OPERATIONAL CONDITIONS OF IENC.OPENECDIS.ORG

This document describes the main operational conditions of ienc.openecdis.org during the operation within the Service Contract on the provision of support services in the field of inland waterway transport 2012/S 50-080916. These are to be observed during the operation of **ienc.openecdis.org.**

1.a.1   Technical Parameters

Technical parameters for the operation of ienc.openecdis.org	
Description	Technical parameters of ienc.openecdis.org: ▪ One dedicated server (Quad core Xeon with 8GB RAM, RAID 5) is to be set up and used for these all services. ▪ The main operating system is Windows Server 2008 R2 ▪ For data storage, MySQL Database (version 5.5.31) is used. ▪ Backups are being made every day in the form of snapshots. ▪ For content management, CMS functionality is used.

1.a.2   Availability

Unplanned non-availability for services for users	
Description	During the operational period, the unplanned non-availability of the System will be less than 4 office hours per week and less than 12 office hours per month and less than 48 office hours per year. Office hours are defined as the hours between 08:30 and 17:30 on Mondays to Fridays, including national holidays and excluding international holidays. In case of Force Majeure (e.g. major infrastructure failure caused by earthquake, flood, general power outage or any other cause beyond the reasonable control), the Disaster Recovery Plan shall be implemented and the maximum non-availability shall be 50 hours. In order to minimize non-availability due to connectivity disruptions, backup link should be in place.

Planned non-availability	
Description	The system may be unavailable due to (periodic) maintenance work, backup activities, warranty repairs or implementation of change requests. System services disruption will be limited as much as possible by combining repairs with other activities. All planned non-availability during the operational period will be communicated to the European Commission for approval.

Corrective maintenance	
Description	Support is responsive for the corrective maintenance of the hardware (including network connections) and software, and/or the provision of a workaround within the defined time spans for reaction and time for corrective maintenance. The time span for corrective maintenance is the time from the detection of the failure to the failure correction and/or to the provision of a workaround. Three failure classes are defined: **Class I - Critical errors** The appropriate use of a part of the System or of the entire System is not possible or unreasonably restricted. The error has a serious impact on business operations or security. These are mainly errors which exclude a further processing. **Class II - Major errors** The appropriate use of a part of the System or of the entire System is severely restricted. The error has a significant influence on business operations or security, but further work is possible. **Class III - Minor errors** The appropriate use of a part of the System or of the entire System is slightly restricted. The error has negligible effect on the business operations or security and allows further processing.

Corrective maintenance of hardware including network connections	
Description	Time for reaction and time for corrective maintenance in case of the predefined failure classes: **Class I** Time span for reaction: less than 1 hour Time span for corrective maintenance: less than 4 hours **Class II** Time span for reaction: less than 2 hours Time span for corrective maintenance: less than 6 hours **Class III** Time span for reaction: less than 6 hours Time span for corrective maintenance: less than 48 hours The time spans apply between 08:30 and 17:30 on Mondays to Fridays, including national holidays and excluding international holidays.

Corrective maintenance of software	
Description	Time for reaction and time for corrective maintenance in case of the predefined failure classes: **Class I** Time span for reaction: less than 1 hour Time span for corrective maintenance: less than 1 day **Class II** Time span for reaction: less than 4 hours Time span for corrective maintenance: less than 2 days **Class III** Time span for reaction: less than 8 hours Time span for corrective maintenance: less than 3 days The time spans apply between 08:30 and 17:30 on Mondays to Fridays, including national holidays and excluding international holidays.

1.a.3   Recoverability (reparability)

Provide expected performance after failures	
Description	System is able to provide expected performance (speed, accuracy, consistency and predictability) after failures have been experienced. System allows the correction of its defects or loss of data with a limited amount of work, by creating a fall-back system and making backups on the fly.

1.a.4   Scalability

Additional hardware increases the throughput	
Description	System in built in such way, that it can increase total throughput under an increased load when resources (typically hardware) are added.

1.a.5   Performance

Database capacity	
Description	The System provides enough capacity to contain required information: ▪ 1000 documents, which are available for downloading, 1000 projects, 1000 calender entries

Response time	
Description	The system answers all requests within 2 seconds.

1.a.6 Serviceability

Dynamic configuration	
Description	System in built in such way, that it can be easily and dynamically configured.

No restriction for use	
Description	There is no restriction in time or place for the use of the system.

1.a.7 Security

Access control	
Description	The System controls access of users by means of authentication and authorization. Authentication is the process of verifying a user's claimed identity. The authorization process is used to decide if user is allowed to have access to data fields, functionality or service.

Data security	
Description	The system protects its data by means of state of the art data security measures from attacks such as SQL injections, cross-site scripting, viruses and Trojan horses.

Backup and restore	
Description	The system is protected against long downtimes after malfunctions. A short time from the malfunction to the regular operation is assured by proper system backup and the system recovery. All software and all data can be backed up and restored. The backup and restore functions guarantee minimal disturbance of the operational European Hull database services when repairs, updates/upgrades are performed. **Software backups** and the restore functionality is used during the initial installation procedure and during the operational period, in processes like (warranty) repairs, upgrades, installation of new versions of operating system, database packages, new functionality (implemented change requests). **Data backups** contain all data restoration may/will be part of the same processes that required software restoration, but may also be used to recreate previous operating conditions. The Software backup and the Data backup suffices to configure and operate an empty "off the shelf" set of computers and related components as the system, without the need for additional software, settings, tunings and/or administrative and/or operational data.

Software backup	
Description	The Software backup contains an identical image of all current versions of all software components of the System.
	The Software backup is provided on DVD(s) at a monthly basis.
	The Software backup on DVD(s) is renewed after each change, update, and upgrade of the software.

Data backup	
Description	The Data backup contains an identical image of all current operational versions of all data sets of the System.
	The Data backup is provided on DVD(s) or CD(s).
	The actuality of the data in the Data backup on DVD(s) is 2 weeks old or more recent.

Loss of data after recovery	
Description	After any recovery of the System, the loss of data will be less than the collection of changes that were made in the period from 6 hours before the moment of the failure of the System to the moment the System became operational again.

1.a.8 Documentation

Language	
Description	All documentation is created in English language.

1.a.9 Operational requirements

System hosting	
Description	Hosting of **ienc.openecdis.org** is to be done in controlled environment by dedicated equipment and personnel capable to keep it operational within required operational parameters. It is necessary to have reliable, well maintained infrastructure, especially fast and reliable dedicated Internet connection. It is of special importance to have well documented processes such as backup and restore, change requests, updates and upgrades, security, incident response and usage of required resources. The operator shall host the system and its services for the mentioned period of time. Hosting includes the provision of the (physical) accommodation of the system components (building, computer room, rack space, cooling, electrical power etc.), the provision of the system components themselves (systems hardware), the provision of networking components and services and the provision of backup components and backup media. This operational requirement is a contractual option.