## Using AWS in the Context of Singapore Privacy Considerations

December 3, 2021



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## Overview

This document provides information to assist customers who want to use AWS to store or process content containing personal data, in the context of key Singapore privacy considerations and the <u>Personal Data</u> <u>Protection Act 2012 ("PDPA"</u>). It will help customers understand:

• How AWS services operate, including how customers can address security and encrypt their content

• The geographic locations where customers can choose to store content and other relevant considerations

• The respective roles the customer and AWS each play in managing and securing content stored on AWS services.

This whitepaper focuses on typical questions asked by AWS customers when considering the implications of the PDPA on their use of AWS services to store or process content containing personal data.

There will also be other relevant considerations for each customer to address. A customer may, for example, need to comply with industry specific requirements, the laws of other jurisdictions where that customer conducts business, or contractual commitments that customer makes to a third party.

This paper is provided solely for informational purposes. It is not legal advice, and should not be relied upon as legal advice. As each customer's requirements will differ, AWS strongly encourages customers to obtain appropriate advice on their implementation of privacy and data protection requirements, and on applicable laws and other requirements relevant to their business.

When referenced in this paper, content means software (including virtual machine images), data, text, audio, video, images and other content that a customer, or any end user, stores or processes using AWS services.

A customer's content can include objects that the customer stores using Amazon Simple Storage Service (Amazon S3), files stored on an Amazon Elastic Block Store (Amazon EBS) volume, or the contents of an Amazon DynamoDB database table.

Such content may, but will not necessarily, include personal data relating to that customer, its end users or third parties. The terms of the AWS Customer Agreement, or any other relevant agreement with Amazon governing the use of AWS services, also applies to customer content.

Customer content does not include data that a customer provides to Amazon in connection with the creation or administration of its AWS accounts, such as a customer's names, phone numbers, email addresses and billing information—this is account information and it is governed by the <u>AWS Privacy</u> Notice.

## Customer Content: Considerations relevant to privacy and data protection

Storage of content presents all organizations with a number of common practical matters to consider, including:

- Will the content be secure?
- Where will content be stored?
- Who will have access to content?
- What laws and regulations apply to the content and what is needed to comply with these?

These considerations are not new and are not cloud-specific. They are relevant to internally hosted and operated systems as well as traditional third party hosted services. Each may involve storage of content on third party equipment or on third party premises, with that content managed, accessed or used by third party personnel. When using AWS services, each AWS customer maintains ownership and control of their content, including control over:

- What content they choose to store or process using AWS services
- Which AWS services they use with their content
- The Region(s) where their content is stored
- The format, structure and security of their content, including whether it is masked, anonymized or encrypted
- Who has access to their AWS accounts and content, and how those access rights are granted, managed and revoked

Because AWS customers retain ownership and control over their content within the AWS environment, they also retain responsibilities relating to the security of that content as part of the AWS "shared responsibility" model. This shared responsibility model is fundamental to understanding the respective roles of the customer and AWS in the context of privacy and data protection requirements that may apply to content that customers choose to store or process using AWS services.

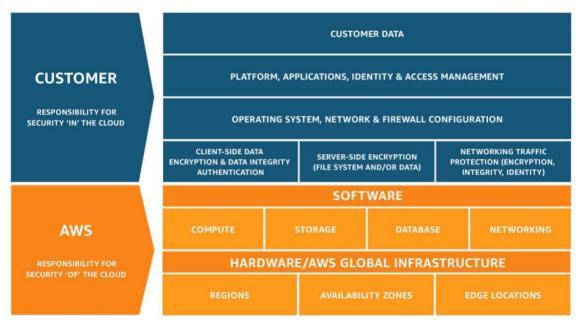
#### AWS shared responsibility approach to managing cloud security

*Will customer content be secure?* The answer to that question is particularly important because moving IT infrastructure to AWS creates a shared responsibility model between the customer and AWS, as both the customer and AWS have important roles in the operation and management of security. AWS operates, manages and controls the components from the host operating system and virtualization layer down to the physical security of the facilities in which the AWS services operate.

Customers are responsible for management of guest operating systems (including updates and security patches to those guest operating systems) and associated application software, as well as the configuration of AWS-provided security group firewalls and other security-related features.

Customers will generally connect to their AWS environment through services they acquire from third parties (for example, internet service providers). AWS does not provide these connections, and they are therefore part of the customer's area of responsibility.

Customers should consider the security of these connections and the security responsibilities of such third parties in relation to their systems. The respective roles of the customer and AWS in the shared responsibility model are shown below:



# What does the shared responsibility model mean for the security of customer content?

When evaluating the security of a cloud solution, it is important for customers to understand and distinguish between:

- Security measures that the cloud service provider (AWS) implements and operates "security of the cloud"
- Security measures that the customer implements and operates, related to the security of customer content and applications that make use of AWS services "security *in* the cloud"

While AWS manages security of the cloud, security in the cloud is the responsibility of the customer, as customers retain control of what security they choose to implement to protect their own content, applications, systems and networks – no differently than they would for applications in an on-site data center.

## Understanding security OF the cloud

AWS is responsible for managing the security of the underlying cloud environment. The AWS cloud infrastructure has been architected to be one of the most flexible and secure cloud computing environments available, designed to provide optimum availability while providing complete customer segregation.

It provides extremely scalable, highly reliable services that enable customers to deploy applications and content quickly and securely, at massive global scale if necessary.

AWS services are content agnostic, in that they offer the same high level of security to all customers, regardless of the type of content being stored, or the geographical region in which they store their content.

AWS's world-class, highly secure data centers use state-of-the art electronic surveillance and multi-factor access control systems. Data centers are staffed 24x7 by trained security guards, and access is authorized strictly on a least privileged basis. For a complete list of all the security measures built into the core AWS Cloud infrastructure, and services, see <u>Best Practices for Security, Identity, & Compliance</u>.

We are vigilant about our customers' security and have implemented sophisticated technical and physical measures against unauthorized access.

Customers can validate the security controls in place within the AWS environment through AWS certifications and reports.

These include the AWS <u>System & Organization Control (SOC) 1, 2 and 3 reports</u>, <u>ISO 27001</u>, <u>27017</u>, <u>27018</u> and <u>9001</u> certifications and <u>PCI DSS9</u> compliance reports.

The ISO 27018 certification demonstrates that AWS has a system of controls in place that specifically address the privacy protection of customer content. These reports and certifications are produced by independent third-party auditors and attest to the design and operating effectiveness of AWS security controls. AWS compliance certifications and reports can be requested at <a href="https://aws.amazon.com/compliance/contact">https://aws.amazon.com/compliance/contact</a>.

More information on AWS compliance certifications, reports, and alignment with best practices and standards can be found on <u>the AWS compliance site</u>.

## Understanding security IN the cloud

Customers retain ownership and control of their content when using AWS services. Customers, rather than AWS, determine what content they store or process using AWS services.

Because it is the customer who decides what content to store or process using AWS services, only the customer can determine what level of security is appropriate for the content they store and process using AWS. Customers also have complete control over which services they use and whom they empower to access their content and services, including what credentials will be required.

Customers control how they configure their environments and secure their content, including whether they encrypt their content (at rest and in transit), and what other security features and tools they use and how they use them. AWS does not change customer configuration settings, as these settings are determined and controlled by the customer.

AWS customers have the complete freedom to design their security architecture to meet their compliance needs. This is a key difference from traditional hosting solutions where the provider decides on the architecture. AWS enables and empowers the customer to decide when and how security measures will be implemented in the cloud, in accordance with each customer's business needs.

For example, if a higher availability architecture is required to protect customer content, the customer may add redundant systems, backups, locations, network uplinks, etc. to create a more resilient, high availability architecture. If restricted access to customer content is required, AWS enables the customer to implement access rights management controls both on a systems level and through encryption on a data level. To assist customers in designing, implementing and operating their own secure AWS environment, AWS provides a wide selection of security tools and features customers can use.

Customers can also use their own security tools and controls, including a wide variety of third-party security solutions. Customers can configure their AWS services to leverage a range of such security features, tools and controls to protect their content, including sophisticated identity and access management tools, security capabilities, encryption and network security.

Examples of steps customers can take to help secure their content include implementing:

- Strong password policies, enabling Multi-Factor Authentication (MFA), assigning appropriate permissions to users and takingrobust steps to protect their access keys
- Appropriate firewalls and network segmentation, encrypting content, and properlyarchitecting systems to decrease the risk of data loss and unauthorized access

Because customers, rather than AWS control these important factors, customers retain responsibility for their choices, and for security of the content they store or process using AWSservices, or that they connect to their AWS infrastructure, such as the guest operating system, applications on their compute instances, and content stored and processed in AWS storage, databases or other services.

AWS provides an advanced set of access, encryption, and logging features to help customers manage their content effectively, including AWS Key Management Service and AWS CloudTrail.

To assist customers in integrating AWS security controls into their existing control frameworks and help customers design and execute security assessments of their organization's use of AWS services, AWS publishes <u>a number of whitepapers</u> relating to security, governance, risk and compliance; and a number of checklists and best practices.

Customers are also free to design and execute security assessments according to their own preferences, and can request permission to conduct scans of their cloud infrastructure as long as those scans are limited to the customer's compute instances and do not violate the <u>AWS Acceptable Use Policy</u>.

## AWS Regions: Where will content be stored?

AWS data centers are built in clusters in various global regions. We refer to each of our data center clusters in a given country as an "AWS Region". Customers <u>have access to a number of AWS Regions around the world</u>, including an Asia Pacific (Singapore) Region. Customers can choose to use one Region, all Regions or any combination of AWS Regions. The map below shows AWS Region locations as at September 2021.

The AWS Cloud spans 81 Availability Zones within 25 geographic regions around the world, with announced plans for 24 more Availability Zones and 8 more AWS Regions in Australia, India, Indonesia, Israel, New Zealand, Spain, Switzerland, and United Arab Emirates (UAE).



AWS GovCloud (US) is an isolated AWS Region designed to allow US government agencies and customers to move sensitive workloads into the cloud by addressing their specific regulatory and compliance requirements.

AWS China (Beijing) is also an isolated AWS Region. Customers who wish to use the AWS China (Beijing) Region are required to sign up for a separate set of account credentials unique to the China (Beijing) Region.

AWS customers choose the AWS Region or Regions in which their content and servers will be located. This allows customers with geographic specific requirements to establish environments in a location or locations of their choice.

For example, AWS customers in Singapore can choose to deploy their AWS services exclusively in one AWS Region such as the Asia Pacific (Singapore) Region and store their content onshore in Singapore, if this is their preferred location. If the customer makes this choice, AWS will not move their content from Singapore without the customer's consent, except as legally required.

## Selecting AWS Global Regions in the AWS Management Console

The AWS Management Console gives customers secure login using their AWS or IAM account credentials. When using the AWS management console, or in placing a request through an AWS Application Programming Interface (API), the customer identifies the particular AWS Region(s) where it wishes to use AWS services. The figure below provides an example of the AWS Region selection menu presented to customers when uploading content to an AWS storage service or provisioning compute resources using the AWS management console.



Any compute and other resources launched by the customer will be located in the AWS Region designated by the customer. For example, when customer chooses the Asia Pacific (Singapore) Region for its compute resources such as Amazon EC2 or AWS Lambda launched in that environment would only reside in the Asia Pacific (Singapore) Region. This option can also be leveraged for other AWS Regions.

#### Transfer of personal data cross border

In 2016, the European Commission approved and adopted the new General Data Protection Regulation (GDPR). The GDPR replaced the EU Data Protection Directive, as well as all local laws relating to it. All AWS services comply with the GDPR.

AWS provides customers with services and resources to help them comply with GDPR requirements that may apply to their operations. These include AWS' adherence to the CISPE code of conduct, granular data access controls, monitoring and logging tools, encryption, key management, audit capability, adherence to IT security standards and AWS' C5 attestations. For additional information, pleasevisit the <u>AWS General Data</u> <u>Protection Regulation (GDPR) Center</u> and see our <u>Navigating GDPR Compliance on AWS guidance</u>.

When using AWS services, customers may choose to transfer content containing personal data cross border, and they will need to consider the legal requirements that apply to such transfers.

AWS provides a Data Processing Addendum that includes the Standard Contractual Clauses 2010/87/EU (often referred to as "Model Clauses") to AWS customers transferring content containing personal data (as defined in the GDPR) from the EU to a country outside of the European Economic Area, such as Singapore.

With our EU Data Processing Addendum and Model Clauses, AWS customers—whether established in Europe or a global company operating in the European Economic Area—can continue to run their global operations using AWS in fullcompliance with the GDPR. The AWS Data Processing Addendum is incorporated in the AWS Service Terms and applies automatically to the extent the GDPR applies to the customer's processing of personal data on AWS.

### Who can access customer content?

#### **Customer control over content**

Customers using AWS maintain and do not release effective control over their content within the AWS environment. They can:

- Determine where their content will be located, for example the type of storage they use on AWS and the geographic location (by AWS Region) of that storage
- Control the format, structure and security of their content, including whether it is masked, anonymized or encrypted. AWS offers customers options to implement strong encryption for their customer content in transit or at rest, and also provides customers with the option to manage their own encryption keys or use third party encryption mechanisms of their choice
- Manage identity and access management controls to their content, such as by using AWS Identity and Access Management (IAM), and by setting appropriate permissions and security credentials to access their AWS environment and content

This allows AWS customers to control the entire life-cycle of their content on AWS, and manage their content in accordance with their own specific needs, including content classification, access control, retention and deletion.

#### AWS access to customer content

AWS makes available to each customer the compute, storage, database, networking or other services, as described on our website. Customers have a number of options to encrypt their content when using the services, including using AWS encryption features (such as AWS Key Management Service), managing their own encryption keys, or using a third-party encryption mechanism of their own choice.

AWS does not access or use customer content without the customer's consent, except as legally required. AWS never uses customer content or derives information from it for other purposes such as marketing or advertising.

#### **Government rights of access**

Queries are often raised about the rights of domestic and foreign government agencies to access content held in cloud services. Customers are often confused about issues of data sovereignty, including whether and in what circumstances governments may have access to their content.

The local laws that apply in the jurisdiction where the content is located are an important consideration for some customers. However, customers also need to consider whether laws in other jurisdictions may apply to them. Customers should seek advice to understand the application of relevant laws to their business and operations.

When concerns or questions are raised about the rights of domestic or foreign governments to seek access to content stored in the cloud, it is important to understand that relevant government bodies may have rights to issue requests for such content under laws that already apply to the customer.

For example, a company doing business in Country X could be subject to a legal request for information even if the content is stored in Country Y. Typically, a government agency seeking access to the data of an entity will address any request for information directly to that entity rather than to the cloud provider.

Singapore, like most countries, has legislation that enables Singapore's law enforcement and government security bodies to seek access to information. Singapore has processes (including Mutual Legal Assistance Treaties) to enable the transfer of information to other countries in response to appropriate legal requests for information (e.g. relating to criminal acts).

However, it is important to remember that the relevant laws contain criteria that must be satisfied before authorizing in order for the relevant law enforcement body to make a valid request. For example, the government agency seeking access will need to show it has a valid reason for requiring a party to provide access to content, and may need to obtain a court order or warrant.

Many countries have data access laws which purport to apply extraterritorially. An example of a U.S. law with extra-territorial reach that is often mentioned in the context of cloud services is the U.S. Patriot Act.

The Patriot Act is similar to laws in other developed nations that enable governments to obtain information with respect to investigations relating to international terrorism and other foreign intelligence issues.

Any request for documents under the Patriot Act requires a court order demonstrating that the request complies with the law, including, for example, that the request is related to legitimate investigations. The Patriot Act generally applies to all companies with an operation in the U.S., irrespective of where they are incorporated and/or operating globally and irrespective of whether the information is stored in the cloud, in an on-site data center or in physical records. This means that companies headquartered or operating outside the United States, which also do business in the United States may find they are subject to the Patriot Act by reason of their own business operations.

#### AWS policy on granting government access

AWS is vigilant about customers' security and does not disclose or move data in response to a request from the U.S. or other government unless legally required to do so in order to comply with a legally valid and binding order, such as a subpoena or a court order, or as is otherwise required by applicable law.

Non-governmental or regulatory bodies typically must use recognized international processes, such as Mutual Legal Assistance Treaties with the U.S. government, to obtain valid and binding orders. Additionally, our practice is to notify customers where practicable before disclosing their content so they can seek protection from disclosure, unless we are legally prohibited from doing so or there is clear indication of illegal conduct in connection with the use of AWS services. For additional information, please visit the <u>Amazon</u> <u>Information Requests Portal</u>.

## Privacy and Data Protection in Singapore: The PDPA

This part of the paper discusses aspects of the PDPA relating to data protection. The data protection principles under the PDPA impose requirements for collecting, using, disclosing, transferring and processing personal data.

The PDPA makes a distinction between the organization that processes or controls/authorizes the processing of personal data and a "data intermediary" who processes personal data on behalf of another organization.

A data intermediary, when it processes personal data for another organization, has more limited obligations under the data protection principles. These arise under the Protection Obligation and Retention Limitation Obligation.

AWS appreciates that its services are used in many different contexts for different business purposes, and that there may be multiple parties involved in the data lifecycle of personal data included in customer content stored or processed using AWS services.

For simplicity, the guidance in the table below assumes that, in the context of customer content stored or processed using AWS services, the customer:

- Collects personal data from its end users or other individuals, and determines the purpose for which the customer requires and will use the personal data
- Has the capacity to control who can access, update and use the personal data
- Manages the relationship with the individual about whom the personal data relates, including by communicating with the individual as required to comply with any relevant disclosure and consent requirements

Customers may, in fact, work with (or rely on) third parties to discharge these responsibilities, but the customer, rather than AWS, would manage its relationships with third parties.

We summarize the data protection principles of the PDPA in the table below. We also discuss aspects of the AWS services relevant to these requirements.

Data Protection Principle	Summary of Data Protection Obligations	Considerations
Notification and consent obligation	Individuals should be notified in advance of the purposes for which their personal data will be collected, used and disclosed. Personal data may only be collected, used or disclosed for the purpose for which the individual has given his/her consent	<b>Customer:</b> The customer determines and controls when, how and why it collects personal data from individuals and decides whether it will include that personal data in customer content it stores or processes usingAWS services. The customer may also need to ensure it discloses the purposes for which it collects that data to the relevant individuals; obtains the data from a permitted source; and that it only uses the data for a permitted purpose. As between the customer and AWS, the customer has a relationship with the individuals whose personal data the customer stores on AWS, and therefore the customer is able to communicate directly with them about collection and treatment of their personal data.
		The customer rather than AWS will also know the scope of any notifications given to,or consents obtained by the customer from, such individuals relating to the collection, use, or disclosure of their personal data.
		The customer will know whether it uses AWS services to store or process customer content containing personal data, and therefore is best placed to inform individualsthat it will use AWS as a service provider, if required.
		<b>AWS:</b> AWS does not collect personal datafrom individuals whose personal data is included in content a customer stores or processes using AWS, and AWS has no contact with those individuals. Therefore, AWS is not required and is unable in the circumstances to communicate with the relevant individuals.
		AWS only uses customer content to provide and maintain the AWS services the customer selects and does not use customercontent for any other purposes.

Data Protection Principle	Summary of Data Protection Obligations	Considerations
Purpose limitation obligation	Personal data may only be collected, used or disclosed for reasonable purposes.	<b>Customer:</b> The customer determines and controls why it collects personal data, what it will be used for, who it can be used by and who it is disclosed to. The customer should ensure it only does so for permitted purposes.
		If the customer chooses to include personal data in customer content stored in AWS, thecustomer controls the format and structure of its content and how it is protected from disclosure to unauthorized parties, includingwhether it is anonymized or encrypted.
		<b>AWS:</b> AWS only uses customer content to provide and maintain the AWS services the customer selects and does not use customercontent for any other purposes.
Access and correction obligation	Individuals should be able to access and correcttheir personal data, and find out how it has been used and to whom it has been disclosed in the pastyear.	<b>Customer:</b> The customer retains control of content stored or processed using AWS services, including control over how that content is secured and who can access and amend that content. In addition, as betweenthe customer and AWS, the customer has a relationship with the individuals whose personal data is included in customer content stored or processed using AWS services. The customer rather than AWS is therefore able to work with relevant individuals to provide them access to, and the ability to correct, personal data includedin customer content.
		<b>AWS:</b> AWS only uses customer content to provide and maintain AWS services customer selects and does not use customercontent for any other purposes. AWS has no contact with the individuals whose personal data is included in content a customer storesor processes using the AWS services.
		Given this, and the level of control customers enjoy over customer content, AWS is not required, and is unable in the circumstances, to provide such individuals with access to, or the ability to correct, their personal data.

Data Protection Principle	Summary of Data Protection Obligations	Considerations
Accuracy obligation	An organization should take all reasonable steps to ensure that personal data is accurate and complete if the personal data is likely to be used tomake a decision that affects the individual or is disclosed to another organization.	<b>Customer:</b> When a customer chooses to store or process content containing personaldata using AWS services, the customer has control over the quality of that content and the customer retains access to and can correct it. This means that the customer should take all required steps to ensure that personal data included in customer content is accurate, complete, not misleading and kept up-to-date.
		<b>AWS</b> : <u>AWS's SOC 1, Type 2 report</u> includes control objectives that provide reasonable assurance that data integrity is maintained through allphases of the services including transmission, storage and processing.
Protection obligation	Organizations should protect personal data from unauthorized access, use, disclosure, modification or disposalby implementing reasonable security arrangements.	Customer: Customers are responsible for security in the cloud, including security of their content (and personal data included intheir content). AWS: AWS is responsible for managing the security of the underlying cloud environment. Customers can validate the security controls in place within the AWS environment through AWS certifications and reports, including the <u>AWS System &amp; Organization</u> <u>Control (SOC) 1, 2</u> and <u>3</u> reports, <u>ISO 27001, 27017</u> and <u>27018</u> certifications and <u>PCI DSS</u> compliance reports.
Retention limitation obligation	Personal data should not be kept longer than necessary for the fulfilment of the purpose for which the personal data was collected or retained when it no longer necessary for legalor business purposes.	<ul> <li>Customer: Only the customer knows why personal data included in customer content stored or processing using AWS services wascollected and only the customer knows whenit is required to retain that personal data for its legal or business purposes. The customer should delete or anonymize the personal data when no longer needed.</li> <li>AWS: The AWS services provide the customer with controls to enable the customer to delete content, as described inthe <u>AWS Documentation</u>.</li> </ul>

Data Protection Principle	Summary of Data Protection Obligations	Considerations
Principle Transfer limitation obligation	Obligations Organizations may only transfer personal data to recipients outside Singapore where the recipient is bound by legally enforceable obligations to protect the personal data in accordance with a standard comparable tothe PDPA.	<ul> <li>Customer: The customer can choose the AWS Region or Regions in which their content will be located and can choose to deploy their AWS services exclusively in a single Region if preferred. AWS services are structured so that a customer maintains effective control of customer content - regardless of what Region they use for their content.</li> <li>The customer should disclose to individuals the locations in which it stores or processes their personal data and obtain any required consents relating to such locations from the relevant individuals if necessary. As betweenthe customer and AWS, the customer has a relationship with the individuals whose personal data the customer stores or processes using AWS services, and thereforethe customer is able to communicate directlywith them about such matters.</li> <li>AWS: AWS only stores and processes each customer's content in the AWS Region(s), and using the services, chosen by the customer, and otherwise will not move customer content without the customer's consent, except as legally required. If a customer chooses to store content in more than one Region, or copy or move content between Regions, that is solely the customer's choice, and the customer will continue to maintain effective control of its content, wherever it is stored and processed.</li> </ul>
		<b>General:</b> AWS is <u>ISO 27001 certified</u> and offers robust security features to all customers, regardless of the geographical Region in which they store their content.

Data Protection Principle	Summary of Data Protection Obligations	Considerations
Openness obligation	Organizations should designate a data protection officer, implement policies and procedures to meet the PDPA obligations and make such policies and procedures publicly available.	<b>Customer:</b> The customer determines and controls when, how and why it collects personal data from individuals and whether it will include that personal data in the content the customer stores or processes using AWS services. As between the customer and AWS, the customer has a relationship with the individuals whose personal data the customer stores or processes using AWS services. The customer is therefore responsible for ensuring that the individuals from whom it collects personal data are aware of the customers' data protection policies and procedures and that its policies and procedures meet the requirements of the PDPA.
		<b>AWS:</b> AWS does not collect personal data from individuals whose personal data is included in content a customer stores or processes using AWS services and AWS has no contact with those individuals. Therefore, AWS cannot address in its policies how each customer chooses to treat personal data included in the content a customer stores or processes using AWS services.

#### **Privacy Breaches**

Given that customers maintain control of their content when using AWS, customers retain the responsibility to monitor their own environment for privacy breaches and to notify regulators and affected individuals as required under applicable law. Only the customer is able to manage this responsibility.

Customers are in the best position to manage this responsibility because they maintain and manage the necessary security and access controls to their accounts and content. AWS customers have access to an advanced set of access, encryption and logging features to help customer protect their content effectively (e.g. AWS Identity and Access Management (IAM), AWS Organizations and AWS CloudTrail). Customers can use IAM to create and manage AWS users and groups, and use permissions to allow and deny their access to customer content. AWS CloudTrail enables customer to monitor and record account activity across their environment, control over storage, analysis and remediation actions.

In Singapore 'organizations' i.e. customers (but not data intermediaries such as AWS) are required to notify the Personal Data Protection Commission and affected individuals of unauthorized access to or disclosure of personal data that results in (or is likely to result in) significant harm to individuals, or is of a significant scale.

Additionally, there are circumstances in which notifying individuals will be the best approach in order to mitigate risk, even though it is not mandatory under the applicable law. It is for the customer to determine when it is appropriate or necessary for them to notify individuals and the notification process they will follow.

#### **Other considerations**

This whitepaper does not discuss other privacy or data protection laws, aside from the PDPA. Customers should consider the specific requirements that apply to them, including any industry specific requirements.

The relevant privacy and data protection laws and regulations applicable to individual customers will depend on several factors including where a customer conducts business, the industry in which they operate, the type of content they wish to store, where or from whom the content originates, and where the content will be stored.

Customers concerned about their privacy regulatory obligations should first ensure they identifyand understand the requirements applying to them, and seek appropriate advice.

#### **Closing Remarks**

At AWS, security is always our top priority. We deliver services to millions of active customers, including enterprises, educational institutions and government agencies in over 190 countries. Our customers include financial services providers and healthcare providers and we are trusted with some of their most sensitive information.



AWS services are designed to give customers flexibility over how they configure and deploy their solutions as well as control over their content, including where it is stored, how it is stored, and who has access to it. AWS customers can build their own secure applications and store content securely on AWS.

### **Additional Resources**

To help customers further understand how they can address their privacy and data protection requirements, customers are encouraged to read the risk, compliance and security whitepapers, best practices, checklists and guidance published on the AWS website. This material can be found at <a href="http://aws.amazon.com/compliance">http://aws.amazon.com/compliance</a> and <a href="http://aws.amazon.com/security">http://aws.amazon.com/security</a>.

As of the date of this document, specific whitepapers about privacy and data protection considerations are also available for the following countries or regions:

<u>Germany</u> <u>Australia</u> <u>Hong Kong</u> <u>Japan</u> <u>Malaysia</u> <u>New Zealand</u> <u>Philippines</u>

## **Further Reading**

AWS also offers training to help customers learn how to design, develop, and operate available, efficient, and secure applications on the AWS cloud and gain proficiency with AWS services and solutions. We offer free instructional videos, self-paced labs, and instructor-led classes.

Further information on AWS training is available at: http://aws.amazon.com/training/.

AWS certifications certify the technical skills and knowledge associated with the best practices for building secure and reliable cloud-based applications using AWS technology. Further information on AWS certifications is available at: <a href="http://www.amazon.com/certification/">http://www.amazon.com/certification/</a>.

If you require further information, please contact AWS at: <u>https://aws.amazon.com/contact-us/</u> or contact your local AWS account representative.



#### **Document Revisions**

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