

***Hitachi Ops Center Common Services***

**Log Analysis Guide**

**©2024, Hitachi Vantara, Ltd. All rights reserved.**

This guide must not be used for any purposes other than those referred to in this guide. No part of the contents of this guide may be reproduced or transmitted in any form or by any means without the written permission of Hitachi Vantara, Ltd.

- Preface -

The Hitachi Ops Center Common Services Log Analysis Guide describes instructions for field and support engineers that will enable them to check failure status and to isolate the failure cause by using the data (log files, configuration files, etc.) collected when a failure occurs. It is our hope that using this guide in conjunction with the "Hitachi Ops Center Common Services Troubleshooting Guide" and the "Installation and Configuration Guide" will help engineers take quick and effective support and troubleshooting measures.

- Revision History -

| No. | Version | Description | Date |
| --- | --- | --- | --- |
| 1 | 10.0.1 | Hitachi Ops Center Common Services  Log Analysis Guide | December 5, 2019 |
| 2 | 10.1.0 | None | February 17, 2020 |
| 3 | 10.2.0 | The information for the following log names are added in "Figure 2‑1 Log Output System", "Table 2‑2 ServerLog File List" and "4.1.1 Server log file":  - access\_log.*year-month-day*.log  - management\_access\_log.*year-month-day*.log | April 21, 2020 |
| 4 | 10.3.0 | Added specific explanation of 4.1.1 (5) and (6). | June 1, 2020 |
| 5 | 10.3.1 | None | July 22, 2020 |
| 6 | 10.5.0 | Added log information for cssslsetup command. | September 29, 2020 |
| 7 | 10.5.1 | Added log information for IDP access. | November 18, 2020 |
| 8 | 10.6.0 | Added 5.2 logrotate configuration file | December 25, 2020 |
| 9 | 10.6.1 | None | March 2, 2021 |
| 10 | 10.7.0 | None | Jun 30, 2021 |
| 11 | 10.8.0 | Corrected an error in the manual name.  Table 1-1, Table 1-2 | September 17, 2021 |
| 12 | 10.8.1 | None | January 5, 2022 |
| 13 | 10.8.2 | None | April 21, 2022 |
| 14 | 10.8.3 | None | June 30, 2022 |
| 15 | 10.9.0 | Corrected file path.  4.1.1 Server log file | September 21, 2022 |
| 16 | 10.9.1 | 4.1.3 CLI log file(5) Added description When using the cssslsetup command in utility.tar. Add below log file.  4.1.3 CLI log file(6) | January 23, 2023 |
| 17 | 10.9.2 | 2.1 Log Classifications Add csbackupprescript command log. Changed to csbackup.log since 10.9.2. 4.1.3 CLI log file (2) Changed to csbackup.log since 10.9.2.  (6) Content correction, supplement.  (7) Add csbackupprescript command log. 5.2 logrotate configuration file #5 Add /etc/logrotate.d/csbackup. | April 18, 2023 |
| 18 | 10.9.3 | 2.1 Log Classifications  Add csdbmigration command log and  cspostdbmigration command log.  Changed access\_log.year-month-day.log to access.log  Changed management\_access\_log.year-month-day.log to management\_access.log  4.1.1 Server log file  (5) Changed access\_log.year-month-day.log to access.log to access.log  (6) Changed management\_access\_log.year-month-day.log to management\_access .log  4.1.3 CLI log file  (8) Add csdbmigration command log  (9) Add cspostdbmigration command log  5.2 logrotate configuration file  Add csaccess  Changed logrotate configuration file path of csgateway, csportal, csidpaccess to <install-directory>/conf/logrotate\_cshourly.d | August 8, 2023 |
| 19 | 11.0.0 | None | December 15, 2023 |
| 20 | 11.0.1 | None | March 25, 2024 |
| 21 | 11.0.2 | None | May 21, 2024 |
| 22 | 11.0.3 | None | October 24, 2024 |
| 23 | 11.0.4 |  |  |

- **Contents** -

[**1 Overview** 3](#_Toc41916562)

[1.1 Scope of this document 3](#_Toc41916563)

[1.2 Glossary 3](#_Toc41916564)

[1.3 Required knowledge 3](#_Toc41916565)

[1.4 Related documentation 4](#_Toc41916566)

[2 Log Output System 4](#_Toc41916567)

[2.1 Log Classifications 5](#_Toc41916568)

[2.2 Logging Output Level and Output Priority 6](#_Toc41916569)

[2.3 Message output formats 8](#_Toc41916570)

[3 Log Analysis Procedure 9](#_Toc41916571)

[3.1 Log Analysis Procedure for Failures 9](#_Toc41916572)

[3.2 Information to be acquired in the environment in which the error occurred 10](#_Toc41916573)

[4 Detailed Log Data 11](#_Toc41916574)

[4.1 Common Services Log Information 11](#_Toc41916575)

[4.1.1 Server log file 11](#_Toc41916576)

[4.1.2 Installer log file 17](#_Toc41916577)

[4.1.3 CLI log file 19](#_Toc41916578)

[4.2 Log output by basic operation (GUI) 22](#_Toc41916579)

[5 Other 27](#_Toc41916580)

[5.1 Property file 27](#_Toc41916581)

[Appendix 28](#_Toc41916582)

[A-1 HTTP Status Codes 28](#_Toc41916583)

1. **Overview**

This guide explains the log output system, the log message format, and the log details needed to analyze the logs from the Common Services. Please use this guide to isolate the failure cause and check component status when a failure occurs in the system.

* 1. Scope of this document

ITPD, HSSC, CTSC/ESC/APSC, Hitachi Vantara, HPE

* 1. Glossary

For details about the terminology, see the following manual:

* [Hitachi Edition]Hitachi Ops Center Installation and Configuration Guide
* [HPE Edition]HPE XP Intelligent Management Suite Installation and Configuration Guide

Acronyms and abbreviations used in this manual are shown below.

|  |  |
| --- | --- |
| Acronym or abbreviation | Full name or meaning |
| CLI | Command Line Interface |
| Common Services | [Hitachi Edition]Hitachi Ops Center Common Services  [HPE Edition]HPE XP Common Services |
| DB | Database |
| GW | Gateway |
| HV | Hitachi Vantara |
| IDP | Identity Provider |
| JDK | Java Development Kit |
| OS | Operating System |
| OVA | Open Virtual Appliance |
| <install-directory> | Installation directory of Common Services |
| <log-directory> | [Hitachi Edition]  [Linux]/var/log/hitachi/CommonService  [HPE Edition]  [Linux]/var/log/CVXPAE/CommonService |
| <user-data-directory> | [HV/ HPE Edition]  [Linux]/var/*<install-directory>* |
| Product instance registration | In order for Common Services and each product to perform SSO or L&L, each product executes the setupcommonservice command and set up for Common Services. |

[Linux] Check the installation directory with the following command:

cat /etc/.hitachi/COMSERV/pkgInfo | grep install.path

*<install-directory>* is the value of the install.path value.

## Required knowledge

* Knowledge of Common Services
* Knowledge of the OS(Linux)
* Knowledge of a Web browser(IE,Firefox,Chrome)

## Related documentation

The related documents necessary for Common Services are shown below. When performing failure analysis, check the latest version of each document.

For products other than Common Services of Hitachi Ops Center or HPE Ops Center, see the maintenance manual for the product.

Table 1‑1 Hitachi Ops Center manuals (overseas editions)

|  |  |
| --- | --- |
| Document title | Note |
| * Hitachi Ops Center Installation and Configuration Guide * Hitachi Ops Center Common Services REST API Reference Guide * Hitachi Ops Center System Requirements |  |

Table 1‑2 HPE Ops Center manuals (overseas editions)

|  |  |
| --- | --- |
| Document title | Note |
| * HPE XP Intelligent Management Suite Installation and Configuration Guide * HPE XP Common Services REST API Reference Guide for XP Intelligent Management Suite * HPE XP Intelligent Management Suite System Requirements |  |

Table 1‑3 Other related documents

|  |  |
| --- | --- |
| Document title | Note |
| Hitachi Ops Center Common Services Troubleshooting Guide |  |
| ENGINEERING CHANGE NOTICE | Overseas edition only |

# Log Output System

Record processing and external linkage in the Portal Server as a log (error log , debug log, and access log). Record console output when starting Common Services as the startup log. If the audit log output setting is enabled, the processing and execution results of user operations are recorded as the audit log (syslog for Linux).

Record the logs at the time of installation and uninstallation in the installation and uninstallation logs. If installation is interrupted, record it in the installation interruption log. Record trace information for each command in the CLI log.

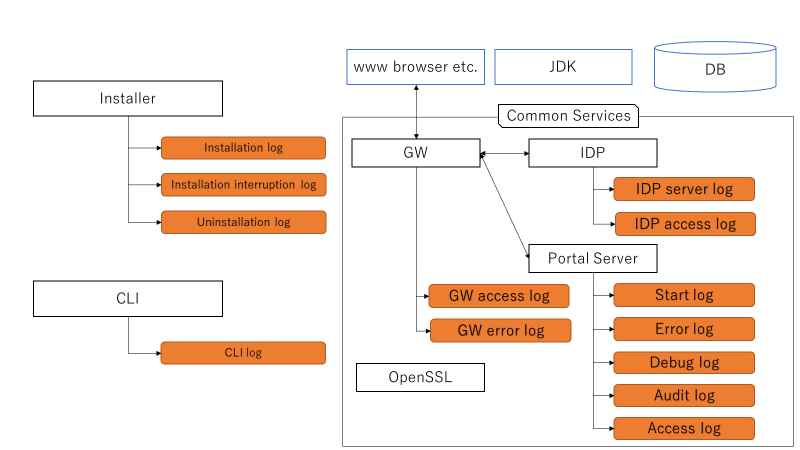


Figure 2‑1 Log Output System

## Log Classifications

Table 2‑1 Log Output System

|  |  |  |
| --- | --- | --- |
| No. | Log Classifications | Outline |
|  | Server log | Portal Server start log  Portal Server debug log  Portal Server error log  Audit log  Access log  GW access log  GW error log  IDP server log  IDP access log |
|  | Installer log | Installation log  Installation interruption log  Uninstallation log |
|  | CLI log | cschgconnect command log  csbackup command log  csrestore command log  csgetras command log  cssslsetup command log  cschgscale command log  csbackupprescript command log  csdbmigration command log  cspostdbmigration command log |

Table 2‑2 ServerLog File List

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Log file name | Output directory | Linux | Output information |
| 1 | csportal.log | *<log-directory>* | A | Portal Server start log |
| 2 | debug.log | A | Portal Server debug log |
| 3 | error.log | A | Portal Server error log (Only error information in the debug log is output.) |
| 4 | access.log | A | Portal Server access log |
| 5 | management\_access.log | A | Portal Server access log for internal management functions |
| 6 | access.log | *<log-directory>*/nginx | A | GW access log |
| 7 | error.log | A | GW error log |
| 8 | server.log | *<log-directory>*/idp/log | A | IDP server log |
| 9 | access.log | A | IDP access log |
| 10 | syslog | Output directory specified for /etc/syslog.conf or /etc/rsyslog.conf of the syslog server specified for the CS\_PORTAL\_AUDIT\_SYSLOGHOST property of <*user-data-directory*> /userconf/config\_user.properties. | A | Linux system log  Audit log |
| 11 | comserv\_inst\_*day-time*.log | *<log-directory>*/inst | A | Installation log |
| 12 | comserv\_inst\_*day-time*.log | [Linux] /tmp | A | Installation interruption log |
| 13 | comserv\_uninst.log | A | Uninstallation log |
| 14 | cschgconnect\_*year-month-day-hour-minute-second.*log | *<log-directory>*/utility | A | cschgconnect command log |
| 15 | Before 10.9.1  csbackup\_*year-month-day-hour-minute-second.*log  After 10.9.2  csbackup.log | A | csbackup command log |
| 16 | csrestore\_*year-month-day-hour-minute-second.*log | A | csrestore command log |
| 17 | csgetras.log | <*directory-specified-in-dir-option-of-csgetras-command*> | A | csgetras command log |
| 18 | cssslsetup\_*year-month-day-hour-minute-second.*log | *<log-directory>*/utility | A | cssslsetup command log |
| 19 | cschgscale\_*year-month-day-hour-minute-second.*log | *<log-directory>*/utility | A | cschgscale command log |
| 20 | csbackupprescript.log | *<log-directory>*/ubi | A | csbackupprescript command log |
| 21 | csdbmigration\_csidp\_*year-month-day-hour-minute-second*.log | *<log-directory>*/utility | A | csdbmigration command log |
| 22 | csdbmigration\_csportal\_*year-month-day-hour-minute-second*.log | A |
| 23 | cspostdbmigration\_csidp\_*year-month-day-hour-minute-second*.log | A | cspostdbmigration command log |
| 24 | cspostdbmigration\_csportal\_*year-month-day-hour-minute-second*.log | A |

A : Available N/A : Not Available

## Logging Output Level and Output Priority

Common Services defines five logging output levels in accordance with the log output event contents.

Table 2‑3 Logging Output Level Priority

|  |  |  |  |
| --- | --- | --- | --- |
| Level | Value | Information | Description |
| High  Low | ERROR | Error | An error that needs to be fixed |
| WARN | Warning | Restricted continued processing that needs user work |
| INFO | Information | Starting or ending the method  Reading, writing, moving, or deleting files  Requests that are used in Common Services  Audit log  \* This level is the default value for audit logs. |
| DEBUG | Debug information | Used for debugging during failure analysis  \* This level is the default value for debug logs. |
| TRACE | Debug information | Used for debugging during development |

## Message output formats

The message ID format in logging data is "KAOPnnnnn-Z",and "KAOP" prefix meansCommon Services.

KAOP*nnnnn*-*Z* (Example: KAOP10001-W)

*n*: Number

*Z*: Message type

* E: Error message
* W: Warning message
* I: Information

# Log Analysis Procedure

## Log Analysis Procedure for Failures

Collect customer environment information.

Can you perform a test to reproduce a failure at the customer site?

**Yes**

**No**

**(Customer Site)**

**(Hitachi Vantara)**

**(HPE)**

Check logs\*1

Check symptom

**Yes**

**No**

Respond to customer

End the analysis in accordance with the answer.

**Yes**

Send current status and remarks on it

Collect data mentioned in Table 3-1.

Collect data mentioned in Table 3-1.

Collect data mentioned in Table 3-1.

Investigate past cases

Perform a test to reproduce a failure

Send collected customer environment data

**Ask (ITPD) to analyze the failure**

**(ITPD)**

Collect environment info. when a failure reappeared

**No**

**No**

Check symptom

**No**

Did a failure reappear by performing a test to reproduce a failure at the site?

**Yes**

Have any identical cases occurred previously?

Have any identical cases occurred previously?

Check logs\*1

Investigate past cases

Did a failure reappear by performing a test to reproduce a failure?

\*1 : Check logs: See 4 chapter

**(ESC/CTSC/APSC)**

Collect environment data when a failure reappeared

Figure 3‑1 Log Analysis Procedure for Common Services

## Information to be acquired in the environment in which the error occurred

The information to be acquired in the environment in which the error occurred is as follows.

Table 3‑1 Data Necessary to be Collected in Failure Environment

|  |  |  |
| --- | --- | --- |
| No. | Collected Information | Information Contents |
| 1 | Operation Information | Collect the operational information about the machine where the failure occurred at customer site and about the machine where tests to recreate the failure are occurring and also if the failure was duplicated by Hitachi Vantara. |
| 2 | Failure Occurrence Time | Document the failure occurrence time when failure occurred on the machine at the customer site as well as any date and time when the failure was reproduced. |
| 3 | Server Log Data | Collect all logs by using "csgetras" command.  (See "Hitachi Ops Center Installation and Configuration Guide" for details on how to use the csgetras command.)  Collect csgetras.log after using "csgetras" command. |

# Detailed Log Data

This chapter describes the log information required for log analysis.

## Common Services Log Information

### Server log file

1. **csportal.log**

This log file indicates standard output information when starting Common Services.

File location: *<log-directory>*/csportal.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/csportal.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/csportal.log

**Standard output information**

=========================================================================

JBoss Bootstrap Environment

JBOSS\_HOME: /opt/hitachi/CommonService/keycloak

JAVA: /opt/hitachi/CommonService/jdk/bin/java

JAVA\_OPTS: -server -Xms64m -Xmx512m -XX:MetaspaceSize=96M -XX:MaxMetaspaceSize=256m -Djava.net.preferIPv4Stack=true -Djboss.modules.system.pkgs=org.jboss.byteman -Djava.awt.headless=true -Dcom.sun.jndi.ldap.object.disableEndpointIdentification=true -Djboss.server.log.dir=/var/log/hitachi/CommonService/idp/log -Djavax.net.ssl.trustStore=/var/opt/hitachi/CommonService/tls/cacerts

=========================================================================

[0m18:34:06,167 INFO [org.jboss.modules] (main) JBoss Modules version 1.8.6.Final

[0m[0m18:34:06,534 INFO [org.jboss.msc] (main) JBoss MSC version 1.4.3.Final

:

2019-10-23 11:06:13.325 INFO 13885 --- [main] c.h.s.o.portal.Sprint1104Application : Started Sprint1104Application in 11.453 seconds (JVM running for 12.36)

2019-10-23 11:06:13.459 INFO 13885 --- [ main] o.h.h.i.QueryTranslatorFactoryInitiator : HHH000397: Using ASTQueryTranslatorFactory

Figure 4‑1 Output format for csportal.log

Table 4‑1 Description for csportal.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | Standard output information | Standard output information when Common Services is started |

1. **debug.log**

This log file indicates output messages when an error occurs or a command terminates normally.

File location: *<log-directory>*/debug.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/debug.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/debug.log

2019-09-20 19:43:00.341 ERROR http-nio-127.0.0.1-20951-exec-3 KAOP00003-E Method end abnormally. (Class:InnerApiController, Method:innerDeleteApplicationService, Argument:[4028b8e56d4e2460016d4e43a19a0000]) com.hitachi.software.orion.portal.api.contract.exception.ApiException: KAOP20060-W During processing to delete the product, the product was successfully unregistered from the server, but deletion of the SSO configuration information was not reported on the product side. Delete the SSO configuration information on the product side. For details, see the product's configuration guide.n at com.hitachi.software.orion.portal.rs.app.service.ApplicationServicesImpl.deleteApplicationService(ApplicationServicesImpl.java:279)n at

**Date and Time**

**Message**

**Stack trace**

**Thread name**

**Message ID**

**Log level**

Figure 4‑2 Output format for debug.log

Table 4‑2 Description for debug.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | Date and Time | *yyyy-MM-dd HH:mm:ss.SSS* |
| 2 | Log level | Log level (ERROR/WARN/INFO/DEBUG/TRACE) |
| 3 | Thread name | Portal Server internal processing name |
| 4 | Message ID | KAOP*nnnnn-Z* (Example: KAOP10001-W) |
| 5 | Message | Message description |
| 6 | Stack trace | Stack trace for errors that occurred  Output only when an exception occurs |

1. **error.log(Portal Server)**

This log file indicates error information included in debug.log.

Refer to(2) for the output format and output items.

File location: *<log-directory>*/error.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/error.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/error.log

1. **syslog(audit log)**

This log file indicates operation and execution results for Common Services.

The audit log is output only when the CS\_PORTAL\_AUDIT\_ENABLE property of <*user-data-directory*> /userconf/config\_user.properties is set to true.

The audit log output destination depends on the /etc/syslog.conf or /etc/rsyslog.conf settings of the output destination syslog server.

For details on the audit log output format, see the *Hitachi Ops Center Installation and Configuration Guide*.

File location: Output directory specified in /etc/syslog.conf or /etc/rsyslog.conf of the syslog server specified in the CS\_PORTAL\_AUDIT\_SYSLOGHOST property of <*user-data-directory*>/userconf/config\_user.properties

Examples:

[Linux] /var/log/messages

1. **access.log (Portal Server access log)**

This log file indicates Portal Server access log. Unlike the audit log,the logs that have not been accepted by the Portal Server controller are also output.Access sources include both internal and external sources.

File location: *<log-directory>*/access.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/access.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/access.log

127.0.0.1 - - [27/Mar/2020:08:49:53 +0900] "GET /portal/ HTTP/1.0" 302 -

127.0.0.1 - - [27/Mar/2020:08:49:54 +0900] "GET /portal/cslogin HTTP/1.0" 302 -

127.0.0.1 - - [27/Mar/2020:08:49:54 +0900] "GET /portal/oauth2/authorization/keycloak HTTP/1.0" 302 -

127.0.0.1 - - [27/Mar/2020:08:49:55 +0900] "GET /portal/inner/v1/security/login-banner HTTP/1.0" 200 823

**IP Address**

**UserID**

**Occurrence Time**

**HTTP Header**

**Status Code**

**Data Length**

Figure 4‑3 Output format for access.log

Table 4‑3 Description for access.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | IP Address | Shows IP address or remote host name of the access source that accessed Portal Server. |
| 2 | User ID | Shows user name of the access source that accessed Portal Server. |
| 3 | Date and Time | Shows time user accesses Portal Server in format of  "yyyy/MM/dd HH:mm:ss" and the time gap from G.M.T. |
| 4 | HTTP Header | Shows HTTP Header.  Command method initiated by the client, the specified URI (Uniform Resource Identifier), and the HTTP version used are recorded.  "**Method** <SP> **Request-URI** <SP> **HTTP-Version**"  (1)Method: GET | PUT | POST| DELETE  (a) GET :Collect header and file itself  (b) PUT :Update file to server  (c) POST :Send data to server  (d) DELETE :Delete file on server  (2)Request-URI: URI that client specified  (3)HTTP-Version: HTTP Version  (4)<SP> means space |
| 5 | Status Code | Shows HTTP Status Codes.  See A-1 HTTP Status Codes. |
| 6 | Data Length | Shows Data Length of the HTTP Data (in bytes). |

1. **management\_access.log**

This log file indicates Portal Server access log for internal management functions.

File location: *<log-directory>*/management\_access.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/management\_access.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/management\_access.log

**Status Code**

**Data Length**

**HTTP Header**

**IPAddress**

**User ID**

**Occurrence Time**

127.0.0.1 - - [17/Apr/2020:08:57:29 +0900] "GET /portal/management/health HTTP/1.1" 200 32

Figure 4‑4 Output format for management\_access.log

Table 4‑4 Description for management\_access.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | IP Address | Shows IP address or remote host name of the access source that accessed Portal Server. |
| 2 | User ID | Shows user name of the access source that accessed Portal Server. |
| 3 | Date and Time | Shows time user accesses Portal Server in format of  "yyyy/MM/dd HH:mm:ss" and the time gap from G.M.T. |
| 4 | HTTP Header | Shows HTTP Header.  Command method initiated by the client, the specified URI (Uniform Resource Identifier), and the HTTP version used are recorded.  "**Method** <SP> **Request-URI** <SP> **HTTP-Version**"  (1)Method: GET | PUT | POST| DELETE  (a) GET :Collect header and file itself  (b) PUT :Update file to server  (c) POST :Send data to server  (d) DELETE :Delete file on server  (2)Request-URI: URI that client specified  (3)HTTP-Version: HTTP Version  (4)<SP> means space |
| 5 | Status Code | Shows HTTP Status Codes.  See A-1 HTTP Status Codes. |
| 6 | Data Length | Shows Data Length of the HTTP Data (in bytes). |

1. **access.log (GW access log)**

This log file indicates GW access log.

File location: *<log-directory>*/nginx/access.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/nginx/access.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/nginx/access.log

192.168.56.101 - - [09/Oct/2019:16:44:00 +0900] "POST /auth/realms/opscenter/protocol/openid-connect/token HTTP/1.1" 200 4094 "-" "Java/1.8.0\_222" "-"

192.168.56.101 - - [09/Oct/2019:16:44:01 +0900] "GET /auth/admin/realms/opscenter/clients HTTP/1.1" 200 9639 "-" "Java/1.8.0\_222" "-"

192.168.56.101 - - [09/Oct/2019:16:44:01 +0900] "POST /auth/realms/opscenter/protocol/openid-connect/token HTTP/1.1" 200 4094 "-" "Java/1.8.0\_222" "-"

**Access log data**

Figure 4‑5 Output format for access.log

Table 4‑5 Description for access.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | Access log data | Output GW access log data from inside and outside Common Services |

1. **error.log(GW)**

This log file indicates GW error log.

File location: *<log-directory>*/nginx/error.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/nginx/error.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/nginx/error.log

2019/10/09 16:51:49 [error] 6138#6138: \*1 connect() failed (111: Connection refused) while connecting to upstream, client: 192.168.56.101, server: , request: "POST /auth/realms/opscenter/protocol/openid-connect/token HTTP/1.1", upstream: "http://[::1]:20952/auth/realms/opscenter/protocol/openid-connect/token", host: "192.168.56.101"

2019/10/09 16:53:34 [error] 6138#6138: \*23 connect() failed (111: Connection refused) while connecting to upstream, client: ::1, server: , request: "GET /portal/ HTTP/1.1", upstream: "http://[::1]:20951/portal/", host: "localhost"

2019/10/09 16:53:54 [error] 6139#6139: \*33 connect() failed (111: Connection refused) while connecting to upstream, client: 192.168.56.101, server: , request: "GET /auth/realms/opscenter/protocol/openid-connect/auth?response\_type=code&client\_id=opscenter&scope=openid+profile+opscenter+offline\_access&state=lshSH7oQjLxfWnzma0dABZrgu9m2gNp0xpr1dRi65JI%3D&redirect\_uri=https%3A%2F%2Flocalhost%2Fportal%2Flogin%2Foauth2%2Fcode%2Fkeycloak HTTP/1.1", upstream: "http://[::1]:20952/auth/realms/opscenter/protocol/openid-connect/auth?response\_type=code&client\_id=opscenter&scope=openid+profile+opscenter+offline\_access&state=lshSH7oQjLxfWnzma0dABZrgu9m2gNp0xpr1dRi65JI%3D&redirect\_uri=https%3A%2F%2Flocalhost%2Fportal%2Flogin%2Foauth2%2Fcode%2Fkeycloak", host: "192.168.56.101"

**Error log data**

Figure 4‑6 Output format for error.log

Table 4‑6 Description for error.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | Error log data | Output GW error log data |

1. **server.log**

This log file indicates IDP server log.

File location: *<log-directory>*/idp/log/server.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/idp/log/server.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/idp/log/server.log

**Server log data**

2019-10-10 10:39:35,073 INFO [org.jboss.modules] (main) JBoss Modules version 1.8.6.Final

2019-10-10 10:39:36,822 INFO [org.jboss.msc] (main) JBoss MSC version 1.4.3.Final

2019-10-10 10:39:36,842 INFO [org.jboss.threads] (main) JBoss Threads version 2.3.2.Final

2019-10-10 10:39:37,034 INFO [org.jboss.as] (MSC service thread 1-4) WFLYSRV0049: Keycloak 4.8.3.Final (WildFly Core 6.0.2.Final) starting

Figure 4‑7 Output format for server.log

Table 4‑7 Description for server.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | Server log data | Output IDP server log data |

1. **access.log (IDP access log)**

This log file indicates IDP access log.

File location: *<log-directory>*/idp/log/access.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/idp/log/access.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/idp/log/access.log

10.197.199.134 - - [18/Nov/2020:00:04:09 +0900] "POST /auth/realms/xpims/protocol/openid-connect/token HTTP/1.0" 200 3491

10.197.199.134 - - [18/Nov/2020:00:04:09 +0900] "GET /auth/admin/realms/xpims/users/f85eb68b-c6e7-4ad8-bbc0-3245e19efd4f/sessions HTTP/1.0" 200 5853

10.197.199.134 - - [18/Nov/2020:00:04:09 +0900] "POST /auth/realms/xpims/protocol/openid-connect/logout HTTP/1.0" 204 -

**Access log data**

Figure 4‑8 Output format for access.log

Table 4‑8 Description for access.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | Access log data | Output IDP access log data |

### Installer log file

1. **comserv\_inst\_*date-time*.log**

This log file indicates installation information.

File location: *<log-directory>*/inst/comserv\_inst\_*date-time*.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/inst/comserv\_inst\_20191009-164209.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/inst/comserv\_inst\_20191009-164209.log

2019/09/20 18:32:29 : (I) \*\*\* Begin Hitachi Ops Center Common Service (Linux) setup process Log \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

2019/09/20 18:32:29 : (I) >>>Start>>> ===== INITIAL ENVIRONMENT ==========

2019/09/20 18:32:29 : (I) CSPR\_EXT\_LC\_ALL=

2019/09/20 18:32:29 : (I) CSPR\_EXEC\_MODE=root

**Date and Time**

**Message**

**Log level**

Figure 4‑8 Output format for comserv\_inst\_*date-time*.log

Table 4‑8 Description for comserv\_inst\_*date-time*.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | Date and Time | *yyyy/MM/dd HH:mm:ss* |
| 2 | Log level | Log level (I/W/E) |
| 3 | Message | Message description |

1. **comserv\_inst\_*date-time*.log**

This log file indicates information when installation is interrupted.

If the installation is successful, this log file is moved to the output directory in (1).

If installation is interrupted, this log file remains in the output destination.

Refer to (1) for the output format and description.

File location: [Linux] /tmp/comserv\_inst\_*date-time*.log

Examples:

[Hitachi Edition] [Linux] /tmp/comserv\_inst\_20191009-164209.log

[HPE Edition] [Linux] /tmp/comserv\_inst\_20191009-164209.log

1. **comserv\_uninst.log**

This log file indicates uninstallation information.

Refer to (1) for the output format and description.

File location: [Linux] /tmp/comserv\_uninst.log

### CLI log file

1. **cschgconnect\_*****year-month-day-hour-minute-second*.log**

This log file indicates information when the cschgconnect command is executed.

File location: *<log-directory>*/utility/cschgconnect\_*year-month-day-hour-minute-second*.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/utility/cschgconnect\_2019-10-09-16-43-24.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/utility/cschgconnect\_2019-10-09-16-43-24.log

PortReplace /var/opt/hitachi/CommonService/userconf/nginx/sites-enabled/orioncs.conf 443

SetProperty /var/opt/hitachi/CommonService/userconf/config\_environment.properties CS\_GW\_PORT 443

2019/09/20 18:34:03.356 [INF] KAOP60004-I cschgconnect.sh completed.

**Date and Time**

**Method name**

**Setting file**

**Set value**

**Variable name**

**Message**

**Message ID**

**Log level**

Figure 4‑9 Output format for cschgconnect\_*year-month-day-hour-minute-second*.log

Table 4‑9 Description for cschgconnect\_*year-month-day-hour-minute-second*.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | Method name | Method name (PostReplace/SetProperty) |
| 2 | Setting file | Path for the setting file |
| 3 | Variable name | Variable name (output only when the method name is SetProperty) |
| 4 | Setting value | Setting value |
| 5 | Date and Time | *yyyy/MM/dd HH:mm:ss*.SSS |
| 6 | Log level | Log level (INF/WRN/ERR) |
| 7 | Message ID | KAOP*nnnnn*-*Z* (Example: KAOP10001-W) |
| 8 | Message | Message description |

1. **csbackup\_*year-month-day-hour-minute-second*.log / csbackup.log**

This log file indicates information when the csbackup command is executed.

File location: *<log-directory>*/utility/csbackup\_*year-month-day-hour-minute-second*.log (Before 10.9.1)

*<log-directory>*/utility/csbackup.log (After 10.9.2)

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/utility/csbackup\_2019-10-09-16-43-24.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/utility/csbackup\_2019-10-09-16-43-24.log

2019/10/07 17:03:47.074 [INF] csbackup start.

2019/10/07 17:03:47.075 [INF] csbackup -dir

2019/10/07 17:03:47.076 [INF] User environment

CSPR\_EXT\_LC\_ALL=

CSPR\_EX\_COMSERV\_BACKUPDIR=/var/opt/hitachi/CommonService/backup/bakup\_COMMONSERVICE

XDG\_SESSION\_ID=4

Date and Time

Message

Log level

Figure 4‑10 Output format for csbackup\_*year-month-day-hour-minute-second*.log /csbackup.log

Table 4‑10 Description for csbackup\_*year-month-day-hour-minute-second*.log /csbackup.log

|  |  |  |
| --- | --- | --- |
| No. | Item | Explanation |
| 1 | Date and Time | yyyy/MM/dd HH:mm:ss.SSS |
| 2 | Log level | Log level (INF/WRN/ERR) |
| 3 | Message | Message description |

1. **csrestore\_*year-month-day-hour-minute-second*.log**

This log file indicates information when the csrestore command is executed.

Refer to (2) for output format and description.

File location: *<log-directory>*/utility/csrestore\_*year-month-day-hour-minute-second*.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/utility/csrestore\_2019-10-09-16-43-24.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/utility/csrestore\_2019-10-09-16-43-24.log

1. **csgetras.log**

This log file indicates information when the csgetras command is executed.

Refer to (2) for the output format and description.

File location: *<directory-specified-in-dir-option-of-csgetras-command>/*csgetras.log

1. **cssslsetup\_*year-month-day-hour-minute-second*.log**

This log file indicates information when the cssslsetup command is executed.

Refer to (2) for output format and description.

File location: *<log-directory>*/utility/cssslsetup\_*year-month-day-hour-minute-second*.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/utility/cssslsetup\_2020-09-29-19-55-21.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/utility/cssslsetup\_2020-09-29-19-55-21.log

(\*)When using the cssslsetup command in utility.tar.

File location: /tmp/cssslsetup\_*year-month-day-hour-minute-second*.log

1. **cschgscale\_*year-month-day-hour-minute-second*.log**

This log file indicates information when the cschgscale command is executed.

Refer to (2) for output format and description.

File location: *<log-directory>*/utility/cschgscale\_*year-month-day-hour-minute-second*.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/utility/cschgscale\_2022-12-08-16-17-20.log

(\*) When the cschgscale command is executed by the Express installer  
File location: /tmp/ExpressInstaller\_*<version>*.cschgscale\_*<yyyymmdd-hhmmss>*.log

1. **csbackupprescript.log**

This log file indicates information when the csbackupprescript command is executed.

Refer to (2) for output format and description.

File location: *<log-directory>*/ubi/csbackupprescript.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/ubi/csbackupprescript.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/ubi/csbackupprescript.log

1. **csdbmigration\_csidp\_*year-month-day-hour-minute-second*.log / csdbmigration\_csportal\_*year-month-day-hour-minute-second*.log**

This log file indicates information when the csdbmigration command is executed.

Refer to (2) for output format and description.

File location: *<log-directory>*/utility/csdbmigration\_*year-month-day-hour-minute-second*.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/utility/csdbmigration\_csidp\_2023-08-04-07-17-57.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/utility/csdbmigration\_csidp\_2023-08-04-07-17-57.log

1. **cspostdbmigration\_csidp\_*year-month-day-hour-minute-second*.log / cspostdbmigration\_csportal\_*year-month-day-hour-minute-second*.log**

This log file indicates information when the cspostdbmigration command is executed.

Refer to (2) for output format and description.

File location: *<log-directory>*/utility/cspostdbmigration\_*year-month-day-hour-minute-second*.log

Examples:

[Hitachi Edition] [Linux] /var/log/hitachi/CommonService/utility/cspostdbmigration\_csidp\_2023-08-04-07-17-57.log

[HPE Edition] [Linux] /var/log/CVXPAE/CommonService/utility/cspostdbmigration\_csidp\_2023-08-04-07-17-57.log

## Log output by basic operation (GUI)

This section explains the output of log files when operating the GUI.

1. **API** **start log**

The following is an output example when the **Submit** button on the CreateUser screen of Common Services is pressed to start the user addition API.

2019-10-09 16:57:35.490 INFO http-nio-127.0.0.1-20951-exec-2 KAOP00000-I Method start. (Class:InnerApiController, Method:innerCreateUser, Argument:[class User {n id: nulln username: namen firstName: firstn lastName: lastn email: nulln dn: nulln description: descriptionn enabled: truen builtin: nulln}])

Figure 4‑11 debug.log when starting the user addition API

When to start the API:

(1) [debug.log] message ID is KAOP00000-I.

(2) [debug.log] class is listed in Table 4‑11.

(3) [debug.log] method is listed in Table 4‑11.

Description:

The message ID KAOP00000-I indicates that the method has started.

As the class is InnerApiController and the method is innerCreateUser, it can be determined from the correspondence table in Table 4‑11 that this is the API start log when the **Submit** button is pressed on the CreateUser screen.

"Argument:" indicates the method argument. In the case of API by GUI operation, the input value of the screen can be acquired from "Argument:". Information that is not appropriate to be output in the log, such as a password, is indicated by an asterisk. A linefeed character is output as n.

1. **API normal termination log**

The following is an output example when the user addition API is completed successfully by pressing the **Submit** button on the CreateUser screen of Common Services.

2019-10-10 17:42:46.056 INFO http-nio-127.0.0.1-20951-exec-2 KAOP00002-I Method end normally. (Class:InnerApiController, Method:innerCreateUser, Return:<201 CREATED Created,{Location=[https://192.168.56.101/portal/inner/v1/security/users/aef8caa7-63b0-43f6-afc5-66756a00b26b]}>)

Figure 4‑12 debug.log when user addition API ends normally

When the API ends normally:

(1) [debug.log] message ID is KAOP00002-I.

(2) [debug.log] class is listed in Table 4‑11.

(3) [debug.log] method is listed in Table 4‑11.

Description:

The message ID KAOP00002-I indicates that the method ended normally.

As the class is InnerApiController and the method is innerCreateUser, it can be determined from the correspondence table in Table 4‑11 that this is the API normal end log when the **Submit** button is pressed on the CreateUser screen.

"Return:" indicates the return value of the method. HTTP status, response body, and response header are output.

1. **API abnormal termination log**

The following is an output example when the user addition API is completed abnormally by pressing the **Submit** button on the CreateUser screen of Common Services.

2019-10-10 17:42:58.015 ERROR http-nio-127.0.0.1-20951-exec-7 KAOP00003-E Method end abnormally. (Class:InnerApiController, Method:innerCreateUser, Argument:[class User {n id: nulln username: aaan firstName: nulln lastName: nulln email: nulln dn: nulln description: nulln enabled: truen builtin: nulln}]) com.hitachi.software.orion.portal.api.contract.exception.ApiException: KAOP20016-E Conflict.n

Figure 4‑13 debug.log when user addition API ends abnormally

When the API ends abnormally:

(1) [debug.log] message ID is AOP00003-E.

(2) [debug.log] class is listed in Table 4‑11.

(3) [debug.log] method is listed in Table 4‑11.

Description

The message ID KAOP00003-E means that the method has terminated abnormally.

As Class is InnerApiController and Method is innerCreateUser, it can be determined from Table 4‑11 that this is an API error termination log when the **Submit** button is pressed on the CreateUser screen.

"Argument:" indicates the method argument. In the case of API by GUI operation, the input value of the screen can be acquired from "Argument:". Information that is not appropriate to be output, such as a password, is indicated by an asterisk. A linefeed character is output as n.

If an exception occurs, the exception information is output at the end of the log.

Table 4‑11 Correspondence table of Class and Method for API start, normal end and abnormal end logs, and GUI operations

| No. | Class | Method | GUI Operation Contents |
| --- | --- | --- | --- |
|  | InnerApiController | innerCreateUser | Press the **Submit** button on the Create User screen. |
|  | InnerApiController | innerListUsers | Displays the Users screen |
|  | InnerApiController | innerGetUser | Displays the Users detail screen |
|  | InnerApiController | innerUpdateUser | Press the **Submit** button on the User detail screen. |
|  | InnerApiController | innerDeleteUser | Press the **Submit** button on the Delete User dialog. |
|  | InnerApiController | innerListUserGroupsOfUser | Displays the User detail screen |
|  | InnerApiController | innerAddUserToUserGroup | Moves groups from Available groups to Group membership on the User groups screen |
|  | InnerApiController | innerRemoveUserFromUserGroup | Moves groups from Group membership to Available groups on the User groups screen |
|  | InnerApiController | innerResetpassword | Press the **Submit** button on the Change Password screen. |
|  | InnerApiController | innerCreateUserGroup | Press the **Submit** button on the Create group screen. |
|  | InnerApiController | innerListUserGroups | Displays the Groups screen |
|  | InnerApiController | innerUpdateUserGroup | Press the **Submit** button on the Edit group screen. |
|  | InnerApiController | innerGetUserGroup | Displays the Group detail screen |
|  | InnerApiController | innerDeleteUserGroup | Press the **Submit** button on the Delete group dialog. |
|  | InnerApiController | innerGetMembersOfUserGroup | Displays the Group detail screen |
|  | InnerApiController | innerListPortalRoleMappingsOfUserGroup | Displays the Group roles screen |
|  | InnerApiController | innerAssignPortalRoleMappingToUserGroup | Moves a role from Available roles to Assigned roles on the Group roles screen |
|  | InnerApiController | innerRemovePortalRoleMappingFromUserGroup | Moves a role from Assigned roles to Available roles on the Group roles screen |
|  | InnerApiController | innerListAvailablePortalRolesOfUserGroup | Displays the Group roles screen |
|  | InnerApiController | innerCreateUserFederation | Press the **Submit** button on the Add user directory service screen. |
|  | InnerApiController | innerListUserFederations | Displays the User federation screen |
|  | InnerApiController | innerGetUserFederation | Displays the User directory service details screen |
|  | InnerApiController | innerUpdateUserFederation | Press the **Submit** button on the Edit user directory service screen. |
|  | InnerApiController | innerDeleteUserFederation | Press the **Submit** button on the Delete user directory service dialog. |
|  | InnerApiController | innerSyncGroupsOfUserFederation | Press the **Sync groups** button on the User federation screen. |
|  | InnerApiController | innerTestConnection | Press the **Test connection** button on the Add user directory service screen. Press the **Test connection** button on the Edit user directory service screen. |
|  | InnerApiController | innerListApplicationServices | Displays the Products screen |
|  | InnerApiController | innerGetApplicationService | Displays the Product detail screen |
|  | InnerApiController | innerUpdateApplicationService | Press the **Submit** button on the Edit product screen. |
|  | InnerApiController | innerDeleteApplicationService | Press the **Submit** button on the Delete product dialog. |
|  | InnerApiController | innerGetVersionOfApplicationService | Displays the Product detail screen |
|  | InnerApiController | innerGetStatusOfApplicationService | Displays the Products screen Displays the Product detail screen |
|  | InnerApiController | innerGetLicenseOfApplicationService | Displays the Products screen Displays the Product detail screen |
|  | InnerApiController | innerCreateDatacenter | Press the **Submit** button on the Create data center screen. |
|  | InnerApiController | innerListDatacenters | Displays the Data centers screen |
|  | InnerApiController | innerGetDatacenter | Displays the Data center details screen |
|  | InnerApiController | innerUpdateDatacenter | Press the **Submit** button on the Edit data center screen. |
|  | InnerApiController | innerDeleteDatacenter | Press the **Submit** button on the Delete data center dialog box. |
|  | InnerApiController | innerListApplicationServicesAssociatedToDatacenter | Displays the Data center details screen |
|  | InnerApiController | innerAssociateApplicationServiceToDatacenter | Press the **Submit** button on the Create data center screen.  Press the **Submit** button on the Edit data center screen. |
|  | InnerApiController | innerUnassociateApplicationServiceFromDatacenter | Press the **Submit** button on the Edit data center screen.  Press the **Submit** button on the Delete data center dialog. |
|  | InnerApiController | innerGetPasswordPolicy | Displays the Password policy screen |
|  | InnerApiController | innerUpdatePasswordPolicy | Press the **Submit** button on the Password policy screen. |
|  | InnerApiController | innerGetBannerInfo | Displays the Edit message screen |
|  | InnerApiController | innerPutBannerInfo | Press the **Submit** button on the Edit message screen. |
|  | InnerApiController | innerValidateBannerInfo | Click the Preview tab on the Edit message screen. |
|  | InnerApiController | innerGetBannerTags | Displays the Edit message screen |
|  | InnerApiController | innerGetVersionInformation | Displays the About dialogue box |
|  | InnerApiController | loginUserProfile | When succeeding in logging in |
|  | InnerApiController | getBannerInfoLogin | Displays the login screen |
|  | InnerApiController | loginUserStatus | Executes periodically during login to maintain session state. |
|  | InnerApiController | innerGetKerberosConnectionSetting | Displays the Kerberos connection settings screen |
|  | InnerApiController | innerUpdateKerberosConnectionSetting | Press the **Submit** button on the Kerberos connection settings screen. |
|  | InnerApiController | innerCreateKerberosRealm | Press the **Submit** button on the Kerberos connection settings screen. |
|  | InnerApiController | innerListKerberosRealms | Displays the Kerberos connection settings screen  Displays the Add user directory service screen  Displays the Edit user directory service screen |
|  | InnerApiController | innerUpdateKerberosRealm | Press the **Submit** button on the Kerberos connection settings screen. |

# Other

## Property file

This document does not explain property files. Please refer to the *Hitachi Ops Center Installation and Configuration Guide*.

## logrotate configuration file

Among the log files output by Common Services, the ones whose number of pages and size are managed using logrotate are shown below.

Table 5‑1 1.1 logrotate configuration file

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | logrotate configuration file | The path of the managed log | Size of log | Number of log |
| 1 | <install-directory>/conf/logrotate\_cshourly.d/csgateway | /var/log/hitachi/CommonService/nginx/access.log  /var/log/hitachi/CommonService/nginx/error.log | 20MB | 20 |
| 2 | <install-directory>/conf/logrotate\_cshourly.d/csportal | /var/log/hitachi/CommonService/csportal.log | 20MB | 20 |
| 3 | <install-directory>/conf/logrotate\_cshourly.d/csidpaccess | /var/log/hitachi/CommonService/idp/log/access.log | 20MB | 20 |
| 4 | /etc/logrotate.d/csidpserver | /var/log/hitachi/CommonService/idp/log/server.log | 20MB | 20 |
| 5 | /etc/logrotate.d/csbackup | /var/log/hitachi/CommonService/utility/csbackup.log  /var/log/hitachi/CommonService/ubi/csbackupprescript.log | 1MB | 10 |
| 6 | <install-directory>/conf/logrotate\_cshourly.d/csaccess | /var/log/hitachi/CommonService/access.log  /var/log/hitachi/CommonService/management\_access.log | 20MB | 20 |

The setting value of each item must follow the log rotation specifications of the OS.

/var/log/hitachi/CommonService/nginx/access.log

/var/log/hitachi/CommonService/nginx/error.log

{

missingok

nodateext

copytruncate

size 20M

rotate 20

compress

delaycompress

}

**Number of log**

**Size of log**

Figure 5‑1 logrotate configuration file example

Appendix

* 1. HTTP Status Codes

HTTP Status Codes are shown in **Table A-1**.

In the table below, "Common" in the "Ver." column means the status is available for both HTTP1.0 and HTTP1.1, but "1.1" specifies availability for only HTTP1.1.

Please refer to the Following URLs for detailed information about the status codes:

<In the case of Japanese > http://www.asahi-net.or.jp/~ax2s-kmtn/ref/status.html

<In the case of English> http://www.w3.org/Protocols/HTTP/HTRESP.html

http://www.ietf.org/rfc/

**Table A-1 HTTP Status Code Lists**

|  |  |  |
| --- | --- | --- |
| **1xx: Informational** | | Ver. |
| 100 | Continue | 1.1 |
| 101 | Switching Protocols | 1.1 |
| **2xx: Success** | |  |
| 200 | OK(accepted normally) | Common |
| 201 | Created | Common |
| 202 | Accepted | Common |
| 203 | Non-Authoritative Information | 1.1 |
| 204 | No Content | Common |
| 205 | Reset Content | 1.1 |
| 206 | Partial Content | 1.1 |
| **3xx: Redirection** | |  |
| 300 | Multiple Choices | 1.1 |
| 301 | Moved Permanently | Common |
| 302 | Moved Temporarily | Common |
| 303 | See Other | 1.1 |
| 304 | Not Modified | Common |
| 305 | Use Proxy | 1.1 |
| 307 | Temporary Redirect | 1.1 |
| 308 | Permanent Redirect | 1.1 |
| **4xx: Client Error** | |  |
| 400 | Bad Request (The request had bad syntax.) | Common |
| 401 | Unauthorized (The user name is invalid, or the password is invalid for the HTTP/HTTPS authentication.) | Common |
| 402 | Payment Required | 1.1 |
| 403 | Forbidden (The request is for something forbidden.) | Common |
| 404 | Not Found (The server has not found anything matching the URI given.) | Common |
| 405 | Method Not Allowed | 1.1 |
| 406 | Not Acceptable | 1.1 |
| 407 | Proxy Authentication Required | 1.1 |
| 408 | Request Time-out | 1.1 |
| 409 | Conflict | 1.1 |
| 410 | Gone | 1.1 |
| 411 | Length Required | 1.1 |
| 412 | Precondition Failed | 1.1 |
| 413 | Request Entity Too Large | 1.1 |
| 414 | Request-URI Too Large | 1.1 |
| 415 | Unsupported Media Type | 1.1 |
| 416 | Range Not Satisfiable | 1.1 |
| 417 | Expectation Failed | 1.1 |
| 421 | Misdirected Request | 2 |
| 426 | Upgrade Required | 1.1 |
| 451 | Unavailable For Legal Reasons | 1.1 |
| **5xx: Server Error** | |  |
| 500 | Internal Server Error (The server encountered an unexpected condition which prevented it from fulfilling the request.) | Common |
| 501 | Not Implemented (The server does not support the facility required.) | Common |
| 502 | Bad Gateway | Common |
| 503 | Service Unavailable (The server cannot process the request due to it is in shutdown sequence.) | Common |
| 504 | Gateway Time-out | 1.1 |
| 505 | HTTP Version not supported | 1.1 |