Cloudreach
an atos company

Continuous Improvement

Service Specification

Service Specification

Service Name:	Continuous Improvement
Service Level Hours:	Refer to section 1.1
Unit of Charge:	One-off or Monthly Fee
Prerequisites:	Infrastructure Reliability or Infrastructure Essentials or Infrastructure Foundations
Supported Cloud Platforms:	AWS, Azure and GCP
Product Code:	CO-MS-CI
Version Number:	2.0
Status:	Live
Published Date:	June 2022

The Small Print

This document has been prepared solely for Cloudreach's customers. It is provided to the Customer on a confidential basis. Any reproduction or distribution of this document, in whole or in part, or the disclosure of its content, without the prior written approval of Cloudreach, is not permitted. By accepting, opening or reviewing this document, the Customer acknowledges the confidential nature of the information contained in this document and agrees not to reproduce or distribute this document or any information contained in this document.

Definitions

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

Table of Contents

1. Service Overview

Continuous Improvement (CI) is a service which provides customers with access to improvement engineering to enable their cloud environments to evolve continuously. It is conditional on the customer having procured Infrastructure Reliability (IR), Infrastructure Essentials (IE), or Infrastructure Foundations (IF) from Cloudreach.

Cloudreach has aligned its improvements with the Well-Architected Framework(s) developed by the Cloud Service Providers. These include operational excellence, security, reliability, performance, cost optimisation, and sustainability.

Cloudreach manages an ever-evolving CI catalogue of enhancements that can be applied to customers' cloud environments. This catalogue is updated and reviewed regularly by Cloudreach with input from our valued customers. Cloudreach's operations teams consist of:

- Cloud Operations - CloudOps
- Security Operations - SecOps
- Financial Operations - FinOps
- Sustainability Operations - SusOps (delivered by FinOps)

The CI service uses Continuous Improvement Hours in the implementation of these enhancements. These hours are procured in multiples of 10 hours per month, in one-off packages to support an identified project or monthly recurring hours to support an ongoing environment modification.

CI is performed during Business Hours (9x5) only. Hours used are inclusive of scoping and implementation.

1.1 Service Levels

Services	Service Level Hours
Onboarding	Business Hours (9x5) (*PDT time zone if the Customer is located in NA and GMT time zone if the Customer is located in EEA & UK*)
Continuous Improvement Service	Business Hours (9x5)
Service Delivery Manager (SDM)	Business Hours (9x5) (*Applicable time zone where the SDM is located*)

2. Continuous Improvement Process

2.1 Onboarding

For customers who consume CI in conjunction with their pre-existing Infrastructure Reliability (IR) service, Cloudreach already has the cloud-level access required to deliver the CI service.

However, in the instance of a customer consuming CI services in conjunction with Infrastructure Essentials (IE) or Infrastructure Foundations (IF), Cloudreach will work through an onboarding process with the customer to establish infrastructure level access in the form of the required IAM permissions, service accounts and connectivity. The delegation of these permissions is a prerequisite for the service and must be in place before any CI activities are undertaken. Onboarding onto our automation platform is also required for the discovery and delivery of certain CI activities.

Cloudreach will assign a Service Transition team member for IF customers to manage the project of onboarding the customer environment onto CI.

2.2 Continuous Improvement Backlog

The customer is responsible for initiating CI by contacting their aligned Service Delivery Manager (SDM). In response, SDM will create and manage a Continuous Improvement backlog which will capture all relevant CI tasks, which may consist of requests and changes required by the customer, and following Cloudreach reviews of the customer's cloud environment, identified improvements and recommendations (See section 3).

The Continuous Improvement backlog will then be reviewed and validated periodically with the customer and Cloudreach subject matter experts. Customer requests and changes can also be assessed during these reviews. The Level of Effort (LoE) will be added to the backlog, allowing CI tasks to be planned and prioritised.

2.3 Cloud Environment Review

As part of the CI service, Cloudreach's operations teams will review the customer's cloud environment. The objective of the review is to assist with generating the customer's backlog, and it is expected that it shall take place within 3 months of onboarding a new customer onto the CI service. Cloudreach will periodically review a customer's cloud environments when requested, up to a maximum of four times per calendar year. Cloudreach will consult with the customer to understand upcoming projects, goals and strategic initiatives. This information will help formulate recommendations for the Continuous Improvement backlog.

2.5 Continuous Improvement Task Fulfilment

For a CI task to the executed from the CI backlog, the following high-level steps will occur for IR and IE customers and go through the change management process:

- The SDM shall create a CI request for the CI task to be actioned by opening a service request in our IT Service Management (ITSM) system on behalf of the customer, and then inform them via email, phone, or self-service. Customers can also view this request via their customer portal;
- Cloudreach will prepare a Request for Change (RFC) and present this to the customer to agree to the CI task along with the required LoE;
- If the customer decides to proceed with the RFC, the SDM will provide a proposed date to deliver the RFC. There is no associated SLA resolution target for CI RFCs;
- If the customer decides not to proceed with the CI RFC, the SDM will not schedule the RFC and will keep it in a backlog;
- The operations team performing the activity will again communicate via email or telephone before the actual day of implementing the CI task;
- Upon successful completion of the CI task, the SDM will initiate the next planned CI task on the backlog;
- Should the CI RFC not be successful, the operations team in conjunction with the SDM, will revert/rollback back to the previous state prior to the CI RFC and keep the customer informed at all times.

For IF customers, Cloudreach will work within the customer's change management process, and the customer will be responsible for raising the appropriate change with input from Cloudreach. Cloudreach's involvement is for support around CI implementation activities only and not for incident management.

2.6 Reporting

The SDM will include a summary of CI tasks completed, the hours spent during the previous month and the remaining quota in the monthly service reporting. The CI backlog will be available for the customer to review at any point in time. The SDM will utilise the reports to assist the customer with compiling their backlog and scheduling work to ensure the most efficient utilisation of CI hours.

3. Improvements and Recommendations

Continuous Improvement is based on the operational running of the customer estate and should be viewed as a framework to contribute to the evolution of a customer's cloud environment. All CI items are managed in a backlog, overseen by the aligned SDM. These improvements and recommendations include but are not limited to:

3.1 Operational Improvements

Designed to provide greater assurance or to simplify a customer's cloud environment. They are derived from Cloudreach's operational oversight and experience. Here are some examples of improvement tasks CloudOps can perform (including but not limited to):

- Automation - Infrastructure-as-Code (IAC) templates and disk volume capacities
- Block Storage volume migrations
- Autoscaling plans and implementation
- Improved tagging policy

3.2 Security Improvements

Security recommendations focus on improving the security posture of a customer's cloud environment and minimising risk. Here are some examples of improvement tasks CloudOps and SecOps can implement (including but not limited to):

- Review of Identity and Access Management (IAM) roles and users
- Detection and deletion of unused Security Groups
- Implementation of Service Control Policies

Where the customer also takes a Managed Security Service from Cloudreach which provides services such as vulnerability scanning and identification, the following are examples of improvement tasks we will also enact:

- Vulnerability scanning and remediation
- Review of Security Groups
- Implementation of Web Application Firewall for Internet-facing services

3.3 Cost Recommendations

Cost optimization allows a customer to maximise their cloud environments in relation to running costs and overall spend. Here are some examples of recommendations FinOps can apply (including but not limited to):

- Solution rightsizing
- Instance rightsizing
- Review storage lifecycle policies
- Convert Dev/Test instances to Graviton
- Schedule on/off times for resources

- Instance scheduling
- Removal of orphan resources
- Action to be taken in the event of an alert (Instance shutdown / Instance termination / S3 resource removal/alert only)
- Bespoke cost optimisation recommendation reports

On occasion, Cloudreach may recommend additional cost optimisation tooling be applied to a customers environment to enhance cost reduction strategies. Any recommendations will be discussed with the customer and may, on occasion, require an additional change order if agreed. The SDM will advise on the required process if this is needed.

3.3 Sustainability Recommendations

Optimising cloud consumption is no longer just about managing spend but also carbon footprint. Cloudreach's FinOps team can help a customer realise their digital decarbonisation strategy by making recommendations that will lower their carbon footprint.

3.4 Customer Requests and Changes

A customer may identify and request improvement recommendations or changes to their cloud environment, to be delivered as part of their CI hours. Only 'complex' change work can be delivered as part of the CI service. Change work is considered 'complex' if it involves the deployment of a new cloud service (e.g. CloudFront/CDN) within a customer's environment, or the scope means changes to multiple linked services to achieve the desired outcome (e.g. Elastic Compute, VPC, Route Tables, and Simple Storage Services).

The CI service will not be used to perform non-complex tasks that are explicitly listed in the Standard Change list (which will be provided to the customer upon request); these are to follow the existing standard change process and are included as part of the IR or IE service.

Changes are only available to and conditional on the customer having procured Infrastructure Reliability (IR), or the Infrastructure Essentials (IE) managed service from Cloudreach. Infrastructure Foundations (IF) is limited to general guidance and Cloud Service Provider (CSP) support only; therefore, general change work requests cannot be fulfilled.

Here are some examples of 'complex' changes Cloudreach can apply:

- Multiple new resource creations across a number of services (e.g. Instances, subnets, security groups and object-based storage)
- Deployment of an agent to instances in the customer's environment
- New Region and Availability Zone deployment

Changes will be assessed by Cloudreach on whether they can be accepted and delivered under CI. Cloudreach reserves the right to reject changes that are deemed to breach the conditions as set out in this section and in section 4.

3.5 Continuous Improvement Catalogue

Cloudreach curates and manages a CI Catalogue. It is used as an internal resource to record repeatable and non-customer-specific CI tasks, which can be put forward as recommendations for improvement on all customers' accounts and cloud environments. The catalogue aligns with the Well-Architected Review framework pillars and will constantly evolve with revisions, additions and removals of activities.

Each catalogue item will have a Level of Effort (LoE) calculated and associated with that task. This will be the time required in Continuous Improvement Hours to implement the activity. This will be recorded on the catalogue and will be reviewed and revised periodically.

4. Service Scope

4.1 Entitlement

The CI service works on CI hours, and every CI customer has an amount they can draw down upon. These hours can be procured in multiples of ten (10) hours, in one-off packages or in a recurring amount per month.

4.1.1 Infrastructure Reliability Customers

IR customers are entitled to a quota of recurring CI hours when (i) the customer's monthly Cloud Service Provider spend equals or exceeds a certain threshold specified in their Order Form and (ii) the number of hours of CI available is set out in the Order Form.

IR customers who do not achieve the spend threshold or those who would like additional hours may purchase an amount of CI in one-off packages or a recurring amount per month as an add-on; this will also be specified in their Order Form(s).

4.1.2 Infrastructure Essentials Customers

IE customers may purchase an amount of CI hours in one-off packages or recurring per month as an add-on; this will be specified in their Order Form(s).

4.1.3 Infrastructure Foundations Customer

IF customers may purchase an amount of CI hours in one-off packages or a recurring amount per month as an add-on; this will also be specified in their Order Form(s). IF customers will be required to go through onboarding to leverage the CI service as outlined in the Onboarding section 2.1. This may have associated charges, which will be specified in the customer's Order Form along with the monthly quota of CI hours.

4.2 Restrictions

4.2.1 Continuous Improvements Hours Validity

CI hours purchased in one-off packages are valid for three (3) calendar months from the time of acquisition or completion of onboarding, and any unused hours will expire after that point. Recurring quotas of CI hours, if unused within a calendar month, do not roll over to the following month's allocation.

These restrictions are to avoid a customer accumulating a large amount of unused CI

hours and to ensure they only purchase additional packages of hours when they are actually required. Cloudreach does not provide recompense or credits for any unused hours.

4.2.2 Continuous Improvements Hours Units

The minimum unit of time a CI task will consume is 0.5 hours. Individual CI tasks or tasks should not exceed a maximum of 5 hours. If the scoped task exceeds 5 hours, it should either be broken down into separate CI tasks and managed by the Service Delivery Manager (SDM) on the customer's CI backlog or considered as a project with a defined scope of work for Cloudreach Professional Services to deliver.

4.2.3 Level of Effort

The Level of Effort (LoE) is calculated by Cloudreach's operational experience and from the exposure to implementing a track record of the same or similar requests. The LoE is inclusive of scoping the CI task and its implementation. Common CI tasks and their associated LoE will be revised periodically.

4.2.4 Improvement Task Fulfilment Time

CI tasks and changes are not subject to SLA in terms of resolution times, and implementation is performed during Business Hours (9x5) only.

For urgent customer requests and changes, a reasonable amount of notice is required; depending on Cloudreach's operational workload, these types of requests may require the customer's other inflight CI work to be rescheduled.

4.2.5 Infrastructure Foundations Incident Management

Cloudreach will support IF customers with reasonable endeavours in the event of CI implementation change work causing an incident and provide input into any root cause analysis activity and rollback if required.

4.3 Exclusions

For the avoidance of doubt, Cloudreach may not be able to perform certain tasks under the following circumstances:

- Requests that are not aligned to the Well-Architected pillars covered within section 3 and/or require skills and experience which may not be available within Cloudreach (for example, a request that contains a new CSP service or release). These will be considered on a case-by-case basis and reviewed with the customer;
- Requests that negatively impact the security of the customers' cloud environment;
- Application refactoring.

Examples of improvements that may require further scoping and elevating moved to a professional services engagement can include;

- Technology changes (CSP to CSP) or (Instances to Serverless);
- Creation of new landing zones;
- Migration of services.

5. Document Management

5.1 Revision History

Version	Description of Changes	Revision Date
1.0	Document creation from an initial high-level concept schedule	October 2021
1.1	Revised draft for initial internal stakeholder review	April 2022
1.2	Revised from initial review feedback, automation principle added	May 2022
1.3	Transposed into the new template, and sections re-ordered and restructured from review feedback	May 2022
1.4	Wider internal stakeholder review conducted, feedback processed and all sections updated	May 2022
1.5	Processed latest reviews comments and updated sections. Cloud Operations approver updated and specification approved by stakeholders	June 2022
2.0	Version uplifted following approval by stakeholders and specification is now live	June 2022

5.2 Approvals

This document requires the following approvals:

Name	Title	Approval Type	Approval Date	Version
Stephanie Leopold	Head of Compliance	Global Sign off	15/06/2022	1.5
Alan Hughes	Cloud Operations Leader	Global Sign off	23/06/2022	1.5
Caroline Griffiths	Senior Product Manager	Global Sign off	22/06/2022	1.5