HMA-T G-POD Web Service
Administration and User Manual

Terradue
Approval

<table>
<thead>
<tr>
<th>title</th>
<th>HMA-T G-POD Web Service Administration and User Manual</th>
<th>issue</th>
<th>1</th>
<th>revision</th>
<th>0</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>author</th>
<th>Terradue</th>
<th>date</th>
<th>2009-07-16</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>approved by</th>
<th>Fabrice Brito</th>
<th>date</th>
<th>2009-07-16</th>
</tr>
</thead>
</table>

Change Log

<table>
<thead>
<tr>
<th>reason for change</th>
<th>issue</th>
<th>revision</th>
<th>date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial TOC and content</td>
<td>0</td>
<td>1</td>
<td>2009-02-11</td>
</tr>
<tr>
<td>First Release</td>
<td>1</td>
<td>0</td>
<td>2009-07-16</td>
</tr>
</tbody>
</table>
Table of Contents

1 Introduction ............................................................................................................. 1
   1.1 Purpose of the document .............................................................................. 1
   1.2 Background ................................................................................................. 1
   1.3 Content Overview ....................................................................................... 2

2 Applicable and Reference Documents ................................................................. 3
   2.1 Applicable Documents .............................................................................. 3
   2.2 Reference Documents .............................................................................. 3

3 Terms, Definitions and Abbreviated Terms ......................................................... 4
   3.1 Definition of Terms .................................................................................. 4
   3.2 Abbreviated Terms .................................................................................. 4

4 Hardware and Configuration Requirements ....................................................... 5
   4.1 Hosting Platform ....................................................................................... 5
   4.2 Software Installation pre-Requisites ......................................................... 5

5 Software Installation and Configuration Procedure ............................................ 6
   5.1 Software Installation .............................................................................. 6
   5.2 Software Configuration ......................................................................... 7
      5.2.1 HMA-T G-POD Web Service IIS Configuration ................................. 7
      5.2.2 HMA-T G-POD Web Service run-time configuration ....................... 7
         5.2.2.1 Global configuration section ....................................................... 8
         5.2.2.2 ErrorMail configuration section ............................................... 11
         5.2.2.3 PortalDatabase configuration section .................................... 12
         5.2.2.4 RemoteHosts configuration section ....................................... 13
         5.2.2.5 Services configuration section ............................................... 13

6 Administration Procedures .................................................................................... 16
   6.1 Installation Procedures ......................................................................... 16
      6.1.1 HMA-T G-POD Web Service instance installation ......................... 16
   6.2 Operational Procedures ......................................................................... 16
      6.2.1 Procedures Overview ..................................................................... 16
      6.2.2 Start the HMA-T G-POD Web Service ........................................... 16
      6.2.3 Stop the HMA-T G-POD Web Service ........................................... 16
      6.2.4 Suspend/resume the HMA-T G-POD Web Service ......................... 17
      6.2.5 Suspend/resume requests to a given service configuration ............ 17
   6.3 Contingencies Handling Procedures ......................................................... 17
6.3.1 Error messages handling procedures ................................................. 17
6.3.2 HMA-T G-POD Web Service email error messages handling procedures
17
List of Tables
Table 1 Operational procedures................................................................. 16
Table 2 HMA-T G-POD Web Service error messages and contingency measure . 17
Table 3 Error messages and contingency measure......................................... 17

List of Figures
Figure 1 HMA-T G-POD overall system and scope of the document.............. 1
Figure 2 Structure of the hma.ini configuration file ...................................... 8
1 Introduction

1.1 Purpose of the document

This document is the HMA-T G-POD Web Service Administration Manual. It provides the installation, configuration and operational procedures.

1.2 Background

ESA G-POD configured services can be invoked via a SOAP client using HMA-T G-POD dedicated Web Service implementing the OGC User Management specification.

The overall system and document scope is depicted in Figure 1. On the G-POD side, the HMA-T G-POD Web Service handles requests and sends the responses to the client. The client has to have a valid SAML token to be able to successfully invoke the service.

Figure 1 HMA-T G-POD overall system and scope of the document
1.3 Content Overview

Section 1
This section.

Section 2
This section gives the list of all documents applicable to this document and the list of the project document used as reference.

Section 3
This section list all abbreviation and terms used throughout the document.

Section 4
This section provides the hardware and configuration requirements

Section 5
This section provides the software installation and configuration procedures.

Section 6
This section provides the administration procedures.
# 2 Applicable and Reference Documents

## 2.1 Applicable Documents

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Standard</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>[A1]</td>
<td>Space Engineering Software Standards</td>
<td>ECSS-E-40B</td>
<td>-</td>
</tr>
</tbody>
</table>

## 2.2 Reference Documents

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Reference</th>
<th>Date</th>
</tr>
</thead>
</table>
3 Terms, Definitions and Abbreviated Terms

3.1 Definition of Terms
This document and its appendices use the terms:

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOG-Catalogue</td>
<td>Earth Observation G-POD catalogue</td>
</tr>
<tr>
<td>G-POD</td>
<td>Grid Processing on-Demand system and infrastructure</td>
</tr>
<tr>
<td>MySql</td>
<td>MySql Database engine</td>
</tr>
<tr>
<td>SVN</td>
<td>Subversion version control system</td>
</tr>
</tbody>
</table>

3.2 Abbreviated Terms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASAR</td>
<td>Advanced Synthetic Aperture Radar</td>
</tr>
<tr>
<td>ASP</td>
<td>Active Server Page</td>
</tr>
<tr>
<td>CE</td>
<td>Computing Element</td>
</tr>
<tr>
<td>ESA</td>
<td>European Space Agency</td>
</tr>
<tr>
<td>FAIRE</td>
<td>Fast Access to Imagery for Rapid Exploitation</td>
</tr>
<tr>
<td>H/W</td>
<td>Hardware</td>
</tr>
<tr>
<td>LGE</td>
<td>Light GRID Engine</td>
</tr>
<tr>
<td>PDF</td>
<td>Portable Document Format</td>
</tr>
<tr>
<td>RDC</td>
<td>Remote Desktop Connection</td>
</tr>
<tr>
<td>S/W</td>
<td>Software</td>
</tr>
<tr>
<td>SAML</td>
<td>Security Assertion Markup Language</td>
</tr>
<tr>
<td>SOAP</td>
<td>Simple Object Access Protocol</td>
</tr>
<tr>
<td>XML</td>
<td>eXtensible Markup Language</td>
</tr>
</tbody>
</table>
4 Hardware and Configuration Requirements

4.1 Hosting Platform

HMA-T G-POD Web Service must on the same hardware platform as the G-POD Portal itself. There are no particular hardware requirements or configuration other than the ones required to host a G-POD Portal.

4.2 Software Installation pre-Requisites

HMA-T G-POD Web Service is implemented in C# and uses the Microsoft .Net framework (already used by the G-POD workflow).

It is assumed that a G-POD Portal is configured, and running as such there are no additional software installation or additional pre-requisites.
5 Software Installation and Configuration Procedure

5.1 Software Installation

HMA-T G-POD Web Service is available in Terradue’s svn at the location below:

There can be several instances of the HMA-T G-POD Web Service running. Each instance uses a dedicated configuration files and run-time environment.

An instance of a HMA-T G-POD Web Service is composed of the folder/files structure:

- ws/hma/hma.asmx
- ws/hma/hma.aspx (optional)
- ws/hma/bin/Terradue.Ify.Portal.All.dll
- ws/hma/hma.ini

Where ws is the G-POD Portal web service dedicated folder and as such it is already present in the installation. The folder name hma is an example and it can be any valid name used in a URL. In case of doubts please check [R4].

The file hma.asmx is the HMA-T G-POD Web Service access point so considering a G-POD Portal runs at http://eogrid.esrin.esa.int/ the web service access point would be:

http://eogrid.esrin.esa.int/ws/hma/hma.asmx

The development access point is accessible at:

http://gpod-dev.terradue.com/ws/hma.asmx

To install the HMA-T G-POD Web Service please perform the steps listed here:

1. Log on the Windows machine hosting the G-POD Portal as an administrator;
2. Open a Windows Explorer windows and browse to the G-POD Portal installation location and then go to Sites/ws
3. Right-Click and perform SVN update to retrieve the default HMA-T G-POD Web Service and its basic configuration;

These steps will install one instance of the HMA-T G-POD Web Service. To configure additional instances just create new folders for the http://gpod-dev.terradue.com/ws/hma.asmx (example ws/hma-test/).
5.2 Software Configuration

This section provides the HMA-T G-POD Web Service configuration details and associated procedures.

HMA-T G-POD Web Service configuration relies on two configurations items:

1. The HMA-T G-POD Web Service IIS configuration
2. The HMA-T G-POD Web Service run-time configuration

The sub-section below provided extensive details regarding the two items above.

5.2.1 HMA-T G-POD Web Service IIS Configuration

There are no configuration items in IIS other than the already configured G-POD Web Site and Virtual Directories.

5.2.2 HMA-T G-POD Web Service run-time configuration

Each HMA-T G-POD Web Service instance configuration uses an INI file that has the following format:

- **Sections**: Section declarations start with '[' and end with ']'. And sections start with section declarations.
- **Parameters**: The notation for parameters (also referred to as items) is 'var1 = abc'. Parameters are made up of a key (var1), equals sign ('='), and a value ('abc').
- **Comments**: All the lines starting with a hash ('#') are assumed to be comments and ignored.

The file hma.ini needs to be available in the desired conf folder on the portal machine.

Figure 2 depicts the structure of the configuration file.

This INI file is divided into four main sections and as many service configurations sections as HMA-T G-POD exposed services:

1. A **Global** configuration section containing the global settings of the HMA-T G-POD Web Service and the default values for the services (note – these may be overridden by the service configurations);
2. A section called **ErrorMail** where the HMA-T G-POD Web Service administrator email and associated details are configured;
3. A section named **PortalDatabase** settings the variables to access the G-POD Portal database;
4. A section named **RemoteHosts** listing the IP address of the servers to accepted requests from;
5. Several service configurations;

A complete configuration file is provided in Section Error! Reference source not found..
5.2.2.1 Global configuration section

The global configuration section contains the parameters listed and described below:

- **Identifier** (string) – Unique value for identifying the HMA-T G-POD Web Service instance (example HMAT-GPOD). This value is needed to distinguish different HMA-T G-POD web service instances one from another to be able to track the origin of the requests.
  
  No default value

- **Available** (boolean) – Defines whether the HMA-T G-POD Web Service handles requests or not. When set to *false* the HMA user gets an error message telling that the G-POD Services are unavailable.
Default value: true

- **LogFile** – Full path to the HMA-T G-POD Web Service log file. Include the $DATE placeholder to allow the creation of one daily log.
  Example: LogFile = X:\logs\$DATE.hma_ws.log
  Ignored if LogLevel is 0.
  No default value

- **LogLevel** (integer) – Sets the detail level of log entries to be reported in the log file (set in LogFile). Possible values are:
  - 0: no logging
  - 1: only error messages are logged
  - 2: error and warning messages are logged
  - 3: error, warning and info messages are logged

- **DebugLevel** (integer) – Sets the detail level of debug entries to be reported in the log file (set in LogFile). This should not be used in production environment. A debug level different from 0 sets also the LogLevel to 3. Possible values are:
  - 0: no debug messages are logged
  - 1: only important debug messages are logged (begin and end of main operations, e.g. submission of a task)
  - 2: also less important messages are logged (in addition to 1, important intermediary steps within main operations, e.g. SQL queries, or begin and end of minor operations, e.g. login and logout)
  - 3: also trivial messages are logged (in addition to 2, messages of operations that are not likely to fail are logged, such as reading of configuration files)
  - 4: highest level of debug detail, useful only for analysis by software provider

  Default value: 0

- **SoapLogFile** (string) – The full path of the file in which incoming and outgoing SOAP messages are logged. The following placeholder can be included:
  - $DATE: is replaced with the date in the format YYYYMMDD. This allows the creation of daily log files.

  Example: SoapLogFile = X:\logs\$DATE.soap.log
  Ignored if LogSoap is false.
  No default value

- **LogSoap** (boolean) – If set to true, all incoming SOAP request messages are logged in the file specified in SoapLogFile.

  Note: If also the logging of the SOAP response message is desired, use the optional hma.aspx as web service access point.

  Default value: false
• **BaseUrl** (string) – this parameter is the base URL of the G-POD Portal installation, example [http://eogrid.esrin.esa.int](http://eogrid.esrin.esa.int)

  The definition of the base URL automatically defines the subordinate URLs for the necessary G-POD operations (such as logging in, submitting a task, obtaining task results etc.)

• **TaskPrefix** (string) – Defines the G-POD task description prefix for each task created.

  The following placeholder can be included:

  o  **$USER**: is replaced with the G-POD username in whose account the task is created.

  Example: TaskPrefix = HMA-T_

• **DefaultUserLevel** (integer) – Defines the user level on the G-POD Portal. Use 1 for a regular user and 3 for an Administrator.

• **DefaultUserResources** (integer) – Defines the number of resources assigned for the execution of tasks.

  Example: DefaultUserResources = 500

• **DefaultUserGroups** (string list) – Defines the names of the default G-POD user groups (separated by commas)

  Example: DefaultUserGroups = HMA-Test

• **DefaultProxyUser** (string) – Defines the G-POD username whose proxy username is to be used for the job submission

• **DecKeyFile** (string) – Defines the path to the decryption key file (PKCS#12 format, .p12 or .pfx)

  Example DecKeyFile = E:\certs\gpod.pfx

• **DecKeyPassword** (string) – Defines the decryption key password

• **VerKeyFile** (string) – Defines the path to the signature verification key file (PKCS#12 format, .p12 or .pfx)

  Example VerKeyFile = E:\certs\gpod.pfx

• **VerKeyPassword** (string) – Defines the signature verification key password

• **VerifyCert** (boolean) – Defines whether the signature is to be verified using the X.509 data contained in the digital signature information (alternative to VerKeyFile and VerKeyPassword).

An example of a HMA-T G-POD Web Service **Global** configuration is provided below:
5.2.2.2 ErrorMail configuration section

The ErrorMail configuration section contains the parameters listed and described below. Error notifications are sent by e-mail for errors that indicate a wrong configuration that needs to be resolved by an administrator.

- **SmtpServer (string)** – Hostname of the SMTP server from which the error mail is sent.

- **SmtpUsername (string)** – Username associated to the SMTP account used to send emails.

- **SmtpPassword (string)** – Password associated to the SMTP server account used to send emails.

- **Subject (string)** – Subject of the email sent

The following placeholder can be used:

- $IDENTIFIER: the HMA-T G-POD Web Service instance identifier as set in the [Global] section

- **Body (string)** – Body of the email sent.

The following placeholders can be used:

- $IDENTIFIER: the HMA-T G-POD Web Service instance identifier as set in the [Global] section
- $TIME: the timestamp of the error event
- $ERROR: the final error message
- $CONTEXT: context information on the request (not available)
- $LOG: the complete log for the request
- $INPUT: the SOAP request message (XML)
- \n: line break

- **Template (string)** – Path to a template file containing the mail body (alternative to setting the Body value if it is getting too long or if a more readable mail configuration is desired). The placeholders that can be used are the same as for Body, except the one for the line break, which are obtained from the real line breaks of the template file.
From (string) – sender’s email address.
To (string list) – Comma-separated list of recipients receiving the email.
Cc (string list) – Comma-separated list of carbon copy recipients.
Bcc (string list) – Comma-separated list of blind carbon copy recipients.

An example of a HMA-T G-POD Web Service **ErrorMail** configuration is provided below:

```
[ErrorMail]
SmtpServer      = smtp.terradue.com
SmtpUsername    = hma@terradue.com
SmtpPassword    = .hma1999$
Subject         = Error notification for $IDENTIFIER
Body            = This message has been generated automatically, do not reply.
To              = frank.loeschau@terradue.com, fabrice.brito@terradue.com
From            = hma@terradue.com
```

### 5.2.2.3 PortalDatabase configuration section
The **PortalDatabase** configuration section contains the settings necessary for accessing the G-POD portal database:

- **Host** (string) – IP address or hostname of the machine hosting the G-POD Portal database;
- **Port** (integer) – Port number of the G-POD Portal database, example 3306;
- **Username** (string) – Name of the user connection to the G-POD Portal database;
- **Password** (string) – Password associated to the username defined above to connect to the G-POD Portal database;
- **Database** (string) – Name of the database used by the G-POD Portal;
- **Protocol** (string) – Name of the protocol to be used to connect to the G-POD Portal database, example mysql-4.1.

An example of a HMA-T G-POD Web Service **PortalDatabase** configuration is provided below:

```
[PortalDatabase]
Host            = 127.0.0.1
Port            = 3306
Username        = gpod
Password        = gpodpassword
Database        = gpod
Protocol        = mysql-4.1
```
5.2.2.4  RemoteHosts configuration section

The RemoteHosts configuration section contains lists of remote hosts allowed to use the HMA-T G-POD Web Service together with G-POD credentials to be used for the corresponding list of hosts:

- **Address** – This parameter defines the comma separated list of servers defined by their IP addresses from which the HMA-T G-POD Web Service will receive requests. Setting an empty value defines no restrictions.
  
  Example: Address = 62.123.237.221, 127.0.0.1, 192.168.1.7

- **Username** – Username of the G-POD account used for the triggered tasks;

- **Password** – Password for the account defined above.

Note: the last two parameters are used if the services **UserMode** parameter value is set to **GPOD**.

Note: The triple of Address, Username and Password can be repeated. The username and password settings always refer to IP addresses in the preceding Address value.

An example of a HMA-T G-POD Web Service RemoteHosts configuration is provided below:

```
[RemoteHosts]
Address         = 10.9.10.102
Username        = myuser
Password        = mypassword
```

5.2.2.5  Services configuration section

Each configured G-POD contains the parameters listed and described below:

- **Available** (boolean) – Defines whether or not the G-POD service can be used. When set to false the HMA user gets an error message telling that the G-POD Services are unavailable.
  
  Default value: true

- **Description** (string) – Description of the service access point.

- **ServiceName** (string) – This parameter defines the name of the G-POD service to be invoked. The value of G-POD service name is displayed in G-POD service definition control panel section.

- **AllowPending** (boolean) – Controls whether the service can submit tasks when resources are not available (setting their status to pending) or not.
  
  Default value: true

- **MaxPriority** (string) – This parameter sets the maximum priority for the processing of the G-POD task and may override the user-defined value if set to a higher priority than the value defined here.

  The set of possible values is defined in the G-POD portal Control Panel and, if not changed there, should contain Very Low, Low, Normal, High, Very High.
The task priority hierarchy is implemented as described (the first condition that is met sets the value):

- Priority value is defined in the task submission request:
  \[
  \text{task priority} = \min(\text{request priority}, \text{MaxPriority});
  \]
- Priority value is defined in the DefaultParams value:
  \[
  \text{task priority} = \min(\text{default priority}, \text{MaxPriority});
  \]
- Priority is undefined:
  \[
  \text{task priority} = \min(\text{Normal}, \text{MaxPriority});
  \]
- Priority and MaxPriority are undefined:
  \[
  \text{priority} = \text{Normal}.
  \]

Note that after this value retrieval the resulting priority might be further reduced if the G-POD group/service settings require so.

- **CE** (string) – Sets the computing element to be used for processing the order. It can be defined by the computing element hostname (e.g. grid-engine01.terradue.com) or by its name (e.g. Operational).
- **Username** (string) – Username of the G-POD account used for the HMA triggered tasks. This parameter is optional, overrides the one defined in the [RemoteHosts] section and is only used if used UserMode is set to GPODUser.
  
  Default value: the username defined in [RemoteHosts]
- **Password** (string) – Password for the account defined by Username. This parameter is optional, overrides the one defined in the [RemoteHosts] section and is only used if used UserMode is set to GPODUser.
  
  Default value: the password defined in [RemoteHosts]
- **DefaultParams** – defines default task parameter values. The parameters defined here are overridden by homonymous task parameters defined at the request level. The parameters have to be notated in URL style syntax, separated by the ampersand (&) character.
  
  Example: DefaultParams = compress=true&otherparam=123
- **PublishLocation** (string) – This parameter sets the remote location for the publication of the results. Make sure the publish location exists on G-POD for the associated user.
- **PublishTranslation** (string list) – This parameter defines the (comma-separated) string replacement patterns for the results URL to be transmitted to the response.
  
  Example: PublishTranslation = gridftp://host.com:2811=http://host.com
- **PublishItems** (string) – Defines whether all result product URLs or just the root folder URL are reported back. The possible values are All or Root.
  
  Default value: All

An example of service configuration is provided below.
[ProductDownload]
Description       = Service access point for the retrieval and publishing of ESA products. The request must specify the date and spatial range together with the dataset name
ServiceName       = publish
AllowPending      = true
MaxPriority       = Normal
Available         = True
DefaultParams     = compress=true
CE                = Terradue
PublishItems      = Root
PublishLocation   = gridftp://storage.terradue.com:2811/EO_DATA/HMA_RESULTS/
6 Administration Procedures

This section lists all the operational procedures for nominal operation and contingency handling.

6.1 Installation Procedures

6.1.1 HMA-T G-POD Web Service instance installation

To install a new instance of a HMA-T G-POD Web Service perform the steps:

- Log on the Windows machine physically or via RDC as an administrator;
- Open a Windows Explorer (Windows key + E) and browse the file system to the G-POD Portal ws folder;
- Create a new folder naming it following the conventions described in [R4];
- Double-click the folder;
- Perform a check-out by doing:
  ```
  svn co <delivery address>
  ```
- Edit the file hma.ini to configure the instance;
- Edit the file hma.asmx to set the log files path;
- Test the link in an Internet Browser.

6.2 Operational Procedures

6.2.1 Procedures Overview

Table 1 lists all the operational procedures.

<table>
<thead>
<tr>
<th>Procedure Identifier</th>
<th>Procedure Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROC_OPER_01</td>
<td>Start the HMA-T G-POD Web Service</td>
</tr>
<tr>
<td>PROC_OPER_02</td>
<td>Stop the HMA-T G-POD Web Service</td>
</tr>
<tr>
<td>PROC_OPER_03</td>
<td>Suspend/resume the HMA-T G-POD Web Service</td>
</tr>
<tr>
<td>PROC_OPER_04</td>
<td>Suspend/resume requests to a given service configuration</td>
</tr>
</tbody>
</table>

6.2.2 Start the HMA-T G-POD Web Service

The HMA-T G-POD Web Service is started with IIS start procedure.

6.2.3 Stop the HMA-T G-POD Web Service

The HMA-T G-POD Web Services is stopped with IIS stop procedure.
6.2.4 Suspend/resume the HMA-T G-POD Web Service

To suspend requests for the HMA-T G-POD Web Service set the parameter Available to false in the [Global] configuration section. To resume normal operations, set it back to true.

6.2.5 Suspend/resume requests to a given service configuration

To suspend requests to a given service configuration locate in the HMA-T G-POD Web Service the section containing the service to be suspended and set the parameter Available to false. To resume normal operations, set it back to true.

6.3 Contingencies Handling Procedures

6.3.1 Error messages handling procedures

Table 2 below lists the errors HMA-T G-POD Web Service can generate and defines the contingency procedure associated.

**Table 2 HMA-T G-POD Web Service error messages and contingency measure**

<table>
<thead>
<tr>
<th>Error (Additional Status)</th>
<th>Contingency procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request does not contain a reference to service</td>
<td>Problem: The message is displayed when the OrderServiceId value does not correspond to a HMA-T G-POD Web Service service configuration. Resolution: Create a HMA-T G-POD Web Service service configuration in file hma.ini.</td>
</tr>
</tbody>
</table>

6.3.2 HMA-T G-POD Web Service email error messages handling procedures

Table 2 below lists the errors HMA-T G-POD Web Service generates via e-mail and defines the contingency procedure associated.

**Table 3 Error messages and contingency measure**

<table>
<thead>
<tr>
<th>Email message</th>
<th>Contingency procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service configuration &quot;&lt;service&gt;&quot; is not defined</td>
<td>Problem: The email is sent when a request points to a non-existing order service section in the HMA-T G-POD Web Service configuration. Resolution: Correct the service configuration section named &lt;service&gt;.</td>
</tr>
<tr>
<td>Service configuration &lt;service&gt; does not refer to a G-POD</td>
<td>Problem: The email is sent when an order points to a service configuration in the HMA-T G-POD Web Service configuration not containing a G-POD service identifier. Resolution: Check the HMA-T G-POD Web Service configuration and add a valid G-POD service identifier, example ServiceName = publish</td>
</tr>
<tr>
<td>G-POD service &quot;&lt;service&gt;&quot; does not exist</td>
<td>Problem: The email is sent when an order points to a service configuration in the HMA-T G-POD Web Service configuration containing an invalid G-POD service identifier.</td>
</tr>
<tr>
<td>Issue</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>No Computing Element is defined for service configuration <code>&lt;service&gt;</code></td>
<td>Problem: The email is sent when an order points to a service configuration in the HMA-T G-POD Web Service configuration not containing a Computing Element.</td>
</tr>
<tr>
<td>G-POD Computing Element &quot;&lt;CE name&gt;&quot; does not exist</td>
<td>Problem: The email is sent when an order points to a service configuration in the HMA-T G-POD Web Service configuration having an invalid Computing Element.</td>
</tr>
<tr>
<td>For the default publishing location (G-POD portal) the output root cannot be used as publish item</td>
<td>Problem: The email is sent when an order points to a service configuration in the HMA-T G-POD Web Service configuration having PublishItems = Root and no or an empty value for PublishLocation</td>
</tr>
<tr>
<td>The task could not be submitted</td>
<td>Problem: The email is sent when all task creations or submissions for an order in split-mode with non-fatal error criticality fail. This problem can have various reasons.</td>
</tr>
<tr>
<td>Runtime error <code>&lt;code&gt;</code>: <code>&lt;error message&gt;</code> (file <code>&lt;filename&gt;</code>, line <code>&lt;line number&gt;</code>)</td>
<td>Problem: The email is sent when a runtime error occurs in a G-POD ASP script. This exceptional situation could be caused by various reasons, such as a wrong configuration of G-POD, the G-POD portal database, the web server hosting the G-POD portal or by a programming error.</td>
</tr>
</tbody>
</table>