

CLOUD-IAM

RACI

Management services

The interventions defined in the responsibility matrices are included in offered Services; other undefined interventions in this document will require a quote.

In the matrices presented below, the following terms are used with the meaning defined below:

- **R: Responsible**
Performs the task.
- **A: Accountable:** Is responsible (Approving Authority)
Has the authority to approve R's work and is responsible for it.
- **S: Support**
Provides additional resources to carry out the activity.
- **C: Consulted**
Is consulted and provides, at the request of the developer, knowledge in technical, organizational / business, methodological fields
- **I: Informed**
Information only

Production Process Management

Incident Management

| INCIDENT MANAGEMENT | CLOUD-IAM | [CLIENT] |
|--|-----------|----------|
| <p>Perform Incident management tasks at the system layer level including real-time monitoring of Servers and components, Incident identification, recording, connection, monitoring, resolution, communication and escalation of said Incident in accordance with the agreed Service Levels</p> | R | I |
| <p>Provide the specifications of the constraints related to the backups of the environment (dependencies, synchronization, consistency)</p> | R | I |
| <p>Provide to CLOUD-IAM and update the list of [CLIENT] personnel capable of assisting CLOUD-IAM in resolving and escalating the Incident, if necessary</p> | I | R |
| <p>Ensure that the appropriate [CLIENT] personnel are available to collaborate if necessary with CLOUD-IAM in the resolution of Incidents affecting the Services of CLOUD-IAM</p> | I | R |

Change Management

| MANAGEMENT OF SERVICE REQUESTS | CLOUD-IAM | [CLIENT] |
|--|-----------|----------|
| Develop with [CLIENT] procedures for managing all planned and urgent changes affecting the systems environment including reviews, approvals, communication and adequate documentation; | R | S, C |
| Communicate the major changes made by CLOUD-IAM affecting the systems environment. | R | I |
| Record and monitor requests for the implementation of maintenance operations approved by [CLIENT]; | R | I |
| Provide the automation scripts or procedures, when possible, for the tasks associated with the change | I | R |
| Receive and handle the activity report related to the considered changes | R | I |
| Assist CLOUD-IAM in the development procedures for managing all planned and urgent maintenance operations affecting the systems environment including reviews, approvals, communication and adequate documentation | I | R |
| Inform CLOUD-IAM of any planned or urgent changes related to the environment of [CLIENT] and affecting the provision of Services by CLOUD-IAM | I | R |
| Make updates, approvals, and integrations of applications outside the scope of the Contract. | I | R |

The change type (Minor, Medium and Major) is evaluated according to its complexity of implementation (preparation, execution, completion control), its importance in terms of activities for the [CLIENT], its potential impact on the level of service and the possibility of a return to the original situation in the event of failure or defect.

Changes application

Changes that do not require production systems shutdown are carried out by the administration teams during working hours (Monday to Friday, 8 am to 6 pm CET - excluding urgent minor changes). Changes that requires shutdown of production systems will be made during maintenance shutdowns.

If an exceptional change (apart from a major change) must be urgently taken into account outside this range of presence, and this in agreement between [CLIENT] and CLOUD-IAM, it will then be treated as an incident, with the responsiveness in accordance with its level of severity.

Configuration Management

| CONFIGURATION MANAGEMENT | CLOUD-IAM | [CLIENT] |
|---|-----------|----------|
| Provide all existing documentation related to the Configuration supplied by [CLIENT] | I | R |
| Provide on demand [CUSTOMER] inventories of hardware and system software installed on servers, including operating and administration tools. | R | I |
| Use the administration console or the API to configure the Keycloak cluster. | S | R, A |
| Inform Cloud-IAM support of an incident triggered by a [CLIENT] action on Keycloak cluster configuration | I | R, A |
| Ensure that the [CLIENT] configuration of the Keycloak cluster follows the state of the art particularly concerning security (eg brute-force protection, complexity of the encryption algorithm, all the elements of the Keycloak administration console) | S | R, A |
| Ensure that the audit functionalities are activated | S | R, A |
| Ensure that the [CLIENT] clients application that rely on the Keycloak cluster are configured following state-of-the-art security | S | R, A |
| Take actions to be in conformance with GDPR and e-privacy regarding the user data stored in the Keycloak cluster. | S | R, A |

Performance Management

| PERFORMANCE MANAGEMENT | CLOUD-IAM SYSTEM | [CLIENT] |
|---|------------------|----------|
| Define performance indicators and monitor system performance against these indicators | R | C, A |
| Take appropriate resolution actions (for example, adjustments, [CLIENT] information that the system's performance is impacted) | R | I |
| Advise [CLIENT] on the system configurations required and / or the modifications necessary to allow CLOUD-IAM to reach the Service Levels | R | I |

Availability management

This process consists of dimensioning and managing the means (infrastructure, operating methods, etc.) to ensure a service that complies with the availability requirements expressed within the framework of the management of Service Levels. This activity concerns in particular:

- data backup and restoration
- management of redundancy equipment
- contracts with third parties (eg: maintenance, etc.).

| AVAILABILITY MANAGEMENT | CLOUD-IAM | [CLIENT] |
|---|-----------|----------|
| Assist [CLIENT] in defining [CLIENT] 's needs in terms of availability | R | I |
| Carry out equipment maintenance in accordance with the manufacturer's specifications | R | I |
| Issue recommendations for improvement in terms of availability | R | I |
| Definition of availability requirements, implementation of these availability requirements in the context of a change of infrastructure being managed in project mode | S | R |
| Set up the backup policy | R | I |
| Define [CLIENT] 's needs in terms of availability | S, C | R |
| Define backup needs | I | R |
| Define and implement backup policy | R | I |

Operation of Servers

Monitoring and Control of Systems

CLOUD-IAM provides server management and system resource monitoring services.

| MONITORING and CONTROL OF SYSTEMS | CLOUD-IAM | [CLIENT] |
|---|-----------|----------|
| Monitor system resources and correlate alerts (CPU, memory, disk space, network, operating system, hardware, access time, etc....) | R | I |
| Treat Incidents by applying the procedures planned and in compliance with Service Levels | R | I |
| Inform the Customer in the event of an Incident affecting users | R | I |
| Monitoring of applications using Keycloak clusters. | I | R |

Operational operations

CLOUD-IAM carries out work supervision and execution activities, including both planned services or on request:

| OPERATIONS | CLOUD-IAM | [CLIENT] |
|---|-----------|----------|
| Monitor scheduled jobs and manage alerts | R | I |
| Process and resolve incidents by applying the procedures provided | R | I |
| Inform the [CUSTOMER] in the event of an Incident affecting users | R | I |
| Plan the maintenance of the systems in accordance with the maintenance rules so as not to penalize the activities of [CUSTOMER]. | R | I |
| Communicate to the [CUSTOMER] the scheduled, non-interruptible or undelayable maintenance of the Cloud Service provider on which the Keycloak Cluster is hosted. | R | I |

Backup management

CLOUD-IAM provides the following backup services, in compliance with Service Levels and the backup policy defined by [CLIENT]:

| BACKUP MANAGEMENT | CLOUD-IAM | [CLIENT] |
|--|-----------|----------|
| Implement the backup process and restoration of servers | R | I, S, C |
| Ensure that backups are carried out and are effectively carried out | R | I |
| Document, manage and, if necessary, update file backup procedures | R | I |
| Perform backup of system environments and data according to the backup plan. | R | I |
| Provide a procedure to restore data and systems images to previous level within a mutually agreed time frame; | R | I |
| Perform systems and data recovery; | R | I |
| Take into account any changes in the backup schedule. In this case, the implementation priorities will be defined by [CLIENT]; | R | I, S, C |
| Define the backup policy, the frequency of backups and the retention period. | R | I, C |

Server Management

During the period of provision of recurring services (eg Keycloak clusters), only CLOUD-IAM will retain administrator rights (privileged system users).

System and Technical Support

CLOUD-IAM manages the systems and the technical environment and carries out the following activities:

| SYSTEM AND TECHNICAL SUPPORT | CLOUD-IAM | [CLIENT] |
|---|-----------|----------|
| Carry out all technical support operations for the system, system settings, resource management and adjusting system and hardware performance; | R | I |
| Provide support for Client Configuration and CLOUD-IAM machines and systems; | R | I |
| Maintain the Client Configuration and CLOUD-IAM systems and as such, evaluate, recommend, and install corrections to system faults, if necessary using a workaround; | R | I |
| Provide support for operating systems and subsystems, compilers, programming languages, operating products and tools; | R | I |
| Plan the maintenance of the systems in accordance with the maintenance rules, so as not to penalize the activities of [CUSTOMER] | R | I |
| Provide the automation or procedure scripts, when possible, for the tasks associated with the change | I | R |
| Receive and take charge of the activity report related to the change considered | R | I |
| Follow the history of changes in managed resources | R | I |
| Inform CLOUD-IAM of any planned or urgent change related to the environment of [CLIENT] and affecting provision of Services by CLOUD-IAM | I | R |

Technical administration of databases

CLOUD-IAM provides technical administration services of PostgreSQL databases.

| TECHNICAL ADMINISTRATION OF DATABASES | CLOUD-IAM | [CLIENT] |
|---|-----------|----------|
| Monitoring, correction and technical optimization over time of databases (security, performance) without any adaptation of the functional description of databases | R | |
| Monitoring space allocation | R | |
| Performance monitoring and, in the event of degradation, perform diagnostics and corrective actions | R | |
| Participate in the planning of changes in the volume of databases on request [CLIENT]; | S | R |
| Provide technical support on the physical environment of the application databases; | R | I |
| Monitoring and follow-up of the performance of the data space used by the databases, identification and application of modifications if necessary | R | I |
| Promoting the changes on the databases of [CLIENT] in the production environment | R | I, A |
| Assist [CUSTOMER] in Incident management, diagnostic and resolution of Application database Problems application database | R | S |
| Define needs backup and restoration; | C | R |
| Define the needs for changing and updating application databases; | R | C |
| Define and approve the security needs of application databases; | R | I |