

#### **Google Cloud Mapping**

This document is designed to help firms supervised by the Financial Conduct Authority ("regulated entity") to consider FG 16/5 Guidance for firms outsourcing to the "cloud" and other third-party IT services (the "framework") in the context of Google Cloud Platform ("GCP") and the Google Cloud Financial Services Contract.

We focus on the areas firms should consider in relation outsourcing to the cloud and other third-party IT services. For each paragraph, we provide commentary to help you understand how you can address the requirements using the Google Cloud services and the Google Cloud Financial Services Contract.

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
1.	Legal and regulatory considerations		
2.	Before acceptance, firms should review the contract with the outsource provider to ensure that it complies with our requirements. A firm should:		
3.	<ul> <li>have a clear and documented business case or rationale in support of the decision to use one or more service providers for the delivery of critical or important operational functions or material outsourcing;</li> </ul>	This is a customer consideration.	N/A
4.	<ul> <li>ensure the service is suitable for the firm and consider any relevant legal or regulatory obligations, including where a firm is looking to change their existing outsourcing requirements;</li> </ul>	This is a customer consideration.	N/A
5.	as part of the due diligence exercise, ensure that in entering into an outsource agreement, it does not worsen the firms operational risk;	You decide which services to use, how to use them and for what purpose. Therefore you stay in control of the relevant activities and can configure the service to avoid undue operational risk. For more information about Google's approach to risk and security, refer to Row 37.	N/A
6.	<ul> <li>consider the relative risks of using one type of service over another e.g. public versus private cloud;</li> </ul>	This is a customer consideration.	N/A
7.	<ul> <li>maintain an accurate record of contracts between the firm and its service provider(s);</li> </ul>	This is a customer consideration.	N/A
8.	<ul> <li>know which jurisdiction the service providers business premises are located in and how that affects the firms outsource arrangements;</li> </ul>	For more information about the location of Google's facilities and where individual GCP services can be deployed, refer to Row 38.	N/A
9.	<ul> <li>know whether its contract with the service provider is governed by the law and subject to the jurisdiction of the United Kingdom. If it is not, it should still ensure effective access to data and business premises for the firm, auditor and relevant regulator (see below sections on access to data and business premises);</li> </ul>	Refer to your Google Cloud Financial Services Contract.  For more information on data access and audit rights (including on-site audits), refer to Row 58.	Governing Law
10.	<ul> <li>consider any additional legal or regulatory obligations and requirements that may arise such as through the General Data Protection Regulation (GDPR);</li> </ul>	For more information on how Google Cloud can assist you in complying with the GDPR see our GDPR resource center.	N/A
11.	<ul> <li>where these are related to the regulated activity being provided, identify all the service providers in the supply chain and ensure that the requirements on the firm can be complied with throughout the supply chain. Similarly, where multiple providers form part of an overall arrangement (as distinct from a chain) the requirements should be complied with across the arrangement.</li> </ul>	For more information about Google subcontractors and accountability refer to Row 75.	N/A
12.	Risk management		



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
13.	A fundamental principle of the rules and guidance on outsourcing is that firms identify and manage any risks introduced by their outsourcing arrangements. Accordingly, firms should:		
14.	<ul> <li>carry out a risk assessment to identify relevant risks and identify steps to mitigate them;</li> </ul>	This is a customer consideration.	N/A
15.	document this assessment;	This is a customer consideration.	N/A
16.	<ul> <li>identify current industry good practice, including data and information security management system requirements, cyber risks, as well as the relevant regulators rules and guidance to then use this to support its decision making;</li> </ul>	This is a customer consideration.	N/A
17.	<ul> <li>review whether the legal and regulatory risks differ if the customers, firms and employees involved in providing or using the services are in different geographic or jurisdictional locations e.g. UK, EEA or non-EEA;</li> </ul>	For more information about the location of Google's facilities and where individual GCP services can be deployed, refer to Row 38.	N/A
18.	<ul> <li>assess the overall operational risks associated with the regulated service for which the firm is responsible and assign responsibility for managing them;</li> </ul>	This is a customer consideration.	N/A
19.	<ul> <li>monitor concentration risk and consider what action it would take if the outsource provider failed;</li> </ul>	This is a customer consideration. For more information on the substitutability of our services refer to Row 94.	N/A
20.	<ul> <li>require prompt and appropriately detailed notification of any breaches or other relevant events arising including the invocation of business recovery arrangements;</li> </ul>	For more information on incident notification, refer to Row 39.	N/A
21.	<ul> <li>ensure the contract(s) provide for the remediation of breaches and other adverse events.</li> </ul>	Regulated entities may terminate our contract with advance notice for Google's material breach after a cure period.	Term and Termination
22.	International standards		
23.	In conducting its due diligence on potential third-party providers, and as part of ongoing monitoring of service provision, a firm may wish to take account of the providers adherence to international standards as relevant to the provision of IT services. Assurance obtained from international standards for the delivery of critical or important operational functions or material outsourcing is unlikely to be sufficient on its own. Nevertheless, firms should:	Google recognizes that you expect independent verification of our security, privacy and compliance controls. Google undergoes several independent third-party audits on a regular basis to provide this assurance. Google commits to comply with the following key international standards during the term of our contract with you:    ISO/IEC 27001:2013 (Information Security Management Systems)	Certifications and Audit Reports



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
24.	take account of any external assurance that has already been provided when conducting their own due diligence.	You can review Google's current <u>certifications and audit reports</u> at any time.	N/A
25.	External assurance may be more relevant to a firm's consideration where:		
26.	<ul> <li>it complies to well-understood standards (such as, for example, the ISO 27000 series);</li> </ul>	For more information on the international standards Google Cloud complies with, refer to Row 23.	Certifications and Audit Reports
27.	<ul> <li>the part of the service being assessed is relatively stable (such as physical controls in the data centre or staff vetting);</li> </ul>	This is a customer consideration.	N/A
28.	<ul> <li>the service is uniform across the customer base (i.e. not particular or bespoke to the firm outsourcing);</li> </ul>	Google provides the same services to all customers using a common technical platform and a common set of tools.	N/A
29.	the scope of the third-party audit is specific to the service a firm proposes to use (i.e. the audit is against the data centre you are using not a similar data centre in another jurisdiction).	Google's audit scope covers in-scope Services, infrastructure systems, policies and procedures, common processes and personnel. Google is audited on our security and privacy controls covering the relevant certifications and audit reports for the audit scope. The precise scope of our certifications and audit reports is described in the relevant certification or report.	N/A
30.	Oversight of service provider		
31.	Firms retain full accountability for discharging all of their responsibilities under the regulatory system and cannot delegate responsibility to the service provider. At a high level, a firm should:		
32.	<ul> <li>be clear about the service being provided and where responsibility and accountability between the firm and its service provider(s) begins and ends;</li> </ul>	The GCP services are described on our <u>services summary</u> page. The rights and obligations of the parties are set out in the Google Cloud Financial Services Contract.	Definitions
33.	<ul> <li>allocate responsibility for the day-to-day and strategic management of the service provider;</li> </ul>	This is a customer consideration.	N/A
34.	<ul> <li>ensure staff have sufficient skills and resources to oversee and test the outsourced activities; identify, monitor and mitigate against the risks arising; and properly manage an exit or transfer from an existing third-party provider;</li> </ul>	Skills and resources  Google provides documentation to explain how customers and their employees can use our services. If a customer would like more guided training, Google also provides a variety of courses and certifications.  Monitoring	N/A Ongoing Performance Monitoring



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
		You can monitor Google's performance of the Services (including the SLAs) on an ongoing basis using the functionality of the Services.	
		For example:	
		The <u>Status Dashboard</u> provides status information on the Services.	
		<ul> <li>Google Cloud Operations is an integrated monitoring, logging, and diagnostics hosted solution that helps you gain insight into your applications that run on GCP.</li> </ul>	
		<ul> <li>Access Transparency is a feature that enables you to review logs of actions taken by Google personnel regarding your data. Log entries include: the affected resource, the time of action, the reason for the action (e.g. the case number associated with the support request); and data about who is acting on data (e.g. the Google personnel's location).</li> </ul>	
		Exit and transfer services	
		For more information on exit or transfer, refer to Row 94.	
35.	verify that suitable arrangements for dispute resolution exist.	Refer to your Google Cloud Financial Services Contract.	Governing Law
36.	Data security		
37.	Firms should carry out a security risk assessment that includes the service provider and the technology assets administered by the firm. A firm should:	The security of a cloud service consists of two key elements:  Security of Google's infrastructure  Google manages the security of our infrastructure. This is the security of the hardware, software, networking and facilities that support the Services.  Given the one-to-many nature of our service, Google provides the same robust security for all our customers.  Google provides detailed information to customers about our security practices so that customers can understand them and consider them as part of their own risk analysis.	Data Security; Security Measures (Cloud Data Processing Addendum)



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
#	Framework reference	More information is available at:  • Our infrastructure security page • Our security whitepaper • Our cloud-native security whitepaper • Our infrastructure security design overview page • Our security resources page In addition, you can review Google's SOC 2 report.  Security of your data and applications in the cloud You define the security of your data and applications in the cloud. This refers to the security measures that you choose to implement and operate when you use the Services.  (a) Security products In addition to the other tools and practices available to you outside Google, you can choose to use tools provided by Google to enhance and monitor the security of your data. Information on Google's security products is available on our Cloud Security Products page.	
		(b) Security resources  Google also publishes guidance on:  Security best practices Security use cases	
38.	agree a data residency policy with the provider upon commencing a relationship with them, which sets out the jurisdictions in which the firm's data can be stored, processed and managed. This policy should be reviewed periodically;	<ul> <li>Data center locations</li> <li>To provide you with a fast, reliable, robust and resilient service, Google may store and process your data where Google or its subprocessors maintain facilities.</li> <li>Information about the location of Google's facilities and where individual GCP services can be deployed is available here.</li> <li>Information about the location of Google's subprocessors' facilities is available here.</li> </ul>	Data Transfers (Cloud Data Processing Addendum)



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
		Google provides the same contractual commitments and technical and organizational measures for your data regardless of the country / region where it is located. In particular:  • The same robust security measures apply to all Google facilities, regardless of country / region.  • Google makes the same commitments about all its subprocessors, regardless of country / region.	Data Security; Subprocessors (Cloud Data Processing Addendum)
		<u>Data storage</u>	
		Google provides you with choices about where to store your data. Once you choose where to store your data, Google will not store it outside your chosen region(s).	Data Location (Service Specific Terms)
		You can also choose to use tools provided by Google to enforce data location requirements. For more information, see our <u>Data residency</u> , <u>operational transparency</u> , <u>and privacy for customers on Google Cloud Whitepaper</u> .	
39.	ensure they are aligned with the firm's risk appetite and legal or regulatory	Google will make information about developments that materially impact Google's ability to perform the Services in accordance with the SLAs available to you. More information is available on our <u>Incidents &amp; the Google Cloud dashboard</u> page.	Significant Developments
		In addition, Google will notify you of data incidents promptly and without undue delay. More information on Google's data incident response process is available in our <a href="Data">Data</a> incident response whitepaper.	Data Incidents (Cloud Data Processing Addendum)
40.		To keep data private and secure, Google logically isolates each customer's data from that of other customers. For more information on Google's security infrastructure, refer to Row 37.	N/A
41.		For more information on how you can mitigate security risks refer to Row 37 on "Security of your data and applications in the cloud".	N/A
42.		The security of your data is of paramount importance to Google. We take the following proactive steps to assist you:  • Encryption at rest. Google encrypts customer data stored at rest by default, with no additional action required from you. More information is available at: https://cloud.google.com/security/encryption-at-rest/default-encryption.  • Encryption in transit. Google encrypts and authenticates all data in transit at one or more network layers when data moves outside physical boundaries not	N/A



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
		controlled by Google or on behalf of Google. More information is available at https://cloud.google.com/security/encryption-in-transit.	
		In addition, you can choose to use these encryption and key management tools provided by Google:	
		Cloud KMS is a cloud-hosted key management service that lets you manage cryptographic keys for your cloud services the same way you do on-premises.	
		Cloud HSM is a cloud-hosted key management service that lets you protect encryption keys and perform cryptographic operations within a managed HSM service. You can generate, use, rotate, and destroy various symmetric and asymmetric keys.	
		Customer-managed encryption keys for <u>Cloud SQL</u> and <u>GKE persistent disks</u> .	
		Cloud External Key Manager (beta) lets you protect data at rest in BigQuery and Compute Engine using encryption keys that are stored and managed in a third-party key management system that's deployed outside Google's infrastructure.	
		<ul> <li>Key Access Justification (alpha) works with External Key Manager. It provides a detailed justification each time one of your keys is requested to decrypt data, along with a mechanism for you to explicitly approve or deny providing the key using an automated policy that you set.</li> </ul>	
43.	Data Protection Act 2018 (DPA) and General Data Protection Regulation (GDPR)		
44.	A firm must comply with the DPA and the GDPR. Data protection requirements are separate from FCA Handbook requirements and each must be met separately.	Google will comply with its obligations under the DPA and GDPRapplicable to it in the provision of the Services.	Representations and Warranties
		In addition, Google makes commitments to protect your data, including regarding security, use, transfer, access and retention, in the <u>Cloud Data Processing Addendum</u> .	
45.	The DPA and GDPR are overseen and regulated by the Information Commissioner's Office (ICO). Firms should therefore follow the ICO's Guide to Data Protection and Guide to the GDPR, as well as other relevant guidance including that on cloud computing:	For more information on how Google Cloud can assist you in complying with data protection requirements see our <u>GDPR resource center</u> .	N/A



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
	https://ico.org.uk/media/for-organisations/documents/1540/cloud computing guidance for organisations.pdf		
46.	Where relevant, firms should also consult ICO guidance on sending personal data outside the European Economic Area: <a "="" for-organisations="" href="https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-data-protection-guide-to-data-guide-to&lt;/td&gt;&lt;td&gt;For more information on where your data is processed and stored refer to Row 38.&lt;/td&gt;&lt;td&gt;N/A&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;47.&lt;/td&gt;&lt;td&gt;NIS Regulations&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;48.&lt;/td&gt;&lt;td&gt;Firms may also have to comply with the NIS Regulations 2018 where they meet the definition of a digital service provider (online search engines, online marketplaces and cloud computing services). These requirements are also separate from FCA Handbook requirements as well as data protection requirements.&lt;/td&gt;&lt;td&gt;Google will comply with all national laws and regulations applicable to it in the provisions of the Services.&lt;/td&gt;&lt;td&gt;Representations and Warranties&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;49.&lt;/td&gt;&lt;td&gt;Firms that are classed as relevant digital service providers under the NIS Regulations are also regulated by the ICO. Firms should therefore follow the ICO s Guide to NIS for more information on their obligations, including on registration requirements: &lt;a href=" https:="" ico.org.uk="" the-guide-to-nis="">https://ico.org.uk/for-organisations/the-guide-to-nis/</a>	This is a customer consideration.	N/A
50.	Effective access to data		
51.	Specific regulatory requirements for some firms (e.g. SYSC 8.1.8R(9) for UCITS investment firms and Article 31(2)(i) MiFID Org Regulation for MiFID investment firms) require effective access to data related to the outsourced activities for regulated firms, their auditors, regulators and relevant competent authorities. The term data has a wide meaning. It includes but is not limited to firm, personal customer and transactional data, but also system and process data: for example, Human Resource vetting procedures or system audit trails and logs. A firm should:	Google recognizes that using our Services should not impair a regulated entity's (or their supervisory authority's) ability to oversee and supervise compliance with applicable laws and regulations as well as a regulated entity's internal policies. We will provide regulated entities with the assistance they need to review our Services.	Enabling Customer Compliance
52.	ensure that notification requirements on accessing data, as agreed with the service provider are reasonable and not overly restrictive;	Regulated entities may access their data on the services at any time.	Customer Information, Audit and Access
53.	ensure there are no restrictions on the number of requests the firm, its auditor or the regulator can make to access or receive data;	Regulated entities may access their data on the services at any time. There is no restriction on the number of times a customer can access its own data.	Customer Information, Audit and Access
54.	<ul> <li>advise the service provider that the regulator will not enter into a non-disclosure agreement with the service provider but will treat any information disclosed in accordance with the confidentiality obligation set out in the Financial Services and Markets Act (FSMA), sections 348 to 349;</li> </ul>	Google understands that it may not be possible for supervisory authorities to enter into non-disclosure agreements where they are subject to confidentiality obligations under the law.	N/A



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
55.	ensure that, where a firm cannot disclose data for any reason, the contract enables the regulator or the firm's auditor to contact the service provider directly;	Regulated entities may access their data on the services at any time and may provide their supervisory authority with access.	Regulator Information, Audit and Access
56.	<ul> <li>ensure that data are not stored in jurisdictions that may inhibit effective access to data for UK regulators. Considerations should include the wider political and security stability of the jurisdiction; the law in force in the jurisdiction in question (including data protection); and the international obligations of the jurisdiction. This should include consideration of the law enforcement provisions within a jurisdiction.</li> </ul>	Google grants audit, access and information rights to supervisory authorities and their appointees. These rights apply regardless of the service location. For more information on the location of Google's facilities and where individual GCP services can be deployed, refer to Row 38.	Regulator Information, Audit and Access
57.	Access to business premises		
58.	SYSC 8.1.8R(9) requires UCITS investment firms to have "effective access to data related to the outsourced activities, as well as to the business premises of the service provider". Article 31(2)(i) MiFID Org Regulation requires that "the investment firm, its auditors and the relevant competent authorities have effective access to data related to the outsourced functions, as well as to the relevant business premises of the service provider, where necessary for the purpose of effective oversight in accordance with this article, and the competent authorities are able to exercise those rights of access"	Google recognizes that regulated entities must be able to audit our services effectively. Google grants audit, access and information rights to regulated entities and supervisory authorities, and both their appointees. This includes access to Google's premises used to provide the Services to conduct an on-site audit.	
59.	We regard 'business premises' as a broad term, encompassing a range of premises. This may include head offices, operations centres, but does not necessarily include data centres.	Refer to Row 58.	N/A
60.	For firms where these requirements apply as rules or directly applicable provisions, their contracts must allow for access to business premises. The focus should therefore be on which business premises are relevant for the exercise of effective oversight; this does not necessarily require access to all business premises. For example, service providers may, for legitimate security reasons, limit access to some sites - such as data centres.	Refer to Row 58.	N/A
61.	Firms should also be aware of specific requirements in other relevant legislation. For example, Article 274 of the Solvency II Regulation requires the insurance or reinsurance undertaking to have "effective access to all information relating to the outsourced functions and activities, including carrying out on-site inspections of the business premises of the service provider".	Refer to Row 58.	N/A
62.	Particular considerations include:		
63.	Firm and auditor access		
64.	<ul> <li>A firm should be able to request an onsite visit to the relevant business premises, in accordance with applicable legal and regulatory requirements. This right should not be restricted;</li> </ul>	Nothing in our contract is intended to restrict a regulated entity's ability to monitor or audit our services effectively. In particular, although we will make a lot of information and tools available to help regulated entities and their supervisory authorities review our	Enabling Customer Compliance



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
		Services, our contract does not contain pre-defined steps before regulated entities or supervisory authorities can approach Google to exercise their audit, access and information rights. In other words, there is no hierarchy amongst the options for assessing our Services. For more information on the audit, access and information rights granted to regulated entities refer to Row 58.	
65.	A firm can provide reasonable prior written notice of this visit, except when there is an emergency or crisis situation;	Reasonable notice enables Google to deliver an effective audit. For example, we can ensure the relevant Google experts are available and prepared to make the most of your time. Notice also enables Google to plan the audit so that it does not create undue risk to your environment or that of any other Google customer. Google recognizes that in some cases extended notice is not possible. In these cases we will work with the auditing party to address their needs.	Arrangements
66.	<ul> <li>A firm may elect its auditor to undertake the visit. Note that this must be the firm's auditor and not an auditor appointed by the outsourcing provider</li> </ul>	Google facilitates audits by regulated entities and their appointed auditors. For more information on the audit, access and information rights, refer to Row 58.	N/A
67.	<ul> <li>The scope of the firm and/or auditor visit can be limited to those services that the firm and the entities in the firm's group are using, as required by applicable legal and regulatory requirements.</li> </ul>	The regulated entity is best placed to decide what audit scope is right for their organization. Our contract does not limit regulated entities to a pre-defined scope.	Customer Information, Audit and Access
68.	Regulator access		
69.	<ul> <li>A regulator visit to an outsource provider's business premises will only take place if the regulator deems it necessary and required under applicable legal and regulatory requirements. Firms should not stipulate further conditions beyond this.</li> </ul>	Nothing in our contract is intended to restrict the supervisory authority's ability to monitor or audit our services effectively.	Enabling Customer Compliance
70.	The outsource provider should commit to cooperate with the reasonable requests of the regulator during such a visit.	Google will fully cooperate with supervisory authorities exercising their audit, information and access rights.	Enabling Customer Compliance
71.	<ul> <li>The regulator can commit to visits occurring during business hours and at a time specified by the outsourcing provider or with reasonable notice, except in an emergency or crisis situation.</li> </ul>	For more information on the timing of audits refer to Row 65.	N/A
72.	<ul> <li>There can be no restrictions regarding employees who attend from the regulator. However, regulators can and will provide relevant information about individuals who will attend.</li> </ul>	Google does not place restrictions on who may attend an audit from the supervisory authority.	Regulator Information, Audit and Access
73.	<ul> <li>During the visit, the regulator should be permitted to view the provision of services to the regulated firm or any affiliate within the group, as required under applicable financial services legislation. The regulator can commit to minimising, disruption to outsourcing providers operations.</li> </ul>	It is extremely important to Google that what we do with one customer should not put any other customers at risk. This applies when you perform an audit. It also applies when any other customer performs an audit.	Arrangements



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
		When a supervisory authority performs an audit we will work with them to minimize the disruption to our other customers. Just as we will work with another auditing customer to minimize the disruption to the regulated entity. In particular, we will be careful to comply with our security commitments at all times.	
74.	Relationship between service providers		
75.	Outsourcing supply chains are often complex.  If the regulated firm does not directly contract with the outsource provider, it should review sub-contracting arrangements relevant to the provision of the regulated activity to determine whether these enable the regulated firm to continue to comply with its regulatory requirements. Firms should consider, for example, security requirements and effective access to data and business premises. The regulated firm must be able to comply with these regulatory requirements even if it does not directly contract with the outsource provider.	Google requires our subcontractors to meet the same high standards that we do. In particular, Google requires our subcontractors to comply with our contract with you. Google will remain accountable to you for the performance of all subcontracted obligations.  To enable regulated entities to retain oversight of any subcontracting and provide choices about the services regulated entities use, Google will:  • provide information about our subcontractors; • provide advance notice of changes to our subcontractors; and • give regulated entities the ability to terminate if they have concerns about a new subcontractor.  Google will oversee the performance of all subcontracted obligations and ensure our subcontractors comply with our contract with you (including the audit and access rights).	Google Subcontractors
76.	The Contracts (Rights of Third Parties) Act 1999 may be relevant to these considerations.	This is a customer consideration.	N/A
77.	The regulated firm should consider how service providers work together. For example, will the firm or one service provider take the lead systems integration role?	This is a customer consideration.	N/A
78.	Firms should consider how easily a service provider's services will interface with a firm's internal systems or other third-party systems (such as agency banking arrangements for payments).	<ul> <li>Cloud Console allows you to find and check the health of all your Google Cloud resources in one place, including virtual machines, network settings, and data storage.</li> <li>Cloud APIs allow you to access Google Cloud products from your code and automate your workflows by using your preferred programming language.</li> </ul>	N/A



#### **Google Cloud Mapping**

#	Framework reference	1 9	Google Cloud Financial Services Contract reference
		<del>,</del>	<u> </u>
79.	Change management		
80.	Risks can be introduced when changes are made to processes and procedures even where these are well established. We expect firms to have in place a comprehensive change management process, but particular note should be taken of the following points:	You operate the services independently without action by Google personnel. You decide which services to use, how to use them and for what purpose. You also control changes to your use of the services.	Changes to Services
		Google continuously updates the services to enable our customers to take advantage of the most up-to-date technology. Given the one-to-many nature of our service, updates apply to all customers at the same time.	
		We recognize that our approach to change management is important to your own change management processes. Google will not make updates that materially reduce the functionality, performance, availability or security of the Services.	
		If Google needs to discontinue a service without replacing it, you will receive at least 12 months' advance notice. Google will continue to provide support and product and security updates during this period.	
81.	<ul> <li>establishing what provision has been made for making future changes to technology service provision;</li> </ul>	Refer to Row 80.	N/A
82.	establishing how the testing of changes will be carried out.	Refer to Row 80.	N/A
83.	Continuity and business planning		
84.	A firm should have in place appropriate arrangements to ensure that it can continue to function and meet its regulatory obligations in the event of an unforeseen interruption of the outsourced services. Firms should:	Google will implement a business continuity plan for the Services, review and test it at least annually and ensure it remains current with industry standards. Regulated entities can review our plan and testing results.	
		In addition, information about how customers can use our Services in their own contingency planning is available in our <u>Disaster Recovery Planning Guide</u> .	
85.	<ul> <li>consider the likelihood and impact of an unexpected disruption to the continuity of its operations;</li> </ul>	Refer to Row 84.	N/A
86.	<ul> <li>document its strategy for maintaining continuity of its operations, including recovery from an event, and its plans for communicating and regularly testing the adequacy and effectiveness of this strategy;</li> </ul>		N/A



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
87.	regularly update and test arrangements to ensure their effectiveness;	Refer to Row 84.	N/A
88.	<ul> <li>put in place arrangements to ensure the regulator has access to data in the event of insolvency or other disruption.</li> </ul>	For more information on the regulator's data access rights refer to Row 55. None of these commitments are disapplied on Google's insolvency.	N/A
		For more information on how Google supports regulated entities through resolution, refer to Row 91.	
89.	Resolution (where applicable)		
90.	Any services should be organised in such a way that they do not become a barrier to the resolution or orderly wind-down of a firm, or create additional complexity in a resolution.	This is a customer consideration.	N/A
91.	For firms where stabilisation powers will, or may, be applied, this will mean that the outsourcing provider and any subcontractor should agree that neither the entry into resolution nor a subsequent change in control arising from the firm's entry into resolution shall constitute a termination event. The outsourcing provider should also agree not to delete, revoke, alter or change any data and to continue to provide services to the firm (or such other entity as necessary) for an appropriate transitional period following the resolution.	Google recognizes that regulated entities and any resolution entity must be able to carry on business during resolution. To provide support through resolution, Google commits to continue providing the Services during resolution.	Support through Resolution
92.	For firms where insolvency procedures will be used, services should be set up in such a way that supports the rapid return of the firms' deposits or client assets. For example, services should be organised in such a way that would not impede the production of a Single Customer View (SCV) file in a Bank Insolvency Procedure (BIP) or the production of accurate data around client assets in a Special Administration Regime (SAR).	This is a customer consideration.	N/A
93.	Exit plan		
94.	Firms need to ensure that they are able to exit outsourcing plans, should they wish to, without undue disruption to their provision of services, or their compliance with the regulatory regime. Firms should:	Google recognizes that regulated entities need to be able to exit our Services (including to transfer services to another service provider) without undue disruption to their business, without limiting their compliance with regulatory requirements and without any detriment to the continuity and quality of their service to their own clients. To help regulated entities achieve this, upon request, Google will continue to provide the Services for 12 months beyond the expiry or termination of the contract  Google will enable you to access and export your data throughout the duration of our contract and during the post-termination transition term. You can export your data from the Services in a number of industry standard formats. For example:	



#### **Google Cloud Mapping**

#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
		<ul> <li>Google Kubernetes Engine is a managed, production-ready environment that allows portability across different clouds as well as on premises environments.</li> <li>Migrate for Anthos allows you to move and convert workloads directly into containers in Google Kubernetes Engine.</li> <li>You can export/import an entire VM image in the form of a .tar archive. Find more information on images and storage options on our Compute Engine</li> </ul>	Transition Assistance
		Documentation page.  Our Services enable you to transfer your data independently. You do not need Google's permission to do this. However, if a regulated entity would like support, upon request, Google will provide advisory and implementation services to assist in migrating workloads or otherwise transitioning use of the Services.	Transition Assistance
95.	<ul> <li>have exit plans and termination arrangements that are understood, documented and fully tested;</li> </ul>	Regulated entities can elect to terminate our contract for convenience with advance notice, including if necessary to comply with the law.  In addition, regulated entities may terminate our contract with advance notice for Google's material breach after a cure period, for change in control or for Google's insolvency.	Term and Termination
96.	<ul> <li>know how it would transition to an alternative service provider and maintain business continuity;</li> </ul>	For more information on the substitutability of our services refer to Row 94.	N/A
97.	<ul> <li>have a specific obligation put on the outsourcing provider to cooperate fully with both the firm and any new outsource provider(s) to ensure there is a smooth transition;</li> </ul>	For more information on how Google may assist on exit refer to Row 94.	N/A
98.	know how it would remove data from the service provider's systems on exit;	For more information on transferring data on exit, refer to Row 94.	N/A
99.	monitor concentration risk and consider what action it would take if the outsource provider failed.	This is a customer consideration	N/A