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How to Validate AD Delegation is Ready for Failover

Technical Note

Abstract:

This technical note provides test methodologies to AD delegation is ready for failover under four scenarios:

- **PRIMARY Cluster SELF SPN Delegation**
- **PRIMARY Cluster CROSS SPN Delegation**
- **DR Cluster SELF SPN Delegation**
- **DR Cluster CROSS SPN Delegation**

Use this procedure to validate AD delegation is done correctly. A common mistake is the computer account delegation.

Understanding how failover works

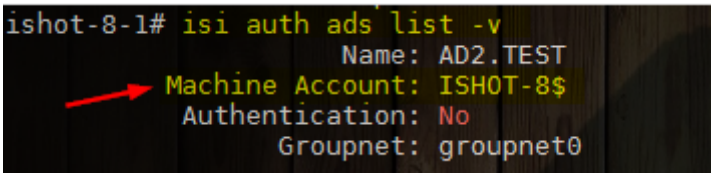
Failover process requires the target cluster to have AD permissions to manage SPN(s) on the source cluster AD machine account. The delegation guide sets this up for each cluster machine account to failover in either direction.
If not setup correctly the following issues are frequently seen:

- Ldap constraint violation
- Ldap permissions error

Locate AD PowerScale machine Account Name

Log into you cluster as ‘root’ and run the following CLI command to locate machine account name:

 # isi auth ads list -v



For OneFS 8.x

Section 1 - All Steps performed on PRIMARY CLUSTER [For OneFS 8.x.x.x]

1A - SELF test

- CREATE SPN for PRIMARY Cluster [oneFS 8.x]

  For this test, you will need 2 OneFS 8.x.x.x clusters connected to same AD.

  Step 1. Log in to your PRIMARY cluster using “eyeglass” user and issue the following command

  “**whoami**”

```
ishot-8-1% whoami
eyeglass
```

  Step 2. Add a SPN by using the following command

  “**sudo isi_classic auth ads spn add --machinecreds --spn=HOST/superna.test.spn --domain=xxx**”

```
ishot-8-1# sudo isi_classic auth ads spn add --machinecreds --spn=HOST/superna.test.spn --domain=ad2.test
Successfully added SPN(s).
```

  [--machinecred is needed to authenticate your cluster]
  [--domain= Enter your Domain name]

  Step 3. Check if SPN was created successfully.

  “**sudo isi_classic auth ads spn list --machinecreds --domain=xxx**”

```
ishot-8-1# sudo isi_classic auth ads spn list --machinecreds --domain=ad2.test
SPNs registered for ISHOT-8$:
        HOST/superna.test.spn
```

  [--machinecred is needed to authenticate your cluster]
  [--domain= Enter your Domain name]

- DELETE SPN for PRIMARY Cluster [oneFS 8.x]

  For this test, you will need OneFS 8.x.x.x clusters connected to same AD.

  Step 1. Log in to your PRIMARY cluster using “eyeglass” user and issue the following command

  “**whoami**”

```
ishot-8-1% whoami
eyeglass
```

  Step 2. Delete the SPN from the same cluster by issuing the following command

  “**sudo isi_classic auth ads spn delete --machinecreds --spn=HOST/superna.test.spn --domain=xxx**”

```
ishot-8-1# sudo isi_classic auth ads spn delete --machinecreds --spn=HOST/superna.test.spn --domain=ad2.test
Successfully deleted SPN(s).
```

  [--machinecred is needed to authenticate your cluster]
  [--domain= Enter your Domain name]

Step 3. Check if SPN was deleted successfully.

"**sudo isi_classic auth ads spn list --machinecreds --domain=xxx**"

```
ishot-8-1% sudo isi_classic auth ads spn list --machinecreds --domain=ad2.test
SPNs registered for ISHOT-8$:
```

[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

1B - CROSS test

- CREATE SPN for DR Cluster [oneFS 8.x]

For this test, you will need OneFS 8.x.x.x clusters connected to same AD.

Step 1. Log in to your PRIMARY cluster using "eyeglass" user and issue the following command

"**whoami**"

```
ishot-8-1% whoami
eyeglass
```

Step 2. Add SPN for DR cluster using PRIMARY cluster

"**sudo isi_classic auth ads spn add --machinecreds --account=xxx$ --spn=HOST/superna.test.spn --domain=xxx**"

```
ishot-8-1# sudo isi_classic auth ads spn add --machinecreds --account=ISCOLD-8$ --spn=HOST/superna.test.spn --domain=ad2.test
Successfully added SPN(s).
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Step 3. Check if SPN was created successfully

"**sudo isi_classic auth ads spn list --machinecreds --account=xxx$ --domain=xxx**"

```
ishot-8-1# sudo isi_classic auth ads spn list --machinecreds --account=ISCOLD-8$ --domain=ad2.test
SPNs registered for ISCOLD-8$:
        HOST/superna.test.spn
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

- DELETE SPN for DR Cluster [oneFS 8.x]

For this test, you will need OneFS 8.x.x.x clusters connected to same AD.

Step 1. Log in to your PRIMARY cluster using "eyeglass" user and issue the following command

"whoami"

```
ishot-8-1% whoami
eyeglass
```

Step 2. Delete SPN for DR cluster using PRIMARY cluster

"sudo isi_classic auth ads spn delete --machinecreds --account=xxx$ --spn=HOST/superna.test.spn --domain=xxx"

```
ishot-8-1# sudo isi_classic auth ads spn delete --machinecreds --account=ISCOLD-8$ --spn=HOST/superna.test.spn --domain=ad2.test
Successfully deleted SPN(s).
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Step 3. Check if SPN was deleted successfully

"sudo isi_classic auth ads spn list --machinecreds --account=xxx$ --domain=xxx"

```
ishot-8-1% sudo isi_classic auth ads spn list --machinecreds --account=ISCOLD-8$ --domain=ad2.test
SPNs registered for ISCOLD-8$:
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Section 2 - All Steps performed on DR CLUSTER [For OneFS 8.x.x.x]

1A - SELF test

- CREATE SPN for DR Cluster [oneFS 8.x]

For this test, you will need OneFS 8.x.x.x clusters connected to same AD.

Step 1. Log in to your DR cluster using "eyeglass" user and issue the following command

"whoami"

```
ishot-8-1% whoami
eyeglass
```

Step 2. Add a SPN by using the following command

"sudo isi_classic auth ads spn add --machinecreds --spn=HOST/superna.test.spn.domain.com --domain=xxx"

```
ishot-8-1% sudo isi_classic auth ads spn add --machinecreds --spn=HOST/superna.test.spn.domain.com --domain=ad2.test
Successfully added SPN(s).
```

[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Step 3. Check if SPN was created successfully.

"sudo isi_classic auth ads spn list --machinecreds --domain=xxx"

```
ishot-8-1% sudo isi_classic auth ads spn list --machinecreds --domain=ad2.test
SPNs registered for ISHOT-8$:
        HOST/superna.test.spn.domain.com
```

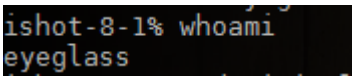
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

- DELETE SPN for DR Cluster [oneFS 8.x]

For this test, you will need OneFS 8.x.x.x clusters connected to same AD.

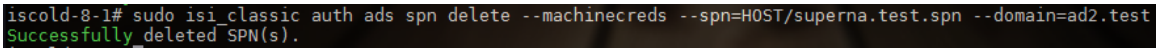
Step 1. Log in to your DR cluster using “eyeglass” user and issue the following command

“**whoami**”



Step 2. Delete the SPN from the same cluster by issuing the following command

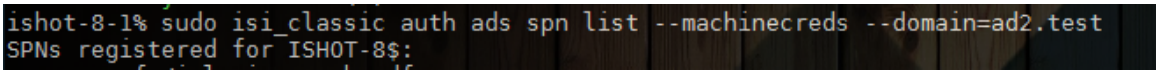
“**sudo isi_classic auth ads spn delete --machinecreds --spn=HOST/superna.test.spn --domain=xxx**”



[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Step 3. Check if SPN was deleted successfully.

“**sudo isi_classic auth ads spn list --machinecreds --domain=xxx**”



[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

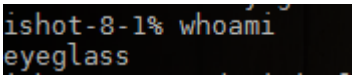
1B - CROSS test

- CREATE SPN for PRIMARY Cluster [oneFS 8.x]

For this test, you will need OneFS 8.x.x.x clusters connected to same AD.

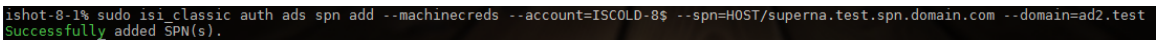
Step 1. Log in to your DR cluster using “eyeglass” user and issue the following command

“**whoami**”



Step 2. Add SPN for PRIMARY cluster using DR cluster

“**sudo isi_classic auth ads spn add --machinecreds --account=xxx$ --spn=HOST/superna.test.spn --domain=xxx**”



[--account= is the AD computer machine name that we are deleting SPN from. “$” sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Step 3. Check if SPN was created successfully

"**sudo isi_classic auth ads spn list --machinecreds --account=xxx$ --domain=xxx**"

```
ishot-8-1% sudo isi_classic auth ads spn list --machinecreds --account=ISCOLD-8$ --domain=ad2.test
SPNs registered for ISCOLD-8$:
       HOST/superna.test.spn.domain.com
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

- DELETE SPN for PRIMARY Cluster [oneFS 8.x]

For this test, you will need OneFS 8.x.x.x clusters connected to same AD.

Step 1. Log in to your DR cluster using "eyeglass" user and issue the following command

"**whoami**"

```
ishot-8-1% whoami
eyeglass
```

Step 2. Delete SPN for PRIMARY cluster using DR cluster

"**sudo isi_classic auth ads spn delete --machinecreds --account=xxx$ --spn=HOST/superna.test.spn.domain.com --domain=xxx**"

```
ishot-8-1% sudo isi_classic auth ads spn delete --machinecreds --account=ISCOLD-8$ --spn=HOST/superna.test.spn.domain.com --domain=ad2.test
Successfully deleted SPN(s).
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Step 3. Check if SPN was deleted successfully

"**sudo isi_classic auth ads spn list --machinecreds --account=xxx$ --domain=xxx**"

```
ishot-8-1% sudo isi_classic auth ads spn list --machinecreds --account=ISCOLD-8$ --domain=ad2.test
SPNs registered for ISCOLD-8$:
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

For OneFS 7.x

Section 1 - All Steps performed on PRIMARY CLUSTER [For OneFS 7.x.x.x]

1A - SELF test

- CREATE SPN for PRIMARY Cluster [oneFS 7.x]

For this test, you will need OneFS 7.x.x.x clusters connected to same AD.

Step 1. Log in to your PRIMARY cluster using “eyeglass” user and issue the following command

“**whoami**”

```
IsiSrc-AG2-1% whoami
eyeglass
```

Step 2. Add a SPN by using the following command

“**sudo isi auth ads spn add --machinecreds --spn=HOST/superna.test.spn.domain.com --domain=xxx**”

```
IsiSrc-AG2-1% sudo isi auth ads spn add --machinecreds --spn=HOST/superna.test.spn.domain.com --domain=ad1.test
Successfully added SPN(s).
```

[--machinecred is needed to authenticate your cluster]

[--domain= Enter your Domain name]

Step 3. Check if SPN was created successfully.

“**sudo isi auth ads spn list --machinecreds --domain=xxx**”

```
IsiSrc-AG2-1% sudo isi auth ads spn list --machinecreds --domain=ad1.test
SPNs registered for ISISRC-AG2$:
        HOST/superna.test.spn.domain.com
        HOST/isisrc-ag2
        HOST/isisrc-ag2.ad1.test
```

[--machinecred is needed to authenticate your cluster]

[--domain= Enter your Domain name]

- DELETE SPN for PRIMARY Cluster [oneFS 7.x]

For this test, you will need OneFS 7.x.x.x clusters connected to same AD.

Step 1. Log in to your PRIMARY cluster using “eyeglass” user and issue the following command

“**whoami**”

```
IsiSrc-AG2-1% whoami
eyeglass
```

Step 2. Delete the SPN from the same cluster by issuing the following command

“**sudo isi auth ads spn delete --machinecreds --spn=HOST/superna.test.spn.domain.com --domain=xxx**”

```
IsiSrc-AG2-1% sudo isi auth ads spn delete --machinecreds --spn=HOST/superna.test.spn.domain.com --domain=ad1.test
Successfully deleted SPN(s).
```

[--machinecred is needed to authenticate your cluster]

[--domain= Enter your Domain name]

Step 3. Check if SPN was deleted successfully.

“**sudo isi auth ads spn list --machinecreds --domain=xxx**”

```
IsiSrc-AG2-1% sudo isi auth ads spn list --machinecreds --domain=ad1.test
SPNs registered for ISISRC-AG2$:
        HOST/isisrc-ag2
        HOST/isisrc-ag2.ad1.test
```

[--machinecred is needed to authenticate your cluster]

[--domain= Enter your Domain name]

1B - CROSS test

- CREATE SPN for DR Cluster [oneFS 7.x]

For this test, you will need OneFS 7.x.x.x clusters connected to same AD.

Step 1. Log in to your PRIMARY cluster using “eyeglass” user and issue the following command

“**whoami**”

```
IsiSrc-AG2-1% whoami
eyeglass
```

Step 2. Create the SPN from PRIMARY for DR cluster by issuing the following command

“**sudo isi auth ads spn create --machinecreds --account=xxx$ --spn=HOST/superna.test.spn.domain.com --domain=xxx**”

```
IsiSrc-AG2-1% sudo isi auth ads spn create --machinecreds --account=ISITGT-AG2$ --spn=HOST/superna.test.spn.domain.com --domain=ad1.test
Successfully added SPN(s).
```

[--account= is the AD computer machine name that we are deleting SPN from. “$” sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Step 3. Check if SPN was created successfully.

“**sudo isi auth ads spn list --machinecreds --account=xxx$ --domain=xxx**”

```
IsiSrc-AG2-1% sudo isi auth ads spn list --machinecreds --account=ISITGT-AG2$ --domain=ad1.test
SPNs registered for ISITGT-AG2$:
        HOST/superna.test.spn.domain.com
```

[--account= is the AD computer machine name that we are deleting SPN from. “$” sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

- DELETE SPN for DR Cluster [oneFS 7.x]

For this test, you will need OneFS 7.x.x.x clusters connected to same AD.

Step 1. Log in to your PRIMARY cluster using “eyeglass” user and issue the following command

“**whoami**”

```
IsiSrc-AG2-1% whoami
eyeglass
```

Step 2. Delete the SPN from PRIMARY cluster for DR cluster by issuing the following command

“**sudo isi auth ads spn delete --machinecreds --account=xxx$ --spn=HOST/superna.test.spn.domain.com --domain=xxx**”

```
IsiSrc-AG2-1% sudo isi auth ads spn delete --machinecreds --account=ISITGT-AG2$ --spn=HOST/superna.test.spn.domain.com --domain=ad1.test
Successfully deleted SPN(s).
```

[--account= is the AD computer machine name that we are deleting SPN from. “$” sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]

[--domain= Enter your Domain name]

Step 3. Check if SPN was deleted successfully.

"**sudo isi auth ads spn list --machinecreds --account=xxx$ --domain=xxx**"

```
IsiSrc-AG2-1% sudo isi auth ads spn list --machinecreds --account=ISITGT-AG2$ --domain=ad1.test
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Section 2 - All Steps performed on DR CLUSTER [For OneFS 7.x.x.x]

1A - SELF test

- CREATE SPN for DR Cluster [oneFS 7.x]

For this test, you will need OneFS 7.x.x.x clusters connected to same AD.

Step 1. Log in to your DR cluster using "eyeglass" user and issue the following command

"**whoami**"

```
IsiSrc-AG2-1% whoami
eyeglass
```

Step 2. Add a SPN by using the following command

"**sudo isi auth ads spn add --machinecreds --spn=HOST/superna.test.spn.domain.com --domain=xxx**"

```
IsiSrc-AG2-1% sudo isi auth ads spn add --machinecreds --spn=HOST/superna.test.spn.domain.com --domain=ad1.test
Successfully added SPN(s).
```

[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Step 3. Check if SPN was created successfully.

"**sudo isi auth ads spn list --machinecreds --domain=xxx**"

```
IsiSrc-AG2-1% sudo isi auth ads spn list --machinecreds --domain=ad1.test
SPNs registered for ISISRC-AG2$:
        HOST/superna.test.spn.domain.com
        HOST/isisrc-ag2
        HOST/isisrc-ag2.ad1.test
```

[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

- DELETE SPN for DR Cluster [oneFS 7.x]

For this test, you will need OneFS 7.x.x.x clusters connected to same AD.

Step 1. Log in to your DR cluster using "eyeglass" user and issue the following command

"whoami"

```
IsiSrc-AG2-1% whoami
eyeglass
```

Step 2. Delete the SPN from the same cluster by issuing the following command

"**sudo isi auth ads spn delete --machinecreds --spn=HOST/superna.test.spn.domain.com --domain=xxx**"

```
IsiSrc-AG2-1% sudo isi auth ads spn delete --machinecreds --spn=HOST/superna.test.spn.domain.com --domain=ad1.test
Successfully deleted SPN(s).
```

[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Step 3. Check if SPN was deleted successfully.

"**sudo isi auth ads spn list --machinecreds --domain=xxx**"

```
IsiSrc-AG2-1% sudo isi auth ads spn list --machinecreds --domain=ad1.test
SPNs registered for ISISRC-AG2$:
        HOST/isisrc-ag2
        HOST/isisrc-ag2.ad1.test
```

[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

1B - CROSS test

- CREATE SPN for PRIMARY Cluster [oneFS 7.x]

For this test, you will need OneFS 7.x.x.x clusters connected to same AD.

Step 1. Log in to your DR cluster using "eyeglass" user and issue the following command

"**whoami**"

```
IsiSrc-AG2-1% whoami
eyeglass
```

Step 2. Create the SPN from DR cluster for PRIMARY cluster by issuing the following command

"**sudo isi auth ads spn create --machinecreds --account=xxx$ --spn=HOST/superna.test.spn.domain.com --domain=xxx**"

```
IsiSrc-AG2-1% sudo isi auth ads spn create --machinecreds --account=ISITGT-AG2$ --spn=HOST/superna.test.spn.domain.com --domain=ad1.test
Successfully added SPN(s).
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

Step 3. Check if SPN was created successfully.

"**sudo isi auth ads spn list --machinecreds --account=xxx$ --domain=xxx**"

```
IsiSrc-AG2-1% sudo isi auth ads spn list --machinecreds --account=ISITGT-AG2$ --domain=ad1.test
SPNs registered for ISITGT-AG2$:
        HOST/superna.test.spn.domain.com
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]

[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

- DELETE SPN for PRIMARY Cluster [oneFS 7.x]

  For this test, you will need OneFS 7.x.x.x clusters connected to same AD.

  Step 1. Log in to your DR cluster using "eyeglass" user and issue the following command

  "**whoami**"

```
IsiSrc-AG2-1% whoami
eyeglass
```

  Step 2. Delete the SPN from DR cluster for PRIMARY cluster by issuing the following command

  "**sudo isi auth ads spn delete --machinecreds --account=xxx$ --spn=HOST/superna.test.spn.domain.com --domain=xxx**"

```
IsiSrc-AG2-1% sudo isi auth ads spn delete --machinecreds --account=ISITGT-AG2$ --spn=HOST/superna.test.spn.domain.com --domain=ad1.test
Successfully deleted SPN(s).
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

  Step 3. Check if SPN was deleted successfully.

  "**sudo isi auth ads spn list --machinecreds --account=xxx$ --domain=xxx**"

```
IsiSrc-AG2-1% sudo isi auth ads spn list --machinecreds --account=ISITGT-AG2$ --domain=ad1.test
```

[--account= is the AD computer machine name that we are deleting SPN from. "$" sign is needed after the AD computer name.]
[--machinecred is needed to authenticate your cluster]
[--domain= Enter your Domain name]

2. How To Healthcheck Eyeglass with 3rd party monitoring tools

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- Abstract:

How To Healthcheck Eyeglass with 3rd party monitoring tools

Technical Note

Abstract:

This technical note details how to setup healthcheck script for use with 3rd party monitoring applications to detect if Eyeglass process are operating normally

Overview

This solution can be used with 3rd party monitoring applications to detect if Eyeglass process are operating normally.
The key processes that should be monitored as running are

- Sca
- Scadb
- sera
- lighttpd
- apache
- iglsauth.service
- iglsservicebroker.service

Monitor these process with 3rd party monitoring tools.

The rest api can also be used to remotely collect alarms from Eyeglass, see the guide on how to retrieve alarms with an api token and curl builder tools. API Guide is here.