

Advanced eDirectory Troubleshooting in Linux Lab

NIQ13

Novell Training Services

www.novell.com

ATT LIVE 2012 LAS VEGAS

Novell®

Legal Notices

Novell, Inc. makes no representations or warranties with respect to the contents or use of this documentation, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc. reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Novell, Inc. makes no representations or warranties with respect to any software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc. reserves the right to make changes to any and all parts of Novell software, at any time, without any obligation to notify any person or entity of such changes.

Any products or technical information provided under this Agreement may be subject to U.S. export controls and the trade laws of other countries. You agree to comply with all export control regulations and to obtain any required licenses or classification to export, re-export or import deliverables. You agree not to export or re-export to entities on the current U.S. export exclusion lists or to any embargoed or terrorist countries as specified in the U.S. export laws. You agree to not use deliverables for prohibited nuclear, missile, or chemical biological weaponry end uses. See the [Novell International Trade Services Web page \(http://www.novell.com/info/exports/\)](http://www.novell.com/info/exports/) for more information on exporting Novell software. Novell assumes no responsibility for your failure to obtain any necessary export approvals.

Copyright © 2012 Novell, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of the publisher.

Novell, Inc. has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed on the [Novell Legal Patents Web page \(http://www.novell.com/company/legal/patents/\)](http://www.novell.com/company/legal/patents/) and one or more additional patents or pending patent applications in the U.S. and in other countries.

Novell, Inc.
404 Wyman Street, Suite 500
Waltham, MA 02451
U.S.A.
www.novell.com

Online Documentation: To access the latest online documentation for this and other Novell products, see the [Novell Documentation Web page \(http://www.novell.com/documentation\)](http://www.novell.com/documentation/).

Novell Trademarks

For Novell trademarks, see the [Novell Trademark and Service Mark list \(http://www.novell.com/company/legal/trademarks/tmlist.html\)](http://www.novell.com/company/legal/trademarks/tmlist.html).

Third-Party Materials

All third-party trademarks are the property of their respective owners.

SECTION 1 **The Lab Challenges**

This chapter lists the challenges available for the ATT Live version of eDirectory Troubleshooting. They are designed more-or-less from the easiest (Challenge 1) to the most difficult (Challenge 6), however due to individual talents, some may seem easier than others. Each challenge will have a trouble-ticket (challenge) you receive from the help desk or an Exercise title indicating the problem. Your job is to find and repair the problem.

Exercise 1-1 Challenge 1

This simple challenge allows you to become more familiar with the tools available and learn the structure of the Troubleshooting environment (IDM tree). It also helps to reinforce the need for constant dib-sets between namespace instances (replicas of partitions).

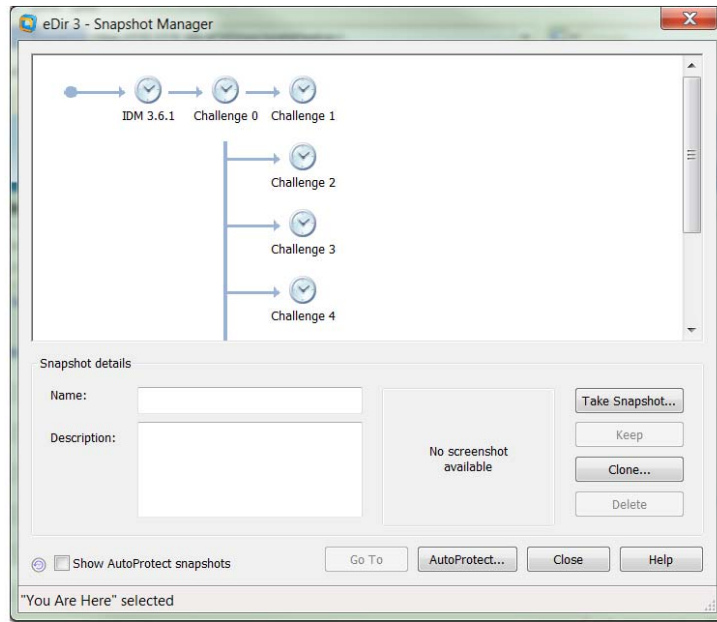
Starting the Challenge

Click the **Manage Snapshots** tool and select **Challenge 1**, then click on **Go To** at the bottom of the Window.

Figure 1-1 Snapshot Manager tool icon found at the top of your screen.



Figure 1-2 Snapshot Manager



Each of the Challenges begin with a help desk note. This note describes a problem that you must solve. In some cases a fix may be obvious, based on the information given but in other cases you will need to investigate. Don't be surprised if you find problems not stated in the help desk note. We are trying to simulate real-world conditions with problems caused by real-world people who don't always reveal all the facts.

IMPORTANT: Due to the conditions of each server when the dib-sets initialize, the caching in VMWare, and the phase of the moon (okay, we're kidding about the last one), your solution may need to be altered from the one described below. The solution given is based on the state most often experienced after booting.

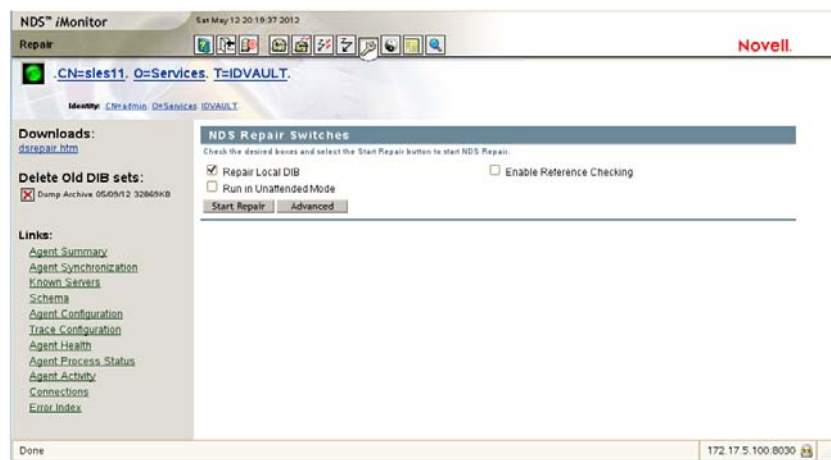
The Help Desk Ticket Alison Blake (`ablake`) is experiencing sporadic login problems—Alison is located in the `.active.users.vault` container.

The Solution

1. Launch iMonitor and find the object named `ablake`.
2. Make sure the object is consistent across all replicas.

In many cases like this—for one reason or another—objects become unknown, preventing them from functioning as intended.

3. Use the Search tool (the spyglass on the menu bar) in iMonitor to search for unknowns. Do this on all servers. If this doesn't reveal anything next do a local NDSREPAIR on each server. Better to do it in iMonitor



4. Notice that there were results in all three logs indicating something concerning ABLAKE. Two servers have turned her object into an unknown object while another server only repaired a timestamp modification.

Check Alison's object on this server - it is whole but the others are unknown objects.

```

Repairing objects in a replica
Start: Saturday, May 12, 2012 13:13:40 Local Time

Total objects in partition - T=IDVAULT : 785
ERROR: Mandatory attribute not present, ID: 00000131, "Surname"
'classList' field changed from ID: 000001b3, "User" to ID: 000001c2, "Unknown"
ERROR: Adding property 'Object Class' value: Unknown
ERROR: Deleted illegal 'Object Class' property value: User
ERROR: Deleted illegal 'Object Class' property value: Organizational Person
ERROR: Deleted illegal 'Object Class' property value: Person
ERROR: Deleted illegal 'Object Class' property value: ndsLoginProperties
Object ID: 000080d2, DN: CN=ablake.OU=Active.OU=Users.O=Vault.T=IDVAULT
Repairing objects - done(785)

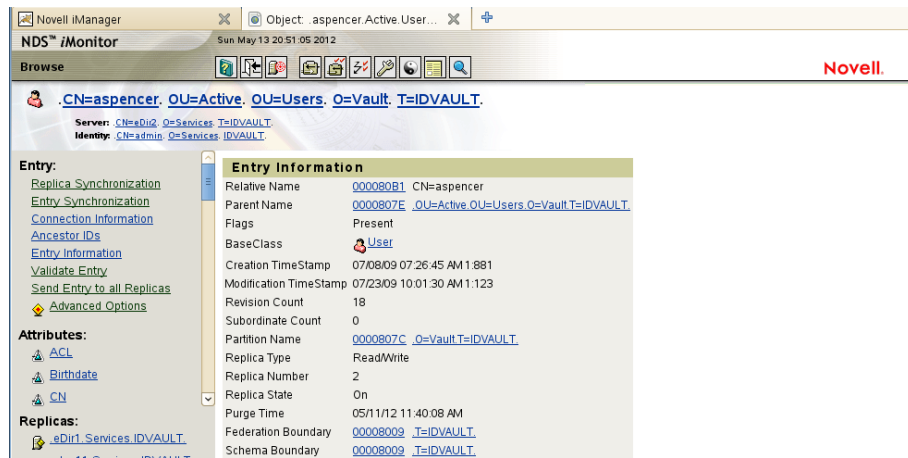
Total Objects = 785, UNKNOWN class objects = 0, Total Values = 15597

Total objects in partition - CN=DriverSet.O=Services.T=IDVAULT : 444

Repairing objects - done(444)
    
```

- On the server containing the good copy of object, send the entry to every replica in the ring.

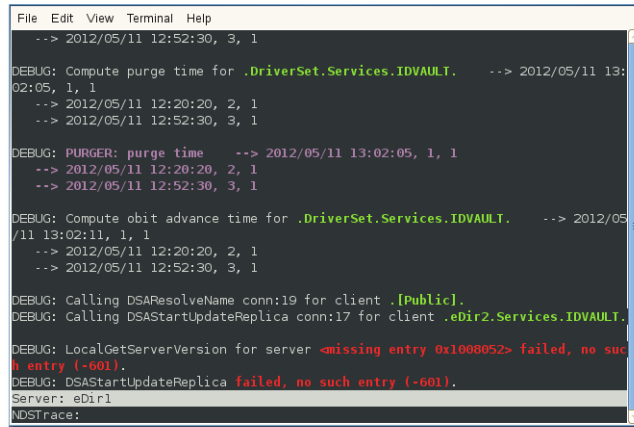
Figure 1-3 The Entry menu contains *Send Entry to all Replicas*.



- Compare the object on all three servers now. Amazing!
(End of Exercise)

Exercise 1-2 -601 on ReplicaUpdate

The Help Desk Ticket A junior technician is reporting a replica problem with



```
File Edit View Terminal Help
--> 2012/05/11 12:52:30, 3, 1

DEBUG: Compute purge time for .DriverSet.Services.IDVAULT. --> 2012/05/11 13:02:05, 1, 1
--> 2012/05/11 12:20:20, 2, 1
--> 2012/05/11 12:52:30, 3, 1

DEBUG: PURGER: purge time --> 2012/05/11 13:02:05, 1, 1
--> 2012/05/11 12:20:20, 2, 1
--> 2012/05/11 12:52:30, 3, 1

DEBUG: Compute obit advance time for .DriverSet.Services.IDVAULT. --> 2012/05/11 13:02:11, 1, 1
--> 2012/05/11 12:20:20, 2, 1
--> 2012/05/11 12:52:30, 3, 1

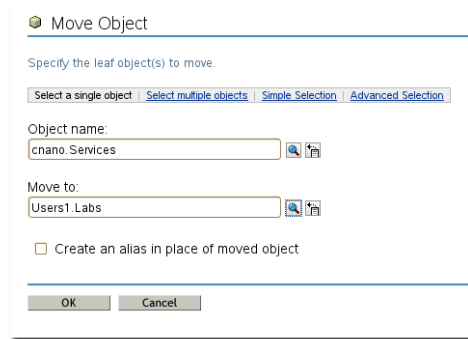
DEBUG: Calling DSAResolveName conn:19 for client .[Public].
DEBUG: Calling DSASStartUpdateReplica conn:17 for client .eDir2.Services.IDVAULT.

DEBUG: LocalGetServerVersion for server <missing entry 0x1008052> failed, no such entry (-601).
DEBUG: DSASStartUpdateReplica failed, no such entry (-601).
Server: eDir1
NDSTrace:
```

(End of Exercise)

Exercise 1-3 Moving Chuck Nano

The objective of this lab is for you to successfully move cnano from **Services** to **User1.Labs**.



(End of Exercise)

Exercise 1-4 Partitioning o=Labs,ou=Users1

Your job is to partition Users1, under Labs.

(End of Exercise)

Exercise 1-5 -672 Errors
(End of Exercise)

Exercise 1-6 Obituary Problems

(End of Exercise)

