

EMC ISILON CUSTOMER TROUBLESHOOTING GUIDE

TROUBLESHOOT IDENTITY MAPPING

Abstract

This troubleshooting guide helps you to troubleshoot multiprotocol user identity issues.

January 6, 2016

Contents and overview

Note

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

1. Follow these steps.



Before you begin
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2. Perform troubleshooting steps in order.



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3. Appendixes



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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 logging through SSH

We recommend that you configure screen logging to log all session input and output during your troubleshooting session. This log file can be shared with EMC Isilon Technical Support if you require assistance at any point during troubleshooting.

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, 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 from the session:

```
screen -L
```

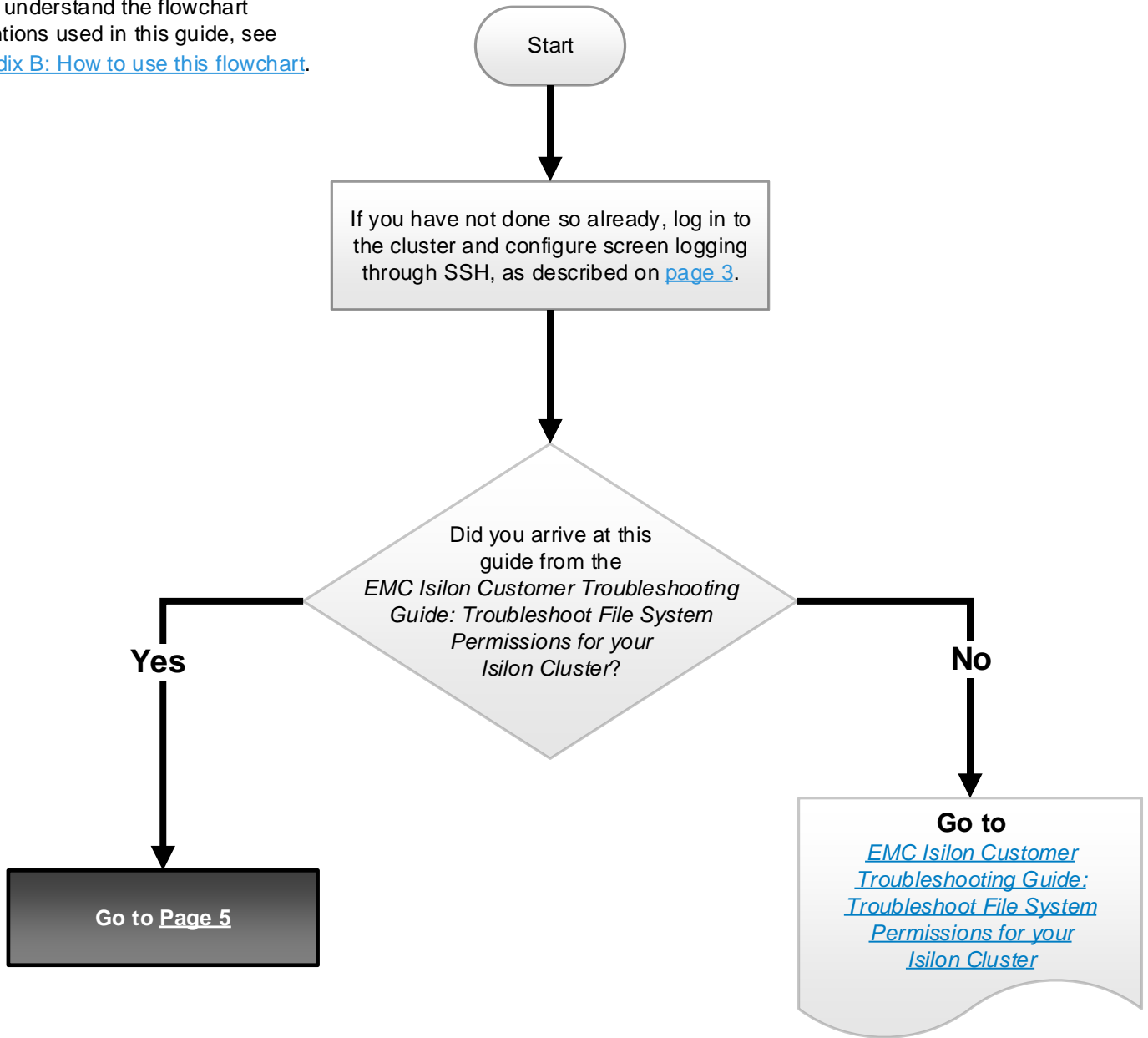
This will create a file named `screenlog.0` that will be appended to during your session.

4. Perform troubleshooting.

Start troubleshooting

Introduction

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

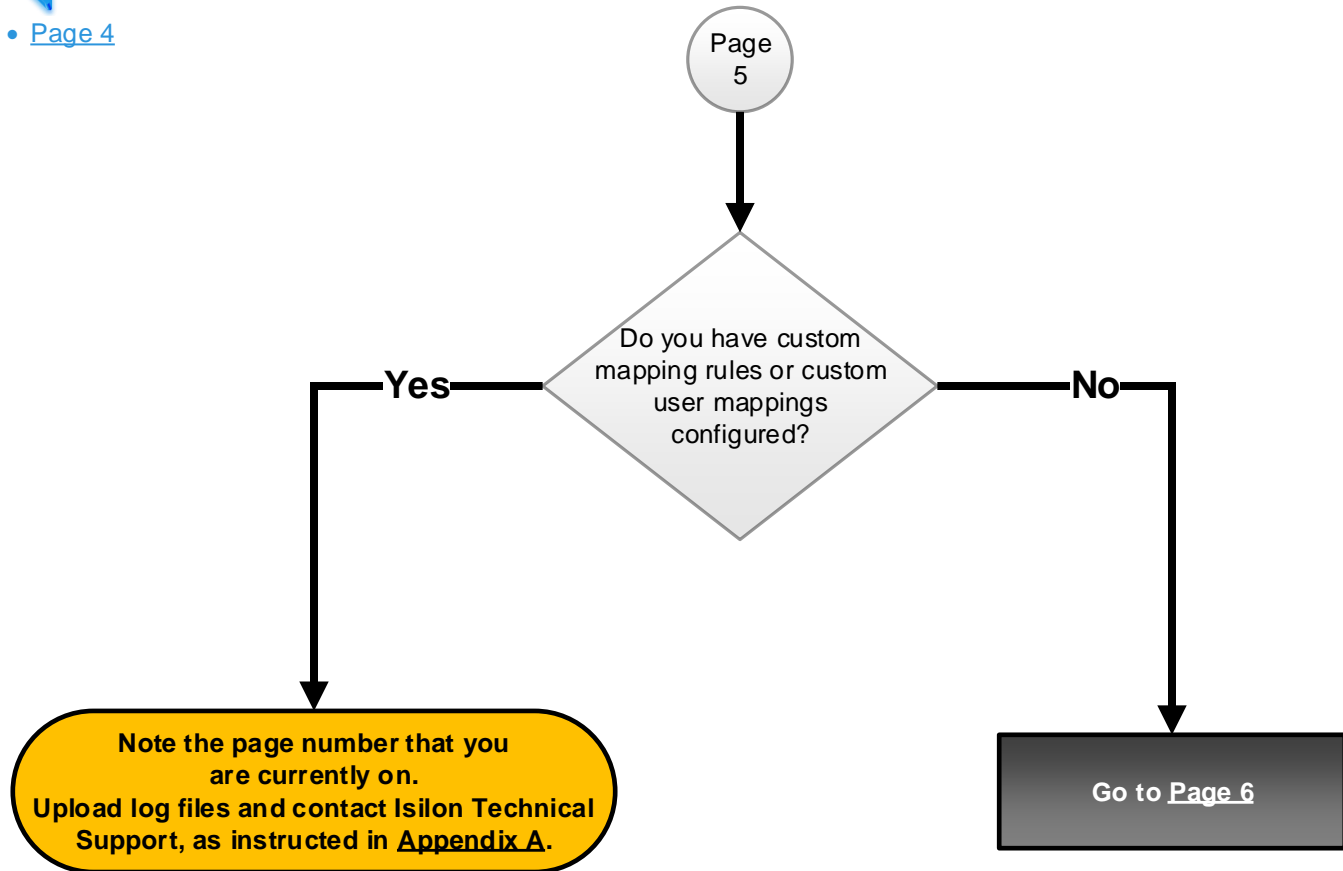


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Identity Mapping



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Gather the user's Windows identity token by running the following command, where:

- <zonename> is the name of the zone.
- <domain> is the name of the domain.
- <user> is the name of the user.

```
isi auth mapping token --zone=<zonename> --user="<domain>\<user>"
```

Clear the mapping cache on the cluster by running the following four commands in succession:

```
isi auth users flush  
isi auth groups flush  
isi auth mapping flush --all  
isi auth refresh
```

Gather the user's *NIX identity token by running the following command, where:

- <zonename> is the name of the zone.
- <user> is the name of the user.

```
isi auth mapping token --zone=<zonename> --user="<user>"
```

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Note

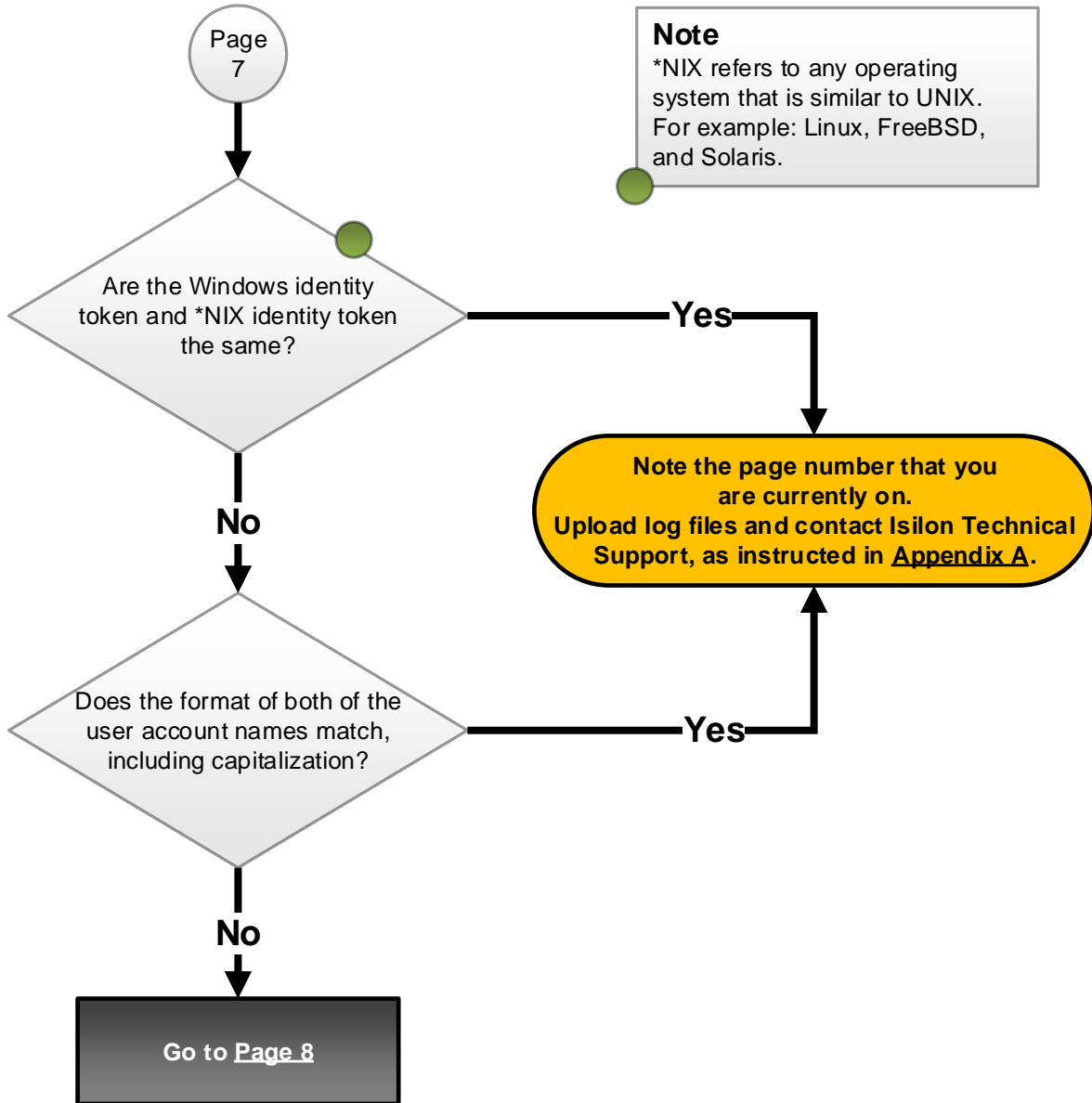
*NIX refers to any operating system that is similar to UNIX. For example: Linux, FreeBSD, and Solaris.

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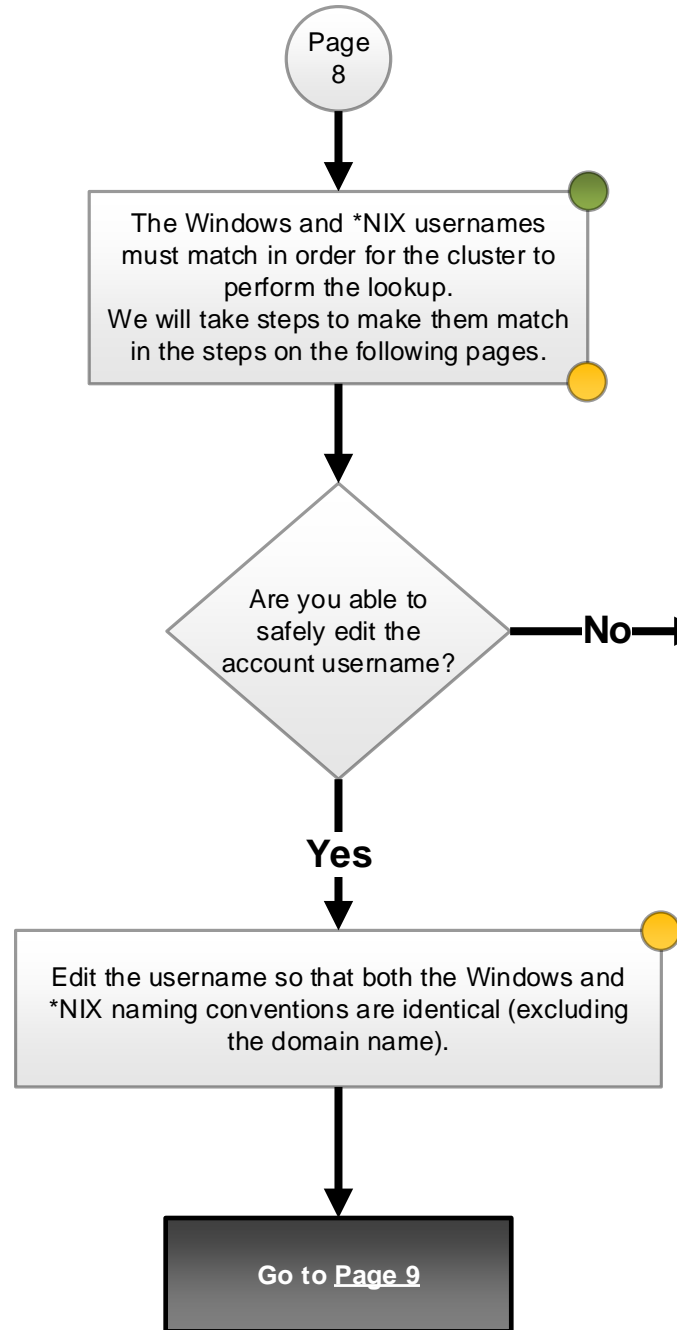


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Note

Key things to look for are: the user's real SID (full-size), the user's real UID, primary groups, and supplementary identities and groups.

Note

*NIX refers to any operating system that is similar to UNIX. For example: Linux, FreeBSD, and Solaris.

Further reading

For further information, please review the following documents:

[Identities, Access Tokens, and the Isilon OneFS User Mapping Service](#)

[EMC Isilon Multiprotocol Data Access with a Unified Security Model](#)

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Note

*NIX refers to any operating system that is similar to UNIX. For example: Linux, FreeBSD, and Solaris.

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Gather the user's *NIX identity token by running the following command, where:

- `<zonenumber>` is the name of the zone.
- `<user>` is the name of the user.

```
isi auth mapping token --zone=<zonenumber> --user="<user>"
```

Clear the mapping cache on the cluster by running the following four commands in succession:

```
isi auth users flush  
isi auth groups flush  
isi auth mapping flush --all  
isi auth refresh
```

Gather the user's Windows identity token by running the following command, where:

- `<zonenumber>` is the name of the zone.
- `<domain>` is the name of the domain.
- `<user>` is the name of the user.

```
isi auth mapping token --zone=<zonenumber> --user="<domain>\<user>"
```

Review the Windows identity token and ensure the two identities have been successfully merged.

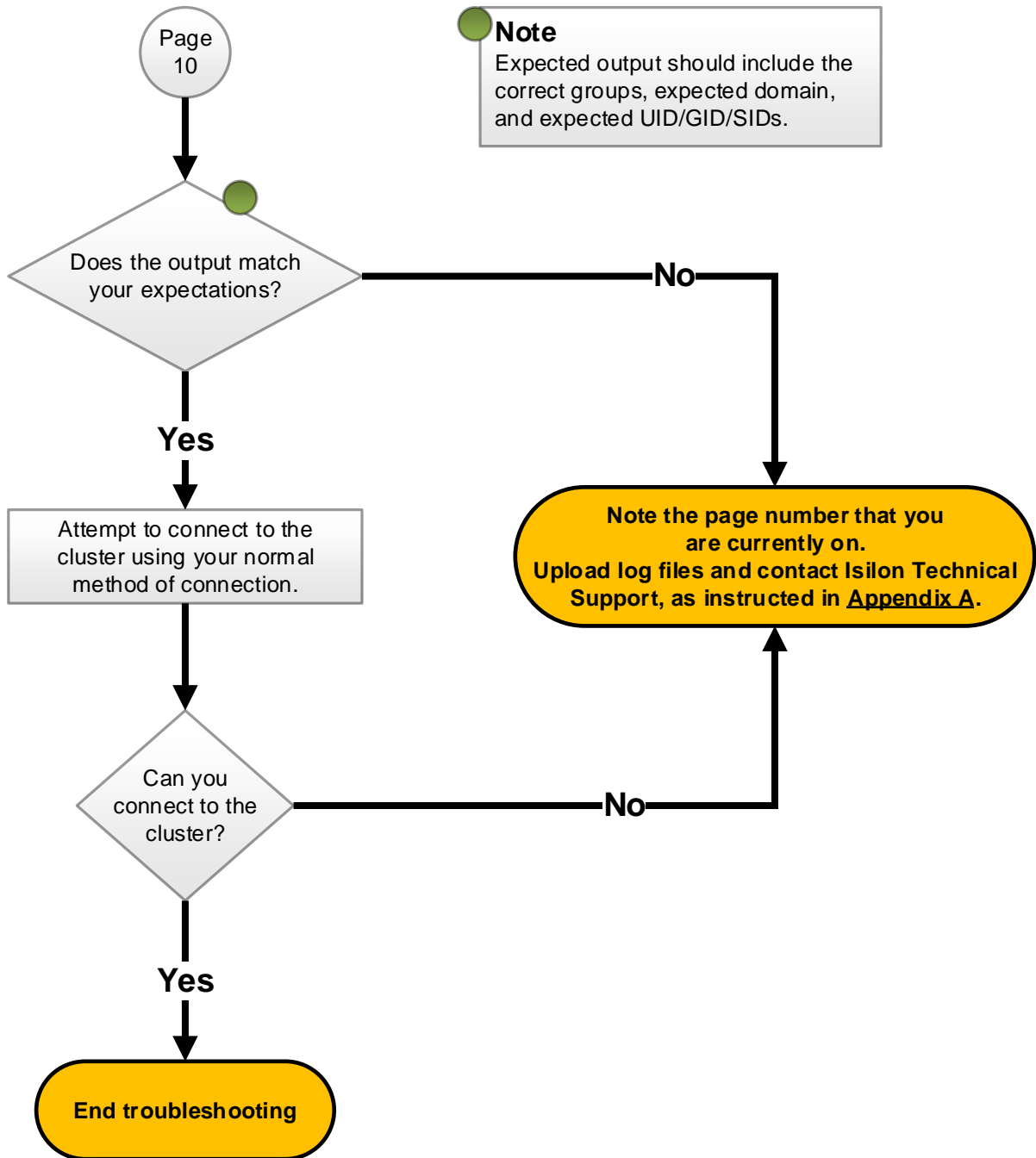
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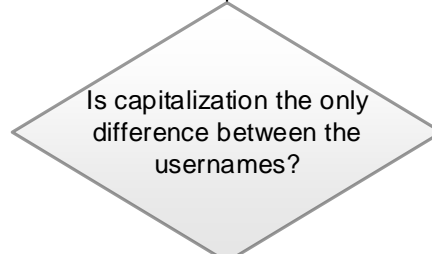
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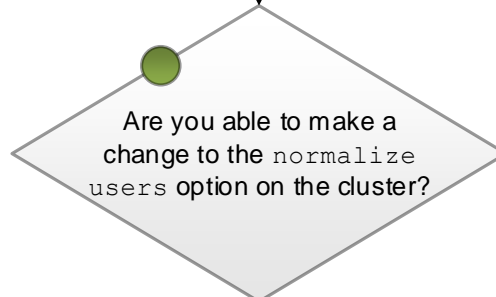
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No

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Yes



Yes

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No

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

Note

OneFS makes no distinction between uppercase and lowercase unless you turn off the option to normalize usernames.

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Enable `normalize users` by running the below command for the respective authentication providers. You will need to run this for any providers that are presenting mismatched user information.

If you are using an authentication provider other than LDAP, AD, or NIS, please contact Isilon Technical Support.

LDAP: `isi auth ldap modify <provider name> --normalize-users=yes`

Active Directory: `isi auth ads modify <provider name> --normalize-users=yes`

NIS: `isi auth nis modify <provider name> --normalize-users=yes`

Attempt to connect to the cluster using your normal method of connection.

Can you connect to the cluster?

Yes

End troubleshooting

No

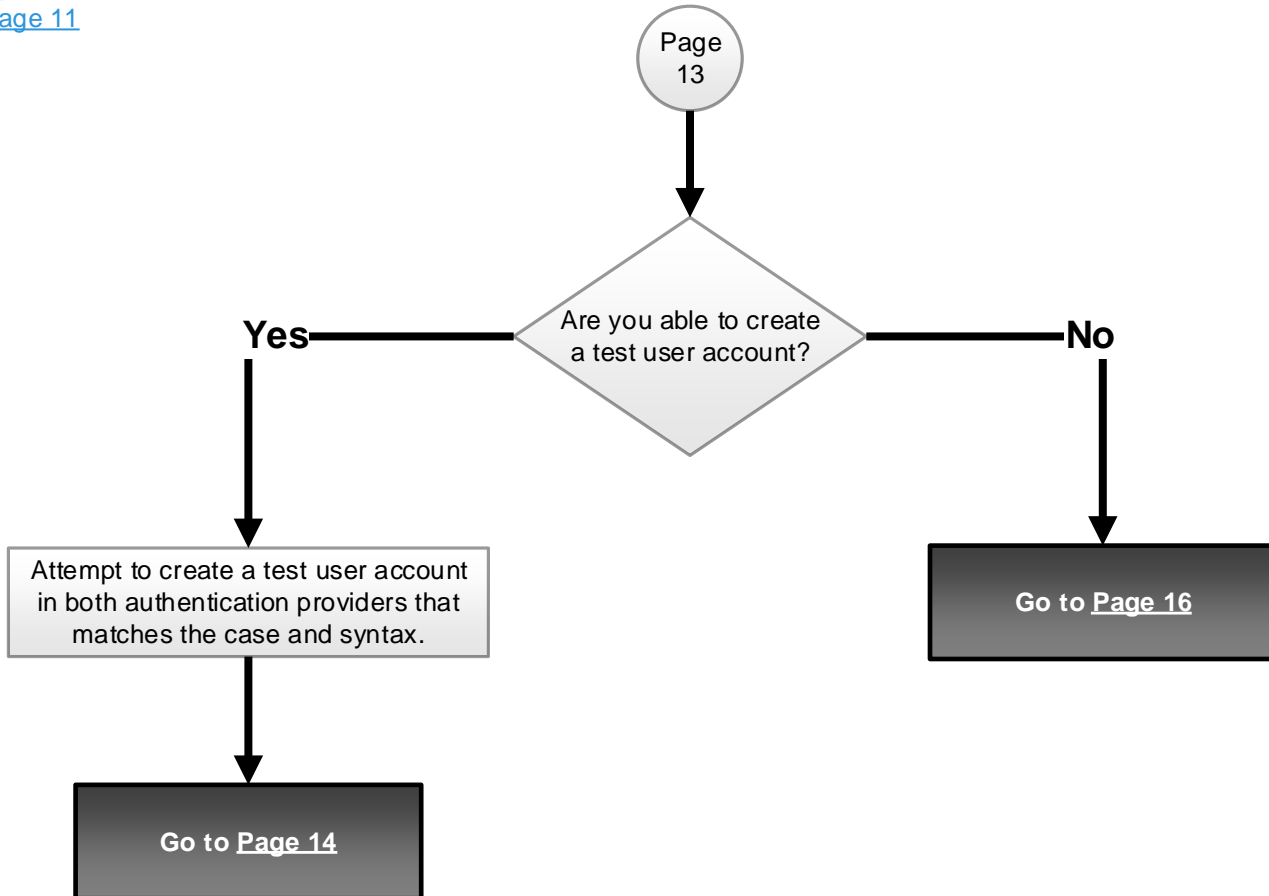
Note the page number that you are currently on.
Upload log files and contact Isilon Technical Support, as instructed in [Appendix A](#).

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Gather the user's Windows identity token by running the following command, where:

- `<zonenumber>` is the name of the zone.
- `<domain>` is the name of the domain.
- `<user>` is the name of the user.

```
isi auth mapping token --zone=<zonenumber> --user="<domain>\<user>"
```

Clear the mapping cache on the cluster by running the following four commands in succession:

```
isi auth users flush  
isi auth groups flush  
isi auth mapping flush --all  
isi auth refresh
```

Gather the user's *NIX identity token by running the following command, where:

- `<zonenumber>` is the name of the zone.
- `<user>` is the name of the user.

```
isi auth mapping token --zone=<zonenumber> --user="<user>"
```

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Note

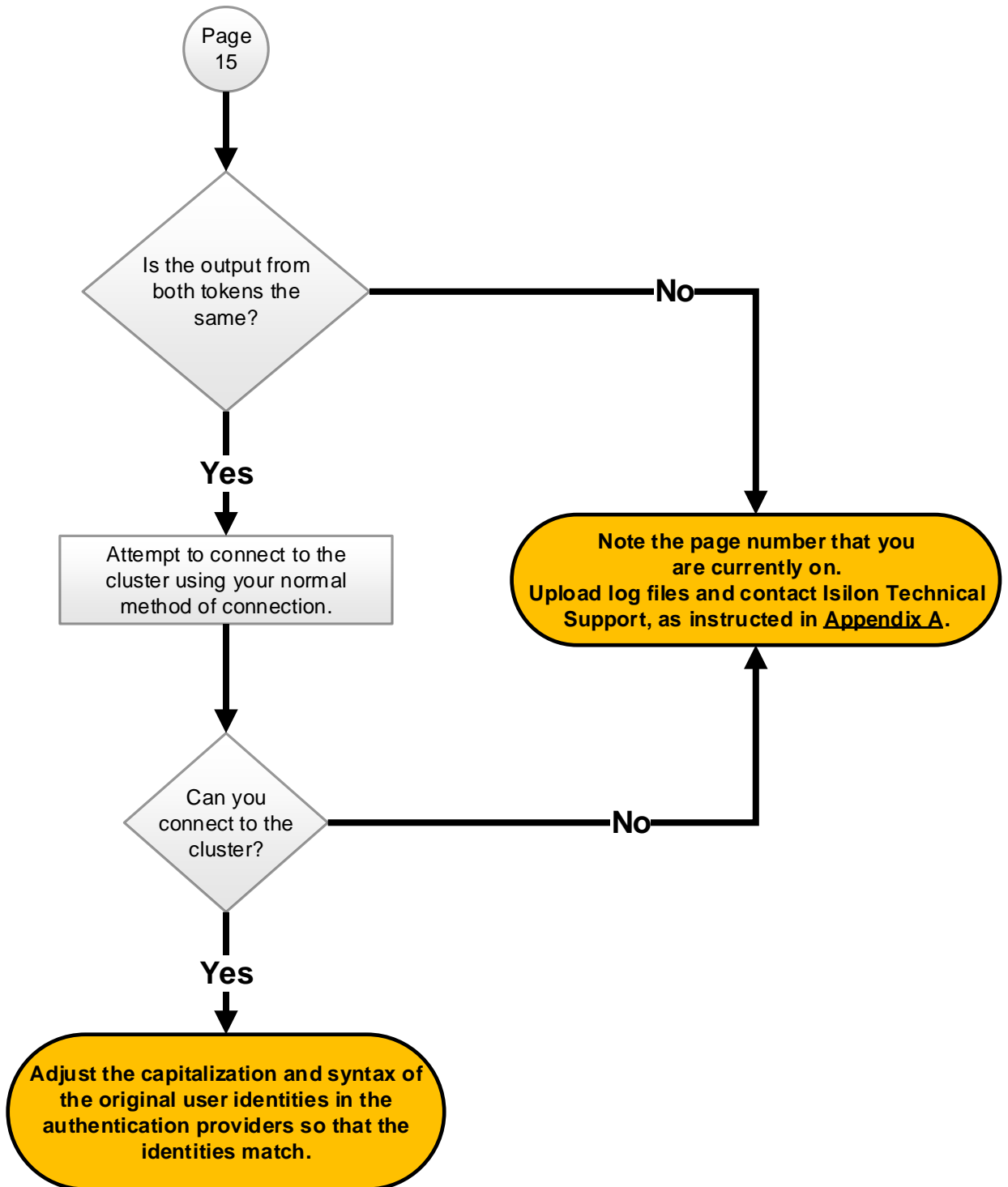
*NIX refers to any operating system that is similar to UNIX. For example: Linux, FreeBSD, and Solaris.

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Verify that `normalize users` is enabled for your authentication providers. Run the appropriate command for each authentication provider:

```
LDAP: isi auth ldap list -v |grep Normalize
```

```
Active Directory: isi auth ads list -v |grep Normalize
```

```
NIS: isi auth nis list -v |grep Normalize
```

See the example output at the bottom of this page.

Is `normalize users` enabled on the authentication provider where the case mismatch is?

Yes

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

No

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Example `isi auth <provider type> list -v | grep Normalize` output

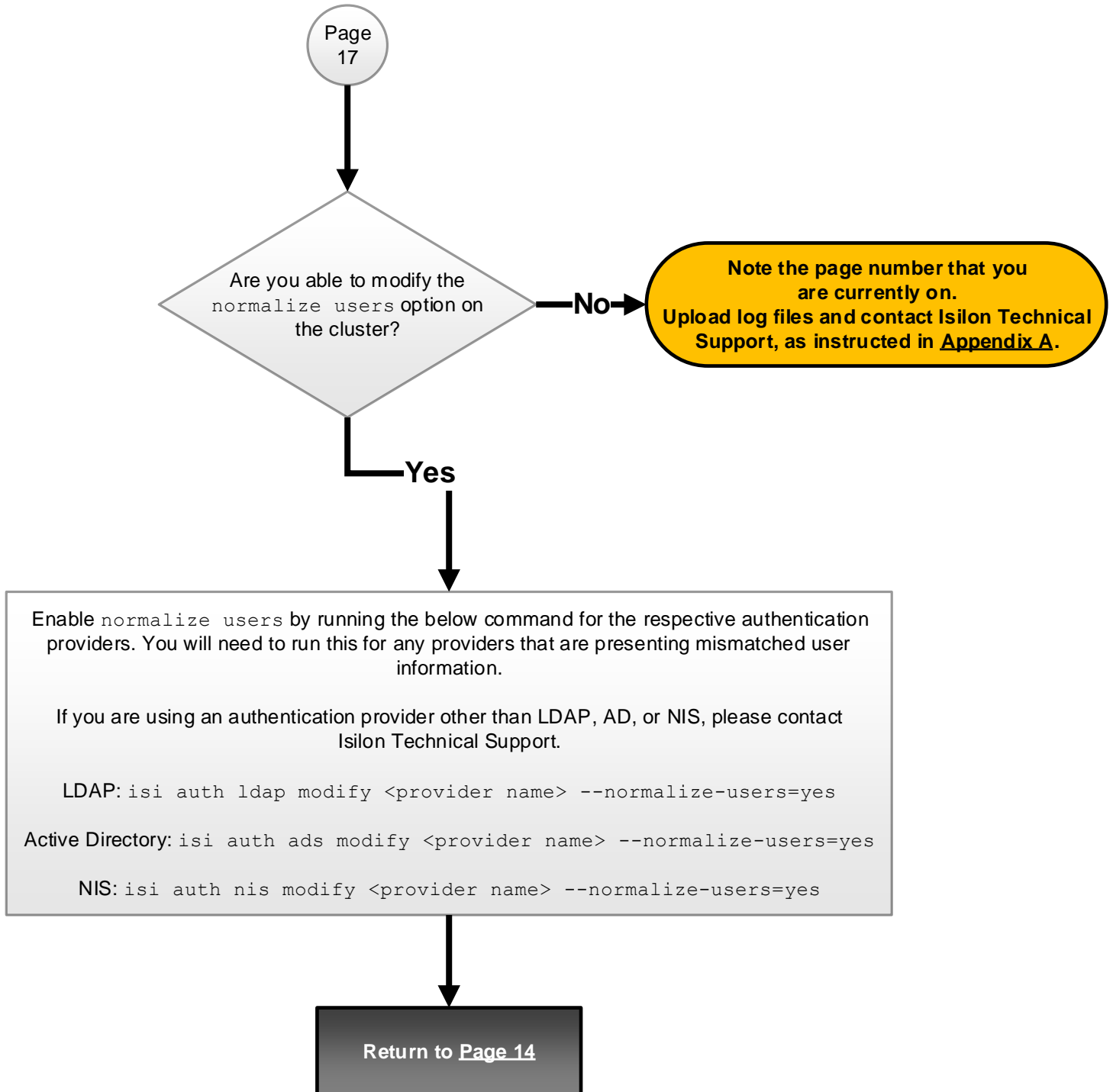
```
cluster-1# isi auth <provider type> list -v | grep Normalize
Lookup Normalize Users: Yes
Lookup Normalize Groups: Yes
```


Identity Mapping



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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 with. This information and the log file will help Isilon Technical Support staff resolve your case more quickly.

Upload node log files and the screen log file to EMC Isilon Technical Support

1. When troubleshooting is complete, type `exit` to end your screen session.
2. Gather and upload the node log set and include the SSH screen log file by using the command appropriate for your method of uploading files. If you are not sure which method to use, use FTP.

ESRS:

```
isi_gather_info --esrs --local-only -f /ifs/data/Isilon_Support/screenlog.0
```

FTP:

```
isi_gather_info --ftp --local-only -f /ifs/data/Isilon_Support/screenlog.0
```

HTTP:

```
isi_gather_info --http --local-only -f /ifs/data/Isilon_Support/screenlog.0
```

SMTP:

```
isi_gather_info --email --local-only -f /ifs/data/Isilon_Support/screenlog.0
```

SupportIQ:

Copy and paste the following command.

Note: When you copy and paste the command into the command-line interface, it will appear on multiple lines (exactly as it appears on the page), but when you press **Enter**, the command will run as it should.

```
isi_gather_info --local-only -f /ifs/data/Isilon_Support/screenlog.0 --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 on how to upload files over FTP.

Appendix B: How to use this flowchart

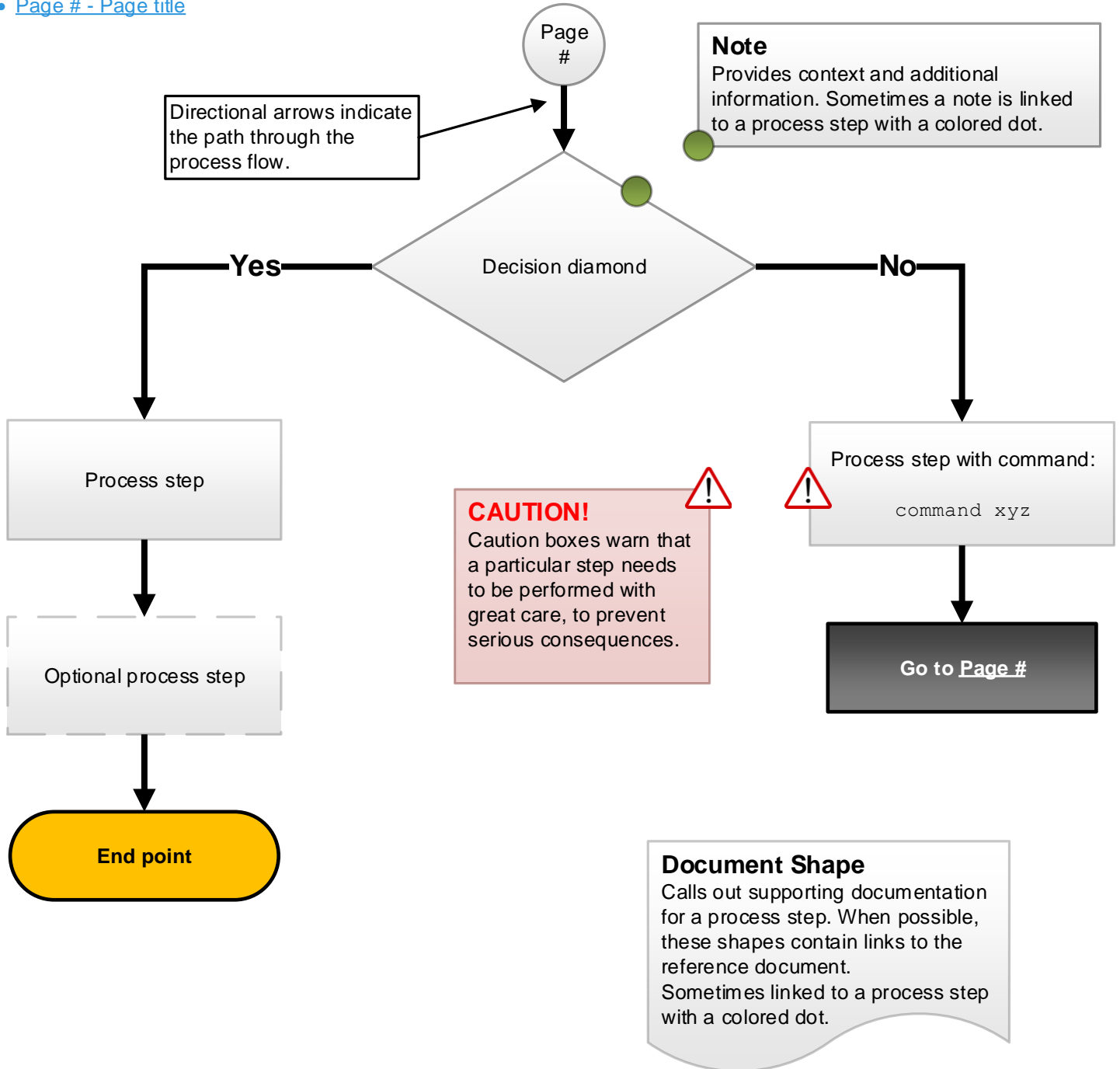
Introduction

Describes what the section helps you to accomplish.



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