

Cloud Operations

Service Definitions and Interpretations

The Small Print

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Definitions and Interpretations

The definitions for capitalised terms used throughout the Service Specifications are set out in this Cloud Operations Service Definitions document which forms a part of every Service Specification and the Cloudreach Order Form to which the Services Specifications relate.

- **"% Spend Calculation"** means the calculation used by Cloudreach to determine the monthly Customer charges for the Services which are managed by Cloudreach in accordance with the applicable Order Form based on the % Spend Value.
- **"% Spend Value"** means the percentage value used by Cloudreach to calculate the monthly Customer charges for the Services which are managed by Cloudreach in accordance with the applicable Order Form.
- **"9x5 or Business Hours"** means the local standard business hours of 9am 5pm for the applicable time zone(s) in the country(ies) in which the Services are being performed or Products are being provided, from Monday to Friday excluding public holidays in the applicable country.
- **"24x5"** means 24 hours per day, Monday to Friday excluding public holidays in the country(ies) in which the Services are being performed.
- "Account Provisioning" or "Account Configuration" means the creation of Provider Accounts while adhering to and applying best practices and governance requirements during the provisioning process.
- **"Active Directory"** means a technology created by Microsoft Corporation which provides a variety of network services, including authentication, DNS-based naming and other network information.
- "Active Directory Premium" means a subscription-based service provided by Microsoft Corporation enabling enhanced directory services capabilities.
- **"Agile"** means a method of project management, used especially for software development, that is characterized by the division of tasks into short phases of work and frequent reassessment and adaptation of plans.
- "Agile Improvement Services" AIS means the service delivering DevOps skills to improve customer's IT operational agility and continual improvement to ever changing and accelerated rate of change of their business needs.
- "Alert Logic" means the managed cloud security and compliance solutions provided by Alert Logic.
- **"AMI"** means the service provided by Amazon Web Services LLC known as an Amazon Machine Image.
- "**Antivirus**" means protective software designed to defend computers against malicious software.
- "Antivirus Services" means software used to prevent, detect and remove malware, such

as: computer viruses, malicious BHOs, hijackers, ransomware, keyloggers, backdoors, rootkits, trojan horses, worms, malicious LSPs, dialers, fraud tools, adware and spyware.

- "Apache" means the open-source company that provides solutions for website management and delivery.
- "Apache HTTPD" means the open-source web server software provided by Apache.
- "API" means a set of functions and procedures that allow the creation of applications which access the features or data of an operating system, application, or other service.
- **"Application"** means an application software (app or application for short) and is a computer software designed to perform a group of coordinated functions, tasks, or activities for the benefit of the user.
- "Application Component" means a service within an Application (e.g. database, a microservice, a load balancer).
- "Application Files" means files placed on an Operating System in order for an application to deliver its intended function.
- **"ASG"** means the service provided by Amazon Web Services LLC known as Autoscaling Group which triggers the creation or shutdown of EC2 Instances based upon performance metrics.
- "Aurora" means the service by AWS which provides relational databases within AWS.
- "AWS" means Amazon Web Services LLC.
- **"AWS and/or Azure Accounts"** means one or more accounts, as more particularly detailed in the applicable Order Form, setup by Cloudreach or Customer with AWS and/or Azure for the purpose of running a Public Cloud Environment and managed by Cloudreach in accordance with the applicable Order Form.
- "AWS Master Billing Account" means the AWS Account used exclusively for consolidating billing from other AWS Accounts. This account uses no other AWS services.
- "AWS Organizations" means the service provided by AWS that offers policy-based management for multiple AWS accounts
- "Azure" means the cloud computing platform provided by Microsoft.
- "Azure Environment" means an environment created by Cloudreach or Customer within the Azure Subscription using services provided by Microsoft.
- "Azure Active Directory or Azure AD" means Microsoft's multi-tenant, cloud based directory and identity management service.
- "Azure Diagnostics" means the monitoring service provided by Azure.
- "Azure Subscription" means a subscription set up by Cloudreach with Azure for the purpose of running Azure Environments which is used by Cloudreach to bill the Customer.
- "Azure Virtual Machine" means the service provided by Azure to deploy a wide range of computing solutions.

- "Azure Resource Groups" means a logical grouping of resources within Azure.
- "Billing Account" means either an AWS Master Account, Microsoft Azure Account or Google GCP Billing Account.
- "Billing Dashboard" means an online portal providing visibility into cloud usage, performance, spend as well as financial optimisations.
- "Billing Optimization Concierge Team" means the dedicated team of billing experts who shall assist with billing, invoice and financial optimisation related queries.
- "Billing and Support Request" means an issue that meets the Incident categorisation criteria defined in the Support and SLA Specification.
- "Bucket" means the feature on AWS S3 which is a container for stored objects.
- **"Budget Alert"** means a notification when a Customer-specified budget reaches a budget threshold defined by the Customer.
- "Budget Report" means the monthly summary report sent to each Invoice Group stakeholder showing a rate of spend chart illustrating the spend to date compared with the budget provided.
- **"Business Days"** means Monday to Friday excluding public holidays in the country(ies) in which the Services are being performed.
- "Business Hours" means the local standard business hours of 9am 5pm for the applicable time zone(s) in the country(ies) in which the Products is being provided, from Monday to Friday excluding public holidays in the applicable country.
- "Caseload" means the throughput of requests for service logged by/with Cloudreach in relation to a line of business application.
- **"Change Request"** means a formal request to implement and make a change to a Cloudreach managed service in accordance with the Cloudreach IT Change Management Process as set out in the Support and SLA Specification.
- **"Change Log"** means a record of all changes made to the Customer's Cloudreach Cost Control offering.
- **"Change Management Process"** means the Cloudreach process used to document, request, authorise and implement a change to a Customer's service.
- "Chef" means the infrastructure automation and compliance solutions provided by Chef.
- **"Cirrus"** means the collection of management software used by Cloudreach to provide operational services to the Customer.
- **"Cloud Defender"** means the managed cloud-based suite of security and compliance solutions provided by Alert Logic.

- **"CloudFront"** means a content delivery network (CDN) provided by Amazon Web Services LLC.
- **"Cloud Insight"** means the vulnerability and configuration management solution provided by Alert Logic as part of the Cloud Defender suite.
- **"Cloud Operations Center"** means the geographic areas from which Cloudreach personnel provide operational services of Customer's Public Cloud Environment or Private Cloud Environment.
- "Cloud Provider Account" or "Provider Account" means an AWS Account, Azure Subscription or GCP Project (as applicable).
- "Cloudreach Service Delivery Manager" means the Cloudreach employee as mutually agreed between the parties in writing including email.
- "CloudWatch" means the monitoring service provided by AWS.
- **"Consolidated Billing"** means a feature of AWS Organizations that allows you to consolidate the payment of multiple AWS accounts.
- **"CoreOps"** means CoreOps engineers providing support and maintenance through Cloudreach's service desk.
- "Cost Allocation Group" means the logical grouping of resources where costs can be allocated to.
- "Cost and Usage Reports" means the AWS Cost and Usage report which tracks AWS usage and provides estimated charges associated with the AWS account(s). The report contains line items for each unique combination of AWS product, usage type, and operation that the AWS account(s) uses.
- "CSD or Service Desk" means the Cloudreach Service Desk.
- **"CSP"** means Cloud Service Provider such as Amazon Web Services (AWS), Microsoft Azure or Google GCP.
- **"Customer Cloud Platform"** means the Customer systems and services deployed within the Public Cloud Environment or Private Cloud Environment, which are managed by Cloudreach in accordance with the applicable Order Form.
- **"Customer Service Manager"** means a Customer employee as mutually agreed between the parties in writing including email.
- **"Daemon"** means a software application which is executed in the background of the Operating System as opposed to one executed by an interactive user.
- **"Database Engine"** means a database application such as SQL Server, Oracle, MySQL etc that is running on a cloud Platform as a Service (PaaS) service such as Amazon Web Services Relational Database Service or Microsoft Corporation SQL Azure.
- **"Database Monitor"** means an automated probe that is configured to run a sample query against the targeted database to test query response time and performance.

"Day Period" means a period of eight (8) hours delivered during Business Hours.

"DevOps" means a set of principles and practices for communication, collaboration and integration between software development (application/software engineering) and IT operations (systems administration/infrastructure).

"Domain Controller" means the service provided by Microsoft to allow for authentication, authorisation and accounting on a Windows environment.

"Domain Topology" means the the physical and logical connections to one Domain Controller to another.

"EBS" means the service provided by AWS known as the Elastic Block Store which provides block level storage volumes for use with Amazon EC2 Instances.

"EC2" means the service provided by AWS known as Elastic Compute Cloud which provides resizable compute capacity in the cloud.

"Emergency Change Request" means a Change Request that requires immediate action to ensure stability, avoid interruption or restore service to a Customer service.

"End Users" means Customer's employees with a Public Cloud Environment or Private Cloud Environment.

"Event Log" means the Microsoft Windows Server Event Log that captures and displays detailed information about notable Windows Server Operating System events.

"Exchange Rate" means the mid-market exchange rate as quoted by <u>xe.com</u>, on the date on which Cloudreach invoices Customer in accordance with an Order Form + 4%. For example if the quoted rate is 1 USD = 0.622886 GBP, then Cloudreach will exchange currency at a rate of 1 USD = 0.647801 GBP.

"Financial Optimisation Consultants" means a Cloudreach consultant with experience in delivering financial optimisation engagements.

"General Hours to Days Rule" means the rules for converting hours of delivery in a work day to delivery days using the following mechanism:

- For hours of delivery between 0 and 4 hours, the number of delivery days will be half a day.
- For hours of delivery greater than 4 and less than 8 hours, the number of delivery days will be 1.
- For hours of delivery between 8 and 16 hours, the number of delivery days will be calculated by applying the following formula: "hours of delivery * 0.125 = number of delivery days. (e.g. 10 hours of delivery equals 1.25 delivery days).
- The number of delivery days in a work day will not exceed 2.

"Golden AMI" means an AMI that the Customer has customized to their requirements and then saved as a personal AMI which can be used to launch an EC2 Instance.

"Hierarchical Tagging" means the copying of AWS instance tags to attached EBS volumes and their associated EBS snapshots.

"Hosted Database Engine" means a database application such as SQLServer, MongoDB, MySQL etc that is installed on an AWS EC2 Instance.

"HTTP" means an application protocol for distributed, collaborative, hypermedia information systems.

"HTTP Monitor" means an automated probe that is configured to request a web page or API endpoint on a regular basis.

"IAM" means the service provided by AWS known as Identity and Access Management which provides the ability to securely control access to AWS services and resources.

"IIS" means the Internet Information Services (IIS), a web server created by Microsoft.

"Improvement Engineer" means an engineer who works on the delivery of improvement services. The Improvement Engineer is focused on delivering improvements in technology, delivery strategy and organisational capabilities; and on driving better value outcomes through adoption of managed services, automation, architecture improvements, and improved software enablement.

"Incident" means an event affecting the availability or performance of the Customer's service which is processed in accordance with the Cloudreach Incident Management Process as set out in the Support and SLA Specification.

"Incident Management Process" means the Cloudreach process used to capture an Incident and resolve an event which impacts the availability or performance of the Customer's service pursuant to the Support and SLA Specification.

"Infrastructure Components" means configurable & installable components within a Customer Environment (e.g. middleware, Instances, databases, load balancers, Nodes etc.)

"Instance" means a virtual server which allows a user to boot and run an Operating System.

"Internet Gateway" means a network connection that acts as the focal points for internal and external access to a particular network or subnet.

"Integration" means a unidirectional connection that represents a repeatable interaction with a unique data set.

"ITIL" or "Information Technology Infrastructure Library" means a set of best practices for IT service management that focuses on aligning IT services with the needs of the Customer.

"IT Change Management" means a formal process to document and authorise changes to a service which process is recorded in Cloudreach's Cirrus system and confirmed through an email sent by the CSD to the Customer's Primary Contact.

"ITSM" means information technology (IT) service management.

- "Invoice Group" means the logical grouping of Provider Accounts with optional name(s) assignment.
- **"Jetty"** means a pure Java-based HTTP server and servlet container developed as a free and open source project as part of the Eclipse Foundation.
- **"JSON or JavaScript Object Notation"** means the machine readable text format used to communicate data by way of key/value pairs.
- **"KMS"** means AWS Key Management Service (KMS) which is a managed service that makes it easy to create and control the encryption keys used to encrypt data, and uses Hardware Security Modules (HSMs) to protect the security of the keys.
- **"KCC"** means Knowledge Consistency Checker which is a technology used within Microsoft Active Directory forests to calculate the fastest route between each Domain Controller while preventing routing loops.
- **"Linked Account"** means the AWS Accounts linked to a Master Account as part of an AWS Organization billing relationship.
- **"Log Manager"** means the log collection, analysis and storage service provided by Alert Logic.
- **"Master Account"** means an AWS Account that pays the charges accrued by all Linked Accounts in an AWS Organization billing relationship.
- "Multi-currency Invoicing" means invoicing AWS or Azure Monthly Spend in a number of selected currencies using the then current Exchange Rate.
- **"Malware"** means a variety of forms of hostile or intrusive software, including computer viruses, worms, trojan horses, ransomware, spyware, adware, scareware, and other malicious programs.
- **"MFA"** means Multi Factor Authentication which is a security system that requires more than one method of authentication from independent categories of credentials to verify the user's identity for a login or other transaction.
- "Microsoft" means Microsoft Corporation.
- **"Microsoft Windows Server"** means the name for a group of server operating systems released by Microsoft.
- "MongoDB" means the open-source document and nosql database by MongoDB Inc.
- **"Managed Services Identity (MSI)"** gives code an automatically managed identity for authenticating to Azure services, so that credentials do not need to be situated within code.
- **"MSP"** means Cloudreach's operational services platform designed to monitor, gather analytical data and manage availability of the Public Cloud Environment or Private Cloud Environment.

"Near Real Time" means the time delay between an event occurring in the Public Cloud Environment or Private Cloud Environment and its subsequent automated logging in the Cloudreach MSP which is caused by data processing and network transmission latency.

"Network Security Group" means the service provided by Azure to specify which network traffic is allowed to or from an Azure Virtual Machine.

"New Relic" means the application performance monitoring service provided by New Relic.

"NGINX" means the web server created by NGINX Inc.

"Onboarding" means the Cloudreach processes for bringing a Customer environment under Cloudreach operational management.

"Operating System" means the software used to control hardware resources with the sole purpose of delivering software applications to end users.

"Phased Rightsizing and Reservations" means a roadmap and plan outlining the resources to be rightsized-only, reserved-only or rightsized then reserved.

"Private Cloud or Private Cloud Environment" means a cloud computing platform that is implemented by and under the control of the Customer.

"Private Cloud Virtual Machine" means an operating system service running on a Private Cloud Environment.

"Provider Account" mean an AWS Account and/or Azure Subscription.

"Problem" means a cause of one or more Incidents.

"Service Specification" means a document which details the offerings delivered by Cloudreach as set out in a Cloudreach Cloud Operations Order Form.

"Public Cloud Environment" means an environment created by Cloudreach or the Customer within an AWS and/or Azure Account using services provided by AWS and/or Azure.

"Redshift" means the service provided by AWS known as Redshift for data warehousing.

"RDS" means the service provided by AWS known as Relational Database Services which provides relational databases within AWS.

"Remote-First" means the delivery of Agile Improvement Services from remote Cloudreach location(s) to that of the customer's location where practices to support a culture of enabling remote workers. It ensures that people working remote have a first class citizen experience in collaboration, planning, learning and delivery."

"Reserved Instance/Reservation" means AWS Reserved Instances allowing the Customer to make a commitment to AWS to utilize specific Instance types, in return for a discount on the Customer's compute costs.

- "Right-Sizing" means the migration of a service to an alternative resource specification more accurately matching the capacity requirements of the hosted workload.
- **"Root Credentials"** means authentication information associated with the AWS account owner.
- "Runbook" means a compilation of procedure(s) and/or operation(s) specific to a service intended to achieve an outcome.
- **"S3"** means the service provided by AWS known as the Simple Storage Service which provides online storage within AWS.
- **"Sandbox"** means a testing environment or service that isolates testing of changes from a production environment or service.
- "Sceptre" is a an automation tool used to drive AWS CloudFormation.
- **"Security Engine"** means the module responsible for scanning objects and detecting malicious programs.
- **"Security Group"** means the service provided by AWS to specify which network traffic is allowed to or from an Amazon service.
- **"Service Desk"** means the Cloudreach single point of contact for all applicable Customer support related enquiries.
- **"Service Request"** means a request from a Customer for information, advice or for access to an IT service. For example to reset a password, or to provide a change to group membership.
- **"Service Review"** means a meeting between Cloudreach and Customer to review and assess service delivery performance and to discuss any other issues as required and mutually agreed between the parties in advance of the meeting.
- **"Service Packs"** means a collection of Updates, fixes or enhancements to a software program delivered in the form of a single installable software package.
- "Signature" means the fingerprint that can be used to detect and identify specific viruses.
- **"Site Reliability Engineering"** (SRE) means a discipline that incorporates aspects of software engineering and applies that to IT operations problems. The main goals are to create ultra-scalable and highly reliable software systems.
- **"Solr"** is the open source indexing and search software maintained by the Apache Software Foundation.
- **"Spot Instance"** means a type of EC2 instance that you can bid on to take advantage of unused Amazon EC2 capacity.
- **"SLA"** means the service level agreement that is in place between Cloudreach and Customer outlining expected time frames to respond and deliver a request for service.

- "Snapshots" means the point in time incremental backup of an Instance.
- "Splunk" means the log analysis and management solutions provided by Splunk.
- **"Splunk Forwarder"** means a computer program which captures, indexes and correlates real-time data in a searchable repository from which it can generate graphs, reports, alerts, dashboards and visualizations provided by Splunk Inc.
- **"Splunk Apps"** means a computer program provided by Splunk and installed on to each Customer Instance by Cloudreach to enable the delivery of this service.
- **"SQL Server"** means a relational model database server provided by Microsoft Corporation.
- **"Standard Change Request"** means a Cloudreach and Customer pre-approved change which is performed frequently and follows a pre-agreed Change Request.
- **"Support Engineers"** means Customer employees as mutually agreed between the parties in writing authorised to engage with CSD.
- "Tag" means the assignment of metadata to resources.
- "Tag Enforcement" means applying Provider policies to mandate that resources are tagged appropriately and correctly.
- **"Third Party SLA"** means any organisation that has an agreement with the Customer to support elements of the Customer's line of business application that Cloudreach will require to engage with.
- **"Threat Manager"** means the intrusion detection, vulnerability scanning and management product provided by Alert Logic.
- **"Tomcat"** means the open source software implementation of the Java Servlet and JavaServer Pages technologies maintained by the Apache Software Foundation.
- "Unit" means one (1) Half-hourly Period or one (1) Day Period as applicable.
- **"Updates"** means minor releases of software relating to an existing version of a software programme designed to either: (i) fix an issue with the software programme; (ii) update the software programme; or (iii) update the software programme's supporting data.
- "Varnish" means the HTTP accelerator written by Varnish Software AS.
- **"VM"** means Virtual Machine which is a completely isolated guest operating system installation within a normal host operating system.
- "VPC" means the service provided by AWS known as Virtual Private Cloud.
- **"Web Security Manager" or "WSM"** means the active protection against web application attacks, offered in either in-line or in out-of-band mode service provided by Alert Logic.

"WSUS" means the Windows Server Update Services (WSUS) which is a computer program developed by Microsoft that enables administrators to manage the distribution of updates and hotfixes released for Microsoft products to computers in a corporate environment.

"ZooKeeper" is the coordination service for distributed applications written and maintained by the Apache Software Foundation as part of the Hadoop project.