

EMC ISILON CUSTOMER TROUBLESHOOTING GUIDE

# TROUBLESHOOT PROBLEMS WITH ADDING OR IMPORTING A CLUSTER FOR MONITORING IN INSIGHTIQ

## Abstract

This guide helps you troubleshoot problems that occur when you add a new cluster to be monitored by InsightIQ, or when you import a datastore or cluster that is already being monitored by another InsightIQ instance.

December 28, 2015

# Contents and overview

**Note**

Follow all of these steps, in order, until you reach a resolution.

**1. Follow these steps.**

Before you begin  
[Page 3](#)

**2. Perform troubleshooting steps in order.**

Start Troubleshooting  
[Page 4](#)

Problem adding a new cluster to be monitored  
[Page 5](#)

Problem importing a datastore or cluster that is already being monitored  
[Page 12](#)

**3. Appendixes**

[Appendix A](#)  
If you need further assistance

[Appendix B](#)  
How to use this flowchart

[Appendix C](#)  
Output of the `isi auth users view insightiq` command

# Before you begin



## CAUTION!

If the node, subnet, or pool that you are working on goes down during the course of troubleshooting and you do not have any other way to connect to the cluster, you could experience data unavailability.

Therefore, make sure that you have more than one way to connect to the cluster before you start this troubleshooting process. The best method is to have a serial cable available. This way, if you are unable to connect through the network, you will still be able to connect to the cluster physically.

For specific requirements and instructions for making a physical connection to the cluster, see [article 16744](#) on the EMC Online Support site.

Before you begin troubleshooting, confirm that you can connect through either another subnet or pool, or that you have physical access to the cluster.

## Configure screen logging through SSH

We recommend configuring screen logging to log all session input and output on both the Isilon cluster and the InsightIQ server instance during your troubleshooting session. These log files can be shared with EMC Isilon Technical Support if you require assistance at any point during troubleshooting.

### Configure screen logging on the Isilon cluster

**Note:** The screen session capability does not work in OneFS 7.1.0.6 and 7.1.1.2. If you are running either of these versions, you can configure logging by using your local SSH client's logging feature.

1. Open an SSH connection to the cluster and log in by using the root account.  
**Note:** If the cluster is in compliance mode, use the compadmin account to log in. All compadmin commands must be preceded by the `sudo` prefix.
2. Change the directory to `/ifs/data/Isilon_Support` by running the following command:  

```
cd /ifs/data/Isilon_Support
```
3. Run the following command to capture all input and output of the session:  

```
screen -L
```

This will create a file called `screenlog.0` that will be appended to during your session.
4. Perform troubleshooting.

### Configure screen logging on the InsightIQ server instance

1. Open an SSH connection to the InsightIQ server instance and log in using the administrator account.
2. Run the following command to capture all input and output of the session:  

```
screen -L
```

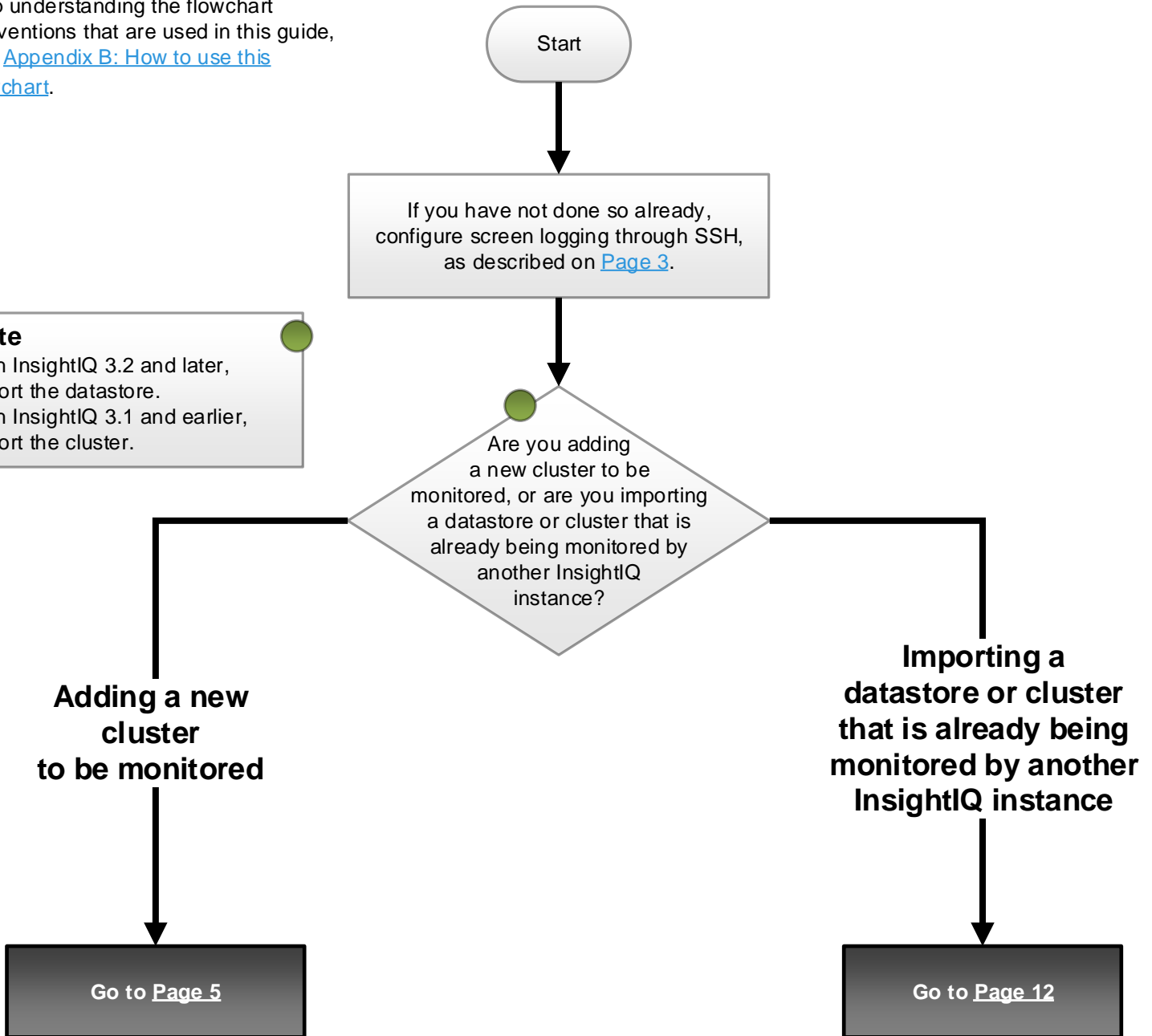
This will create a file called `screenlog.0` that will be appended to during your session.
3. Perform troubleshooting.

# Start troubleshooting

## Introduction

Start troubleshooting here. If you need help understanding the flowchart conventions that are used in this guide, see [Appendix B: How to use this flowchart](#).

**Note**  
With InsightIQ 3.2 and later, import the datastore.  
With InsightIQ 3.1 and earlier, import the cluster.



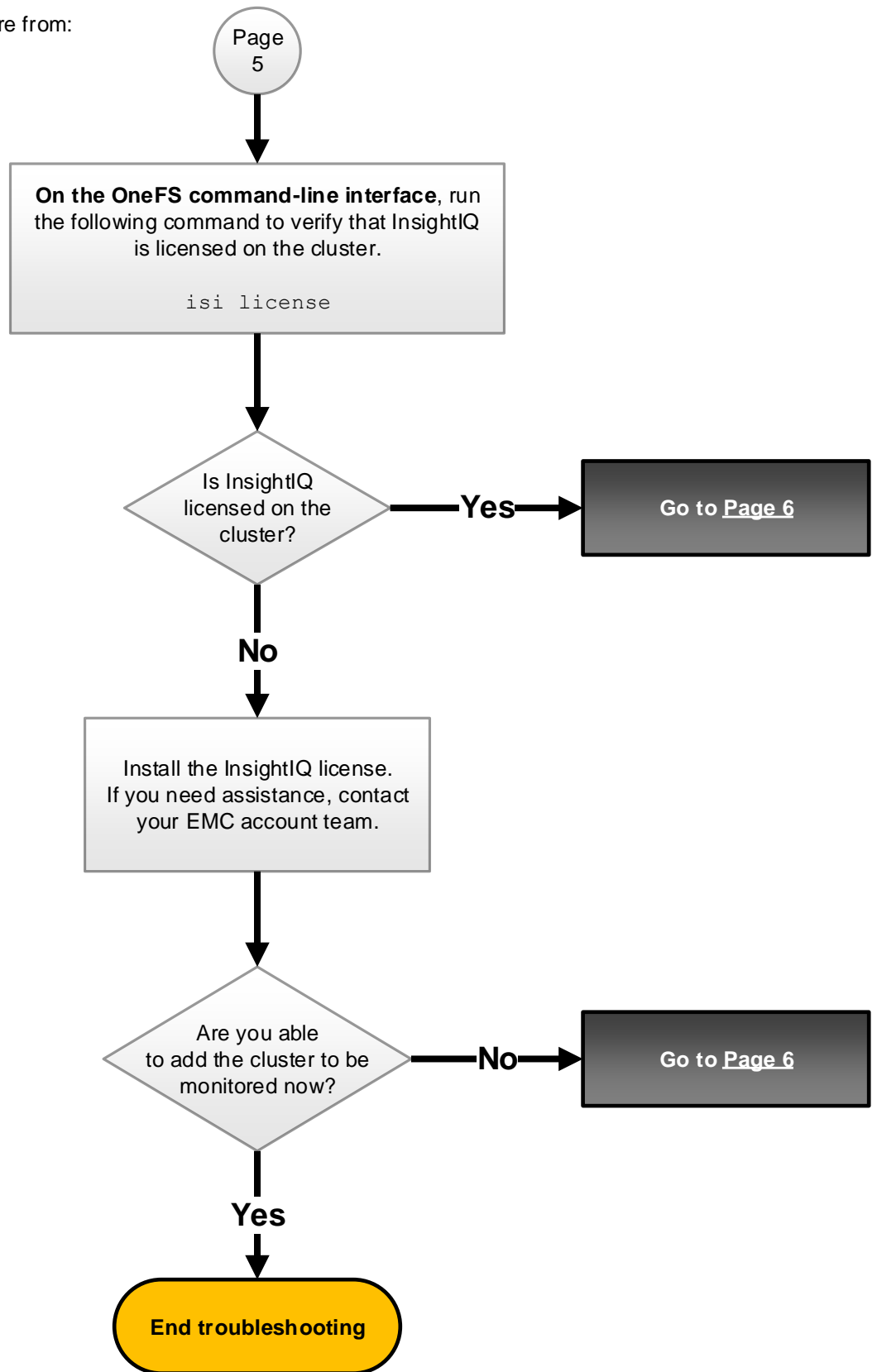
# Problem adding a new cluster to be monitored

Verify that InsightIQ is licensed on the cluster



You could have arrived here from:

- [Page 4 - Start troubleshooting](#)



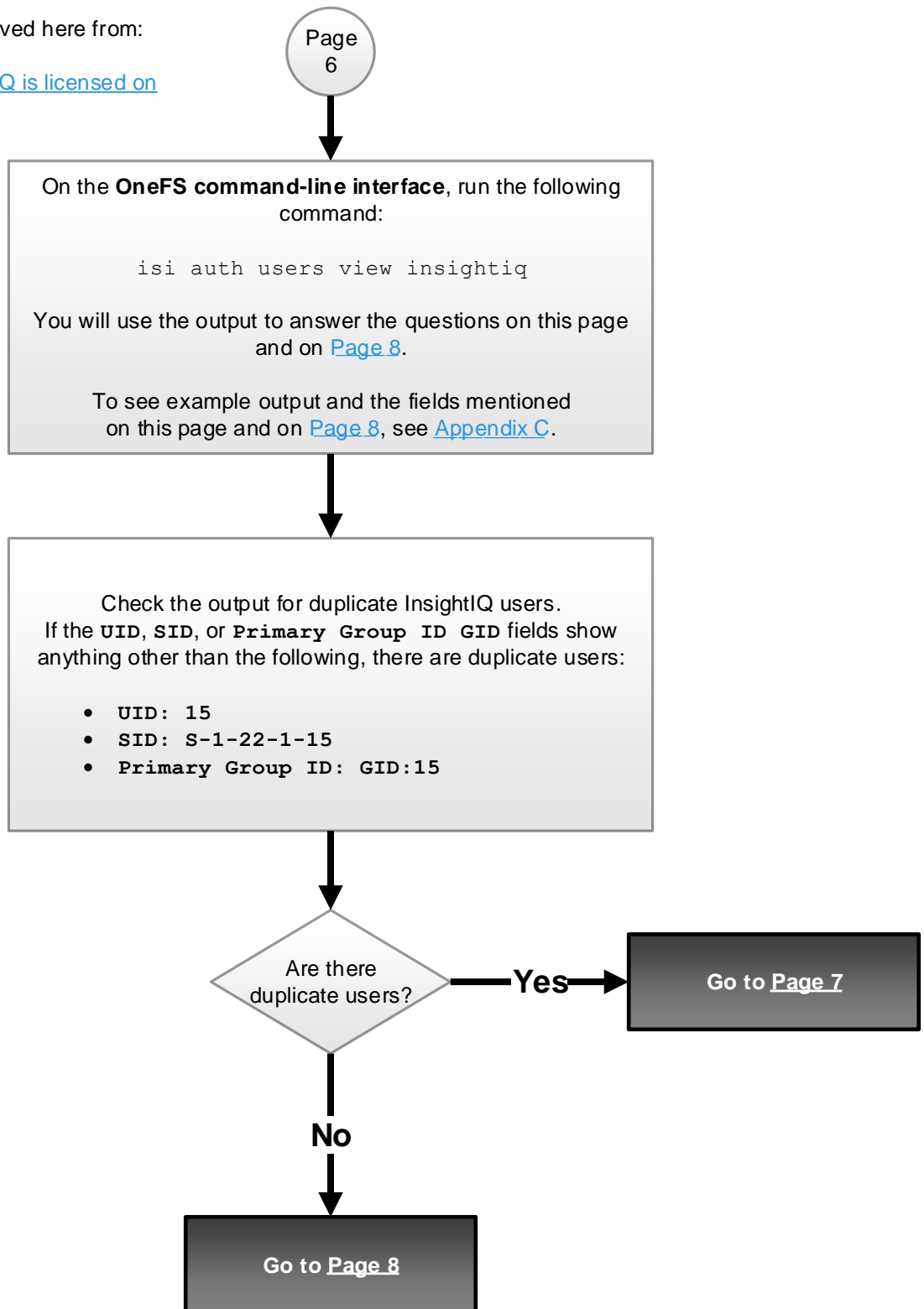
## Problem adding a new cluster to be monitored (2)

### Check for duplicate users



You could have arrived here from:

- [Page 5 - Verify that InsightIQ is licensed on the cluster](#)



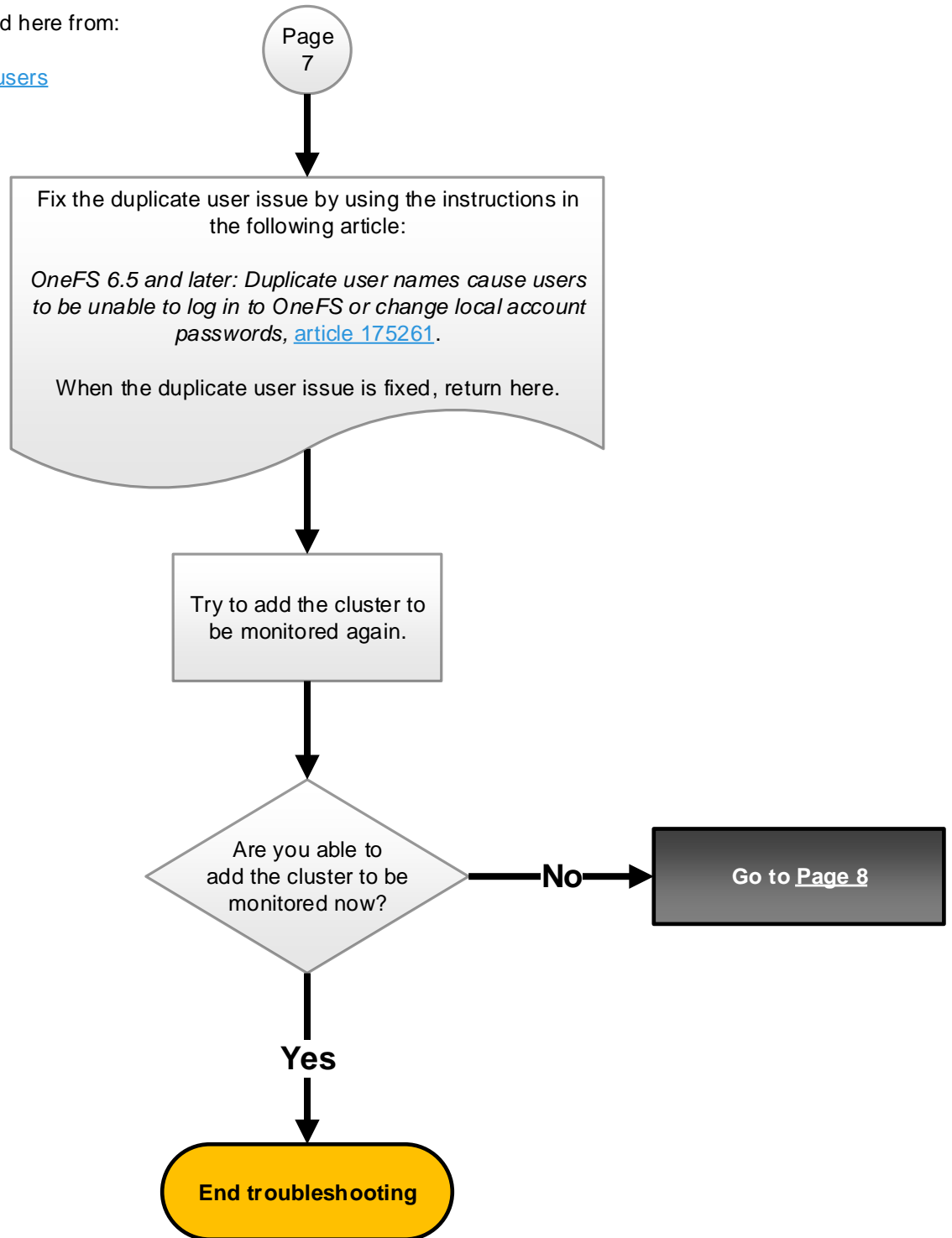
# Problem adding a new cluster to be monitored (3)

## Resolve duplicate users



You could have arrived here from:

- [Page 6 - Check for duplicate users](#)



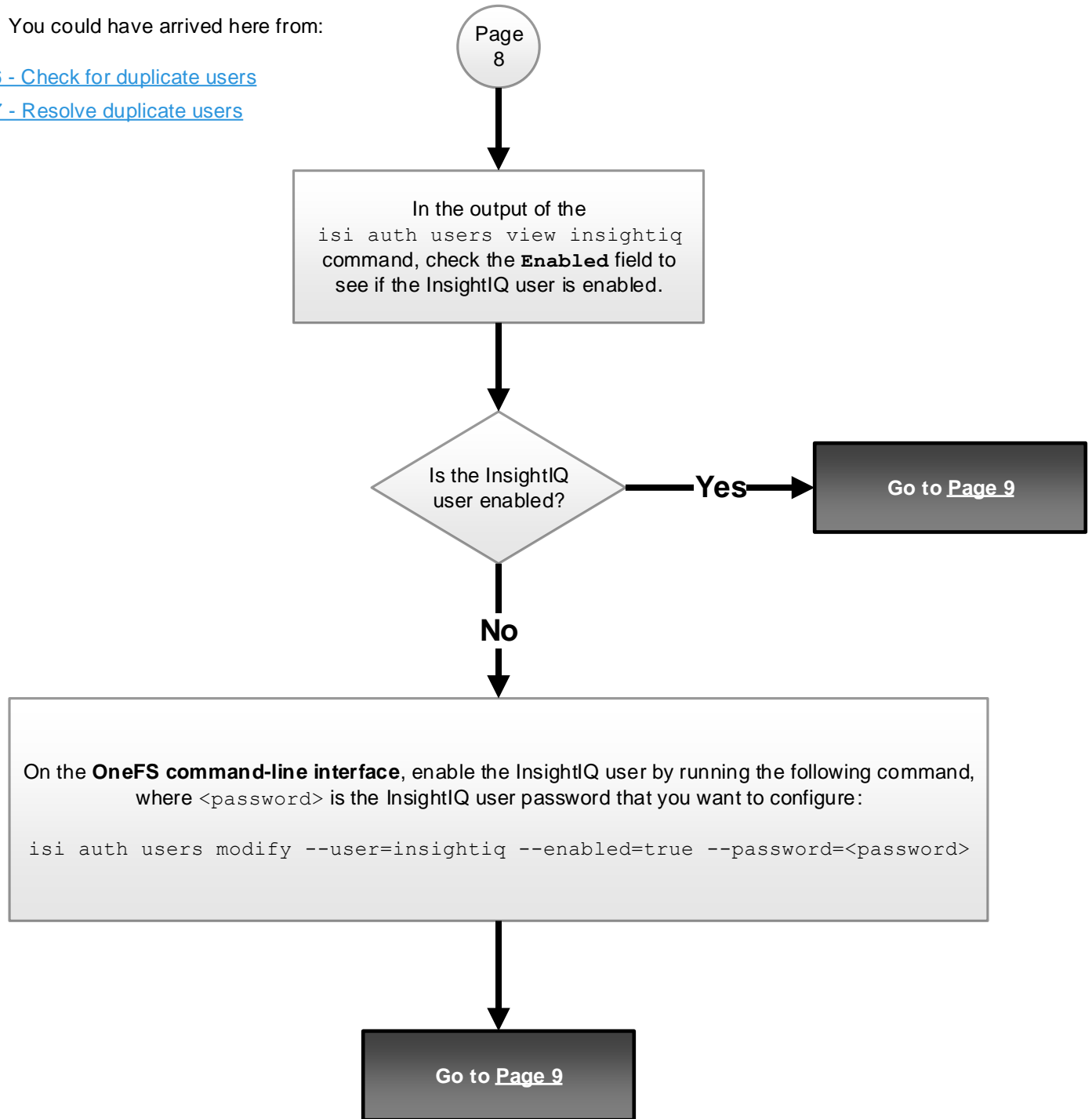
# Problem adding a new cluster to be monitored (4)

Verify that the InsightIQ user is enabled



You could have arrived here from:

- [Page 6 - Check for duplicate users](#)
- [Page 7 - Resolve duplicate users](#)





# Problem adding a new cluster to be monitored (5)

Verify that the password is configured for InsightIQ



You could have arrived here from:

- [Page 8 - Verify that the InsightIQ user is enabled](#)

Page  
9

On the **OneFS command-line interface**, verify the password by running the following command:

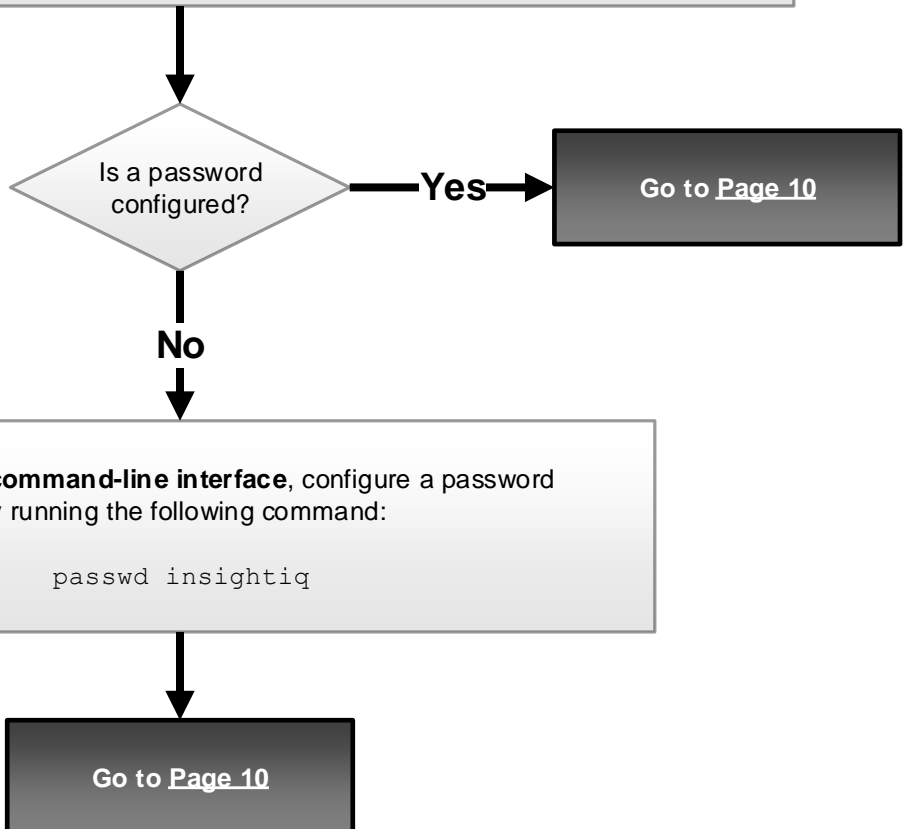
```
grep insightiq /etc/master.passwd
```

If a password is configured, the output will look similar to the following, with a password hash entry in the second column (columns are separated by colons):

```
insightiq:$3$8846f7eae8fb117ad06bdd830b7586c:15:15::0:0:InsightIQ  
User:/ifs/home/insightiq:/sbin/nologin
```

If a password is **not** configured, the output will look similar to the following, with an asterisk (\*) in the second column (columns are separated by colons):

```
insightiq*:15:15::0:0:InsightIQ User:/ifs/home/insightiq:/sbin/nologin
```



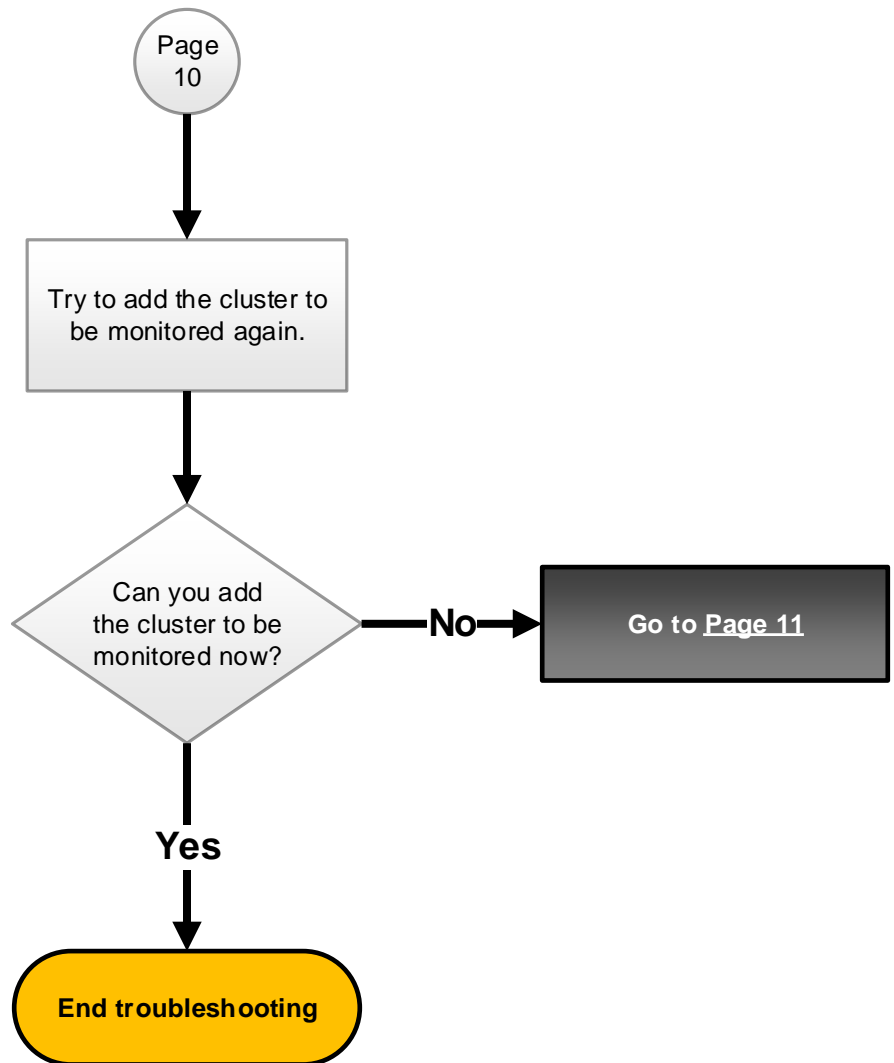
# Problem adding a new cluster to be monitored (6)

Try to add the cluster to be monitored again



You could have arrived here from:

- [Page 9 - Verify that the password is configured for InsightIQ](#)



# Problem adding a new cluster to be monitored (7)

Verify that the InsightIQ instance can connect to the cluster API



You could have arrived here from:

- [Page 10 - Attempt to add the cluster to be monitored again](#)

Page  
11

On the **InsightIQ instance**, run the following command, where `<node-ip>` is the IP address of the node that InsightIQ is connected to. When prompted, enter the InsightIQ password.

```
curl -k -u insightiq 'https://<node-ip>:8080/platform/1/license/licenses'
```

If the InsightIQ instance can connect, the command returns a list of licenses and their status for the cluster.

If the InsightIQ instance cannot connect, the command returns an error similar to the following:  
`curl: (7) couldn't connect to host`

Can the InsightIQ instance connect to the cluster API?

Yes

No

Note the page number that you are currently on.  
Upload log files and contact Isilon Technical Support, as instructed in [Appendix A](#).

This error indicates a networking issue. Use the following troubleshooting guide to resolve the issue:

[EMC Isilon Customer Troubleshooting Guide: Clients cannot connect to a node](#)

If the issue remains unresolved, return here.

Note the page number that you are currently on.  
Upload log files and contact Isilon Technical Support, as instructed in [Appendix A](#).

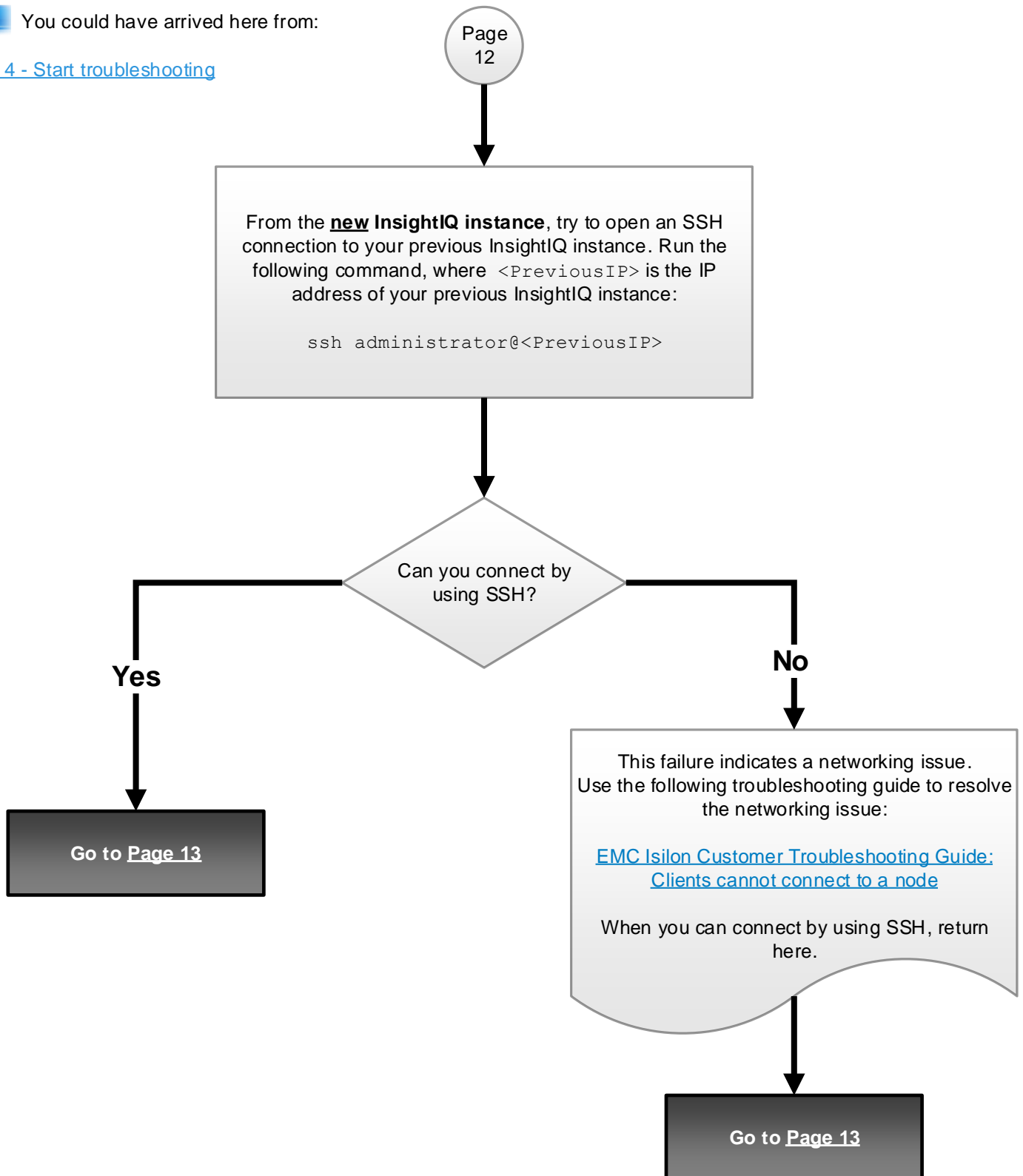
# Problem importing a datastore or cluster that is already being monitored

Try to connect by using SSH



You could have arrived here from:

- [Page 4 - Start troubleshooting](#)



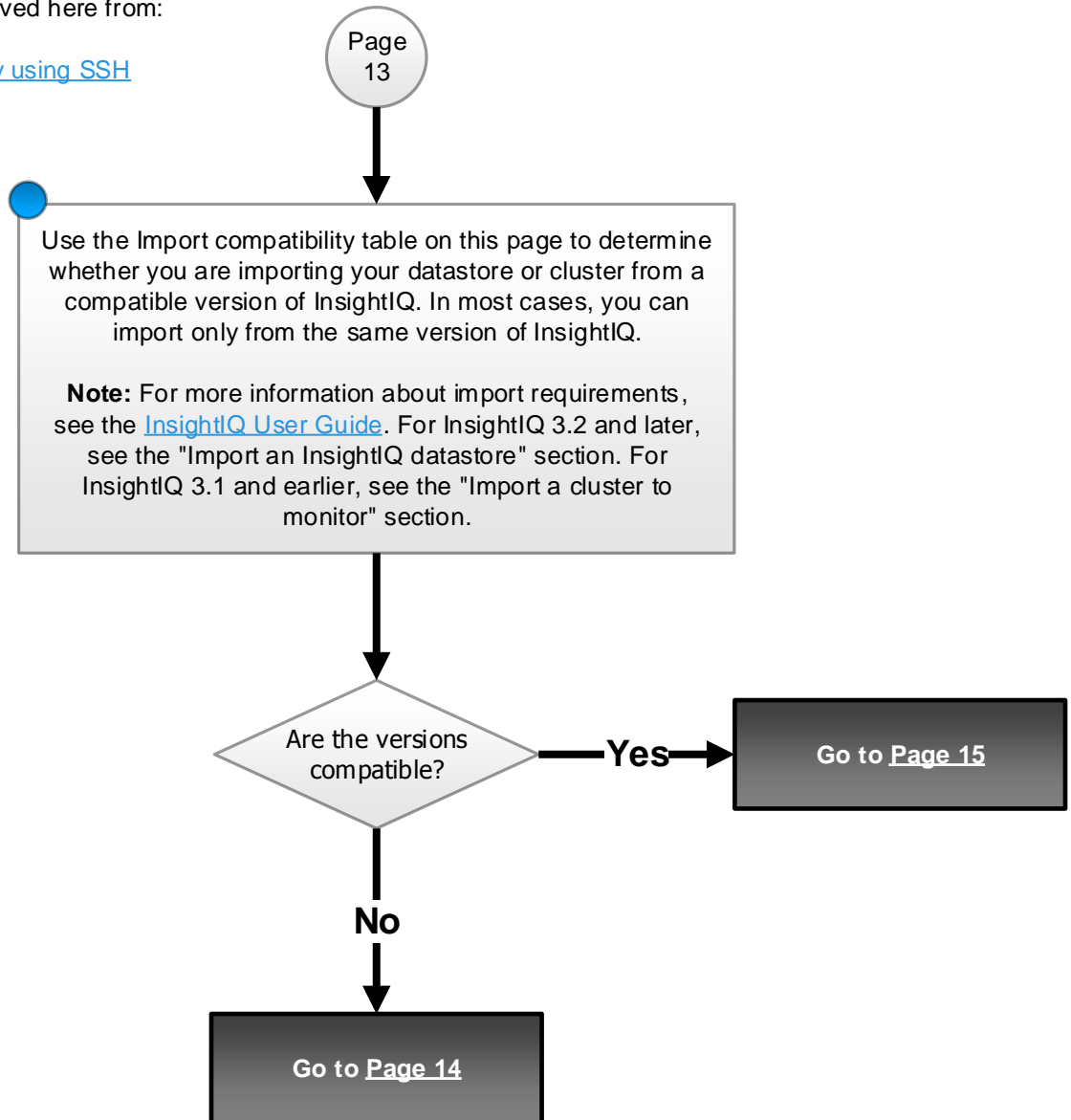
# Problem importing a datastore or cluster that is already being monitored (2)

## Verify the import compatibility



You could have arrived here from:

- [Page 12 - Try to connect by using SSH](#)



### Import compatibility

You can import to this version...	From this version...
InsightIQ 3.2	InsightIQ 3.2
InsightIQ 3.1	InsightIQ 3.1
InsightIQ 3.0	InsightIQ 3.0
InsightIQ 2.5	InsightIQ 1.5 - 2.5
InsightIQ 2.1	InsightIQ 1.0 - 2.1
InsightIQ 2.0	InsightIQ 1.0 - 2.0

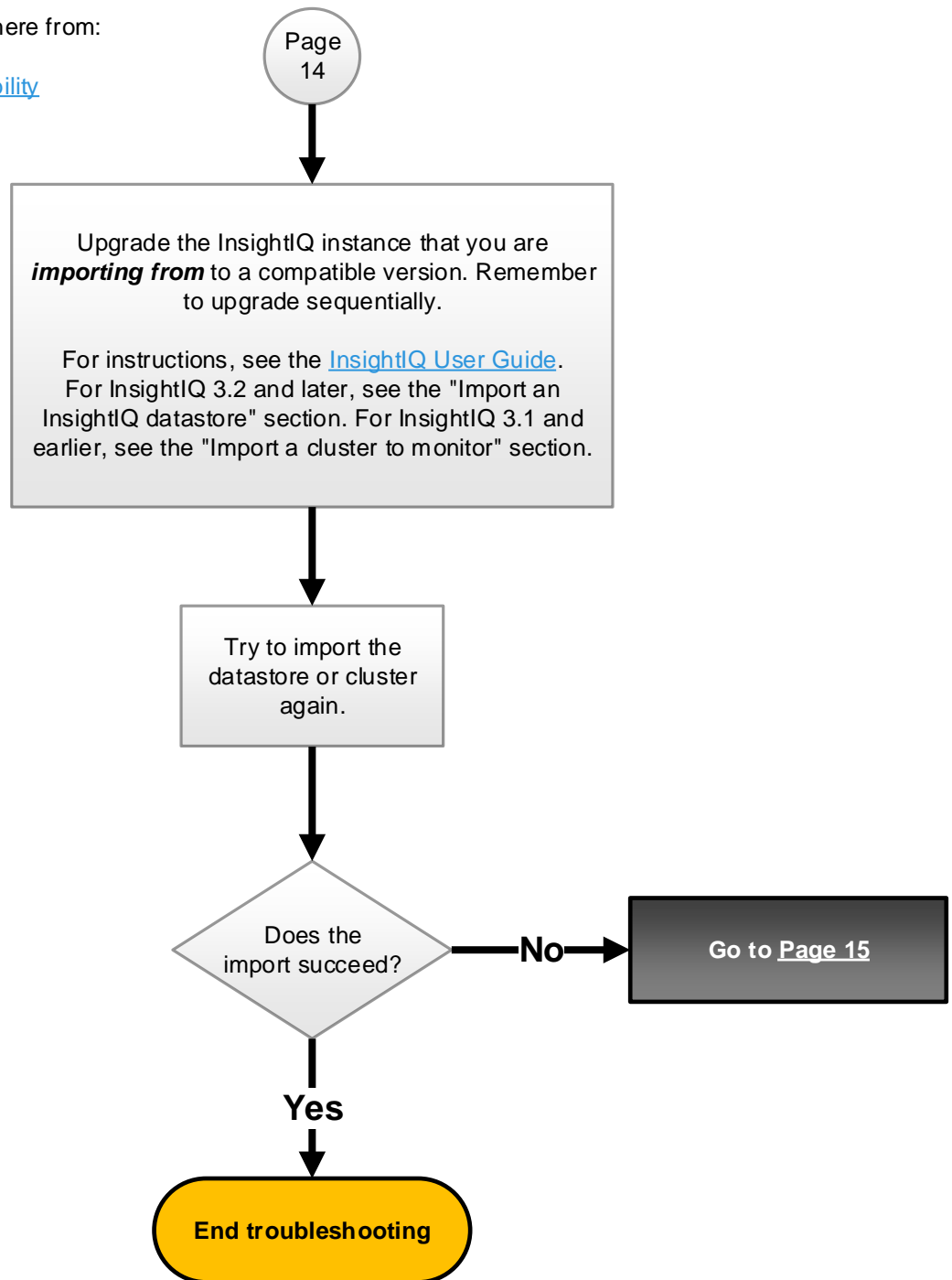
# Problem importing a datastore or cluster that is already being monitored (3)

## Verify the import compatibility (2)



You could have arrived here from:

- [Page 13 - Verify import compatibility](#)



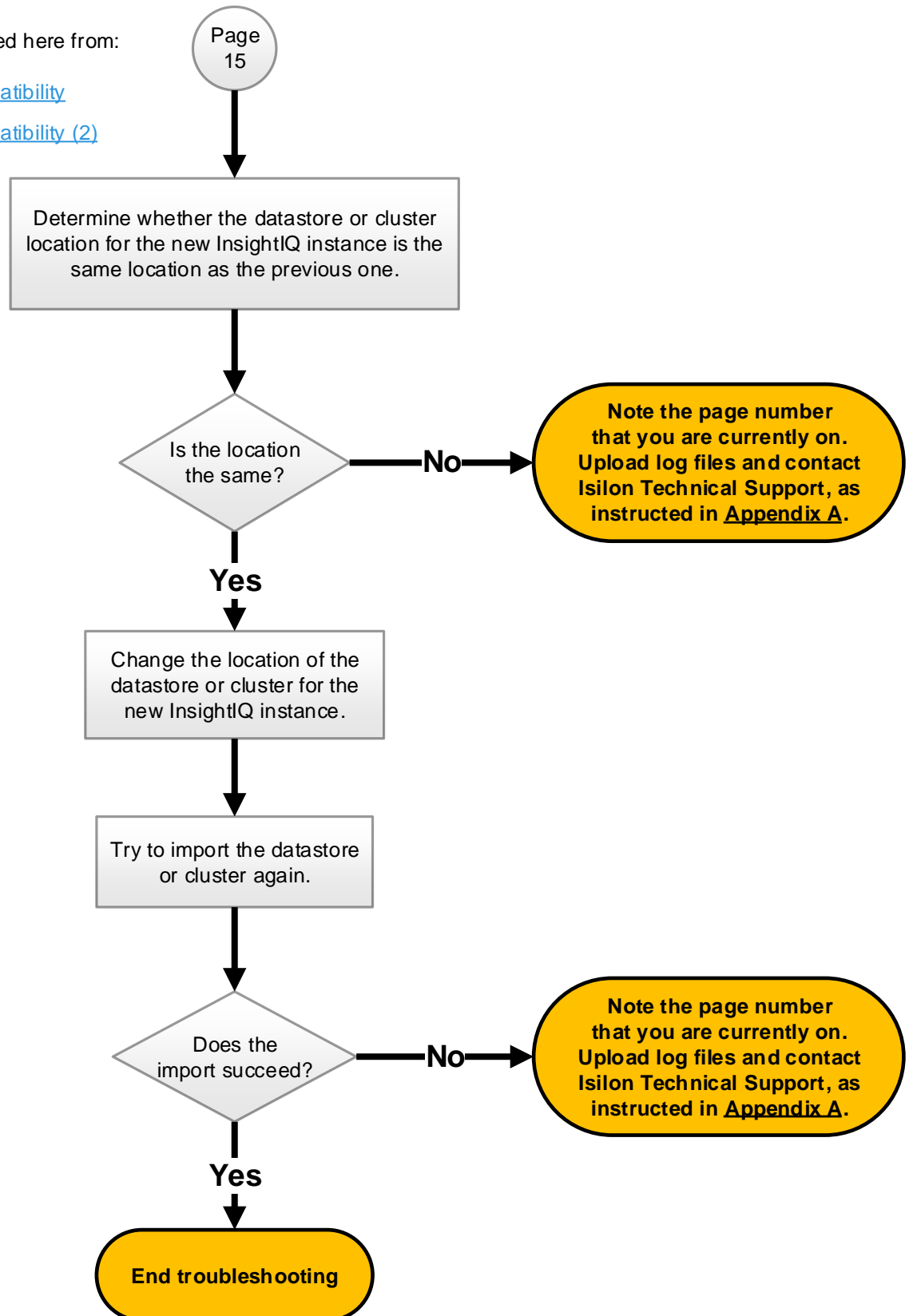
# Problem importing a datastore or cluster that is already being monitored (2)

## Verify the import location



You could have arrived here from:

- [Page 13 - Verify import compatibility](#)
- [Page 14 - Verify import compatibility \(2\)](#)



# Appendix A: If you need further assistance

## Contact EMC Isilon Technical Support

If you need to contact [Isilon Technical Support](#) during troubleshooting, reference the page or step that you need help on. This information and the log file will help Isilon Technical Support staff resolve your case more quickly.

## Gather and upload InsightIQ and OneFS log files and screen sessions

Follow the steps in the flowchart below

### Step 1: Open a Service Request (SR)

Contact [Isilon Technical Support](#) to open a service request. Make note of your SR number - you will need it in the next step.

### Step 2: Copy InsightIQ logs and screen log file to the Isilon cluster

1. **In the InsightIQ screen session:** When troubleshooting is complete, type `exit` to end your screen session.
2. Transfer the screen session to the cluster by running the following command, where `<node_ip>` is the IP address of the node you want to upload the logs to.

```
scp screenlog.0 root@<node_ip>:/ifs/data/Isilon_Support/screenlog.iiq.txt
```

3. **On the InsightIQ VM instance:** Run the following commands to gather InsightIQ configuration information:

```
cat /etc/isilon/insightiq.ini |grep api_username > ~/local_config.txt
```

```
cat /var/cache/insightiq/datastore.pickle >> ~/local_config.txt
```

```
ifconfig > ~/ifconfig.txt
```

```
mount > ~/mount.txt
```

```
rpm -q isilon-insightiq.x86_64 > ~/iiqversion.txt
```

4. Run the following command to compress the files generated by the previous commands as well as the contents of the `/var/log` directory, where `<SR_number>` is your Isilon Technical Support service request number:

```
sudo tar -czvf ~/<SR_number>.tgz /var/log local_config.txt ifconfig.txt mount.txt iiqversion.txt
```

5. Copy the compressed file to the `/ifs/data/Isilon_Support` directory on the monitored cluster using the `scp` (secure copy) command, where `<SR_number>` is your service request number, and `<node_ip>` is the node IP address used above:

```
scp ~/<SR_number>.tgz root@<node_ip>:/ifs/data/Isilon_Support
```

Go to [next page](#)



## Appendix A: If you need further assistance (2)

### Gather and upload InsightIQ and OneFS log files and screen sessions, continued



You could have arrived here from:

- [Appendix A: If you need further assistance](#)

Continued from previous page

#### Step 3: Upload the Isilon node logs, screen log files and InsightIQ logs to Isilon Technical Support

1. **In the OneFS screen session:** When troubleshooting is complete, type `exit` to end your screen session.
2. **On the Isilon cluster:** Open an SSH connection to the same node IP address where you have been copying files in the previous steps.
3. Gather and upload the node and InsightIQ logs and include the SSH screen log files by using the command appropriate for your method of uploading files. Replace `<SR_number>` in the command with your service request number. If you are not sure which method to use, then use FTP.

**Note:** For each method, there is one long command. When you copy and paste the command into the command-line interface, it will appear on multiple lines (as shown here) but when you press **Enter**, the command will run properly.

##### ESRS:

```
isi_gather_info --esrs --local-only -f /ifs/data/Isilon_Support/screenlog.0 \  
-f /ifs/data/Isilon_Support/screenlog.iq.txt \  
-f /ifs/data/Isilon_Support/<SR_number>.tgz
```

##### FTP:

```
isi_gather_info --ftp --local-only -f /ifs/data/Isilon_Support/screenlog.0 \  
-f /ifs/data/Isilon_Support/screenlog.iq.txt \  
-f /ifs/data/Isilon_Support/<SR_number>.tgz
```

##### HTTP:

```
isi_gather_info --http --local-only -f /ifs/data/Isilon_Support/screenlog.0 \  
-f /ifs/data/Isilon_Support/screenlog.iq.txt \  
-f /ifs/data/Isilon_Support/<SR_number>.tgz
```

##### SMTP:

```
isi_gather_info --email --local-only -f /ifs/data/Isilon_Support/screenlog.0 \  
-f /ifs/data/Isilon_Support/screenlog.iq.txt \  
-f /ifs/data/Isilon_Support/<SR_number>.tgz
```

##### SupportIQ:

```
isi_gather_info --local-only -f /ifs/data/Isilon_Support/screenlog.0 \  
-f /ifs/data/Isilon_Support/screenlog.iq.txt \  
-f /ifs/data/Isilon_Support/<SR_number>.tgz \  
--noupload --symlink /var/crash/SupportIQ/upload/ftp
```

3. If you receive a message that the upload was unsuccessful, refer to [article 16759](#) on the EMC Online Support site for directions for uploading files over FTP.

**Continue to troubleshoot your issue with Isilon Technical Support.**

# Appendix B: How to use this flowchart

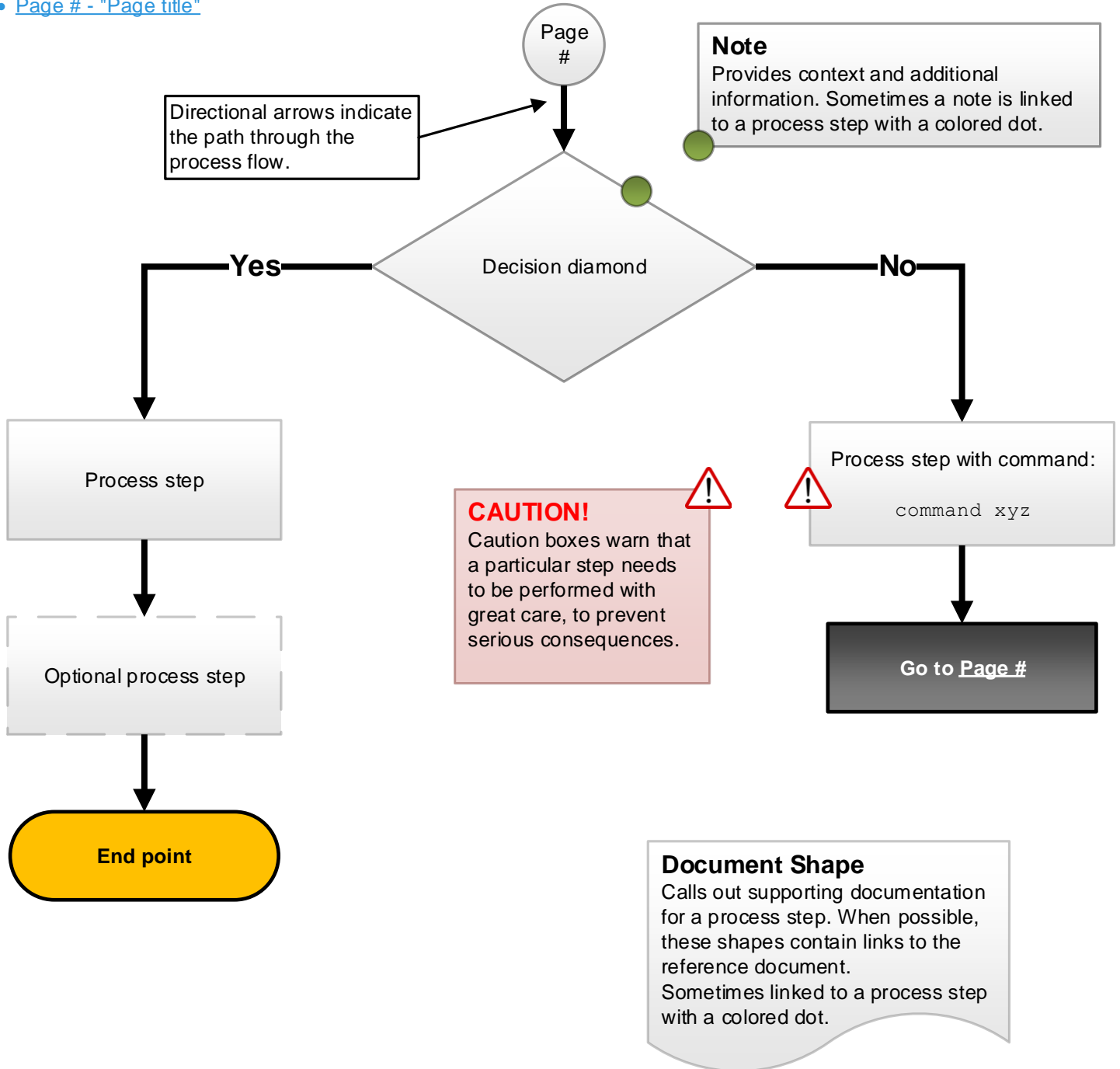
## Introduction

Describes what the section helps you to accomplish.



You could have arrived here from:

- [Page # - "Page title"](#)



# Appendix C: Output of the `isi auth users view insightiq` command



You could have arrived here from:

- [Page 6 - Check for duplicate users](#)

## Interpreting the output

### Duplicate users

To check for duplicate users, look at the **UID**, **SID**, and **Primary Group ID** fields. If the fields show anything other than the following, there are duplicate users:

- **UID: 15**
- **SID: S-1-22-1-15**
- **Primary Group ID: GID:15**

### InsightIQ user enabled

To see if the InsightIQ user is enabled, look at the **Enabled** field.

```
cluster-1# isi auth users view insightiq
      Name: insightiq
      DN: -
      DNS Domain: -
      Domain: UNIX_USERS
      Provider: lsa-file-provider:System
      Sam Account Name: insightiq
      UID: 15
      SID: S-1-22-1-15
      Enabled: No
      Expired: No
      Expiry: -
      Locked: No
      Email:
      GECOS: InsightIQ User
      Generated GID: No
      Generated UID: No
      Generated UPN: Yes
      Primary Group
      ID: GID:15
      Name: insightiq
      Home Directory: /ifs/home/insightiq
      Max Password Age: -
      Password Expired: No
      Password Expiry: -
      Password Last Set: -
      Password Expires: Yes
      Shell: /sbin/nologin
      UPN: insightiq@UNIX_USERS
      User Can Change Password: No
```

Copyright © 2015 EMC Corporation. All rights reserved. Published in USA.

EMC believes the information in this publication is accurate as of its publication date. The information is subject to change without notice.

The information in this publication is provided “as is.” EMC Corporation makes no representations or warranties of any kind with respect to the information in this publication, and specifically disclaims implied warranties of merchantability or fitness for a particular purpose. Use, copying, and distribution of any EMC software described in this publication requires an applicable software license.

EMC<sup>2</sup>, EMC, and the EMC logo are registered trademarks or trademarks of EMC Corporation in the United States and other countries. All other trademarks used herein are the property of their respective owners.

For the most up-to-date regulatory document for your product line, go to EMC Online Support (<https://support.emc.com>).