor an attacker would be able to read your data
- Database Encryption encrypts data directly in the database accessed by applications running on a ServiceNow instance
- Full Disk Encryption works at the hardware tier and ensures data is encrypted at rest, protecting against a storage attack

While each approach is different in terms of implementation, benefits, and functionality, you are not limited in choosing one approach over another; you can choose a combination based on your security needs.

This document explains these solutions and provides the information you need to choose the correct ones. For an overview of the ServiceNow security program, please refer to the **Securing the Now Platform** eBook.

Please note, all information in this eBook is related to the standard Now Platform commercial environment. For information related to ServiceNow's in-country cloud offerings around the globe and how they may differ, please contact your ServiceNow account representative.



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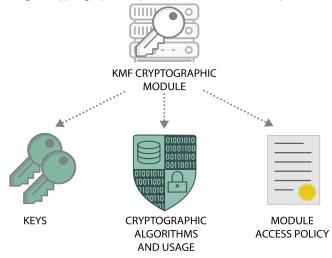
# Managing encryption keys

#### **Encryption key management overview**

Backed by a hardware security module, the ServiceNow Key Management Framework (KMF) feature provides customers with the essential cryptographic tools to enable data security through confidentiality, integrity, and authentication.

At its core, KMF provides an interface for the following:

- Proper lifecycle management of cryptographic keys
- Configuration of the managed cryptographic keys to a specific cryptographic usage and algorithm (e.g. AES-GCM with 256-bit key for data encryption purposes)
- Access controls for the managed cryptographic keys (i.e. Module Access Policy)



KMF supports encryption on the Now Platform in the creation and management of cryptographic modules specific to each type of encryption. Encryption keys within the cryptographic modules can be created, rotated, revoked, and configured for automated lifecycle settings (e.g. automated deactivation or automated rotation).

Starting in the Quebec release, KMF is available out of the box on the Now Platform. In addition to the core functionality described above, KMF also supports other functionalities and features within the Now Platform.

#### **Column Level Encryption Enterprise**

Encryption keys provided by customers for use with Column Level Encryption Enterprise (CLEE) are backed up within the database for the customer instance where they are used. Customers should also back up encryption keys prior to applying them to their instances. For CLEE, customer keys are re-encrypted using a wrapper key, commonly referred to as a key-encryption-key (KEK), which is stored and managed from a key management appliance.

#### **Edge Encryption and Database Encryption**

Encryption keys for the Edge Encryption feature are managed entirely within a customer's network boundary. Encryption keys for Database Encryption are managed by ServiceNow using a three-level key hierarchy. The first two keys are customer-specific and are created by the database engine, while the third key is instance-specific.

#### ServiceNow cloud infrastructure

Encryption keys used within ServiceNow's cloud infrastructure are managed by ServiceNow. Keys are stored in redundant secure key storage appliances. Dual controls are required for essential functions such as generating, deleting, or exporting keys. Key custodian forms are required as part of the generation of new keys. Cryptographic management is undertaken by a specific team within the security group, including appliances used to store the per customer instance wrapper key.

Standard operating procedures are used for the procurement, generation, and configuration of key appliances. Work instructions are used for configuration and backup with logs from these forwarded to the ServiceNow internal SIEM infrastructure.

# **Encryption in transit**

# Summary of ServiceNow encryption in transit features

Element	Encryption Method	Summary
Interactive end-user sessions	TLS 1.2*	Highest publicly available ratified encryption
Email	TLS 1.2* opportunistic TLS	Highest publicly available ratified encryption where mutually supported, with fallback to cleartext
File transfers	<ul> <li>Inbound to instance via HTTPS only</li> <li>Retrieved by instance, from external location: TLS 1.2° over FTPS (implicit or explicit), SFTP, SCP</li> </ul>	Highest publicly available ratified encryption where mutually supported, with cleartext FTP option for legacy integration
Web services integration	TLS 1.2* supporting outbound certificate-based mutual authentication	Highest publicly available ratified encryption when initiated from ServiceNow instance, but does not currently support inbound mutual authentication
Single sign-on (SSO)	TLS 1.2*	Highest publicly available ratified encryption
MID server	TLS 1.2* plus additional application- level public key pair encryption between MID server and instance	Highest publicly available ratified encryption, with double encryption of credentials used for discovery and orchestration

\*References to TLS 1.2 include proposed TLS 1.3 suites, i.e. ECDHE-ECDSA (perfect forward secrecy)

#### Secure communication with the instance

By their nature, customer instances of the Now Platform are designed to be accessible via the internet, providing maximum flexibility in how, when, and from where they are accessed. The internet, however, is a public network and therefore communications can potentially be intercepted and read if they are not encrypted or otherwise protected.

ServiceNow provides transport layer encryption as standard within its cloud infrastructure. The Now Platform enables customers to use its encryption in transit capabilities when integrating with own external systems, data sources, or services.

Customers access their instances via a web browser using Transport Layer Security (TLS) encryption using AES with 128-bit or 256-bit cipher suites. This is also true of any data transferred from the on-premises MID server to the Now Platform. All end-user access to a ServiceNow instance attempted over HTTP are redirected to HTTPS. Negotiated ciphers are subject to customer browser versions and may be influenced by customer internet proxy infrastructure. Customers can force specific cipher suites via their own browsers or proxies if desired.

For additional security, customers are also able to use IP range-based authentication to restrict the public networks that are used to access their instances of the Now Platform.

The standard contractual clauses are applicable as a data transfer mechanism, as per section 9 (international data transfers) of ServiceNow's **Data Processing** Addendum.

#### Email in-transit encryption

Customers commonly configure ServiceNow instances to generate emails in relation to service management tasks, for example, to request approval for a change or notify a user of the status of a service request. ServiceNow instances provide additional confidentiality in this respect by supporting opportunistic TLS for email sent or received. Now Platform instances will negotiate TLS 1.2 encryption during the SMTP handshake and will fall back to plaintext SMTP where a secure channel cannot be negotiated.

Additional related email security controls including Sender Policy Framework (SPF), DomainKeys Identified Mail (DKIM), and Domain-based Message Authentication, Reporting, and Conformance (DMARC) are also provided at no additional cost.

#### File transfer encryption

Instances of the Now Platform support a variety of file transfer protocols, including FTPS, SFTP, and SCP. These are for instance- initiated communication out to external systems only and support TLS 1.2. There is no inbound file transfer facility beyond HTTPS/ web services uploads.

#### **Direct database query**

Now Platform instances support direct Java Database Connectivity (JDBC) queries out to external systems. JDBC connections are not encrypted but can be securely proxied via a customer management, instrumentation, and discovery (MID) server. The communication to the MID server in the customer environment is secured, as described in the ServiceNow MID Server section below.

#### Web services integration

ServiceNow supports web services using SOAP (Simple Object Access Protocol) and REST (Representational State Transfer) for integration, all traffic is encrypted using TLS.

# 66

Now Platform instances will negotiate TLS 1.2 encryption during the SMTP handshake and will fall back to plaintext SMTP where a secure channel cannot be negotiated Web service security is enforced using the combination of basic authentication challenge/response and system-level access using contextual security. Additionally, there is a set of web service-specific roles that may be granted to the web service user.

For incoming SOAP requests, support for WS-Security 1.1 in the form of WSS X.509 token profile and WSS username token profile is available. In this context, "incoming" means requests targeting a web services resource in a customer ServiceNow instance.

ServiceNow instances support outbound-only web services mutual authentication by defining a protocol profile for connections that require mutual authentication. Protocol profiles allow you to associate a specific certificate record with a protocol, such as HTTPS. Requests made to an endpoint whose domain is defined in a profile are then mutually authenticated.

Mutual web services authentication is only possible for outbound HTTPS connections, such as SOAP, REST, or direct HTTPS calls. A ServiceNow instance does not support mutual authentication for inbound requests or for outbound requests sent through a MID Server.

Secure signing of SOAP requests for message integrity purposes is also available.

#### Single sign-on integrations

Instances of the Now platform support single sign-on (SSO) via the multiple provider SSO or security assertion mark-up language (SAML) 2.0 plugins. These options allow integration with your own compliant SAML 2.0 identity providers (IDPs), and benefit from transport layer encryption. Additionally, customer-provided certificates are used to verify a SAML assertion is properly signed by the correct IDP.

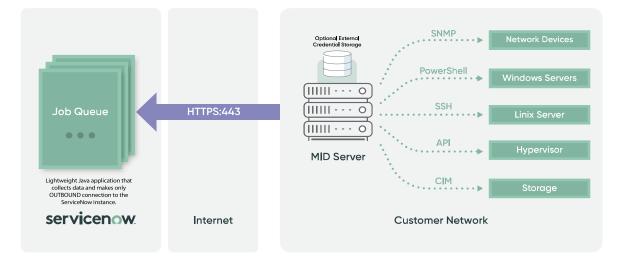
Instances of the Now Platform include LDAP client functionality and can access multiple LDAP v3 compliant directories according to customer configuration. Both standard and secure LDAP (LDAPS), which use TLS, are available.

#### ServiceNow MID server

The ServiceNow management, instrumentation, and discovery (MID) Server is an optional, free ServiceNow component. It facilitates communication of data between the customer instances and external applications, data sources, and services. MID Servers are used by customers in conjunction with their instances for enterprise application and service monitoring, integration, orchestration, and discovery.

The MID Server is a Java application provided to customers via a download link within their instance. It may be installed by the customer on a suitable host system within their environment. The server can use Windows or Linux operating systems. MID Servers are cryptographically paired with an individual instance during installation and need to be approved by the customers ServiceNow administrators before they can be used.

At a customer defined interval, a MID server securely initiates an outbound session to a customer's instance over HTTPS using TLS 1.2, looking for activities to perform. The activity is retrieved and executed, and any output or resulting data is returned to the originating instance. This outbound, or 'pull' approach negates the need to permit inbound access through a customer's perimeter or firewalls directly to the Internet.



# **Encryption at rest**

#### **Column Level Encryption Enterprise**

Column Level Encryption Enterprise (CLEE) provides field and attachment-based data encryption within instances of the Now Platform. With CLEE, users can configure which specific data to encrypt within a specific table. The data is then stored in encrypted form.

Encryption keys are stored and maintained within the ServiceNow instance and managed through the key management framework.

The main features of CLEE include:

- Encryption of supported field types of string, date/time, and URLs
- Can be used on file attachments
- Employs AES-CBC with 256-bit keys
- Offers both deterministic and non-deterministic encryption options
- · Allows user with access to perform limited searching and filtering operations on data that has been encrypted
- Allows user to supply their own encryption keys (bring your own keys, BYOK) or have keys randomly generated on the Now Platform
- · Offers several access controls based on role assignment and application scope

#### Common use case



Mitigating the risk of exposing sensitive data as either the result of a direct attack or of compromised data stored in a cloud



Enabling customers to comply with governmental and industry certification requirements and regulations



Limiting access to sensitive data based on defined roles, defined script assignments, application scope and domain membership

#### **CLEE** cryptographic module

CLEE encryption keys are managed via the key management framework (KMF), specifically through CLEE cryptographic modules, which are created by users assigned with the KMF cryptographic manager role. Once a PE cryptographic module is created, it can be associated to a field within a given table, thus enabling CLEE for the given field.

Whether generated by the ServiceNow instance or customer supplied (BYOK), the keys are stored in the same unique customer instance database where the data encrypted by them is stored. As part of the KMF, the encryption keys themselves are stored in encrypted form and are encrypted by the instance key-encryption key (IKEK), an instance-unique key generated by KeySecure. This mitigates direct access to the encryption key, either by an instance administrator or ServiceNow.

PE does not enable customers to store encryption keys in their own hardware security modules (HSM), key storage appliances, or services.

#### **CLEE** access control

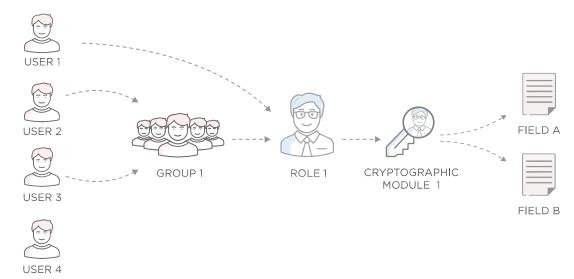
Within the CLEE cryptographic module, KMF cryptographic managers can grant access to the module based on:

- Role access is based on the role for the user session.
- Application Scope access is based on being in the targeted application scope.

These access controls are not mutually exclusive; multiple access controls can be configured for a CLEE cryptographic module to

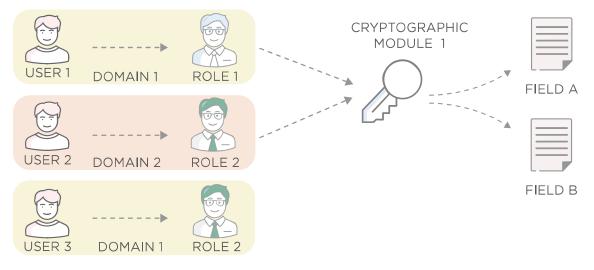
#### provide flexibility.

The access control example below illustrates single access control implemented (role-based):



- User 1 is a member of Role 1, which provides access to CLEE cryptographic module 1; this allows User 1 to see the contents of Field A and Field B.
- User 2 and User 3 are members of Group 1; Group 1 is a member of Role 1, which allows everyone in Group 1 access to cryptographic module 1 and allows User 2 and User 3 to see the contents of Field A and Field B.
- User 4 is not a member of any group or role and has no access to CLEE cryptographic module 1; not only does User 4 not have access to Field A or Field B, but User 4 will not even see that these fields exist.

Access control example 2 - Two access controls implemented (role-based + application scope):



- User 1 is a member of Role 1 and is currently in Domain 1. Access to CLEE Cryptographic Module 1 is granted due to an access control that allows access to Role 1. Thus, User 1 is able to see the contents of Field A and Field B. This demonstrates access based on role (similar to the previous example).
- User 2 is member of Role 2 (i.e. not a member of Role 1) and is currently in Domain 2. Access is allowed since an access control for Domain 2 exists for CLEE cryptographic module 1. As a result, User 2 is able to see the contents of Field A and Field B. This

demonstrates access based on domain membership.

• User 3 is neither a member of Role 1 nor in Domain 2. As a result, User 3 cannot see the contents of Field A and Field B. Furthermore, User 3 will not see that these fields exist.

#### Usage and restrictions

Column Level Encryption Enterprise (CLEE) can be used to process specific sensitive data sets in the ServiceNow environment. The data is only decrypted by a user/script with authorized access to the associated CLEE cryptographic module. Controlling access to sensitive data often means limiting access in a controlled fashion or granting it on an as-needed basis.

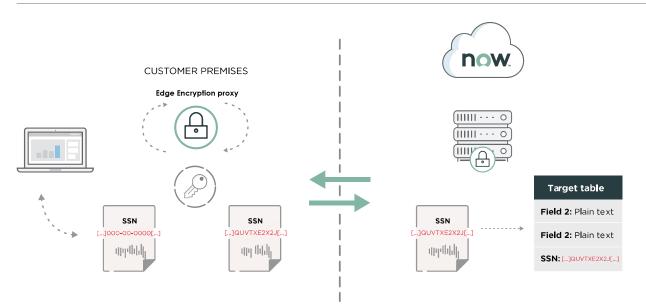
CLEE-encrypted data is maintained throughout the backup process.

#### **Edge Encryption**

Edge Encryption provides customers the ability to control the end-to-end encryption of their data and key management. Edge Encryption uses a proxy application provided by ServiceNow and installed by customers within their own network. This tokenizes specified data patterns or encrypts string fields and attachment data before it is sent from a customers' environment to their instance. It also decrypts the same data again only within the customer's own network, using keys stored only within the customer's own network. Edge Encryption is also supported by ServiceNow.

#### Key features of Edge Encryption Common use cases Customer-owned Requirements that prohibit encryption keys from Customer-retained encryption key administration being stored in a cloud service provider **Flexibility** Flexible encryption options to balance security and user operation requirements Mitigating the risk of exposing sensitive data **Tokenization** as either the result of a direct attack or of Provides pattern-specific protection for structured data, such as compromised data stored in a cloud credit card or Social Security numbers **API Support** REST and SOAP APIs to support additional system integrations, web services, and customizations Customers who need to comply with governmental and industry certification **Easy administration** requirements and regulations Easily administer and rotate encryption keys Native platform Tight integration within the ServiceNow platform architecture to support ServiceNow applications and the ServiceNow portal Addressing the data sovereignty requirements for interface data that may be stored outside of a country's Simple rule development domain A native encryption rule development environment to provide integration support

The following diagram illustrates the Edge Encryption process – a field storing social security numbers (SSN) being encrypted within a customer's network by an Edge proxy. As shown below, the data in the SSN field is converted from plain text to ciphertext.



In addition to the Edge proxy configuration and management of rules, customers are responsible for the usual requirements of operating a server within their environment (including hosting, routing, backup, DNS configuration) to enable and support their Edge proxies.

Edge Encryption is rule-based; specific fields are identified for encryption or tokenization based on a customer's business requirements. Data in fields encrypted by the Edge proxy will be accessible to any end user whose roles or other access rights allow them to read or write to that field.

Access to Edge-encrypted data must always be made through the proxy application, which functions as a web application with a unique customer-defined URL. Attempting to access Edge-encrypted data directly from an Edge-enabled instance without first passing through the relevant proxy will result in only the encrypted version of the data being visible. Edge proxies are hosted by customers at their own preferred URL, such as edgeproxy.customerdomain.com.

The following example shows an incident record which has Edge Encryption applied to the Short Description field. This illustrates how it would appear to an appropriately credentialed user accessing that record via the customer's Edge proxy (i.e. in plain text).

■ Number ▲	Opened	Short description	
INC000001	2018-05-07 16:09:51	Can't read email	

Below is the same record and field when it is accessed directly at the customer's instance. Because this form of access bypasses the customer's Edge proxy, the data is inaccessible to any user, including administrators.



The relevant encryption keys and configuration exist only on the Edge proxy within the customer's network and are not visible to ServiceNow. The data is encrypted from the moment it leaves the customer environment and is only decrypted upon retrieval. At no point is the data accessible in clear text by ServiceNow systems or personnel.

#### Types of encryption

Edge Encryption provides three options that support the advanced encryption standard (AES) for key lengths of 128 and 256 bits you can apply to data fields within an instance: standard, equality-preserving, and order-preserving encryption. For a side-by-side comparison of these encryption options, see **Appendix A**.

#### Tokenization

Another layer of data protection that Edge Encryption provides is tokenization. During this process, Edge Encryption uses a randomly generated token to mask a predefined pattern of characters within a data field when the pattern is matched.

The examples below illustrate tokenization from the user experience perspective.

In the first example, the patterns for a credit card and Social Security number were configured for tokenization. When the user connects through the Edge Encryption proxy, the content for those two values are displayed in plain text but are actually tokenized in the instance.

■ Number ▼	$\equiv$ Opened		$\equiv$ Caller	Priority	<b>≡</b> State
INC0010005	2016-10-05 07:57:08	Please help Joe Smith (SSN: <mark>123-45-6789</mark> ) with his tax software installation.	ITIL User	5 - Planning	New
INC0010004	2016-10-05 07:55:31	Purchase order 89-23456 should be charged against Visa <mark>4916 8699 9572 5861,</mark> not AMEX <mark>377660611382710</mark> .	ITIL User	5 - Planning	New

However, if the user were to bypass the Edge Encryption proxy and access the same incidents directly, the corresponding values within the short description field would be represented as a token as shown below.

■ Number ▼	$\equiv$ Opened	■ Short description	<b>≡</b> Caller	$\equiv$ Priority	<b>≡</b> State
INC0010005	2016-10-05 07:57:08	Please help Joe Smith (SSN: <mark>\frac{Sfu8bcng05\frac{S}})</mark> with his tax software installation.	ITIL User	5 - Planning	New
INC0010004	2016-10-05 07:55:31	Purchase order 89-23456 should be charged against Visa <mark>805barhg2gqq587sgg8</mark> , not AMEX <mark>8zye8757w69p5v8</mark> .	ITIL User	5 - Planning	New

#### Implementation considerations

While encrypting specific fields or tokenizing embedded strings of data is beneficial from a data security perspective, having ciphertext in place of actual data can lead to potential functional or operational challenges within an instance of the Now Platform. To avoid these challenges, follow the implementation considerations and suggested capability and configuration approaches provided in detail in Appendix B.

#### **Edge Encryption vs Column Level Encryption Enterprise**

This section serves as a guide to help determine when to opt for Edge Encryption or Column Level Encryption Enterprise (CLEE).

At a high level, if an enterprise wants maximum control over the encryption of its data, Edge Encryption is the choice over CLEE. With Edge Encryption the customer owns and controls the encryption key outside of their ServiceNow instance. However, depending on your requirements, using Edge Encryption could result in reduced functionality.

CLEE can decrypt an encrypted column used in a server-side business rule when that rule is executed by a logged-in end-user assigned the appropriate encryption context. However, Edge Encryption would not have this capability since the data needs to be decrypted on the instance to run the business rule.

The table below shows a side-by-side comparison of the differences between Edge Encryption and CLEE functionality.

Functionality	Edge Encryption	Column Level Encryption Enterprise
Encryption key controlled and owned by customer	YES	NO <sup>1</sup>

Functionality	Edge Encryption	Column Level Encryption Enterprise
Multiple levels of functional encryption for equality, filtering, grouping, and sorting operations	YES	NO <sup>2</sup>
Data tokenization based on defined encryption pattern	YES	NO
Built-in encryption key rotation	YES	YES
Encryption of standard out-of-the-box fields	YES	YES
REST/SOAP API encryption support	YES	NO
Built-in mass encryption/decryption support	YES	YES <sup>3</sup>
Automatic attachment encryption	YES	NO <sup>4</sup>
Customer maintains additional infrastructure in their network to control encryption keys and encryption processing	YES	NO
Decryption by server-side business rules	NO	YES⁵
Encryption/decryption based on user roles	NO	YES <sup>6</sup>

#### Table 1: Edge Encryption versus Column Level Encryption Enterprise

<sup>1</sup>CLEE supports BYOK

<sup>2</sup> CLEE supports only equality filtering

<sup>3</sup> CLEE supports mass encryption with a single CLEE cryptographic module, and mass decryption with a single CLEE cryptographic module or

multi CLEE cryptographic modules

<sup>4</sup> Manual process per record attachment for CLEE

<sup>5</sup>Supported only when business rules are executed by an entity assigned the appropriate access to the CLEE cryptographic module context

<sup>6</sup> CLEE supports access controls based on role, script, and application scope

#### **Database Encryption**

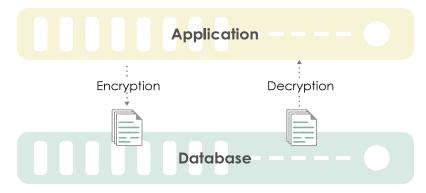
Database Encryption enables all data to be protected with symmetric AES-256 encryption, whether the database is online or offline. It encrypts all customer data at rest in the database with no impact to functionality. Any new or changed data is encrypted as it is entered into a table – associated activity log files (e.g. bin, redo, undo, and error) are also encrypted.

When this feature is used, all related instances are encrypted – along with associated replication traffic and backups – and instance cloning is still possible. However, there is a minor performance impact for using Database Encryption of up to 5%. Both new and existing instances on supported releases of the Now Platform can take advantage of Database Encryption.

Database Encryption utilizes the native capabilities of the database engine to encrypt data as it is written to the database using industry standard AES-256 encryption and decrypt it in memory as it is read from the database. This technology (also known as Tablespace Encryption or Transparent Data Encryption) is fully transparent to the customer and to the application.

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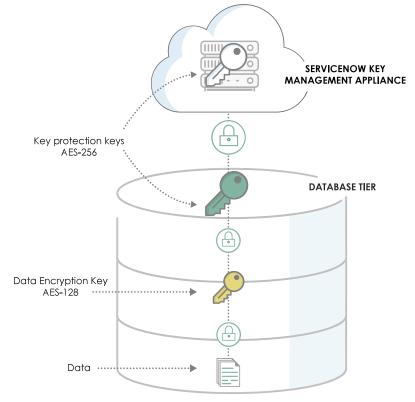
Both ServiceNow applications and custom applications can operate seamlessly without any changes because the application always has access to the data it needs, in the clear. When using Database Encryption, all data is encrypted, including attachments, logs, and backups.

#### Key Management: three-level hierarchy

Keys are stored and managed by ServiceNow using a three-level key hierarchy:

- 1st level: An AES-256 key is used to encrypt the data.
- 2nd level: Another AES-256 key is used to protect the 1st level key.
- 3rd level: An additional AES-256 key, used to protect the 2nd level key, is created by and stored within our FIPS 140-2 compliant key management appliances in the ServiceNow data centers

The first two keys are customer-specific and are created by the database engine. The third key is unique per customer instance.



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Encrypting all data at rest provices a layer of security in cases where much of the data in your enviornment is considered sensitive or could potentially be considered sensitive in the future

#### Common use cases

Encrypting all data at rest provides a layer of security in cases where much of the data in the customer environment is considered sensitive or could potentially be considered sensitive in the future, due to regulations or changes in the customer's business environment. Database Encryption is useful in cases where it is critical that functionality is not impacted, and application tier encryption is not necessary.

Database Encryption can be coupled with application tier encryption for a layered security approach. Highly sensitive fields that need to be encrypted at the application tier can be secured with Edge Encryption or CLEE. Layering encryption allows all data to be protected when not in use. It also allows highly sensitive fields, such as personally identifiable information (PII) and protected health information (PHI), to be protected from additional attack vectors.

#### **Full Disk Encryption**

Full Disk Encryption (FDE) mitigates the risk of sensitive data being exposed in the event of the physical theft of a disk drive used in a cloud instance. FDE includes the entire disk, which can only be decrypted by the operating system. This encryption also does not impact the performance or functionality of the application.

Provided via self-encrypting hard drives with AES-256-bit encryption, FDE delivers at-rest protection only and is focused on preventing data exposure through the loss or theft of hard disks holding customer data. It does not provide application tier protection for data in transit or against unauthorized access while the drive is operational.

Measures in place by ServiceNow to mitigate loss or theft of storage devices may also be a factor when considering FDE.

#### Usage and restrictions

FDE is a high-speed encryption method integrated into ServiceNow's Advanced High Availability (AHA) architecture that provides encryption of customer data at rest. FDE decrypts the data when actively being used or accessed by the server's operating system. The hard drive models used by ServiceNow comply with the Trusted Computing Group (TCG) enterprise specifications and are secured using a passphrase generated from a key stored in our SafeNet key management appliance.

# Conclusion

The available encryption options from ServiceNow are intended to address common additional data protection and privacy needs for its customers.

- **Column Level Encryption Enterprise** provides simple, secure encryption, but may not meet all customer requirements around key storage and management.
- Edge Encryption is a significant enhancement over Column Level Encryption Enterprise and allows customers to control where and how data is encrypted as well as the management and configuration of all keys. However, it requires significant planning on the part of the customers.
- **Database Encryption** allows all stored data to be encrypted in real-time, providing protection for data online and offline, with no loss of functionality.
- **Full Disk Encryption** protects offline data in case of disk loss or theft, and may be relevant to heavily regulated organizations, but can add significant cost to a customer's ServiceNow deployment.

Highly sensitive fields that need to be encrypted at the application tier can be secured with Edge Encryption or Column Level Encryption Enterprise.

With Edge Encryption, cleartext data never leaves your premises – only encrypted or tokenized data is sent to the instance. This can enable the Now Platform to be used in cases where external data storage may not otherwise be appropriate.

Full Disk Encryption can be coupled with both application tier encryption and database tier encryption for a layered security approach.

Layering encryption allows all data to be protected when not in use and highly sensitive fields, such as PII and PHI, to be protected from additional attack vectors.

WHITE PAPER

# Resources

#### Encryption-specific resources:

- Product Documentation
- Column Level Encryption Enterprise technical implementation and configuration
- Edge Encryption technical implementation and configuration

#### Further reading resources:

- Trust and Compliance Center
- CORE (Compliance Operations Readiness Evidence) platform

# Appendix A:

# Edge Encryption options

Operations	Standard AES-128 or AES-256	Equality-preserving AES-128 or AES-256	Order-preserving* AES-128 or AES-256
Group by		Х	Х
ls empty		Х	Х
ls not empty		Х	Х
Equal		Х	Х
Not equal (excludes empty fields)		X	Х
ls not		X	Х
Sort by			Х
ls greater than			Х
ls greater than or equal			Х
Is less than			Х
Is less than or equal			Х
Contains			
Starts with			
Ends with			
Operators that imply the right side of the clause is a field			
Text search			

\*MySQL is required for order-preserving encryption.

# Appendix B:

# Functionality and encryption implications for Edge Encryption

Functionality	Implication	Mitigation
Reporting	Reporting operates on column data values. Because the ServiceNow application must use the column's values to generate reports, there is the potential a report will not generate correctly because it does not have access to the plaintext. This is only an issue if the report being generated uses columns that have been encrypted using Edge Encryption.	Review the columns you need to include in the report that may benefit from equality-preserving or order-preserving encryption, and use those supported functions where necessary. Do not export reports that contain encrypted columns since the report is generated on your instance without access to the encryption key.
Buisness rules and logic	ServiceNow runs all business logic on the back end, so any business rule that needs to read from or write to an encrypted column may have trouble executing the rule.	Review the columns included in business rules that may benefit from equality-preserving or order-preserving encryption, and use those supported functions where necessary. If this is not possible, do not use the encrypted columns.
Encypted text exceeding table column widths	Encryption algorithms often create ciphertext that is longer than the plaintext. For example, the name "King George III," which is 15 bytes long, might be encrypted to "#j&_ xzl[~`K@6_69FExñ\$\$4n\{2*)c," which is 30 bytes long. If the column in the ServiceNow instance is limited to 20 characters, the full length of encrypted text will not be stored, causing it to become invalid and incapable of decryption.	Examine each column you plan to encrypt (either programmatically or by hand) and widen them to ensure each can store the longest possible encrypted value for that column.
Workflows	Similar to business rules, workflows often operate from a column's value. A workflow that depends on the ability to examine plaintext in a table column will fail to function because it only has access to encrypted versions of the text.	Review the columns from your workflows that may benefit from equality-preserving or order- preserving encryption, and use those supported functions where necessary. If this is not possible, do not use the encrypted columns.

Functionality	Implication	Mitigation
Searching	ServiceNow executes all searches on the back- end database, which means all searches use the data within the columns. If the search is being executed against columns with ciphertext values rather than plaintext values, a user may not receive the desired results. However, searches for exact matches will still work becasue the search term will be converted into ciphertext by Edge Encyption-this only applies to equality- preserving and order-preserving encryption. This enables the back-end search function within ServiceNow to effectively search for the desired term. "Contains" searches on free-form text fields are the most difficult to implement because the search text cannot be found in the body of the encrypted text.	Tokenization can make "contains" searches possible. For example, a word or character string can be tokenized individually so the encrypted search text finds a matching tokenized word in the body of the field. Equality-preserving and order-preservingencryption provide a technique that partially addresses the "contains" search with strong encryption.
Sorting	ServiceNow does all sorting on the back-end server. As an application, ServiceNow deals with large data sets and generally returns the Top N to the user based on some form of sorting. Because the application always sorts on the back end, and the application always sorts on the ciphertext values, when a user initiates the sorting of encrypted data, the results may appear incorrectly.	Apply order-preserving encryption to implement a technique that addresses this issue (while maintaining strong encryption) using a stored subset of plaintext table data as a token to prepend to the ciphertext for sorting purposes before it is sent to the instance.
Bulk import/ export	ServiceNow does all export and import activities on the back-end servers. As such, any exported data—Excel, XML, CSV, PDF, or other— exports the ciphertext values of any encrypted columns. Likewise, because these data formats are not supported, any attempt to import data into an encrypted column will result in unencrypted values being written into the column, unless the process that is sending data to the instance is configured to proxy communications through the Edge Encryption proxy.	Some vendor solutions are capable of intercepting exported data files, such as XML or CSV, and decrypting them prior to being delivered to the user. Check with your vendors to ensure they can encrypt and decrypt the file types you need. If they can, a web service integration is necessary.
Mobile access	To see any data that has been encrypted using Edge Encryption, a mobile browser must access the ServiceNow instance through the Edge Encryption proxy. Actions allowed via mobile devices need the ability to see the plaintext data in order for the ServiceNow application to function correctly. This includes workflow approvals via mobile devices and other actions available to the user through the mobile interface.	Ensure that mobile access to the ServiceNow instance goes through the company's network so all access is granted via the Edge Encryption proxy. Be selective about which columns you encrypt. Modify any workflows that use encrypted columns if the workflow is visible or accessible using mobile devices.

Functionality	Implication	Mitigation
Inbound/ outbound email and SMS notifications	When ServiceNow triggers a notification, it could send an email or SMS that contains a mixture of hard-coded plaintext and encrypted field text. For example, an email template that looks like this: Dear \${name}, we have changed your shirt size from \${old_size} to \${new_size}. Will be rendered with field substitutions, so it looks like this if the corresponding columns are encrypted: Dear Bob Baker, we have changed your shirt size from 6^SD[&%T to H7asdh78.	Edge Encryption does not support inbound nor outbound email. Taking this into account, be selective about which columns you encrypt. Modify any SMS text message that uses encrypted columns and remove them from the message. Provide a URLin the message that leads to a ServiceNow page that shows the contents of the message—this way, the Edge Encryption Proxy can decrypt the text.
Reference fields	Reference fields are not supported by Edge Encryption because the sysid that is being used to make the link between your form and the actual field needs to be in the clear.	Use a secondary field, encrypt it, and hide the reference from the form. The actual source field must be a string type and will need to be configured to be encrypted with one of the three available encryption types.
Web services integrations	ServiceNow can integrate with outside data sources using industry-standard web service protocols like REST and SOAP. A third-party integration, which is usually software running on a computer inside your network, can retrieve and insert data into ServiceNow automatically, but if that data is not properly encrypted, plaintext can be inserted into columns that are expected to be encrypted. As a result, the Edge Encryption proxy attempts to decrypt text that was not encrypted in the first place. This leads to data inconsistencies within the ServiceNow instance and could impact what the user sees.	Configure all automated processes to send or receive data from the ServiceNow instance using encryption rules so the Edge Encryption proxy can identify the columns in the payload with the encrypted instances.
Legacy data	ServiceNow customers may have amassed large amounts of data within their ServiceNow instances within various columns. The amount of data these customers need to encrypt could contain millions of records. Because encryption keys and algorithms cannot be held within ServiceNow, encrypting large amounts of data using Edge Encryption can take a long time.	You can run a mass encryption job on a per- column and attachment basis. Plan when you want to run this type of operation carefully so you can accommodate for the volume of columns and attachments you plan to encrypt.

# **Appendix C:**

# Comparison of encryption at rest solutions

	Database Encryption	Column Level Encryption Enterprise	Edge Encryption
Description	Encryption of data at rest when not being processed in the instance	Equality Preserving Encryption of data at rest within the database based on user role in the instance	Standard, Equality Preserving, and Order Preserving encryption of data at rest within the database and instance. Data sent to ServiceNow already encrypted by customer
Field types Supported for Encryption	All	<ul> <li>String Text</li> <li>Attachment</li> <li>URL</li> <li>Date</li> <li>Date/Time</li> </ul>	<ul> <li>String Text</li> <li>Attachments</li> <li>URL</li> <li>Journal</li> <li>Date</li> <li>Date/Time</li> </ul>
Encryption Types	AES-256	AES-128 and AES-256	AES-128 and AES-256
Tokenization	No	No	Yes, for pattern-matched data
Encryption Key Creation	ServiceNow	Managed by ServiceNow and the customer	Customer
Additional Requirements	None	None	<ul> <li>On-premises Encryption Proxy</li> <li>Encryption Key Store</li> <li>Optional on-premises MySQL Database for Tokenization and order Preserving encryption</li> </ul>

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# STEP 2: ASSESSMENTS OF GENERAL LAWS AND PRACTICES IN THE DESTINATION COUNTRY

# UNITED STATES<sup>1</sup>

1 High level ( in the EEA	
	High level of safeguards in place, essentially equivalent to the level available in the EEA
2 High lev	High level of safeguards in place, but below the level of those available in the EEA
3 Some sa the EEA	Some safeguards in place, but materially below the level of those available in the EEA
4 Very lim available	Very limited safeguards in place, significantly below the level of those available in the EEA
5 No safeç	No safeguards in place (lowest level of equivalence)

THIS BASELINE ANALYSIS PROVIDES A REVIEW OF US LAWS AND GENERAL PRACTICE. THIS ANALYSIS SHOULD BE COMPLETED IN STEP 4 TO TAKE ACCOUNT OF ACTUAL PRACTICE WITH REFERENCE TO RELEVANT, OBJECTIVE, RELIABLE, VERIFIABLE AND PUBLICLY AVAILABLE OR OTHERWISE ACCESSIBLE SOURCES SUPPORTING THE FINDINGS RELATING TO THE RISK IN PRACTICE.

For example, because 'foreign intelligence information' related to 'foreign powers' or 'agents of foreign powers' is narrowly construed, it should be carefully considered for the purposes of scoring Step 4 of the transfer assessment whether the organization is likely to possess such information or (if not otherwise subject to Section 702), whether the organization will provide such information to any ECS or RCS. the US and the EEA/UK (such as sabotage, terrorism and the proliferation of weapons of mass destruction). Organizations whose EEA or UK operations involve ordinary commercial products or services and the sorts of entities and individuals likely to be of interest to US authorities; the types of goods or services provided by the organization; and/or the types of personal data processed (e.g., ordinary commercial information like employee, customer, and sales records). In addition, some of the qualifying activities that may lead to lawful surveillance are activities that would constitute (serious) criminal offences both in Examples of factors to be taken into account when considering the practical impact of Section 702 may include: the role of customer and employee due diligence programs that may be designed to screen out the related personal data are less likely receive or generate such information in the course of business.

Laws and practices in the destination Comparative analysis country (please include sources of information) <sup>2</sup>	ctices in the destination se include sources of
Laws and practices in the destination country (please include sources of information) <sup>2</sup>	to carry out
	to carry out

<sup>&</sup>lt;sup>2</sup> The assessment will be based first on legislation publicly available. Sources and information should be relevant, objective, reliable, verifiable and publicly available or otherwise accessible.

In general, while many privacy laws exist, the balance of federal and state law is focused on data security, meaning that many businesses focus on the protection of personal data from breach events. Where privacy laws do exist, they do not offer data subject rights in a manner comparable with EEA/UK law. The US at the federal level lacks generally applicable data protection laws. Many states have laws that cover privacy, and security issues in particular. Moreover, California has imposed both privacy and security laws that are general in nature, applying to controllers doing business in California and potentially imposing significant penalties.	
The US privacy regime is not uniform. At the federal level it is fragmented by sector, and states can vary their laws; accordingly, the regime does not have the comprehensive nature of the GDPR, at least directly. The regime offers some protections, often that are significant, and many of the state laws are significant, and security requirements for financial services), FISA (privacy and security requirements for financial services), FISA (limits on foreign intelligence surveillance), FCRA (privacy of credit reporting), Section 5 of the Federal Trade Commission (FTC) Act (prohibiting unfair and deceptive trade practices; this is the principal basis for FTC enforcement of privacy laws (the state devial basis for FTC) Act (prohibiting unfair and deceptive trade practices) laws (the state equivalent of the FTC) Act), the CCPA (California's privacy laws, state data security laws; state genetic privacy laws, state data security laws; state constitutions, as well as others. These laws typically apply based upon an analysis of the residency of data subject, and to some degree the location of the company, though this is often a lesser criterion for application.	and regulatory enforcement (see below). From a security perspective, federal and/or state laws create for most US businesses
The extent to which <b>local laws</b> offer clear, precise and accessible legal safeguards to the processing of personal data equivalent to the protections offered in the EEA /UK. This will include an analysis of the local laws and practices, including constitutional rights to privacy and how those laws apply both to the data importer but also third parties (e.g., law enforcement) who may seek to secure access to the data following transfer. In this context, note the EEA / UK has a developed law that specifically recognises legal rights to protection of "personal data" consistent with the principles of data protection set out in OECD Convention 108+. In particular, the assessment will consider. (i) whether there are any relevant local laws laying down requirements to public authorities powers of access to personal data; (ii) where relevant local laws laying to public authorities powers of access to personal data; (ii) where relevant local laws laying to public authorities on formally meet EEA / UK has a developed averaging to protection set out in OECD convention 108+.	rights and freedoms and the necessity and proportionality of
2.1 Regulation on the personal data	

requirements to take reasonable technical, physical and organizational measures to protect the security of sensitive personal information (e.g., health or financial information, telecommunications usage information, biometric data, national social security numbers (SNN), data that can be exploited for identity theft or other information	that would require security breach notification). In addition, many states require that reasonable security exist for personal information, though the laws tend to focus on information such as credit card data, SSN, and not personal information in as broad a sense as GDPR. For example, Massachusetts has enacted regulations that apply to any company that collects or maintains sensitive personal information (e.g., name in combination with Social Security number, driver's license, passport number, or credit card or financial account number) regarding Massachusetts requirements, and there are now statutory penalties for the failure to maintain reasonable security. Moreover, most state Attorneys General have the ability to enforce these laws. Regarding sectoral data security and privacy laws and regulations that impose specific security requires on regulated, and unregulated, entities (principally the financial insurance and health sectors) federal laws coexist with state laws. California notably requires any company operating a website to have an online privacy policy, and companies typically do not limit their privacy policy to just California residents.
restrictions, whether the practices of public authorities clearly indicate that they do not normally apply/comply with the legislation that governs, in principle, their activities; and	where relevant local law may be lacking, are there any indications of practices in force that are incompatible with EEA/UK law.
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	Some areas of US surveillance law have an identifiable and clearly constrained basis in law (e.g., the regimes that operate within the US under FISA, since Section 702 is limited to electronic communication service providers, and a Section 215 search is conducted on tangible things and ordered by a judge on the basis of specific 'selection terms'). However, this is not universally the case (e.g., the broad executive authority to intercept information in transit to the US under EO 12,333).
privacy, genetic and insurance privacy laws also exist. The GLBA and implementing regulations require financial institutions to implement reasonable security measures, and also place limitations on use of non-public personal information as well as create transparency obligations. Federal financial regulators impose extensive security requirements on the financial services sector, including requirements for security audits of all service providers who receive data from financial institutions. At the state level, the New York Department of Financial Services (NYDFS) regulations impose extensive cybersecurity and data security requirements on licensees of the NYDFS, which includes financial services and insurance companies.	Foreign intelligence surveillance — i.e. the collection of intelligence information about non-US persons – is primarily conducted through a handful of legal frameworks that were considered by the CJEU in <i>Schrems II<sup>3</sup></i> . However, there are other surveillance regimes that the CJEU did not consider that may be subject to similar, or lesser, safeguards. <u>Section 702 FISA</u> Section 702 of the Foreign Intelligence Surveillance Act (FISA) <sup>4</sup> permits the US government to conduct targeted surveillance of non-US persons located outside the US to acquire 'foreign intelligence information.'
	The extent to which the <b>level of</b> access legally permitted and conducted in practice by public authorities to personal data (e.g. to secure disclosure of, or conduct surveillance on, private information for national security purposes or other reasons) can be regarded as a justifiable interference and is subject to safeguards equivalent to that within the EU, in light of legislation, practice and reported precedents. This will consider
	2.2 Regulation of public authority access to private data

<sup>&</sup>lt;sup>3</sup> Data Protection Commissioner v Facebook Ireland Ltd, Maximillian Schrems and intervening parties (Case C-311/18) ("Schrems II").

<sup>4</sup> 50 U.S.C. § 1881a.

Further, even where surveillance regimes have a basis in law, they	may operate in a way that is not sufficiently targeted, and therefore proportionate, from an EEA	perspective (i.e., Section /uz). Further, judicial oversight is not present for EO 12,333 and, while it	exists for Section 702, it operates at a broad level (i.e., to approve an overall program of surveillance, and	not specific requests for access to communications data). As	determined by the CJEU, this is not aligned with EEA standards.			
<ul> <li>'Foreign intelligence information' means:</li> <li>(1) Information that relates to, and if</li> </ul>	concerning a US person is necessary to, the ability of the US to protect against actual or potential attack or	other grave hostile acts of a foreign power or an agent of a foreign power; sabotage, international terrorism, or	the international proliferation of weapons of mass destruction by a foreign power or an agent of a foreign	power; or clandestine intelligence activities by an intelligence service or	network of a foreign power or by an agent of a foreign power; or	(2) Information with respect to a foreign power or foreign territory that relates	to, and it concerning a us person is necessary to, the national defense or the security of the US or the conduct of	the foreign affairs of the US. <sup>5</sup> Further, the target of the surveillance must be a "foreign power", <sup>6</sup> or an "agent of a foreign
specifically whether the right of public authorities to access data is:	<ul> <li>underpinned by a legal framework that is publicly available and sufficiently</li> </ul>	clear; (ii) carried out in pursuit of	legitimate aims which are necessary and proportionate in a democratic society to	safeguard important objectives as also	recognised in EU/UK law (noting that proportionality	involves balancing any interference with fundamental privacy rights	with what are necessary and important public interests); and	(iii) subject to adequate and effective oversight from

# <sup>5</sup> 50 U.S.C. § 1801(e).

persons; (C) An entity that is openly acknowledged by a foreign government or governments to be directed and controlled by such foreign government; (D) A group engaged in international terrorism or activities in preparation therefor; (E) A foreign-based political organization, not substantially composed of US persons; (F) An entity that is directed and controlled by a foreign governments; or (G) An entity not substantially composed of US persons; (F) An entity that is directed and controlled by a foreign governments; or (G) An entity not substantially composed of US persons that is engaged in the international proliferation of weapons of mass destruction. 50 USC § <sup>6</sup> 'Foreign power' means: (A) A foreign government or any component thereof, whether or not recognized by the US; (B) A faction of a foreign nation or nations, not substantially composed of US 1801(a).

who: (A) Acts in the US as an officer or employee of a foreign power or a member of a foreign power, irrespective of whether the person is inside the US; (B) Acts for or on behalf of a foreign power that engages in clandestine intelligence activities in the US contrary to the interests of the US, when the circumstances indicate that such person may engage in such activities or when such person knowingly aids or abets any person in the conduct of such activities or knowingly conspires with any person to engage in such activities; (C) Engages in international terrorism or <sup>7</sup> There are two definitions in FISA for 'agent of a foreign power', one that applies to non-US persons only and one that applies to all persons, including US persons. It is important to note that the first definition, which applies only to non-US persons, is broader and less tied to criminal violations of US law. With respect to non-US persons, 'agent of a foreign power' is defined as a person activities in preparation therefore; (D) Engages in the international proliferation of weapons of mass destruction or activities in preparation therefore; (E) Engages in the international proliferation

courts or other independent authorities.Director of National Intelligence, in 2016, the US government had approximately 106,469 targets authorized for collection under Section 702. whole) and whether access can in practice be exercised by public authorities in light of legislation, litikilice a warrant for each individual, it still receives oversight in the form of the of the Foreign Intelligence Surveillance Court fits filterceives oversight in the form of the of the Foreign Intelligence surveillance for up to one year. <sup>9</sup> These certifications include government determines which individuals' communications may be acquired and limit the purpose of the surveillance to a specified type of foreign intelligence information.10Section 215 FISA communications and be activity both within non-US persons, and to activity both within				
courts or other independent authorities. The assessment will consider <b>pervasive surveillance activity</b> (across the destination country as a whole) and whether access can in practice be exercised by public authorities in light of legislation, legal powers, technical, financial and human resources at their disposal and of reported precedents.	Director of National Intelligence, in 2016, the US government had approximately 106,469 targets authorized for collection under Section 702, which is approximately .004% of the world's internet users and .001% of the world's population. <sup>8</sup>	Moreover, although Section 702 surveillance does not require a warrant for each individual, it still receives oversight in the form of the of the Foreign Intelligence Surveillance Court (FISC). Before the US government may acquire data under Section 702, the FISC generally must approve a written certification submitted by the Attornev General and the	Director of National Intelligence jointly authorizing the collection activities for up to one year. <sup>9</sup> These certifications include targeting procedures defining how the government determines which individuals' communications may be acquired and limit the purpose of the surveillance to a specified type of foreign intelligence information. <sup>10</sup>	Section 215 FISA Section 215 authorizes foreign intelligence related surveillance in respect of both US and non-US persons, and to activity both within
	courts or other independent authorities. The assessment will consider <b>pervasive surveillance activity</b> (across the destination country as a whole) and whether acress can in	practice be exercised by public authorities in light of legislation, legal powers, technical, financial and human resources at their disposal and of reported precedents.		

of weapons of mass destruction or activities in preparation therefore for or on behalf of a foreign power, or knowingly aids or abets any person in the conduct of such proliferation or activities in preparation therefor, or knowingly conspires with any person to engage in such proliferation or activities in preparation therefore. For all persons, including US persons, 'agent of a foreign power' is defined to mean a person who: (A) Knowingly engages in clandestine intelligence gathering activities for or on behalf of a foreign power, knowingly power, which activities involve or may involve a violation of the criminal statutes of the US; (B) Pursuant to the direction of an intelligence service or network of a foreign power, knowingly identity for or on behalf of a foreign power or, while in the US, knowingly assumes a false or fraudulent identity for or on behalf of a foreign power; (E) Knowingly aids or abets any person in the conduct of activities described in Subparagraph (A), (B) or (C) or knowingly conspires with any person to engage in activities described in Subparagraph (A), (B), or (C). 50 USC § 1801(b). Knowingly engages in sabotage or international terrorism or activities that are in preparation therefore for or on behalf of a foreign power; (D) Knowingly enters the US under a false or fraudulent engages in any other clandestine intelligence activities for or on behalf of such foreign power, which activities involve or are about to involve a violation of the criminal statutes of the US; (C)

<sup>8</sup> https://www.dni.gov/files/icotr/Section702-Basics-Infographic.pdf.

<sup>9</sup> 50 U.S.C. §§ 1881a(a),(g) 2018.

<sup>10</sup> Privacy and Civil Liberties Board FISA 702 Report at 6.

	and outside US borders. The nature and type	
	of information which may be collected is	
	however different from Section 702 - this is not	
	an electronically focused statute, but rather a	
	law directed to the production of business	
	records ("tangible things").	
	Notably, Section 215 contains stricter	
	safeguards than Section 702. Any request for	
	the production of records under Section 215	
	must be made to a judge within the FISC and	
	be presented in terms which set out the	
	specific "selection terms" of tangible things that	
	are to be ordered for production in terms that	
	detail with precision what is required and when	
	it must be produced – general requests must	
	not be made and bulk data collection is not	
	permitted.	
	EO 12,333	
	It is widely understood that surveillance activity	
	undertaken to obtain foreign intelligence	
	information outside the United States may be	
	effectively authorized by the President on an	
	almost unfettered basis. In this regard.	
	Evenitive Order 12 333 anverns collection of	
	foreign intelligence information outside the	
	I I I inited States It was considered by the CIEI I	
	to be relevant to the issue of data transfers to	
	the EII on the basis that it is understood to be	
	relied upon to intercept communications in	
	transit to the United States (e.g. travelling	
	though undersea Internet cables).	
	PPD-28	
	Presidential Policy Directive 28 ("PPD-28")	
	applies to surveillance conducted under EO	
	applies to sulveillance conjuncted under EO	
	12,333, and it attempts to introduce a degree	
	of proportionality (i.e. a requirement that	
	surveillance activities must be as tailored as	

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	In the limited areas where the US extends data privacy protections, there is evidence of active enforcement and often significant fines. In the surveillance context, judicial oversight (through the FISC) is applied to Section 702. However, the CJEU was critical of the high- level nature of this oversight, given that it operates at the level of approving an overall surveillance program (and not individual requests for communications data). There is no judicial oversight of the broad executive authority to intercept information in transit to the US under EO 12,333.
feasible) that benefits non-US as well as US persons. While PPD-28 may not constitute a binding law, arguments have been advanced that, as an order from the President, there is no reason to suspect that it is not complied with in practice by the Executive branch.	Both at the federal and state level, where privacy laws exist, there is supervision and regulation of privacy. For example, the Federal Trade Commission (FTC) enforces compliance with the FTC Act; the Office of Civil rights enforces HIPAA privacy and security rules; the FTC enforces the GLBA Privacy Rule; and the Federal Communications Commission enforces the GLBA Privacy Rule; and the Federal Communications Commission enforces TCPA. State Attorneys' General have a key role in enforcement of state security and privacy statutes (California settlement with Anthem Health for \$8.69 million; multi-state settlement with Equifax for approximately 600 million). Regarding supervision in the surveillance context, under Sections 702 and 215 there is supervision by the FISC, which is part of the independent judicial branch. However, under Section 702 the FISC approves an overall program of surveillance, it does not approve each individual request for surveillance data sent to an electronic communications provider under that program, nor each subsequent search / use of data received by the government in response to a request. Consequently, while there is judicial oversight under Section 702, it is necessarily high-level and does not extend to oversight of decisions to interfere with the communications of
	The <b>extent to which courts</b> , <b>regulators and/or supervisory</b> <b>authorities enforce the rule of</b> <b>law</b> and/or rights guaranteed in relation to the protection of data in an independent and effective manner, with evidence of meaningful resources and enforcement activity.
	2.3 Regulatory supervision

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	The US system generally does not include rights for an individual to pursue legal remedies in order to have access to personal data relating to him or her, or to obtain the rectification or erasure of such data. Accordingly, aside from specific sectors or state laws (such as CCPA), data protection laws equivalent to the GDPR or the Law Enforcement Directive do not exist in the US to give data subjects fundamental rights to access, erase or amend their data, and to have these rights enforced in court. The rights to bring a claim that do exist are rights to file a civil suit in respect of actual harm suffered. There is a disparity here between the European understanding of effective rights and remedies for data protection infringements – which includes not just a right to compensation for material or non- material damage, but also must include effective rights to access, amend or erase data – and the US
individual persons within the context of an approved program. In terms of EO 12,333, PPD-28 requires that significant compliance issues (in relation to the surveillance procedures which agencies are required to maintain) involving a non-US person are reported to the Director of National Intelligence, and the DNI is required to consult with the US Secretary of State to determine whether to notify the relevant foreign government.	Some privacy laws (for example, credit reporting; marketing and electronic communications; call recording and cable communications privacy laws; the CCPA) may be enforced at least in part through private rights of action, either individual actions for significant statutory damages and attorney's fees. Moreover, private plaintiffs may also bring common law invasion of privacy claims, permitting state law actions against private companies. Injunctive relief is also permitted under these laws. As noted in the <i>Schrems II</i> case, effective remedies with respect to claims against the US government for surveillance activities are complicated by constitutional issues (such as standing to bring a claim under Article III) well as a lack of cognizable damage in many cases for privacy violations. Claims may be brought with somewhat less difficulty under FISA in respect of surveillance performed without statutory or Presidential authorization, misuse of surveillance information, or unlawful disclosure of surveillance information by an individual officer); in many cases redress is granted in the form of a settlement. Further,
	the extent to which individuals can easily and effectively <b>enforce</b> <b>rights</b> and <b>seek redress</b> by raising complaints, claims and / or appeal and enforce decisions in relation to both data protection infringements and public disclosure / surveillance activity through judicial and/or administrative processes (e.g., help from local data protection authorities) including whether redress mechanisms can be effectively applied in practice and are not thwarted by local laws and/or practices. This section will also consider whether data subjects can secure self-help remedies – e.g., right to secure access to or require erasure of personal data files, and whether the breach of local laws can be effectively invoked and relied on by individuals.
	2.4 Rights of redress

		serr-nelp remeates are immed and in the surveillance context there are knowledge limitations that potentially impact remedies.	understanding of civil lawsuits, in which actual (i.e. material) harm must be established. Significantly, it is generally accepted that the protection of the Fourth Amendment (which guarantees a right of privacy which must be respected by the US government) can only be invoked by US citizens.	
2.5 International treaties	The extent to which the country has concluded <b>international treaties</b> and related commitments on handling of personal data to support the safeguarding of data – this will include consideration both of the existence of: (i) international treaties that relate to the protection of data generally consistent with principles enshrined in EEA/UK law, and (ii) any specific arrangements concluded to provide safeguards in relation to country-to-country transfers (e.g., UK-U.S. Bilateral Data Access Agreement which brings into effect the 'quashing' provisions of 18 USC § 2703(h)(2))	There are a number of treaties, including Mutual Legal Assistance Treaties (MLATs) that can have an impact on the gathering of foreign nationals' data for use by US law enforcement. Moreover, there are certain arrangements to be considered on a country-by-country basis that may provide additional assurances (such as cooperation in the area of securities laws enforcement). However, data gathered in the US is likely not subject to treaty. The US is not subject to any data protection treaties that are of note, such as OECD Treaty 108, or other similar treaties.	The US has limited commitments in this area and appears to clearly fall short of equivalence with the EEA.	4
Total			2(	20

## STEP 2: ASSESSMENTS OF GENERAL LAWS AND PRACTICES IN THE DESTINATION COUNTRY

Score	Features
~	High level of safeguards in place, essentially equivalent to the level available in the EEA
2	High level of safeguards in place, but below the level of those available in the EEA
e	Some safeguards in place, but materially below the level of those available in the EEA
4	Very limited safeguards in place, significantly below the level of those available in the EEA
5	No safeguards in place (lowest level of equivalence)

		STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED BY: DLA Piper		
Criteria	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
2.1 Regulation on the personal data	The extent to which <b>local laws</b> offer clear, precise and accessible legal safeguards to the processing of personal data equivalent to the protections offered in the EEA /UK. This will include an analysis of the local laws and practices, including constitutional rights to privacy and how those laws apply both to the data importer but also third parties (e.g. law enforcement) who may seek to secure access to the data following transfer. In this context, note the EEA / UK has a developed law that	Legal Framework Data privacy and protection is regulated in Australia by a combination of federal, state and territory laws. The <i>Privacy Act 1988</i> (Cth) (Privacy Act) which includes the Australian Privacy Principles (APPs) is the core privacy legislation in Australia. The Privacy Act applies to private sector entities (with an annual turnover of >AU\$3m) and all Commonwealth Government (including ACT) agencies, as well other specific businesses not meeting the turnover thresholds, including private health service providers processing health information, credit-reporting bodies and businesses that sell or purchase personal information (APP entities).	The Privacy Act does have areas of overlap with the GDPR, including in relation to its data protection principles, and its definition of personal information. However, the majority of the Privacy Act is closer to the previous Directive 95/46/EC than GDPR. Whilst the breadth of application of the Privacy Act is not as wide (for example, the turnover based limit on application to private sector entities), this is compensated in part by additional sector and state	<b>ო</b>

<sup>1</sup> The assessment will be based first on legislation publicly available. Sources and information should be relevant, objective, reliable, verifiable and publicly available or otherwise accessible.

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specific laws. There are also subject specific laws in areas that mirror equivalent laws in the EU (e.g. on electronic marketing). Whilst the Privacy Act does create some data subject rights, these are not as comprehensive as those under the GDPR. Further, there is no fundamental or constitutional right to privacy or data protection (equivalent to rights under the EU Charter and the European Convention on Human Rights).	
Most states and territories also have their own (broadly aligned) privacy legislation which are applicable to state government agencies and privact businesses that contract with them. In addition to the Privacy Act, APPs and state privacy laws, there is also specific sector-foruscy Act, APPs and state privacy laws, there is also specific sector-foruscy Act, APPs and state privacy laws, there is also specific sector-foruscy Act, APPs and state privacy laws, there is also specific sector-foruscy Act, APPs and state privacy and information risk; for example, in the health sector and in the telecommunications sector. There is also other legislation at the Commonwealth and state level that is relevant to privacy and the use of personal information, including the <i>Spam Act 2003 (Chr)</i> (lefectronic marketing), the <i>Do Not Call Register Act 2006 (Chr)</i> (unsolicited commercial calls to listed phone numbers), criminal laws prohibiting unauthorised access to computer systems and various surveillance and listening-devices legislation (as further outlined in section 2 below). More recently, the <i>Treasury Laws Amendment (Consumer Data Right) Act 2019</i> (CDR) introduces a consumer-directed data portability mechanism, applicable currently to the banking sector (see further, specific regulators have issued (non-statutory / non-mandatory) standards that instruct regulated entities with regard to specified data protection measures that should be put in place. For example, the Australian Prudential and Regulated a nitroduced a number of 'prudential' standards on privacy and information fisk, and the Australian Securities and Investment Commission (ASIC) regulates in a pusinesses in Australia from engaging in certain forms of conduct in connection with the supply or acquisition of goods or services. This includes in and the Australian Consumer Law (ACL) prohibits applicable businesses (including digital platforms) carrying on businesses in Qustralia from engaging in certain forms of conduct unconnection with the supply or acquisitio	Induce as to now users used as conjected and unscreased, including under privacy policies and terms of use. (See further below re ACCC's recent case against Google for alleged breach of privacy practices). Scope of Privacy Act
specifically recognises legal rights to protection of "personal data" consistent with the principles of data protection set out in OECD Convention 108+. In particular, the assessment will consider: (j) whether there are any relevant local laws laying down requirements to disclose personal data to public authorities powers of authorities powers of access to personal data; (j) where relevant local laws formally meet EEA /UK standards on fundamental rights and freedoms and the necessity and proportionality of restrictions, whether the practices of public authorities clearly indicate that they do not normally apply/comply with the legislation that governs, in principle, their activities; and (ji) where relevant local law formally apply/comply with the legislation that governs in principle, their activities; and (ji) where relevant local law indicate that they do not normally apply/comply with the legislation that governs, in principle, their activities; and (ji) where relevant local law indicate that they do not normally apply/comply with the legislation that governs, in principle, their activities; and (jii) where relevant local law may be lacking, are there any indications of practices in force that are	law.

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STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED BY: DLA Piper	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	The Privacy Act regulates the handling of personal information, defined as information or an opinion about an identified individual, or an individual who is reasonably identifiable, whether the information or opinion is true or not and whether recorded in a material form or not.	This definition has broad similarities with the definition of personal data under the EU GDPR, which applies to 'information relating to and identified or identifiable natural person', though at present it is unclear whether the Privacy Act definition includes metadata such as IP addresses, other location data, or other technical data – this is likely to be changed under the Government Privacy Act Review (see <i>further below</i> ).	The APPs set out standards, rights and obligations for the handling, including collection, use, disclosure, security, access and correction of personal information (including sensitive information), adopting a reasonableness approach in many cases.	Broadly, the 13 principles require reasonable steps to be taken by APP entities to implement practices, procedures and systems to ensure compliance with the Privacy Act, including to:	<ul> <li>implement procedures that ensure open and transparent management of personal information, including to notify individuals, and to make available up-to-date privacy policies and collection statements;</li> </ul>	<ul> <li>comply with certain restrictions when collecting personal data, including to obtain consent to the collection of sensitive personal information;</li> </ul>	<ul> <li>subject to certain exceptions, to not use or disclose personal information for a secondary purpose without consent;</li> </ul>	<ul> <li>ensure the quality of personal information, including that it is accurate, up to date and complete;</li> </ul>	<ul> <li>destroy personal information or to ensure it is de-identified if no longer needed;</li> </ul>	<ul> <li>secure and protect the personal data they hold from misuse, interference and loss, and from unauthorised access, modification or disclosure: and</li> </ul>
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STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED BY: DLA Piper	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	<ul> <li>take reasonable steps to ensure that an overseas recipient does not breach the APPs when disclosing information cross- border, and subject to certain exceptions, the APP entity will generally remain liable for any breach of the APPs committed by the overseas recipient.</li> </ul>	Individuals are also granted some limited direct rights under the APPs, including a right of access to, and correction of their personal information in certain circumstances ( <b>see below</b> ).	Further, under the <i>Privacy Amendment</i> ( <i>Notifiable Data Breaches</i> ) <i>Act</i> 2017 (Cth) ( <b>Notifiable Data Breach Regime</b> ) which amends Part IIIC of the Privacy Act, obligations are imposed on APP entities who experience a data breach to conduct an assessment to determine whether a suspected breach is an 'eligible data breach'. An APP entity must notify the Australian Privacy and Information Commissioner (the data breach' or if the Commissioner directs the entity to do so. An eligible data breach' or if the Commissioner directs the entity to do so. An eligible data breach' or if the Commissioner directs the entity to do so. An eligible data breach' or if the Commissioner directs the netity to do so. An eligible data breach' or if the Commissioner directs the netity to result in the serious harm to an information where the breach is likely to result in the unit through remedial action has not been successful).	Law Enforcement	Enforcement bodies (including law enforcement agencies, such as the Australian Federal Police) are granted certain exemptions to the collection, use and disclosure requirements of the Privacy Act and APPs (and under relevant state and territories legislation), including where the collection of such information is reasonably considered as necessary for 'law enforcement' purposes, including where such information is authorised or required under subpoena.	Constitutional Right to Privacy?	Currently, there is no constitutional right to privacy akin to that set out in the EU/UK under the OECD Convention 108+. There is also no common law tort of invasion of privacy in Australia, although there has
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		STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED BY: DLA Piper		
Criteria	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
		been some suggestion recently that the Government, regulators and the courts may be open to such developments.		
		In December 2019, the Commonwealth Government made commitments as part of its response to the final report of the ACCC's Digital Platforms' Inquiry), to introduce certain changes to the Privacy Act, and to carry out an overall review and reform of the regime (scheduled in 2020-2021) ( <b>Privacy Act</b> <b>Review</b> ), including to widen the definition of 'personal information,' expand notification requirements, amend consent requirements and pro-consumer defaults, as well as introduce new direct rights of action for individuals - which could operate in tandem with a new statutory tort of privacy, atthough this is not yet confirmed.		
		It is expected that new legislation will be prepared in the coming years to (at least) increase civil penalties for breach (to align with existing consumer law regime) and to introduce a binding online privacy code for social media and other online platforms. To date, no new legislation has been prepared by the Government. The wider scheduled Privacy Act Review is likely to be postponed also following current Covid-19 priorities.		
2.2 Regulation of public authority access to private data	The extent to which the <b>level of</b> access legally permitted and conducted in practice by public authorities to personal data (e.g. to secure disclosure of, or conduct surveillance on, private information for national security purposes or other reasons) can be regarded as a justifiable interference and is subject to safeguards equivalent to that within the EU, in light of legislation, practice and reported precedents. This will consider specifically whether the right of	The regulation of public authority access to personal information is covered in a number of legislative acts as set out below. In general, there is limited information available in respect of the number of access requests and the types of requests made to private data given that it relates generally to surveillance and law enforcement. <b>Encryption Act</b> Under the recently enacted, <i>Telecommunications and Other</i> <i>Legislation Amendment (Assistance and Access) Act 2018</i> (Cth) (' <b>AA</b> ' <b>or 'Encryption' Act</b> 1997 (Cth), a number of obligations are imposed on Designated Communications Providers (DCPs) to provide assistance and access to Australia's intelligence and security organisations in connection with encrypted communications services provided by those DCPs.	The Encyption Act is problematic for a few reasons. First, the notices issued under the Act (TCNs, TANs, TARs) are vague in terms of scope, and may therefore present challenges in terms of the 'quality of law' requirement for surveillance powers. Second, there is the possibility that notices could be used in a way that would directly undermine security an increase the likelihood of government access to	4

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	Comparative analysis	transferred data (e.g. the removal of encryption).	However, it is notable that the use of TANs or TCNs	appears, in practice, to have been limited to date.	More broadly the	Telecommunications Act	does create a legal	enforcement and intelligence	agency interception of	communications and access	This framework includes	privacy protective controls in	a number of areas (tor example. application of	powers to limited defined	agencies). However, these	connois could be more robust in some areas (for	example, certain powers	under the Act are warrantless creating a	potential issue with the	'subject to judicial oversight'		It is notable that the Privacy	Act regime extends (with exemptions / limitations) to	law enforcement, in a	manner which broadly parallels the Law	Enforcement Directive approach in the EU.
STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED RY: DI A Piner	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	and appears to be intended to appl the global supply chain, from carri oviders. It includes:	ners of telecommunications net stralia);	<ul> <li>carriage service providers (i.e. entities that sell telecommunications services delivered over a carrier's</li> </ul>	network in Australia);	<ul> <li>entities that manufacture or supply customer equipment (e.g. device headsets) for use, or likely to be used, in Australia; and</li> </ul>	entities that supply electronic services to end-users in	Australia (e.g. websites, chat services, secure messaging applications hosting services such as cloud and web hosting	services, peer-to-peer sharing platforms and email),	as well as entities which that facilitate, or provide services ancillary or	Incuential to any of the above. Notably, as drafted – and confittined by the Department of Home Affairs - a notice may be served on an	individual if that individual is a sole-trader and their own corporate	entity.	The leaislation was rushed through Parliament by the Commonwealth	Government and there are ongoing criticisms and challenges to the	broad scope of the news laws and the wide powers conferred on	drafting, lack of effective judicial oversight or authorisation in many	cases under the regime, and uncertainty around its overall intended	burbose.	Key Scope		Under the Encryption Act, a DCP must comply with:		compulsory technical assistance notices (TANs) and     toohology computer, positions (TCMs) included cathors by the	Director-General of Security or the head of an interception	agency (in the case of IANs) or the Attorney General (in the case of TCNs); and
	Assessment to carry out	public authorities to access data is: (i) underninned by a legal		clear;	(ii) carried out in pursuit of	legumate alms which are necessary and	proportionate in a	democratic society to safeguard important	objectives as also	recognised in EU/UK law	(inclining unat proportionality involves balancing anv	interference with	fundamental privacy rights with what are necessary	and important public	interests); and	(iii) subject to adequate and	effective oversight from	independent authorities.	The assessment will consider	pervasive surveillance activity	across the destination country as whole) and whether access can	in practice be exercised by public	authorities in light of legislation,	legal powers, tecrinical, intancial and human resources at their	disposal and of reported	bieceneiro.
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Criteria Assessment	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
		<ul> <li>voluntary technical assistance requests (TARs) to certain designated agencies (including the ASIO, Australian Secret Intelligence Service and Australian Signals Directorate).</li> </ul>	However, along with the UK and the US, Australia participates in the 'five eves'	
		The TAN and TCN notices require DCPs to provide assistance to, or do certain listed 'acts of things', with relevant law enforcement and interception agencies. The 'acts of things' are broad lists narrowed only to safeguarding national security or assisting the enforcement of	intelligence alliance, the details of which (as revealed in a number of public leaks), has created some degree of	
		serious criminal offences of Australia or a foreign country. In the case of TARs a request can be made for any assistance – not limited to 'listed acts or things'. Although these are voluntary requests, the only stated limitation is that the request must relate to a 'relevant objective' of the requesting agency (e.g. safeguarding national security or assisting the enforcement of serious criminal offences in Australia or a	uncertainty about the proportionality of Australian surveillance activities.	
		foreign country). The Act prescribes that such notices and requests must take into account the legitimate interests of the provider - although it is unclear		
		how this would be applied in practice - national security interests, the interests of law enforcement, the expectations of the community with respect to privacy and cyber security and the availability of other means of achieving the intended outcome, among other		
		consuct autority. They must also be reasonable, proportionate, practicable and technically feasible. In the case of TCNs, there are some additional oversight measures		
		requiring the AG to consult with the affected provider prior to issuing a notice and to determine procedures and arrangements relating to requests for technical capability notices.		
		Concerns have however been raised on these compulsory notices about the lack of judicial oversight and authorisation prior to issuance, security issues, whether compliance is actually technically possible, as well as, in the case of TCNs, the requirement on a provider to build		

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Criteria	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
		with a 'listed act or thing' (the latter being likely intended to be used in connection with a TAN). <sup>2</sup>		
		Although the Government has declared that TANs and TCNs will not require a DCP to implement or build 'systemic weaknesses' in forms		
		or electronic protection (i.e. backgoors), not can they prevent a DCP from fixing identified weaknesses or 'systematic vulnerability', despite such assurances, the definition of 'systemic weakness' and 'systemic		
		vulnerability' in the Encryption Act are broadly and ambiguously defined (as rushed late inclusions), and the risk of such back-door' capability appears to remain a key concern.		
		The Act is currently undergoing challenge by the Federal opposition		
		through Parliament in the form of the <i>Telecommunications</i> <i>Amendment</i> ( <i>Repairing Assistance and Access</i> ) <i>Bill 2019</i> . This Bill includes proposed changes to the definitions of 'systemic weakness'		
		and 'systemic vulnerability' to remove relevant ambiguity; new bars to certain requests which could create 'systematic vulnerabilities' (or back-doors) in the future' removal of non-exhaustive type lancuade		
		and also seeks to impose a requirement for clear judicial oversight and authorisation of TANs and TCNs prior to issue. The Bill is		
		currently before the Senate		
		That said, despite the wide ambit of the Encryption Act and the controversial powers conferred on enforcement agencies, in practice,		
		there have been no reported cases of LANs or LCNs being required by authorities (at least as at August 2020). <sup>3</sup>		
		Telecommunications Sector - TIA Act		
		Applicable specifically to telecommunications providers, the <i>Telecommunications (Interception and Access) Act 197</i> 9 ( <b>TIA</b> <b>Act</b> ) permits national security and law enforcement agencies to		

and https://www.inslm.gov.au/sites/default/files/2020-<sup>2</sup> https://www.theguardian.com/australia-news/2020/jul/09/australias-world-first-anti-encryption-law-should-be-overhauled-independent-monitor-says 07/INSLM\_Review\_TOLA\_related\_matters.pdf

 $^{3}\ https://www.snh.com.au/politics/federal/encryption-powers-not-used-by-asio-afp-as-tech-companies-volunteer-help-20200807-p55jhl.html$ 

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STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED BY: DLA Piper	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	access information held by communications providers in the investigation of serious crime, including to obtain warrants to intercept communications and access stored communications and authorise the disclosure of data.	The TIA Act includes a requirement for carriers, carriage service providers and ISPs to retain certain metadata for a period of 2 (two) years from its collection. The information which is required to be retained under the TIA Act includes names and addresses, the dates, times and duration of communications and locations at the start and end of calls. Metadata is considered to be personal information for the purpose of the Privacy Act insofar as it relates to an individual and, under the TIA Act, stored metadata must be encrypted. It expressly excludes the contents and substance of a communication and information that was obtained by the service provider only as a result of providing the service (which is intended to refer to internet browsing histories).	Access to metadata is limited to defined agencies. However, with the exception of access to a journalist's data for the purpose of identifying a source, no warrant is required for relevant agencies to access stored metadata.	Surveillance Devices Act (Cth) & State Legislation	The <i>Surveillance Devices Act</i> (2004) (Cth) governs the use of surveillance devices by public sector agencies, pursuant to which an eligible agency can apply for a warrant to use a surveillance device to investigate a relevant offence. A the state and territory level, there is also a patchwork of additional laws that regulate monitoring and surveillance, including the <i>Crimes (Surveillance Devices) Act, 2010 (ACT), Surveillance Devices Act, 2007 (NT and NSW) all of</i> which restrict the installation, use and retrieval of surveillance devices, as well as <i>the Workplace Surveillance Act 2005 (NSW)</i> to regulate the use of camera, audio, computer surveillance and geographical tracking.
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Criteria	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
		There is currently the <i>Surveillance Legislation Amendment (Identify and Disrupt) Bill 2020</i> which is proposed to amend the <i>Surveillance Devices Act (2004)</i> in respect of particular crimes (ie, identity theft, child abuse etc) which will permit law enforcement to disrupt data, collect intelligence on networks and take over accounts of individuals. While each state differs, generally speaking, the use of surveillance		
		and/or listening often requires individuals' consent and/or notification. However, exceptions may apply, including where the use of such a device is necessary to protect a party's lawful interests, for an enforcement-related purpose, or where it is in the public interest. Specific obligations may also be impacted by whether the person using the surveillance or listening device is a party to the activity or conversation and the location of the activity or conversation (e.g. in a private home or space).		
2.3 Regulatory supervision	The extent to which courts, regulators and/or supervisory authorities enforce the rule of law and/or rights guaranteed in	The Commissioner is responsible for the enforcement of the Privacy Act and the APPs, which confer on the Commissioner and the Office of the Australian Information Commissioner (OAIC) a range of privacy regulatory powers.	The Commissioner appears to be an independent regulator, with a broad range of powers essentially	m
	relation to the protection of data in an independent and effective manner, with evidence of meaningful resources and enforcement activity.	The Commissioner must act fairly, independently and in accordance with principles of natural justice (or procedural fairness) when investigating any alleged interference with privacy or other privacy breach either following a direct complaint, or on the Commissioner's own initiative through a Commissioner initiated investigation. Allegations of contravention are given individual consideration and have regard to all relevant circumstances. The OAIC must also act in accordance with the Legal Services Directions, 2005.	supervisory authority. The total extent of its powers (including in respect of its ability to penalize infringements via fines) may not be as robust as for an EU authority, although this is to some extent mitigated by the parallel activity of the	
		Enforcement powers available to the Commissioner range from less serious to more serious regulatory action, including carrying out investigations, making determinations on a complaint, accepting enforceable undertakings, bringing proceedings to enforce determinations and enforceable undertakings, seeking injunctions and applying to the Courts for civil penalty orders for serious and repeated interferences with privacy. It is open to the Commissioner to use a combination of privacy regulatory powers to address a particular matter.	ACCC. However, the Commissioner is relatively inactive and the value of fines issued to date are low.	

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	Comparative analysis				
STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED BY: DLA Piper	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	After investigating a complaint, the Commissioner may attempt, by conciliation, to settle, or it may dismiss the complaint or find the complaint substantiated and make determinations including declarations that the organization rectify its conduct or that the organization redress any loss or damage suffered by the complainant (which can include non-pecuniary loss such as awards for stress and/or humiliation). If a determination is made, either of the Commission or an the individual can commence proceedings to enforce the determination	Furthermore, fines of up to AU\$420,000 for an individual and AU\$2.1 million for corporations may be requested by the Commissioner and imposed by the Counts for serious or repeated interferences with the privacy of individuals. These penalties are regulatory fines and cannot be used to compensate individuals. As noted above, it is expected that the Privacy Act will be amended in coming years to (at least) increase civil penalties for breach (to align with existing consumer law regime) and give the Commissioner powers to impose fines of up to ~AU60,000 without the need for court proceedings.	The Commissioner is relatively active in its pursuit of determinations <sup>4</sup> and enforceable undertakings <sup>5</sup> against Australian businesses, although its preferred approach is to work with entities to encourage and facilitate compliance with an entity's obligations under the Privacy Act before taking enforceable undertakings are available in footnotes 3 and 4 – the OAIC publishes recent determinations and enforceable undertakings on its website. The determinations and enforceable undertakings relate to breaches of the Privacy Act and with interfering with individual's privacy.	For example, the Department of Health gave an enforceable undertaking to the OAIC after publishing details online that were reasonably identifiable that it would conduct an independent review
	Assessment to carry out				
	Criteria				

<sup>&</sup>lt;sup>4</sup> https://www.oaic.gov.au/privacy/privacy-decisions/privacy-determinations/

 $<sup>^{5}\</sup> https://www.oaic.gov.au/privacy/privacy-decisions/enforceable-undertakings/$ 

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	Score				
	Comparative analysis				
STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED BY: DLA Piper	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	into its handling of personal information and then implement any recommendations arising out of that review.	Statistics on the number of determinations or average awards are not made public.	Additional Regulator Action & Courts	Most recently, the Australian Competition and Consumer Commission (ACCC) has taken two separate Federal Court proceedings under Section 18 of the Australian Consumer Law (ACL) against Google LLC alleging that it had engaged in misleading and deceptive conduct in its collection of users' location data, and (as recently as last month) failing to disclose changes to its privacy policy about the way it collects and uses consumer personal information. <sup>6</sup> This is the first time a regulator, other than the OAIC, has taken a direct action against an organisation for a breach of privacy practices. The relative significant of these cases, in addition to the high profile plaintiff, is having a more active and better resourced regulator in the ACCC and the increased penalties under the ACL that can be imposed for breach the increased penalties under the ACL that can be imposed for breach the increased penalties under the ACC (in particular in the privacy practices of Australian businessues the value of any benefit gained by the entity's annual domestic turnover. These suits against Google are expected to be the first in a multiple enforcement actions to be taken by the ACC (in particular in the pursual of competition and consumer issues relating to digital platforms) on the handling and use of personal information and the pursual of competition and consumer issues relating to digital platforms) on the handling and use of personal information and the pursues of the scope of penalties under ACL (as noted above). However, as yet no legislation has been introduced to implement this proposal.
	Assessment to carry out				
	Criteria				

<sup>&</sup>lt;sup>6</sup> https://www.accc.gov.au/media-release/google-misled-consumers-about-the-collection-and-use-of-location-data

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		STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED BY: DLA Piper		
	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
2.4 Rights of redress	The extent to which individuals can easily and effectively <b>enforce</b> <b>rights</b> and <b>seek redress</b> by raising complaints, claims and / or appeal and enforce decisions in relation to both data protection infringements and public disclosure / surveillance activity through judicial and/or administrative processes (e.g. help from local data protection authorities) including whether redress mechanisms can be effectively applied in practice and are not thwarted by local laws and/or practices. This section will also consider whether data subjects can secure self-help remedies – e.g. right to secure access to or require erasure of personal data files, and whether the breach of local laws can be effectively invoked and relied on by individuals.	As noted above, an individual's right of recourse under the Privacy Act largely consists of a right to complain to the Commissioner about an act or practice that may interfere with their privacy, to apply for enforcement of a determination made by the Commissioner, or to seek an injunction in respect of conduct that breaches the Privacy Act. See further under footnotes 3 and 4 further information of recent determinations and enforcement actions undertaken by the OAIC. There are no current actions in relation to public disclosure / sucveillance activity. These primarily relate to infingements due to breaches of the Privacy Act. For example, an enforceable undertaking was provided by Vilson Asset Management to the OAIC in respect of its collection of personal information which was not necessary for its functions and activities. <sup>7</sup> In addition to rights of complaint to the Commissioner, individuals have rights under the Privacy Act to access their personal information - subject to certain exemptions, an APP entity must provide access within a reasonable period (usually 30 days). Individuals also have rights to request the correction of inaccurate information held about them, and to stop records (including personal information) held about them from applicable public sector agencies. Further, the Consumer Data Right Act provides for an additional consumer-directed data portability mechanism which allows individuals to access cretain data held about, or related to, them by designated organisations, and direct that data to be transferred to relevant accredited third parties. This right enhances existing rights of access granted to individuals, with energy and telecoms and the consumer-directed data portability mechanism which allows individuals to access cretain data held about, or related to, them by designated organisations, and direct that data to be transferred to relevant accredited third parties. This right enhances existing rights of access granted to individuals, but also to business consumers and related prod	The individual right of complaint under the Privacy Act provides for a clear mechanism of redress, and (as in the EU) the Commissioner can take account of both material and non-material damage. However, as a mechanism of redress, the right of complaint is not as direct as the statutory right to complaint is not as direct and applications may be required the route is not as direct and applications may be required to enforce a determination made by the Commissioner. As noted above, whilst data subject rights exist under Australian law, these are limited and not as extensive as in the EU.	۳

 $<sup>^7</sup>$  https://www.oaic.gov.au/privacy/privacy-decisions/enforceable-undertakings/wilson-asset-management-enforceable-undertaking/

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LIA	se include Comparative analysis Score	thin the on Act (in the e.g. as sole- ight by al review.	of the kind There are no international at <i>nent</i> and treaties comparable to a lin March However, the OAIC's convention 108+ to note. However, the OAIC's participation in the APEC Privacy Framework and the Privacy Framework and the Cross-border Privacy Enforcement Arrangement does provide for some degree of additional ateral protection. <i>CLOUD Act</i> executed in certain protection. <i>Cloud Act</i> and vice-and vice of additional ateral protection. <i>Cloud Act</i> ateral protection. <i>Cloud Act</i> ateral ateral protection.
STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED BY: DLA Piper	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	access, with consent, a broader range of information within the designated sectors than is provided for by APP 12. Rights of individual access to appeal under the Encryption Act (in the circumstances where notices are issued to individuals, e.g. as sole-traders) are generally limited to re-assessment or oversight by technical officers, or the Ombudsman, with limited judicial review.	Australia has not as yet concluded international treaties of the kind noted, but the <i>Telecommunications Legislation Amendment</i> ( <i>International Production Orders</i> ) <i>Bill 2020</i> was released in March 2020, and is currently before the Federal Parliament for review. The Bill proposes to amend the TIA by establishing a framework to give effect to " <i>future bilateral and multilateral agreements for</i> <i>reciprocal cross-border access to electronic information and</i> <i>communications data</i> ". The Bill is a pre-condition to obtain (a first) proposed bilateral agreement with the USA in order to implement the <i>US CLOUD Act</i> (similar to the UK-US Bilateral Data Access Agreement executed in 2019). 2019). If legislated, the act would compel Australian 'designated communications providers' (as defined there) (DCPs) to hand over electronic information, including stored communications and telecommunications data to, for example, US authorities, and vice- versa, if presented with international production orders for interception (e.g. a warrant or subpoena) by Australian law enforcement agencies or the courts. It would also allow them to be able to respond to orders from the US for access to electronic information, although providers from the US for access to electronic information and telecommunications data to, for example, US authorities, and vice- versa, if presented with international production orders for interception (e.g. a warrant or subpoena) by Australian law enforcement agencies or the courts. It would also allow them to be able to respond to orders from the US for access to electronic information, although providers for the proposed issue on DCPs bypasses existing mutual assistance access processes between Australia and other foreign governments (e.g. as established under the <i>Mutual Assistance in Criminal Matters</i> <i>Act, 1987</i> ).
0,	Assessment to carry out		The extent to which the country has concluded international treaties and related commitments on handling of personal data to support the safeguarding of data – this will include consideration both of the existence of: (i) international treaties that relate to the protection of data generally consistent with principles enshrined in EU/UK law, and (ii) any specific arrangements concluded to provide safeguards in relation to country to country transfers (e.g. UK-U.S. Bilateral Data Access Agreement which brings into effect the 'quashing' provisions of 18 USC § 2703(h)(2))
	Criteria		2.5 International treaties

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		STEP 2 JURISDICTIONAL ANALYSIS FOR: AUSTRALIA PREPARED BY: DLA Piper		
Criteria	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
		<ul> <li>Separately, the OAIC is a member of a number of non-binding / enforceable collaboration frameworks and co-operation arrangements, including:</li> <li>APEC Privacy Framework on information privacy protection across member economies;</li> <li>Cross-border Privacy Enforcement Arrangement - a framework for privacy regulators to cooperate, and to seek information and advice from each other on cross-border enforcement matters;</li> <li>Global Cross Border Enforcement Cooperation Arrangement since October 2015 to facilitate cooperation and collaboration in the enforcement activities of global privacy enforcement authorities.</li> </ul>		
Total				16

## STEP 2: ASSESSMENTS OF GENERAL LAWS AND PRACTICES IN THE DESTINATION COUNTRY

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Score	Features
<del>, -</del>	High level of safeguards in place, essentially equivalent to the level available in the EEA/UK
2	High level of safeguards in place, but below the level of those available in the EEA/UK
S	Some safeguards in place, but materially below the level of those available in the EEA/UK
4	Very limited safeguards in place, significantly below the level of those available in the EEA/UK
5	No safeguards in place (lowest level of equivalence)

## Current as of 22<sup>nd</sup> Sept. 2021

		STEP 2 JURISDICTIONAL ANALYSIS FOR INDIA PREPARED BY: J. Sagar Associates (India) and DLA Piper		
Criteria	Assessment to carry out	Laws and practices in the destination country (please include sources of information) $^{1}$	Comparative analysis	Score
2.1 Regulation on the personal data	The extent to which <b>local laws</b> offer clear, precise and accessible legal safeguards to the processing of personal data equivalent to the protections offered in the EEA / UK. This will include an analysis of the local laws and practices, including constitutional rights to privacy and how those laws apply both to the data importer but also third parties (e.g. law enforcement) who may seek to	<i>Right to privacy is a constitutional right</i> The right to privacy is a recognized constitutional right in India. In 2017, the apex court, the Supreme Court of India, declared that right to privacy is a constitutional right and is part of Article 21 (Protection of life and personal liberty). Fundamental rights (including right to privacy) may only be enforced against the state or instrumentality of state. The term 'state' includes the Parliament, the executive and the Judiciary. As such, an act of parliament (for e.g. a law or direction) or executive (for e.g. investigating officer) which violates fundamental right may give the person right to approach the courts to strike down such law or executive action. <b>Legislative framework</b>	There are very limited safeguards in place to protect personal data. Although the PDP Bill has been introduced, it has been delayed due to Covid-19 and has not come into law yet. <sup>2</sup> As such, there is no equivalent legislative instrument governing data protection, (other than what is contained in the Privacy Rules), and there is no specific regulatory authority in charge of enforcement. However, the right	4

The assessment will be based first on legislation publicly available. Sources and information should be relevant, objective, reliable, verifiable and publicly available or otherwise accessible. DLA Piper can also provide a jurisdictional analysis for India based on the passing of the PDP Bill in its current format. 2 ~

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	Assessment to carry out information) <sup>1</sup> secure access to the data following transfer. The holiowing transfer and presental at the second logy of the IT / Technology of the transmitter and the principles of data protection set of the area any transfer. The transmitter and the transmitter and the technology of the transmitter and the provers of access to personal and the technology of restrictions, whether the receives, positive Personal information and the provens, in principle, their activities; and the provident of the technology of the available to the provident of the technology of technology of the technology of technology of the technology of the technology of the technology of technology of the technology of t	<b>STEP 2 JURRSDICTIONAL ANALYSIS FOR INDIA PREPARED BY: J. Sagar Associates (India) and DLA Piper Laws and practices in the destination country (please include sources of information)</b> <sup>1</sup> As of today's date, India has a very skeletal framework on privacy and data protection. The Information Technology Act, 2000 (IT Act), and the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or information, Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or information, Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or information fuelse, 2011 (Privacy Kules) issued under Section and a protection in India. India does nave on the anvit the Personal Data Protection Bill, Which Will enclapable due to the COVID-19 pandemic, the Indian Government is passing orders emphasizing the need for data sovereiginty, guarding against 'data imperialism' by foreign the need for data sovereiginty, guarding against 'data imperialism' by foreign the rechnology the recomplexes and ensuring that data generated by Indian clitzens is utilised for their welfare. <b>Subject matter of the law</b> A body corporate or any person who on behalf of a body corporate collects. There are different sets of compliances which apply to entities engaging in presonal information and sensitive personal data or information. By way of beoxy and presonal information and sensitive personal information neares any information for their withen the requirements set out under the IT Act and Privacy Rules. Sensitive Personal Data or information (BPD) Matter (Brittern Sciences, possess, stores, as a set on the and privacy Rules. Sensitive personal information relating to (B) password. (B) financial information such as bank account or credit card or debit card details: (iii) heartal information such as bank account or credit card or debit card details. Sensitive Personal Data or information, with other set on personal information with other set onto below the	Comparative analysis to privacy is recognized by the Indian constitution, offering some alignment with the 'constitutional' rights to privacy and data protection under the Charter and the ECHR.	Score
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Criteria	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
		collected, intended recipients of information, and name and address of the agency collecting the information and the agency that will retain the information.		
		<u>Review and Opt-out</u> : Providers of SPDI are entitled to (a) review the information they provide and ensure that any Personal Information or SPDI found to be inaccurate or deficient is corrected or amended as feasible; and/or (b) withdraw consent to use the information.		
		Transfer and Disclosure: SPDI may only be transferred by a relevant entity to any other entity in India, or located in any other country that ensures the same level of data protection that is adhered to by the relevant entity in India. Further, any disclosure of SPDI to a third party would require prior permission of the provider of SPDI, or be necessary for the performance of a lawful contract between the body corporate and the provider of SPDI. (Data Transfer Obligations)		
		Security Standards: An entity collecting/ handling SPDI is required to comply with reasonable security practices and procedures in relation to SPDI, the minimum standard being the IS/ISO/IEC27001 standard on 'Information Technology – Security Techniques – Information Security Management System – Requirements'		
		<u>Grievance Officer</u> : The Privacy Rules require each entity collecting/ handling SPDI to address any discrepancies and grievances of the provider of the information, in a time bound manner. For this purpose, the entity collecting SPDI must designate a 'grievance officer' and publish his name and contact details on its website.		
		The Privacy Rules provide that an entity handling SPDI is exempted from obtaining the consent of the provider of information, if disclosed to a government authority pursuant to an order issued in writing. The government authority is required to state in such order that It will not be published or shared with anyone.		
		Telemarketing by way of SMS and voice calls is a regulated activity. Only a telemarketer which is registered with access service providers under the Telecom Commercial Customer Preference Regulations, 2018 (2018 Regulations) may provide telemarketing services.		
		The 2018 Regulations apply only to voice calls and SMS, and not to marketing communication by way of e-mail or direct messaging on social media.		
		While there are laws which regulate unsolicited communication, do note that the enforcement is not as effective or structured. As a result of which, while some		

		STEP 2 JURISDICTIONAL ANALYSIS FOR INDIA PREPARED BY: J. Sagar Associates (India) and DLA Piper		
Criteria	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
		telemarketers have been penalized in the past, the enforcement on these issues continues to be ineffective.		
		No person may be subjected to unsolicited commercial communication without its consent.		
		Rules regulate collection, dissemination, storage of personal information and SPDI. Personal Information has been defined to mean any information that relates to a		
		natural person which, either directly or indirectly, in combination of information available or likely to be available with a body corporate, is capable of identifying		
		such person. SPDI has been of a person has been defined as such Personal Information relating to amongst other things financial information such as bank		
		account or credit card or debit card or other payment instrument details, as well as biometric information (including Aadhaar). Notably, the Privacy Rules applies to		
		data of individuals and does not intend to cover data of corporates.		
		For completeness please note that there are no specific laws governing online marketing in India which may be applicable to private service providers. Having		
		registation with respect to entraits or electronic continuncations, have invoked traditional principles of tort, trespass and nuisance in cases involving unsolicited		
		commercial emails. The said principles could be applied to any form of marketing practice. Hence, it is advisable to ensure that all recipients of such communications		
		are provided the option to opt out or unsubscribe such communication. Data Retention		
		Information which may be classified as SPDI may not be retained for a period longer than necessary for the purpose for which they are collected, or as required under annicable law		
		Generally, as a matter of practice, companies preserve other data for a period of 3 years after their 'relationship'.		
		Payroll and tax related documents and records of employees/ex-employees may be maintained for a period of 8 years from the end of the 'employment relationship', which is the maximum period for which an income tax assessment may be re-		
		opened.		

	Score	4
	Comparative analysis	The IT Act provides various grounds for interception and surveillance in India, including for surveillance of metadata. The grounds are broad and include 'for the investigation of any offence'. Many official bodies (both central and state agencies) have been granted surveillance rights across a wide range of sectors.
STEP 2 JURISDICTIONAL ANALYSIS FOR INDIA PREPARED BY: J. Sagar Associates (India) and DLA Piper	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	<ul> <li>On the occurrence of any offence or for the purposes of investigation, Indian law enforcement entities may gain access to personal data, as illustrated below. <i>Judicial</i> If the courts in India believe that disclosure of information is necessary for greater public interest, or if the grounds specified under the empowering legislations are satisfied, they may order such disclosure, following due process prescribed under such legislation. These disclosure of data, the courts may direct the parties to provide such information as may be required. <b>CERT-IN</b> Ministry of Electronics and Information Technology of the Government of India has constituted the Indian Computer Emergency Response Team (CERT-IN). CERT-IN Ministry of Electronics and Information Technology of the Government of India has constituted the Indian Computer Emergency Response Team (CERT-IN). Is the agency responsible for dealing with cyber security attacks and similar equivie the service providers to report cyber security incident to CERT-IN. Within the agency responsible for dealing with cyber security attacks and similar equivie the service providers to report cyber security incident to Define the activities. While the activities. While the activities. Mile the activities of CERT-IN is still at a nascent stage, the law does companies. Please note, CERT-IN does not have enforcement powers. Other Agence Please note, CERT-IN does not have enforcement powers. Other Agence Please note, CERT-IN does not have enforcement powers. On note that there are several agencies which have investigative powers and may access teach printing access transmores. Please note, CERT-IN as a nascent stage, the law does for the plan does tecusity incident to probe a matter in relation to mequine time. Please note, CERT-IN does not have enforcement powers. On note that there are several agencies which have investigative powers and may access teach providers to resource the may also investigate after a nascent and ana</li></ul>
	Assessment to carry out	The extent to which the <b>level of</b> access <b>legally permitted and</b> <b>conducted in practice</b> by public authorities to personal data (e.g. to secure disclosure of, or conduct surveillance on, private information for national security purposes or other reasons) can be regarded as a justifiable interference and is subject to safeguards equivalent to that within the EEA / UK, in light of legislation, practice and reported precedents. This will consider specifically whether the right of public authorities to access data is: (i) underpinned by a legal framework that is publicly available and sufficiently clear; (ii) carried out in pursuit of legitimate aims which are necessary and proportionate in a democratic society to safeguard important objectives as also recognised in EU/UK law (noting that proportionality involves balancing any interference with fundamental privacy rights with what are necessary and important public interests); and
	Criteria	2.2 Regulation of public authority access to private data

	Score	
	Comparative analysis	
STEP 2 JURISDICTIONAL ANALYSIS FOR INDIA PREPARED BY: J. Sagar Associates (India) and DLA Piper	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	<ul> <li>Narcotics Control Bureau</li> <li>Insertorate of Revenue Intelligence (DRI)</li> <li>Directorate of Revenue Intelligence Bureau</li> <li>Central Economic Intelligence Bureau</li> <li>Central Bureau of Health Intelligence</li> <li>Central Bureau of Health Intelligence</li> <li>Defence Intelligence Agency</li> <li>Directorate of Income Tax (Intelligence and Criminal Investigation)</li> <li>Directorate of Income Tax (Intelligence and Criminal Investigation)</li> <li>Directorate of Income Tax Investigation</li> <li>Directorate of Income Tax Investigation</li> <li>Directorate General of Income Tax Investigation</li> <li>Additionally, certain legislations such as the IT Act, Indian Telegraph Act, 1872, occertains surder which data may be accessed by authorities specifically empowered under these legislations, in accordance with procedure laid down thereunder.</li> <li><i>Regulatory</i></li> <li>Regulatory</li> <li>It an entity is regulators such as Reserve Bank of India (RBI) or is servicing a regulated proving any be required to disclose data on account of a regulated proving any be required to disclose data on account of a regulated proving any be required to disclose data on account of a regulated proving any be required to a regulated proving any be required to the case or offence.</li> <li>As such, the courts may set aside the Government's request for information. The affects by action trecestary.</li> <li>The IT Act provides various grounds for interception and surveillance in India of section any action recessary.</li></ul>
	Assessment to carry out	(iii) subject to adequate and effective oversight from courts or other independent authorities. The assessment will consider <b>pervasive surveillance activity</b> (across the destination country as a whole) and whether access can in practice be exercised by public authorities in light of legislation, legal powers, technical, financial and human resources at their disposal and of reported precedents.
	Criteria	

	Score	
	Comparative analysis	
STEP 2 JURISDICTIONAL ANALYSIS FOR INDIA PREPARED BY: J. Sagar Associates (India) and DLA Piper	Laws and practices in the destination country (please include sources of information) $^{1}$	<ul> <li>above or for investigation of any offence<sup>*</sup>:</li> <li>Whilst these grounds provide a purpose limitation, the scope is widely expanded by the inclusion of "for the investigation of any offence<sup>*</sup>.</li> <li>Whilst these grounds provide a purpose limitation, the scope is widely expanded by the inclusion of "for the investigation of any offence<sup>*</sup>.</li> <li>The subscriber or intermediany (any or person in charge of the competent resource) must extend all facilities and technical assistance to the competent authority (when called upon) to enable such actions to be undertaken. Failure to assist the competent authority is punishable by a fine and imprisonment of up to 7 years.</li> <li>Further, Section 69A of the IT Act empowers the Central Government or any of its oblice access to any information generated, transmitted, received, stored or hosted in any computer resource.</li> <li>In addition, Section 69B of the IT Act empowers the Central Government to authorise any government agency to monitor and collect traffic data or information thosted in any computer resource.</li> <li>In addition, Section 69B of the IT Act empowers the Central Government to authorise any government agency to monitor and collect traffic data or information through any computer resource for the purpose of cyber security and "for identification, analysis and prevention of any intruston or spread of computer contaminant in the country".</li> <li>The Information Technology (Procedure and Safeguards for Interception, Monitoring and Decryption of Information) Rules 2009 (the IT Interception, Monitoring and Decryption of Information) Rules 2009 (the IT enterception, the duration of any direction is an yister of the competent authority) and in what circumstances;</li> <li>the duration of any direction;</li> <li>the duration of any direction is an yister of the competent authority of a decryption of information introduced safeguards for directions into decise (in the competent authority) and in what circumstances;</li> <li>the duration of an</li></ul>
	Assessment to carry out	
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		STEP 2 JURISDICTIONAL ANALYSIS FOR INDIA PREPARED BY: J. Sagar Associates (India) and DLA Piper		
Criteria	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
		<ul> <li>the action should not be disproportionate and the need for such interference should be justifiable; and         <ul> <li>law enforcement and national security agencies must follow due process to ensure there is no abuse of power.</li> <li>There is very limited public information available regarding the activities of these authorities in relation to law enforcement / national security authorities' powers, which makes it difficult to provide a definitive response on the practices of public authorities with regard to access to private data. There is no database available in India that sets out any statistics or research, either by governmental authorities or issued by NGOs, academic institutions or public authorities relating to practices of public authorities with regard to access to private data. Companies such as Twitter, Google etc. publish transparency reports on a regular basis, detailing the total number of government data requests received and actions taken in India. However, these reports only requests these organizations have received, and do not provide any specific details.<sup>3</sup> Please find below a few links to transparency reports from more of government area received and actions these received for the received for the received for and the received for ant stations have been regarding non-going investigations, included the provide any specific data is a row prover and and a relating to public authorities' access relating to personal data. However, experience from private organisations in relation to requests have been regarding non-personal data or where personal data has been a sub-set of a larger set of data. Generally on-going investigations, indicates that most requests have been regarding non-personal data or where personal data is involved in such investigation.</li> </ul></li></ul>		
2.3 Regulatory supervision	The extent to courts, regulators and/or supervisory authorities, enforce the rule of	<b>Overview of penalties</b> Section 43A of the IT Act requires that a body corporate possessing, dealing, handling any SPDI in a computer resource, pays damages by way of compensation	There is not yet a specific supervisory authority in India which governs the enforcement	4

Please find below a few links to transparency reports from:

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Google: https://transparencyreport.google.com/user-data/overview?dlr\_requests=authority:IN.time:&lu=dlr\_requests

Twitter - https://transparency.twitter.com/en/reports/countries/in.html

Facebook - https://transparency.fb.com/data/government-data-requests/country/IN/

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	Score		4
	Comparative analysis	of data protection laws, and this does not align with regulatory supervision in the EEA / UK. In relation to surveillance, individuals can approach the high courts if they suspect they have been subject to illegal surveillance.	Individuals in India do not have rights to pursue legal remedies in order to have access to personal data relating to them, or to obtain the rectification or erasure of such data. Currently, data
STEP 2 JURISDICTIONAL ANALYSIS FOR INDIA PREPARED BY: J. Sagar Associates (India) and DLA Piper	Laws and practices in the destination country (please include sources of information) $^{1}$	to the affected person if there is a wrongful loss or wrongful gain to any person on account of negligence in implementing and maintaining reasonable security practise to protect information of affected person. The runteen of a lawful contract, has secured access to any material services under the terms of a lawful contract, has secured access to any material containing personal information about another person, with the intern of causing or knowing that he is likely to cause wrongful loss or wrongful gain discloses, without the consent of the person concerned, or in breach of a lawful contract, such material to any other person, shall be punished with imprisonment for a term which may extend to three years, or with fine which may extend to three years, or with fine which may extend to five lakh rupees, or with both. <b>Enforcement</b> Strictly speaking, an issue in connection with IT Act cannot be adjudicated by any contain contract and aggrieved parties may approach the contain on 1T Act up to a certain threshold. The IT Act empowers the Adjudicating Officer to decide on matters in relation to IT Act up to a certain threshold. Once the claim crosses this threshold, the Supreme Court. The IT Act empowers and aggrieved parties may approach the complainant may approach a civil court. That said, in India, the High Courts and the Supreme Court and the Supreme Court have writ jurisdictions and aggrieved parties may approach the complainant the supreme Court and aggrieved parties may approach the contains and the Supreme Court and the Supreme Court and aggrieved parties may approach the courts for violation of 'right to privacy'. <b>Enforcement trend</b> For completeness, do note that it may be a challenge to enforce the liability even if there is an actual violation. Risk of enforcement/liability is low due to two major the aggrieved adat subjects. Second, if a company had presence in India has	<b>Overview of rights</b> The extant law provides for certain rights to the data subject. Body corporates collecting SPDI should keep the data subject informed about: (i) the fact that the information is being collected; (ii) purpose of such collection; (iii) intended recipients; and (iv) the name and address of agencies collecting and
	Assessment to carry out	law and/or rights guaranteed in relation to the protection of data in an independent and effective manner, with evidence of meaningful resources and enforcement activity.	The extent to which individuals can easily and <b>effectively</b> <b>enforce rights</b> and seek redress by raising complaints, claims and / or appeal and enforce decisions in relation to both data
	Criteria		2.4 Rights of redress

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	Score	
	Comparative analysis	protection laws equivalent to the GDPR or the Law Enforcement Directive do not exist in India to give data subjects rights to access, erase, amend etc. their data, and to have these rights enforced in court. Therefore there are very limited rights of redress compared to the standards afforded by the GDPR. Note however their fundamental rights against the state, however enforcing their rights (including the right to privacy) against a private entity may require judicial intervention.
STEP 2 JURISDICTIONAL ANALYSIS FOR INDIA PREPARED BY: J. Sagar Associates (India) and DLA Piper	Laws and practices in the destination country (please include sources of information) $^{1}$	retaining such information. Further, a provider of such information may access information provided by it upon request. Cher rights such as right to be forgotten are explicitly set out under the IT Act and been cases wherein the courts have recognized this right. However, there have been cases wherein the courts have recognized this right. However, these rights were examined mostly from a context of offenes against women. <i>Enforcement</i> Body corporates are required to designate a grievance officer. This grievance officer shall address discrepancies that the providers of information may have. The body corporates are required to publish name and contact details of the grievance officer shall address discrepancies that the providers of information may have. The body corporates are required to publish name and contact details of the grievance officer on its website. Typically grievance officers are the first points of contact when an individual wants to enforce their rights or seek redressal. <i>Judicial Intervention</i> A data subject may initiate judicial review proceedings in a constitutional court (High Court or Supreme Court) should it believe that the data disclosure is illegal, disproportionate, unwarranted, or is done in a procedurally improper manner. To enborate, and as ubjects may apply to the constitutional courts and invoking the rights under either Article 32 or Article 226 of the Indian Constitution. Contact and individuals the right occurt and high courts extensive original jurisdiction to take enforcement action to privacy rights under either Article 32 or Article 226 of the Indian Constitution of contact and individuals the right occurt and high courts extensive original jurisdiction to take enforcement action to privacy. To ender an individuals the right, providers individuals the right occurt and high courts entering or constitutional remety against violation of constitutional rights including the right occurt and high courts entering or constitution of constitutional remety against violation of the e
	Assessment to carry out	protection infringements and public disclosure / surveillance activity through judicial and/or administrative processes (e.g., help from local data protection authorities) including whether redress mechanisms can be effectively applied in practice and are not thwarted by local laws and/or practices. This section will also consider whether data subjects can secure self-help remedies – e.g., right to secure access to or require erasure of personal data files, and whether the breach of local laws can be effectively invoked and relied on by individuals.
	Criteria	

Writ petition No. 2367 of 2019.

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Fejl! Ukendt betegnelse for dokumentegenskab.

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		STEP 2 JURISDICTIONAL ANALYSIS FOR INDIA PREPARED BY: J. Sagar Associates (India) and DLA Piper		
Criteria	Assessment to carry out	Laws and practices in the destination country (please include sources of information) <sup>1</sup>	Comparative analysis	Score
		suspected of bribing public servants). As a result, the court found that the interception did not have the "sanction of law," nor was the interception order issued for a legitimate aim (following the test in the Puttaswamy Case). Accordingly, the Court set aside the interception orders relied on by the CBI and ordered the destruction of copies of the intercepted messages or recordings. The Court also reiterated that these messages and recordings may not be treated as evidence during the complainant's criminal trial.		
2.5 International treaties	The extent to which the country has concluded <b>international</b> <b>treaties</b> and related commitments on handling of personal data to support the safeguarding of data – this will include consideration both of the existence of: (i) international treaties that relate to the protection of data generally consistent with principles enshrined in EEA / UK law, and (ii) any specific arrangements concluded to provide safeguards in relation to country to country transfers (e.g. UK-U.S. Bilateral Data Access Agreement which brings into effect the 'quashing' provisions of 18 USC § 2703(h)(2))	India is a party to United Declaration of Human Rights and International Covenant on Civil and Political Rights. Right to privacy which is recognized under the two aforesaid instruments has been made part of the Indian constitution (Article 21).	There are no international treaties comparable to Convention 108+ to note. However, the ratification of the Universal Declaration of Human Rights does provide for some degree of additional protection.	4
Total				20