



Efento Cloud Support and Service Level Agreement

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Summary

This document describes the support services for Efento' Cloud.

The goal of this document is to gather Support related topics and details in one document.

Efento support organisation

The Support Structure for Customer is divided into two lines of support: 1st Line Support and 2nd Line Support. On top of the Customer support, Efento has a DevOps team responsible for monitoring of undisturbed operations of Efento Cloud.

First Line Support - Efento Support Team

Efento Support Team, a single point of contact for the Customers. The team is responsible for solving customer issues reported through Efento Support portal according to SLA. The scope of the topics handled by Efento Support Team include: answering technical questions, proceeding RMA requests and providing the Customers with technical documentation.

The preferred way of contacting the Efento Support Team is through the Efento support portal at help.efento.io. This allows us to monitor the response times, time to solve the issue and the overall quality of service. Moreover, it's easier for the customers to report the issue and include the screenshots and issue description using the dedicated support portal.

Efento support team works Monday to Friday, 8 AM to 4 PM Central European Standard Time, excluding Polish public holidays.

First Line Support responsibilities:

- Processing Customer's Tickets, including technical questions, bug / issue reports and RMA requests
- Meeting times defined in the SLAs
- Providing consultations concerning the system usage

- Cooperating with the Second Line Support
- Storing knowledge about SLAs (reaction / repair times, procedures, etc.)
- Creating temporary solutions for problems that cannot be immediately solved/repared in a ultimate way

Second Line Support - Efento R&D

Second Line Support is responsible for Efento Cloud during its whole life cycle, including designing, researching and improving applications. **Customers do not have direct access to the 2nd Line Support, it is contacted internally (if needed) by the First Line Support.**

Efento R&D is responsible for making changes in the source code of Efento applications. It provides bug-fixes and patches. It is also responsible for deploying the new releases of the software.

Second Line Support responsibilities:

- Supporting the First Line Support in Customer reported issues analysis – providing consultations to the First Line Support
- Errors / bugs correction in the application code
- Development of new functionalities according to Product Manager's requirements
- Deployments of the bug fixes / patches / upgrades

Efento DevOps team

Efento DevOps team is responsible for monitoring Efento Cloud 24/7 and assuring that all the platform components are available and work as expected.

Customers do not have direct access to the Efento DevOps team.

Efento DevOps team responsibilities:

- Monitoring of operations of all the crucial platform features, including: receiving the data, using the API, generating the reports, sending SMS / email notifications and accessing the historic data
- Monitoring the crucial metrics of the platform, including the services metrics and the CPU load / RAM usage of the servers that host the platform.
- Detecting, diagnosing and solving all potential issues that may cause platform's downtime
- Cooperating with Efento R&D to deploy platform updates, patches and bug fixes
- Performing server maintenance, including the updates of the operating systems, patches, etc.
- Developing, improving and maintaining monitoring, deployment, backup and recovery scripts

Efento Support portal

The official Trouble Ticketing System which is used for communication between Customer and Efento is based on JIRA Service Management. This tool utilises dedicated workflows to guide its users through the communication process, including registration of requests, assigning requests to a proper user or group, providing consultations, etc. It stores the full history of discussions related to a subject and makes possible reporting on the processing of requests. After performing any action in JIRA (e.g. adding a comment, changing the status of the ticket) the automatic email notifications are sent to the users involved in the given ticket.

The application JIRA is available via the web browser following: help.efento.io

All communication concerning incidents should be handled through Efento support portal. Reporting an issue / bug or asking a question using other means of communication does not guarantee the response times listed in the SLA.

It is Efento's responsibility to remedy the Trouble Ticket by finding and delivering a solution acceptable to Customer to restore the affected deliverables to full operation. Efento is fully

responsible for requesting from customers all reasonable information, data printouts, parameter settings, memory dumps, software logs, etc. that are needed to make it possible to analyse the failure and clear the faults within the defined time frames.

A Trouble Ticket shall be closed when the Workaround solution or/and the Final Correction solution have been tested and then accepted by the Customer.

Creating a Trouble Ticket

Efento support portal allows customers to create two types of Trouble Tickets:

- Technical Question / bug / issue report - this type of ticket is used to ask any question about Efento products, including their operations and integrations with third party services and report any potential issues or bugs in Efento applications (Efento Cloud, Efento mobile applications, software of Efento sensors and gateways)
- RMA request - this type of ticket is used to report only the issues with Efento hardware (sensors or gateways)

When creating a ticket, the customer should fill up all the information required by the Efento support portal. The better the issue description, the quicker the solution will be provided by the Efento support team.

If the customer reports a potential bug or issue, the following information must be included in the ticket's description:

- Detailed description of the incident / error
- Memory dumps / logs (if applicable)
- User actions up to the time bug / issue was observed
- Serial number of affected device(s) (if applicable)
- Replication algorithm (if possible)

Trouble Ticket workflow

When an issue is created Efento support team follows the workflow, depending on the Ticket type.

RMA request

1. Check, if the reported issue is really a RMA request
 - a. If there is information missing, contact the customer to get all the details needed to solve the issue
2. Check, if the reported device and issue are covered by warranty
 - a. If the device / reported issue are covered by warranty, follow the warranty procedure, to solve the issue
 - b. If the device / reported issue are not covered by warranty, inform the customer about the repair cost
3. Close the ticket when the issue is solved

Technical questions

1. If all the information required to answer a technical question are included in the ticket, answer the question
2. If there is information missing, contact the customer to get all the details needed to solve the issue
3. Close the ticket when the question is answered

Bug / issue report

1. Check, if all the information required to reproduce a bug / issue are included in the ticket
 - a. If there is information missing, contact the customer to get all the details needed to solve the issue
2. Reproduce the bug / issue
3. Assign the issue severity based on the guidelines (Table 1)
4. Provide a workaround / ultimate solution to the customer

5. Close the ticket

Closing a Trouble Ticket

The Trouble Ticket can be closed, if any of the following conditions occurs:

- Any other Trouble Ticket opened by the same Customer concerns exactly the same issue
- An update has been provided and installed
- Efento support team is not able to replicate the issue
- The Trouble Ticket is a question and the appropriate answer has been already sent to the person submitting the Trouble Ticket
- The responsibility for the Trouble Ticket execution is out of Efento responsibility (e.g. the Efento support team provided customer with a software upgrade, but updating the devices is Customer's responsibility)
- The Customer is not able to provide information needed by Efento support team to solve the issue for one week period
- The Customer did not give feedback for four weeks since the last contact from Efento support team

Response / workaround / final correction times

The Response Time will be counted as the period of time that elapses between the time when Customer created a Trouble Ticket and the time when Efento confirmed that it was registered.

The Workaround Time will be counted as the period of time that elapses between the time when the Trouble Ticket was confirmed by Efento and the time when Efento support team

provided the Customer with a solution that allows to use all the functions of Efento Cloud as described in the Efento Cloud User manual. The periods when Efento support team waits for additional information form the Customer (the Trouble Ticket is in status “Waiting for customer”) are not counted as solving time.

The Final Correction Time will be counted as the period of time that elapses between the time when the ticket was registered by Efento and the time when the Trouble Ticket was fully solved by Efento (Efento deployed a fix that solves the issue) or rejected. The periods when Efento support team waits for additional information form the Customer (the Trouble Ticket is in status “Waiting for customer”) are not counted as solving time.

The time of Final Correction or Workaround shall not include in particular:

- The time necessary to solve the problems out of Efento’s scope, including (but not limited to): issues with Customer’s operating system, network issues or problems with Customer’s 3rd party software / hardware
- The time of waiting for a response to the questions asked by Efento support team on the subject matter of the Trouble Ticket
- The time of unavailability of the employee of the Customer who is supposed to provide the personal support necessary to diagnose and fix the issue or to test the proposed solution

Severity levels

Each Trouble Ticket has the severity level assigned by the Efento support team. There are three available severities: Blocker, Major, Minor.

Table 1 - Severity Levels and Definitions

Severity Level	Problem group	Problem definition
Level 1 Blocker	Execution of crucial operations cannot be performed due to an infrastructure issue.	<p>Use of the crucial functions is not possible. Efento Cloud functionality / functionalities is severely hindered or completely blocked</p> <p>Possible problems include one or more of the following situations:</p> <ul style="list-style-type: none"> - It is impossible to login to the platform - SMS / email notifications are not sent - The platform does not accept the incoming data from the sensors - It is impossible to display the data from the sensors - It is impossible to generate a report - Platform's API is not responding
Level 2 Major	Execution of substantial operations is severely impaired due to an error / bug.	<p>The use of Efento Cloud is impaired, however working with it is still possible.</p> <p>Possible problems include one or more of the following situations:</p> <ul style="list-style-type: none"> - It is impossible to create a new user account or a new organisation - It is impossible to add new devices to the platform - It is impossible to set a new alert rule

		- It is impossible to send an invitation to a new user
Level 3 Minor	Execution of operations is affected by less significant issues / bugs – functioning of Efento Cloud is not hindered or is insignificantly hindered.	<p>Other faults that do not fall into Level 1 and 2. The operation or the intended use of the services is possible with minor impairment.</p> <p>Possible problems include one or more of the following situations:</p> <ul style="list-style-type: none"> - All problems that can be omitted using other methods - Translations issues - Layout (frontend) issues that do not affect the operations of Efento Cloud

SLA times

The tables below present Severity Levels applied by Efento along with intervention deadlines.

Table 2 - SLA times

	Level 1 Blocker	Level 2 Major	Level 3 Minor
Efento Support team availability	Solved by Efento DevOps team, 24/7	Monday to Friday, 8:00 – 16:00*, excluding Polish public holidays	Monday to Friday, 8:00 – 16:00*, excluding Polish public holidays

Response time	Not applicable (Blockers are detected by Efento DevOps team)	8 h	8 h
Workaround	8 h	24 h	Not applicable
Final Correction	1 week	8 weeks	48 weeks

* - all times in Central European Standard Time zone

Efento is responsible for taking all necessary actions to provide Customers with a remedy to the emergency situation and restoring the affected Deliverables to trouble free operation in accordance with SLA times.

In case when a Trouble Ticket is on the Customer side (e.g. answering questions, testing solution, collection of information depends on Customer) restoration time is not counted (Customer's response time is not included into restoration time).

If it is necessary, Customer is obligated to assign a person who will help in solving a given problem. If this person is not available and his presence is necessary, then SLA times will not be counted.

Efento Cloud maintenance and monitoring

Efento Cloud is hosted, monitored and maintained by Efento's DevOps team. This team is responsible for constant monitoring and maintenance of the platform. The team works 24/7 and reacts to any incident / issue as soon as it pops up.

Efento Cloud hosting

The Efento Cloud platform is hosted on Amazon Web Services servers (data centres in Frankfurt and Dublin). All data of the platform users are stored in the territory of the European

Union. The IT infrastructure that AWS provides to its customers is designed and managed in alignment with security best practices and a variety of IT security standards including the following: SOC 1, 2, 3, ISO 9001 / ISO 27001 / ISO 27017 / ISO 27018, HITRUST, FedRAMP, CSA Security, Trust & Assurance Registry (STAR).

Data and settings backup is performed automatically once a day. The backups are always stored in a data centre located in another geographical location than the main database. The data is stored in a database cluster, which ensures its consistency. Data on the platform is stored for a minimum of two years.

Efento Cloud monitoring

Efento Cloud is monitored by the Efento DevOps team, 24/7. All crucial platform features, including: receiving the data, using the API, generating the reports, sending SMS / email notifications and accessing the historic data are monitored by automatic scripts developed and managed by the Efento DevOps team. The team also monitors the crucial metrics, including the services metrics and the CPU load / RAM usage of the servers that host the platform. All the potential issues are usually detected, diagnosed and solved before the customers notice them.

Efento Cloud uptimes

Table 3 - Efento Cloud uptimes

Component / feature	Yearly uptime percentage
Receiving measurements	Less than 99.99% but greater than or equal to 99.5%
Sending SMS / email notifications	
Generating / sending the reports	
Efento Cloud API	Less than 99.9% but greater than or equal to 99%
Access to the data over web browser (frontend)	

Data recovery from backups

In case of any issues that would require restoring the historical data from backups, the data will be restored in 48 hours. During the process of restoring the data from the backups, the historical data may not be available for the users. This does not affect other platform's functions / components and their uptimes listed in Table 3.

Customer's responsibilities

Customer Systems

Data from the Efento Cloud / Efento sensors can be supplied to the Customer Systems over API. Efento is not responsible for Customer Systems. After discovering the problems, Customer is responsible for repairing them and for contacting vendors of these systems.

Connectivity

Efento is not responsible for any connectivity issues (either wireless or wired). It is Customer's responsibility to provide (either by its own means or vendors) a stable connectivity for Efento sensors and / or gateways.

Devices maintenance

It is Customer's responsibility to to make sure that the devices are operating properly, including monitoring of the battery level and replacing it when the battery runs out, providing proper power supply for Efento Gateways, periodically testing if the devices operate as expected and making sure that the devices operate in the conditions as defined in their data sheets.