generalManagement

Service Description

Abstract
This document provides a service description for the **generalManagement** service.

Contents

1 Overview

This document describes the **generalManagement** service, which allows (with operator role or proper permissions) to get some information about the hosting system's behavior, such as log entries and configuration settings. An example of this interaction is when an operator uses the Management Tool to revise the log of a system that behaves abnormally.

The **generalManagement** service contains the following operations:

- *get-log* lists the log entries of the system that matches the filtering requirements;
- *get-config* lists the current values of the specified configuration settings;

The rest of this document is organized as follows. In Section 2, we describe the abstract message operations provided by the service. In Section 3, we end the document by presenting the data types used by the mentioned operations.

1.1 How This Service Is Meant to Be Used

The service's purpose is to getting information about a deployed and running system.

Application systems should not use this service; only operators (via the Management Tool, for example) or dedicated Support systems.

1.2 Important Delimitations

The requester has to identify itself to use any of the operations.

1.3 Access policy

The service is only available for operators, dedicated Support systems and those who have the proper authorization rights to consume it.

2 Service Operations

This section describes the abstract signatures of each operation of the service. In particular, each subsection names an operation, an input type, and one or two output types (unsuccessful operations can return different structure), in that order. The input type is named inside parentheses, while the output type is preceded by a colon. If the operation has two output types, they are separated by a slash. Input and output types are only denoted when accepted or returned, respectively, by the operation in question. All abstract data types named in this section are defined in Section 3.

2.1 operation get-log (LogRequest) : LogResponse / ErrorResponse

Operation *get-log* lists the log entries of the system that matches the filtering requirements. The input data must meet the following criteria:

- The operation returns results in pages. There are default page data settings, but the requester can provide a custom specification.
- If page number is specified, the page size must be specified as well and vice versa.
- In some Local Clouds, there is a maximum page size.
- If both date parameters are specified (*from*, *to*), the date *from* must precede the date *to*.

2.2 operation get-config (ConfigRequest) : ConfigResponse / ErrorResponse

Operation *get-config* lists the current values of the specified configuration settings. The input data must meet the following criteria:

- Some configuration settings (e. g. passwords) cannot be acquired with this operation. Such setting names will be ignored.

3 Information Model

Here, all data objects that can be part of the **generalManagement** service are listed and must be respected by the hosting system. Note that each subsection, which describes one type of object, begins with the *struct* keyword, which is used to denote a collection of named fields, each with its own data type. As a complement to the explicitly defined types in this section, there is also a list of implicit primitive types in Section 3.9, which are used to represent things like hashes and identifiers.

3.1 struct LogRequest

Field	Type	Mandatory	Description
authentication	Identity	yes	The requester of the operation.
pageNumber	Number	no (yes)	The number of the requested page. It is mandatory, if page size is specified.
pageSize	Number	no (yes)	The number of entries on the requested page. It is mandatory, if page number is specified.
pageSortField	String	no	The identifier of the field which must be used to sort the entries.
pageDirection	Direction	no	The direction of the sorting.
from	DateTime	no	Requester is looking for log entries with timestamp that does not precede this one.
to	DateTime	no	Requester is looking for log entries with timestamp that does not succeed this one.
severity	LogSeverity	no	Requester is looking for log entries with severity that equals to or is higher than the specified one.
loggerStr	String	no	Requester is looking for log entries with logger whose name contains the specified text.

3.2 struct Identity

An Object which describes the identity of a system. It also contains whether the identified system has higher-level administrative rights.

3.3 struct LogResponse

Field	Type	Description
status	OperationStatus	Status of the operation.
entries	List<LogEntry>	A page of log entries.
count	Number	Total number of entries that match the filters.

3.4 struct LogEntry

Field	Type	Description
logId	String	Unique identifier of the entry.
entryDate	DateTime	The timestamp of the entry.
logger	String	The logger that created the entry.
severity	LogSeverity	The severity of the entry.
message	String	The log message
exception	String	If the log entry is an error, information of the related exception may appear here.

3.5 struct ErrorResponse

Field	Type	Description
status	OperationStatus	Status of the operation.
errorMessage	String	Description of the error.
errorCode	Number	Numerical code of the error.
type	ErrorType	Type of the error.
origin	String	Origin of the error.

3.6 struct ConfigRequest

Field	Type	Mandatory	Description
authentication	Identity	yes	The requester of the operation.
keys	List<String>	yes	The names of the requested configuration settings.

3.7 struct ConfigResponse

Field	Type	Description
status	OperationStatus	Status of the operation.
map	ConfigMap	The actual values of the requested settings.

3.8 struct ConfigMap

An Object which maps String keys to String values.

3.9 Primitives

Types and structures mentioned throughout this document that are assumed to be available to implementations of this service. Concrete interpretations of each of these types and structures must be provided in any IDD document that claims to implement this service.

Type	Description
DateTime	Pinpoints a specific moment in time.
Direction	The direction of a sorting operation. Possible values are the representation of ascending or descending order.
ErrorType	Any suitable type chosen by the implementor of service.
List<A>	An *array* of a known number of items, each having type A.
LogSeverity	The kind and seriousness of a log message.
Number	Decimal number.
Object	Set of primitives and possible further objects.
OperationStatus	Logical, textual or numerical value that indicates whether an operation is a success or a failure. Multiple values can be used for success and error cases to give additional information about the nature of the result.
String	A chain of characters.

4 References

5 Revision History

5.1 Amendments

No.	Date	Version	Subject of Amendments	Author
1	YYYY-MM-DD	5.0.0		Xxx Yyy

5.2 Quality Assurance

No.	Date	Version	Approved by
1	YYYY-MM-DD	5.0.0	