



**Web-based Tool
for Digitalisation of Network Statements and
Corridor Information Documents**

**Specifications – Software Maintenance and
Service Operation**

RailNetEurope
Oelzeltgasse 3/9
AT-1030 Vienna

Phone: +43 1 907 62 72 00

mailbox@rne.eu

www.rne.eu

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1 Introduction

The Contractor shall provide Software Maintenance and Service Operation services for the software for digitalization of Network Statements and CIDs in the production environment, the services for the pre-production (staging) and test environments are described in chapter 2.5 “Special terms and conditions for the software for digitalization of Network Statements and CIDs test system”. The Contractor shall keep the software in good working order free from defects and that the software is running smoothly and functioning properly in accordance with levels of performance set in this document. The service management methods are based on the concept of ITIL and are described hereafter.

2 Scope of Services

2.1 Generalities

2.1.1 Fixing Plan

A fixing plan is the commitment in written form made by the Contractor about the finding out of a problem (see also Chapter 2.8 Incident response time). With this fixing plan the Contractor ensures that the malfunction is detected and proposes a solution scenario. This plan has to be provided in written form and to be sent as email to

- » RailNetEurope support
- » If there is an activity which has to be synchronized with the hosting provider, then the provider has to be informed, too.

Malfunction does not include the following:

- » The wrong (“bad”) behavior of third parties which have influence on the system (not fitting reaction time due to support/service level agreements of the particular third party).

2.1.2 Telephone Support

Telephone support is required only for internal communication between RNE (and hosting provider and database maintenance provider) and the Contractor. This telephone number of the Contractor will not be exposed to third parties.

2.1.3 Communication between RNE and Contractor

The following table describes the types of meetings and their planned frequencies. The location of these meetings will be in Vienna (RNE office or other locations proposed by RNE).

Meeting	Participants	Frequency	Preparation	Report	Mode
Regular maintenance meeting	System manager and Contractor maintenance manager	Monthly	To be defined between both managers	Contractor maintenance manager	Web Conference
Functional or Technical meeting	System manager and Contractor maintenance manager	On event and in maximum 4 times per year	To be defined between them	Contractor maintenance manager	Meeting at RNE or Web conference
Steering/Assessment	CIO RNE, System manager, and Contractor maintenance manager	Max. two times per year	Contractor maintenance manager	Contractor maintenance manager	Meeting at RNE or Web conference

2.1.3.1 Working Language

English is the official common language of the RNE community. Therefore, all communication either verbally or in written form has to be in English.

2.1.3.2 Definition of Office Hours

Office hours are Monday to Friday between 9:00 a.m. and 5:00 p.m. (CET) except for Saturdays, Sundays and statutory holidays in Austria.

2.1.3.3 Forms and Communication

All these kinds of communication forms shall be supported by the used ticketing tool. The involved actors shall use the ticketing tool as much as possible to keep the information structured, up to date, trackable and accessible for all involved actors.

2.2 Service Management Methods

In the below points, the key tasks are listed, but these lists are not exhaustive and there may be other tasks that the Contractor needs to carry out to comply with the obligations in this agreement. The Contractor has an overarching obligation to keep the software for digitalization of Network Statements and CIDs up and running in accordance with the requirements set out in the SLA.

2.2.1 Preventive Maintenance

The Contractor shall perform preventive maintenance and provide know-how and technology for optimised handling for possible software maintenance work.

The Contractor shall

- » Run preventive tests and checks on a regular basis to avoid possible maintenance issues
- » Deliver new or fixed software releases to RNE
- » Maintain the technical application know-how
- » Maintain and ensure the business know-how within the team and company
- » Maintain and operate up-to-date versioning environment
- » Run and handle incoming requests and issues within the agreed response time and set priorities in agreement with RNE

2.2.2 Corrective Maintenance

The Contractor shall:

- » Provide the necessary efforts to resolve possible maintenance issues
- » Carry out problem analysis with RNE (meeting, video conference or communication by phone or emails)
- » Take measure to avoid recurring problems
- » Provide RNE with various reports and analysis if needed
- » Provide know-how transfer of application knowledge if there is a need to

2.2.3 Adaptive Maintenance

The Contractor shall provide the optimal resources and environment (IT engineers, IT architects and project manager) to ensure the needed planning and engineering tasks.

2.3 Operation Management

2.3.1 Incident Management

The Contractor shall:

- » Check, analyse and provide second and third level support regarding application related issues (except hosting issues)
- » Manage and coordinate the open issues and inform the defined relevant parties
- » Comply with the procedure defined in chapter 2.1.1 “Fixing Plan”
- » Check permanently if the software for digitalization of Network Statements and CIDs is up and running
- » Carry out first analysis in case of incident and inform RNE
- » Manage incoming request within the agreed response time

- » Log any event which is reasonable in this context and provide a quarterly report
- » Use RNE ticket tool (OTRS)

2.3.2 Problem Management

The Contractor shall prevent and reduce incidents by analysing issues and apply proper preventive measures.

Tasks and obligations:

- » Analyse, classify and record fixed issues
- » Analyse and report trends
- » Propose preventive measures and report during the regular maintenance meeting

2.3.3 Change Management

The Contractor shall:

- » Accept, prepare and register change requests (change request form (CR) and/or ticketing tool have to be used)
- » Assess change requests, propose a technical solution including a time frame and price offer for the implementation
- » Plan changes in accordance with the release management plan
- » Finalise change request after implementation was successful
- » Provide updated documentation after the implementation of every change request

2.3.4 Release Management

Maximum four releases per year shall be planned by the Contractor in order to introduce a significant volume of evolutions or corrections at the same time. The Contractor shall inform RNE in time, 6 months in advance, in case any software or hardware, operated by the Contractor, is running out of maintenance. The Contractor shall start change management actions to keep the software up to date. The Contractor shall develop a roadmap for the next 18 months and update this roadmap twice a year during the Steering/Assessment meeting.

The Contractor shall:

- » Plan and shape future releases
- » Organise and manage test phase
- » Take part and cooperate with the user during test sessions
- » Provide proper test cases for new releases
- » Manage rollout procedures in agreement with RNE
- » Manage communication with the involved partner if necessary

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- » Provide and organise training if requested
- » Provide updates for all documentation

All documentation shall be kept up to date over the application lifecycle.

2.3.5 Quality Management

The Contractor shall:

- » Provide key performance indicator reports (KPIs have to be defined by RNE)
- » Manage data quality assurance
- » Manage data administration

2.3.6 Managing the Application

The Contractor shall:

- » Provide maintenance functionality
- » Manage all the technical application components (including installation of the upgrades and ensuring no damage to the system)
- » All application's technical components have to be kept updated within 12 months after the new version is released. Special agreements between Contractor and RNE can be set up if necessary.

2.3.7 Managing the Infrastructure (Depending on Hosting Provider)

If hosting is not provided by the Contractor, then the Contractor shall:

- » Operate instances of the server in the virtualised environment
- » Operate storage management (SAN, provided by RNE)

2.4 Managed Services – Deliver IT Services

The Contractor shall provide:

- » Service Level Agreement (SLA) Management
- » Helpdesk including a ticket tool OR
- » Use RNE's ticket tool (OTRS) and also to track requests by RNE

The Contractor's helpdesk shall provide:

- » Single point of contact (see office hours in chapter 2.3.2 "Definition of office hours")
- » Support for authorised persons
- » Centralised call centre for incidents, change requests or anomalies
- » Centralised email and URL address (tracking system) for reporting demands

- » Recording of all issues
- » Resolution of known and referenced issues
- » Managing and dispatching the issues to the competent and responsible unit for hardware and software
- » Tracking of the event, follow-up and closing of the issues/events

2.5 Special Terms and Conditions for the Software for Digitalization of Network Statements and CIDs Test System

The pre-production (staging) and test system will be supported only in office hours without quality measurements. The system will only be used for new delta or full releases or for RNE test purposes.

2.6 Miscellaneous

The Contractor shall agree that:

- » Third party SW and SW upgrades to new versions are covered by this maintenance contract (see application's technical components in chapter 2.3.6 "Managing the application").
- » Third party's (vendor's) software provided by the Contractor to RNE are warranted under the vendor's terms and conditions.

The Contractor may only introduce new application's technical components or change application's technical components – especially with regards to third party software or proprietary components/software – after permission by RNE in a written form.

2.7 System Availability

Operating time: 24 hours per day except the downtime needed to assure the system availability.

Maximum downtime: The general Service Level for this system is 99,5%. Therefore, the maximal downtime is 0,5% and will be measured per quarter. The maximal downtime does not include the planned maintenance time needed to assure the system availability.

System unavailability: Planned maintenance activities resulting in system unavailability shall be announced two weeks in advance and performed on a Tuesday between 16:00 a.m. and 17:00 p.m. (CET) or a different maintenance window to be defined by RNE – for max. 60 minutes.

Availability RNE helpdesk: RNE helpdesk is available between 9:00 a.m. and 4:00 p.m. (CET), except Saturdays, Sundays and statutory holidays in Austria.

Availability second and third level support (Contractor): see office hours in chapter 2.1.3.2 'Definition of Office Hours'.

2.8 Incident Response Time

Severity	Examples	Response time	Fixing Plan
Critical	Crashes, loss of data, severe memory leak. This severity means that the bugs stop the systems, and no workaround is possible. The use of the system is significantly limited. Very critical functions cannot be used, are incomplete or erroneous.	1 hour	4 hours
Major	Major loss of function. Requirements are incorrectly implemented. The system can only be used with severe restrictions (difficult or expensive workaround). This severity means that the usability of the system is affected but it is usable. All the critical functions are usable, but in detail there may be deviations to the specifications or the documentation. It may be possible to use workarounds. The Contractor will deliver the description of this workaround, if the customer is involved in such workaround.	4 hours	4 hours
Minor	Minor loss of function or other problem where easy workaround is present. This severity means that the bug breaks a minor part of the system.	2 days	8 hours
Cosmetic	Cosmetic problem like misspelled word or misaligned text. The system can be used without restrictions.	5 days	8 hours

2.9 Backup and Recovery of Lost Data

The Contractor will not be required to provide backup as it will be provided by RNE’s hosting provider. The Contractor shall secure that the backup procedure is working and is sufficient to recover the complete system and the data. Recovery shall be done in cooperation between Contractor and RNE hosting provider and the Contractor shall cooperate with RNE and the hosting provider in recovery and backup of lost data.

3 Liability for Defects

3.1 The Contractor shall perform its obligation under this FA with all reasonable care according to the usual professional standards and practices in its profession.

3.2 The Contractor confirms that, during the tendering process, he has received all the technical specifications and other required information to fulfil this FA in a proper way.

3.3 Where due to a mistake of the Contractor there is a complete malfunction of the software for digitalization of Network Statements and CIDs for a period of at least 2 days or the SLA was not reached, the following table sets forth the rules for application of penalties payable by the Contractor to RNE and termination provisions:

Rule	Description
1	If the defined SLA (system availability below 98,5% in a quarter) is not reached, RNE may request a penalty of 2% of the annual fee per quarter.
2	A penalty will be applied after 48 hours of a complete malfunction of the system. We refer to this date as the “penalty date”. At the penalty date, RNE may request a penalty of 3% of the annual fee.
3	After the penalty date, an additional penalty of 3% per 24 hours of the annual fee may be requested for an additional day of a complete system’s malfunction.
4	The maximum penalties allowed per year, following a complete malfunction of the system for a period of at least 4 days, is fixed to 12% of the annual fee.
5	After 5 days of complete malfunction of the system, RNE is entitled to terminate the FA immediately and without giving prior formal notice. In this case an additional 12% penalty of the annual fee will be applied.