

# **MasterScope SystemManager G 8.0 WebConsole Option**

## **Environment Configuration Guide**

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NEC Corporation  
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# Preface

## Target readers and objective

This document is intended for system administrators who build a SystemManager G environment and describes how to build the environment.

## Overview of the document

This document provides the procedures for users who have Administrator privileges for Windows environments or root privileges for Linux environments. For procedures that need a user change, how to change the user will also be described in their descriptions.

## Notation rules of this document

In this document, important notes and related information are described as follows:

### Note

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Notes, warnings, and supplements on functions, operations, and settings are described.

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### Tip

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Additional information and reference information are described.

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### Notation list

The following conventions apply to this document.

Notation	Meaning	Example
Square brackets	Placed before and after an item (such as a text box, check box, or tab) on the screen	Enter the machine name in the <b>Machine name</b> text box. <b>All</b> check box
" "	Placed before and after a screen name (such as a dialog box or window), and a name of other manuals	"Setting" window <i>"Installation Guide"</i>
Square brackets [ ] in a command line	Indicates that the specification of the value in [ ] can be omitted.	add [/a] Gr1
Pipe   in a command line	Indicates that either of the elements delimited with the pipe will be selected. The element selection can be omitted when a pipe is used in square brackets. The element selection must be made when a pipe is used in braces.	delete [/a/f] group add {--code=codeword --file=file-path}
Braces { } in a command line	Are used together with a pipe, indicating that either of the elements delimited with the pipe must be selected.	add {--code=codeword --file=file-path}

Notation	Meaning	Example
Monospace font (Courier New)	Output from the command line (such as a message or prompt)	Run the following command. replace Gr1
Italicized monospace font (Courier New)	Indicates the items to be replaced with a valid value and input by users. If the value contains any spaces, surround it with " " (double quotation marks).	add <i>GroupName</i> InstallPath="Install Path"
Gray-scale background	Shows a concrete example of a command to run, a return value(s), and the like.	<code>msc_license_cmd.exe --register="C:\tmp\code word.txt" --force</code>
JSON example	To improve readability, line breaks and indentation are added to the displayed JSON examples.	<pre>{   "ID": [     "45ed3512"   ],   "Manager": {     "ErrorMessage": "",     "Name": "localhost",     "Status": 200,     "StatusCode": 200   } }</pre>

## Definitions

Definition	Description
<WebConsole-install-path>	Installation directory of SystemManager G WebConsole Option. The default installation directory varies depending on the environment as follows: In the Windows environment, the default installation directory is "C:\Program Files\NEC\pf\opm\manager". In the Linux environment, the default installation directory is "/opt/nec/pf/opm/manager".
<manager-install-path>	Installation directory of SystemManager G Manager. The default installation directory varies depending on the environment as follows: In the Windows environment, the default installation directory is "C:\Program Files(x86)\NEC\UMF\Operations". In the Linux environment, the default installation directory is "/opt/UMF/Operations".
<Tomcat-install-path>	Installation directory of Application Server. The default installation directory varies depending on the environment as follows: In the Windows environment, the default installation directory is "C:\Program Files(x86)\NEC\UMF\Operations\Tomcat". In the Linux environment, the default installation directory is "/opt/NEC/UMF/Operations/Tomcat".
<WebSAM Root>	Mounting directory of MasterScope media. The default installation directory varies depending on the environment.

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# Chapter 1.

## HA Cluster

This chapter describes how to configure WebConsole Option in an HA cluster environment. For details, see "[\doc\SysMgrG\manual\Cluster\Cluster\\_Win\\_EXPRESSCLUSTER\\_X.pdf](#)" or "[\doc\SysMgrG\manual\Cluster\Cluster\\_Linux\\_EXPRESSCLUSTER\\_X.pdf](#)" in the MasterScope Media.

# Chapter 2.

## Widget Options

The widget URLs from which a URL will be selected when a widget is added to the dashboard are called widget options. This chapter describes how to set a widget option file for the dashboard.

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## 2.1 Creating a widget option file

This section describes how to create a widget option file.

A widget option file consists of the following two types of files.

**Table 2-1 Widget option file**

File name	Meaning
<Tomcat-install-path>/conf/NEC/widgets.properties	Main configuration file for widget options. Set URLs, authority, and titles in the default language.
<Tomcat-install-path>/conf/NEC/ widgets_ts_[Locale].properties	Language setting file for widget options. [Locale] is a language locale. When support for multiple languages is needed, more than one language file can be created. For example, the file for the Japanese language is named widgets_ja.properties. When it is necessary to use different indications between American English and British English, separate settings can be made by creating widgets_en_US.properties and widgets_en_UK.properties.

### 2.1.1 Creating widgets.properties

This section describes how to create widgets.properties, the main configuration file for widget options. When editing a preinstalled widget option file, replace the file name appropriately.

widgets.properties is stored in the following location.

```
<Tomcat-install-path>/conf/NEC/widget.properties
```

Open widgets.properties with a text editor and then add, edit, or delete a widget option.

widgets.properties is a file in property format.

Each widget option is described in the following format.

**Table 2-2 Format of widgets.properties**

Property key	Default value	Required/Optional	Description
[Widget key].url	-	Required	Set the URL of the widget. The URL must have been encoded. URL replacement keywords can be used. For details, see "2.1.3 URL replacement keywords (page 5)".
[Widget key].title	-	Required	Set a character string that will be displayed as the widget option. If the language that is in agreement with the user setting is not found, this character string will be used. When the set string consists of multibyte characters, they need to be ASCII or Unicode characters containing an escape character.
[Widget key].auth	All	Optional	Set a user authority for displaying the widget option.

Property key	Default value	Required/Optional	Description
			<p>The following character strings can be used.</p> <ul style="list-style-type: none"> <li>• ALL: All users</li> <li>• ROLE_SYSTEM_ADMIN: System administrator</li> <li>• ROLE_TENANT_ADMIN: Tenant administrator</li> <li>• ROLE_TENANT_USER: Tenant user</li> </ul> <p>When setting multiple strings, separate them with single-byte commas (,).</p> <p>If no setting is made, the default value, "ALL", will be applied.</p>

Any character string can be set for *[Widget key]*. The widget addition dialog box of the dashboard displays URLs that are arranged by sorting *[Widget key]* in the ascending order.

If "*[Widget key]*.url" and "*[Widget key]*.title" that have the set *[Widget key]* are not found, the widget setting will be regarded as invalid.

If multiple settings have the same *[Widget key]*, only any one of them will be valid, and the others will be regarded as invalid.

The edits of widget.properties are applied to the server immediately. They are applied to the display of the browser on reloading of the dashboard.

If a widget option is deleted from widget.properties, the relevant widget will be deleted the next time the user loads the dashboard. You are recommended to notify the user of the deletion of the relevant widget beforehand by using the "notice" function or some other means.

If *[Widget key]*.url of a widget option is edited in widget.properties, the URL to be loaded by the relevant widget will be changed the next time the user loads the dashboard. You are recommended to notify the user of the change to the relevant widget setting beforehand by using the "notice" function or some other means.

## 2.1.2 Creating widgets\_*[Locale]*.properties

This section describes how to create widgets\_*[Locale]*.properties, the language setting file for widget options. When editing a preinstalled widget option file, replace the file name appropriately.

widgets\_*[Locale]*.properties is stored in the following location.

```
<Tomcat-install-path>/conf/NEC
```

In the following, a description is given for widgets\_ja.properties, a setting file for the Japanese language, as an example. When creating a setting file for a different language, replace the file name appropriately.

Open widgets\_ja.properties with a text editor and then add, edit, or delete the language setting of a widget option. widgets\_ja.properties is a file in property format.

Each widget option is described in the following format.

**Table 2-3 Format of widgets\_ja.properties**

Property key	Default value	Required/Optional	Description
<i>[Widget key]</i> .title	-	Optional	Set a character string that will be displayed as the internationalized string for the widget option.

Property key	Default value	Required/Optional	Description
			When the set string consists of multibyte characters, they need to be ASCII or Unicode characters containing an escape character.  If this setting is omitted, the value of <i>[Widget key].title</i> set in <i>widgets.properties</i> will be used.

If "*[Widget key].url*" having the *[Widget key]* is not found in *widgets.properties*, the widget setting will be regarded as invalid.

If multiple settings have the same *[Widget key]*, only any one of them will be valid, and the other settings will be regarded as invalid.

The edits of *widgets\_ja.properties* are applied to the server at intervals of approximately 10 seconds. They are applied to the display of the browser on reloading of the dashboard.

### 2.1.3 URL replacement keywords

URL replacement keywords can be set for the URLs of widget options.

The following URL replacement keywords can be used to set the URLs of widget options.

**Table 2-4 URL replacement keyword**

URL replacement keyword	Description
%TENANTID%	Replace the URL with the tenant ID of the login user.  When the user is logged in as the system administrator, it is a null character string. When the system administrator acts as a tenant, the URL is replaced not with the tenant ID of the relevant tenant but with a null character.
%USERID%	Replaces the URL with the user ID of the login user.

## 2.2 Editing a preset widget option files

Widget option files provided as preset files for the product can be customized depending on the purpose of the operation.

The preset files for widget options are stored in the following location.

```
<Tomcat-install-path>/conf/NEC
```

The following types of preset files are provided for the product.

**Table 2-5 Preset files provided for the product**

Widget option main configuration file	Widget option language setting file	Description
cloudportal.common.properties	cloudportal.common_ja.properties	These files define a screen for common functions as a widget option.
sysmgrg.monitoring.properties	sysmgrg.monitoring_ja.properties	These files define a screen for monitoring functions as a widget option.

Widget option main configuration files can be edited in the same manner as *widgets.properties*. For details, see "2.1.1 [Creating widgets.properties \(page 3\)](#)".

Widget option language setting files can be edited in the same manner as widgets *\_[Locale].properties*. For details, see "[2.1.2 Creating widgets \*\\_\[Locale\].properties\* \(page 4\)](#)".

# Chapter 3.

## Settings for Display on the Monitoring Window

The names and colors displayed on the monitoring window can be customized by editing the configuration file. This chapter describes how to set the display configuration file of the monitoring window.

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## 3.1 Editing the display configuration file for monitoring screen

This section describes how to edit the display configuration file for monitoring screen.

The display contents of the monitoring screen is controlled according to the contents of this file.

The colors and display names of the severities and the display names of the marks attached to messages on the monitoring screen (Node screen or Message screen) can be specified by using the display configuration file.

The display configuration file for the monitoring screen is stored in the following location. This file contains the default values immediately after installation.

```
<Tomcat-install-path>/conf/NEC/displaySetting.json
```

Open displaySetting.json in a text editor, and then, add, edit, or delete the display settings of the monitoring windows.

It is also necessary to make the msc components of WebConsole Option recognize the change to the display settings.

Store the same file in the following location on the msc component side.

```
<WebConsole-install-path>/conf/foundation/
```

After making this change, restart the report component.

The character code and line feed code used in the configuration file are as follows.

**Table 3-1 Character code and line feed code used in displaySetting.json**

Item	Value
Character encoding	UTF (no BOM)
Line feed	LF or CRLF

Display on the monitoring screen can be configured separately for each tenant.

displaySetting.json is a JSON format file. The JSON format is defined by the following values.

**Table 3-2 JSON format of displaySetting.json**

Parameter	Data type	Description	Valid value
(ROOT)	object[]	Root object	-
(-)	object	Display settings for one tenant	-
tenant	string	Tenant ID	1 to 14 one-byte alphanumeric characters If omitted or specified with a null or a null character, it will be regarded as a setting for the whole system (default value used when no setting is made in the tenant ID specification). If multiple tenants have the same tenant ID, the setting corresponding to any one of them will be valid, and the settings corresponding to the others will be ignored.



Parameter	Data type	Description	Valid value
severities	object[]	Severity setting array	-
severities[n].severity	number	Severity value	Integer value from 0 to 255. If this is omitted or specified with a null, the settings for displaying severity will be regarded as default (not specified). If specified with an invalid value, the setting will be invalid. If multiple tenants have the same tenant ID, the setting corresponding to any one of them will be valid, and the settings corresponding to the others will be ignored.
severities[n].bg_color	string	Background color	Hexadecimal triplet format (with no # included). If omitted or specified with an invalid value, it will be regarded as FFFFFFFF (white).
severities[n].fg_color	string	Character color	Hexadecimal triplet format (with no # included). If omitted or specified with an invalid value, it will be regarded as 000000 (black).
severities[n].display_name	Severity display name		String consisting of 1 to 256 characters Control characters are excluded. If included, control characters will be removed. The 257th and later characters of the string will be ignored. If omitted or specified with an invalid value, it will be regarded as specified with a null character. Duplicate display names are used as they are.
marks	object[]	Mark setting array	-
marks[n].mark	string	String that uniquely identifies the mark	1 to 64 single-byte alphanumeric characters, hyphens, and/or underscores. If omitted or specified with an invalid value, the setting will be invalid. If multiple tenants have the same mark, the setting corresponding to any one of them will be valid, and the settings corresponding to the others will be ignored.
marks[n].display_name	string	Mark display name	String consisting of 0 to 256 characters. Control characters are excluded. If included, control characters will be removed. The 257th and later characters of the string will be ignored. If omitted or specified with an invalid value, a character string, marks[n].mark, will be used. Duplicate display names are used as they are.

# Chapter 4.

## How to Back up and Restore Data

This chapter describes how to back up and restore the data of MasterScope SystemManager G.

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## 4.1 Backing up and restoring SystemManager G (Windows)

This section describes how to back up and restore SystemManager G in a Windows environment.

### 4.1.1 Preparation for backup (restore)

Perform the following preparations before performing backup (restore).

Perform this procedure only once before performing backup (restore) on the system.

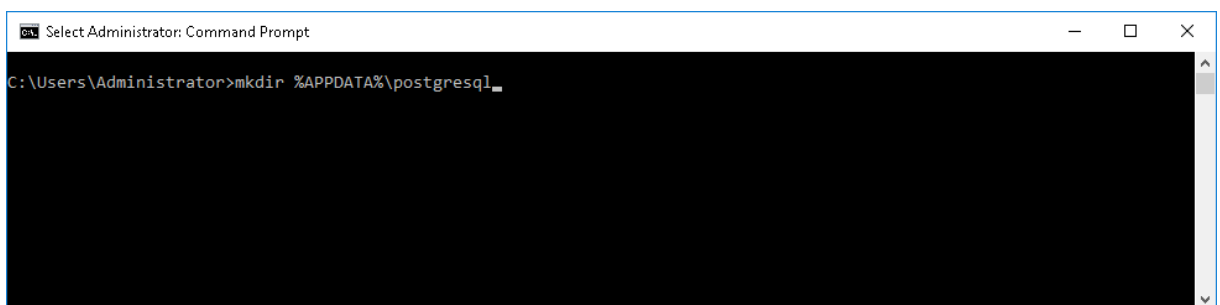
#### Note

- After the completion of the backup (restore) operation, delete the folders and files that are created in this procedure, on an as-needed basis.

1. Create a folder for storing a password file for PostgreSQL.

Start the command prompt and run the following command.

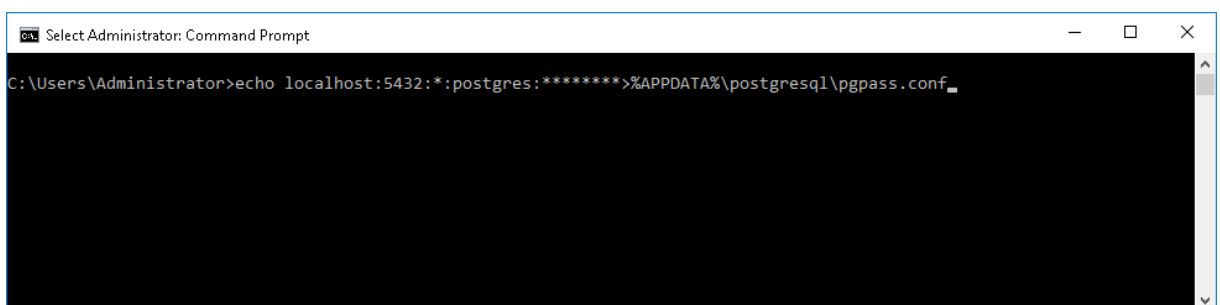
```
> mkdir %APPDATA%\postgresql
```



2. Create a password file for PostgreSQL.

Start the command prompt and run the following command.

```
> echo localhost:5432:*:postgres:*****>%APPDATA%\postgresql\pgpass.conf
```



#### Note

- Specify \*\*\*\*\* as the administrator user (postgres) password.
- Do not place a space between the password part (\*\*\*\*\*) and the redirection character (>).

## 4.1.2 Performing a full backup with a quiescent point

This section describes how to back up SystemManager G (full backup with a quiescent point).

This backup procedure is based on the premise that it will be performed upon the completion of system building or as part of periodical system maintenance.

All data, including monitoring results and history information, will be backed up by performing this backup procedure.

The backup operation consists of the following steps.

- Stop SystemManager G Manager.
- Stop SystemManager G WebConsole Option.
- Back up the data area.
- Start SystemManager G WebConsole Option.
- Start SystemManager G Manager.

### Note

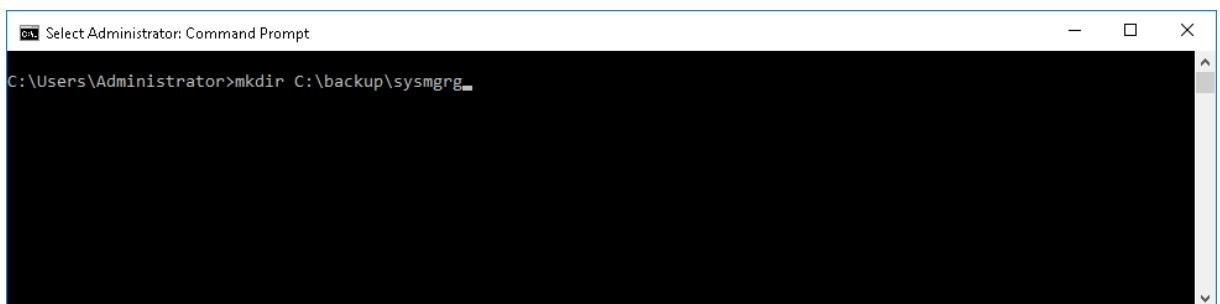
- The description is given on the premise that, in the target environment, all the constituent components of SystemManager G are installed on one machine. If the components are installed dispersedly on more than one machine, replace the terms in the description appropriately.
- The description is given on the premise that the backup data will be stored in the C:\backup\sysmgrg directory. If a different directory is to be used as backup destination directory, replace the terms in the description appropriately.
- For databases (PostgreSQL), the following describes a logical backup method using the `pg_dumpall` command. Perform physical backup when, for example, it is necessary to reduce the time required for backup.
- Perform "Preparation for backup (restore)" before performing this procedure.
- Perform this procedure as a user with Administrator privileges.

1. Create a directory for storing the backup data.

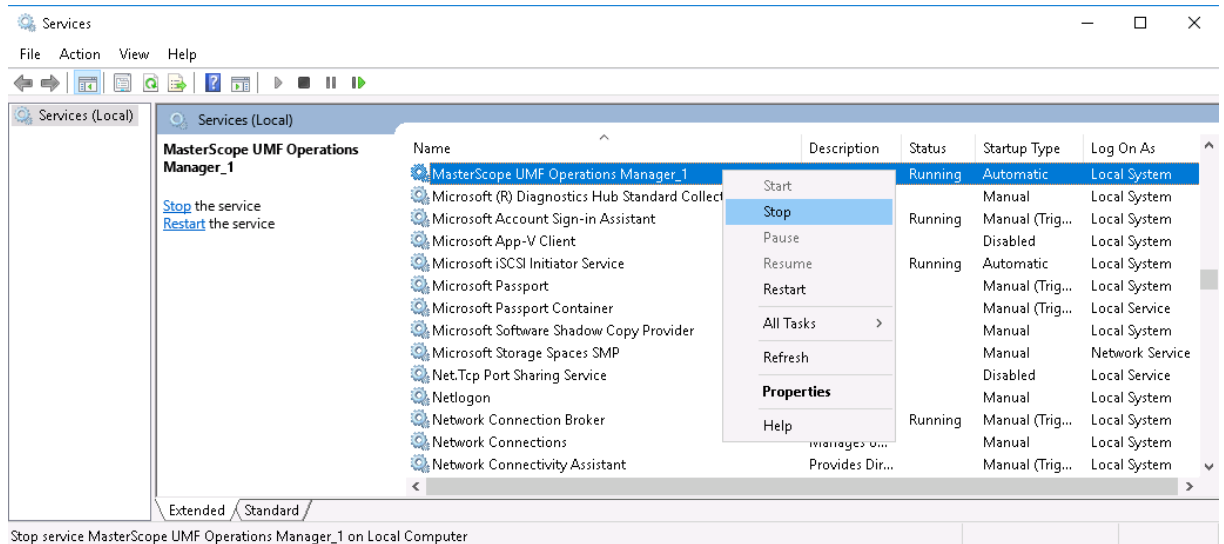
Start the command prompt and run the following command.

After the completion of backup, migrate the following directory to an external disk or the like on an as-needed basis.

```
> mkdir C:\backup\sysmgrg
```



2. Stop the SystemManager G Manager service.
  - MasterScope UMF Operations Manager\_1

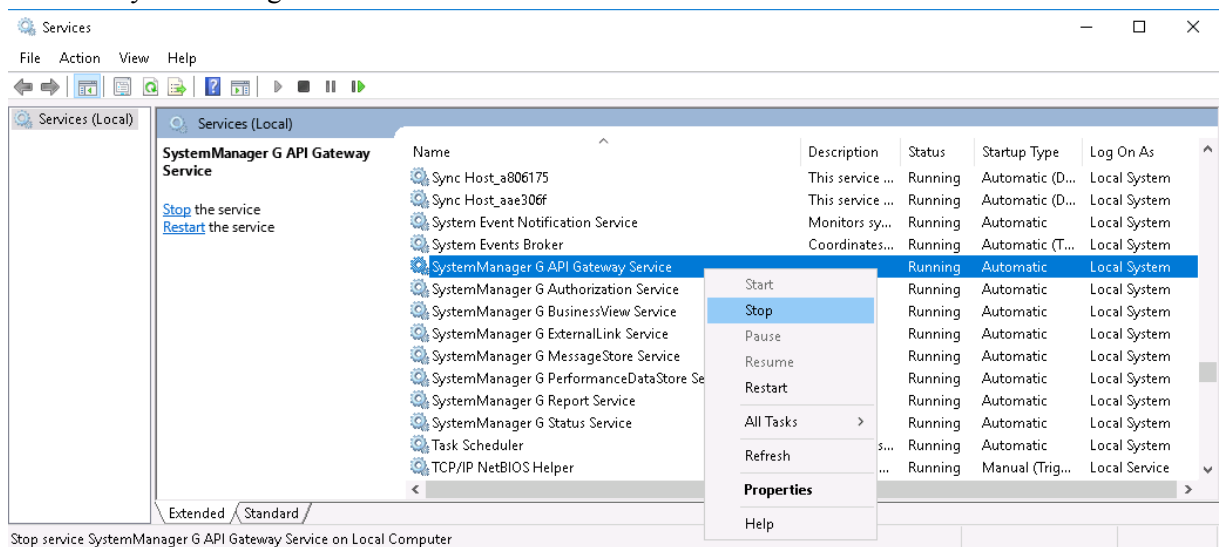


### Note

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

### 3. Stop the services associated with SystemManager G WebConsole Option.

- Apache Tomcat 8.5 Service Governor
- SystemManager G API Gateway Service
- SystemManager G Authorization Service
- SystemManager G BusinessView Service
- SystemManager G ExternalLink Service
- SystemManager G MessageStore Service
- SystemManager G PerformanceDataStore Service
- SystemManager G Report Service
- SystemManager G Status Service



#### 4. Acquire backups of the msc components and of the portal/user authentication platform.

Start the command prompt and run the following commands sequentially.

Replace the name of the installation folder and that of the backup data storage directory appropriately.

```
> xcopy /E /R /K /Y "<manager-install-path>\sg" "C:\backup\sysmgrg\sg\"
> xcopy /E /R /K /Y "<WebConsole-install-path>\conf" "C:\backup\sysmgrg\msc_conf\"
> xcopy /E /R /K /Y "<WebConsole-install-path>\data" "C:\backup\sysmgrg\msc_data\"
> xcopy /E /R /K /Y "<Tomcat-install-path>\conf" "C:\backup\sysmgrg\tomcat_conf\"
> copy /Y "<Tomcat-install-path>\vDCApiKey.jks" "C:\backup\sysmgrg\vDCApiKey.jks"
> xcopy /E /R /K /Y "<Tomcat-install-path>\cloudportal" "C:\backup\sysmgrg\tomcat_cloudportal\"
> del /F "C:\backup\sysmgrg\sg\Schedule\ScheduleHistory"
```

#### Note

In some cases, the <Tomcat-install-path>/cloudportal folder does not exist. When the folder is not present, it is not necessary to perform backup.

#### Note

In an HA cluster environment, back up the data stored on the shared disk when backing up the following directories.

- <WebConsole-install-path>\data
- <Tomcat-install-path>\cloudportal

Back up the following directories on both the active and standby nodes.

- <WebConsole-install-path>\conf
- <Tomcat-install-path>\conf

#### 5. Acquire backups of the databases.

Start the command prompt and run the following command.

For PostgreSQL, replace the name of its installation folder and that of its backup data storage directory appropriately.

```
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dumpall.exe" -p 5432 -U postgres -c -f "C:\backup\sysmgrg\db_dumpall.sql"
```

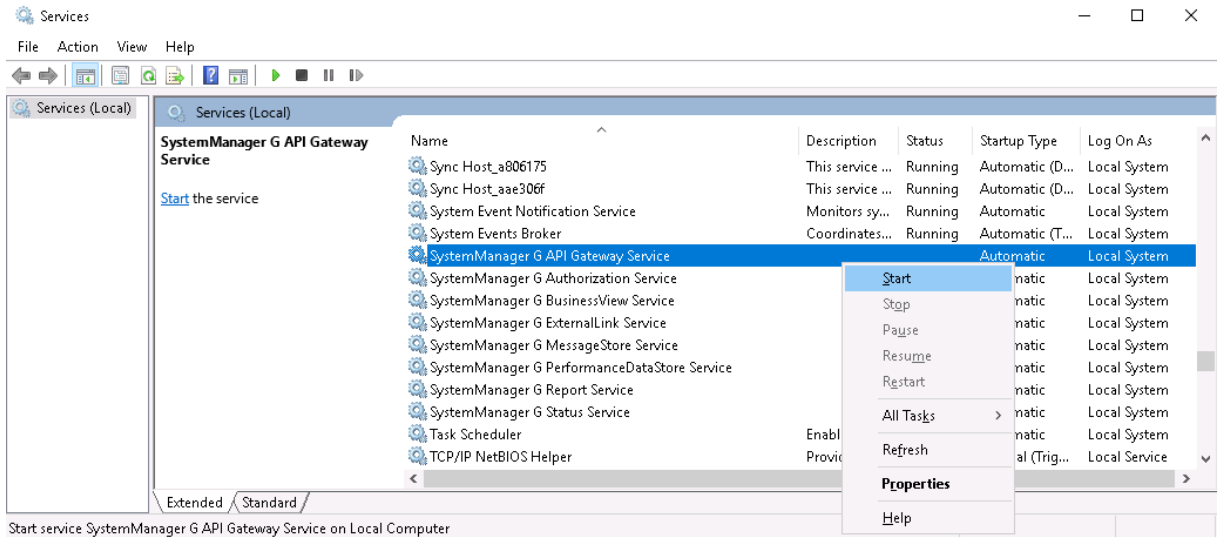
#### Note

- The backup must be performed while the databases are in operation.

#### 6. Start the services associated with SystemManager G WebConsole Option.

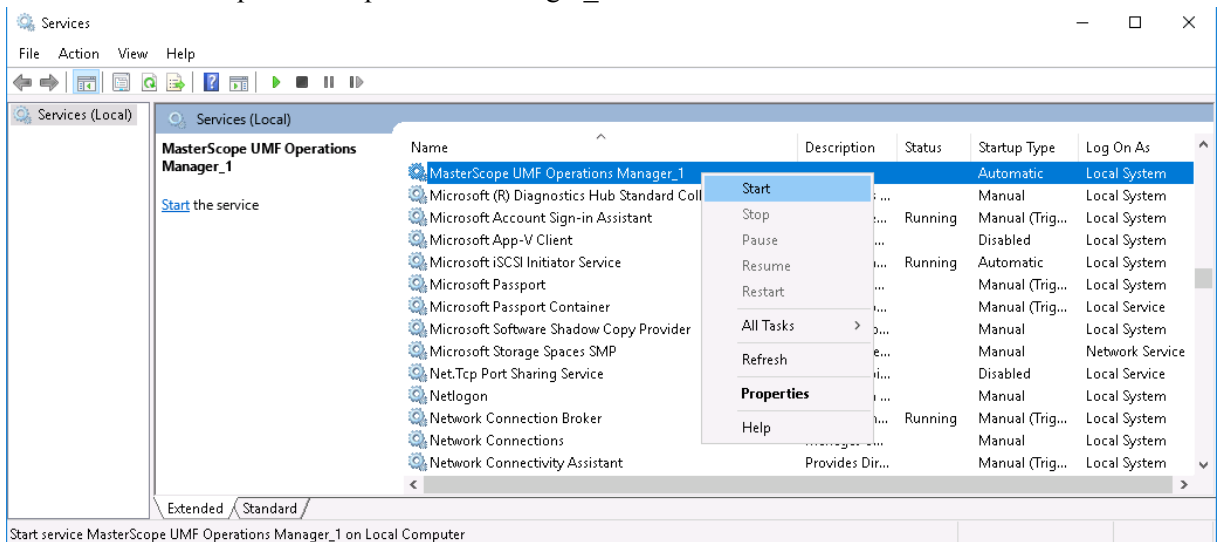
- Apache Tomcat 8.5 Service Governor
- SystemManager G API Gateway Service
- SystemManager G Authorization Service

- SystemManager G BusinessView Service
- SystemManager G ExternalLink Service
- SystemManager G MessageStore Service
- SystemManager G PerformanceDataStore Service
- SystemManager G Report Service
- SystemManager G Status Service



## 7. Start the SystemManager G Manager service.

- MasterScope UMF Operations Manager\_1



### Note

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

## 4.1.3 Backing up the setting information online

This section describes how to back up SystemManager G (online backup of setting information).

This backup procedure is based on the premise that it will be performed when a change is made to the system settings.

This backup procedure excludes data such as monitoring results and history information from its backup targets.

The backup operation consists of the following steps.

- Back up SystemManager G Manager online.
- Back up SystemManager G WebConsole Option online.

### Note

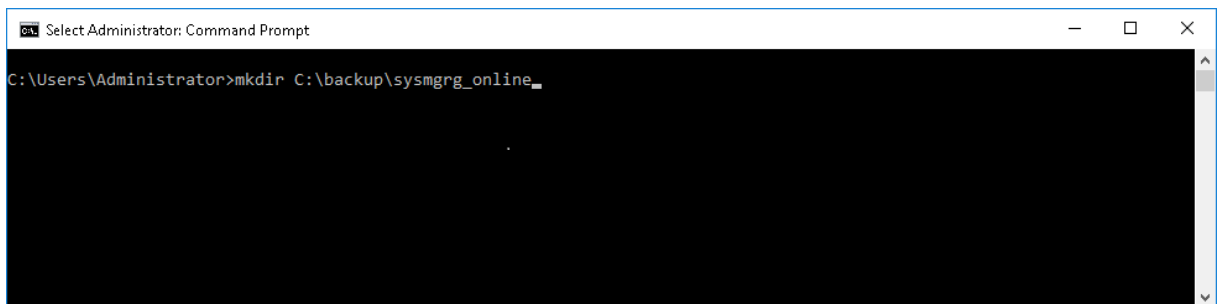
- The description is given on the premise that, in the target environment, all the constituent components of SystemManager G are installed on one machine. If the components are installed dispersedly on more than one machine, replace the terms in the description appropriately.
- The description is given on the premise that the backup data will be stored in the C:\backup\sysmgrg\_online directory. If a different directory is to be used as backup destination directory, replace the terms in the description appropriately.
- Perform "Preparation for backup (restore)" before performing this procedure.
- Perform this procedure as a user with Administrator privileges.

1. Create a directory for storing the backup data.

Start the command prompt and run the following command.

After the completion of backup, migrate the following directory to an external disk or the like on an as-needed basis.

```
> mkdir C:\backup\sysmgrg_online
```



2. Back up SystemManager G Manager online.

- a. Start the command prompt and move to the storage location of the output result of the backup command run on SystemManager G Manager.

```
> cd "<manager-install-path>\bin"
```



```
Select Administrator: Command Prompt
C:\Users\Administrator>cd C:\Program Files (x86)\NEC\UMF\Operations\Manager\bin_
```

- b. For the path to the location of the destination of the move, run the following command. Definition backup is performed.

```
> SysMonMgr.exe -backup
```

```
Select Administrator: Command Prompt
C:\Program Files (x86)\NEC\UMF\Operations\Manager\bin>SysMonMgr.exe -backup_
```

When the backup is successfully completed, information about the path to the backup destination will be output to the standard output. (The backup operation may take some time.)

```
Select Administrator: Command Prompt
C:\Program Files (x86)\NEC\UMF\Operations\Manager\bin>SysMonMgr.exe -backup
Waiting for backup result.
.received.
Backup SUCCEEDED.
Local backup path: C:\Program Files (x86)\NEC\UMF\Operations\Manager\backup\001
Share backup path: C:\Program Files (x86)\NEC\UMF\Operations\Manager\backup\001
C:\Program Files (x86)\NEC\UMF\Operations\Manager\bin>
```

- c. After the definition backup is completed successfully, run the following command.

```
> xcopy /E /R /K /Y "<manager-install-path>\backup" "C:\backup\sysmgrg_online\sysmgrg_backup\"
```

```
Select Administrator: Command Prompt
c:\Users>cd Administrator
c:\Users\Administrator>xcopy /E /R /K /Y "C:\Program Files (x86)\NEC\UMF\Operations\Manager\backup" "C:\backup\sysmgrg_online\sysmgrg_backup\"
```

**Note**

Before performing this procedure, cancel the "configuration mode" of SystemManager G Manager.

3. Acquire backups of the msc components and of the portal/user authentication platform.

Start the command prompt and run the following commands sequentially.

Replace the name of the installation folder and that of the backup data storage directory appropriately.

```
> xcopy /E /R /K /Y "<WebConsole-install-path>\conf" "C:\backup\sysmgrg_online\msc_conf\"
> xcopy /E /R /K /Y "<Tomcat-install-path>\conf" "C:\backup\sysmgrg_online\tomcat_conf\"
> copy /Y "<Tomcat-install-path>\vDCApiKey.jks" "C:\backup\sysmgrg_online\vDCApiKey.jks"
```

4. Acquire backups of the databases.

Start the command prompt and run the following commands sequentially.

For PostgreSQL, replace the name of its installation folder and that of its backup data storage directory appropriately.

```
> set PGPASSWORD=msc_apigateway
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_apigateway -d msc_apigateway -a -t token -f "C:\backup\sysmgrg_online\apigateway_token.sql" --column-inserts --attribute-inserts

> set PGPASSWORD=msc_auth
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_auth -d msc_auth -a -t msc_auth_user_relation -f "C:\backup\sysmgrg_online\msc_auth_user_relation.sql" --column-inserts --attribute-inserts

> set PGPASSWORD=msc_messagestore
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_messagestore -d msc_messagestore -a -t filter -f "C:\backup\sysmgrg_online\filter.sql" --column-inserts --attribute-inserts
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_messagestore -d msc_messagestore -a -t business_filter -f "C:\backup\sysmgrg_online\business_filter.sql" --column-inserts --attribute-inserts
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_messagestore -d msc_messagestore -a -t report -f "C:\backup\sysmgrg_online\report.sql" --column-inserts --attribute-inserts
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_messagestore -d msc_messagestore -a -t knowledge -f "C:\backup\sysmgrg_online\knowledge.sql" --column-inserts --attribute-inserts
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_messagestore -d msc_messagestore -a -t filter_knowledge_summaries -f "C:\backup\sysmgrg_online\filter_knowledge_summaries.sql" --column-inserts --attribute-inserts

> set PGPASSWORD=msc_businessview
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_businessview -d msc_businessview -a -t businessview_node -f "C:\backup\sysmgrg_online\businessview_node.sql" --column-inserts --attribute-inserts
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_businessview -d msc_businessview -a -t businessview_node -f "C:\backup\sysmgrg_online\businessview_node.sql" --column-inserts --attribute-inserts
```

```

inessview -d msc_businessview -a -t forward_component -f "C:\backup\sys
smgrg_online\forward_component.sql" --column-inserts --attribute-inser
ts
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_bus
inessview -d msc_businessview -a -t notification_component.sql -f "C:\
backup\sysmgrg_online\notification_component.sql" --column-inserts --a
ttribute-inserts

> set PGPASSWORD=msc_report
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_rep
ort -d msc_report -a -t reportform -f "C:\backup\sysmgrg_online\report
form.sql" --column-inserts --attribute-inserts
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_rep
ort -d msc_report -a -t reportmailform -f "C:\backup\sysmgrg_online\re
portmailform.sql" --column-inserts --attribute-inserts
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_rep
ort -d msc_report -a -t reportactionform -f "C:\backup\sysmgrg_online\
reportactionform.sql" --column-inserts --attribute-inserts

> set PGPASSWORD=msc_extlink
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_ext
link -d msc_extlink -c -f "C:\backup\sysmgrg_online\msc_extlink.sql"

> set PGPASSWORD=msc_perfdastore
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_per
fdastore -d msc_perfdastore -a -t summary -f "C:\backup\sysmgrg_on
line\perfdastore_summary.sql" --column-inserts --attribute-inserts
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_per
fdastore -d msc_perfdastore -a -t counter -f "C:\backup\sysmgrg_on
line\perfdastore_counter.sql" --column-inserts --attribute-inserts
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U msc_per
fdastore -d msc_perfdastore -a -t threshold -f "C:\backup\sysmgrg_
online\perfdastore_threshold.sql" --column-inserts --attribute-inser
ts

> set PGPASSWORD=
> "C:\Program Files\PostgreSQL\9.6\bin\pg_dump.exe" -p 5432 -U postgre
s -d msc_portal -c -f "C:\backup\sysmgrg_online\msc_portal.sql"

```

---

### Note

- The backup must be performed while the databases are in operation.
- 

## 4.1.4 Performing restore using a full backup

This section describes how to restore SystemManager G by using full backup information.

In those cases where the recovery of an operation management server is impossible due to a disk failure or for some other reason, the monitoring situation when the backup was performed can be rebuilt by using backup data.

This restore procedure is based on the premise that it will be performed when the OS and SystemManager G has just been newly installed.

The restore operation consists of the following steps.

- Stop SystemManager G Manager.
- Stop SystemManager G WebConsole Option.

- Restore the data area.
- Start SystemManager G WebConsole Option.
- Start SystemManager G Manager.

## Note

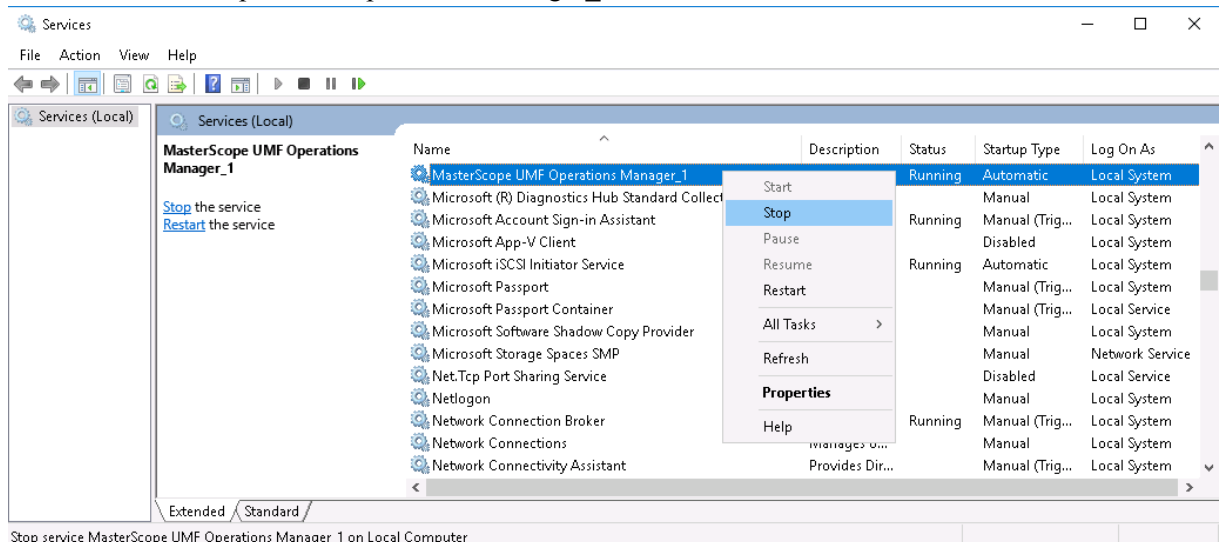
- The description is given on the premise that, in the target environment, all the constituent components of SystemManager G are installed on one machine. If the components are installed dispersedly on more than one machine, replace the terms in the description appropriately.
- The description is given on the premise that the installation of SystemManager G has been completed at data restore. In an HA cluster environment, complete the operation as far as the re-setup of the HA cluster.
- The description is given on the premise that the backup data is stored in the C:\backup\sysmgrg directory. If the backup data is stored in a different directory, replace the terms in the description appropriately.
- Online restore is not supported. Restore data after stopping the components.
- For databases (PostgreSQL), the description is given on the premise that logical backups have been acquired by using the pg\_dumpall command.
- The restore target must be in the same environment as that in which the corresponding backup has been acquired (host name and IP address).
- Perform "Preparation for backup (restore)" before performing this procedure.
- Perform this procedure as a user with Administrator privileges.

1. Prepare backup data that has been acquired by "Performing a full backup with a quiescent point."

Store the backup data on the machine on which SystemManager G is installed. (Example C:\backup\sysmgrg)

2. Stop the SystemManager G Manager service.

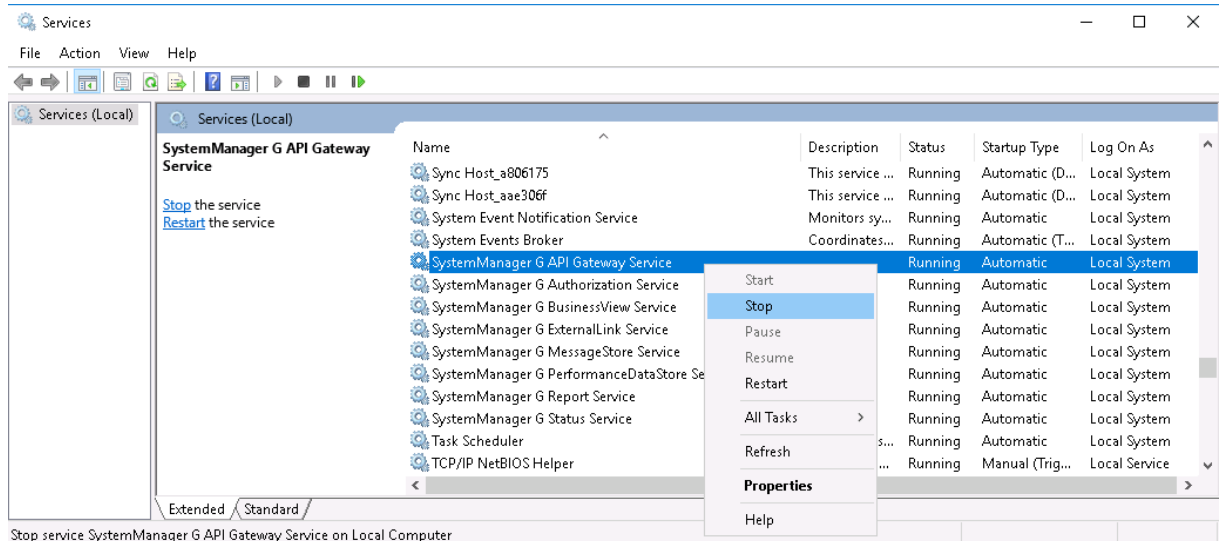
- MasterScope UMF Operations Manager\_1



**Note**

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

3. Stop the services associated with SystemManager G WebConsole Option.
  - Apache Tomcat 8.5 Service Governor
  - SystemManager G API Gateway Service
  - SystemManager G Authorization Service
  - SystemManager G BusinessView Service
  - SystemManager G ExternalLink Service
  - SystemManager G MessageStore Service
  - SystemManager G PerformanceDataStore Service
  - SystemManager G Report Service
  - SystemManager G Status Service



4. Perform a restore from the backup data of the msc components and those of the portal/user authentication platform.

Start the command prompt and run the following commands sequentially.

Replace the name of the installation folder and that of the backup data storage directory appropriately.

```
> xcopy /E /R /K /Y "C:\backup\sysmgr\sg" "<manager-install-path>\sg
\"
> rmdir /s /q "<WebConsole-install-path>\conf"
> xcopy /E /R /K /Y "C:\backup\sysmgr\msc_conf" "<WebConsole-install
-path>\conf\"
> rmdir /s /q "<WebConsole-install-path>\data"
> xcopy /E /R /K /Y "C:\backup\sysmgr\msc_data" "<WebConsole-install
-path>\data\"
> rmdir /s /q "<Tomcat-install-path>\conf"
```

```
> xcopy /E /R /K /Y "C:\backup\sysmgrg\tomcat_conf" "<Tomcat-install-path>\conf\"
> rmdir /s /q "<Tomcat-install-path>\conf"
> xcopy /E /R /K /Y "C:\backup\sysmgrg\tomcat_cloudportal" "<Tomcat-install-path>\cloudportal\"
> copy /Y "C:\backup\sysmgrg\vDCApiKey.jks" "<Tomcat-install-path>\vDCApiKey.jks"
```

---

### Note

When tomcat\_cloudportal backup data has not been backed up, it is not necessary to perform the restore.

---

### Note

In an HA cluster environment, restore the following directories on the shared disk.

- <WebConsole-install-path>\data
- <Tomcat-install-path>\cloudportal

Restore the following directories on both the active and standby nodes.

- <WebConsole-install-path>\conf
  - <Tomcat-install-path>\conf
- 

5. Perform a restore from the backup data of the databases.

Start the command prompt and run the following command.

```
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U postgres -f "C:\backup\sysmgrg\db_dumpall.sql"
```

---

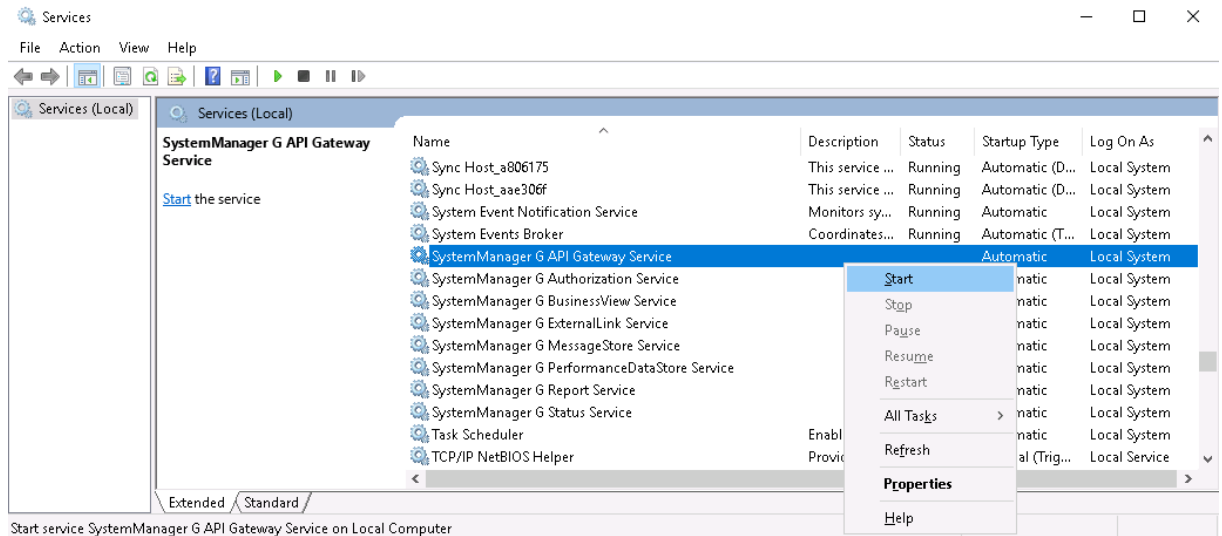
### Note

The restore must be performed while the databases are in operation.

---

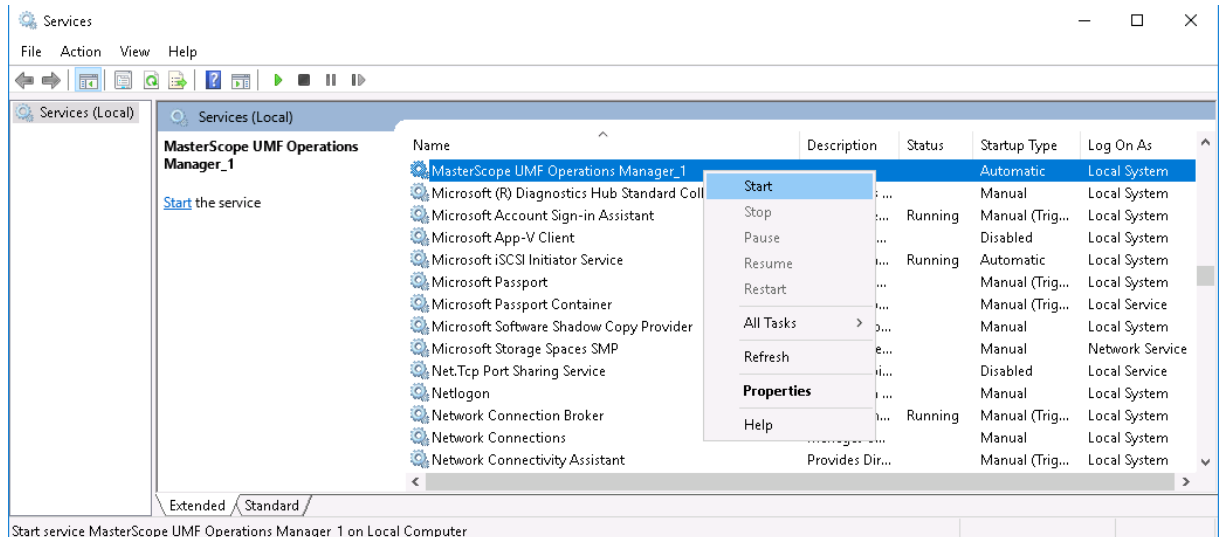
6. Start the services associated with SystemManager G WebConsole Option.

- Apache Tomcat 8.5 Service Governor
- SystemManager G API Gateway Service
- SystemManager G Authorization Service
- SystemManager G BusinessView Service
- SystemManager G ExternalLink Service
- SystemManager G MessageStore Service
- SystemManager G PerformanceDataStore Service
- SystemManager G Report Service
- SystemManager G Status Service



## 7. Start the SystemManager G Manager service.

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### Note

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

## 4.1.5 Performing restore using an online backup

This section describes how to restore SystemManager G using online backup information.

In those cases where the recovery of an operation management server is impossible due to a disk failure or for some other reason, the monitoring situation when the backup was performed can be rebuilt by using backup data.

This restore procedure is based on the premise that it will be performed by using a backup that was acquired after the installation of the OS and SystemManager G as an overall backup including the OS.

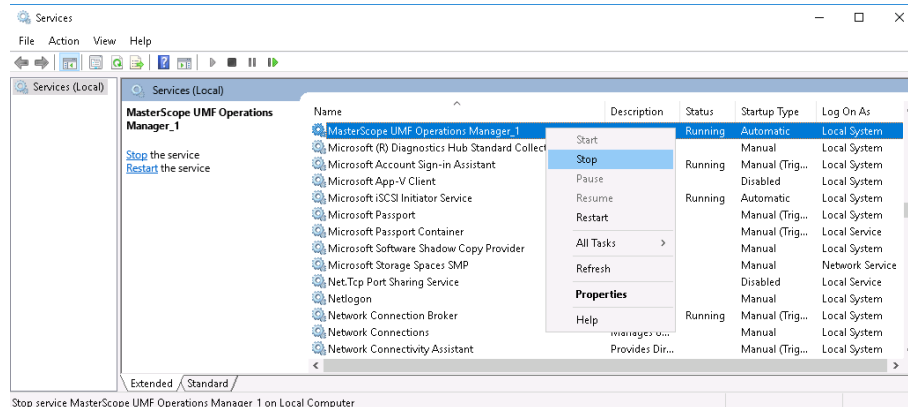
The restore operation consists of the following steps.

- Stop SystemManager G Manager.
- Stop SystemManager G WebConsole Option.
- Restore the SystemManager G Manager setting information.
- Restore the SystemManager G WebConsole Option setting information.
- Start SystemManager G WebConsole Option.
- Start SystemManager G Manager.

## Note

- The description is given on the premise that, in the target environment, all the constituent components of SystemManager G are installed on one machine. If the components are installed dispersedly on more than one machine, replace the terms in the description appropriately.
- The description is given on the premise that the installation of SystemManager G has been completed at data restore. In an HA cluster environment, complete the operation as far as the re-setup of the HA cluster.
- The description is given on the premise that the backup data is stored in the C:\backup\sysmgrg\_online directory. If the backup data is stored in a different directory, replace the terms in the description appropriately.
- Online restore is not supported. Restore data after stopping the components.
- For databases (PostgreSQL), the description is given on the premise that logical backups have been acquired by using the pg\_dumpall command.
- Perform "Preparation for backup (restore)" before performing this procedure.
- Perform this procedure as a user with Administrator privileges.
- The "Restore setting information" steps can be performed only in those environments in which the relevant backup or "Performing restore using a full backup" has been performed. Those steps cannot be directly performed in those environments in which SystemManagerG has been newly installed.

1. Prepare the backup data that has been acquired by "online backup of setting information."  
Store the backup data on the machine on which SystemManager G is installed. (Example C:\backup\sysmgrg\_online)
2. Stop the SystemManager G Manager service.
  - MasterScope UMF Operations Manager\_1

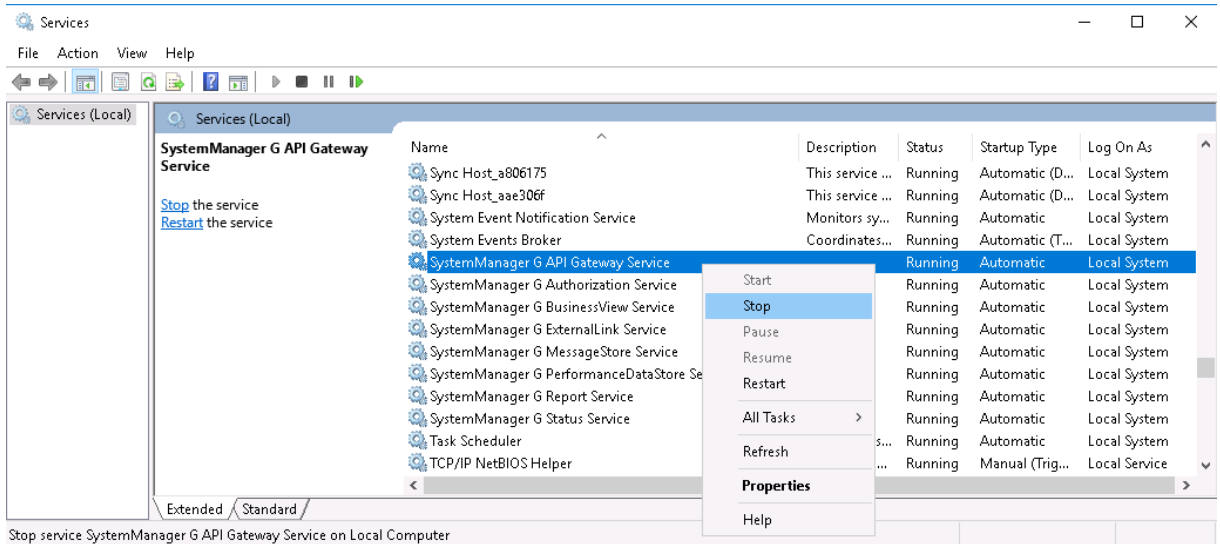




## Note

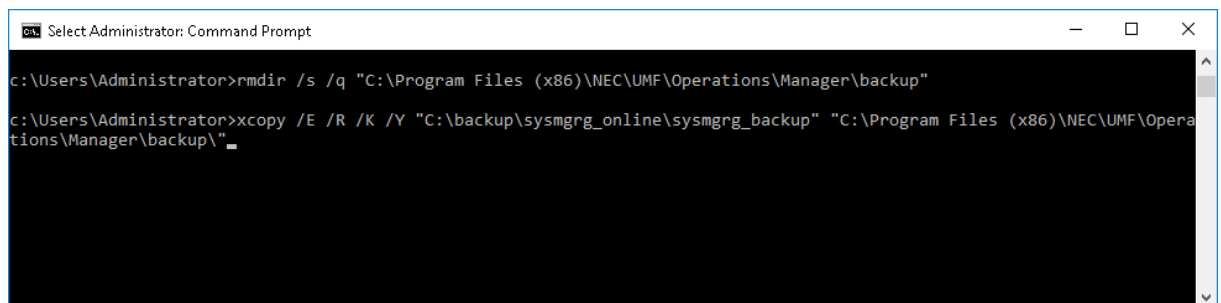
The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

3. Stop the services associated with SystemManager G WebConsole Option.
  - Apache Tomcat 8.5 Service Governor
  - SystemManager G API Gateway Service
  - SystemManager G Authorization Service
  - SystemManager G BusinessView Service
  - SystemManager G ExternalLink Service
  - SystemManager G MessageStore Service
  - SystemManager G PerformanceDataStore Service
  - SystemManager G Report Service
  - SystemManager G Status Service



4. Perform a restore from the backup data of SystemManager G Manager.
  - a. Start the command prompt and run the following commands sequentially.

```
> rmdir /s /q "<manager-install-path>\backup"
> xcopy /E /R /K /Y "C:\backup\sysmgrg_online\sysmgrg_backup" "<manager-install-path>\backup\"
```



**Note**

When the <manager-install-path>\backup folder does not exist, it is not necessary to perform the rmdir command.

- b. Move to the storage location for the restore command run on SystemManager G Manager.

```
> cd "<manager-install-path>\bin
```

The screenshot shows a Windows Command Prompt window titled "Select Administrator: Command Prompt". The command prompt shows the current directory as "C:\Users\Administrator" and the command being entered is "cd "C:\Program Files (x86)\NEC\UMF\Operations\Manager\bin"". The cursor is at the end of the command.

- c. For the path to the location of the destination of the move, run the following command. A definition restore is performed.

```
> SysMonMgr.exe -restore -latest
```

The screenshot shows a Windows Command Prompt window titled "Select Administrator: Command Prompt". The current directory is "C:\Program Files (x86)\NEC\UMF\Operations\Manager\bin" and the command being entered is "SysMonMgr.exe -restore -latest". The cursor is at the end of the command.

When restore is completed successfully, the following information will be output to the standard output. (The restore operation may take some time.)

The screenshot shows a Windows Command Prompt window titled "Select Administrator: Command Prompt". The current directory is "C:\Program Files (x86)\NEC\UMF\Operations\Manager\bin" and the command being entered is "SysMonMgr.exe -restore -latest". The output of the command is as follows:

```
Checking if Manager is running.
Restoring from
      C:\Program Files (x86)\NEC\UMF\Operations\Manager\backup\001
to
      C:\Program Files (x86)\NEC\UMF\Operations\Manager
Start restoration?(Y/N)>Y
Starting restoration.
Restoration Success.
C:\Program Files (x86)\NEC\UMF\Operations\Manager\bin>
```

5. Perform a restore from the backup data of the msc components and those of the portal/user authentication platform.

Start the command prompt and run the following commands sequentially.

Replace the name of the installation folder and that of the backup data storage directory appropriately.

```
> rmdir /s /q "<WebConsole-install-path>\conf"
> xcopy /E /R /K /Y "C:\backup\sysmgrg_online\msc_conf" "<WebConsole-
install-path>\conf\"
> rmdir /s /q "<Tomcat-install-path>\conf"
> xcopy /E /R /K /Y "C:\backup\sysmgrg_online\tomcat_conf" "<Tomcat-i
ninstall-path>\conf\"
> copy /Y "C:\backup\sysmgrg_online\vDCApiKey.jks" "<Tomcat-install-p
ath>\vDCApiKey.jks"
```

## Note

In an HA cluster environment, restore the following directories on the shared disk.

- <WebConsole-install-path>\data
- <Tomcat-install-path>\cloudportal

Restore the following directories on both the active and standby nodes.

- <WebConsole-install-path>\conf
- <Tomcat-install-path>\conf

## 6. Perform a restore from the backup data of the databases.

Start the command prompt and run the following commands.

```
> set PGPASSWORD=msc_apigateway
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_apigat
eway -d msc_apigateway -f "C:\backup\sysmgrg_online\apigateway_token.s
ql"

> set PGPASSWORD=msc_auth
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_auth -
d msc_auth -f "C:\backup\sysmgrg_online\msc_auth_user_relation.sql"

> set PGPASSWORD=msc_messagestore
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_messag
estore -d msc_messagestore -f "C:\backup\sysmgrg_online\filter.sql"
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_messag
estore -d msc_messagestore -f "C:\backup\sysmgrg_online\business_filte
r.sql"
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_messag
estore -d msc_messagestore -f "C:\backup\sysmgrg_online\report.sql"
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_messag
estore -d msc_messagestore -f "C:\backup\sysmgrg_online\knowledge.sql"
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_messag
estore -d msc_messagestore -f "C:\backup\sysmgrg_online\filter_knowled
ge_summaries.sql"

> set PGPASSWORD=msc_businessview
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_busine
ssview -d msc_businessview -f "C:\backup\sysmgrg_online\businessview_n
ode.sql"
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_busine
ssview -d msc_businessview -f "C:\backup\sysmgrg_online\forward_compon
ent.sql"
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_busine
ssview -d msc_businessview -f "C:\backup\sysmgrg_online\notification_c
omponent.sql"
```

```

> set PGPASSWORD=msc_report
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_report
-d msc_report -f "C:\backup\sysmgrg_online\reportform.sql"
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_report
-d msc_report -f "C:\backup\sysmgrg_online\reportmailform.sql"
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_report
-d msc_report -f "C:\backup\sysmgrg_online\reportactionform.sql"

> set PGPASSWORD=msc_extlink
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_extlin
k -d msc_extlink -f "C:\backup\sysmgrg_online\msc_extlink.sql"

> set PGPASSWORD=msc_perfdastore
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_perfda
tastore -d msc_perfdastore -f "C:\backup\sysmgrg_online\perfdastor
e_summary.sql"
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_perfda
tastore -d msc_perfdastore -f "C:\backup\sysmgrg_online\perfdastor
e_counter.sql"
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U msc_perfda
tastore -d msc_perfdastore -f "C:\backup\sysmgrg_online\perfdastor
e_threshold.sql"

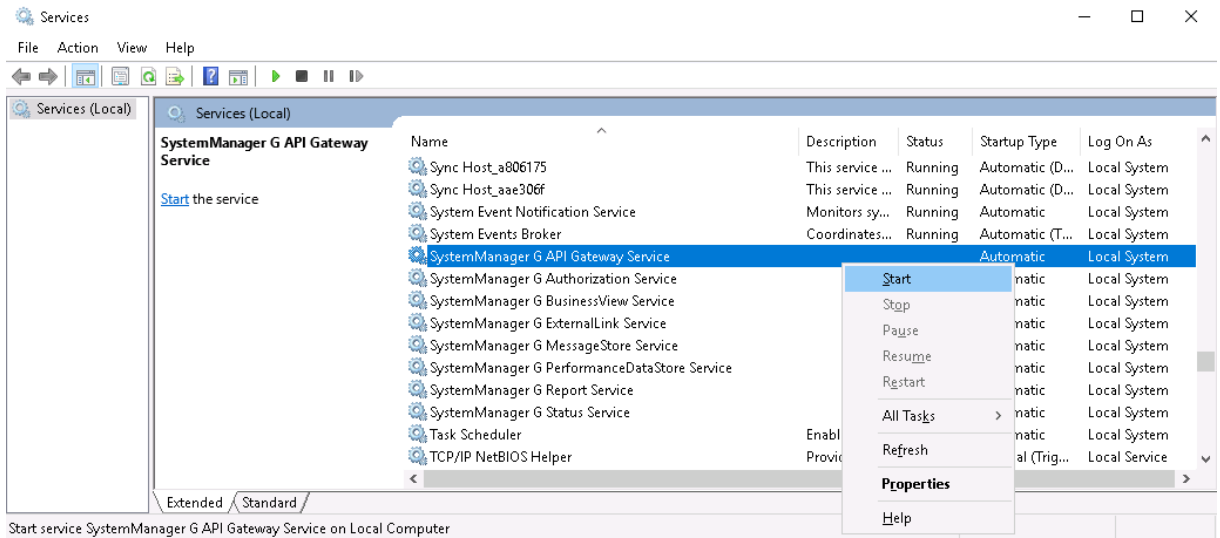
> set PGPASSWORD=
> "C:\Program Files\PostgreSQL\9.6\bin\psql.exe" -p 5432 -U postgres -
d msc_portal -f "C:\backup\sysmgrg_online\msc_portal.sql"

```

## Note

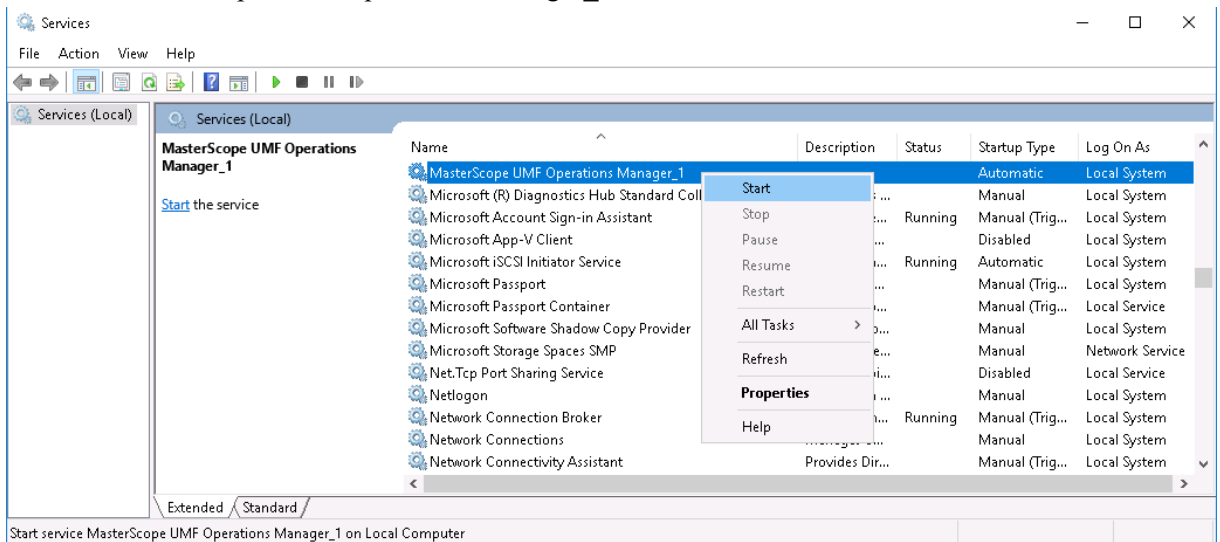
The restore must be performed while the databases are in operation.

7. Start the services associated with SystemManager G WebConsole Option.
  - Apache Tomcat 8.5 Service Governor
  - SystemManager G API Gateway Service
  - SystemManager G Authorization Service
  - SystemManager G BusinessView Service
  - SystemManager G ExternalLink Service
  - SystemManager G MessageStore Service
  - SystemManager G PerformanceDataStore Service
  - SystemManager G Report Service
  - SystemManager G Status Service



## 8. Start the SystemManager G Manager service.

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### Note

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

## 4.2 Backing up and restoring SystemManager G (Linux)

This section describes how to back up and restore SystemManager G in a Linux environment.

The following procedure is based on the premise that systemd is used for the system control of a Linux OS. Replace terms appropriately when init or some other approach is used for the system control.

## 4.2.1 Preparation for backup (restore)

Perform the following preparations before performing backup (restore).

Perform this procedure only once before performing backup (restore) on the system.

---

### Note

- After the completion of the backup (restore) operation, delete the files that are created in this procedure, on an as-needed basis.
- 

1. Create a password file for PostgreSQL.

Run the following commands on the terminal.

```
# echo localhost:5432:*:postgres:***** > ~/.pgpass
# chmod 600 ~/.pgpass
```

---

### Note

- Specify \*\*\*\*\* as the administrator user (postgres) password.
- 

## 4.2.2 Performing a full backup with a quiescent point

This section describes how to back up SystemManager G (full backup with a quiescent point).

This backup procedure is based on the premise that it will be performed upon the completion of system building or as part of periodical system maintenance.

All data, including monitoring results and history information, will be backed up by performing this backup procedure.

The backup operation consists of the following steps.

- Stop SystemManager G Manager.
- Stop SystemManager G WebConsole Option.
- Back up the data area.
- Start SystemManager G WebConsole Option.
- Start SystemManager G Manager.

---

### Note

- The description is given on the premise that, in the target environment, all the constituent components of SystemManager G are installed on one machine. If the components are installed dispersedly on more than one machine, replace the terms in the description appropriately.
  - The description is given on the premise that the backup data will be stored in the /var/backup/sysmgrg directory. If a different directory is to be used as backup destination directory, replace the terms in the description appropriately.
  - For databases (PostgreSQL), the following describes a logical backup method using the pg\_dumpall command. Perform physical backup when, for example, it is necessary to reduce the time required for backup.
  - Perform "Preparation for backup (restore)" before performing this procedure.
  - Perform this procedure as a user with root privileges.
-

1. Create a directory for storing the backup data.

Run the following command on the terminal.

After the completion of backup, migrate the following directory to an external disk or the like on an as-needed basis.

```
# mkdir -p /var/backup/sysmgrg
```

2. Stop the SystemManager G Manager service.

Run the following command on the terminal.

```
# systemctl stop UMFOperationsManager_1
```

### Note

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

3. Stop the services associated with SystemManager G WebConsole Option.

Run the following commands on the terminal.

```
# systemctl stop msc_apigateway
# systemctl stop msc_auth
# systemctl stop msc_businessview
# systemctl stop msc_extlink
# systemctl stop msc_messagestore
# systemctl stop msc_perfdatastore
# systemctl stop msc_report
# systemctl stop msc_status
# systemctl stop ServiceGovernor
```

4. Acquire backups of the msc components and of the portal/user authentication platform.

Run the following commands sequentially on the terminal.

Replace the name of the installation folder and that of the backup data storage directory appropriately.

```
# \cp -rf "<manager-install-path>/sg" "/var/backup/sysmgrg/sg/"
# \cp -rf "<WebConsole-install-path>/conf" "/var/backup/sysmgrg/msc_conf/"
# \cp -rf "<WebConsole-install-path>/data" "/var/backup/sysmgrg/msc_data/"
# \cp -rf "<Tomcat-install-path>/conf" "/var/backup/sysmgrg/tomcat_conf/"
# \cp -f "<Tomcat-install-path>/vDCApiKey.jks" "/var/backup/sysmgrg/vDCApiKey.jks"
# \cp -rf "<Tomcat-install-path>/cloudportal" "/var/backup/sysmgrg/tomcat_cloudportal/"

# rm -rf "/var/backup/sysmgrg/sg/Schedule/ScheduleHistory"
```

**Note**

In some cases, the <Tomcat-install-path>/cloudportal folder does not exist. When the folder does not exist, it is not necessary to perform backup.

**Note**

In an HA cluster environment, back up the data stored on the shared disk when backing up the following directories.

- <WebConsole-install-path>/data
- <Tomcat-install-path>/cloudportal

Back up the following directories on both the active and standby nodes.

- <WebConsole-install-path>/conf
- <Tomcat-install-path>/conf

5. Acquire backups of the databases.

Run the following command on the terminal.

Replace the name of the backup data storage directory appropriately.

```
# pg_dumpall -p 5432 -U postgres -c -f "/var/backup/sysmgrg/db_dumpall.sql"
```

**Note**

- The backup must be performed while the databases are in operation.

6. Start the services associated with SystemManager G WebConsole Option.

Run the following command on the terminal.

```
# systemctl start msc_apigateway
# systemctl start msc_auth
# systemctl start msc_businessview
# systemctl start msc_extlink
# systemctl start msc_messagestore
# systemctl start msc_perfdatastore
# systemctl start msc_report
# systemctl start msc_status
# systemctl start ServiceGovernor
```

7. Start the SystemManager G Manager service.

Run the following command on the terminal.

```
# systemctl start UMFOperationsManager_1
```

**Note**

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.



## 4.2.3 Backing up the setting information online

This section describes how to back up SystemManager G (online backup of setting information).

This backup procedure is based on the premise that it will be performed when a change is made to the system settings.

This backup procedure excludes data such as monitoring results and history information from its backup targets.

The backup operation consists of the following steps.

- Back up SystemManager G Manager online.
- Back up SystemManager G WebConsole Option online.

### Note

- The description is given on the premise that, in the target environment, all the constituent components of SystemManager G are installed on one machine. If the components are installed dispersedly on more than one machine, replace the terms in the description appropriately.
- The description is given on the premise that the backup data will be stored in the `/var/backup/sysmgrg_online` directory. If a different directory is to be used as backup destination directory, replace the terms in the description appropriately.
- Perform "Preparation for backup (restore)" before performing this procedure.
- Perform this procedure as a user with root privileges.

1. Create a directory for storing the backup data.

Run the following command on the terminal.

After the completion of backup, migrate the following directory to an external disk or the like on an as-needed basis.

```
# mkdir -p /var/backup/sysmgrg_online
```

2. Back up SystemManager G Manager online.

- a. On the terminal, move to the storage location of the output result of the backup command run on SystemManager G Manager.

```
# cd "<manager-install-path>/bin"
```

- b. For the path to the location of the destination of the move, run the following command. Definition backup is performed.

```
# SysMonMgr -backup
```

- c. After the definition backup is completed successfully, run the following command.

```
# \cp -rf "<manager-install-path>/backup"
"/var/backup/sysmgrg_online/sysmgrg_backup/"
```

### Note

Before performing this procedure, cancel the "configuration mode" of SystemManager G Manager.

### 3. Acquire backups of the msc components and of the portal/user authentication platform.

Run the following commands sequentially on the terminal.

Replace the name of the installation folder and that of the backup data storage directory appropriately.

```
# \cp -rf "<WebConsole-install-path>/conf" "/var/backup/sysmgrg_online/msc_conf/"
# \cp -rf "<Tomcat-install-path>/conf" "/var/backup/sysmgrg_online/tomcat_conf/"
# \cp -f "<Tomcat-install-path>/vDCApiKey.jks" "/var/backup/sysmgrg_online/vDCApiKey.jks"
```

### 4. Acquire backups of the databases.

Run the following commands sequentially on the terminal.

Replace the name of the backup data storage directory appropriately.

```
# export PGPASSWORD=msc_apigateway
# pg_dump -p 5432 -U msc_apigateway -d msc_apigateway -a -t token -f "/var/backup/sysmgrg_online/apigateway_token.sql" --column-inserts --attribute-inserts

# export PGPASSWORD=msc_auth
# pg_dump -p 5432 -U msc_auth -d msc_auth -a -t msc_auth_user_relation -f "/var/backup/sysmgrg_online/msc_auth_user_relation.sql" --column-inserts --attribute-inserts

# export PGPASSWORD=msc_messagestore
# pg_dump -p 5432 -U msc_messagestore -d msc_messagestore -a -t filter -f "/var/backup/sysmgrg_online/filter.sql" --column-inserts --attribute-inserts
# pg_dump -p 5432 -U msc_messagestore -d msc_messagestore -a -t business_filter -f "/var/backup/sysmgrg_online/business_filter.sql" --column-inserts --attribute-inserts
# pg_dump -p 5432 -U msc_messagestore -d msc_messagestore -a -t report -f "/var/backup/sysmgrg_online/report.sql" --column-inserts --attribute-inserts
# pg_dump -p 5432 -U msc_messagestore -d msc_messagestore -a -t knowledge -f "/var/backup/sysmgrg_online/knowledge.sql" --column-inserts --attribute-inserts
# pg_dump -p 5432 -U msc_messagestore -d msc_messagestore -a -t filter_knowledge_summaries -f "/var/backup/sysmgrg_online/filter_knowledge_summaries.sql" --column-inserts --attribute-inserts

# export PGPASSWORD=msc_businessview
# pg_dump -p 5432 -U msc_businessview -d msc_businessview -a -t businessview_node -f "/var/backup/sysmgrg_online/businessview_node.sql" --column-inserts --attribute-inserts
# pg_dump -p 5432 -U msc_businessview -d msc_businessview -a -t forward_component -f "/var/backup/sysmgrg_online/forward_component.sql" --column-inserts --attribute-inserts
# pg_dump -p 5432 -U msc_businessview -d msc_businessview -a -t notification_component -f "/var/backup/sysmgrg_online/notification_component.sql" --column-inserts --attribute-inserts

# export PGPASSWORD=msc_report
```

```
# pg_dump -p 5432 -U msc_report -d msc_report -a -t reportform -f "/var/backup/sysmgrg_online/reportform.sql" --column-inserts --attribute-inserts
# pg_dump -p 5432 -U msc_report -d msc_report -a -t reportmailform -f "/var/backup/sysmgrg_online/reportmailform.sql" --column-inserts --attribute-inserts
# pg_dump -p 5432 -U msc_report -d msc_report -a -t reportactionform -f "/var/backup/sysmgrg_online/reportactionform.sql" --column-inserts --attribute-inserts

# export PGPASSWORD=msc_extlink
# pg_dump -p 5432 -U msc_extlink -d msc_extlink -c -f "/var/backup/sysmgrg_online/msc_extlink.sql"

# export PGPASSWORD=msc_perfdatastore
# pg_dump -p 5432 -U msc_perfdatastore -d msc_perfdatastore -a -t summary -f "/var/backup/sysmgrg_online/perfdatastore_summary.sql" --column-inserts --attribute-inserts
# pg_dump -p 5432 -U msc_perfdatastore -d msc_perfdatastore -a -t counter -f "/var/backup/sysmgrg_online/perfdatastore_counter.sql" --column-inserts --attribute-inserts
# pg_dump -p 5432 -U msc_perfdatastore -d msc_perfdatastore -a -t threshold -f "/var/backup/sysmgrg_online/perfdatastore_threshold.sql" --column-inserts --attribute-inserts

# export PGPASSWORD=
# pg_dump -p 5432 -U postgres -d msc_portal -c -f "/var/backup/sysmgrg_online/msc_portal.sql"
```

---

### Note

- The backup must be performed while the databases are in operation.
- 

## 4.2.4 Performing restore using a full backup

This section describes how to restore SystemManager G by using full backup information.

In those cases where the recovery of an operation management server is impossible due to a disk failure or for some other reason, the monitoring situation when the backup was performed can be rebuilt by using backup data.

This restore procedure is based on the premise that it will be performed when the OS and SystemManager G has just been newly installed.

The restore operation consists of the following steps.

- Stop SystemManager G Manager.
- Stop SystemManager G WebConsole Option.
- Restore the data area.
- Start SystemManager G WebConsole Option.
- Start SystemManager G Manager.

---

### Note

- The description is given on the premise that, in the target environment, all the constituent components of SystemManager G are installed on one machine. If the components are installed dispersedly on more than one machine, replace the terms in the description appropriately.
-

- The description is given on the premise that the installation of SystemManager G has been completed at data restore. In an HA cluster environment, complete the operation as far as the re-setup of the HA cluster.
- The description is given on the premise that the backup data is stored in the /var/backup/sysmgrg directory. If the backup data is stored in a different directory, replace the terms in the description appropriately.
- Online restore is not supported. Restore data after stopping the components.
- For databases (PostgreSQL), the description is given on the premise that logical backups have been acquired by using the pg\_dumpall command.
- The restore target must be in the same environment as that in which the corresponding backup has been acquired (host name and IP address).
- Perform "Preparation for backup (restore)" before performing this procedure.
- Perform this procedure as a user with root privileges.

1. Prepare backup data that has been acquired by "Performing a full backup with a quiescent point."

Store the backup data on the machine on which SystemManager G is installed. (Example: /var/backup/sysmgrg)

2. Stop the SystemManager G Manager service.

Run the following command on the terminal.

```
# systemctl stop UMFOperationsManager_1
```

### Note

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

3. Stop the services associated with SystemManager G WebConsole Option.

Run the following commands on the terminal.

```
# systemctl stop msc_apigateway
# systemctl stop msc_auth
# systemctl stop msc_businessview
# systemctl stop msc_extlink
# systemctl stop msc_messagestore
# systemctl stop msc_perfdatastore
# systemctl stop msc_report
# systemctl stop msc_status
# systemctl stop ServiceGovernor
```

4. Perform a restore from the backup data of the msc components and those of the portal/user authentication platform.

Run the following commands sequentially on the terminal.

Replace the name of the installation folder and that of the backup data storage directory appropriately.

```
# \cp -rf "/var/backup/sysmgrg/sg" "<manager-install-path>/sg/"
# rm -rf "<WebConsole-install-path>/conf"
```

```
# \cp -rf "/var/backup/sysmgrg/msc_conf" "<WebConsole-install-path>/conf/"
# rm -rf "<WebConsole-install-path>/data"
# \cp -rf "/var/backup/sysmgrg/msc_data" "<WebConsole-install-path>/data/"
# rm -rf "<Tomcat-install-path>/conf"
# \cp -rf "/var/backup/sysmgrg/tomcat_conf" "<Tomcat-install-path>/conf/"
# rm -rf "<Tomcat-install-path>/cloudportal"
# \cp -rf "/var/backup/sysmgrg/tomcat_cloudportal/" "<Tomcat-install-path>/cloudportal"
# \cp -f "/var/backup/sysmgrg/vDCApiKey.jks" "<Tomcat-install-path>/vDCApiKey.jks"
```

**Note**

When tomcat\_cloudportal backup data has not been backed up, it is not necessary to perform the restore.

**Note**

In an HA cluster environment, restore the following directories on the shared disk.

- <WebConsole-install-path>/data
- <Tomcat-install-path>/cloudportal

Restore the following directories on both the active and standby nodes.

- <WebConsole-install-path>/conf
- <Tomcat-install-path>/conf

5. Perform a restore from the backup data of the databases.

Run the following command on the terminal.

```
# psql -p 5432 -U postgres -f "/var/backup/sysmgrg/db_dumpall.sql"
```

**Note**

The restore must be performed while the databases are in operation.

6. Start the services associated with SystemManager G WebConsole Option.

Run the following commands on the terminal.

```
# systemctl start msc_apigateway
# systemctl start msc_auth
# systemctl start msc_businessview
# systemctl start msc_extlink
# systemctl start msc_messagestore
# systemctl start msc_perfdastore
# systemctl start msc_report
# systemctl start msc_status
# systemctl start ServiceGovernor
```

7. Start the SystemManager G Manager service.

Run the following command on the terminal.

```
# systemctl start UMFOperationsManager_1
```

---

### Note

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

---

## 4.2.5 Performing restore using an online backup

This section describes how to restore SystemManager G using online backup information.

In those cases where the recovery of an operation management server is impossible due to a disk failure or for some other reason, the monitoring situation when the backup was performed can be rebuilt by using backup data.

This restore procedure is based on the premise that it will be performed by using a backup that was acquired after the installation of the OS and SystemManager G as an overall backup including the OS.

The restore operation consists of the following steps.

- Stop SystemManager G Manager.
- Stop SystemManager G WebConsole Option.
- Restore the SystemManager G Manager setting information.
- Restore the SystemManager G WebConsole Option setting information.
- Start SystemManager G WebConsole Option.
- Start SystemManager G Manager.

---

### Note

- The description is given on the premise that, in the target environment, all the constituent components of SystemManager G are installed on one machine. If the components are installed dispersedly on more than one machine, replace the terms in the description appropriately.
  - The description is given on the premise that the installation of SystemManager G has been completed at data restore. In an HA cluster environment, complete the operation as far as the re-setup of the HA cluster.
  - The description is given on the premise that the backup data is stored in the /var/backup/sysmgrg\_online directory. If the backup data is stored in a different directory, replace the terms in the description appropriately.
  - Online restore is not supported. Restore data after stopping the components.
  - For databases (PostgreSQL), the description is given on the premise that logical backups have been acquired by using the pg\_dumpall command.
  - Perform "Preparation for backup (restore)" before performing this procedure.
  - Perform this procedure as a user with root privileges.
  - The "Restore setting information" steps can be performed only in those environments in which the relevant backup or "Performing restore using a full backup" has been performed. Those steps cannot be directly performed in those environments in which SystemManagerG has been newly installed.
- 

1. Prepare the backup data that has been acquired by "online backup of setting information."

Store the backup data on the machine on which SystemManager G is installed. (Example: /var/backup/sysmgrg\_online)

2. Stop the SystemManager G Manager service.

Run the following command on the terminal.

```
# systemctl stop UMFOperationsManager_1
```

### Note

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

3. Stop the services associated with SystemManager G WebConsole Option.

Run the following commands on the terminal.

```
# systemctl stop msc_apigateway
# systemctl stop msc_auth
# systemctl stop msc_businessview
# systemctl stop msc_extlink
# systemctl stop msc_messagestore
# systemctl stop msc_perfdastore
# systemctl stop msc_report
# systemctl stop msc_status
# systemctl stop ServiceGovernor
```

4. Perform a restore from the backup data of SystemManager G Manager.

- a. Run the following commands sequentially on the terminal.

```
# rm -rf "<manager-install-path>/backup"
# \cp -rf "/var/backup/sysmgrg_online/sysmgrg_backup" "<manager-i
ninstall-path>/backup/"
```

### Note

When the <manager-install-path>/backup folder does not exist, it is not necessary to perform the rmdir command.

- b. Move to the storage location for the restore command run on SystemManager G Manager.

```
# cd "<manager-install-path>/bin"
```

- c. For the path to the location of the destination of the move, run the following command. A definition restore is performed.

```
# SysMonMgr -restore -latest
```

5. Perform a restore from the backup data of the msc components and those of the portal/user authentication platform.

Run the following commands sequentially on the terminal.

Replace the name of the installation folder and that of the backup data storage directory appropriately.

```
# rm -rf "<WebConsole-install-path>/conf"
# \cp -rf "/var/backup/sysmrg_online/msc_conf" "<WebConsole-install-path>/conf/"
# rm -rf "<Tomcat-install-path>/conf"
# \cp -rf "/var/backup/sysmrg_online/tomcat_conf" "<Tomcat-install-path>/conf/"
# \cp -f "/var/backup/sysmrg_online/vDCApiKey.jks" "<Tomcat-install-path>/vDCApiKey.jks"
```

## Note

In an HA cluster environment, restore the following directories on the shared disk.

- <WebConsole-install-path>/data
- <Tomcat-install-path>/cloudportal

Restore the following directories on both the active and standby nodes.

- <WebConsole-install-path>/conf
- <Tomcat-install-path>/conf

## 6. Perform a restore from the backup data of the databases.

Run the following commands on the terminal.

```
# export PGPASSWORD=msc_apigateway
# psql -p 5432 -U msc_apigateway -d msc_apigateway -f "/var/backup/sysmrg_online/apigateway_token.sql"

# export PGPASSWORD=msc_auth
# psql -p 5432 -U msc_auth -d msc_auth -f "/var/backup/sysmrg_online/msc_auth_user_relation.sql"

# export PGPASSWORD=msc_messagestore
# psql -p 5432 -U msc_messagestore -d msc_messagestore -f "/var/backup/sysmrg_online/filter.sql"
# psql -p 5432 -U msc_messagestore -d msc_messagestore -f "/var/backup/sysmrg_online/business_filter.sql"
# psql -p 5432 -U msc_messagestore -d msc_messagestore -f "/var/backup/sysmrg_online/report.sql"
# psql -p 5432 -U msc_messagestore -d msc_messagestore -f "/var/backup/sysmrg_online/knowledge.sql"
# psql -p 5432 -U msc_messagestore -d msc_messagestore -f "/var/backup/sysmrg_online/filter_knowledge_summaries.sql"

# export PGPASSWORD=msc_businessview
# psql -p 5432 -U msc_businessview -d msc_businessview -f "/var/backup/sysmrg_online/businessview_node.sql"
# psql -p 5432 -U msc_businessview -d msc_businessview -f "/var/backup/sysmrg_online/forward_component.sql"
# psql -p 5432 -U msc_businessview -d msc_businessview -f "/var/backup/sysmrg_online/notification_component.sql"

# export PGPASSWORD=msc_report
# psql -p 5432 -U msc_businessview -d msc_businessview -f "/var/backup/sysmrg_online/reportform.sql"
```



```
# psql -p 5432 -U msc_businessview -d msc_businessview -f "/var/backup
/sysmgrg_online/reportmailform.sql"
# psql -p 5432 -U msc_businessview -d msc_businessview -f "/var/backup
/sysmgrg_online/reportactionform.sql"

# export PGPASSWORD=msc_extlink
# psql -p 5432 -U msc_extlink -d msc_extlink -f "/var/backup/sysmgrg_o
nline/msc_extlink.sql"

# export PGPASSWORD=msc_perfdatastore
# psql -p 5432 -U msc_perfdatastore -d msc_perfdatastore -f "/var/back
up/sysmgrg_online/perfdatastore_summary.sql"
# psql -p 5432 -U msc_perfdatastore -d msc_perfdatastore -f "/var/back
up/sysmgrg_online/perfdatastore_counter.sql"
# psql -p 5432 -U msc_perfdatastore -d msc_perfdatastore -f "/var/back
up/sysmgrg_online/perfdatastore_threshold.sql"

# export PGPASSWORD=
# psql -p 5432 -U postgres -d msc_portal -f "/var/backup/sysmgrg_onlin
e/msc_portal.sql"
```

**Note**


---

The restore must be performed while the databases are in operation.

---

7. Start the services associated with SystemManager G WebConsole Option.

Run the following commands on the terminal.

```
# systemctl start msc_apigateway
# systemctl start msc_auth
# systemctl start msc_businessview
# systemctl start msc_extlink
# systemctl start msc_messagestore
# systemctl start msc_perfdatastore
# systemctl start msc_report
# systemctl start msc_status
# systemctl start ServiceGovernor
```

8. Start the SystemManager G Manager service.

Run the following command on the terminal.

```
# systemctl start UMFOperationsManager_1
```

**Note**


---

The number in "\_1" at the end is changed to 2 or a larger number depending on the system environment. (Example: UMFOperationsManager\_2, UMFOperationManager\_3) Replace the terms in the above description appropriately for the system environment.

---

# Appendix A. Setting Items of the Property File

## A.1 Overview of property files of msc components

The following sections describe the files containing the operation settings of the msc components of WebConsole Option.

The property files are classified into the common configuration file, valid for all the msc components (only when they are installed on one machine), and the dedicated configuration files, valid only for each msc component. The settings described in the configuration files are applied on the restart of msc components. After a setting change is made, restart the relevant msc components.

### Placing the file

The configuration files are stored in the following location.

Windows environment: <WebConsole-install-path>\conf\

Linux environment: <WebConsole-install-path>/conf/

### Format

This is a text file (character code: UTF-8; line feed code: LF).

Describe a key and a value on each line by linking them with "=". If no value is set after "=", the key value will be assumed to be a null character. When it is necessary to omit the specification, delete or comment out the line.

When placing a comment in a file, start the relevant line with #.

In a Windows environment, it is necessary to escape "\". When it is necessary to include "\", express it as "\\".

The following is an example.

```
data.path = D:\\SysMgrG\\data
listen.address =
# <Comment out>
# listen.port = 22522
```

As an example of the format, configuration files in which valid keys are commented out are provided in the sample directory under conf.

### A.1.1 Common configuration file (msc\_common.properties)

This configuration file is used to make settings common to msc components. The settings described in this file are valid for all the msc components installed on one machine.

Settings can be unified for all the msc components of WebConsole Option by making the settings in the common configuration file (msc\_common.properties).

Each key in the common configuration file can also be specified in dedicated configuration files for the relevant components. When it is necessary to set different values for different components, make the specifications in the dedicated configuration file for each component.

When a key specified in the common configuration file is also specified in the dedicated configuration file for a component, a higher priority is assigned to the value set in the dedicated configuration file.

### Key description

Key	Description	Default value
data.path	Specify this with the absolute path to a valid directory. For an HA cluster configuration, specify this with the path to a shared disk. If this is not specified, the following directory will be used as a default value. <ul style="list-style-type: none"> <li>For Windows environments &lt;WebConsole-install-path&gt;\data</li> <li>For Linux environments &lt;WebConsole-install-path&gt;/data</li> </ul>	Described in the Description field.
http.listen_address	Listening IP address of the own component for requests, or host name resolvable by name resolution. If this is not specified, listening will be performed for requests on all the IP addresses for which listening can be performed.	Space (0.0.0.0)
internal.http.listen_address	IP address of the own component, or host name resolvable by name resolution. This is used for communication between msc components. Specify this when dispersedly installing msc components.	localhost
license.address	Listening IP address of the license function of the API gateway. Or, host name resolvable by name resolution. Specify this when dispersedly installing msc components. Set this key to the same value as that of apigateway.address.	localhost
license.port	Listening IP address of the license function of the API gateway. Or, host name resolvable by name resolution. Specify this when dispersedly installing msc components. Set this key to the same value as that of apigateway.address.	22522
apigateway.address	IP address of the API gateway. Or, host name resolvable by name resolution. Specify this when dispersedly installing msc components. Specify this key by using the same value as that of license.address.	localhost
apigateway.port	Port number of the HTTP listening port of the API gateway. Change this appropriately when http.listen_port has been changed in the msc_apigateway.properties file.	22522
database.server	IP address of the database. Or, host name resolvable by name resolution. Specify this when the component operates on a machine other than the machine on which the database operates.	localhost
database.port	Port number of the listening port of the database. Specify this when the listening port number has been changed in the settings of the database (PostgreSQL).	5432
database.admin.user	Name of the administrator user of the database. Specify this when the administrator user name has been changed in the settings of the database (PostgreSQL).	postgres
database.admin.pass	Administrator password for the database. Specify this when the administrator password has been changed in the settings of the database (PostgreSQL). The characters that can be used for the specification are alphanumeric characters, !, #, &, (, ), *, ,, -, ./, <, =, >, ?, @, [, ], _,  , }, and ~.	postgres

**Note**

The settings described in this file are applied on the restart of the components. After a setting change is made, restart all the components.

## A.1.2 API gateway configuration file (msc\_apigateway.properties)

This is a configuration file for the API gateway.

**Key description**

Key	Description	Default value
http.listen_port	Port number of the listening port of each component. Specify this with a value that does not conflict on the same machine.	22522
apigateway.authentication	Authentication method used by the API gateway. Loads on WebConsole Option due to unauthorized external requests (RESTfulAPI) can be reduced by enabling the authentication function of the API gateway. token: Authentication by token none: Authentication not required	none
apigateway.http_listen_port	Port number of the listening port for requests from the portal. Specify this with a value that does not conflict on the same machine.	8243

**Note**

The settings described in this file are applied on the restart of the API gateway. After a setting change is made, restart the API gateway.

## A.1.3 License management configuration file (msc\_license.properties)

This configuration file is dedicated to the license function of the API gateway.

**Key description**

Key	Description	Default value
http.listen_port	Port number of the listening port of each component. Specify this with a value that does not conflict on the same machine.	22522

**Note**

The settings described in this file are applied on the restart of the API gateway. After a setting change is made, restart the API gateway.

## A.1.4 Authority management configuration file (msc\_auth.properties)

This configuration file is dedicated to authority management components.

**Key description**

Key	Description	Default value
http.listen_port	Port number of the listening port of each component. Specify this with a value that does not conflict on the same machine.	22520
authentication_server.addresses	IP address of Application Server (user authentication platform) of WebConsole Option, or host name resolvable by name resolution. Specify this when Application Server (user authentication platform) and the msc component are installed separately on different servers.	localhost
authentication_server.port	Port number of the listening port of Application Server (user authentication platform) of WebConsole Option. Change this appropriately when the listening port number of Application Server (user authentication platform) has been changed.	12080

### Note

The settings described in this file are applied on the restart of the authority management. After a setting change is made, restart the authority management.

## A.1.5 External link configuration file (msc\_extlink.properties)

This configuration file is dedicated to external interface linkage components.

### Key description

Key	Description	Default value
http.listen_port	Port number of the listening port of each component. Specify this with a value that does not conflict on the same machine.	22529
external_product.count	Number of link destination definitions. Specify the number of managers to link to.	0
external_product.{n}.management_id	Identifier for identifying the link destination manager. Specify the "local host name of manager" specified when installing the manager. Example external_product.count=1 external_product.1.management_id=SystemManagerG external_product.1.url=http://localhost:20100	-
external_product.{n}.url	URL of the manager executing recovery. The only specifiable protocol is "http". For the port number, specify the value that is set with the Web API function of the manager. Specification method http://<Host address of the manager>:<Port number> Example external_product.count=1 external_product.1.management_id=SystemManagerG external_product.1.url=http://localhost:20100	-
external_product.{n}.healthcheck.use	Specify whether to perform alive monitoring on the manager. 0: off, 1: on	0:off

Key	Description	Default value
external_product. {n}.healthcheck.interval	Interval (seconds) at which alive monitoring is performed on the manager. Specify a value from 30 to 86400. The unit is seconds.	60

**Note**

The settings described in this file are applied on the restart of the external interface linkage components. After a setting change is made, restart the relevant external interface linkage components.

## A.1.6 Message store configuration file (msc\_messagestore.properties)

This configuration file is dedicated to message store components.

**Key description**

Key	Description	Default value
http.listen_port	Port number of the listening port of each component. Specify this with a value that does not conflict on the same machine.	22524
message.delete_schedule	Time for periodic message deletion. Specify this in HHMM format. If this key is not specified, periodic deletion will not be performed.	None (periodic deletion will not be performed.)
message.store_d_number	Number of messages to be retained. If the number of accumulated messages exceeds the specified number, excess messages will be deleted at the time of periodic deletion.  As a guide, approximately 1 GB of disk capacity is consumed by one million messages. (The necessary disk size varies depending on the message lengths. This value was calculated on the assumption that the average message length is approximately 1024 bytes.)	30240000

**Note**

The settings described in this file are applied on the restart of the message store. After a setting change is made, restart the message store.

## A.1.7 Monitoring status management configuration file (msc\_status.properties)

This configuration file is dedicated to monitoring status management components.

**Key description**

Key	Description	Default value
http.listen_port	Port number of the listening port of each component. Specify this with a value that does not conflict on the same machine.	22523
history.delete_schedule	Time for periodic deletion of history data, retained by the monitoring status management. Periodic deletion is performed every day at this time to delete history data that has been stored for a period exceeding the accumulation period. Specify this in HH:MM format (00:00 to 23:59).	02:00

Key	Description	Default value
history.stored_len	<p>Accumulation period of history data (days). History data that has been stored for more than the specified number of days is deleted by periodic deletion. In the performance report, the target period for the host operating rate must be specified within the accumulation period of the history data.</p> <p>Specify -1 or a value from 0 to 9999. If 0 is specified, the data accumulation will be performed for an unlimited period of time. If -1 is specified, the accumulation will not be performed, and history data accumulated in the past will be deleted at the start of the monitoring status management.</p> <p>As a guide, approximately 30 MB/year of disk capacity is consumed by the history data corresponding to one monitoring-target agent. (The necessary disk size varies depending on the settings made for monitoring, the system environment, etc.)</p>	365
database.max_field_size	<p>Maximum value (bytes) of the data length handled by the monitoring status management. It is normally not necessary to change the value. However, a change may be necessary, for example, when settings for performance monitoring are made for all the monitoring counters. This affects the amount of memory used by the monitoring status management. Make an appropriate adjustment for the system environment.</p> <p>Specify this with a value ranging from 8190 to 32760 as a guide. (The value is restricted to 1024 to 2147483647 from a system-operation viewpoint.)</p>	8190

### Note

The settings described in this file are applied upon the restart of the monitoring status management. After a setting change has been made, restart the monitoring status management.

## A.1.8 Report configuration file (msc\_report.properties)

This configuration file is dedicated to report components.

### Key description

Key	Description	Default value
http.listen_port	Port number of the listening port of each component. Specify this with a value that does not conflict on the same machine.	22526
timer.reportcheck	<p>Interval at which an inquiry about the presence of unreported messages is made to the message store.</p> <p>Specify a value from 10 to 60. The unit is seconds.</p>	10
history.delete_schedule	<p>Time for periodic report history deletion.</p> <p>Specify this in HHMM format. If this key is not specified, periodic deletion will not be performed.</p>	None (periodic deletion will not be performed.)
history.stored_number	<p>Number of report histories to be retained. If the number of accumulated report histories exceeds the specified value, excess report histories will be deleted at the time of periodic deletion.</p> <p>As a guide, approximately 200 MB of disk capacity is consumed by one million history records. (The necessary disk size varies depending on the lengths of data, such as command output results. This value was calculated on the assumption that the average data length is approximately 100 bytes.)</p>	1000000

### Note

The settings described in this file are applied on the restart of the report. After a setting change is made, restart the report.

## A.1.9 Report mail server configuration file (`msc_report_mail_server.properties`)

This configuration file is dedicated to report components. Perform the setup required for a report destination mail server.

### Key description

Key	Description	Default value
<code>mail_server{n}</code> <code>}</code> *1	<p>Specify this with items of connection information for the mail server by concatenating them with commas.</p> <p><i>Tenant ID, Mail server name, Mail server host name, Port number, Sender address, SMTP authentication setting, SMTP authentication ID, SSL communication</i></p> <ul style="list-style-type: none"> <li>• Tenant ID Specify the tenant ID for using the mail server. It is not available for this version.</li> <li>• Mail server name Specify this with a name consisting of 1 to 64 characters.</li> <li>• Mail server host name Specify this with the IP address of the mail server or a host name resolvable by name resolution by using 1 to 64 characters.</li> <li>• Port number Specify the port number of the listening port of the mail server. If this is omitted, 25 will be assumed.</li> <li>• Sender address Specify the mail source (from) address with 1 to 256 characters.</li> <li>• SMTP authentication setting Specify NONE, CRAM-MD5, or PLAIN . If this is omitted, NONE (authentication is not performed) will be assumed.</li> <li>• SMTP authentication ID ID for SMTP authentication. This is used when SMTP authentication is applied. Specify this with 1 to 256 characters.</li> <li>• SSL communication Specify TRUE or FALSE. If this is omitted, FALSE (SSL communication will not be used) will be assumed.</li> </ul>	
<code>mail_server{n}</code> <code>.default</code> *1	<p>Specifying this with on will designate the mail server as the mail server that will be set if no server is designated in the report form.</p> <p>Specify this with on only for one of the mail servers covered by the setup.</p>	off
<code>mail_server{n}</code> <code>.auth_pass</code> *1	When the SMTP authentication setting is specified with CRAM-MD5 or PLAIN, specify the password that will be used for SMTP authentication.	
<code>mail_server{n}</code> <code>.auth_pass.hide</code> *1	When it is specified with on, the password used for SMTP authentication will be encrypted. If it is specified with off, the encryption will not be performed.	
<code>mail_server{n}</code> <code>.auth_pass.crypt</code> *1	When <code>mail_server{n}.auth_pass.hide</code> is specified with on, the password value that will be used for encrypted SMTP authentication will be set. This parameter will be set automatically by the program. Accordingly, it is not necessary to edit it.	
<code>mail_server{n}</code> <code>.id</code> *1	Mail server ID This parameter will be set automatically by the program. Accordingly, it is not necessary to edit it.	



\*1 Specify *{n}* with a consecutive integer value that does not conflict with other settings. Example:  
mail\_server1, mail\_server2

### Note

The settings described in this file are applied on the restart of the report. After a setting change is made, restart the report.

## A.1.10 Business view configuration file (msc\_businessview.properties)

This configuration file is dedicated to business view components.

### Key description

Key	Description	Default value
http.listen_port	Port number of the listening port of each component. Specify this with a value that does not conflict on the same machine.	22530

### Note

The settings described in this file are applied on the restart of the business view. After a setting change is made, restart the business view.

## A.1.11 Performance data store configuration file (msc\_perfdatastore.properties)

This configuration file is dedicated to performance data store components.

### Key description

Key	Description	Default value
http.listen_port	Port number of the listening port of each component. Specify this with a value that does not conflict on the same machine.	22531
perf_data.delete_schedule	Time for periodic deletion of performance data. Periodic deletion is performed at this time every day to delete performance data that has been stored for a period exceeding the accumulation period. Specify this in HH:MM format (00:00 to 23:59).	02:30
perf_data.stored_len	Accumulation period of performance data (days). Performance data that has been stored for more than the specified number of days is deleted by periodic deletion. Specify -1 or a value from 0 to 9999. If 0 is specified, the data accumulation will be performed for an unlimited period of time. If -1 is specified, performance data will not be accumulated. As a guide, approximately 170 MB/year of disk capacity is consumed by the performance data corresponding to one monitoring-target counter. (The necessary disk size varies depending on the settings made for monitoring, the system environment, etc.)	365
statistics_data.delete_schedule	Time for periodic deletion of statistical data. Periodic deletion is performed at this time every day to delete statistical data that has been stored for a period exceeding the accumulation period. Specify this in HH:MM format (00:00 to 23:59).	03:30

Key	Description	Default value
statistics_data .stored_len	<p>Accumulation period of statistical data (days).</p> <p>Statistical data that has been stored for more than the specified number of days is deleted by periodic deletion.</p> <p>Specify -1 or a value from 0 to 9999. If 0 is specified, the data accumulation will be performed for an unlimited period of time. If -1 is specified, statistical data will not be accumulated.</p> <p>As a guide, approximately 2.5 MB/year of disk capacity is consumed by the statistical data corresponding to one monitoring-target counter. (The necessary disk size varies depending on the settings made for monitoring, the system environment, etc.)</p>	730
async_event. max_threads	<p>Maximum number of threads that create (re-create) and delete statistical data.</p> <p>Specify a value from 1 to 1000.</p>	10

### Note

The settings described in this file are applied on the restart of the performance data store components. After a setting change is made, restart the relevant performance data store components.

# Appendix B. Revision History

- First edition (July 2018): Newly created

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**MasterScope SystemManager G 8.0 WebConsole Option  
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