

HP IT Operations Compliance

Software Version: 1.10

-

Troubleshooting Guide

Document Release Date: September 2015
Software Release Date: September 2015



Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

© Copyright 2015 Hewlett-Packard Development Company, L.P.

Trademark Notices

Adobe® is a trademark of Adobe Systems Incorporated.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

UNIX® is a registered trademark of The Open Group.

Documentation Updates

The title page of this document contains the following identifying information:

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to: <http://h20230.www2.hp.com/selfsolve/manuals>

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to: <http://h20229.www2.hp.com/passport-registration.html>

Or click the **New users - please register** link on the HP Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Visit the HP Software Support Online web site at: <http://www.hp.com/go/hpsoftwaresupport>

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

<http://h20229.www2.hp.com/passport-registration.html>

To find more information about access levels, go to:

http://h20230.www2.hp.com/new_access_levels.jsp

HP Software Solutions Now accesses the HPSW Solution and Integration Portal Web site. This site enables you to explore HP Product Solutions to meet your business needs, includes a full list of Integrations between HP Products, as well as a listing of ITIL Processes. The URL for this Web site is

<http://h20230.www2.hp.com/sc/solutions/index.jsp>

Contents

| | |
|--|----|
| Contents | 4 |
| Chapter 1: Overview | 5 |
| Chapter 2: Installation and Initial Configuration | 6 |
| Problem: ITOC startup fails on CentOS 6 server. The user cannot access ITOC UI, as authentication/authorization service fails. | 6 |
| Problem: When running ITOC as a non-root user and the ITOC install uses a JDK that was previously installed as root, you will see warning messages in the server.log. | 7 |
| Chapter 3: ITOC Issues and Use Cases | 8 |
| Problem: All ITOC services seem to be running, but nothing is accessible through the UI. | 8 |
| Problem: Stopping the ITOC service results in intermittent error. | 9 |
| Problem: The maintenance window Job view has only time slot info without any status. | 9 |
| Chapter 4: Integration Issues | 11 |
| SA Issues | 11 |
| Problem: run adapter_easy_install.sh exits during the copy agent phase. | 11 |
| Problem: Run adapter_easy_install.sh exits during the agent install phase. | 12 |
| Problem: Run adapter_easy_install.sh shows an error during the agent registration phase. | 12 |
| Problem : A Scan/Remediate job against Resource Access Through SA fails | 13 |
| Problem: A Scan/Remediate job against Resource Access Through SA failed with the Expected a character buffer object error. | 15 |
| Chapter 5: Uninstallation Issues | 16 |
| Problem: Invoking an ITOC uninstallation results in an error. | 16 |
| Problem: After ITOC uninstallation on a setup that has ITOC-included PostgreSQL, you may find an orphaned PostgreSQL process. | 16 |
| Chapter 6: Identity Management Troubleshooting | 17 |
| Setting Log Severity | 17 |
| Chapter 7: Logs | 18 |
| Change the Remote Execution Log Level | 18 |
| Enable Hibernate SQL Logging | 19 |

Chapter 1: Overview

HP IT Operations Compliance (ITOC) allows IT Operations users to track business service compliance against corporate and regulatory policies, making their environment compliant and therefore secure.

When using the HP IT Operations Compliance product, certain problems may occur. The sections in this guide help you troubleshoot such problems, as well as provide you with information to help you avoid problems from occurring.

Chapter 2: Installation and Initial Configuration

Problem: ITOC startup fails on CentOS 6 server. The user cannot access ITOC UI, as authentication/authorization service fails.

Symptom

A message similar to the following appears in the `server.log` on service startup:

```
2015-08-21 12:36:34,133 INFO
[com.mchange.v2.c3p0.impl.AbstractPoolBackedDataSource] (MSC service thread 1-14)
Initializing c3p0 pool... com.mchange.v2.c3p0.ComboPooledDataSource

[ acquireIncrement -> 3, acquireRetryAttempts -> 30, acquireRetryDelay -> 1000,
autoCommitOnClose -> false, automaticTestTable -> null, breakAfterAcquireFailure ->
false, checkoutTimeout -> 0, connectionCustomizerClassName -> null,
connectionTesterClassName -> com.mchange.v2.c3p0.impl.DefaultConnectionTester,
dataSourceName ->
1hgevfi9bmopcz4k66x0l|7ac02973,debugUnreturnedConnectionStackTraces -> false,
description -> null, driverClass -> org.postgresql.Driver, factoryClassLocation ->
null, forceIgnoreUnresolvedTransactions -> false,identityToken ->
1hgevfi9bmopcz4k66x0l|7ac02973, idleConnectionTestPeriod -> 0, initialPoolSize ->
20, jdbcUrl -> jdbc:postgresql://itoc158.qa.opsware.com:5432/itoc,
lastAcquisitionFailureDefaultUser -> null, maxAdministrativeTaskTime -> 0,
maxConnectionAge -> 0, maxIdleTime -> 0, maxIdleTimeExcessConnections -> 0,
maxPoolSize -> 250, maxStatements -> 0, maxStatementsPerConnection -> 0,
minPoolSize -> 20, numHelperThreads -> 3, numThreadsAwaitingCheckoutDefaultUser ->
0, preferredTestQuery -> null, properties -> {user=*****, password=*****},
propertyCycle -> 0, testConnectionOnCheckin -> false, testConnectionOnCheckout ->
false, unreturnedConnectionTimeout -> 0, usesTraditionalReflectiveProxies -> false
]
```

...

Caused by: `org.postgresql.util.PSQLException: Connection refused`. Check that the hostname and port are correct and that the postmaster is accepting TCP/IP connections.

Primary software component

CentOS

Possible cause

It reproduces intermittently only when service is started using a native service subsystem such as `service itoc start`, which also occurs automatically when performing an install as a root user.

Solution

Stop the ITOC service, and restart the service using `<install_dir>/scripts/itoc start`.

Problem: When running ITOC as a non-root user and the ITOC install uses a JDK that was previously installed as root, you will see warning messages in the server.log.

Symptom

There are many warning messages in the `<itoc_install_location>/log/server/server.log*`, such as the following:

```
2015-05-11 12:48:18,826 WARNING [java.util.prefs] (Timer-2) Couldn't flush system
prefs: java.util.prefs.BackingStoreException: /etc/.java/.systemPrefs/com create
failed.
```

Primary software component

JDK

Possible cause

The licensing component used by ITOC is trying to access the preference store that triggers this warning. This has no functional effect.

Solution

This warning can be ignored. If the user running ITOC has permissions on the JDK install, then no warning will occur.

Chapter 3: ITOC Issues and Use Cases

Problem: All ITOC services seem to be running, but nothing is accessible through the UI.

Symptoms

In the JBoss `/opt/hp/itoc/log/server/server.log`, you see content similar to the following:

```
2015-05-22 11:42:02,408 INFO [org.jboss.as] (Controller Boot Thread) JBAS015874: WildFly 8.1.0.Final "Kenny" started in 71512ms - Started 562 of 624 services (107 services are lazy, passive or on-demand)
```

```
2015-05-22 11:58:43,212 ERROR [org.jboss.as.controller.management-operation] (DeploymentScanner-threads - 1) JBAS014612: Operation ("read-resource") failed - address: ([("deployment" => "ocm.war"))]: java.lang.OutOfMemoryError: Java heap space
```

```
2015-05-22 11:58:43,213 INFO [org.jboss.as.server.deployment.scanner] (DeploymentScanner-threads - 1) JBAS015018: Deployment ocm.war was previously deployed by this scanner but has been removed from the server deployment list by another management tool. Marker file /opt/hp/itoc/wildfly-8.1.0.Final/standalone/deployments/ocm.war.undeployed is being added to record this fact.
```

...

```
2015-05-22 11:58:44,401 ERROR [stderr] (OCMScheduler Resource Worker Tasks-7-29) Exception in thread "OCMScheduler Resource Worker Tasks-7-29" java.lang.OutOfMemoryError: Java heap space
```

Primary software component

JBoss.

Possible cause

An unrecoverable error occurs, such as Out Of Memory conditions, causing JBoss to fail to deploy any of the web services context.

Solution

Enter the following:

```
cd /opt/hp/itoc/wildfly-8.1.0.Final/standalone/deployments
mv idm-service.war.undeployed idm-service.war.dodeploy
```



```
mv ocm.war.undeployed ocm.war.dodeploy
/opt/hp/itoc/scripts/appserver restart
```

Problem: Stopping the ITOC service results in intermittent error.

Symptom

When you stop the ITOC service, you may see output similar to the following:

```
$ service itoc stop
Stopping Salt...
Stopping salt-master daemon: [ OK ]
Stopping salt-minion daemon: [ OK ]
Stopping HP ITOC service
...
Error occurred cannot stop the process
```

Possible solution

Make sure that `/etc/hosts` is similar to the following:

```
127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4
::1 localhost6 localhost6.localdomain6
```

Workaround

Wait for a short time, then try stopping the service again.

Look for the Java process: `#ps -ef|grep "java" | grep <itoc_install_directory>`, and kill this process.

Problem: The maintenance window Job view has only time slot info without any status.

Symptom

In the maintenance window **Job** view, there is a time slot record but it does not have any job status.

Possible Causes

There are three possible causes:

- The maintenance window type is **Scan**, and it is scheduled to perform a scan against an SOA in which the last scan occurred halfway within the MSLO limit. If this is the case, you will see entries such as the following in <itoc_install_directory>/log/server/hpitoc-server.log:

```
2015-09-18 19:30:00,684 DEBUG [ItocQuartzJobScheduler_Worker-1]
c.h.o.s.s.a.ItocAssemblageQueryAdapter [ItocAssemblageQueryAdapter.java:497]
Rule in 0.5 of MSLO. Will not measure.
```
- The maintenance window type is either Remediate or Scan and Remediate, and it is scheduled to remediate an SOA in a state other than Non-Compliant. If this is the case, you will see entries such as the following in <itoc_install_directory>/log/server/hpitoc-server.log:

```
2015-09-18 20:00:00,690 INFO [ItocQuartzJobScheduler_Worker-3]
c.h.o.s.c.s.ComplianceService [ComplianceService.java:627]
ComplianceService.checkRunningOrFutureJobs: Nothing to execute for REMEDIATION 3

2015-09-18 20:00:00,694 INFO [ItocQuartzJobScheduler_Worker-3]
c.h.o.s.s.a.ItocAssemblageQueryAdapter [ItocAssemblageQueryAdapter.java:581]
Nothing to Scan or Remediate
```
- One SOA is assigned to multiple maintenance windows, and the maintenance windows scheduled start time or duration overlap with each other.

Chapter 4: Integration Issues

SA Issues

Problem: `run adapter_easy_install.sh` exits during the copy agent phase.

Symptom

The `run adapter_easy_install.sh` command to install the ITOC SA adapter exits during the copy agent phase with this error message:

```
/opt/hp/itoc/salt/srv/salt/minion_easy_install
```

```
...
```

```
/opt/hp/itoc/salt/srv/salt/Win64_minion-2015.5.5.exe: No such file or directory
```

Possible Causes

- The adapter and agent are already installed and/or
- The following files were not deleted from the `/tmp` directory after the previous adapter or agent were uninstalled:
 - `ITOC_SA_Lite-<version>`
 - `minion_easy_install`
 - `<platform>_minion--<version>`

Solution

1. From the SA Slice host, uninstall first the adapter and then the agent.
2. From the SA Slice host, remove the above files from `/tmp` directory.

Problem: Run `adapter_easy_install.sh` exits during the agent install phase.

Symptom

The run `adapter_easy_install.sh` command to install the ITOC SA adapter exits during the agent installation phase with an error similar to the following:

```
Uncompressing RHEL 5 x86_64 minion.....  
Looks like a failed install. Uninstall and try again.  
Problem installing minion...
```

Possible Causes

- The previous adapter installation failed.
- The user uninstalled the agent but did not remove the files from `/tmp` directory.

Solution

1. From the SA Slice host, uninstall first the adapter and then the agent.
2. From the SA Slice host, remove the following files from the `/tmp` directory:
 - `ITOC_SA_Lite-<version>`
 - `minion_easy_install`
 - `<platform>_minion--<version>`

Problem: Run `adapter_easy_install.sh` shows an error during the agent registration phase.

Symptom

Run `adapter_easy_install.sh` to install the ITOC SA adapter shows the following error during the agent registration phase:

```
Registering minion...
```

```
The key glob 'itocserver.itoc.mysite.com' does not match any unaccepted keys.
```

Possible Cause

The specified SA Slice host was already registered with another ITOC server.

Solution

1. From the ITOC server, run `<itoc_install_directory>/scripts/minion_reg.sh -d <agent_host>` to unregister.
2. From the SA Slice host, uninstall first the adapter and then the agent.
3. From the SA Slice host, remove the following files from the `/tmp` directory:
 - `ITOC_SA_Lite-<version>`
 - `minion_easy_install`
 - `<platform>_minion--<version>`
4. Retry `adapter_easy_install.sh`.

Problem : A Scan/Remediate job against Resource Access Through SA fails

The job fails with the following:

```
pytwist.com.opsware.job.JobIsScheduledException: JobIsScheduledException:ID: HPSA-005
```

Symptom

The **Scan/Remediate** job against Resource Access Through SA failed with the following exception:

```
Traceback (most recent call last):
File "/opt/hp/itocSAadapter/adapter.py", line 362, in <module>
main()
File "/opt/hp/itocSAadapter/adapter.py", line 358, in main
start_adapter()
File "/opt/hp/itocSAadapter/adapter.py", line 339, in start_adapter
job_ref = twist_execute(twist, sys.argv[5], payload) # server ref
File "/opt/hp/itocSAadapter/adapter.py", line 148, in twist_execute
wait_for_job(twist, job_ref)
File "/opt/hp/itocSAadapter/adapter.py", line 105, in wait_for_job
job_result = twist.job.JobService.getResult(job_ref)
File "build/pytwist/twistserver.py", line 323, in __call__
File "build/pytwist/twistserver.py", line 302, in _makeCall
File "build/pytwist/twistserver.py", line 276, in _makeCall
File "build/pytwist/twistserver.py", line 246, in _makeCall
pytwist.com.opsware.job.JobIsScheduledException: JobIsScheduledException:ID: HPSA-005
Code: com.opsware.common.MessageSpec.ILLEGAL_VALUE
```

Details: self is set to the illegal value Run Server Script (ScheduledJobRef:660001).

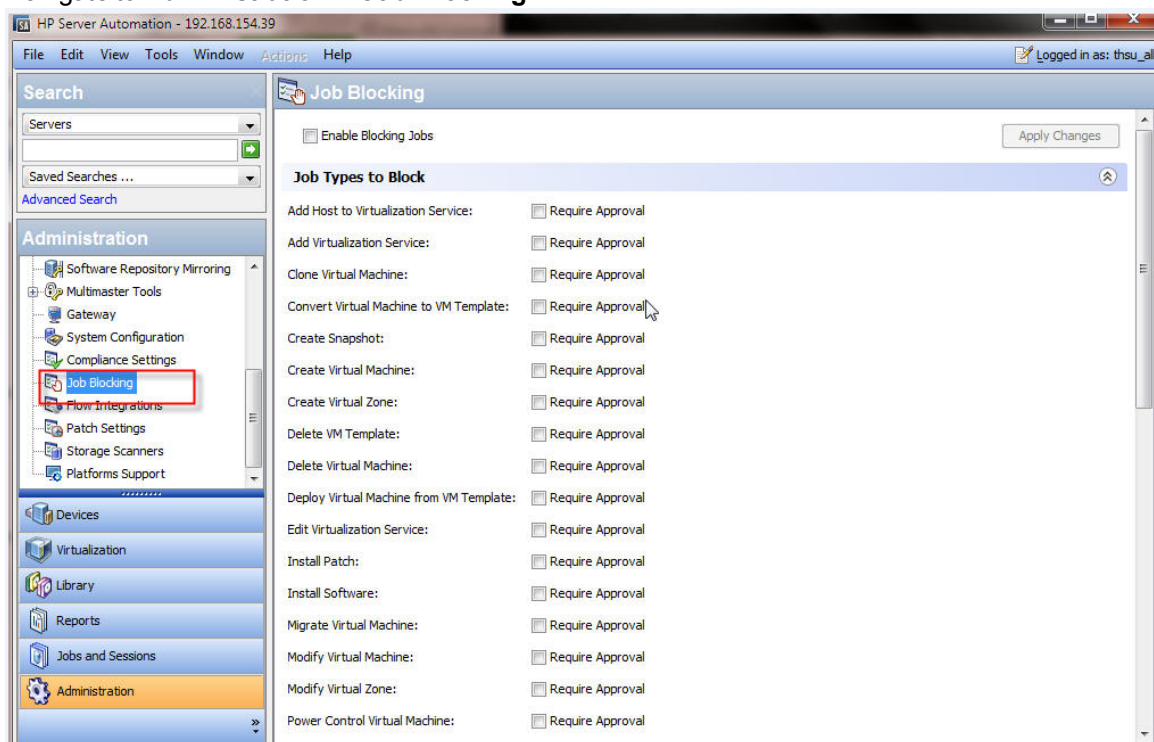
Possible Cause

The Run Server Script job type is blocked in SA.

Solution

Perform the following steps to unblock the Run Server Script job type from SA:

1. Log in to SA as **Admin**.
2. Navigate to **Administration > Job Blocking**.



3. Unblock the specified job.

Problem: A Scan/Remediate job against Resource Access Through SA failed with the Expected a character buffer object error.

Symptom

The **Scan/Remediate** job against **Resource Access Through SA** failed with an exception such as the following:

```
Traceback (most recent call last):
File "/opt/hp/itocSAadapter/adapter.py", line 362, in <module>
main()
File "/opt/hp/itocSAadapter/adapter.py", line 358, in main
start_adapter()
File "/opt/hp/itocSAadapter/adapter.py", line 340, in start_adapter
redirect_output_and_exit(get_job_output(twist, sys.argv[5], job_ref))
File "/opt/hp/itocSAadapter/adapter.py", line 140, in redirect_output_and_exit
sys.stdout.write(output.tailStdout)
TypeError: expected a character buffer object
```

Possible Cause

While the ITOC **Scan/Remediate** job is running on the SA managed resource, other SA jobs are running on the same SA managed server.

Solution

Wait for the SA jobs to complete. Then from ITOC, rerun the **Scan/Remediate** job against the SA managed resource.

Chapter 5: Uninstallation Issues

Problem: Invoking an ITOC uninstallation results in an error.

Symptom

When you run `#<install_dir>/ITOC_Installation/Uninstall_HPITOC`, an error message appears, and uninstallation fails.

Failure message

No Java virtual machine could be found from your PATH environment variable. You must install a VM prior to running this program.

Solution

Set the environment variable and retry:

```
$ export PATH=<install_dir>/openjre/bin:$PATH
$ <install_dir>/ITOC_Installation/Uninstall_HPITOC
```

Problem: After ITOC uninstallation on a setup that has ITOC-included PostgreSQL, you may find an orphaned PostgreSQL process.

Symptom

During uninstallation, ITOC services are stopped before uninstalling the PostgreSQL database, but there may be open connections to it through other clients. The uninstallation process removes what it can.

Solution

Kill the PostgreSQL process manually after uninstallation.

Chapter 6: Identity Management Troubleshooting

Setting Log Severity

1. Open the `.../idm-service.war/WEB-INF/classes/log4j.properties` file in a text editor.
2. On the first line, change `INFO` to `DEBUG` (if `DEBUG` already appears on the first line, then log severity is already set to `DEBUG`, and no edit is needed).

Before

```
log4j.rootLogger=INFO, consoleAppender, jbossAppender, tomcatAppender
```

After

```
log4j.rootLogger=DEBUG, consoleAppender, jbossAppender, tomcatAppender
```

3. Save changes.
4. Restart the organization administration service.

Chapter 7: Logs

To troubleshoot, start at the log level. Logs are located on your server, as shown:

```
<itoc_install_directory>/logs
```

- `installer` – All installer-related logs.
- `portal` – All UI-related logs.
- `salt` – All remote execution-related logs.
- `server` – All application-related logs.

The Importer creates logs on any import. These logs are located here:

```
itoc_install_directory/importer/logs
```

For information about changing the log level to see more information, see "System Configuration" in the [HP IT Operations Compliance Administration Guide](#).

Change the Remote Execution Log Level

1. Navigate to the following log file:
`itoc_install_directory/salt/etc/salt/master`
2. Uncomment the `#log_level_logfile: warning` line.
3. Set the level as explained in the file, as needed.
4. Restart the ITOC service as described in the [IT Operations Compliance Installation, Setup, and Upgrade Guide](#).

To change the remote execution logging level on agents:

1. Navigate to the following file:
`itoc_install_directory/etc/salt/minion`
2. Uncomment the `#log_level_logfile: warning` line.
3. Set the level as explained in the file, as needed.
4. Restart the agent service.

Enable Hibernate SQL Logging

To enable Hibernate SQL Logging, change the following OOTB configuration in the `application.properties` file from `false` to `true` :

```
spring.jpa.show_sql=true
```

Send Documentation Feedback

If you have comments about HP ITOC or this document, [contact HP](#). If an email client is configured on this system, click the link above to generate an email to the HP ITOC team. Just add your feedback to the email and click send.

If no email client is available, send your feedback to itopscompliance@hp.com. Please include the name and version of the document in your feedback memo.

We appreciate your feedback!