

#### **Google Cloud Mapping**

This document is designed to help banks supervised by the Reserve Bank of India ("regulated entity") to consider the <u>Guidelines for Managing Risk in Outsourcing of Financial Services by Cooperative Banks</u> ("framework") in the context of Google Cloud Platform ("GCP") and the Google Cloud Financial Services Contract.

We focus on the following requirements of the framework: 5.4 (Evaluating the Capability of the Service Provider), Section 5.5 (The Outsourcing Agreement), Section 5.6 (Confidentiality and Security), Section 5.8 (Business Continuity and Management of Disaster Recovery Plan), Section 5.9 (Monitoring and Control of Outsourced Activities). 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.

#	Framew	ork reference	1 9	Google Cloud Financial Services Contract reference
1	5.4	Evaluating the Capability of the Service Provider		
2	5.4.1	In considering or renewing an outsourcing arrangement, co-operative banks shall undertake appropriate due diligence to assess the capability of the service provider to comply with obligations in the outsourcing agreement. Due diligence should take into consideration qualitative, quantitative, financial, operational and reputational factors. Co-operative banks shall consider whether the service providers' systems are compatible with their own and also whether their standards of performance including in the area of customer service are acceptable to it. Co-operative banks shall also consider, while evaluating the capability of the service provider, issues relating to undue concentration of outsourcing arrangements with a single service provider. Where possible, co-operative banks may obtain independent reviews and market feedback on the service provider to supplement their own findings.	Google recognizes that you need to conduct due diligence and perform a risk assessment before deciding to use our services. To assist you, we've provided the information for each of the areas you need to consider below and in the rows that follow.  Compatibility  There are a number of ways to integrate our services with your systems.  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.  Cloud APIs allow you to access Google Cloud products from your code and automate your workflows by using your preferred programming language.	N/A
			Standards of performance  The SLAs provide measurable performance standards for the services and are available on our Google Cloud Platform Service Level Agreements.  Concentration risk	Services
			To manage concentration risk you can choose to use Anthos to build deploy and	N/A
3	5.4.2	Due diligence should involve an evaluation of all available information about the service provider, including but not limited to the following: -		



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4	a.	Past experience, competence to implement and support the proposed activity over the contracted period;	Qualifications and competencies: Google Cloud has been named as a leader in several reports by third party industry analysts. You can read these on our <u>Analyst Reports</u> page.	N/A
			Principals: Information about Google Cloud's leadership team is available on our Media Resources page.	
			<u>Customer references</u> : Information about our referenceable customers (including in the financial services sector) is available on our <u>Google Cloud Customer</u> page	
5	b.	Financial soundness and ability to service commitments even under adverse conditions;	You can review information about Google's financial condition on <u>Alphabet's Investor</u> Relations page.	N/A
6	C.	Business reputation, culture, compliance, complaints and outstanding or potential litigation;	For more information on Google's business reputation, refer to Row 4.	N/A
			Culture  You can review information about our mission, philosophies and culture on Alphabet's Investor Relations page. It also provides information about our organizational policies e.g. our Code of Conduct.	N/A
			Compliance	
			Google will comply with all laws, regulations and binding regulatory guidance applicable to it in the provision of the Services. You can review information about how Google addresses key compliance requirements at our <a href="Google Cloud Compliance Resource Center">Google Cloud Compliance Resource Center</a> .	Representation and Warranties
			Potential litigation	
			Information about material pending legal proceedings is available in our <u>annual reports</u> page	N/A
7	d.	Security, internal controls, audit coverage, reporting, monitoring and business continuity management;	Security and internal controls and audit coverage	



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		Google recognizes that regulated entities need to review our internal controls, systems	Certifications and Audit Reports
		and data security and privacy protections for the services as part of their risk assessment. To assist, Google undergoes several independent third-party audits on at least an annual basis to provide independent verification of our operations and internal controls. Google commits to comply with the following key international standards during the term of our contract with you:	der tilloutione una ridait ricporte
		<ul> <li>ISO/IEC 27001:2013 (Information Security Management Systems)</li> <li>ISO/IEC 27017:2015 (Cloud Security)</li> <li>ISO/IEC 27018:2014 (Cloud Privacy)</li> <li>PCI DSS</li> <li>SOC 1</li> <li>SOC 2</li> <li>SOC 3</li> </ul>	
		You can review Google's current <u>certifications and audit reports</u> at any time. <u>Compliance reports manager</u> provides you with easy, on-demand access to these critical compliance resources.	
		Monitoring	
		You can monitor Google's performance of the Services (including the SLAs) on an ongoing basis using the functionality of the Services.	Ongoing Performance Monitoring
		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</li> </ul>	



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			associated with the support request); and data about who is acting on data (e.g. the Google personnel's location).	
			Reporting	
			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 <a href="Incidents &amp; the Google Cloud dashboard">Incidents &amp; the Google Cloud dashboard</a> page.	TOIGHIILGHE DEVELORIHEITO
			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> <a href="Incident response whitepaper">Incident response whitepaper</a> .	Data Incidents ( <u>Cloud Data Processing</u> <u>Addendum</u> )
			Business continuity management	
			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> .	
8		External factors like political, economic, social and legal environment of the jurisdiction in which the service provider operates and other events that may impact service performance;	<ul> <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 on our Global Locations page.</li> <li>Information about the location of Google's subprocessors' facilities is available on our Google Cloud subprocessors page.</li> </ul>	Data Transfers ( <u>Cloud Data Processing</u> <u>Addendum</u>
			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:	Data Security; Subprocessors (Cloud Data Processing Addendum)
			The same robust security measures apply to all Google facilities, regardless of country / region.	



#	Framework reference	Google Cloud commentary	Google Cloud Financial Services Contract reference
		<ul> <li>Google makes the same commitments about all its subprocessors, regardless of country / region.</li> <li>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).</li> </ul>	
		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> .	Data Location (Service Specific Terms)
9	f. Ensuring due diligence by service provider of his employees; and	Google conducts background checks on our employees where legally permissible to provide a safe environment for our customers and employees.	N/A
10	g. Ability to effectively service all the customers with confidentiality where a service provider has exposure to multiple banks.	To keep data private and secure, Google logically isolates each customer's data from that of other customers.	Security Measures; Data Storage, Isolation and Logging (Cloud Data Processing Addendum)
11	5.5. The Outsourcing Agreement		
12	The terms and conditions governing the contract between a co-operative bank and service provider should be carefully defined in written agreements and vetted by bank's legal counsel on their legal effect and enforceability. Every such agreement should address the risks and risk mitigation strategies. The agreement should be sufficiently flexible to allow the bank to retain an appropriate level of control over the outsourcing and the right to intervene with appropriate measures to meet legal and regulatory obligations. The agreement should also bring out the nature of legal relationship between the parties, i.e., whether agent, principal or otherwise. Some of the key provisions of the contract would be:	The terms and conditions governing the relationship between the parties are set out in the Google Cloud Financial Services Contract.	N/A
13	i. The contract should clearly define the activities being outsourced including Service Level Agreements (SLAs) to agree and establish accountability for performance expectations. SLAs must clearly formalize the performance criteria to measure the quality and quantity of service levels.	The GCP services are described on our <u>services summary</u> page.  The SLAs are available on our <u>Google Cloud Platform Service Level Agreements</u> page	Definitions Services
14	ii. The co-operative bank shall ensure its ability to access all books, records and information relevant to the outsourced activity available with the service provider.	Google grants audit, access and information rights to regulated entities. Regulated entities may access their data on the services at any time	Customer Information, Audit and Access



#	Framew	vork reference		Google Cloud Financial Services Contract reference
15	iii.	The contract should provide for continuous monitoring and assessment of the service provider by the co-operative bank so that any necessary corrective measure can be initiated immediately.	You can monitor Google's performance of the Services (including the SLAs) on an ongoing basis using the functionality of the Services. For more information, refer to Row 7.	Ongoing Performance Monitoring
16	iv.	Controls to ensure customer data confidentiality and service providers' liability in case of breach of security and leakage of confidential customer related information shall be incorporated.	Confidentiality  This is addressed in the Cloud Data Processing Addendum where Google makes commitments to protect your data, including regarding security.	Confidentiality
			of more information about the security of our services, refer to now 25.	Data Security; Security Measures (Cloud Data Processing Addendum)
			Liability  Refer to your Google Cloud Financial Services Contract.	Liability
17	V.	A termination clause and notice period should be included.	You can elect to terminate our contract for convenience with advance notice, including if necessary to comply with law or if directed by a supervisory authority.	Term and Termination
			In addition, regulated entities may terminate our contract with advance notice for Google's material breach after a cure period.	
18	vi.	Contingency plans to ensure business continuity should be included.	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.	Business Continuity and Disaster Recovery
			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>	
19	vii.	The contract should provide for the prior approval/consent of co-operative bank for use of subcontractors by the service provider for all or part of an outsourced activity. Before according the consent, co-operative banks should review the subcontracting arrangement and ensure that these arrangements are compliant with the extant guidelines on outsourcing.	Google recognizes that regulated entities need to consider the risks associated with sub-contracting. We also want to provide you and all our customers with the most reliable, robust and resilient service that we can. In some cases there may be clear benefits to working with other trusted organizations e.g. to provide 24/7 support.	Google Subcontractors
			To enable regulated entities to retain oversight of any sub-outsourcing and provide choices about the services they use, Google will:	



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			<ul> <li>provide information about our subcontractors;</li> <li>provide advance notice of changes to our subcontractors; and</li> <li>give regulated entities the ability to terminate if they have concerns about a new subcontractor.</li> </ul> Google will oversee the performance of all subcontracted obligations and ensure our subcontractors comply with our contract with you.	
20	audits on agents a <sub>l</sub> review re	n the service provider whether by its internal or external auditors, or by appointed to act on its behalf and to obtain copies of any audit or eports and findings made on the service provider in conjunction with ices performed for the co-operative bank.	Audit right  Google recognizes that regulated entities must be able to audit our services effectively. Google grants audit, access and information rights to regulated entities and their appointees. This includes the regulated entity's internal audit department or a third party auditor appointed by the regulated entity.  Audit reports  Google recognizes that you expect independent verification of our security, privacy and compliance controls. Google undergoes several independent third-party audits on a	
21	persons a of transa processe	authorised by it to access the co-operative bank's documents, records	regular basis to provide this assurance. For more information on the third-party audit reports that Google provides refer to Row 7.  Google grants audit, access and information rights to supervisory authorities and their appointees. Regulated entities can access their data on the service at any time and provide their supervisory authorities with access.	Regulator Information, Audit and Access Customer Information, Audit and Access
22	the RBI / co-opera	cing agreement should also include a clause to recognise the right of / NABARD to cause an inspection of a service provider of a ative bank and its books and accounts by one or more of its officers or ees or other authorised persons.	See above.	N/A
23	custome	sourcing agreement should also provide that confidentiality of ers' information should be maintained even after the contract expires terminated. Further, co-operative bank shall have necessary provisions	Google's commitments to protect customer data in the <u>Cloud Data Processing</u> <u>Addendum</u> remain in effect until the data is deleted.	Duration (Cloud Data Processing Addendum)

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		to ensure that the service provider preserves documents as required by law and take suitable steps to ensure that its interests are protected in this regard even post termination of the services.	In addition, Google's confidentiality obligations survive expiry or termination of the contract.	Survival
24	5.6	Confidentiality and Security		
25	5.6.1	Public confidence and customer trust in co-operative bank is a prerequisite for the stability and reputation of the bank. Hence, the co-operative banks shall seek to ensure the preservation and protection of the security and confidentiality of customer information in the custody of the service provider.	The confidentiality and security of a cloud service consists of two key elements:  (1) 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.  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  (2) 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 by default	Confidentiality Data Security; Security Measures (Cloud Data Processing Addendum)



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			Although we want to offer you as much choice as possible when it comes to your data, the security of your data is of paramount importance to Google and 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 controlled by Google or on behalf of Google. More information is available at <a href="https://cloud.google.com/security/encryption-in-transit">https://cloud.google.com/security/encryption-in-transit</a> .	
			(b) 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 <u>Cloud Security Products</u> page.	
			(c) <u>Security resources</u>	
			Google also publishes guidance on:	
			<ul> <li>Security best practices</li> <li>Security use cases</li> </ul>	
26	5.6.2	Access to customer information by staff of the service provider shall be on 'need to know' basis, i.e., limited to those areas where the information is required in order to perform the outsourced function.	The "Managing Google's Access to your Data" section of our <u>Trusting your data with GCP</u> whitepaper explains Google's data access processes and policies.	N/A
			In addition, you can also monitor and control the limited actions performed by Google personnel on your data using these tools:	
			<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</li> </ul>	



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			number associated with the support request); and data about who is acting on data (e.g. the Google personnel's location).  • Access Approval is a feature that enables you to require your explicit approval before Google support and engineering teams are permitted access to your customer content. Access Approval provides an additional layer of control on top of the transparency provided by Access Transparency.	
27	5.6.3	The co-operative banks shall ensure that the service provider is able to isolate and clearly identify the co-operative bank's customer information, documents, records and assets to protect the confidentiality of the information. In the instances, where service provider acts as an outsourcing agent for multiple banks, care should be taken to build adequate safeguards so that there is no comingling of information/documents, records and assets.	To keep data private and secure, Google logically isolates each customer's data from that of other customers. Refer to Row 25 for more information on Google's security measures.	Security Measures; Data Storage, Isolation and Logging (Cloud Data Processing Addendum)
28	5.6.4	The co-operative banks shall review and monitor the security practices and control processes of the service provider on a regular basis and require the service provider to disclose security breaches.	Security breaches  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 incident">Data incident</a>	N/A  Data Incidents (Cloud Data Processing Addendum)
29	5.6.5	The co-operative banks shall immediately notify RBI / NABARD in the event of any breach of security and leakage of confidential customer related information. In these eventualities, the co-operative bank shall be liable to its customers for any damage.	response whitepaper. See above.	N/A
30	5.7	Business Continuity and Management of Disaster Recovery Plan		
31	5.7.1	Co-operative banks shall require its service providers to develop and establish a robust framework for documenting, maintaining and testing business continuity and recovery procedures. Banks need to ensure that the service provider periodically tests the Business Continuity and Recovery Plan. Banks	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.	· · · · · · · · · · · · · · · · · · ·



#	Framew	vork reference		Google Cloud Financial Services Contract reference
		may also conduct joint testing and recovery exercises with its service provider at mutually agreed frequency but at least annually.	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> .	
32	5.7.2	In order to mitigate the risk of unexpected termination of the outsourcing agreement or liquidation of the service provider, co-operative banks shall retain an 10 appropriate level of control over their outsourcing and the right to intervene with appropriate measures to continue its business operations in such cases without incurring prohibitive expenses and without any break in the operations of the bank and its services to the customers.	Google recognizes that regulated entities need to be able to exit our Services 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.	Transition Term
			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:	Data Export (Cloud Data Processing Addendum)
			Google Kubernetes Engine is a managed, production-ready environment that allows portability across different clouds as well as on premises environments.	
			Migrate for Anthos allows you to move and convert workloads directly into containers in Google Kubernetes Engine.	
			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 <a href="Compute Engine Documentation">Compute Engine Documentation</a> page.	
33	5.7.3	In establishing a viable contingency plan, co-operative banks should consider the availability of alternative service providers or the possibility of bringing the outsourced activity back in-house in an emergency and the costs, time and	Refer to Row 32 for more information about how you can retrieve your data from the services.	N/A
		resources that would be involved.	In addition, as part of your contingency planning, you can choose to use <u>Anthos</u> build, deploy and optimize your applications in both cloud and on-premises environments. Anthos provides a platform to develop, secure and manage applications across hybrid and multi-cloud environments.	



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34	5.7.4	Co-operative banks to ensure that in adverse conditions and/or termination of the contract, all documents, records of transactions and information given to the service provider and assets of the bank can be removed from the possession of the service provider in order to enable the bank to continue its business operations; or deleted, destroyed or rendered unusable.	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, refer to Row 25.  For more information on how you can retrieve your data, refer to Row 32.	N/A
35	5.8	Monitoring and Control of Outsourced Activities		
36	5.8.1	The co-operative banks shall have in place a management structure to monitor and control their outsourcing activities. It shall also be ensured that outsourcing agreements with the service provider contain provisions to address their monitoring and control of outsourced activities.	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 Status Dashboard provides status information on the Services.  Google Cloud Operations is an integrated monitoring, logging, and diagnostics hosted solution that helps you gain insight into your applications that run on GCP.  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).	
37	5.8.2	A central record of all material outsourcing that is readily accessible for review by the Board and CEO along with the management of the co-operative bank shall be maintained. The records should be updated promptly and half yearly reviews should be placed before the Board.	This is a customer consideration.	N/A
38	5.8.3	Regular audits at least annually by either the internal auditors or external auditors of the bank should assess the adequacy of the risk management practices adopted in overseeing and managing the outsourcing arrangement, the bank's compliance with its risk management framework and these guidelines.	Google grants audit, access and information rights to regulated entities and their appointees. This includes the regulated entity's internal audit department or a third party auditor appointed by the regulated entity.	·

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#	Framev	work reference	1 3	Google Cloud Financial Services Contract reference
39	5.8.4	Co-operative banks shall at least on an annual basis, review the financial and operational condition of the service provider to assess its ability to continue to meet its outsourcing obligations. Such due diligence reviews, which can be based on all 11 available information about the service provider should highlight any deterioration or breach in performance standards, confidentiality and security, and in business continuity preparedness. Co-operative banks shall also submit an Annual Compliance Certificate giving the particulars of outsourcing contracts, the prescribed periodicity of audit by internal / external auditor, major findings of the audit and action taken through Board, to the Regional Offices of RBI / NABARD.	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 <a href="Incidents &amp; the Google Cloud dashboard">Incidents &amp; the Google Cloud dashboard</a> page.  For more information on due diligence reviews, refer to Rows 2 to 10.	
40	5.8.5	The event of termination of any outsourcing agreement for any reason where the service provider deals with customers, shall be publicised by displaying at a prominent place in the branches and posting it on the bank's website so as to ensure that the customers do not continue to deal with the service provider.		N/A
41	5.8.6	Certain cases, like outsourcing of cash management, might involve reconciliation of transaction between the co-operative banks, the service provider and its subcontractors. In such cases, banks should ensure reconciliation of transactions between the bank and the service provider (and /or its subcontractor) are carried out as advised in RBI guidelines on 'Outsourcing of Cash Management – Reconciliation of Transactions' dated May 14, 2019 as amended from time to time.	This is a customer consideration.	N/A
42	5.8.7	A robust system of internal audit of all outsourced activities shall be put in place and monitored at the Board level.	This is a customer consideration.	N/A