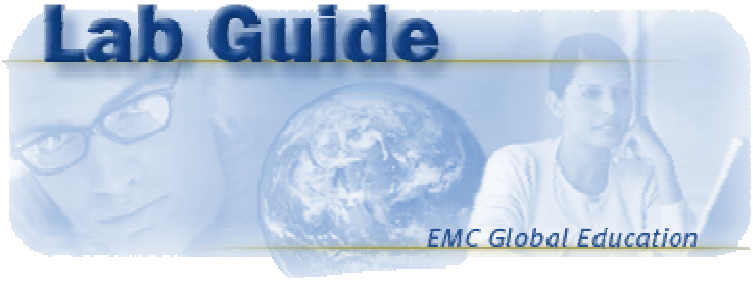
Navisphere Manager Simulator Lab Exercise



Global Education and Productivity

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Document Revision History

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Lab Description

Purpose:	This lab is designed to familiarize the user with configuration and management of a CLARiiON Storage System using the Navisphere Manager Graphical User Interface (GUI). The Navisphere Manager GUI is very robust in its ability to provide the necessary information for day-to-day management of a CLARiiON data storage environment, while providing an easy to use, Windows look and feel. This lab will walk the user through the steps necessary to create and allocate data storage on a CLARiiON Storage System as well as acquaint the user with optional CLARiiON software that allows for disaster recovery and staging data for online data backups. This lab provides step-by-step directions for configuring CLARiiON hardware and software using Navisphere Manager 6.x. The Lab is divided into 2 sections; Section 1 starts with a new array and has you create array objects for RAID Groups, Storage Groups, Snapshots and Clones. Section 2 will have you reset the Simulator and create objects for use with MirrorView and San Copy.

Objectives:	Upon completion of this exercise, you will be able to: • Configure RAID Groups on a CLARiiON Storage System • Bind LUNs to RAID Groups on a CLARiiON Storage System • Configure Storage Groups on a CLARiiON Storage System • Add Clones to a Clone Group on a CLARiiON Storage System • Create SnapShots on a CLARiiON Storage System • Create MirrorView Synchronous and Asynchronous Replicas • Create San Copy Full and Incremental Replicas

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References:	The following tools/aids/materials are required to perform the steps in this lab: • 1 - laptop or desktop computer running either Windows NT or Windows 2000 operating system • 1 – Copy of the Navisphere Manager Simulator software (CD or download) installed on the computer • 1 – Copy of this Lab Document • *Internet Explorer* v5.5 installed on service laptop or management workstation • *Java Runtime Environment* (will be installed if not on the computer) • *Optional - Navisphere 6.x Manager User Guide* (explains some of the parameters not used in these exercises) Oracle 10g – Quick Installation Guide Release 1 (10.1) for Solaris – P/N B10814-01 - Date 01/2004 Ref – Attached *.sh scripts located as attachments to the OID (Oracle Integration with DMX) student guide.

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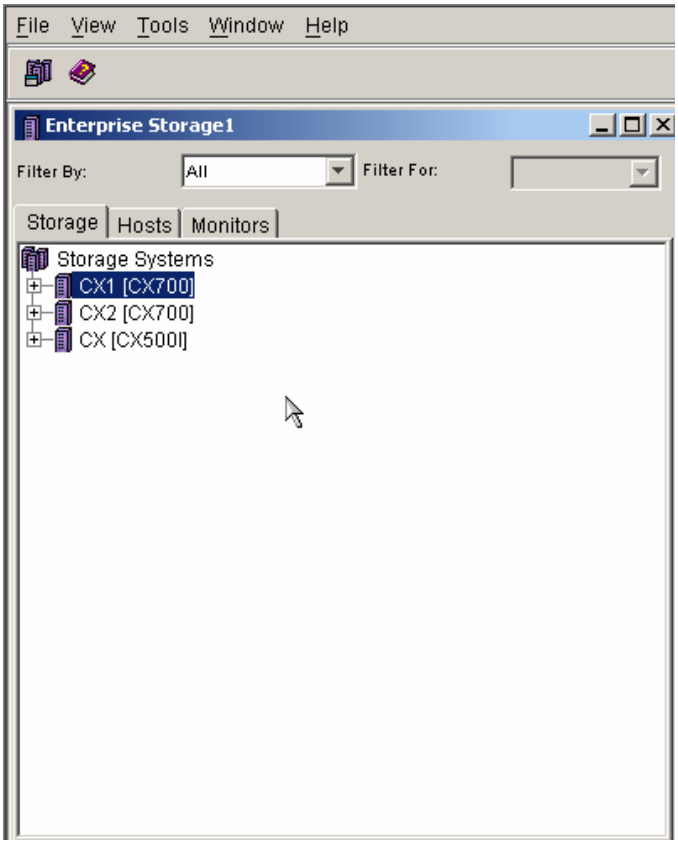
Section 1

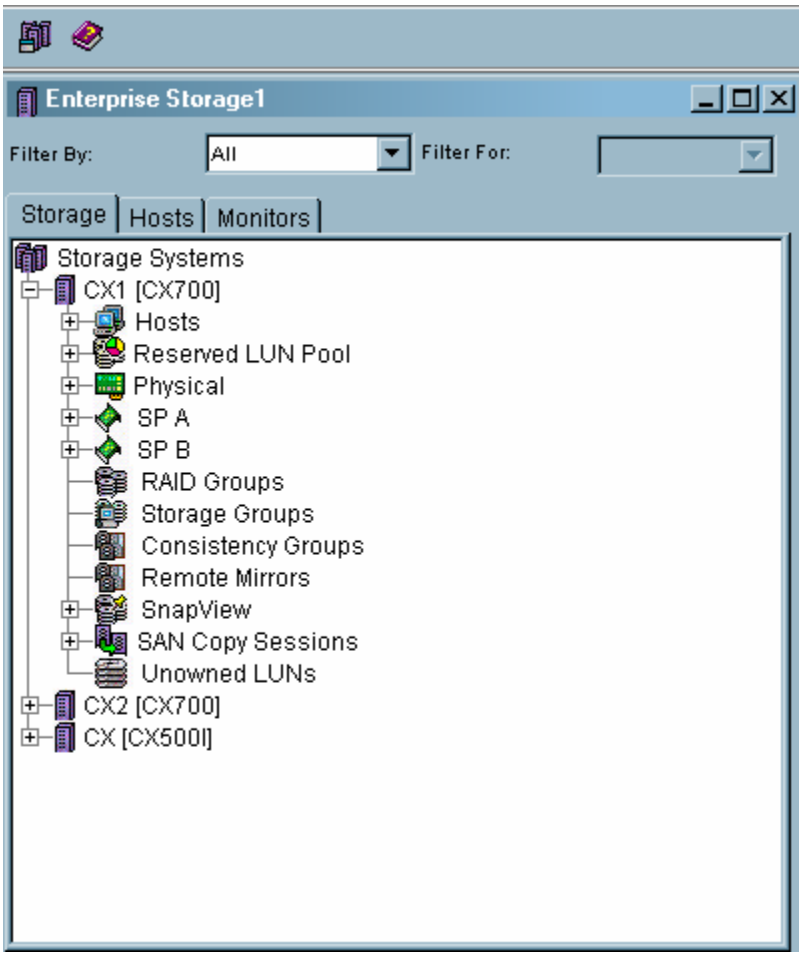
Lab 1: Logging into the Navisphere Manager

Navisphere Manager requires a valid username and password to log in on the Manager Graphical User Interface (GUI). This is to authenticate the user and determine his authorization level for management and configuration of the CLARiiON Storage Environment.

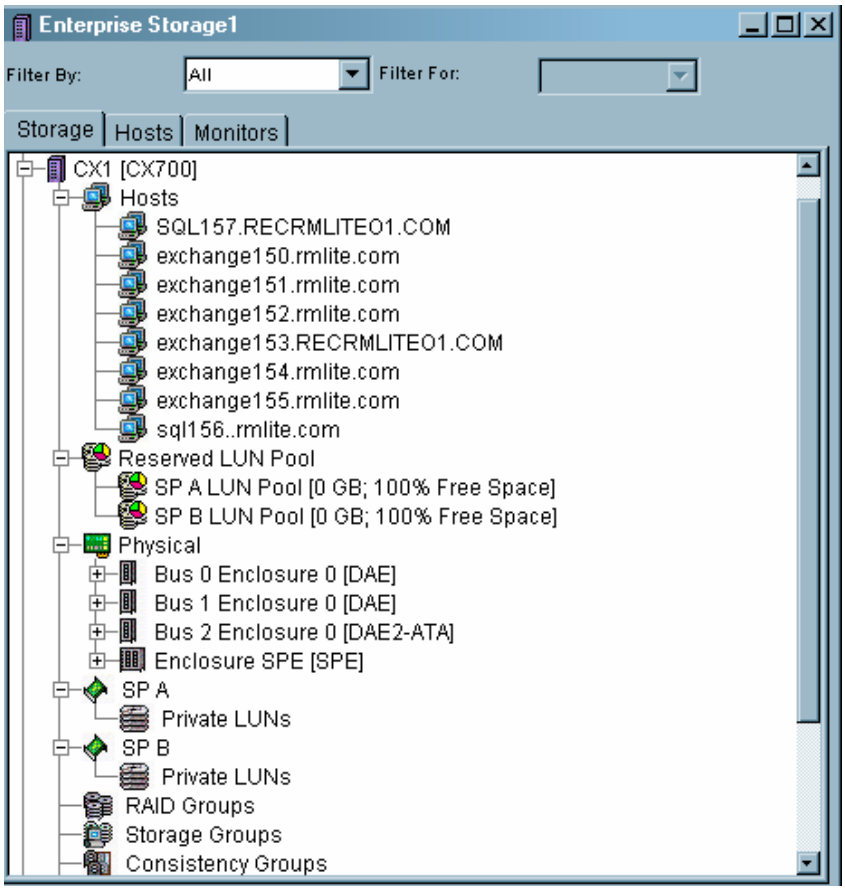
Step	Action
1.	If you haven't already done so, Start the Navisphere Manager interface by choosing **Start – programs – Navisphere Simulation – Launch Navisphere Simulator**
2.	If not already done, enter the Username: *manager* and Password: *manager*, click OK.
3.	The Enterprise Storage Window will be displayed with any CLARiiON Storage Systems in the Domain being visible. The lab assumes there are no RAID Groups, Storage Groups, or other objects created at this time. 

Lab 2: Navigating the Navisphere Manager User Interface

Use these steps to learn how to navigate the Navisphere Manager User Interface (UI) software. You will be asked to navigate the Enterprise Storage window by expanding the objects that represent logical and physical components on the CLARiiON Storage Systems.

Step	Action
1.	From the enterprise storage Window, Expand the CX1 [CX700] object by clicking on the "+" sign, or by double clicking the object name CX1 [CX700]. Anytime you see a "+" sign implies you may expand the container. 

2. Expand the objects where you see a “+” sign. There are a number of hosts that show connections. the Reserved LUN Pool is free, and the Physical container shows a number of DAE in the rack. Note again at this time there are no RAID Groups, Storage Groups, and LUNs.



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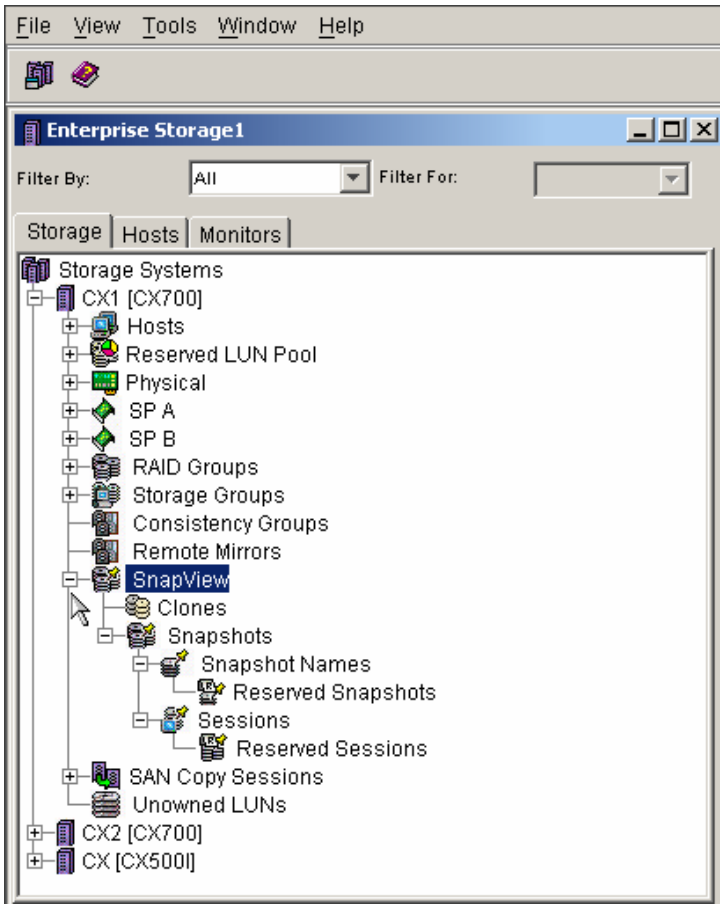
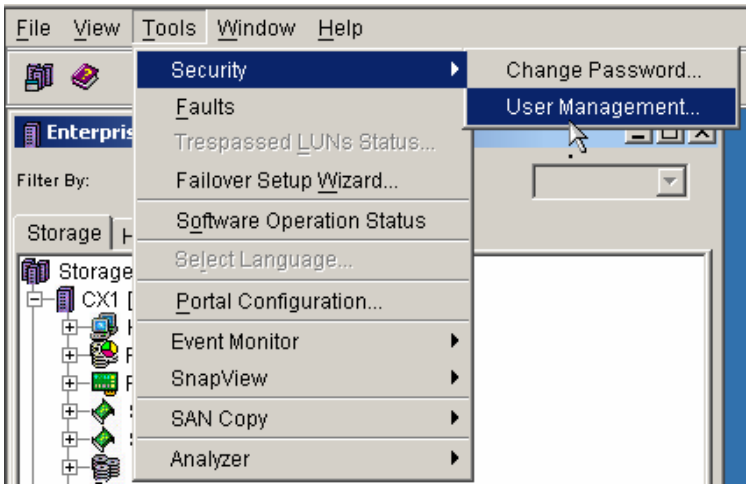
3. SnapView Objects are viewed by expanding the SnapView object, then expanding any underlying objects available. We will see these populated later when working with MirrorView/A Incremental San Copy.



4. Practice expanding and shrinking objects for the Storage System CX1.

5. New users can be added by clicking on **Tools – Security – User Management**.



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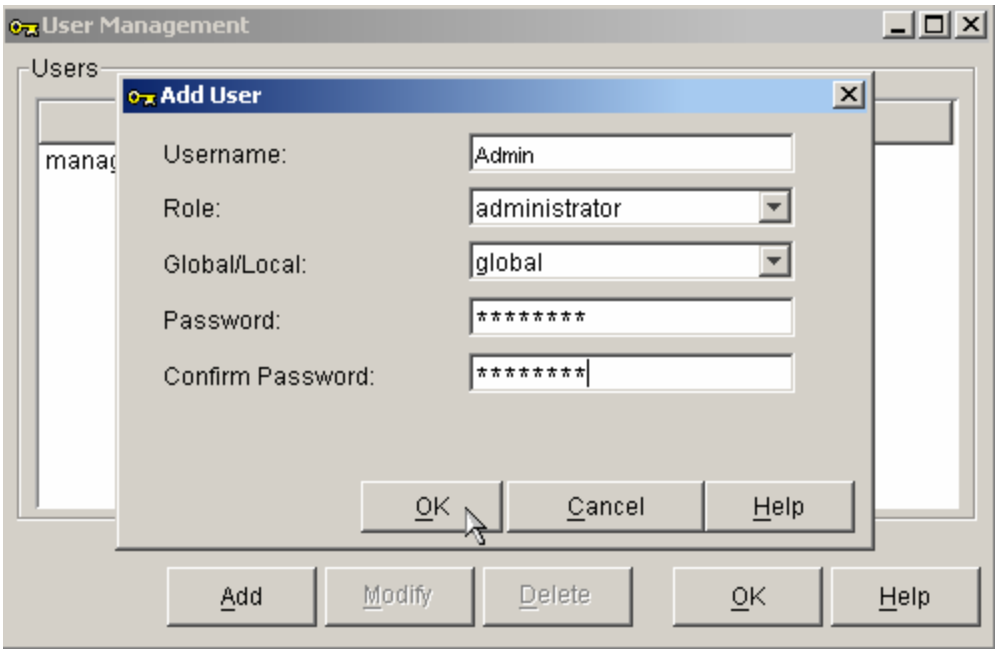
6.	Click the User Management. Click **Add** to create a new user for your domain. Create a user named **Admin**, with the password of **password**. Leave the global. Click **OK** and confirm the new user creation. 
7.	This completes the Navigating the Manager User Interface exercise.

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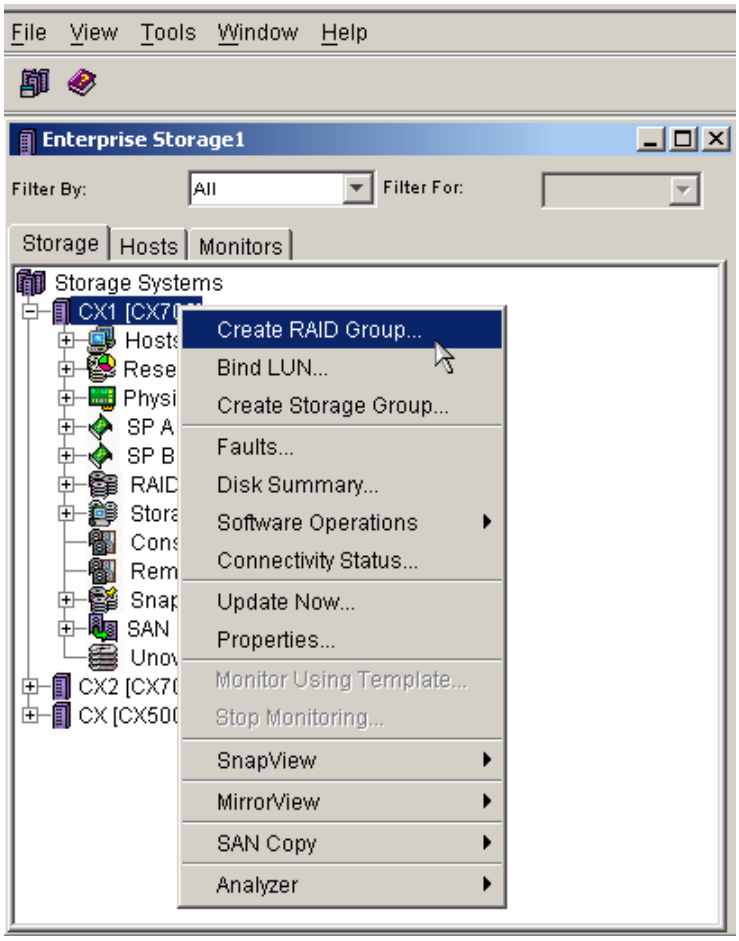
Lab 3: Creating RAID Groups

You will begin to create a shared configuration on the storage systems by creating RAID Groups. RAID Groups are a grouping of disks to allow for the creation of LUNs to share storage to the Hosts.

Step	Action
1.	Right click on Storage System CX1 [CX700]. Select Create RAID Group. 

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2. To create the first RAID Group 1, in the **CX1 [CX700] – Create RAID Group** window, select:

*RAID Group ID:**1***

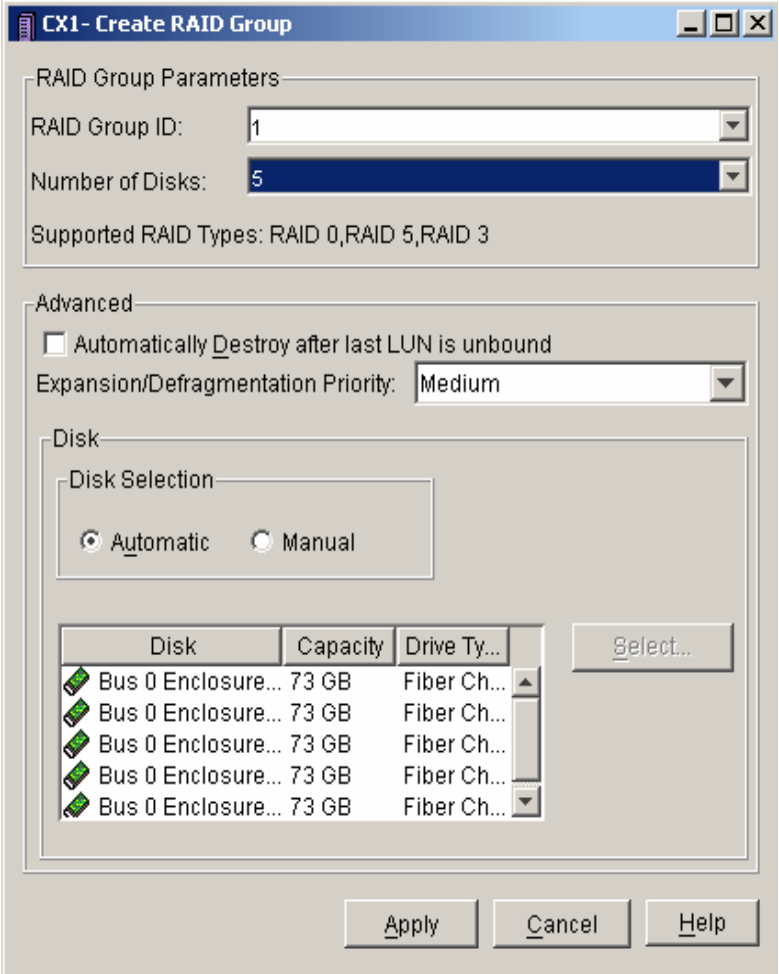
*Number of Disks: **5***

*Expansion/Defragmentation Priority: **Medium***

*Disk Selection: **Automatic***

Click **Apply** and confirm creation of the RAID Group.

Note the Supported RAID Types available for 5 disks.



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3. To create RAID Group 2, in the **CX1 [CX700] – Create RAID Group** window, select:

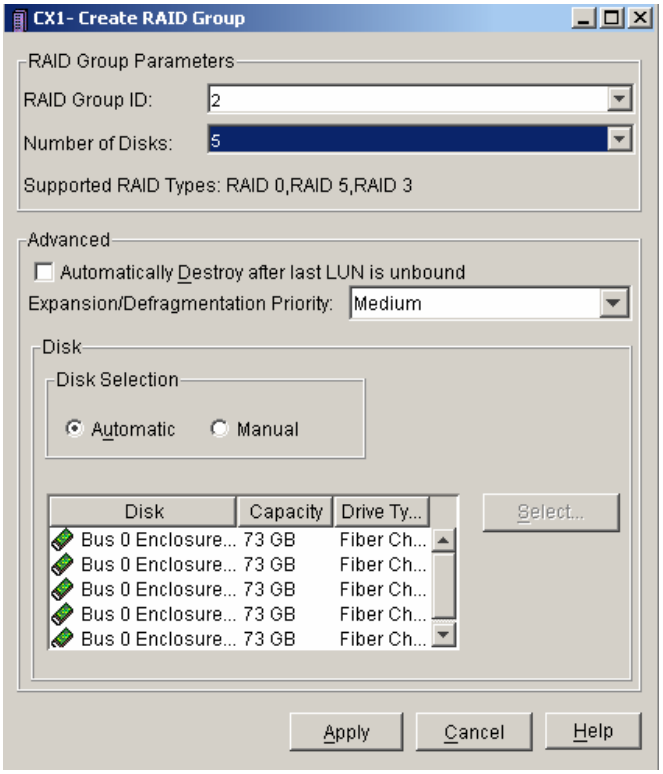
*RAID Group ID:**2***

*Number of Disks: **5***

*Expansion/Defragmentation Priority: **Medium***

*Disk Selection: **Automatic***

Click **Apply** and confirm creation of the RAID Group



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4. To create RAID Group 3, in the **CX1 [CX700] – Create RAID Group** window, select :

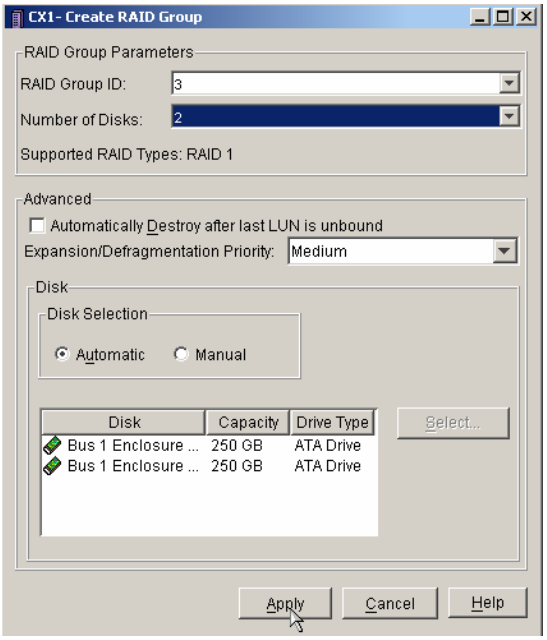
*RAID Group ID:**3***

*Number of Disks: **2***

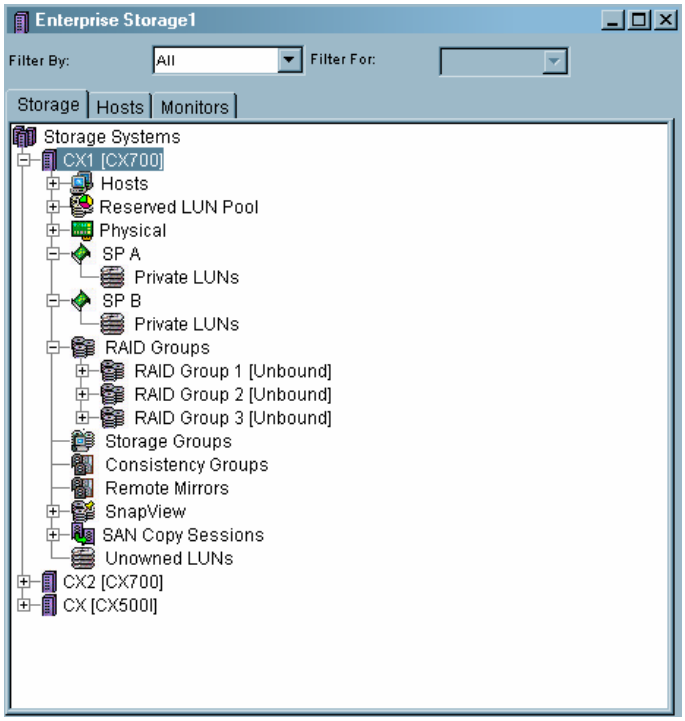
*Expansion/Defragmentation Priority: **Medium***

*Disk Selection: **Automatic***

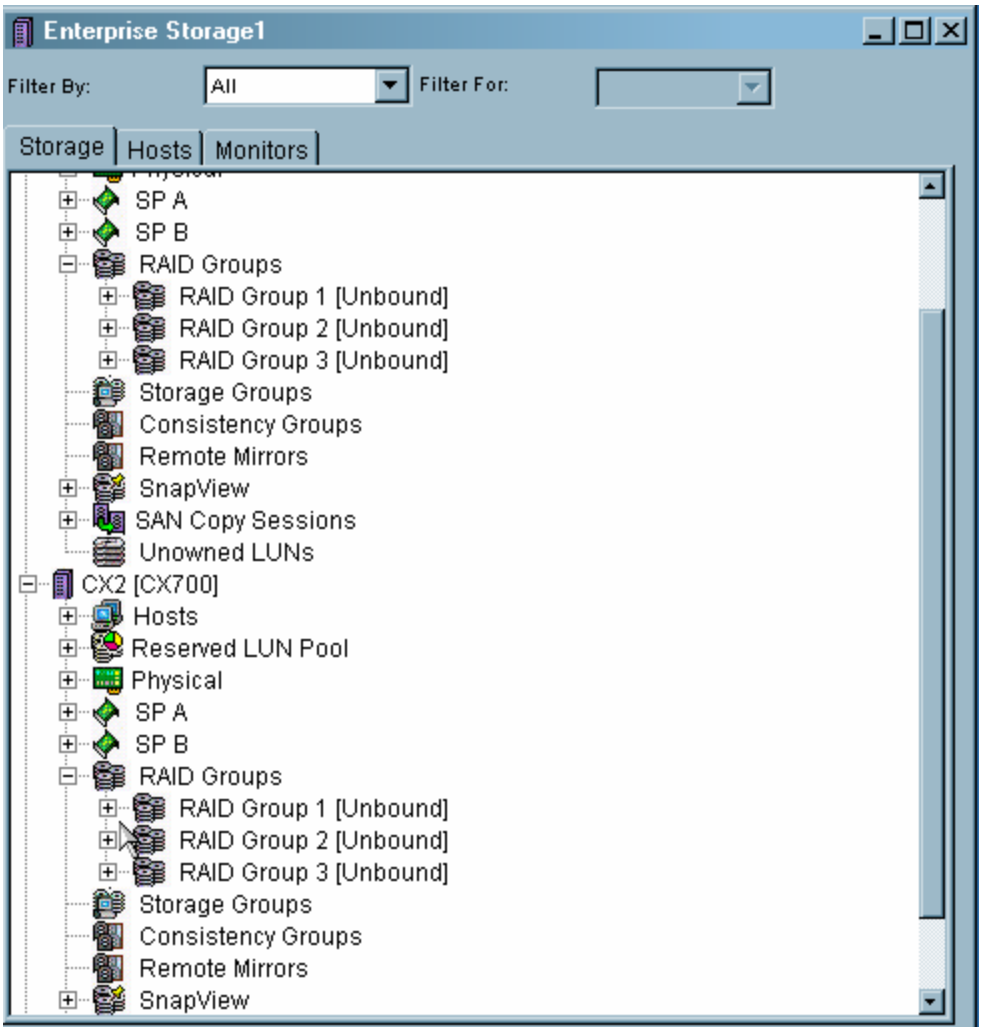
Click **Apply** and confirm creation of the RAID Group



5. Review the RAID Groups you created on CX1 [CX700] by expanding the RAID Groups object in Navisphere Manager as shown.



Repeat Step 3, 4 and 5 (which you have just completed) to create RAID Groups on the array **CX2 [CX700].**

6.	Expand both CX1 [CX700] and CX2 [CX700] RAID Groups to view the completed RAID Groups on both Storage Systems. 
7.	This completes the Creating RAID Groups Exercise.

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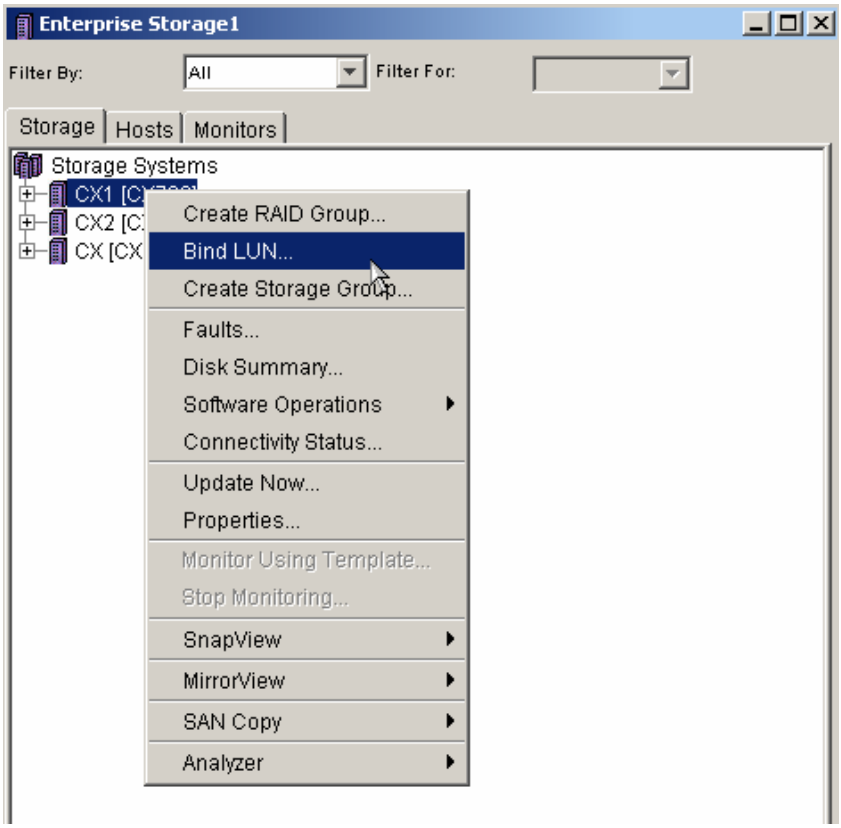
Lab 4: Binding LUNs for Host Access to Storage System Resources

Binding LUNs on a CLARiiON is how you share storage with a Host. LUNs are represented as disks to the host when using the Operating System's Disk Management or Volume Management Software.

Step	Action
1.	To bind a LUN on a CLARiiON Storage System, right-click the storage system object and select **Bind LUN**. 

2. For CX1 [CX700], Bind LUN 0x10 as shown in the graphic and listed below, then click **Apply** and confirm LUN bind:

RAID Type: ***RAID 5***

RAID Group: ***2***

LUN ID: ***10***

Element Size: ***128 (default)***

Rebuild Priority: ***ASAP (default)***

Verify Priority: ***ASAP (default)***

Enable Read Cache: ***Checked (default)***

Enable Write Cache: ***Checked (default)***

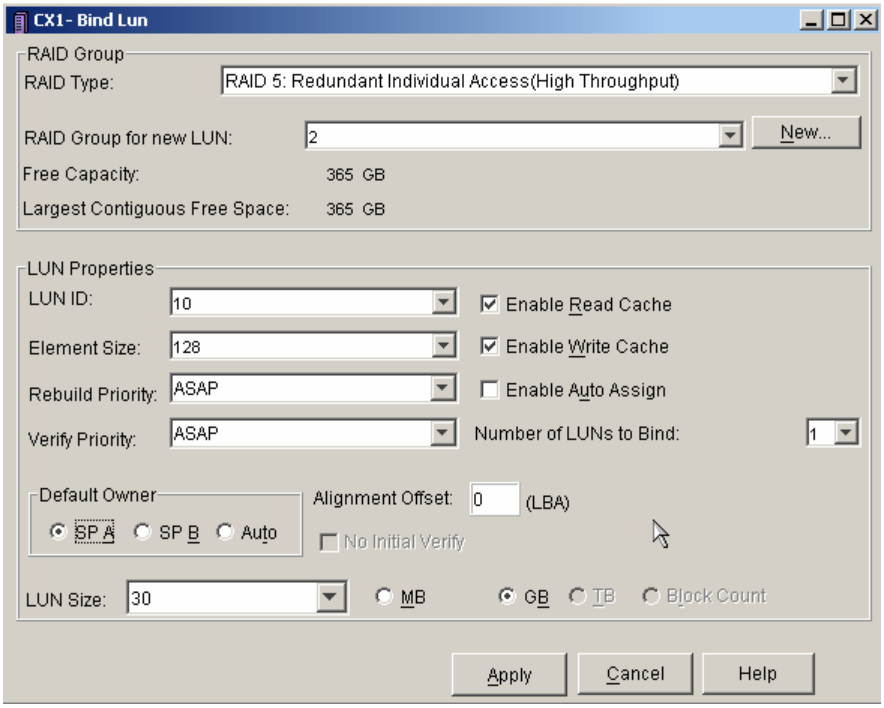
Enable Auto Assign: ***Clear (default)***

Number of LUNs to Bind: ***1 (default)***

Default Owner: ***SP A***

Alignment Offset: ***0 (default)***

LUN Size: ***30 GB***



3. Bind LUN 20 as shown in graphic and listed below and click **Apply** then confirm LUN bind:

RAID Type: ***RAID 1***, *RAID Group:* ***3***, *LUN ID:****20***

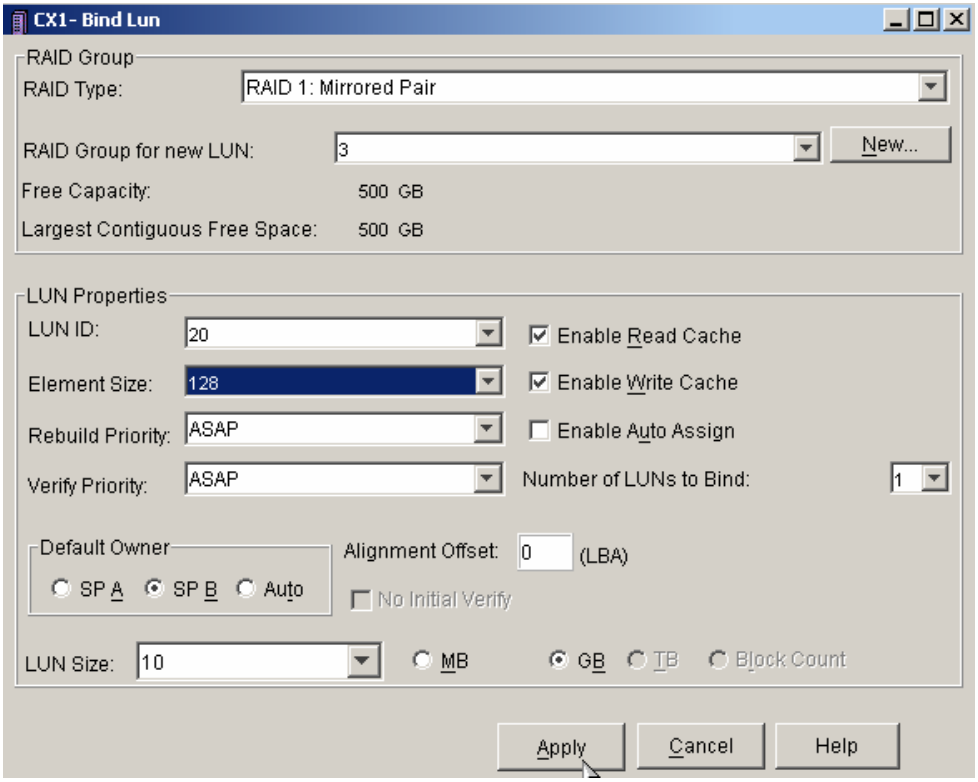
Enable Read Cache: ***Checked (default)***

Enable Write Cache: ***Checked (default)***

Enable Auto Assign: ***Clear (default)***

Number of LUNs to Bind: ***1 (default)***

Default Owner: ***SP B,*** *Alignment Offset:* ***0 (default),*** *LUN Size:* ***10 GB***



Bind two additional LUNs, LUN ID 25 and LUN ID 30, using the following data:

LUN 25:	**LUN 30**:
RAID Type: ***RAID 5***	RAID Type: **RAID 5**
RAID Group: ***1***	RAID Group: **1**
*LUN ID:****25***	LUN ID: **30**
Enable Read Cache: ***Checked (default)***	Enable Read Cache: **Checked (default)**
Enable Write Cache: ***Checked (default)***	Enable Write Cache: **Checked (default)**
Enable Auto Assign: ***Clear (default)***	Enable Auto Assign: **Clear (default)**
Number of LUNs to Bind: ***1 (default)***	Number of LUNs to Bind: **1 (default)**
Element Size 128	Element Size 128
Default Owner: ***SP A***	Default Owner: **SP B**
Alignment Offset: ***0 (default)***	Alignment Offset: **0 (default)**
LUN Size: ***30 GB***	LUN Size: **30 GB**

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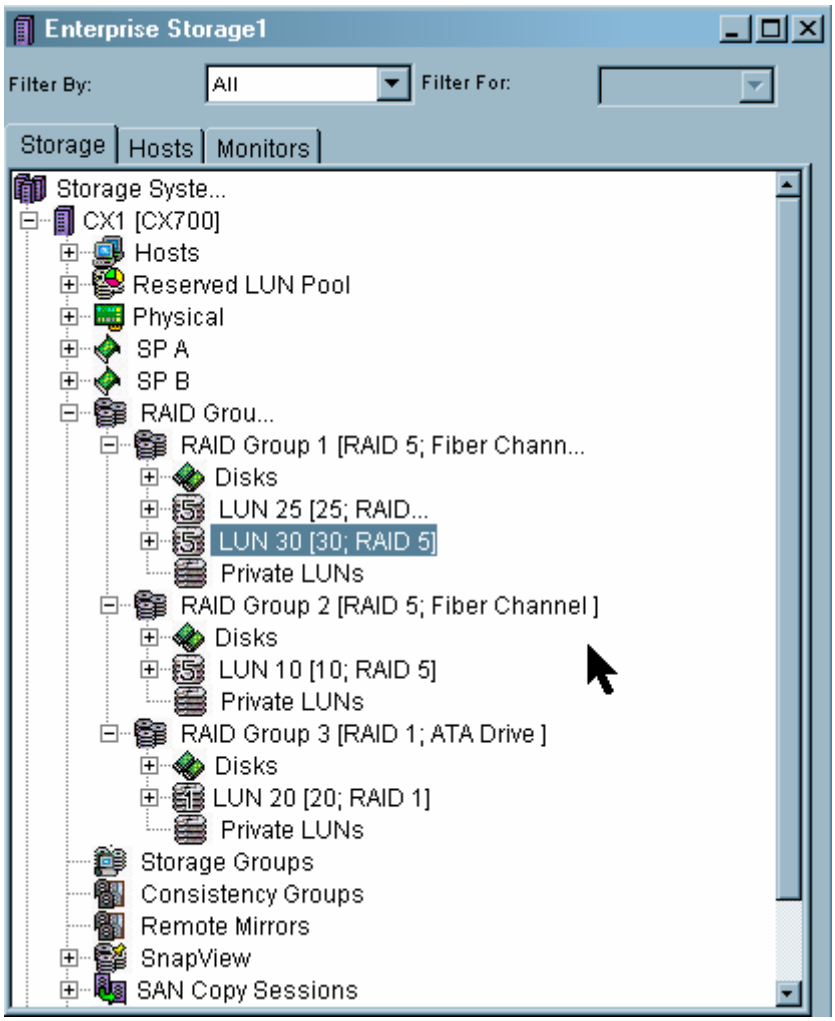
4. Expand CX1 [CX700] – RAID Groups – RAID Group 1, RAID Group 2, and RAID Group 3 to confirm that the LUNs have been created in the correct RAID Groups.



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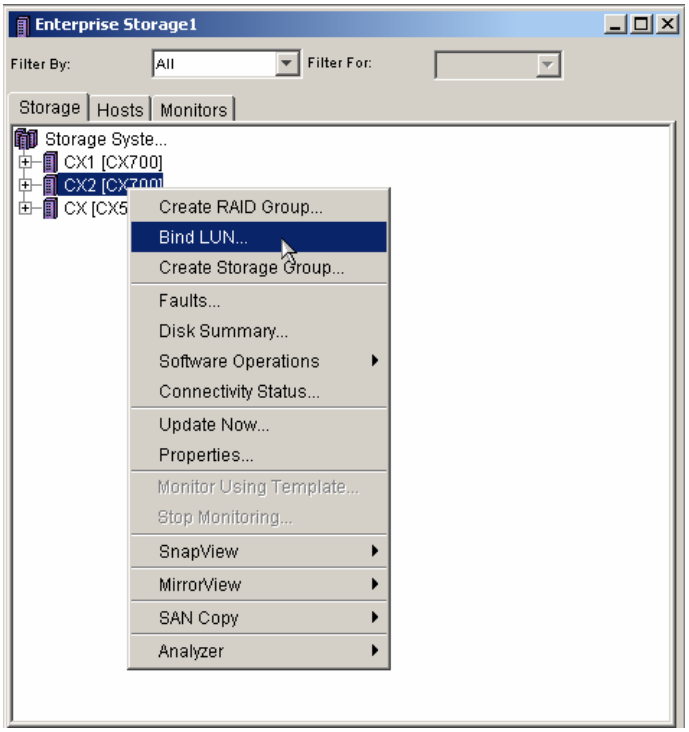
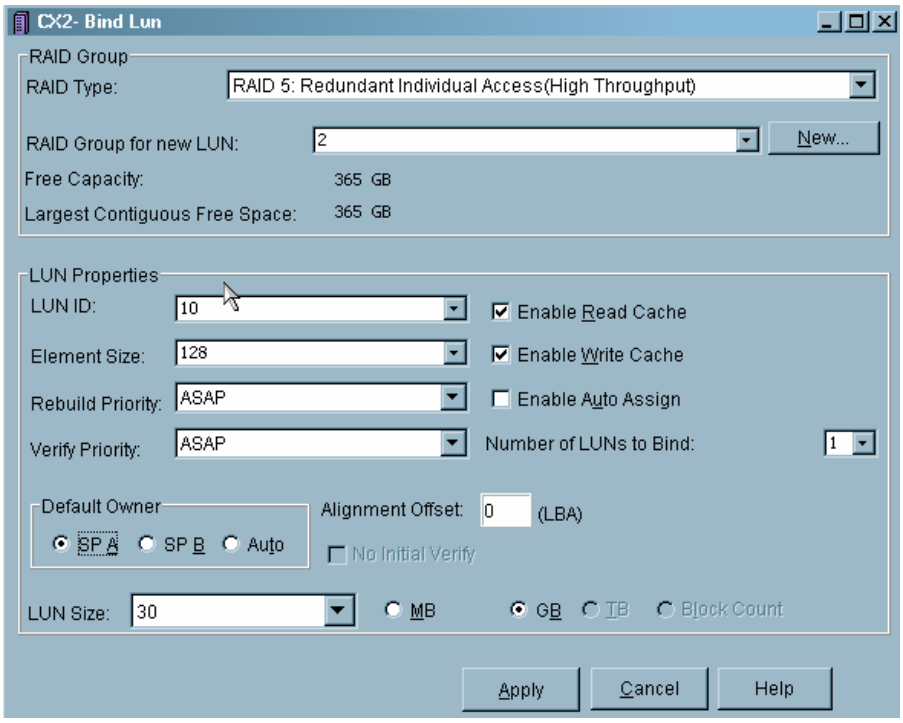
5. Bind LUNS for **CX2 [CX700].**

Right-click **CX2 [CX700]** and select **Bind LUN.**



6. Bind CX2 [CX700] LUN10 as shown in the graphic below.



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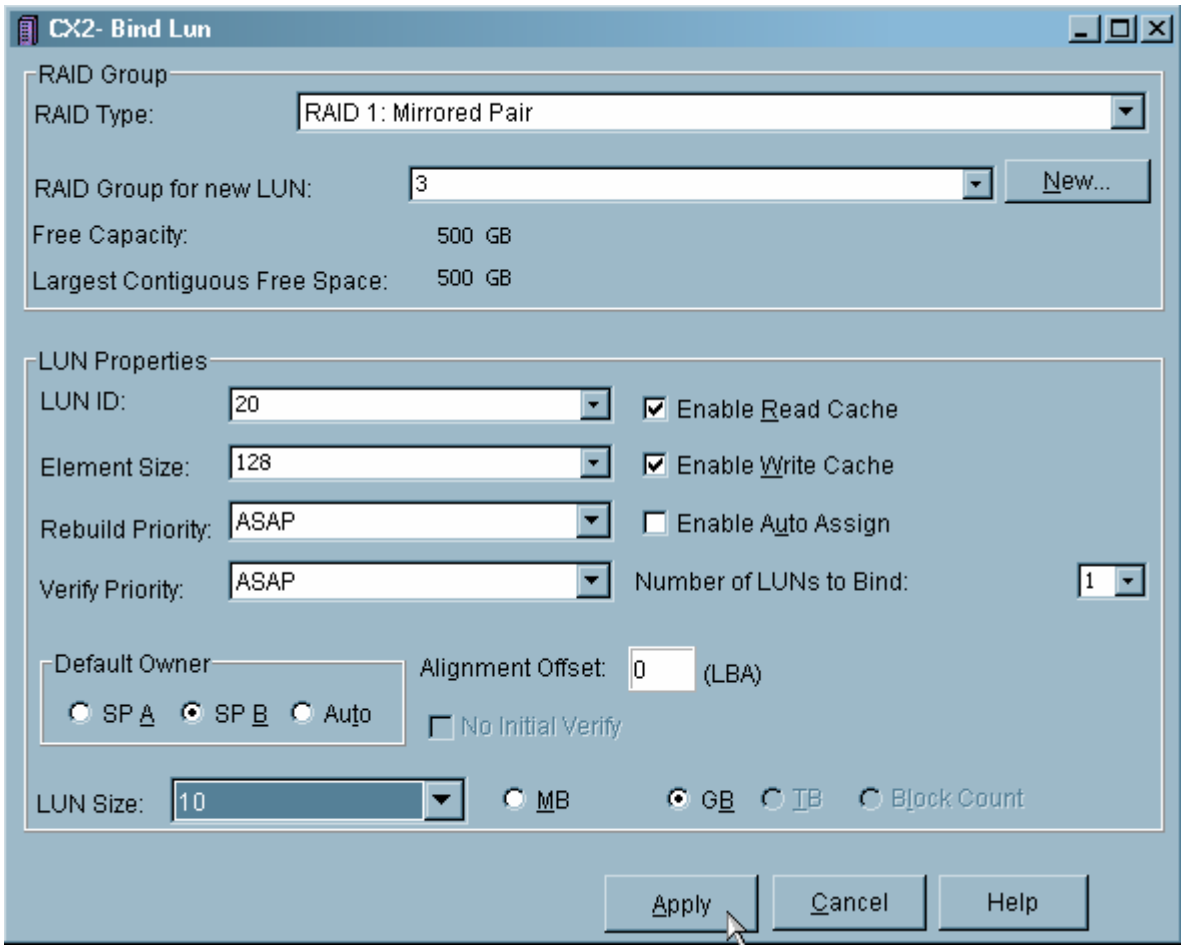
7. Bind CX2 [CX700] LUN 20 as shown in the graphic below.



8. Bind CX2 [CX700] LUN 25 and LUN 30 as shown below.

To Bind LUN 25:

RAID Type: ***RAID 5***
RAID Group: ***1***
*LUN ID:****25***
Enable Read Cache: ***Checked (default)***
Enable Write Cache: ***Checked (default)***
Enable Auto Assign: ***Clear (default)***
Number of LUNs to Bind: ***1 (default)***
Default Owner: ***SP A***
Alignment Offset: ***0 (default)***
LUN Size: ***30 GB***

To Bind LUN 30:

RAID Type: **RAID 5**
RAID Group: **1**
LUN ID: **30**
Enable Read Cache: **Checked (default)**
Enable Write Cache: **Checked (default)**
Enable Auto Assign: **Clear (default)**
Number of LUNs to Bind: **1 (default)**
Default Owner: **SP B**
Alignment Offset: **0 (default)**
LUN Size: **30 GB**

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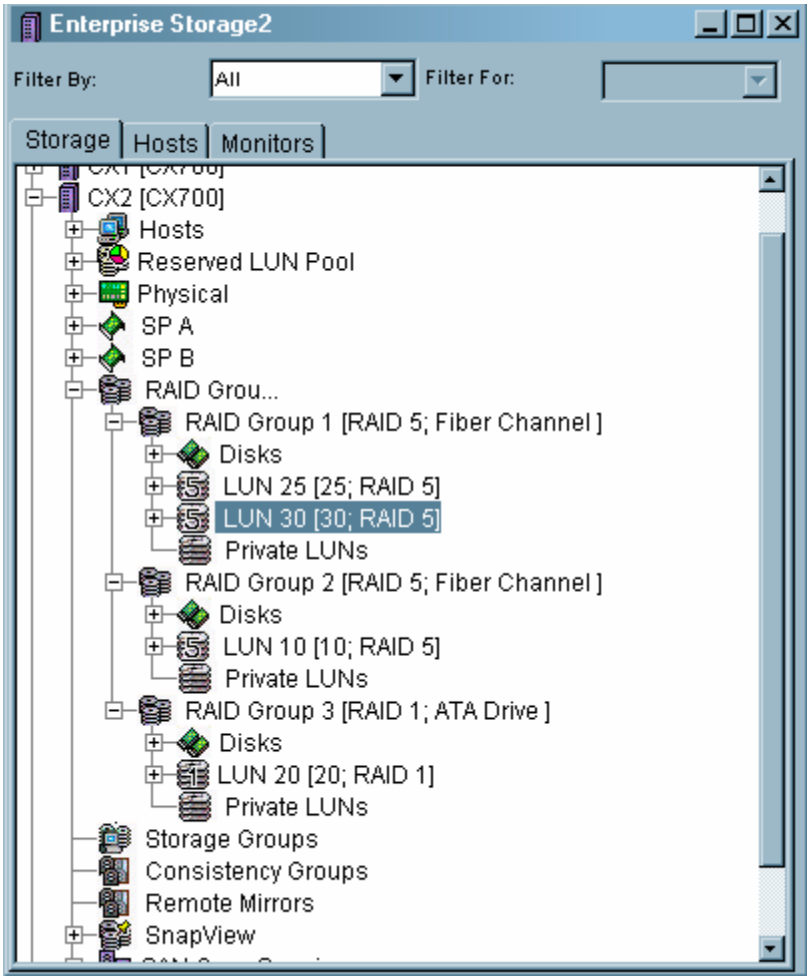
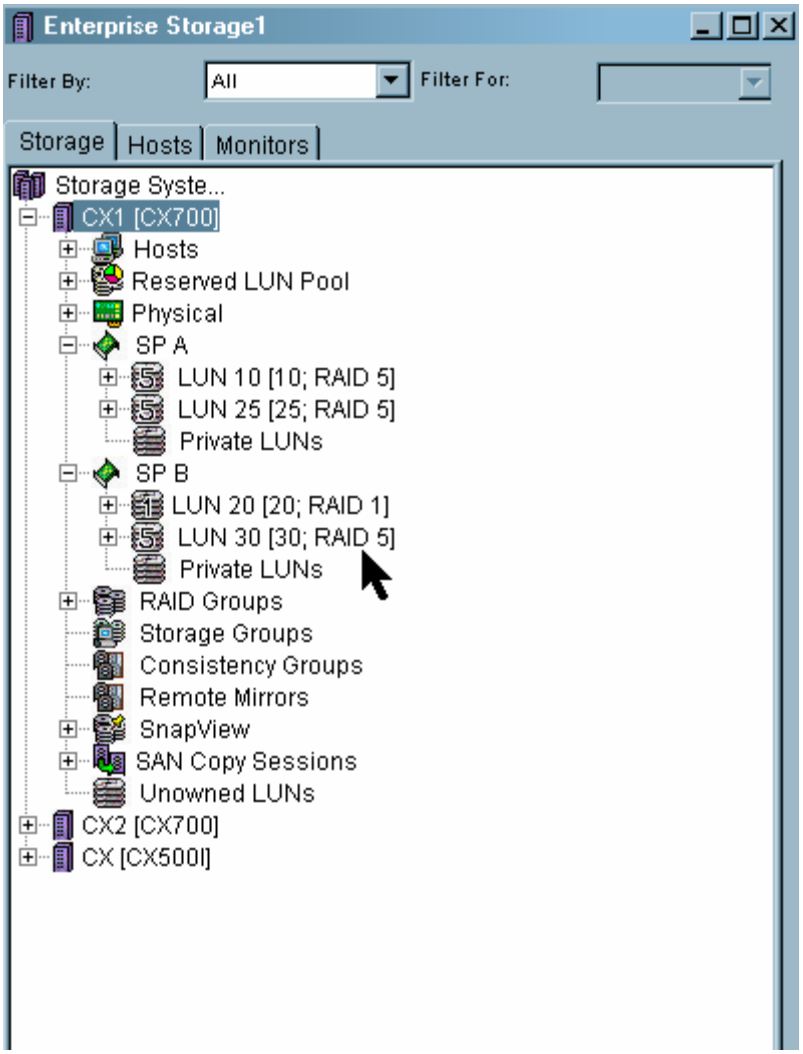
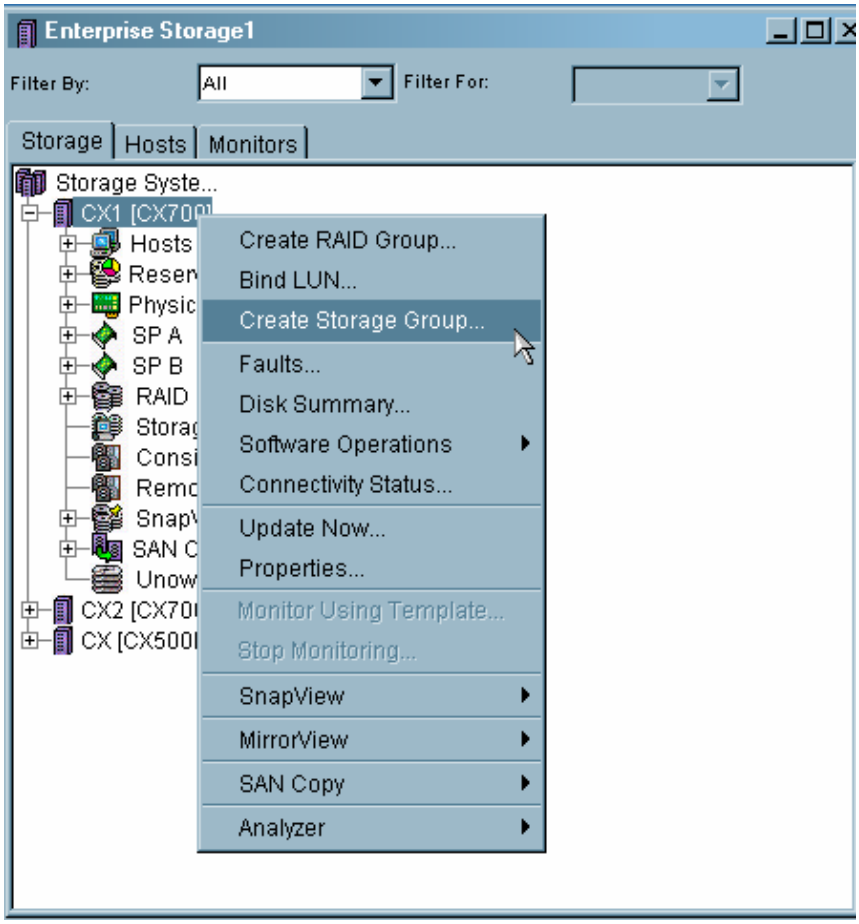
9. When all LUNs have been bound, review the configuration by expanding the RAID Groups for CX2 [CX700].

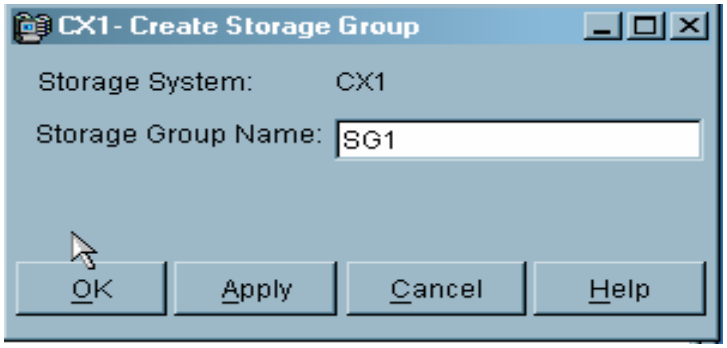


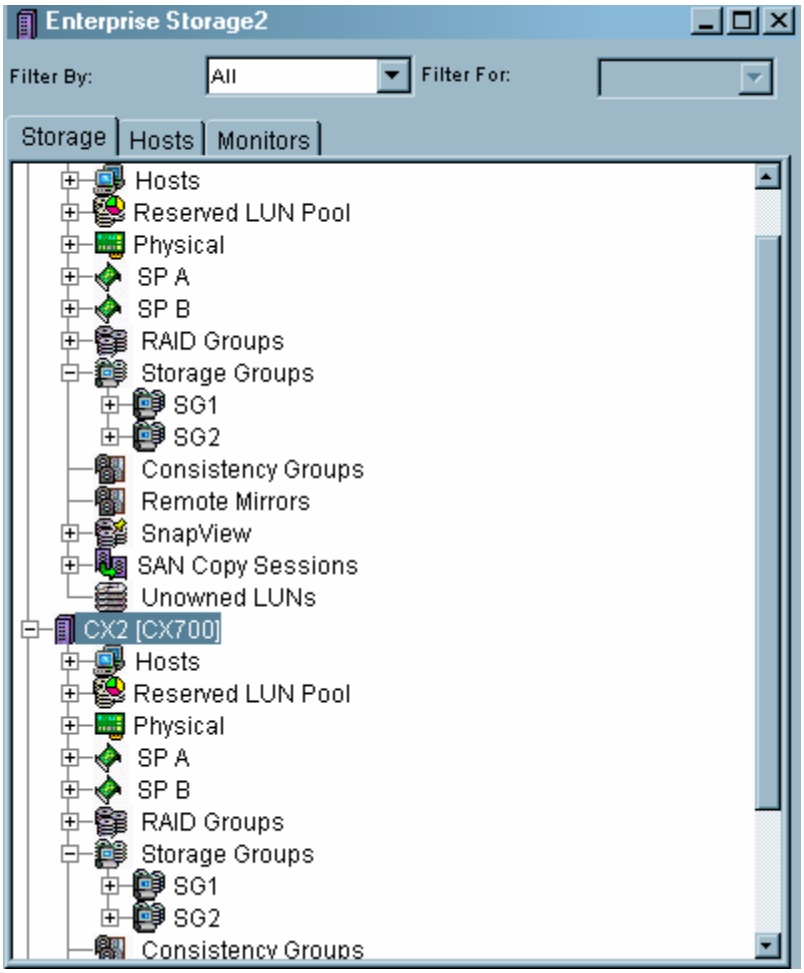
10.	Review Storage Processor ownership of CX1 [CX700] LUNs by expanding the SP A and SP B objects in Navisphere Manager. CX2 [CX700] LUNs should also be reviewed for correct Storage Processor ownership. They should be the same as CX1. 
11.	This completes the Bind LUN Lab Exercise.

Lab 5: Creating Storage Groups

Step	Action
1.	The exercise will have you create storage groups on both CX1 and CX2 arrays. Right click on CX1> Create Storage Groups. 

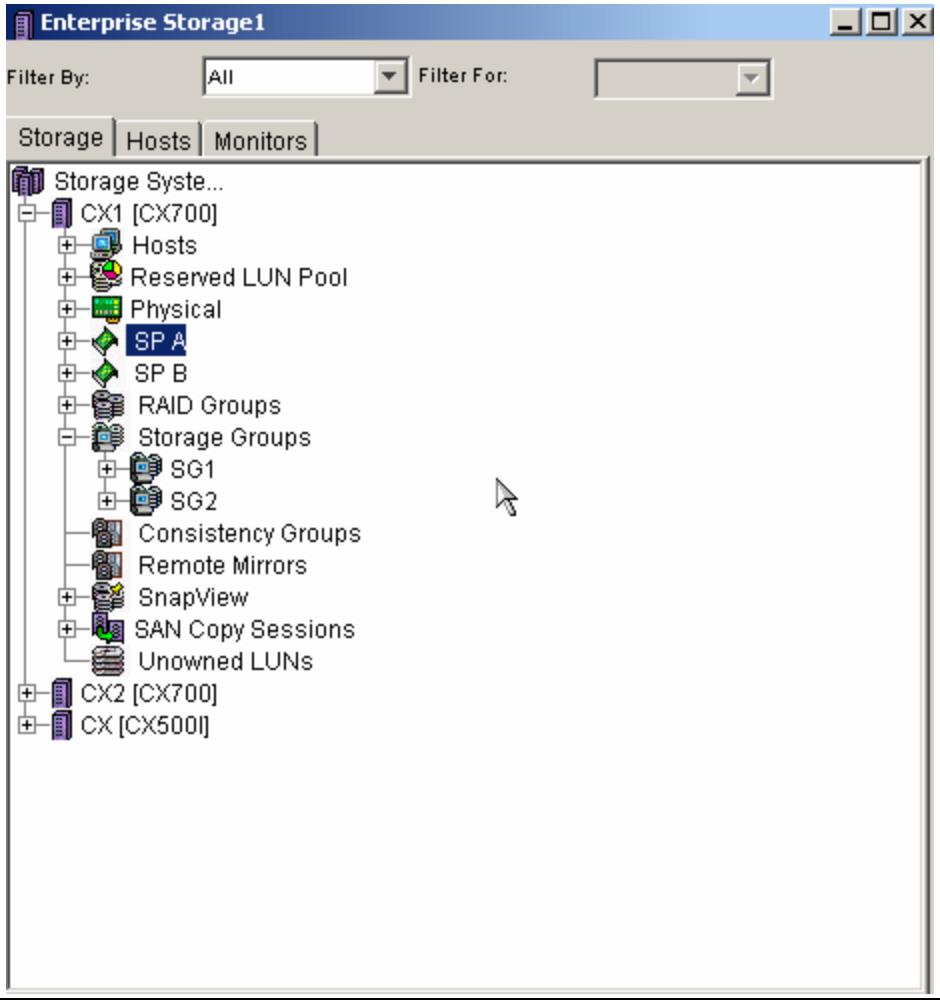
2. Repeat this process and create an SG1 and SG2 on CX1 and CX2. Verify the creating of the groups on each array. Click OK for each confirmation.





Lab 6: Populating Storage Groups

Storage Groups contain a Host and the CLARiiON resources available to that Host.

Step	Action
1.	Storage Groups are used to connect host computers to LUN disk storage when using Access Logix base code on the CLARiiON Storage System.
2.	To place Hosts in the CX1 [CX700] Storage Groups, Expand **CX1 [CX700]** then expand **Storage Groups**. There should be two Storage Groups available, **SG1** and **SG2**. 

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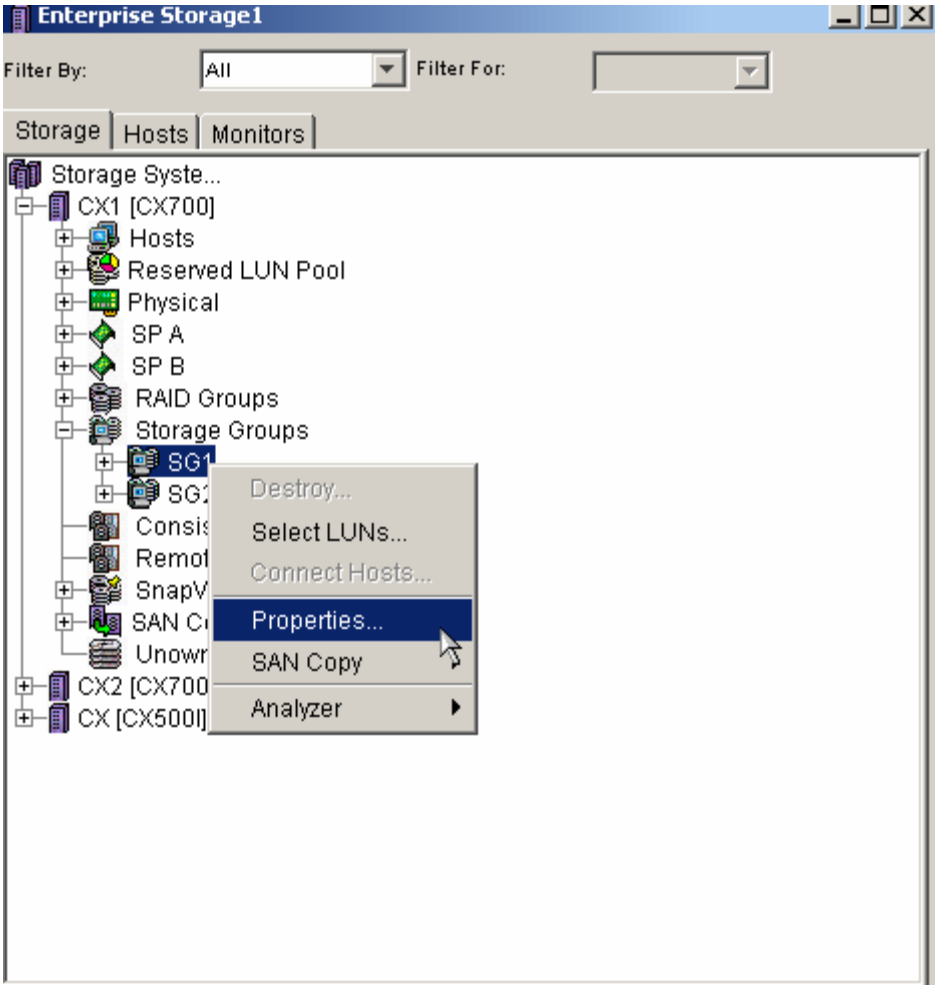
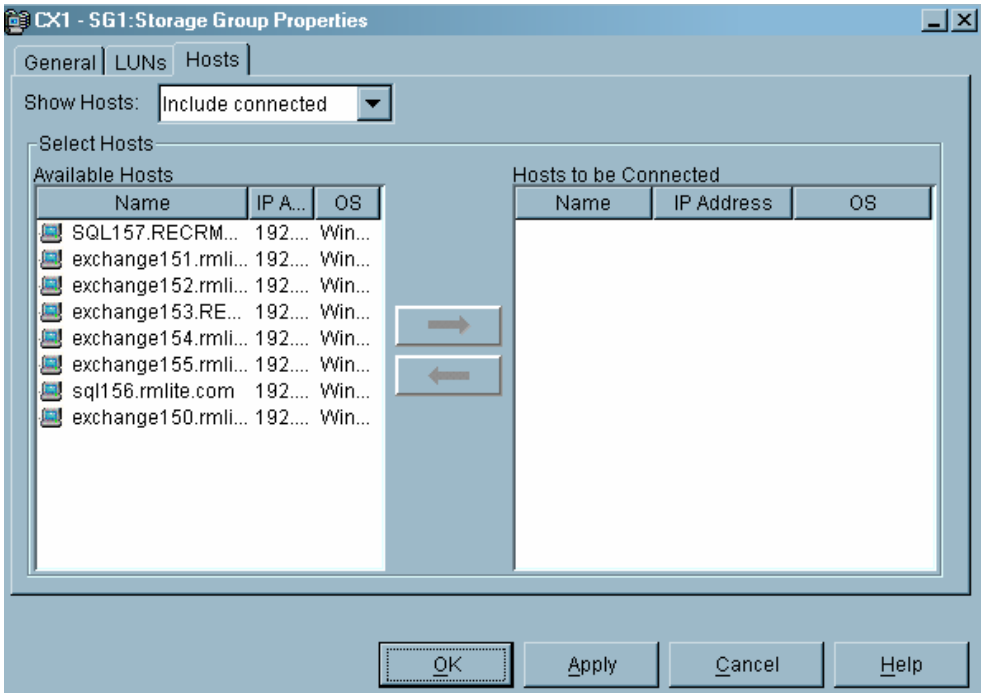
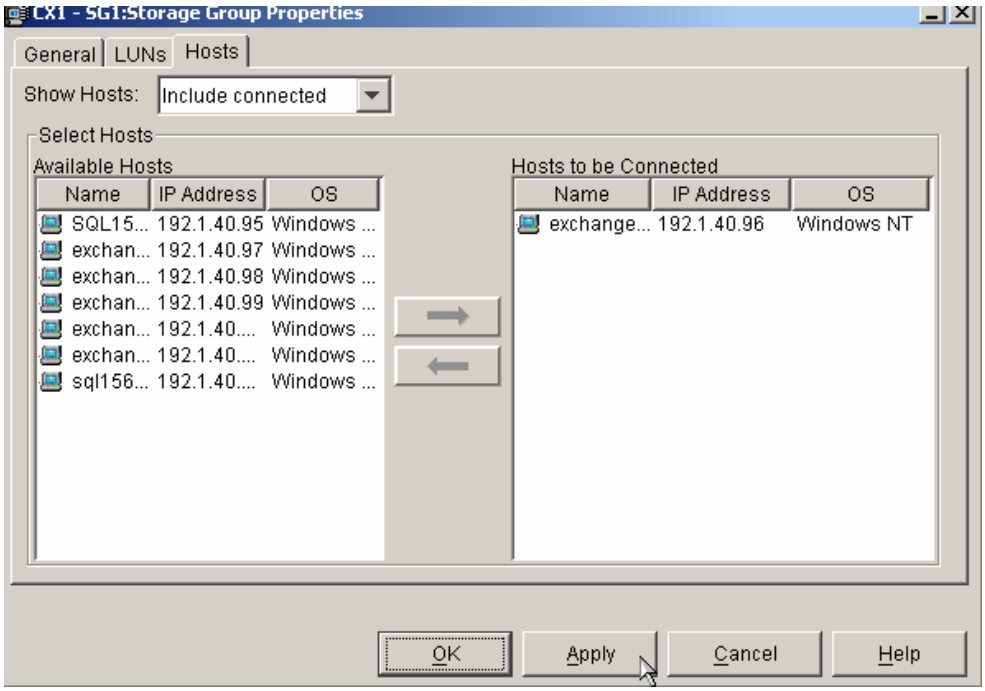
3. To add a host Storage Group SG1, right-click on **SG1** and select **Properties**.



4. In the SG1 Storage Group Properties window, select the **Hosts** tab, and then select **exchange150** from the **Available Hosts**. Note: You may have to expand the slide bar to see the full name.



5. Click the highlighted arrow to move **exchange150.rmlite from the available** Hosts to **Hosts to be Connected**. Click **Apply** and confirm the connection of **exchange150** to **SG1**. Once you have confirmed the Host connection to SG1, click cancel to exit the **Storage Group Properties** window.



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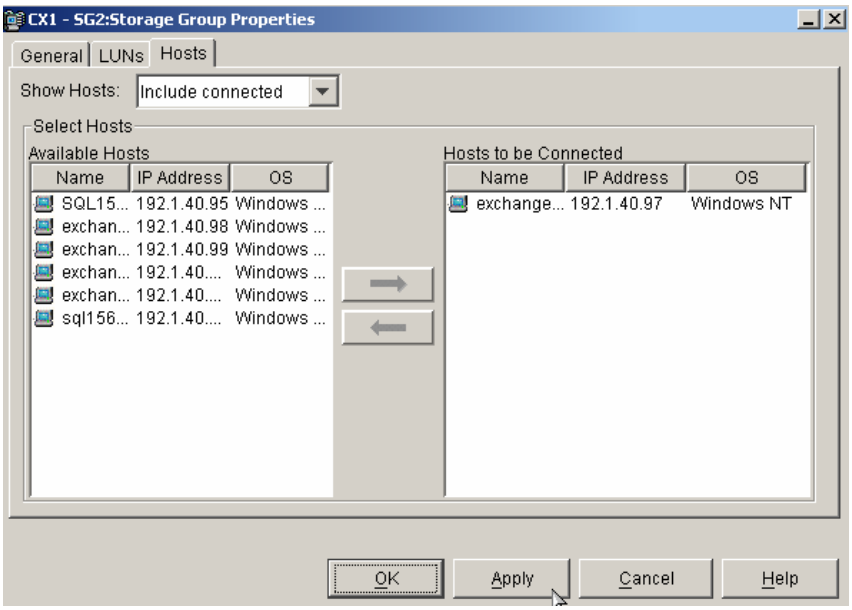
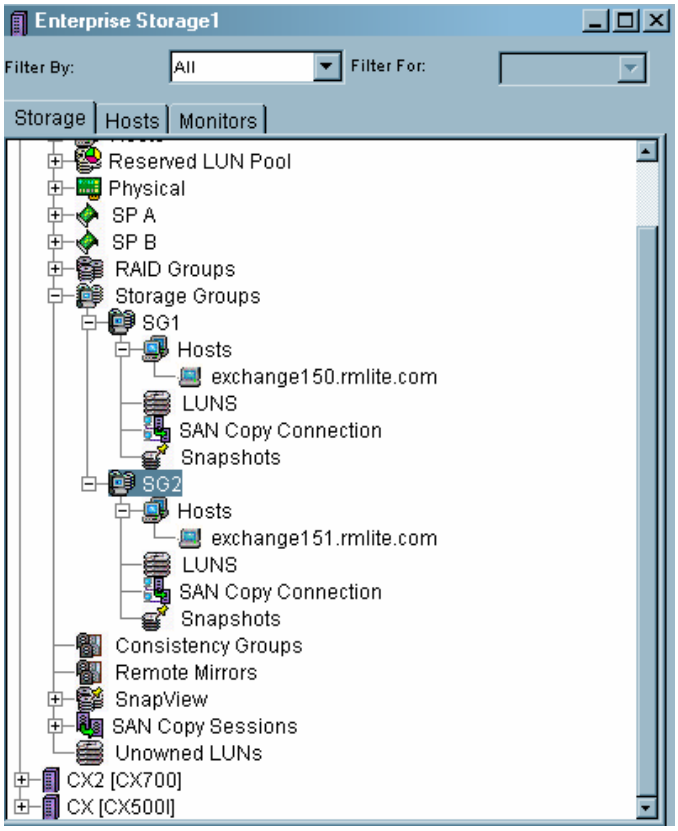
6. To connect **exchange151** to **SG2**, follow the same procedure as with SG1. Right-click SG2 and select Properties. Click on the **Hosts** Tab. Select **exchange151** from the **Available Hosts**. Click the highlighted arrow to move **exchange151** from **Available Hosts** to **Hosts to be Connected**. Click **Apply** and confirm the connection of **exchange151** to **SG2**.



7. In the Enterprise Storage Window, expand CX1 [CX700] – Storage Groups – SG1 – Hosts, as well as SG2 – Hosts. This will confirm that each Host is in the correct Storage Group.



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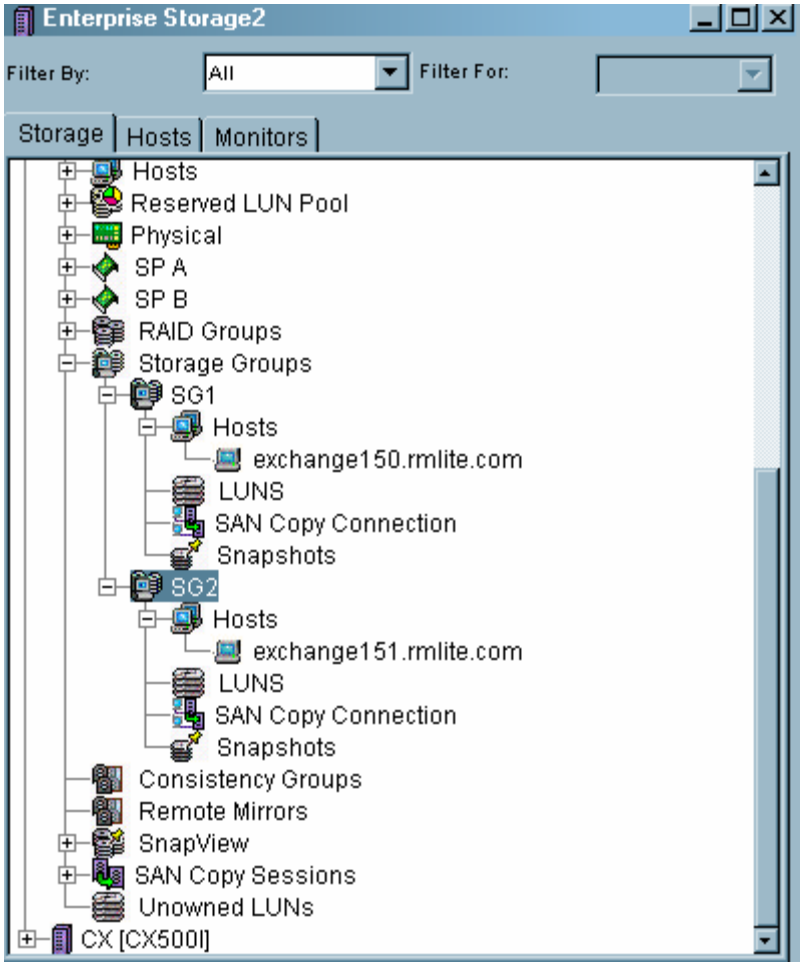
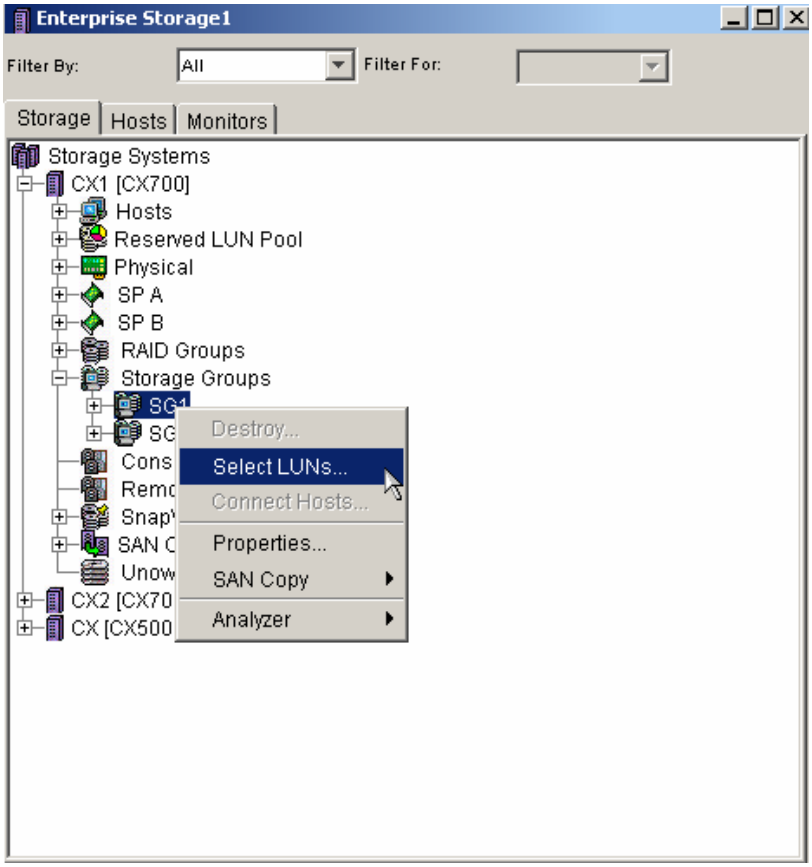
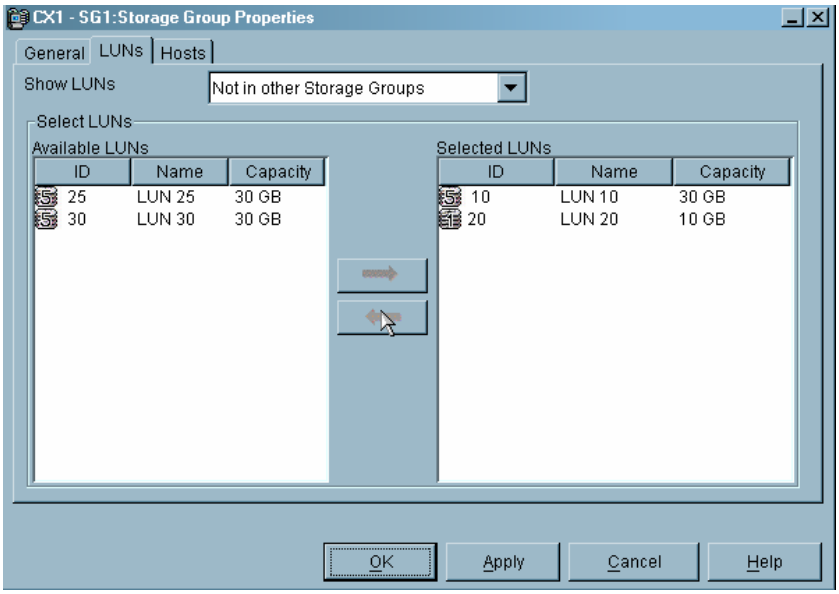
8. Following the same procedures, place the Hosts into the Storage Groups on CX2 [CX700]. When completed, the Storage Tree in Manager for CX2 [CX700] should look like the graphic below.

Note that the hosts are in different Storage Groups.



9.	Place LUNs in their appropriate Storage Groups. For CX1 [CX700] expand **CX1 [CX700]** and right-click **SG1**. Click **Select LUNs** from the drop-down menu. 
10.	Select **LUNs 10 and 20** from the **Available LUNs** and move them to **Selected LUNs** with the right arrow. Click **Apply** and then confirm the operation. When completed, the window should look like the graphic below. Click **Cancel** to exit the window. 

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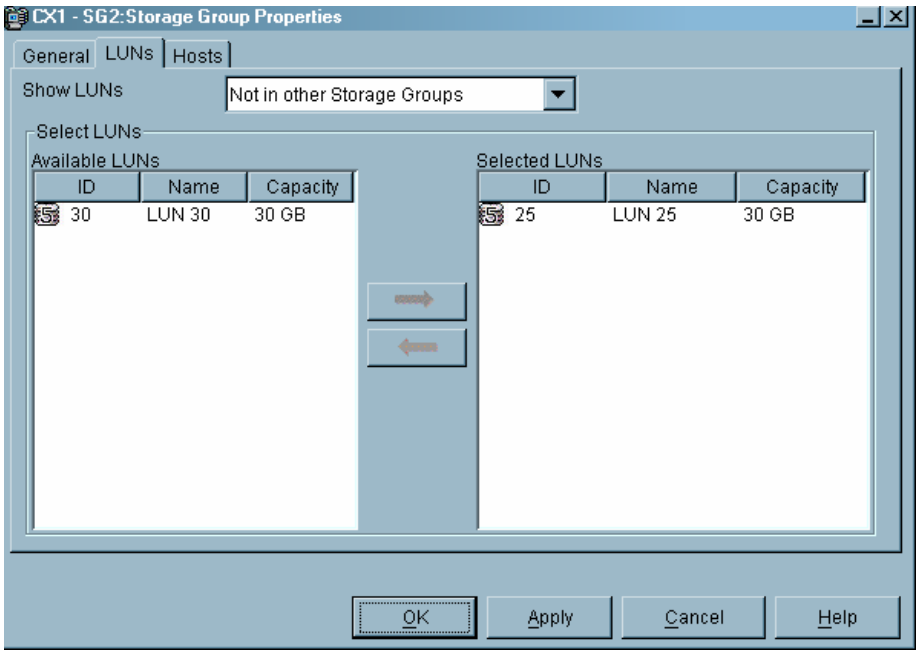
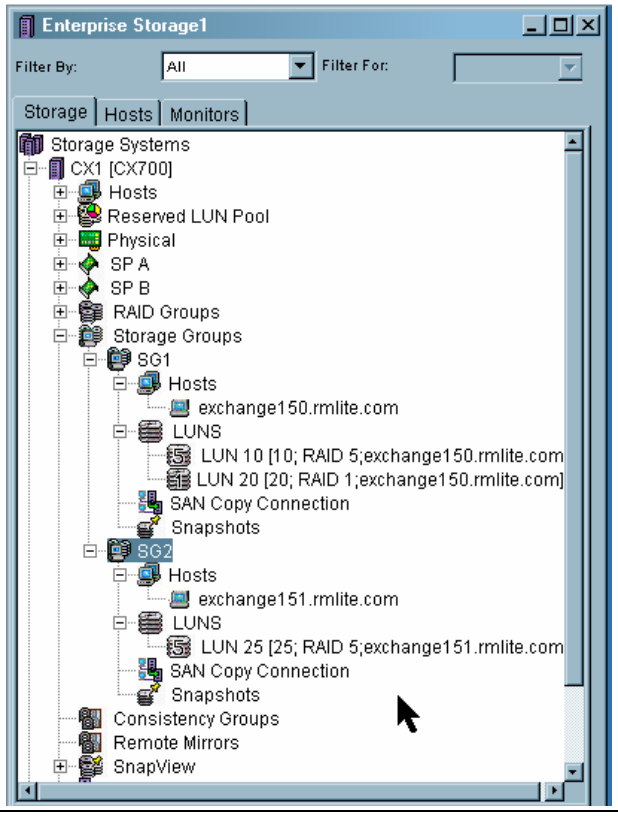
11.	For CX1 [CX700] - SG2, select **LUN 25** and place it into **Selected LUNs**. Click **Apply**, and then confirm the operation. Exit the window by clicking **Cancel**. 
12.	Expand **CX1 [CX700] – Storage Groups – SG1 – LUNs** and **SG2 – LUNs** to verify the LUNs are in the correct Storage Group. 

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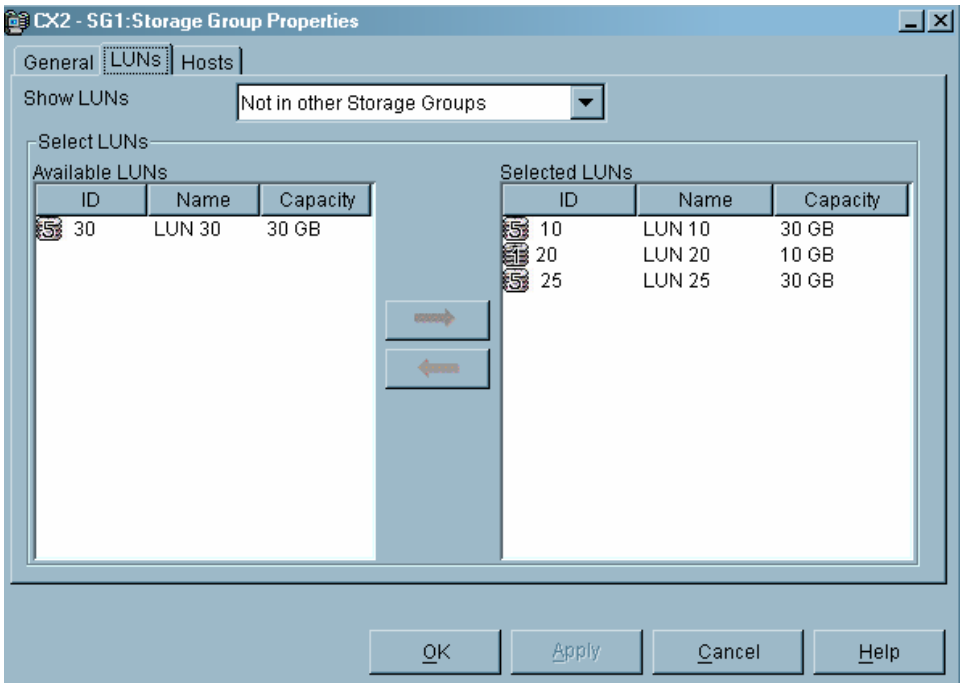
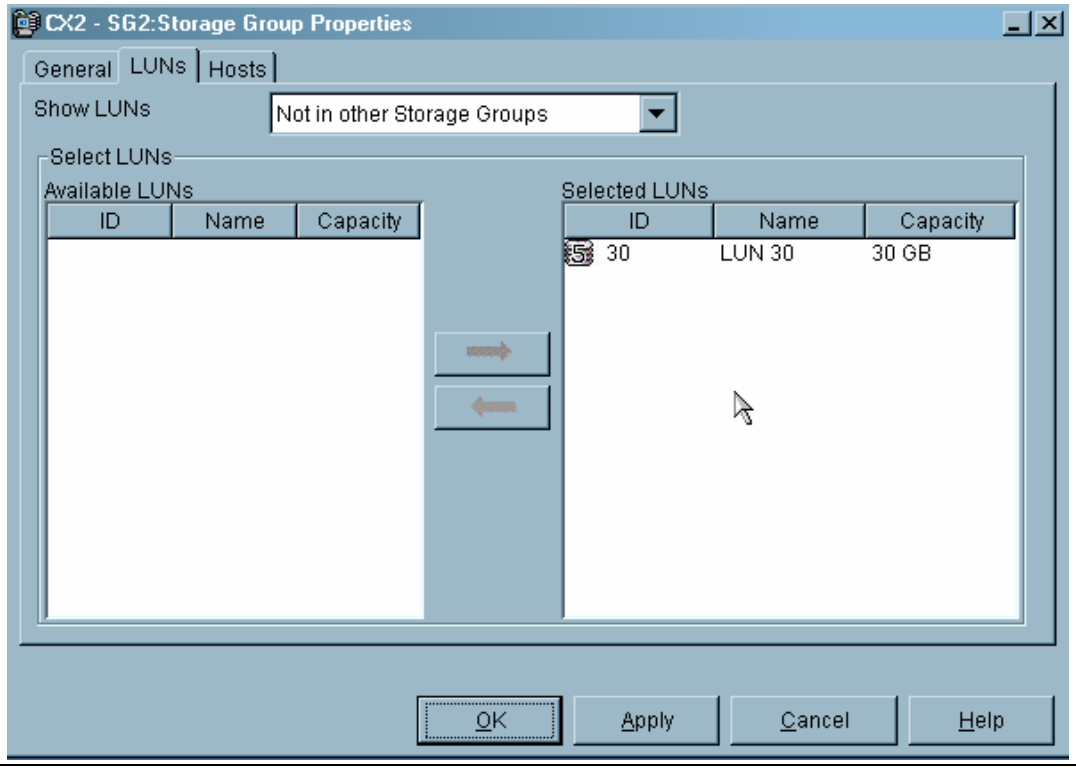
13. **For CX2 [CX700]** SG1, Select **LUNs 10, 20, 25** from the **Available LUNs** and move them to **Selected LUNs** with the right arrow. Click **Apply** and then confirm the operation. When completed, the window should look like the graphic below. Click **Cancel** to exit the window.



14. For CX2 [CX700] SG2, select **LUN 30** and place it into **Selected LUNs**. Click **Apply**, and then confirm the operation. Exit the window by clicking **Cancel**.



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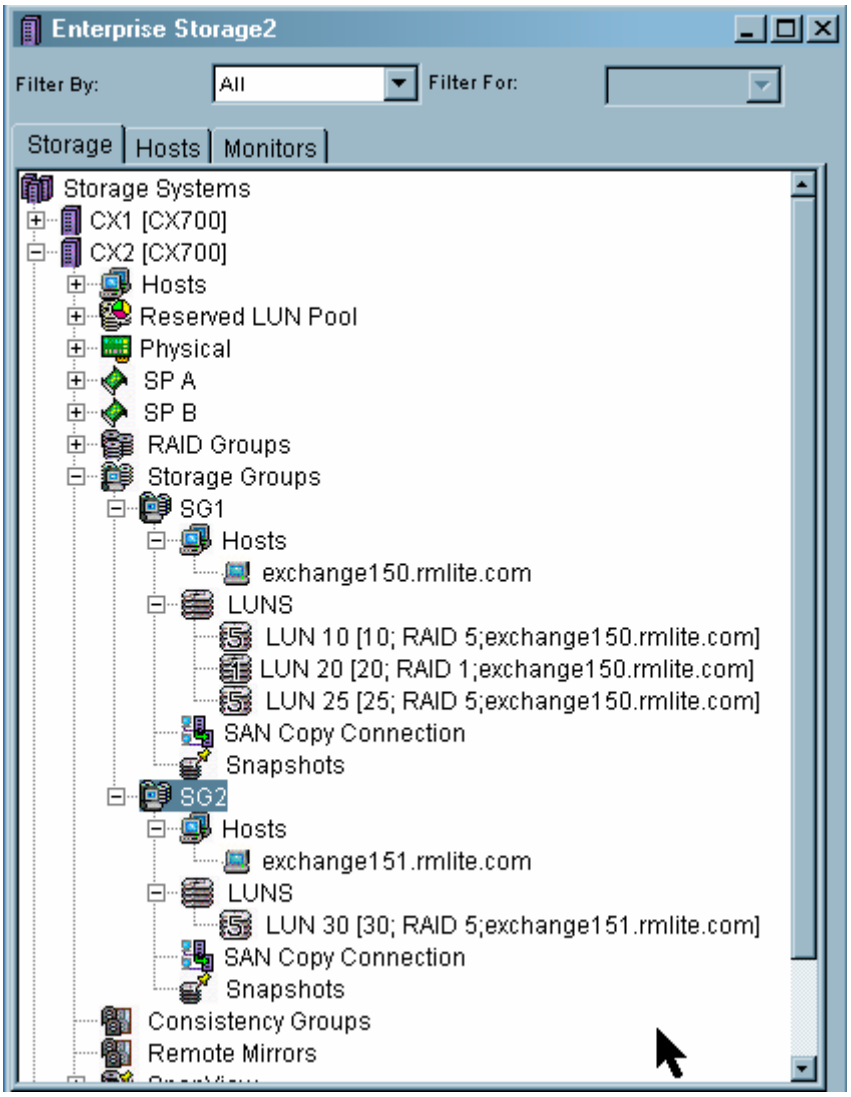
15.	Expand **CX2 [CX700] – Storage Groups – SG1 – LUNs** and **SG2 – LUNs** to verify the LUNs are in the correct Storage Group. 
16.	This completes the Populating Storage Groups exercise.

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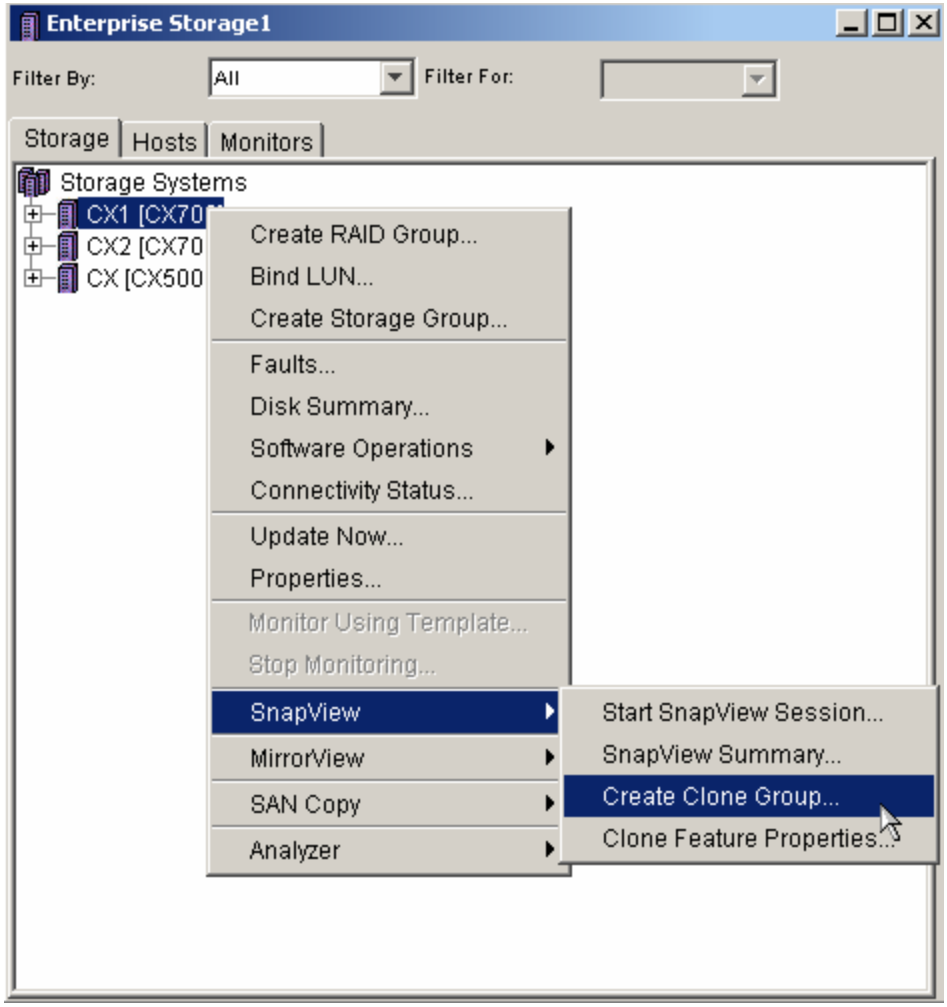
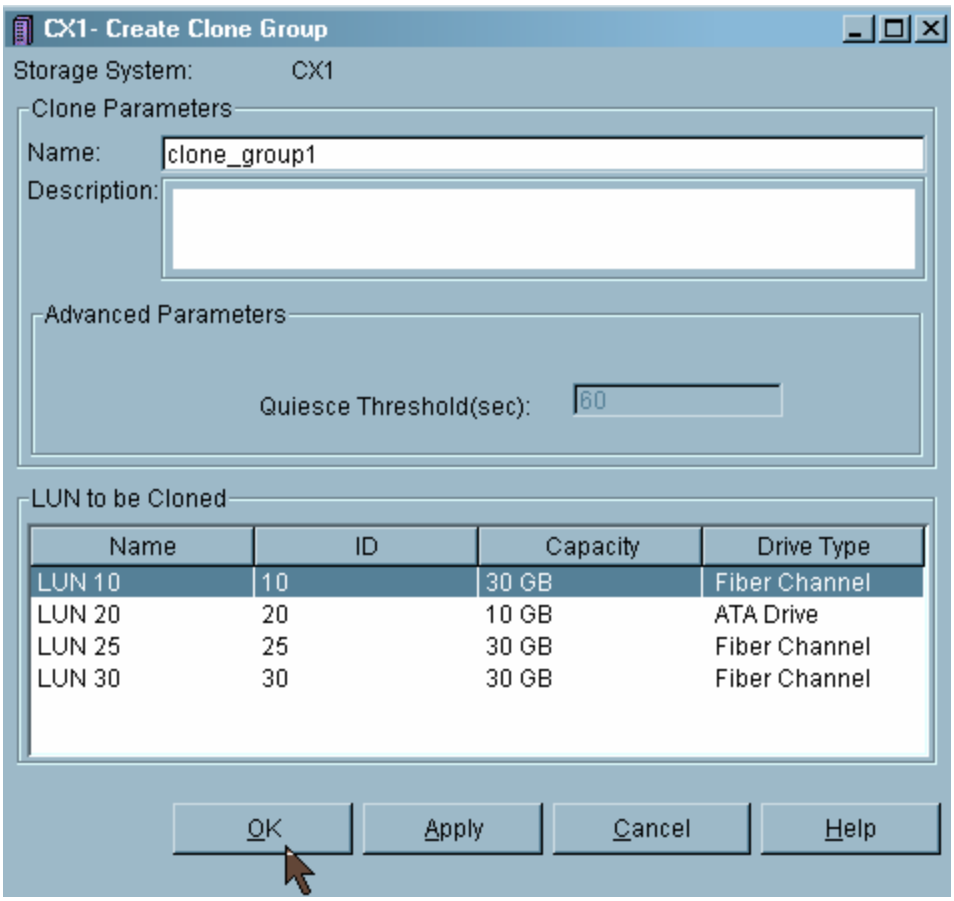
Lab 7: Creating a SnapView Clone

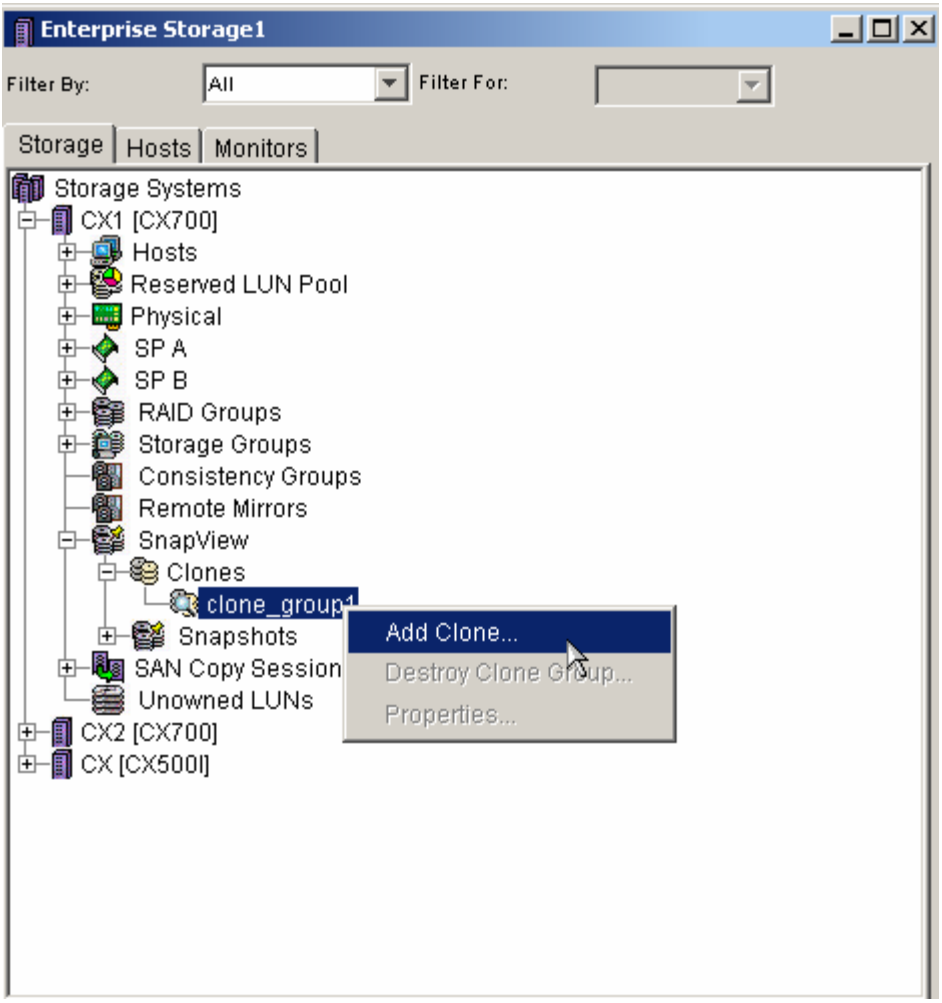
SnapView Clones are typically used to facilitate Disk-Based Backups in a Production environment. Clones ease the overall performance "Hit" when backing up a LUN in a 24 by 7 production environment. Clones also allow for faster recovery when the original data is not accessible.

Step	Action
1.	The first step is to create a Clone Group where the Clone will be a member. Right-click on the CX1 [CX700] array and select SnapView then select Create Clone Group. 

2. In the name field, enter the name of the Clone Group, **clone_group1** and select LUN 10 in the "**LUN to be Cloned"** field. Click Apply and confirm the operation.

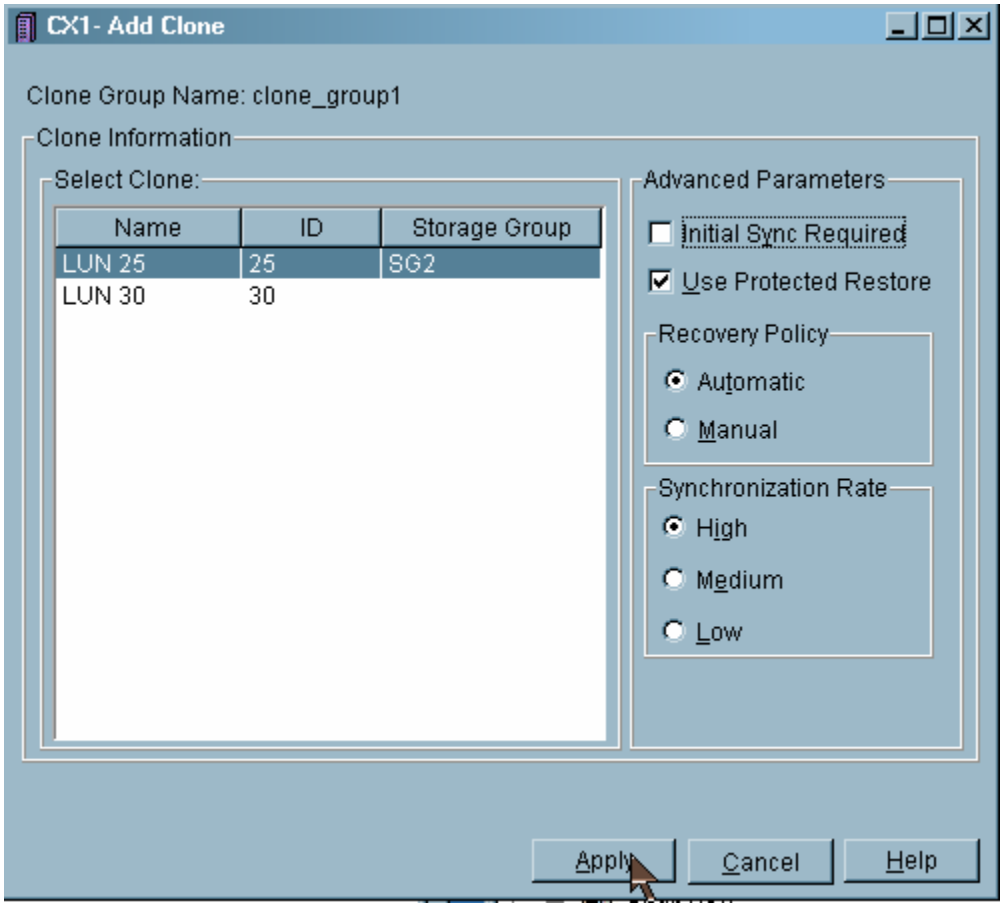


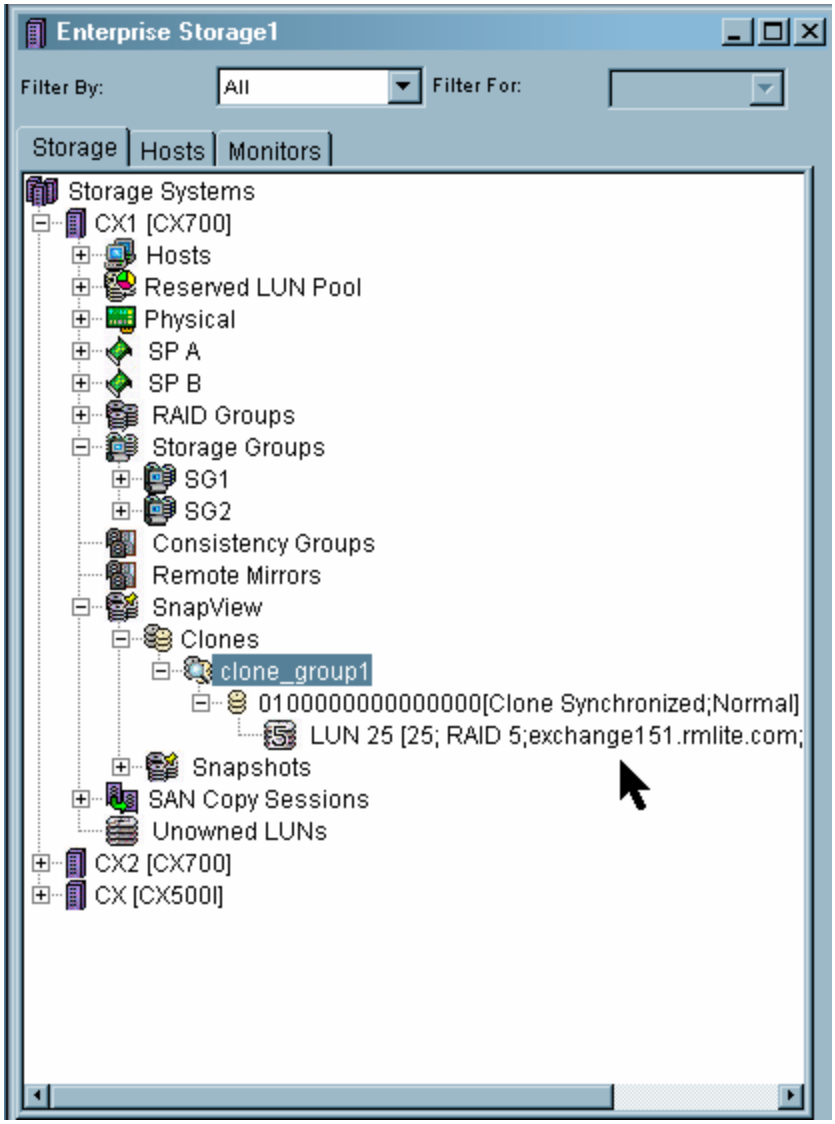
3. To place a Clone LUN in a Clone Group, expand **SnapView – Clones**. Right-click on the Clone_group1 and select **Add** Clone.



4. In the **Add Clone** window choose **LUN 25** as your Clone LUN. Check **Use Protected Restore** and select a **High** Synchronization Rate as shown in the graphic below.

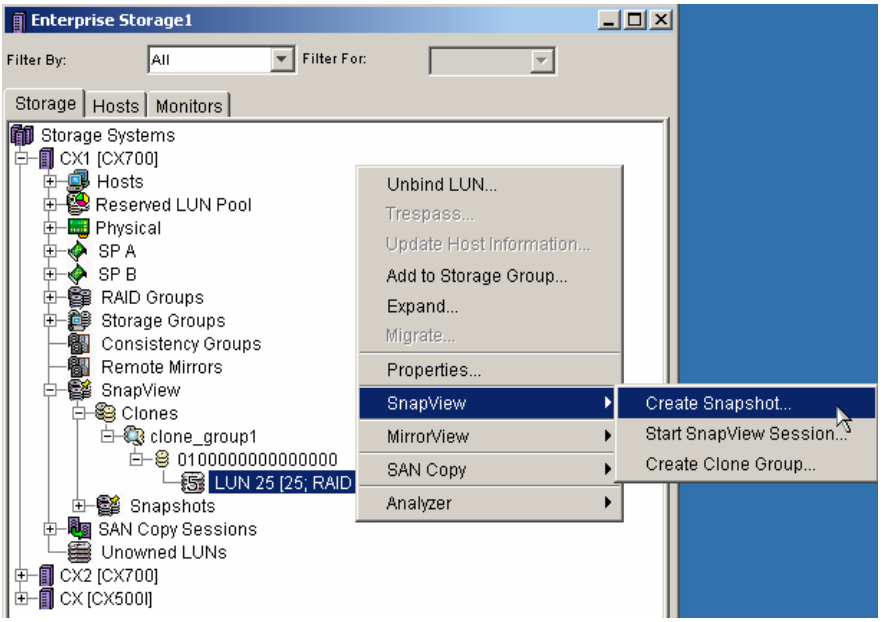
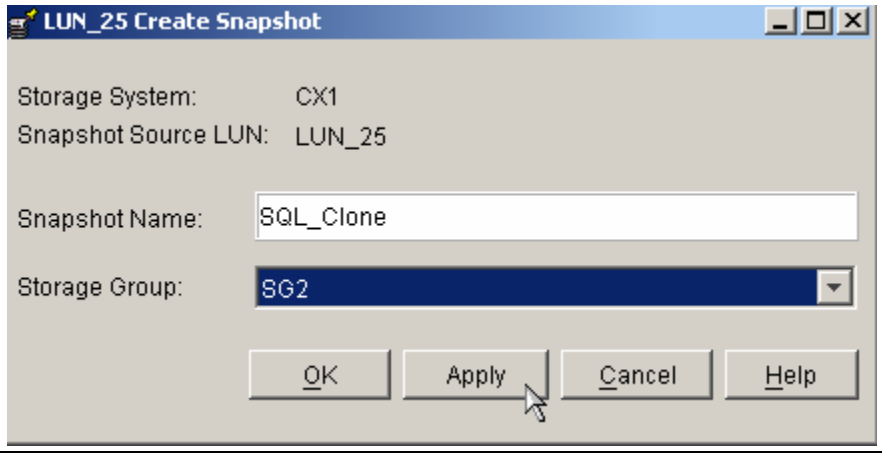
Select **Apply** then confirm the operation. Select **Cancel** to exit the window.



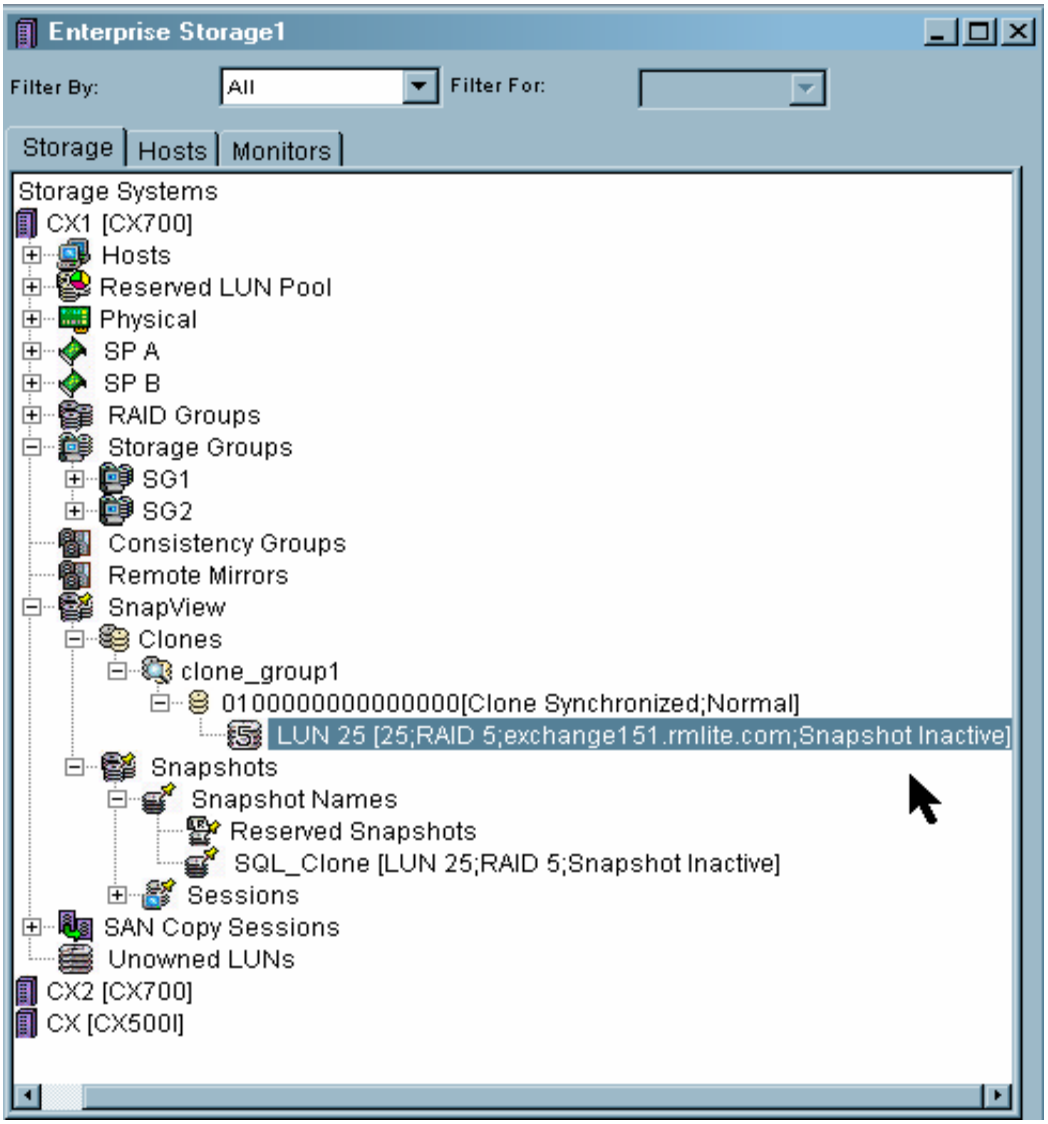
5.	To review the Clone Creation, expand SnapView – Clones – **Clone_group1 – 0100000000000000**, the Clone ID number in the Clone group1. This will show you the LUN used as a Clone, as shown in the graphic below. 
6.	This completes the Creating a SnapView Clone exercise

Lab 8: Creating SnapView SnapShots

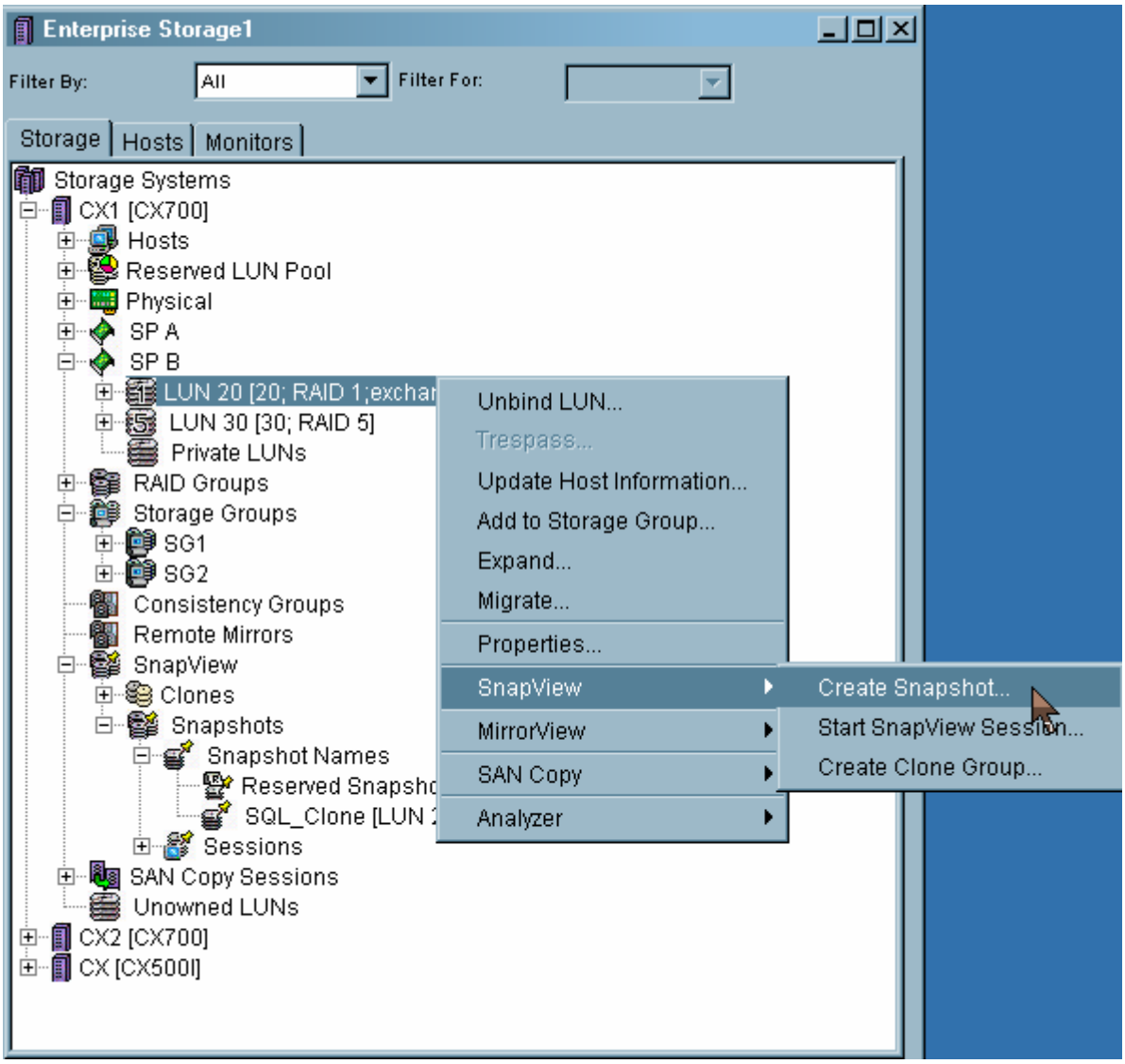
Follow these steps to complete the configuration of both SP-A and SP-B properties.

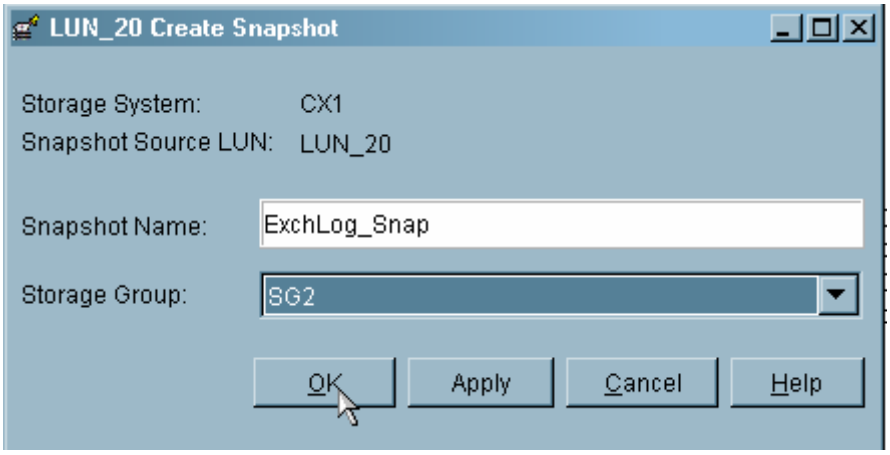
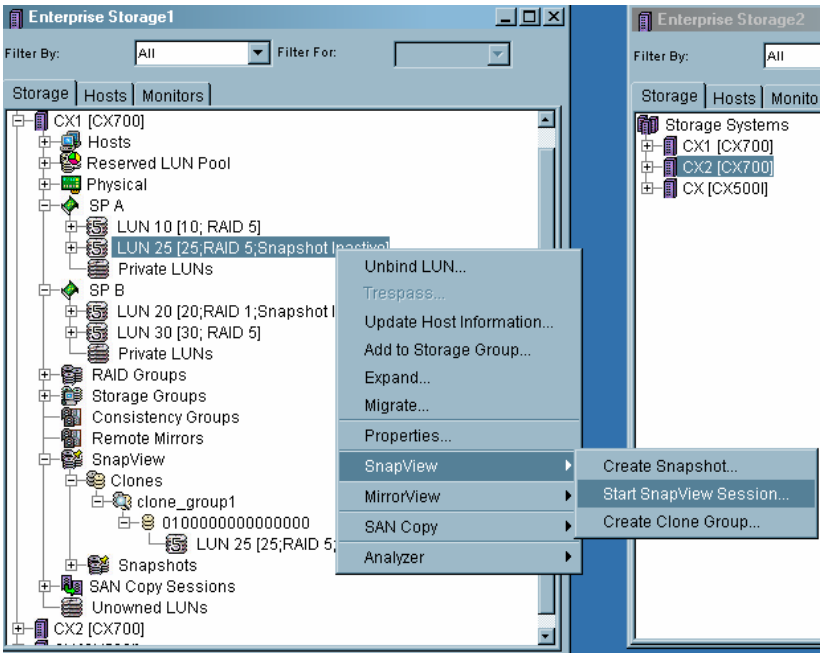
Step	Action
1.	First we will add a SnapShot to the Clone LUN. Select the Clone LUN from the previous operation and right -click to get the drop-down menu. Select **Create SnapShot**. 
2.	In the Create SnapShot window, give the SnapShot a name, **SQL_Clone**, and assign the SnapShot to Storage Group **SG2**. Assigning the SnapShot to **SG2** gives **exchange151** access to the SnapShot LUN (when the SnapShot is active) for backup purposes. Select Apply and confirm the operation. 

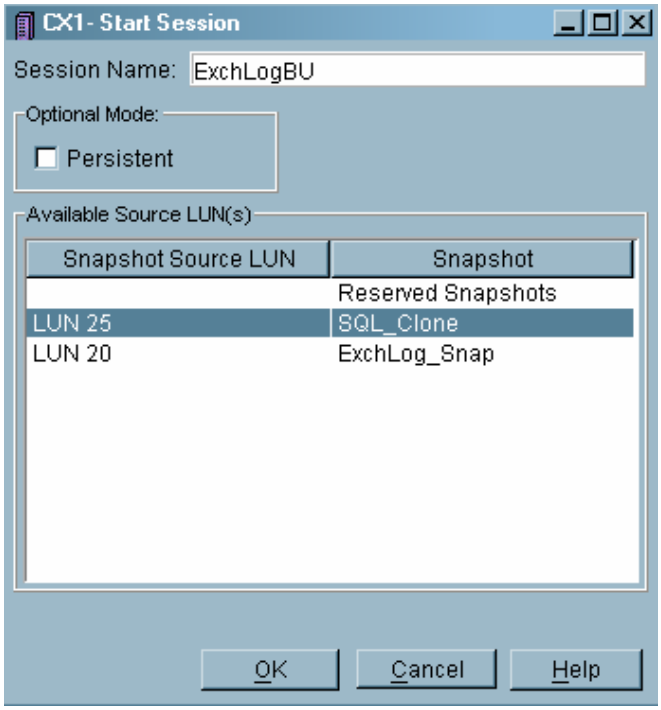
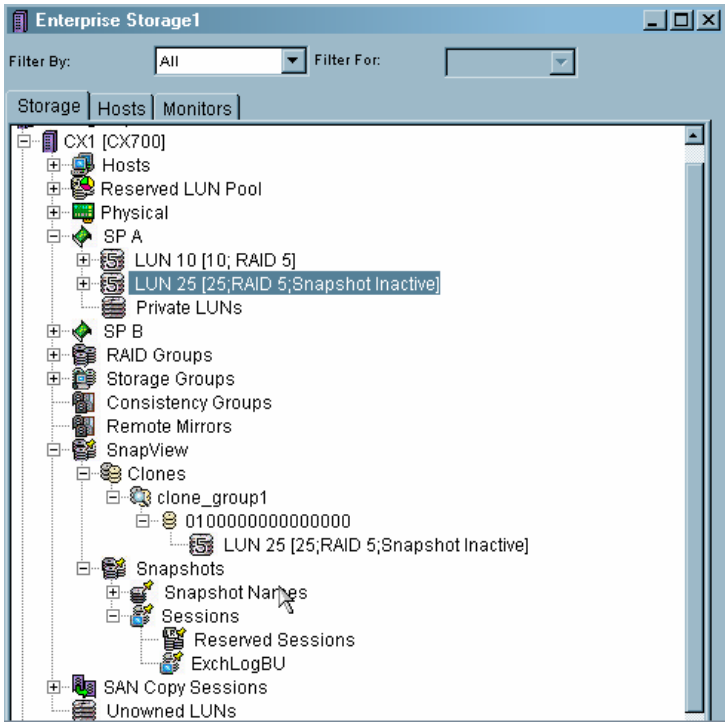
3. Review the SnapShot creation in the Enterprise Storage Window under **SnapView – Clones** as shown below.



4. To create a SnapShot on a regular LUN, expand the SP of the LUN and select the LUN to be snapped. As shown in the graphic, expand **CX1 [CX700]**, then SPB. Right-click on the LUN 20 and select **Create SnapShot**.



5.	As with the previous SnapShot, give the SnapShot a Name and select a Storage Group. Try to give the SnapShot a name that will describe its function. **i.e. ExchLog_Snap**. Click **Apply** and confirm the operation. 
6.	Once the SnapShot is created, it can be placed in a Session. The point in time is set when the session is started. To start a session, right-click on the SnapShot LUN, **LUN 25**, and select **SnapView, Start SnapView Session**. 

7.	Give the session a name, **ExchLogBU**, and select the LUN to be included in the session from **Available Source LUN(s)**. Click **OK** to start the session and set the point in time for the SnapCopy LUN. **Remember, when you start the session, the point in time of the SnapCopy LUN is set and SnapCache is collecting the Copy on First Write data.** 
8.	Review the session creation by expanding the **SnapView – SnapShot Sessions** object in the Enterprise Storage Window. 

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9.	You have now configured your CLARiiON Storage System for Host access to RAID protected LUNs. You have Cloned a LUN to allow for faster Backups. And, you are using SnapShots LUNs to ease the Backup operation on your production environment. **Congratulations on your accomplishment!**
10.	You have completed Section 1, CLARiiON Manager Configuration Lab.

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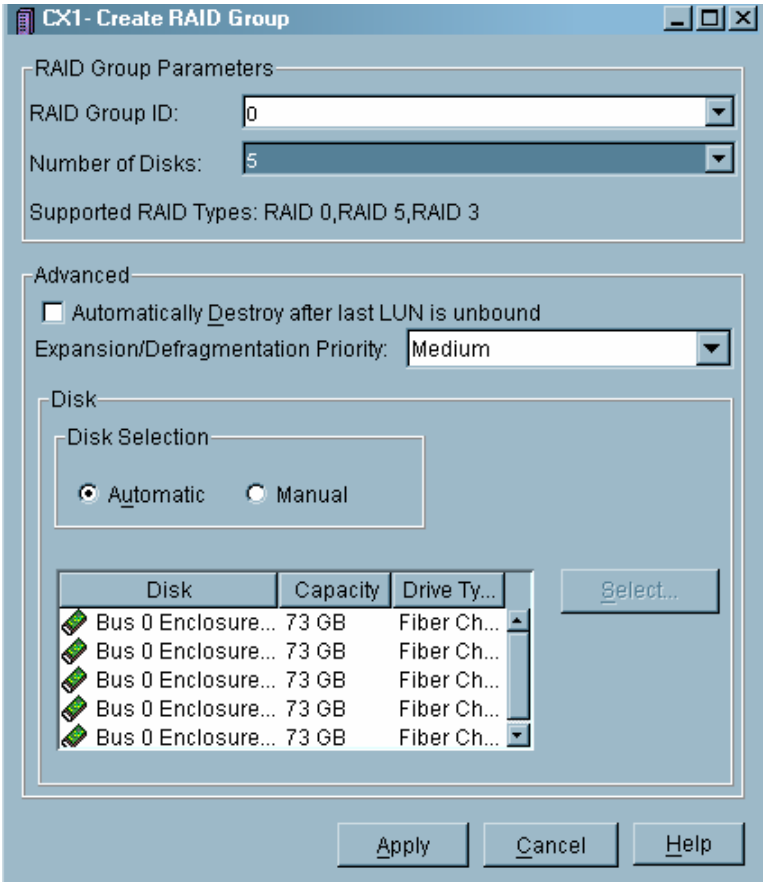
Section 2

Lab 9: Creating Synchronous Mirrors

In the previous labs, you created RAID Groups, Storage Groups attached hosts, and created Clones and Snaps. Section 2 will have you reset the Navisphere Simulator and create MirrorView and San Copy sessions using what you learned in the previous labs. CLARiiONs can create two (2) types of mirrors - **Synchronous and Asynchronous**. The following labs have you create both . You can also create 2 types of San Copy sessions, Full and Incremental. You must first setup the array. Use the directions below. **The creation of RAID Groups Storage Groups and LUNs should be done on BOTH ARRAYS. The Simulator should be reset (Start> Programs> Navisphere Simlator v3.x> Reset Navisphere Simulator v3.x) for this lab.**

Step	Action
1.	Navisphere Manager requires a valid username and password to log in on the Manager Graphical User Interface (GUI). This is to authenticate the user and determine his authorization level for management and configuration of the CLARiiON Storage Environment.
2.	Create a RAID Group 0 on **Each Array** with 5 disks RAID 5 

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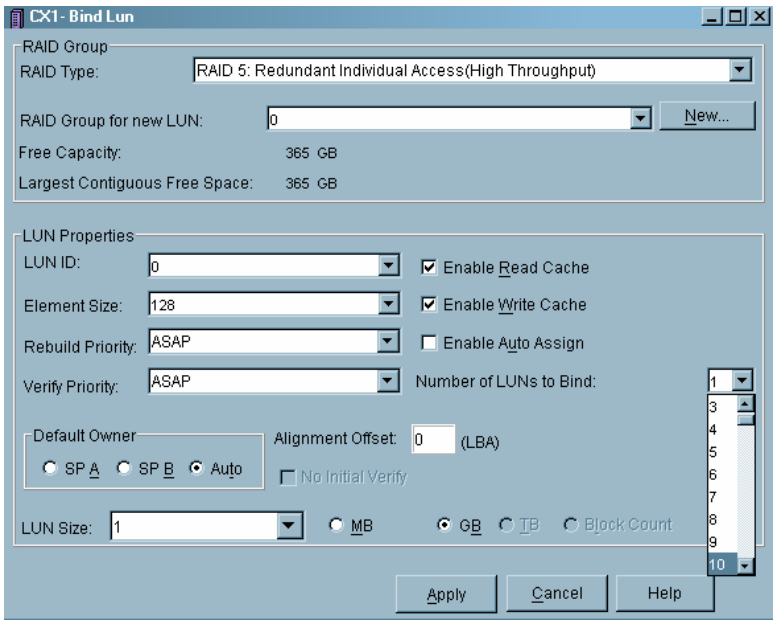
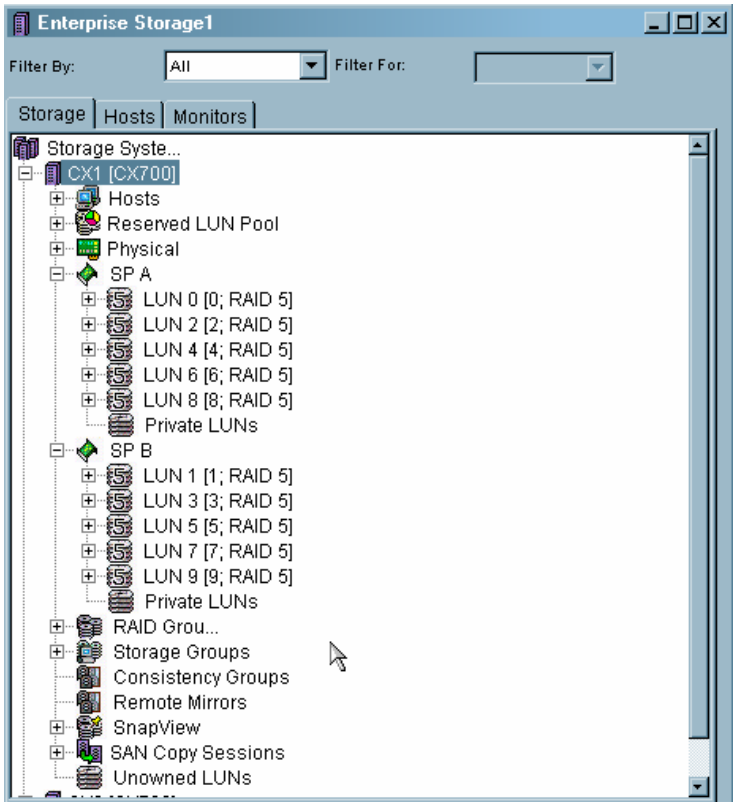
3. Create a Storage Group on **EACH ARRAY** called SG1. Bind 10 LUNS of 1 GB each. NOTE the setting for **Default Owner is AUTO.**



4. Verify your Storage Groups and LUNS. Note the LUN numbering for the respective SP's.



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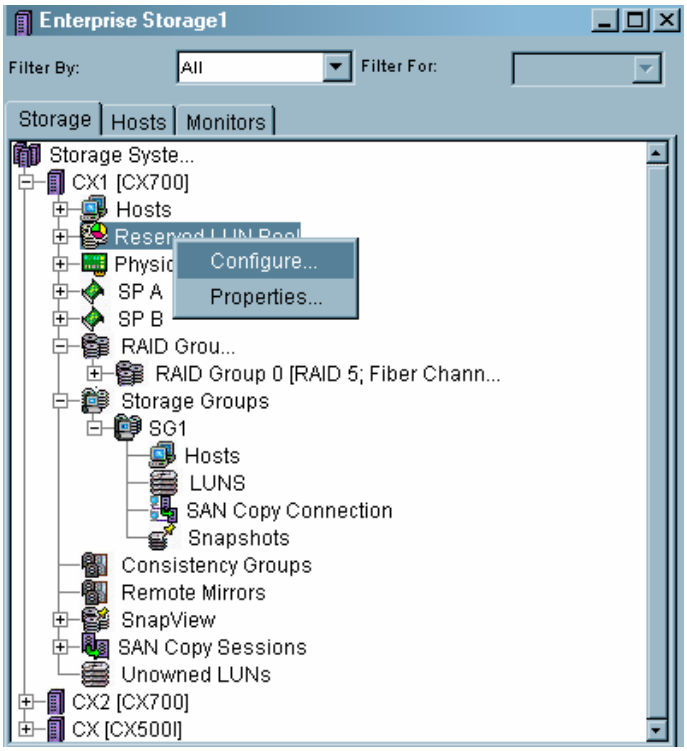
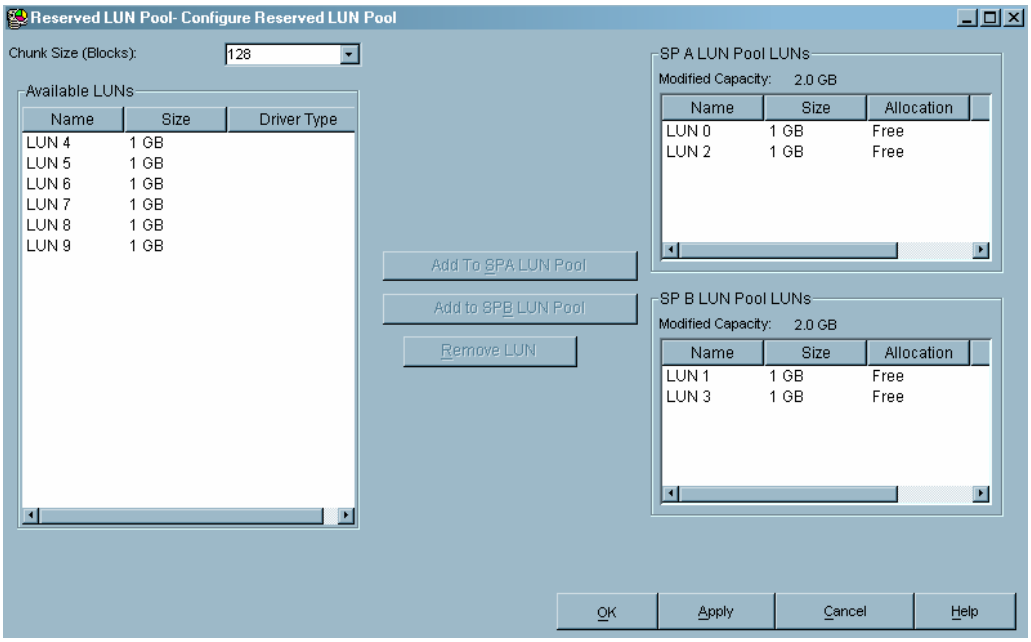
5. Configuring the Reserved LUN Pool. The RLP is used for Snapshots, MirrorView Asynchronous and San Copy Incremental sessions.

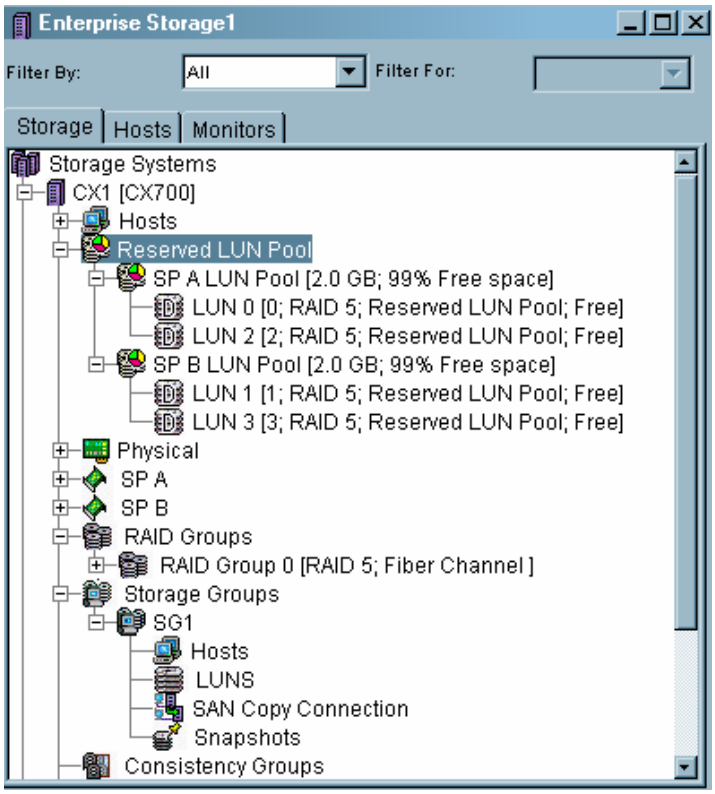


6. Highlight the LUNS and move them to their respective SP's according to the screen below.

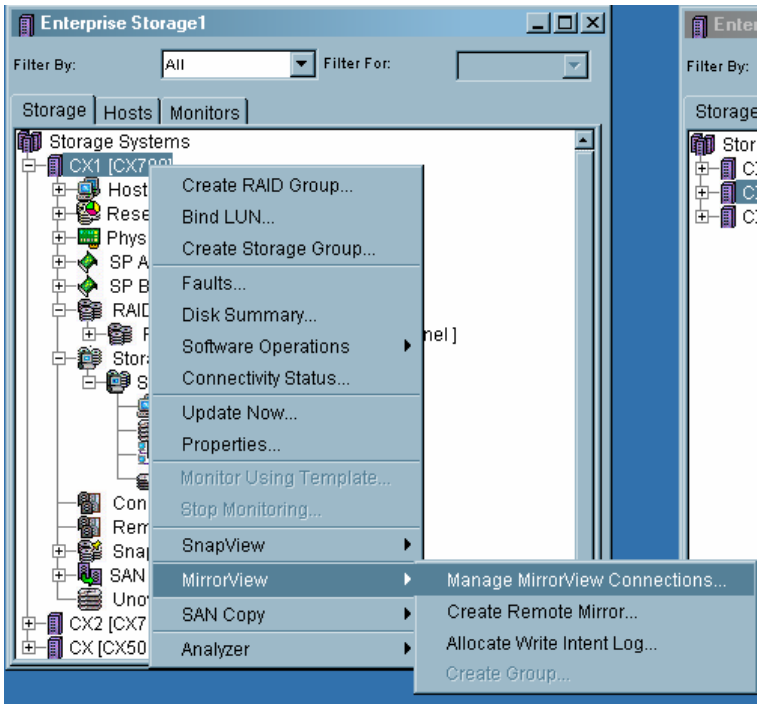
Once you click on a LUN, click on "ADD To SPx LUN Pool" to move it. Click Apply and OK.



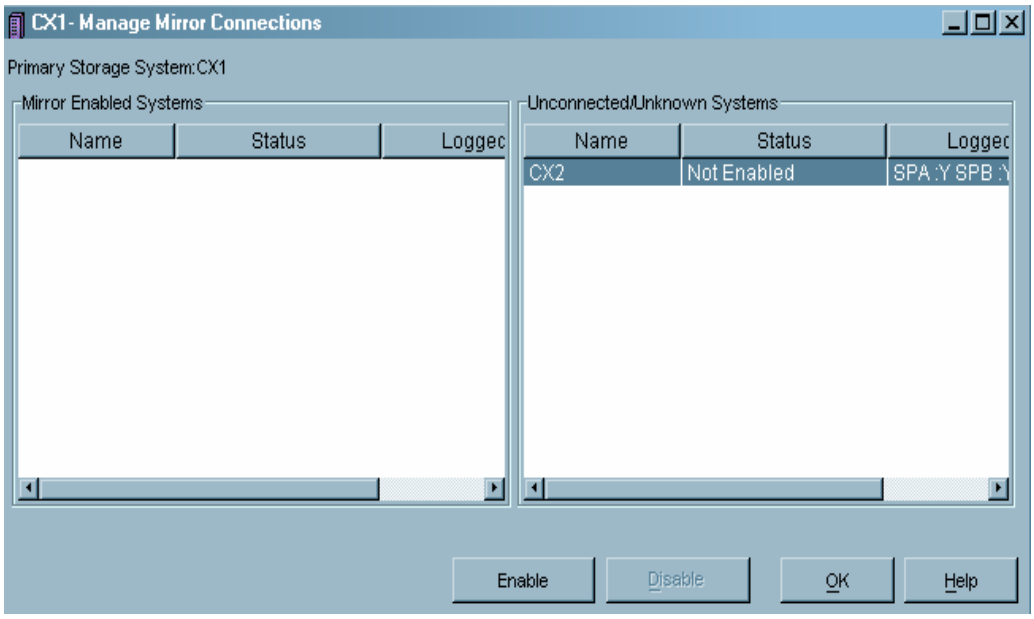
7. Open the Reserved LUN Pool and verify your work.

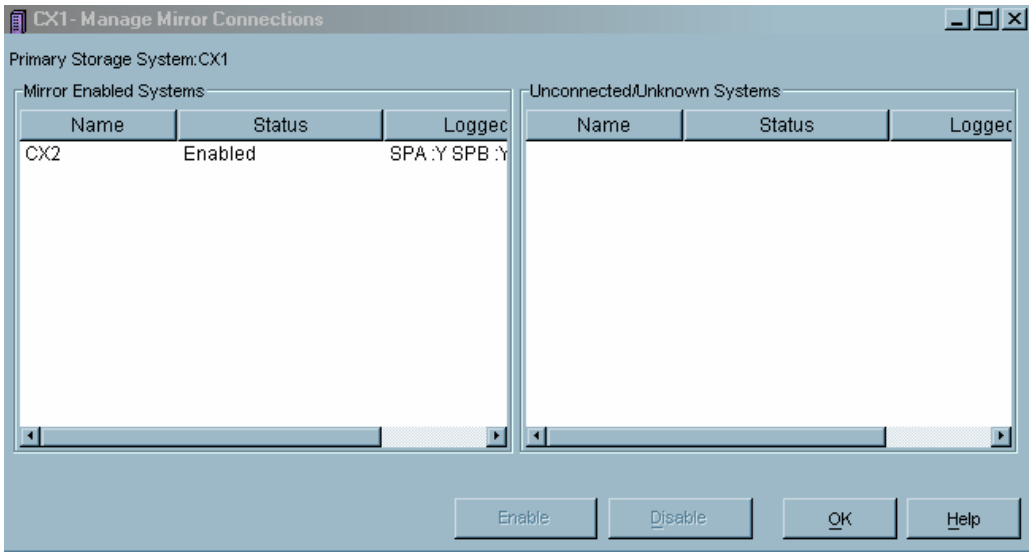


8. Setup your MirrorView connections. These are required to allow mirrors access to the remote or secondary array.

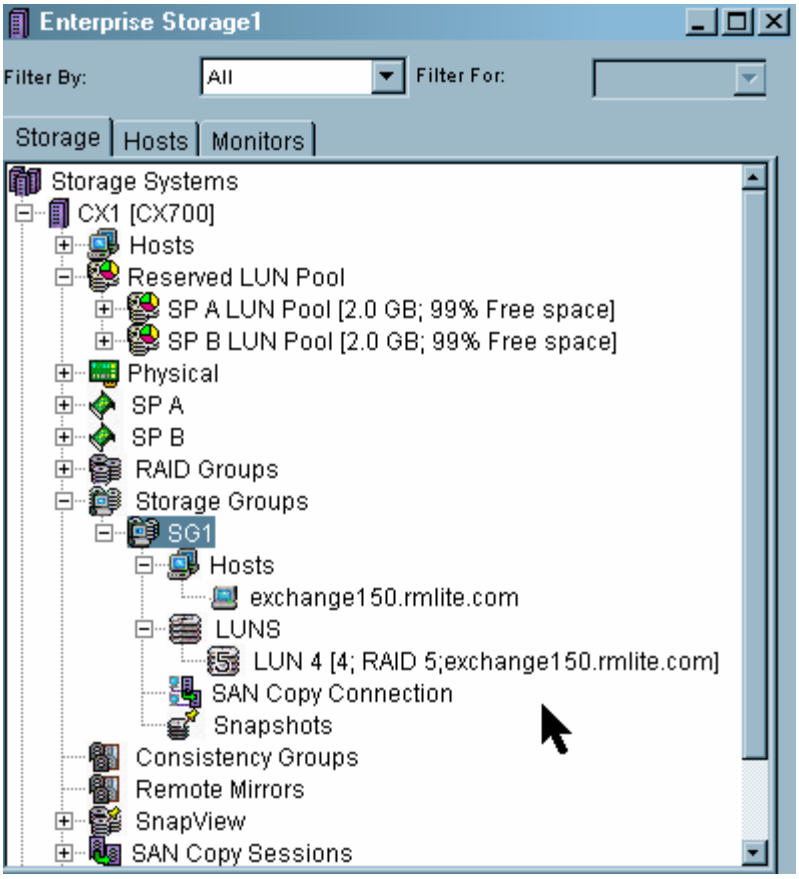


9. Highlight the connection and click “Enable” and validate it moved over to the left screen pane.





10. Add **LUN 4 to your SG 1** and connect host **exchange 150.rmlite.com** to it. Validate they show up.



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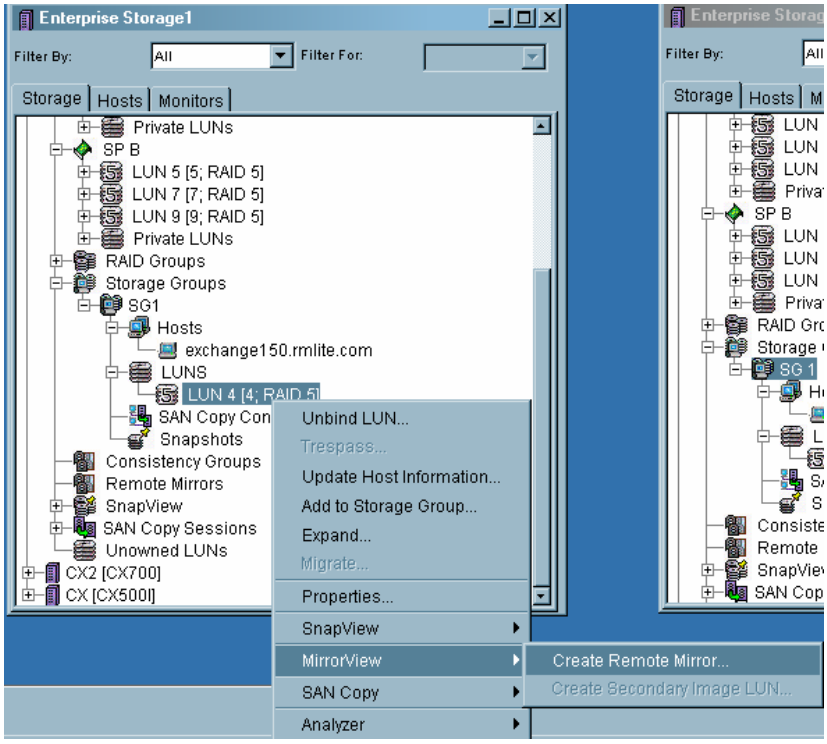
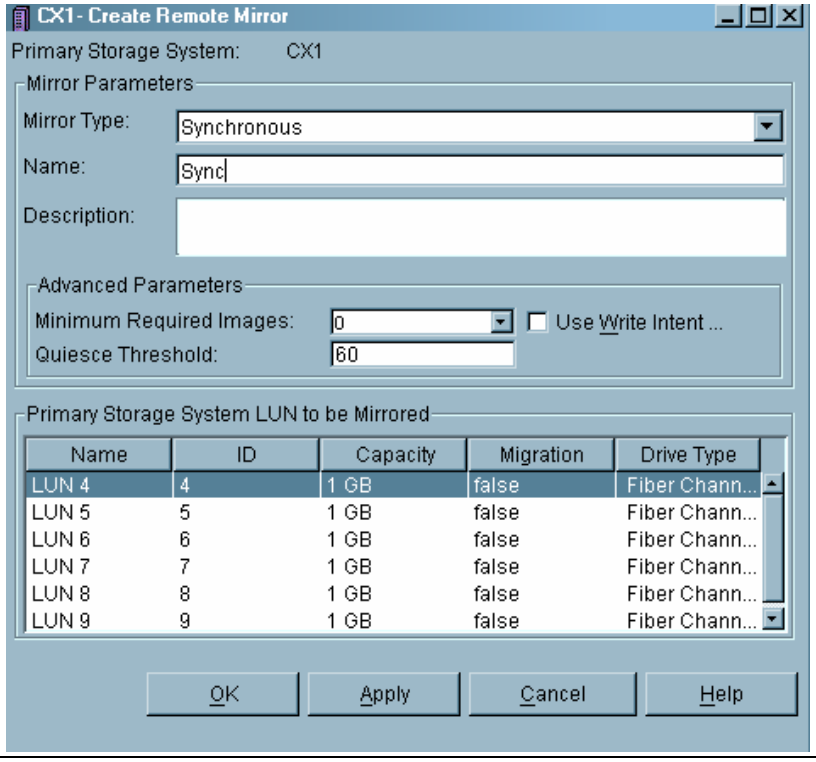
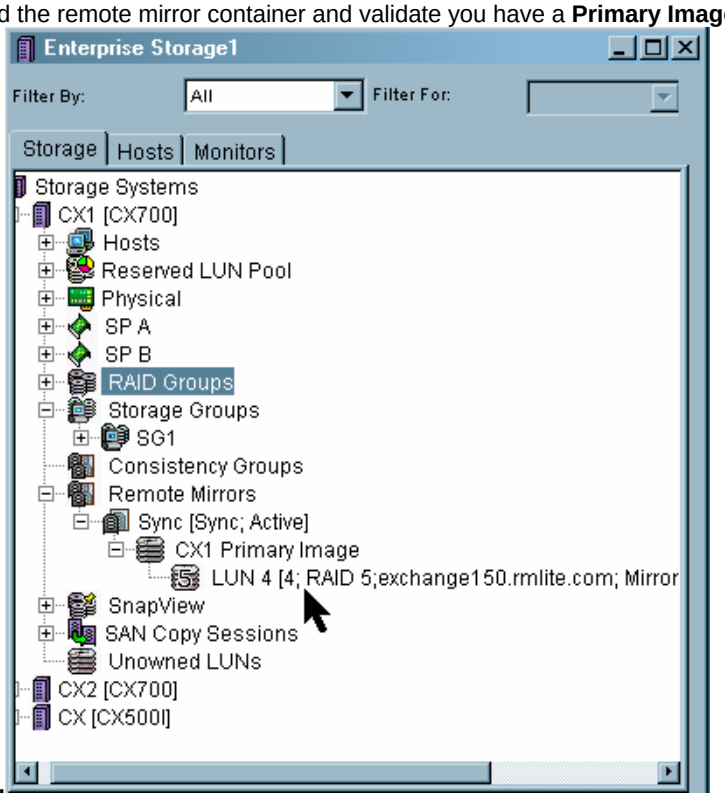
11.	Right click on LUN 4 and Create a Remote Mirror. 

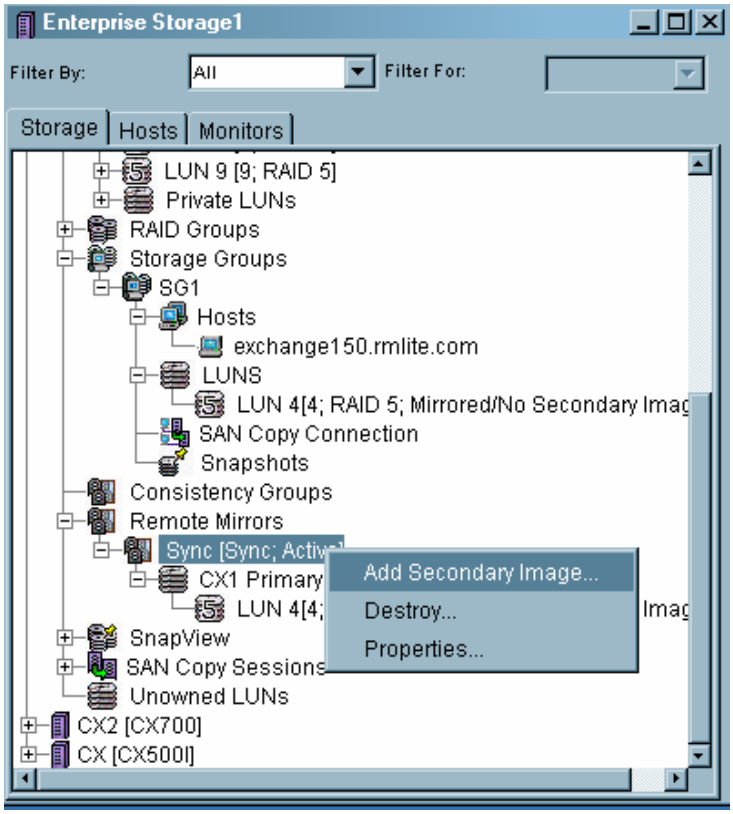
12. **Note the default Mirror Type is Asynchronous**, use the **arrow** to change it to **Synchronous**. Give the Mirror a name, ensure **LUN 4** is highlighted. Click OK



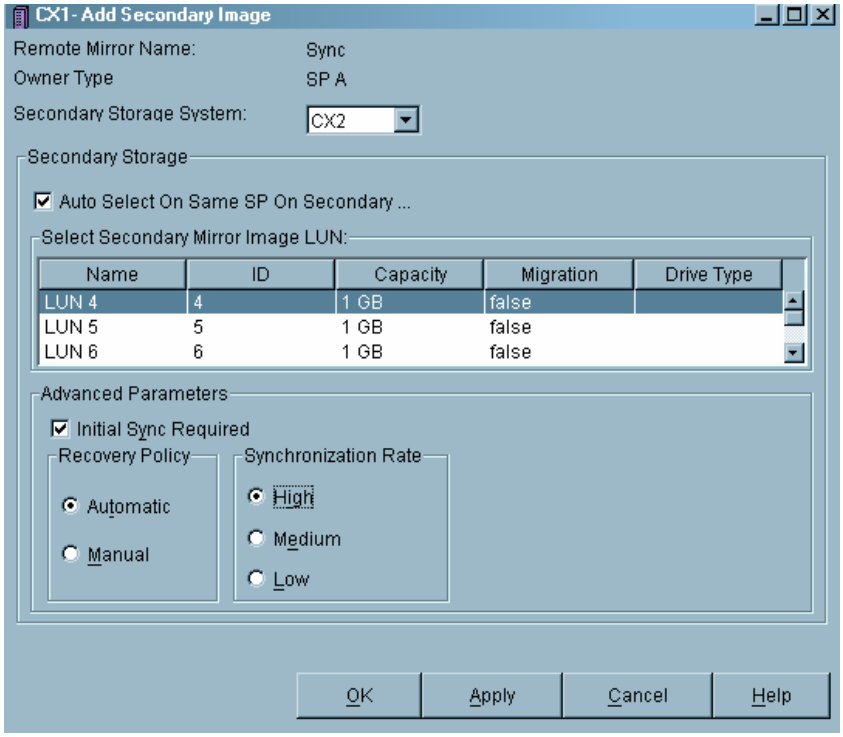
13. Expand the remote mirror container and validate you have a **Primary Image.** Next you create a **Secondary Image.**



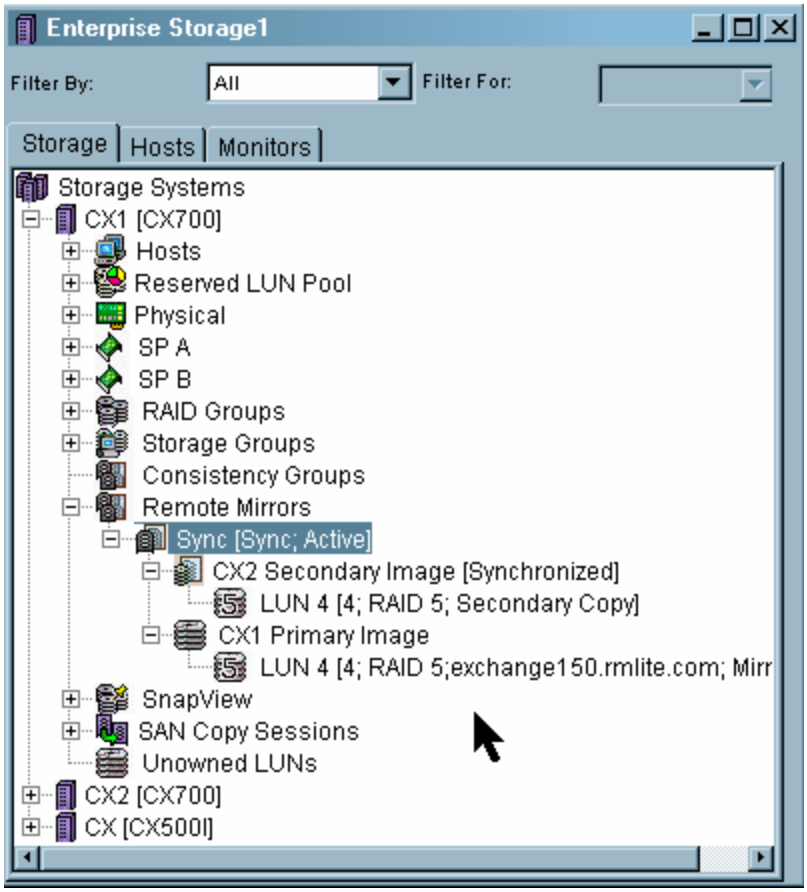
14. Right click and "**Add Secondary Image**".



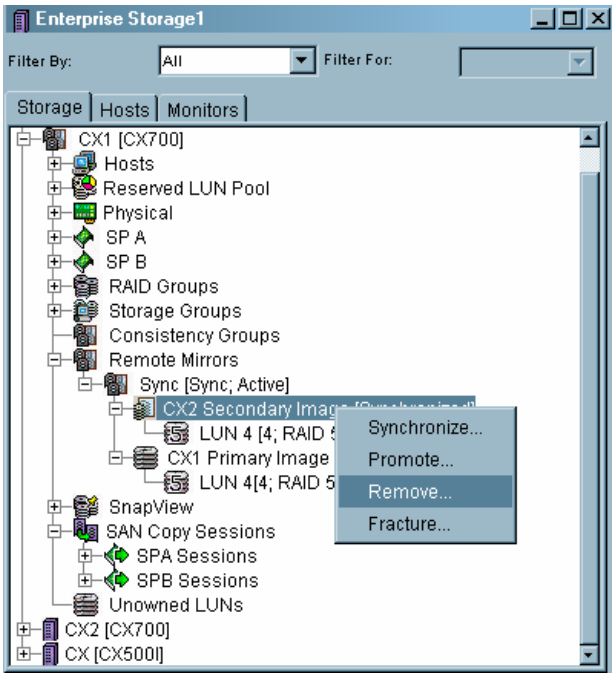
15. Check to ensure the **CX2** array is selected, locate and highlight LUN 4 to create your image. Click OK.



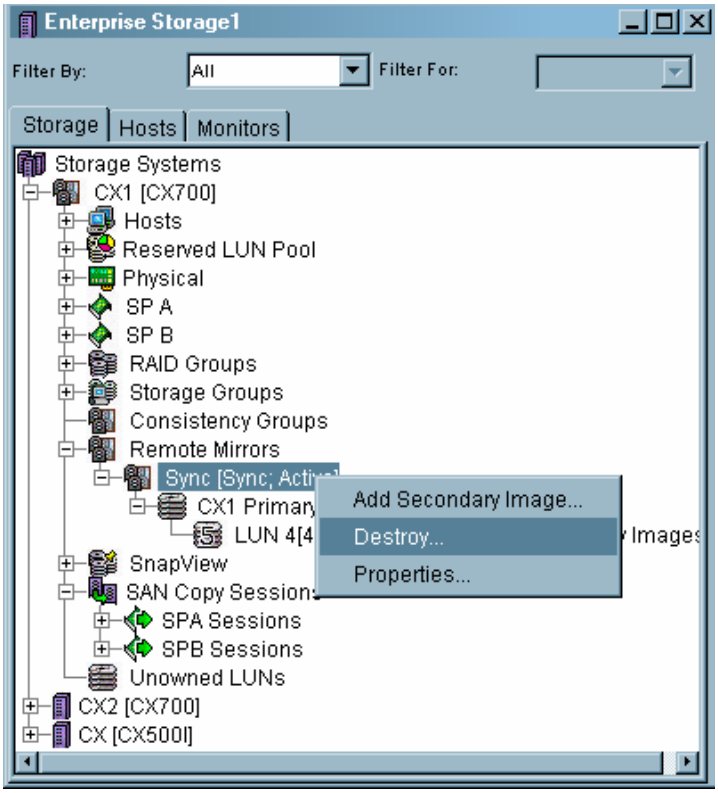
16. After the mirror synchronizes, validate the Images are displayed under "**Remote "Mirror**" container. Check **CX2** and validate the same. On **CX1**, look at **LUN 4** and make sure it says "**Mirrored**"; it should appear under **RGs, SG's and SPs.**



17. Remove the **Secondary Mirror**



18. **Destroy the Mirror.** Validate all mirrors are removed.



19. This completes Creating a Remote Mirror Synchronous.

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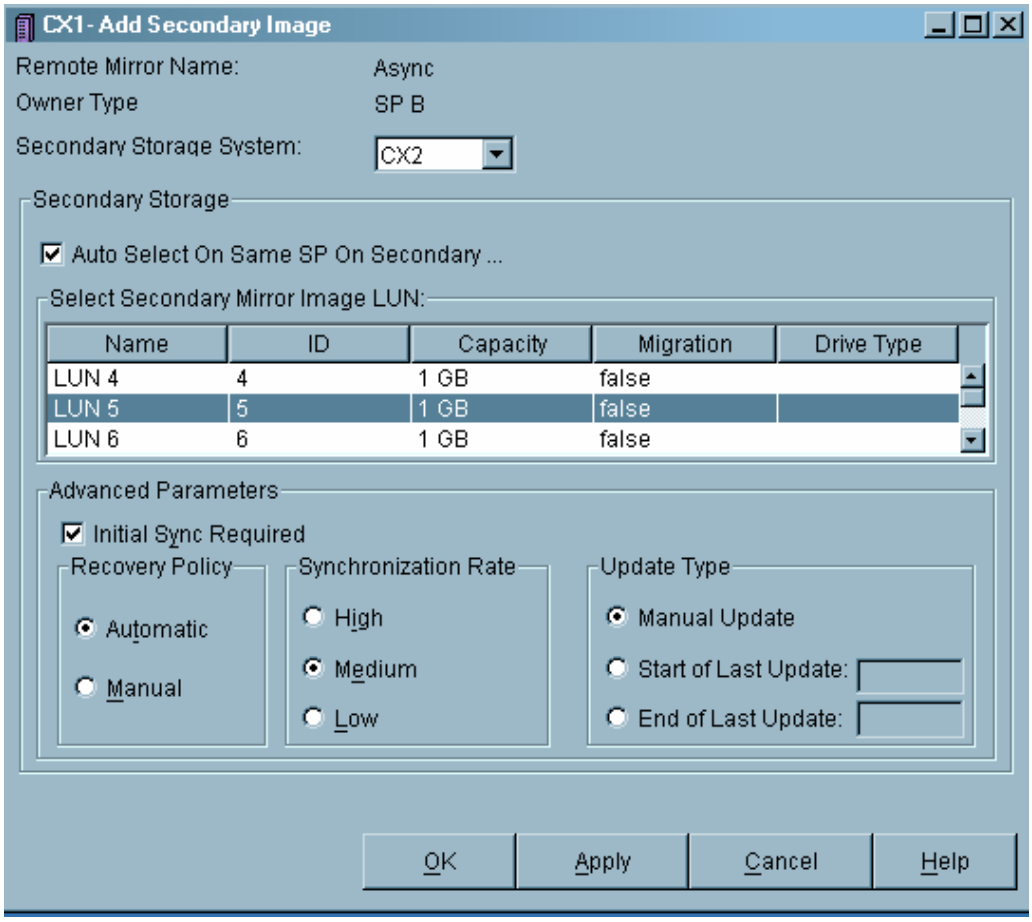
Lab 10: Creating Asynchronous Mirrors

Step	Action
1.	Creating an **Asynchronous Mirror** is very similar to a **Synchronous Mirror**. Add **LUN 5** to the Storage Group 1, then validate it appears in the **SG 1**. Right click on the Source LUN 5 and "**Create a Remote Mirror"** but leave the default mirror type selected **(Asynchronous)**. Once created, look under the "**Remote Mirrors**" container; you should have a Async Mirror. Note its status, since you have not yet created a "**Secondary"** Image yet . Create the Secondary image now. Right click on the Async container, highlight LUN 5 and apply. 

2. Note the difference on the "Primary LUNs" status **Snapshot Active; Mirrored.** MirrorView/A uses snapshots to keep track of changed data on the source LUN. Check out the following **containers** by expanding each one and note their contents. Also, verify the mirror has been created on the secondary array under remote mirrors

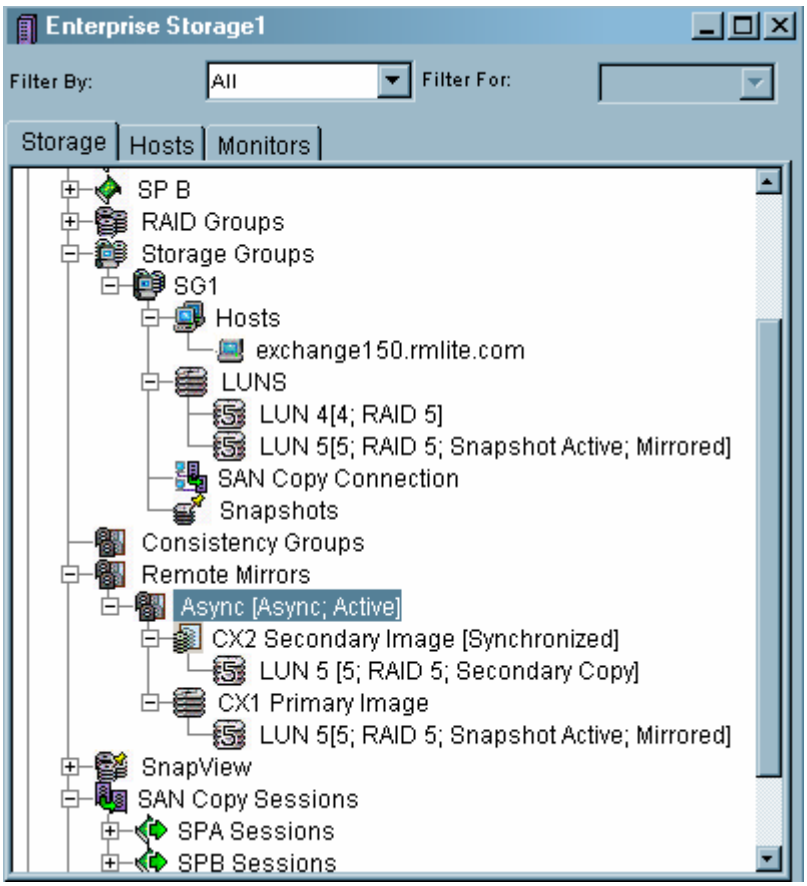
SPs

Reserved LUN Pool (should have a "Allocated" LUN on the owning SP)

RAID Group

Storage Group

SnapView> Snapshot Names> Reserved Snapshot > Reserved Sessions



3. Destroy the Secondary Image, then the Mirror, from the "Remote Mirrors" container remove secondary> destroy mirror. This is the same procedure you used to destroy the Synchronous Mirror. Check the containers to validate everything has been deleted.

You have created and destroyed both Synchronous and Asynchronous mirrors.

Congratulations! Next you will create San Copy sessions.

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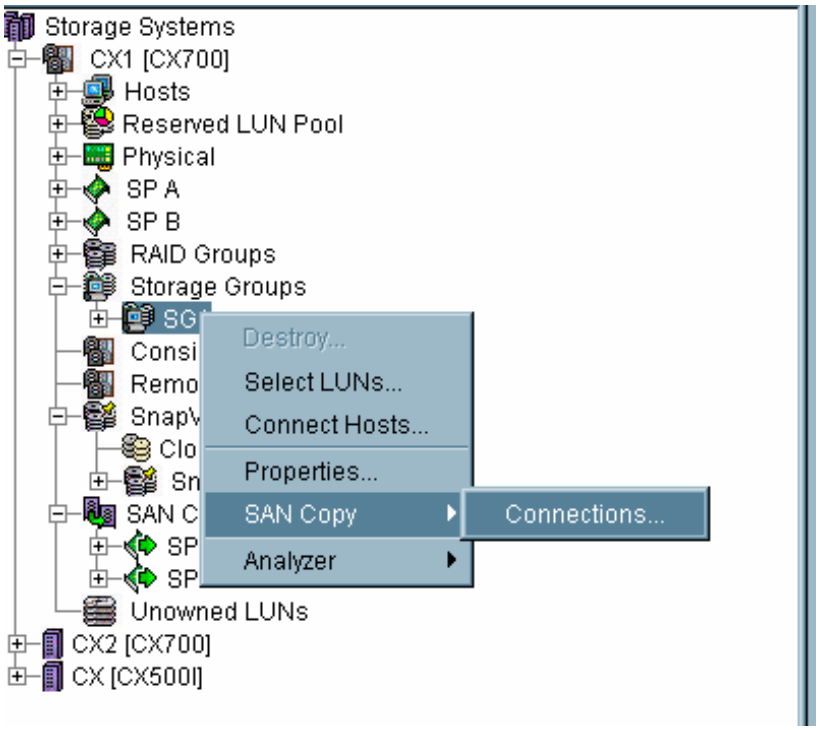
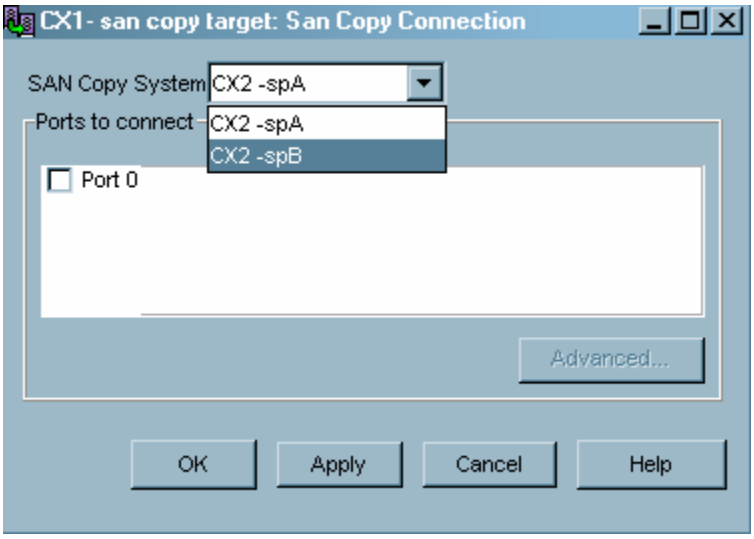
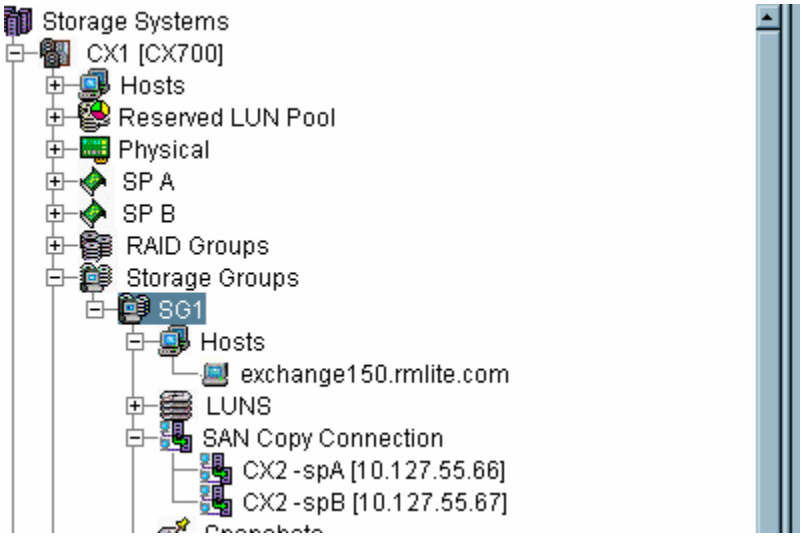
Lab 11: San Copy Full Replica

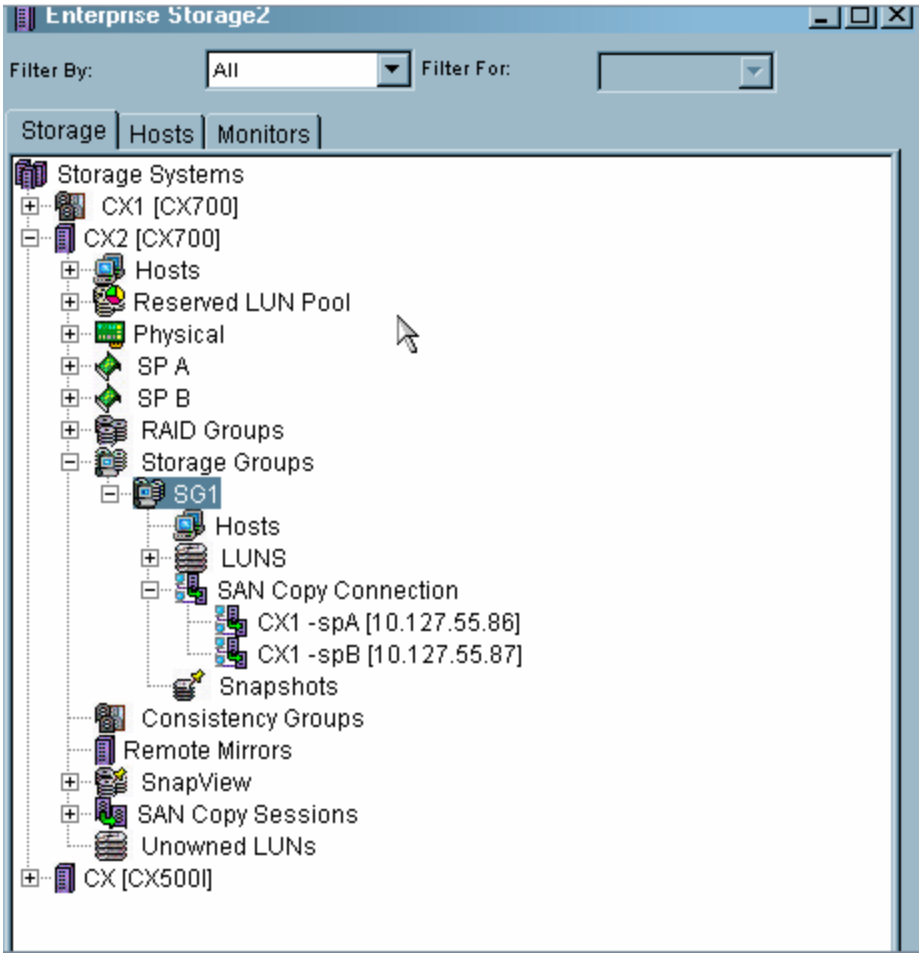
Step	Action
1.	**San Copy** will copy data to LUNS on the same array or between 2 arrays over distance. San Copy uses CLARiiON ports that are zoned together to make a San Copy Connection. Typically, these are the high port numbers on the array, **i.e. 2,3.** LUNs on both arrays should appear in the Storage Groups that have the San Copy connections setup. **Add LUN 6 on CX1 to SG1 and validate** **Add LUN 6 on CX2 to SG1 and validate** Right click on the SG 1 on CX 1 and go to “connections” 

2. In your connection window, note the “SAN Copy Connection” box. It should show the remote array and an SP. The box from “Ports to Connect” will show ports that are properly zoned. You can select a different System by using the drop down arrow next to it. For each port that is unchecked, **CHECK** it, then **APPLY**. Repeat this for ALL ports. Use the drop down and check the other ports. You should have connections to 2 ports on the remote array. Expand the San Copy Connections to validate. **DO THE SAME ON CX2.**

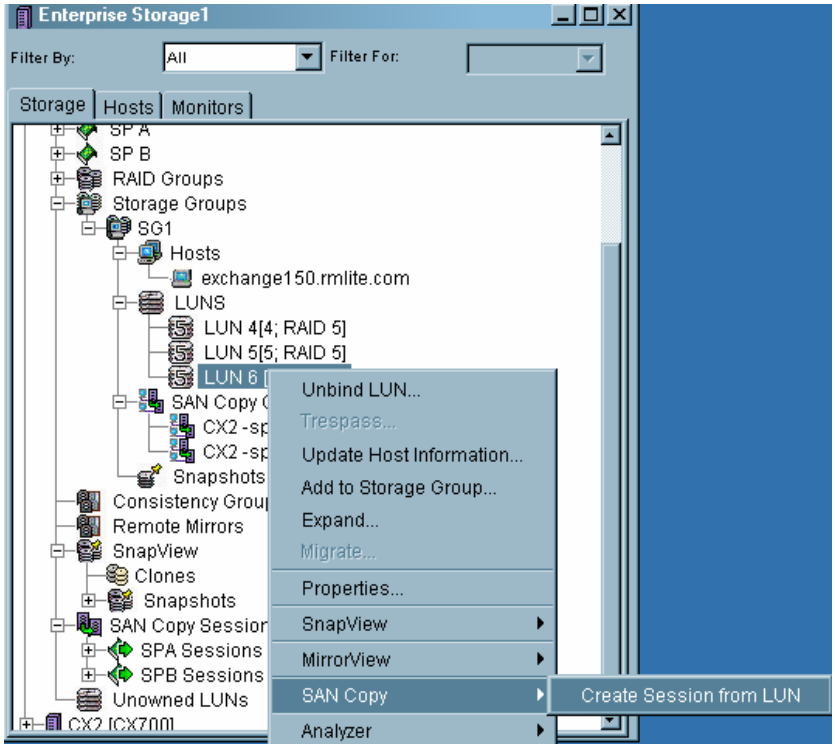




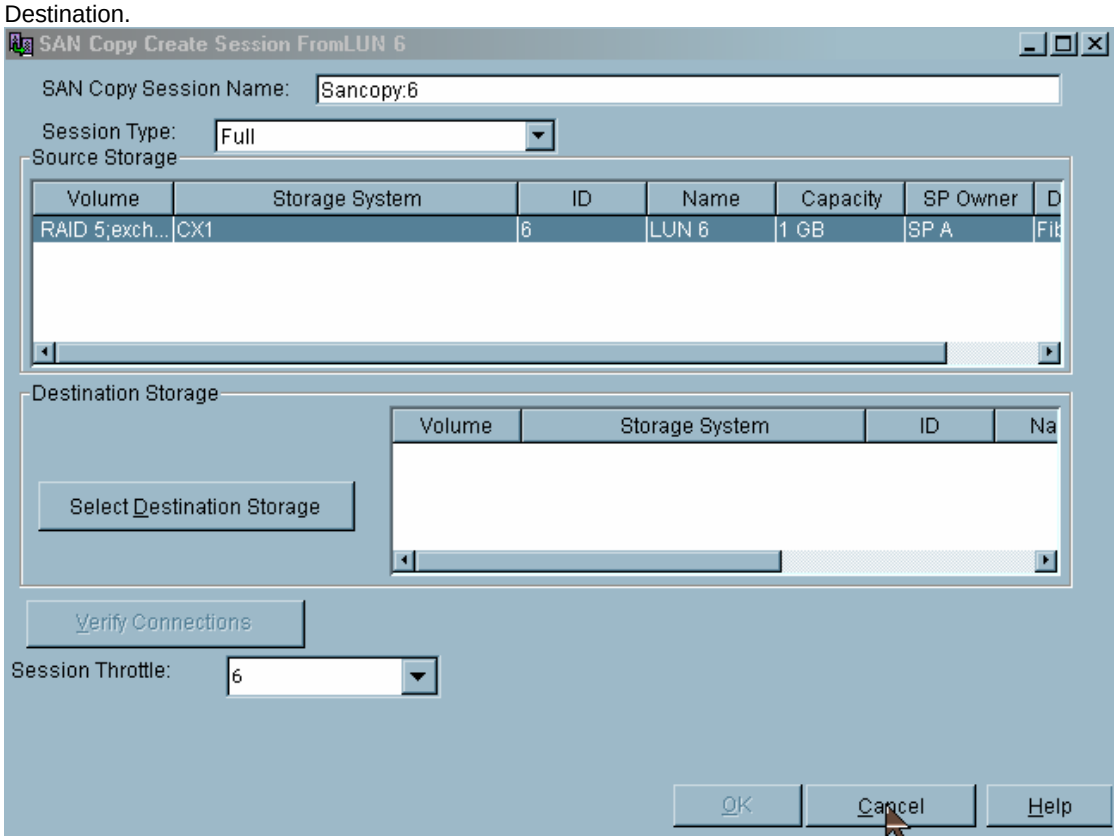
3. **CX2** San Copy Connections. Note it shows connections to the **OTHER** Arrays SPs.



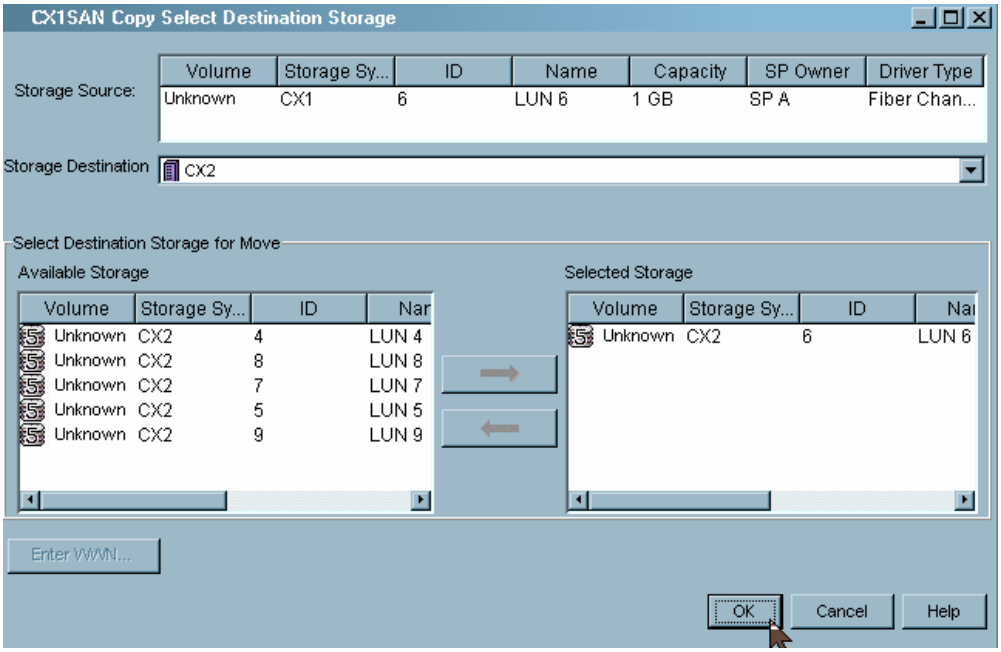
4. On **CX1,** right click on **LUN 6 > SAN Copy > Create Session from LUN".**



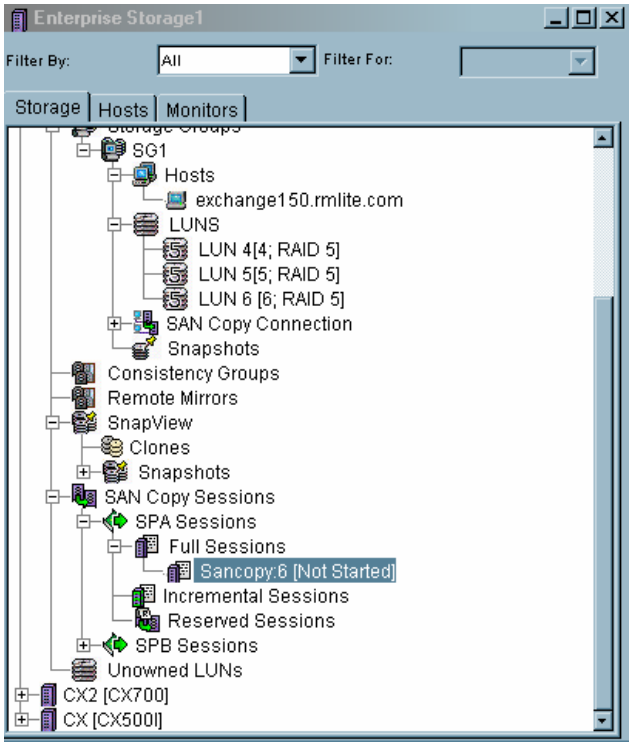
5. Give the session a name - "**Sancopy:6.** Note the LUNs capacity and SP owner. Next , click on Select Storage Destination.



6. Once you select the Destination Storage, you will have to **CHANGE** the array to reflect the remote array. (**It is possible to copy to the SAME array).** In this screen shot, note the destination storage is CX2-spA, the DEFAULT was CX1 and was changed to CX2-spA. Select a LUN with the same SP owner as the source. In this example, LUN 6 on CX2 is selected. Click OK to the next few screens and exit.



7. Expand the SAN Copy Sessions container. The session will appear as a Full session under the owning SP of the LUN you selected.



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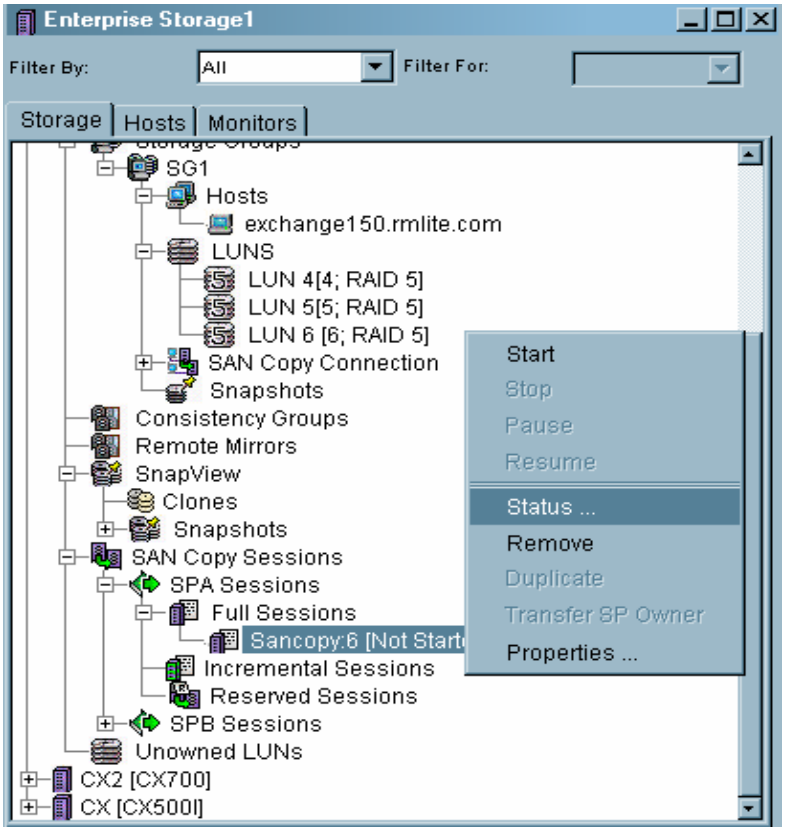
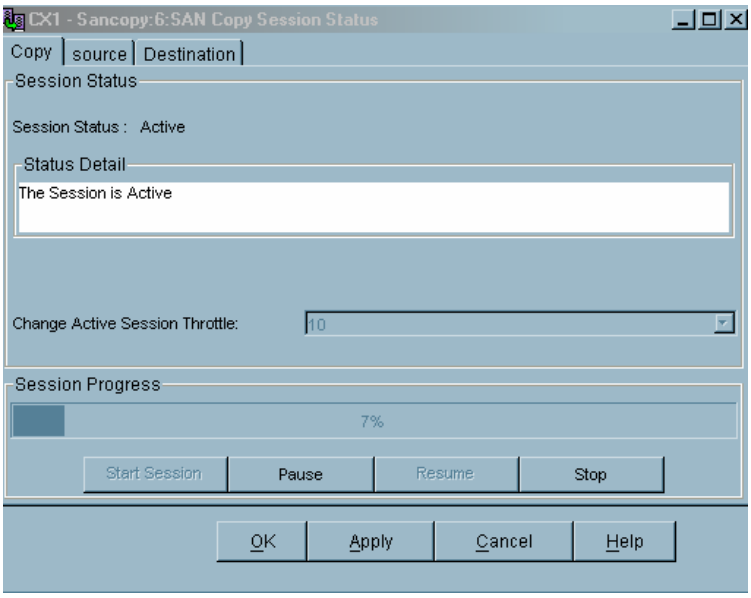
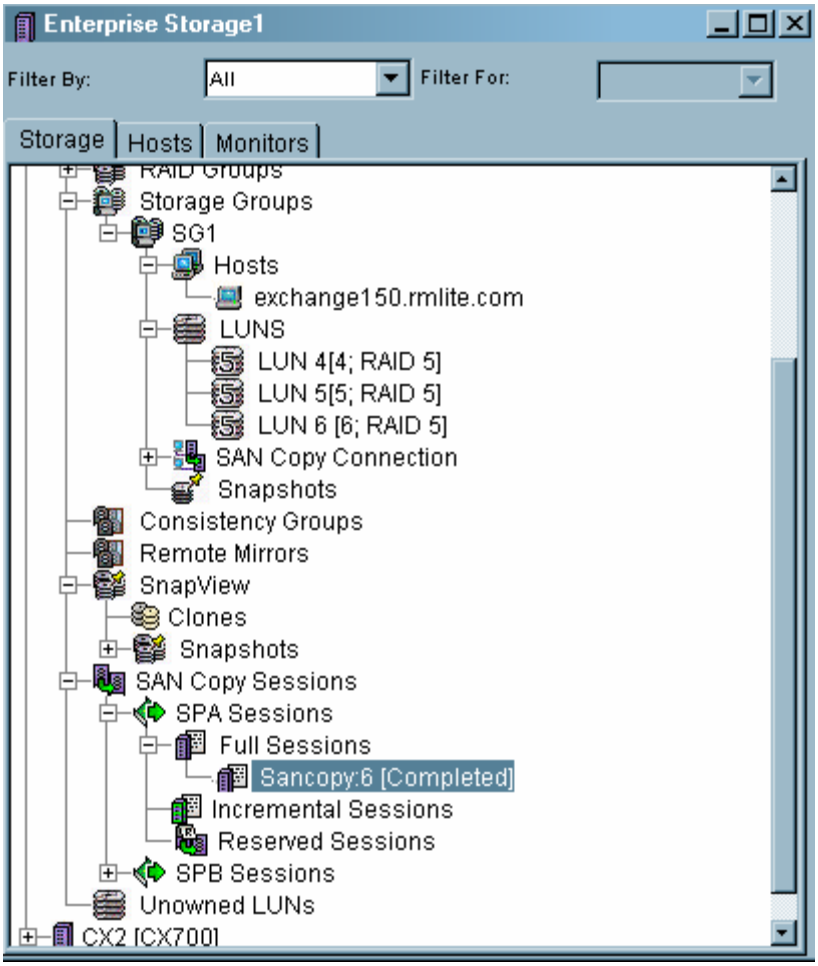
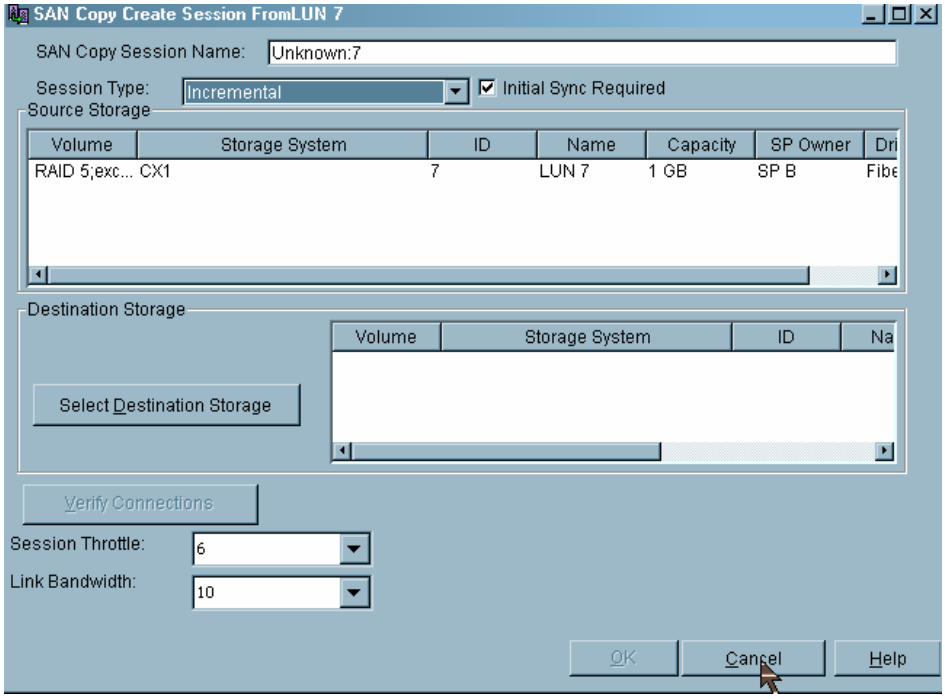
8.	Right click the select **STATUS.** 
9.	Start the session and wait until it completes. Click OK and validate the session has a status of “Completed” under “San Copy Sessions”. 

10. You have created, started, and completed a San Copy Full session

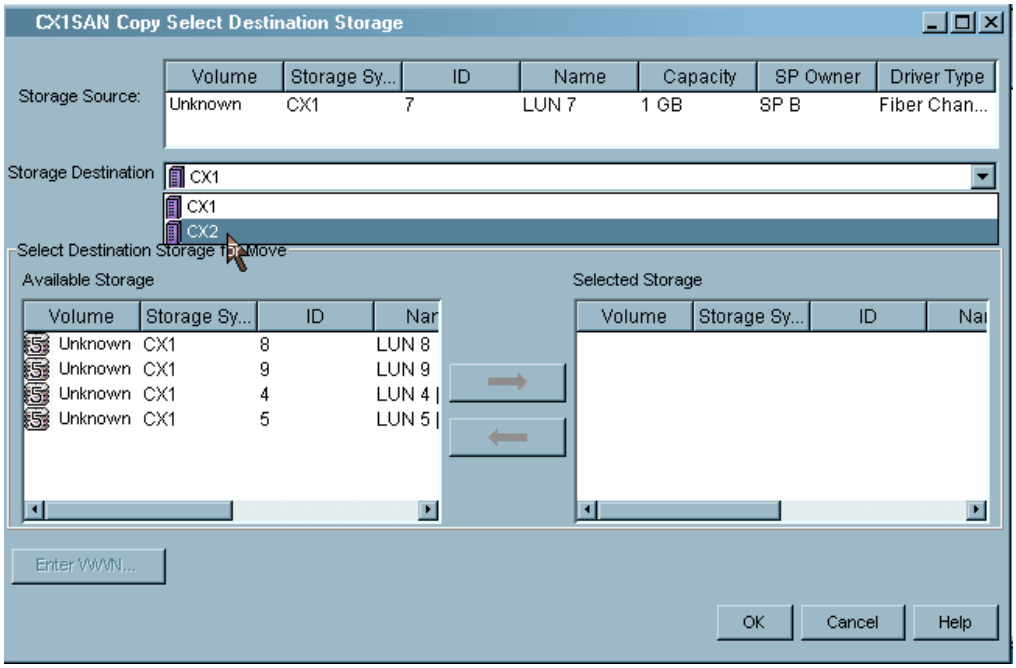


Congratulations! This completes the Lab.

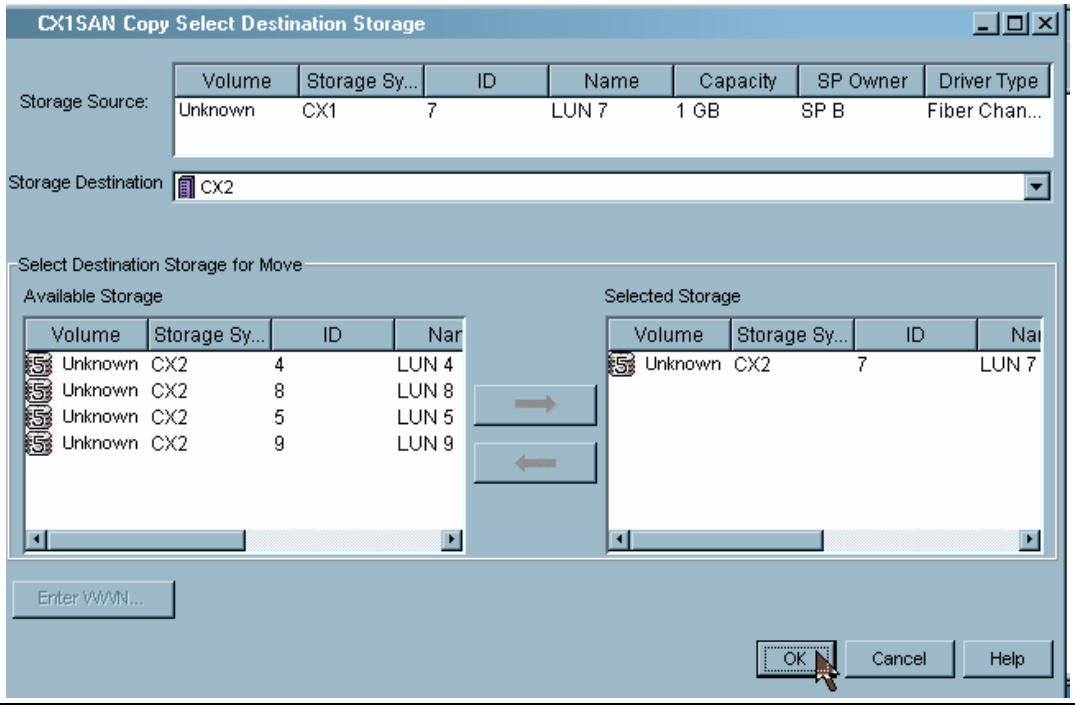
Lab 12: Creating Incremental San Copy Replicas

Step	Action
1.	Much like **MirrorView/A** , San Copy Incremental uses the **RLP**. Next, you will create a San Copy Incremental Session. Add **LUN 7 to the SG 1** and validate. Right click to **create a session**. Note: the **Session Type can be changed to Incremental from the right arrow drop down. Select Incremental.** 

2. Again, the Storage Destination defaults to CX1. Change it to CX2-spB.



3. Move LUN 7 over to the right pane. Click OK to the next few screens. Validate under San Copy Sessions.



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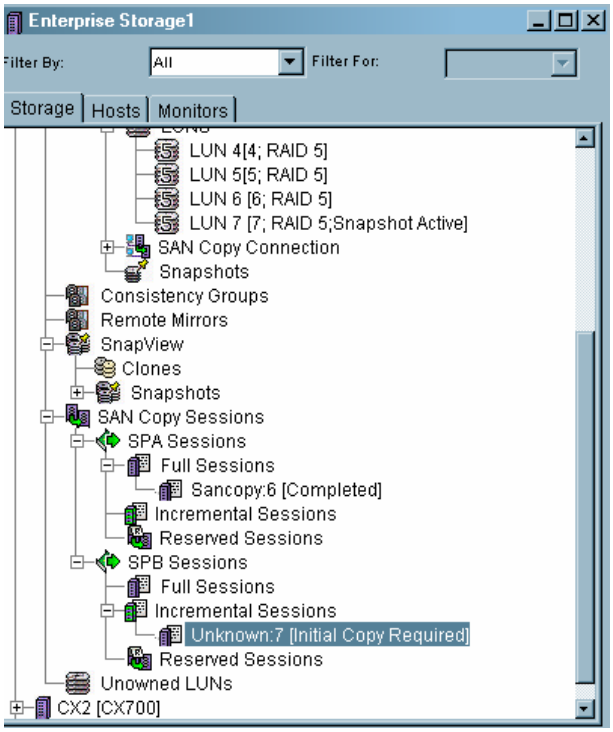
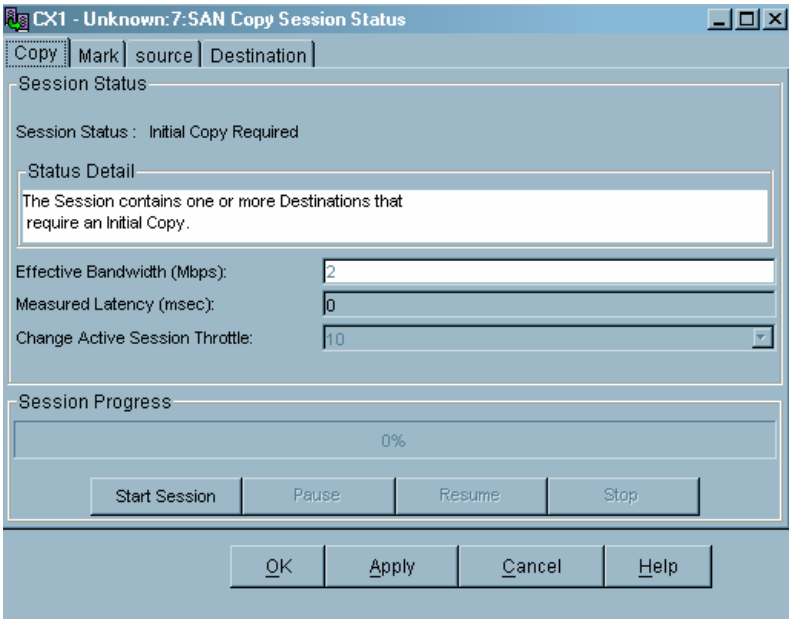
4. San Copy Session Incremental Status. Note the **snapshot active**. Look for **LUN 7** on the array under the various containers. **(Hint: SP, RGs, SGs RLP, SnapView).** It should look familiar since you created a MirrorView/A session previously.



5. **Right click on the session> Status > Start Session.** The differences here show an incremental session has a "MARK" associated with it. Incremental San Copy will transfer only changes that have occurred on the source since the last session. Once the session completes, check out the status again to make sure it shows complete.



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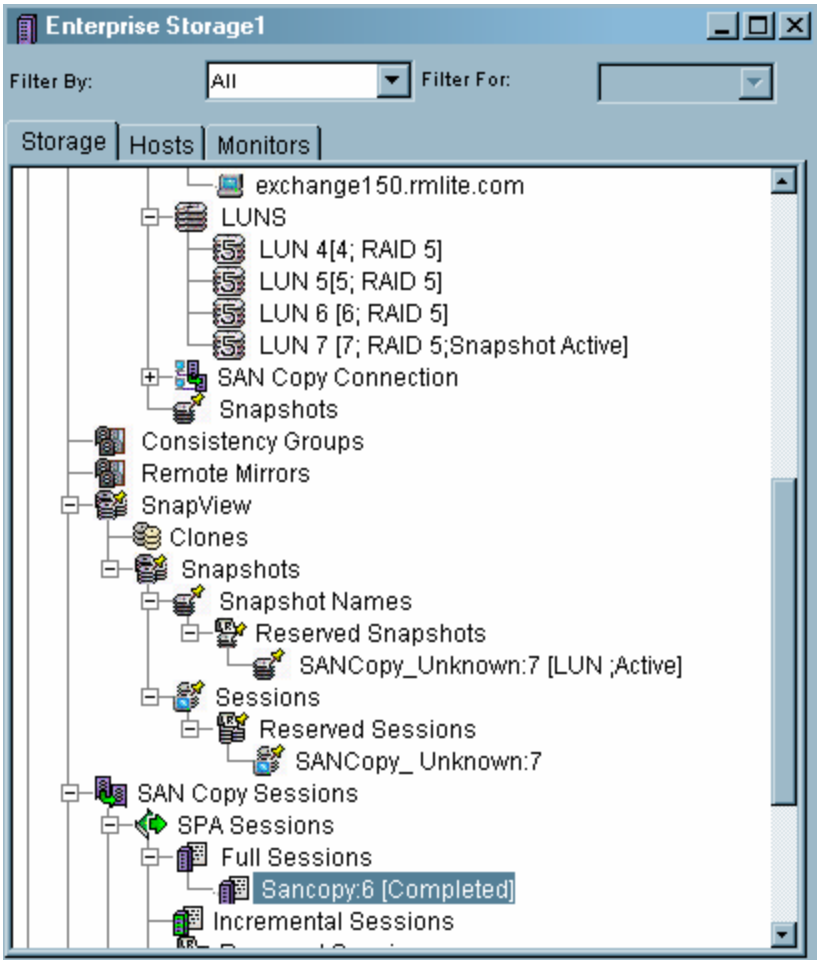
6.	Completed session. Remove all San Copy sessions, both Full and Incremental. Right click on each session and click REMOVE. Validate all session are gone. 
7.	Congratulations you have created San Copy Sessions for both Full and Incremental copies and removed them from the array. This concludes the lab for Section 2.

Summary

In this lab, you used Navisphere Manager to configure two CLARiiON Storage Systems. In the process of implementing the configuration you:

- Configured RAID Groups on two CLARiiON Storage Systems to allow for binding LUNs of a particular RAID type
- Bound LUNs on the new RAID Groups to create disk resources for the host computers and implement the RAID protection for data
- Populated Storage Groups with host computer and LUNs to allow the host computers access to disk resources create on the CLARiiON Storage Systems
- Created a Clone within one of the CLARiiON Storage Systems to allow for easy backup of the data without impacting the production LUNs performance
- Created SnapShots for multiple LUNs to facilitate easy backups without the high resource overhead required by Clones
- Created MirrorView Synchronous and Asynchronous Mirror Replicas
- Created San Copy Full and Incremental Replicas

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Assessment Questions

Please answer the following questions.

A. When creating a RAID Group, what are you doing to the disks involved?

1. Changing the domain name.
2. Creating a disk group that can be bound into a specific RAID Type using the Bind LUN process.
3. Selecting the domain RAID settings to allow the Storage System to vary the RAID information sent to the Management GUI at shortened intervals.
4. Configuring SP-A and SP-B exclusive RAID type settings.

B. When is a disk is available to a attached host ?

5. When a LUN is bound
6. When a RAID Group is created
7. When the disk is bound and in a Storage Group

C. The Host Computer is typically placed into a single Storage Group?

True
False

D. Which MirrorView replication method uses resources from the RLP?

MV/S
MV/A

E. Which San Copy method copies the entire contents of the source disk to the destination?

San Copy Incremental
San Copy Full

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