



Service Level Agreement

Table of Content

1 Scope	3
2 Responsibilities	3
2.1 General	3
3 Service in Scope	3
3.1.1 Bosbec Responsibilities	4
3.1.2 Customer Responsibilities	4
3.1.3 Bosbec is 24/7/365 availa	4
3.1.4 Bank and Public Holidays	4
3.1.5 Official Language	4
3.2 TT Handling	4
3.3 Incident Management	5
3.3.1 Incident Management Process Description	5
3.3.2 Incident Response, Restoration, and Resolution Times	6
3.3.3 Severity Classification	7
3.3.4 Initial and Final Incident Report (RCA)	7
3.3.5 Exception:	7
3.4 Maintenance	8
4 Service Level Agreement	8

1 Scope

This Service Level Agreement ("SLA") is made by and between Bosbec and the customer with the single purpose of detailing the interworking between both organizations to perform the activities listed in the table below for Bosbec:

Activity	Description
Incident Management	Incidents handling detected by customer that should be notified to each one of the parties
Problem Management	Root cause analysis for the incidents.
Change Management	Planned maintenance activities carried out by Bosbec that should be notified to customer.

Table 1 – Interworking Activities between the Parties

2 Responsibilities

2.1 General

Bosbec and customer are responsible to maintain this document, to ensure its accuracy and to keep an updated version available for easy access.

Bosbec is responsible to communicate any modification on their respective SLA with customer that might affect this document in no longer than 5 days after either the SLA revision.

In case the modification will take place before a formal revision of the SLA, the organization affected by the change must warn the other organization to agree on the subsequent ways of working. This warning must be done by e-mail to the responsible of the other organization.

3 Service in Scope

The following services are covered:

- Incident handling: Emergency, High, Medium and Low incidents
- Preventive Maintenance: updates, monthly system health checks
- SLA reporting

3.1.1 Bosbec Responsibilities

Bosbec is responsible for:

- To answer the incidents based on the agreed SLAs.
- To monitor the platform and proactively detect issues.
- To provide data collection guidelines that will assure that the customer is able to provide the information for the cases raised.
- To provide updates/ upgrades to ensure that the functionality is maintained.
- Ask the customer for approval before starting the change if it affects the service.
- After the change is complete to ask the customer for approval to close the change if it affects the service.

3.1.2 Customer Responsibilities

Customer is responsible:

- To report the issues on Bosbec functionality according to the agreed severity matrix.
- To provide all the information required in the data collection guideline when incidents are submitted.
- To assure support during the Bosbec investigation.
- To approve/ reject the changes.
- To check if the service is up or down.

3.1.3 Bosbec is 24/7/365 availability

Bosbec system availability is 24/7/365.

The rest of the **Bosbec** office hours are Monday – Friday, 08:00 – 17:00 (CET). Requests received outside this period will be considered in the next working hours.

3.1.4 Bank and public holidays

Bank and public holidays are considered Sundays.

3.1.5 Official language

English will be the official language for information exchange between the involved parties (Trouble Tickets, mail, phone calls, etc.).

Any language issues will be reasonably addressed and logged in the Trouble Tickets and discussed in the Governance meetings.

3.2 TT Handling

Customer is creating incidents that are to be handled by Bosbec based on where the fault is residing.

Bosbec is responsible:

- To provide a single entry point for customer complaints.
- To perform all incident resolution activities, fulfilling the agreed-upon SLAs.
- To execute the SW updates or upgrades needed to implement the resolutions provided as answers on incidents.
- To inform in the interface related to upgrade activities that might have an impact on Bosbec.
- To provide the data collection guidelines in order to have all needed information in the Trouble Ticket.

Customer is responsible:

- To provide the entry point for any notification from Bosbec indicating an issue on Bosbec Service.
- Log in to the TT with all the actions taken across the investigation of the incident (for visibility to Bosbec).
- To send emails and phone calls to Bosbec only when an action from Bosbec side is required on a case by case basis if urgent. Mainly the exchanges to be carried out via email.
- To check the severity definition of Bosbec's commitment regarding the system/cloud service, whether the system is down or not.
- To inform Bosbec when the severity of a ticket is not correct according to the Severity Definition Matrix and to request the agreement for changing the priority. The trouble ticket will be put in Deferred until a decision is taken.

3.3 Incident Management

An incident is any event that is not part of the standard operation of a node and that causes, or may cause, an interruption to, or a reduction in, the quality of the service. The aim of the incident management process is to restore normal operation as quickly as possible with minimum disruption to the business, thus ensuring that the best possible levels of service and availability are maintained. In doing so disturbances/incidents must be restored as quickly as possible and within agreed service levels, without negative influence on any other services.

3.3.1 Incident Management Process Description

Both Bosbec and the customer can trigger the incident process.

.

Customer is responsible:

- When the severity of a ticket is not set correctly according with the Severity Definition Matrix, an agreement for changing the priority of the ticket is to be reached.
- To include in the Trouble Ticket all information needed
- To avoid opening several Trouble Tickets for the same problem/incident.

Bosbec is responsible:

- To restore the functionality as accepted as quickly as possible and minimize the adverse impact on business operations, thus ensuring that the agreed SLA is maintained.
- To inform through the interface to the customer when an incident is detected.
- For incident analysis, diagnosis, and solutions on Bosbec functionality.
- When closing tickets (or requesting closure), the following information to be clearly provided by Bosbec in the ticket and request for closure:
 - State what the problem was.
 - State that the problem is solved.
 - State what was done to solve the problem.
 - State any actions end users need to take (if applicable). E.g. restart node.
 - “Please confirm we can close the ticket”. This needs to be clearly stated to make the action requested clear.
- Incident Notification Process
 - It will be done by Bosbec through the interface for Critical and Major Incidents.

3.3.2 Incident Response, Restoration and Resolution Times

	Emergency	High	Medium	Low
Restoration Time	2 hours *	2 hours *	N/A	N/A
Resolution Time	N/A	N/A		
Updates	Every hour	Every 2 hour	Every 4 hours	Every day or when finalizing
Initial Incident Reports	48 Hours	NA	NA	NA
TARGET	99.95%	99.95%	99.95%	99.95%

Table 2 - Incident Management SLA parameters

3.3.3 Severity Classification

Severity	Detailed Description	Example
Emergency (Severity level 1) <u>General description:</u> Any incident resulting in the unavailability of the service will be considered as Severity1.	The incident is causing severe operational problems;	Not able to access the service; Messages are not sent from the service Bosbec. System is down;
High (Severity level 1) <u>General description:</u> Any incident resulting in the unavailability of the service will be considered as Severity1.	The incident is causing severe operational problems;	Not able to access the service; Data calls or Messages are not sent from the service Bosbec. The system is down;
Medium (Severity level 2)	The incident is causing operational problems that will slow down the solution.	Unable to reach the services even though the service is up and running.
Low (Severity level 3)	The incident is creating negligible operational difficulties.	Unable to reach the services even though the service is up and running.

3.3.4 Initial and Final Incident Report (RCA)

Initial IR will be provided by Bosbec in 48 hours after the incident was finalized.

Final IR will be done after Root Cause Analysis investigation for the Emergency and High Incidents are finalized. This report will be submitted to an agreed distribution list. When agreed upon a Root Cause Analysis could be done for Medium and Low Severity.

Priority	What	When	How	Who
Emergency/ High	Initial IR	Goal: 2 full working days after restoring	Initial MIR Goal: 2 full working days after resolving the Incident	Bosbec
Emergency/ High	Final IR	Root cause analysis is finalized	Final MIR After Root Cause Analysis investigation for the Critical Incident is finalized.	Bosbec

3.3.5 Exception:

Issues resulting from modification, amendment or unauthorized use of the products will be exempt from this SLA.

All time taken in trying to obtain full information about an incident where the original data supplied was incomplete or unclear shall not be deemed part of the SLA timescales.

Although Bosbec will work to the above timescales on service requests, updates published to the iTunes AppStore are at the mercy of Apple's review process and are therefore subject to unavoidable delays (for the app-message service).

3.4 Maintenance

Bosbec is a multi-tenant cloud service hosted on AWS. It is a loosely coupled distributed system using message queues for communication. The service is hosted in a virtual private network and external access is given through the API:s. Private connections are managed through the Message Server (connections to smpp, smtp, mqtt-broker).

All services in the solution act as stand-alone solutions and are “detachable” and connected to each other via message queues. The service can run over many instances and scale up depending on the need and for failover reasons. The queues make it possible to distribute traffic in different ways and support error management, reseeding and surveillance. Bosbec can manage to set up new Serves automatically if needed.

There is no downtime when upgrading Bosbec due to the technical architecture.

4 Service Level Agreement

The Bosbec Service Level Agreement (“SLA”) is a policy governing the use of Bosbec. This SLA applies separately to each account using Bosbec. Unless otherwise provided herein, this SLA is subject to the terms of the Bosbec Agreement, and capitalized terms will have the meaning specified in the Bosbec Agreement. We reserve the right to change the terms of this SLA in accordance with the Bosbec Agreement.

Service Commitment

Bosbec will use commercially reasonable efforts to make Bosbec each available with a Monthly Uptime Percentage (defined below) of at least 99.5%, in each case during any monthly billing cycle (the “Service Commitment”).

Definitions

- “Monthly Uptime Percentage” is calculated by subtracting from 100% the percentage of minutes during the month in which Bosbec, as applicable, was in the state of “Region Unavailable.” Monthly Uptime Percentage measurements exclude downtime directly or indirectly from any Bosbec SLA Exclusion (defined below).

“Unavailable” and “Unavailability” mean when there is not possible to access to Bosbec API/interface.