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TREE1

Admin.OEScorp

password

DNS domain: oescorp.local

NW6.5sp7	10.0.0.10/8	SRV1.SRV1.Resources.OEScorp
OES2_sles10sp2	10.0.0.11/8	SRV2.SRV2.Resources.OEScorp
Windows Server 2003	10.0.0.12/8	SRV3.SRV3.Resources.OEScorp

dibset 0 is the dibset with 3 servers and a healthy, partitioned eDirectory tree

dibset 99 is the temporary dibset with 4 servers and a healthy, partitioned eDirectory tree, to start creating the dib sets (only useful when server 4 is also up)

Scenario 1

Missing Master replica for partition Phoenix

Added server SRV4 to the tree, placed a Master replica for partition Phoenix on that server and removed the server from the tree (through iMonitor Advanced), which effectively also removes it from the replica ring for partition Phoenix.

This scenario is also useful to have obituaries created because the Master replica is missing. Deleting users from the affected Phoenix partition or renaming them causes obituaries to be created that stall. (They still stay in flag 0 because the process never starts)

Also nice to demonstrate that moving a user when the Master replica is missing is not possible.

Instructor note: First exercise with this scenario is to show that there are no replication errors when the master replica is missing. Synchronization works. The problem shows up in iMonitor when checking the agent health, also when running a health check from the server reports with the health agent sub-report enabled.

The second part of the exercise is the obituary part.

Solution: Use DSREPAIR in advanced mode on one of the servers to set one of them as the new master for partition Phoenix.

Scenario 2

A server is not removed from the tree correctly and contained R/W and M replicas

Added server SRV4 to the tree and placed several Master and Read/Write replicas on it. Turned the server off and made a copy of the eDir scenario.

Instructor note: show that there will be synchronization errors, changes stay in the change cache and all sorts of operations will not be possible. But regular user operation on the existing three servers still works (login, create and modify objects)

Solution: remove SRV4 server object from the tree (iMonitor advanced) and set other servers to become the master replica. Also because some replica rings will now have only two replicas this will show as marginal in the agent health.

Scenario 3

No full replica's available for a partition

Added server SRV4 to the tree, placed a Master replica for partition London on that server, removed all other replicas from server 1 through 3 and removed server 4 from the replica ring.

Instructor note: the only thing that is left is the subordinate reference replica for partition London. All data will be lost, but to get a healthy tree set implement the solution. Consider SRV4 as lost. Show that there will be no synchronization errors since none of the servers has a full replica to sync from.

Solution: remove SRV4 server object from the tree (iMonitor advanced) and set other servers to become the master replica. You can now work with the partition again

Scenario 4

Collision objects

Stopped eDir on SRV2 and created a user in partition Sydney while attached to SRV3. Stopped eDir on server SRV3 and started it again on SRV2. Created the same user. Start eDir on SRV3 again and when sync starts a collision object will be created.

Scenario 5

Inconsistent number of objects in replicas

For partition Tokyo and Phoenix eDir was stopped and users were created with several servers down but not at the same time. Therefore servers think they are synchronized but there are users that are missing in some replicas.

Instructor note: Check the subordinate count in the OU's Phoenix and Tokyo. Be aware that for Tokyo the number of subordinates is ok but there are different users missing in each replica so a Receive all objects would overwrite the missing objects.

SRV1 contains users MMatchitu and LSony for the Tokyo partition

SRV2 contains users MMatchitu and SMikiyake for the Tokyo partition

SRV3 contains users MMatchitu and YPoie for the Tokyo partition

User PHenderson is missing from OU Phoenix on SRV2 only.

Solution: Performing a Send all objects on all servers for the partition Tokyo. This also works for Phoenix, a receive all could also work there.

Scenario 6

Inconsistent replica rings

Loaded scenario 0 with a healthy tree and removed SRV2 for [root] and partition Toronto on SRV1 and SRV3. After that reset dib set 0 on SRV2 and saved all dib sets as scenario 6. There is now an inconsistent replica ring for [root] and Toronto on SRV1 and SRV3.

Instructor note: There is now an inconsistent replica ring for [root] and Toronto. Synchronization will show error message -672 on SRV2 but on servers SRV1 and SRV3 all seems OK.

Solution: Add a new replica to SRV2

Scenario 7

Replica stuck in New state and a replica stuck in Dying state

Started adding a replica to SRV2 for partition London, and while it was in the new state saved dib set 7 on SRV2. After that removed the replica for SRV2 again and while it was in the dying state copied the dib set on SRV1 and SRV3 for scenario 7.

Instructor note: When loading these databases for dib set 7 the replica on SRV2 for partition London shows as dying in the replica rings of SRV1 and SRV3 and shows as New on SRV2 itself. Show students that it is not possible to add a new replica or delete the replica for partition London on SRV2 from iManager. Also show that removing a replica for partition [root] from SRV2 will stall.

Solution: remove SRV2 from the replica ring on SRV1 and add a new replica from iManager.