

Case Study No: 1

LITWARE, Inc

Background

Litware, Inc., is a software development company whose main office is located in San Diego, California. It produces software for the publishing industry.

Litware, Inc., recently purchased a competitor, Proseware Corporation, located in Sacramento, California. The newly merged company is also called Litware, Inc. The new company has already linked the physical networks of the two locations. Now it wants to perform a domain restructure.

Litware, Inc., operates offices in both San Diego and Sacramento. These offices generally operate from 8:30 A.M. until 4:00 P.M., but one department in San Diego provides support to customers around the world, 24 hour a day, seven days a week. Litware, Inc., now employs 600 people.

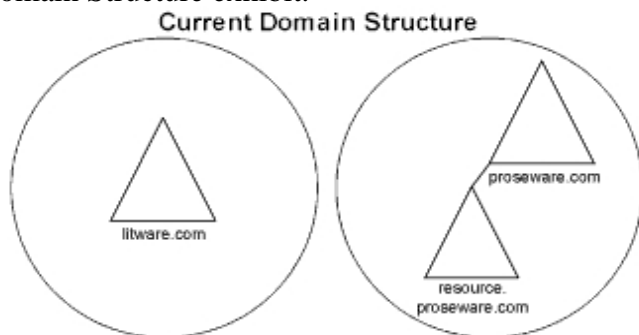
Your Assignment:

You need to perform a domain restructure. You need to migrate all user accounts, computer accounts, groups, and resources into one domain named Litware.com. Design specifications state that you will use ADMT to perform the migration.

Current IT Environment:

Domain Structure:

The network at Litware, Inc., currently includes two separate Windows 2000 forests, as shown in the Current Domain Structure exhibit.

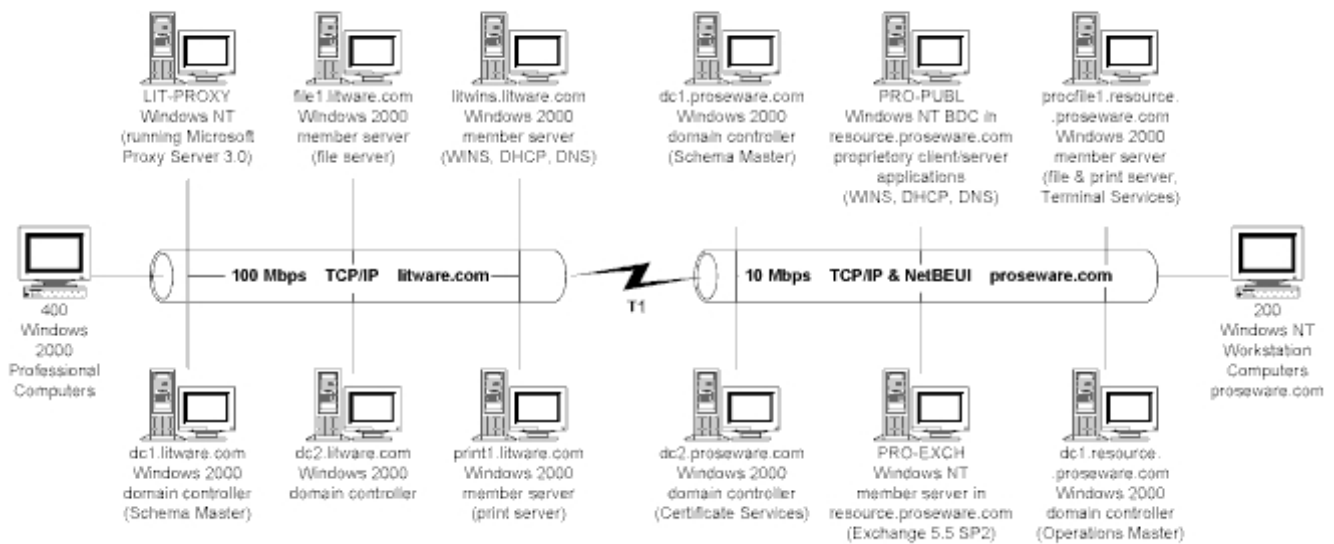


Users in San Diego log on to Litware.com. Users in Sacramento log on to Proseware.com.

Network Infrastructure:

The Windows 2000 environment is configured on a network topology as shown in the Current Network Layout exhibit.

Current Network Layout



Administrative Model:

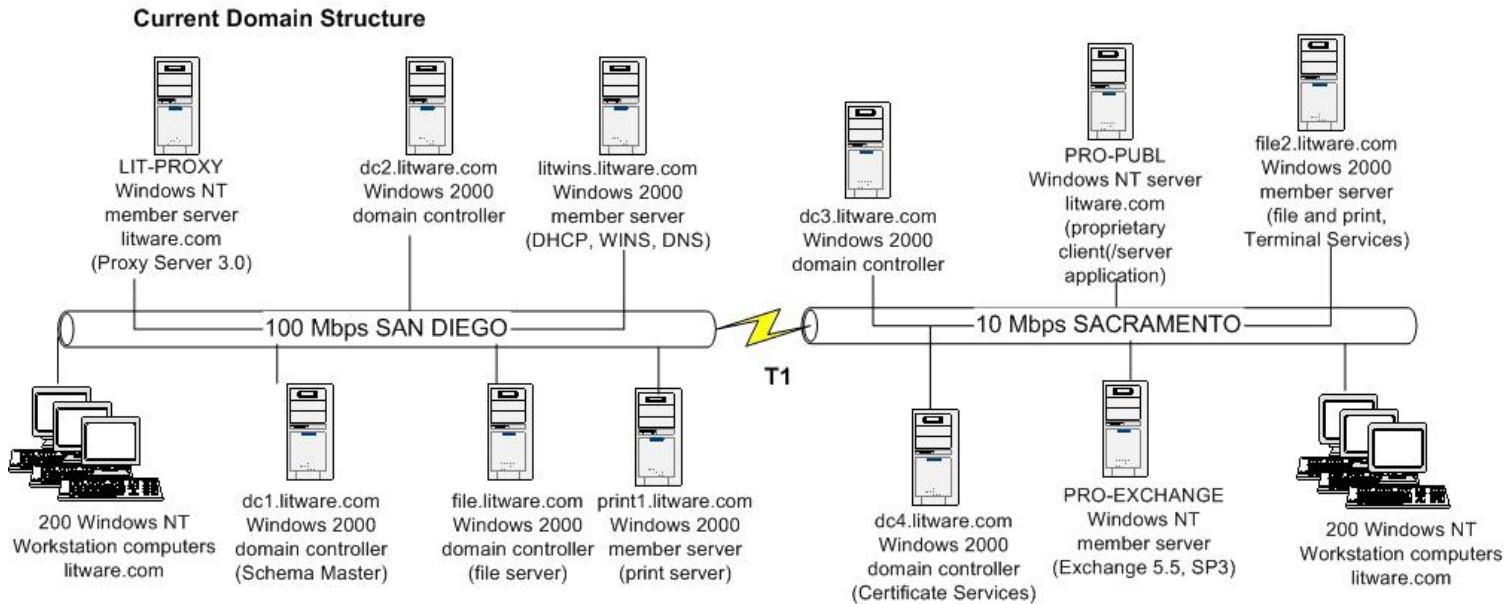
In San Diego, five network administrators are responsible for all networking components, applications, and users in that location, as well as 400 Windows 2000 Professional computers in the same location.

In Sacramento, three network administrators are responsible for all networking components and applications in that location. These administrators have access to Windows 2000 Terminal Services on profile1.resource.Proseware.com so that they can remotely administer that computer.

Two additional Help Desk staff members are the Windows NT account administrators for the Sacramento location. They are responsible for administering all user accounts in that location, as well as 200 Windows NT Workstation computers in the same location.

Server and Application Details:

The servers and server roles at Litware, Inc., are shown in the Current Network Layout exhibit.



LIT-PROXY is located in front of a firewall and is connected to an Internet Service Provider (ISP) over an ISDN line. All users in San Diego connect to the Internet by using LIT-PROXY.

Third-party custom applications reside on PRO-PUBL.

Security Design:

All employees except Help Desk staff have roaming profiles that are stored on user shares on their local file server.

Users are responsible for maintaining the security of their own shares. Administrative staff members maintain DACLS on all other resources.

In addition to the groups that are built into Windows 2000, Litware, Inc., has created the groups shown in the Litware Group Membership Matrix exhibit.

LitWare Group Membership Matrix

| Group Name | Type | Members | Resource Access |
|--|------------------|---|--|
| litware.com/ Employees | Domain Global | Employees in San Diego | LIT-PROXY Windows 2000 Professional computers in San Diego |
| proseware.com/ Staff | Domain Global | Employees in Sacramento proseware.com/ SecureDev | PRO-EXCHANGE proprietary application on PRO- PUBL Windows NT Workstation computers in Sacramento |
| proseware.com/ Help Desk | Universal | Help Desk staff at ProseWare | Windows NT Workstation computers in Sacramento User accounts in proseware.com in Sacramento |
| proseware.com/ SecureDev | Domain Local | Subset of developers in Sacramento | Certificate Services |
| proseware.com/ TerminalAdmins | Domain Global | Administrators for | profile1.resource.proseware.com |
| proseware.com/ Exchange Administrators | Domain Global | profile1.resource.proseware.com Administrators in Sacramento | PRO-EXCHANGE Permissions Admins for all levels |

Certificate Services are installed on dc2.Proseware.com for use only by developers in the Proseware.com/SecureDev group. These developers use the certificates to enhance the security of confidential data.

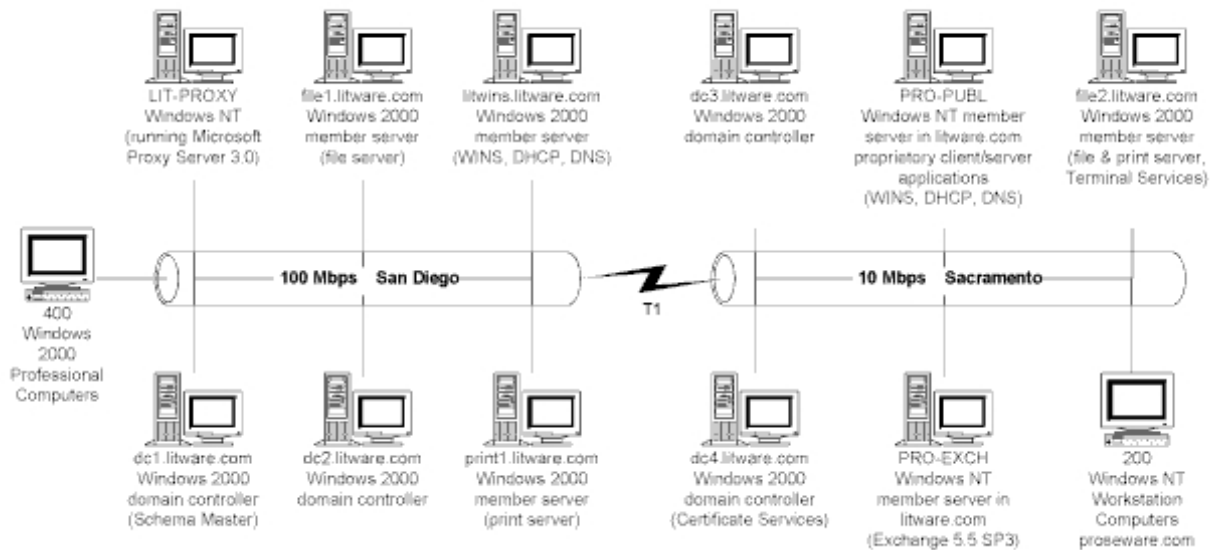
Corporate Standards:

Litware, Inc., is a secure environment. User passwords in both locations must have at least nine characters and must contain at least three alphabetic characters, three numeric characters, and three special characters. Passwords must change monthly.

Envisioned IT Environment:

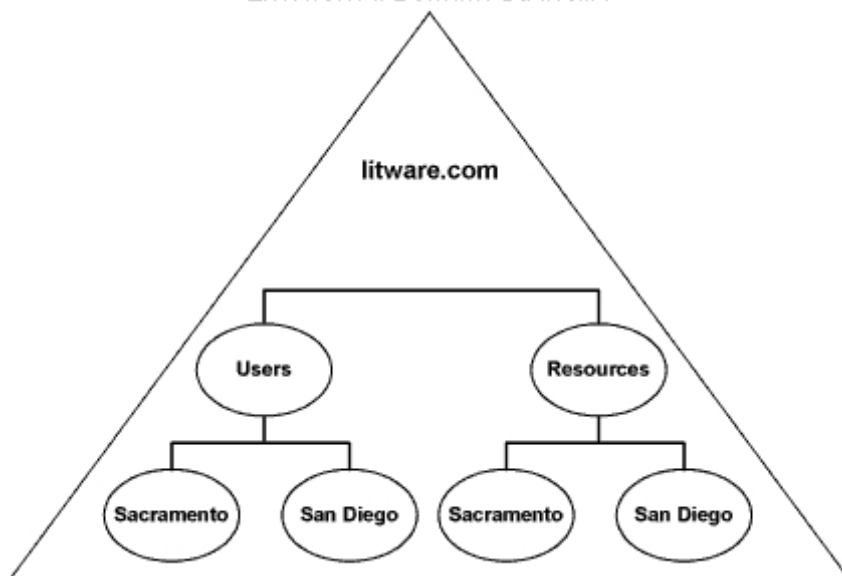
The envisioned network infrastructure and server roles are shown in the Envisioned Network Layout exhibit.

Envisioned Network Layout



The envisioned domain structure is shown in the Envisioned Domain Structure exhibit.

Envisioned Domain Structure



The Windows 2000 environment will consist of two sites named SACRAMENTO and SAN DIEGO.

Project Requirements:

Password complexity must be maintained or improved during the migration.

Resource permissions must be maintained during the migration.

User access to resources must not be disrupted during the migration.

The organizational structure must be centralized after the migration.

Groups must be merged as appropriate.

One month after the migration is complete, Proseware.com must be decommissioned.

LITWARE QUESTIONS

Question No: 1

You want to migrate members of Proseware.com/Help Desk to Litware.com. You are concerned about password security. Which action or actions should you take to migrate the accounts with minimal impact to security? (Choose all that apply.)

- A. Use the User Migration wizard to clone the accounts. When prompted, choose Complex passwords.
- B. Instruct users to log on to Litware.com and change their passwords.
- C. Use the User Migration wizard to clone the accounts. When prompted, choose same as user name.
- D. Distribute new user passwords individually in sealed envelopes.
- E. Use e-mail to send the appropriate entry from password.txt to each user.

Answer: A, B, D

Explanation:

The security requirements dictate complex passwords, and using complex passwords is a project requirement. Since the migration is crossing forest boundaries, passwords cannot be copied or migrated. New passwords have to be assigned, and then communicated to the user. The best approach for this distribution is via sealed letter. Since the person producing these letters will know the password, the password should be changed ASAP by the user.

Incorrect Answers:

- C:** Setting the password to the username is one of the weakest forms of passwords that allows passwords to be easily guessed. Once news got out that the passwords were being set to the username, any and every known account could be cracked in the window of the restructuring process.
- E:** The use of e-mail would not be secure, (maybe if encrypted), but there could be other means possible to breach the e-mail.

Question No: 2

The Only Way to get Certified Quickly.

You must use ADMT to migrate all objects from Proseware.com to Liteware.com. You must redeploy the three Windows 2000 domain controllers in the Proseware.com forest.

Arrange the tasks you should perform to achieve your goal. Place the tasks in the order in which you should perform first at the top of the list, and then continue listing tasks in the order in which you should perform them.

Tasks

- ▲ Rename dc1.Proseware.com to dc3.Proseware.com.
- ▼ Rename dc2.Proseware.com to dc4.Proseware.com.
- Run DCPromo.exe on dc1.Proseware.com.
- Run DCPromo.exe on dc1.resource.Proseware.com.
- Run DCPromo.exe on dc2.Proseware.com.
- Run DCPromo.exe on dc3.Proseware.com.
- Run DCPromo.exe on dc4.Proseware.com.

Answer:

You must use ADMT to migrate all objects from Proseware.com to Liteware.com. You must redeploy the three Windows 2000 domain controllers in the Proseware.com forest.
Arrange the tasks you should perform to achieve your goal. Place the tasks in the order in which you should perform first at the top of the list, and then continue listing tasks in the order in which you should perform them.

Tasks

- ▲ Run DCPromo.exe on dc1.resource.Proseware.com.
- ▼ Run DCPromo.exe on dc2.Proseware.com.
- Rename dc2.Proseware.com to dc4.Proseware.com.
- Run DCPromo.exe on dc4.Proseware.com.
- Run DCPromo.exe on dc1.Proseware.com.
- Rename dc1.Proseware.com to dc3.Proseware.com.
- Run DCPromo.exe on dc3.Proseware.com.

Explanation:

Before laying out the steps, here are some tips. You need to look at the before and after network models, and see how the server roles and naming changed between the before and after diagrams. You also need to know that you cannot rename a domain controller in Windows 2000. The DC must be demoted first, then renamed, and then promoted. This procedure is required regardless of whether the DC is being moved or not.

First, dc1.resource.Proseware.com goes away, so demote it:

Run DCPromo.exe on dc1.resource.Proseware.com.

Next, rename DC2 to DC4, by demoting, renaming, and promoting:

Run DCPromo.exe on dc2.Proseware.com. Rename dc2.Proseware.com to dc4.Liteware.com. Run DCPromo.exe on dc4.Liteware.com.

And then, rename DC1 to DC3, by demoting, renaming, and promoting:

Run DCPromo.exe on dc1.Proseware.com. Rename dc1.Proseware.com to dc3.Liteware.com. Run DCPromo.exe on dc3.Liteware.com.

Question No: 3

As part of your preparation for disaster recovery, you make backups of certain domain controllers. Subsequently, the migration of computer accounts from resource.Proseware.com to Litware.com fails. What should you do to restore the original environment?

- A. Perform an authoritative restore of dc1.Proseware.com.
- B. Perform an authoritative restore of dc1.resource.Proseware.com.
- C. Perform an authoritative restore of dc1.Litware.com.
- D. Restore the WINS and DHCP databases from your backups.

Answer: C

Explanation:

As you add the accounts to the Litware forest/domain, it is possible that partway through the adding of objects that the procedure will fail. This leaves the Litware domain in a half/half state with some objects added and some missing. The way to remove the work that was applied is to restore the Litware AD with an authoritative restore and since the new objects are NOT in the backup, they will be purged as part of the restore process.

Incorrect Answers:

- A, B:** When scripting between forests using ADMT or ClonePrincipal the source domain is not modified. ADMT provides an option to delete the source objects, but we won't use that option because as part of the project requirements "User access to resources must not be disrupted during the migration", so we need to coexist both forests. Since these domains are not modified, no restore would be required.
- D:** WINS and DHCP will not be affected by the migration process. The migration using ADMT only affects the Active Directory objects.

Question No: 3

You intend to use ADMT to migrate members of Proseware.com/Staff to Litware.com. Therefore, you must configure your network environment to enable the use of ADMT. What should you do?

- A. Create the PROSEWARE\$\$\$ local group.
- B. Configure the User Migration wizard to disable the current accounts after 15 days.
- C. Change litware.com to native mode.
- D. Enable Audit Account Management in litware.com.
- E. Enable Audit Account Management in proseware.com.
- F. Create the TcpipClientSupport registry key on dc1.proseware.com.

Answer: A, D, E

Explanation:

A domain\$\$\$ local group must be created on the source domain. Auditing must also be enabled on both the source and target domains. Finally, a TcipClientSupport registry key must be installed on the PDC (for a Windows NT domain) or the PDC emulator for a Windows 2000 source domain.

Incorrect Answers:

- B:** The project requirements indicate that “User access to resources must not be disrupted during the migration”. The accounts in the source domain will be removed when the Proseware domain is decommissioned. There is no need to set an expiration on the accounts at this time.
- C:** This is a trick! Yes, the target domain **MUST** be in native mode because only native mode will support the SID history. However, if you look at the table with the group definitions, you will see that the helpdesk is an Universal group, implying that the Liteware domain **IS ALREADY** in native mode, since Universal groups do not exist in native mode. No action is required here.
- F:** This is one of those answers that leaves some doubt. The registry key is required to be on the PDC of a Windows NT source domain or the PDC emulator of the Windows 2000 source domain. We don’t know which DC is the PDC emulator in Proseware because the diagram does not indicate that and the PDC emulator could have been moved. However, the help file for ADMT indicates that if ADMT does not find the registry key, it will add the required key on the proper server. So, although the registry key is required for the scripts to execute ADMT will make sure the key is there, and action is **NOT** really required.

Question No: 4

You intend to migrate procfile1.resource.Proseware.com to Litware.com. What should you do?

- A. Restart procfile1.resource.Proseware.com.
- B. Manually close any active remote control sessions on procfile1.resource.Proseware.com.
- C. Run the Computer Migration wizard on dc1.Litware.com.
- D. Add Litware.com/Domain Admins to. procfile1.resource.Proseware.com/Administrators.

Answer: C

Explanation:

The ADMT and scripts are run on the target Windows 2000 Domain Controller. Here, to migrate the server we need to add a computer account to the liteware.com domain. In the process, ADMT will add an agent to the machine being modified. This agent, which runs as a service will perform local operations which need to be done. The agent will actually join the migrating machine to the new domain.

Incorrect Answers:

- A:** The agent will perform any reboots, as required in the process..
- B:** Users should logoff normally, and not be forced off manually - in order to protect against loss of data.
- D:** Any account or group membership issues should have already been done prior to machine migration.

Question No: 5

You are about to migrate PRO-EXCH to Litware.com. For disaster recovery purposes, you must be able to revert to the original environment.

What should you do to the network environment in order to prepare for the possibility of a failed migration?

- A. Create a backup of the DHCP databases.
- B. Create a backup of all domain controllers in Litware.com.
- C. Create a backup of the WINS databases.
- D. Create a backup of all domain controllers in resource.Proseware.com.

Answer: B

Explanation:

Running the scripts will modify and change the target domain, so we need good backups of the Litware.com domain controllers. We will not instruct ADMT to delete source objects as part of the migration, so everything in Proseware.com should be unaffected.

Incorrect Answers:

A, C:These network services will not be affected by the migration. **D:**

As much as this would be a good thing, the migration itself will not modify the source domain, so nothing should change on it.

Question No: 6

You need to migrate user accounts that belong to Proseware.com/TerminalAdmins to Litware.com. Access to profile1.resource.Proseware.com must remain unchanged. What should you do?

- A. Clone profile1.resource.Proseware.com to Litware.com by using the Computer Migration wizard.
- B. Add Litware.com/TerminalAdmins to Litware.com/Domain Admins.
- C. Copy the roaming profiles for members of Proseware.com/TerminalAdmins to a registry key named after the new SIDs.
- D. Copy the Terminal Services profiles for members of Proseware.com/TerminalAdmins to a registry key named after the new SIDs.

- E. Add Proseware.com/TerminalAdmins to Litware.com/Domain Admins.
- F. Clone Proseware.com/TerminalAdmins and its members to Litware.com by using the Group Migration wizard.

Answer: F

Explanation:

We want to move account membership. Certain script requirements cause us to move entire groups at once. In this case we just want to clone (make a copy) of the accounts and groups so that users in Litware.com can access the terminal server. So far, one major requirement of the ADMT process was not mentioned. Trust relationships must exist between the Source and Target domain so that the source domain trusts the target domain. With this already in place for use of ADMT, a terminal admin member in Litware.com will be authenticated by Proseware.com to allow access.

Incorrect Answers:

- A:** We do not want to migrate the computer because once it joins the new domain, users still in Proseware.com will lose access.
- B:** This would be a disaster as we would make the Litware.com Terminal Server admins FULL domain admins.
- C, D:** You do NOT copy profiles or other information to the registry. Not unless you want to lose your system as you corrupt and destroy the registry.
- E:** Same as B, except this time you made all the Proseware.com Terminal Admins full domain admins in Litware.com - Bad Move!

Question No: 7

You need to migrate members of proseware.com/staff in the shortest possible amount of time. These users must have the same access to resources in San Diego that the members of litware.com/Employees have. These members also must not lose access to resources in proseware.com. Which two actions should you take to ensure the appropriate access is established? (Choose two)

- A. Run UserGroup.vbs with the /D switch
- B. Use the Group Mapping and Merging wizard to merge proseware.com/staff with litware.com/Employees
- C. Run UserGroup.vbs with the /A switch
- D. Use the Group Migration wizard to clone proseware.com/staff to litware.com
- E. Add proseware.com/Staff to every DACL that includes litware.com/Employees
- F. Add litware.com/Employees to every DACL that includes proseware.com/staff
- G. Use the user migration wizard to clone all necessary account from proseware.com to litware.com

Answer: D, G

Explanation:

In order to preserve the access permissions for existing resources, we need to copy the Proseware.com/Staff group definition. This will take care of the pointers for the SIDs to the DACLs. Then, we clone the accounts, putting those accounts into the Proseware.com/Staff group in liteware.com, but ALSO adding those same accounts to the Liteware.com/Employees group to give those users access to resources in San Diego.

Incorrect Answers:

- A, C:** The UserGroup.VBS script can be used to add (/A) or delete (/D) or list (/L) users to a group. This script would require that the entire process take longer and more effort to get the job done. Effectively this operation is combined in G as part of the user account migration.
- B:** This type of merge would remove the accounts from Proseware.com/Staff, and those users would lose access to all the resources that they had access to prior to the migration.
- E, F:** This is a massive job that cannot be predicted except it will take a long time and is complicated. As for F, no one said to give Liteware.com/Employees access to the proseware resources.

Question No: 8

Before the actual migration, you must perform a pilot migration. You create a group named Prosaware.com/Pilot to use as your pilot group. Move the tasks from the Tasks pane to the Ordered List of Tasks pane, and arrange them in the appropriate order (Use only tasks that apply)

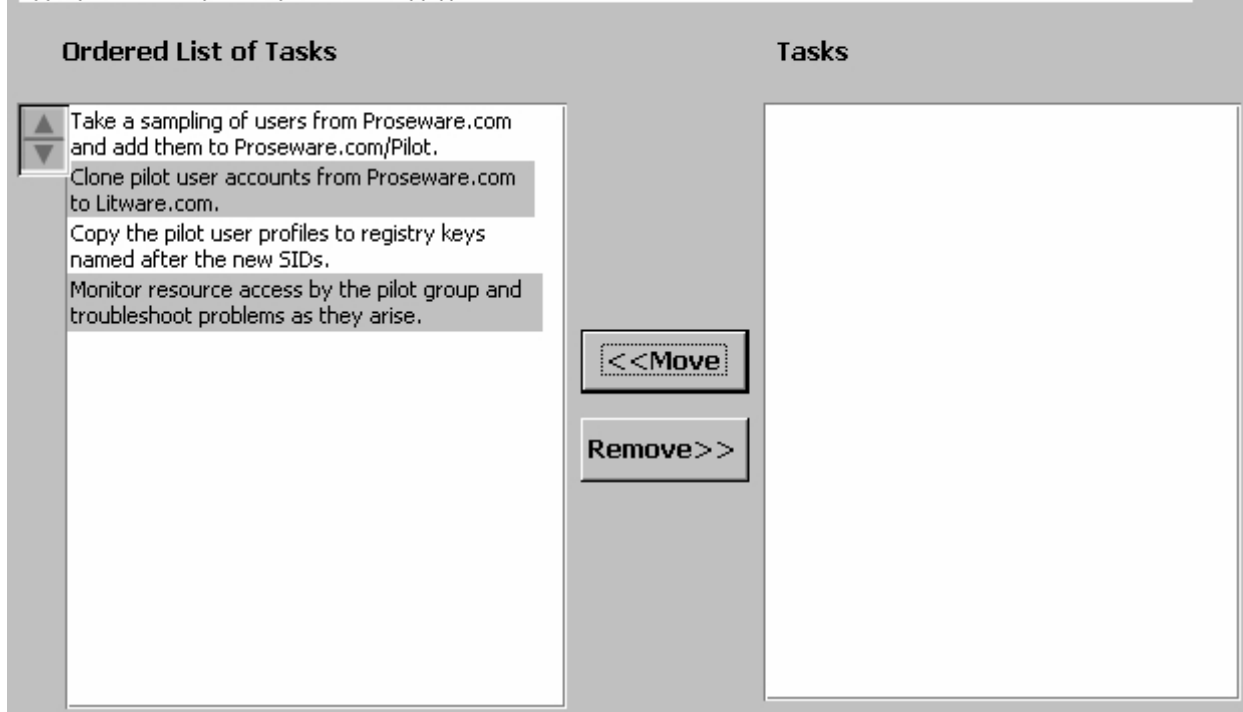
The screenshot displays a software interface for task migration. It is divided into two main panes: 'Ordered List of Tasks' on the left and 'Tasks' on the right. The 'Ordered List of Tasks' pane is currently empty, with a vertical scrollbar on its left side. The 'Tasks' pane contains a list of four tasks:

- Clone pilot user accounts from Proseware.com to Litware.com.
- Copy the pilot user profiles to registry keys named after the new SIDs.
- Monitor resource access by the pilot group and troubleshoot problems as they arise.
- Take a sampling of users from Proseware.com and add them to Proseware.com/Pilot.

Between the two panes are two buttons: '<<Move' and 'Remove>>'. The interface has a light gray background with white panels for the task lists.

Answer:

Before the actual migration, you must perform a pilot migration. You create a group named Proseware.com/Pilot to use as your pilot group. Move the tasks from the Tasks pane to the Ordered List of Tasks pane, and arrange them in the appropriate order (Use only tasks that apply)



Explanation: You want to test the migration by taking some users from the proseware.com domain and testing their access to resources once they have been migrated to the litware.com domain. You have created a pilot group named proseware.com/Pilot. Therefore, the next step is to populate the group with the accounts that you want to test. The next step is to clone the accounts to the litware.com domain (they must be cloned rather than moved, so that the original accounts are left intact). To fully simulate the migration of the accounts, the accounts' profiles should be migrated to the litware.com domain and associated with the cloned accounts by copying the profiles to the registry keys named after the new SIDs. Now that you have recreated the accounts in the litware.com domain, you can monitor the accounts to ensure that they have access to the appropriate resources.

Question No: 9

You complete the migration and now want to decommission Proseware.com. Before you can remove network services from PRO-PUBL, you must ensure that network access will not be disrupted. What should you do?

- A. Add a static entry to the WINS database for each client computer in Sacramento.
- B. Add a new scope to the DHCP Server service on litwins.Litware.com.
- C. Remove NetBEUI from the Proseware.com network.

- D. Create a DNS zone for Proseware.com on litwins.Litware.com.
- E. Install a WINS proxy on a server in Sacramento.
- F. Create a DNS domain for Proseware.com on litwins.Litware.com.

Answer: E

Explanation:

NetBEUI is being used on the old Proseware network, so we need WINS. This assumes that the T1 connects the two networks via routers and we have different subnets - which would prevent broadcasts between the networks. PRO-PUBL is not being changed, only moved from Proseware to Liteware. To insure that access during the move is not disrupted, we have to look at the 3 services on PRO-PUBL (DHCP, DNS & WINS). For DHCP, as long as leases won't expire during the move of PRO-PUBL, we can live with DHCP being down for a short period. At this point of the migration, we are moving PRO-PUBL last, right before removing Proseware.com, so everyone should be on Liteware and using the Liteware DNS. This leaves WINS as a loose end, and by adding a WINS Proxy to one of the servers over at Proseware, we should not have a network service disruption.

Incorrect Answers:

- A:** Adding static's entries won't help. The computers that do not use WINS will not be able to see the computers in San Diego because they broadcast and the broadcasts won't go through the router/T1 Line.
- B:** Adding a scope to DHCP won't help unless either the routers are bootp enabled or a DHCP relay server is added to the Sacramento LAN. DHCP uses broadcasts.
- C:** Applications may require NetBEUI, so pulling out NetBEUI might not be a simple task. Also the post migration network diagram still shows NetBEUI, which means that we must still support it.
- D, F:** Proseware.com is going away, and since we are converting the last machine, we don't need a Proseware.com domain or zone.

Question No: 10

The Only Way to get Certified Quickly.

You migrate all user accounts to Litware.com. You now want to migrate the computer accounts. Arrange the computers you should move to achieve your goal. Place the computer you should move first at the top of the list, and then continue listing computers in the order in which you should move them.

Tasks

- ▲ PRO-EXCHANGE
- ▼ PRO-PUBL
- DC2.proseware.com
- DC1.proseware.com
- Windows NT Workstation
- Profile1.resource.prosaware.com
- DC1.resource.proseware.com

Answer:

You migrate all user accounts to Litware.com. You now want to migrate the computer accounts. Arrange the computers you should move to achieve your goal. Place the computer you should move first at the top of the list, and then continue listing computers in the order in which you should move them.

Tasks

- ▲ Windows NT Workstation
- ▼ Profile1.resource.proseware.com
- PRO-EXCHANGE
- PRO-PUBL
- DC1.resource.proseware.com
- DC2.proseware.com
- DC1.proseware.com

Explanation:

First, we want to migrate the machines with the least impact. Then move to Servers, migrating the smaller servers first, then convert over any resource domains before master domains, and finally taking down the forest root last.

Question No: 11

You want to migrate the user accounts located in Proseware.com/Staff to Litware.com. Once the migration is complete, users must have access to all applications on PRO-PUBL. Which two actions should you take to ensure that all applications on PRO-PUBL remain available? (Choose two.)

- A. Install Windows NT 4.0 Service Pack 4 or later on PRO-PUBL
- B. Before migrating user accounts to Litware.com, migrate PRO-PUBL to Litware.com and test user access to the applications.
- C. Reinstall all applications on PRO-PUBL after user accounts are migrated.
- D. Create a test account, connect to the applications from that account, and migrate that account to Litware.com.
- E. Before migration, resolve any potential conflicts involving user account names that are duplicated between Proseware.com and Litware.com

Answer: D, E

Explanation:

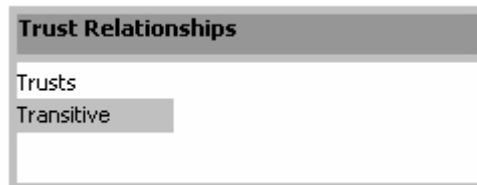
The objective here is to migrate this server with the least impact. Any user who is migrated and can't access their applications would be negative impact and could cause loss of revenue and productivity. To minimize or eliminate these potential problems a test account can be created, tested, migrated, and tested again to see that the applications are still accessible AFTER the account is migrated. Potential errors should be eliminated before migration. This includes duplication of account names that may occur post migration. Even though the SIDs would be different between the duplicated names, we have internal home grown applications that might be designed to key on name. Also, some fields in the account record are required to be unique within the domain, and if duplication occurs, could cause the migration to fail. So, potential conflicts should be resolved first.

Incorrect Answers:

- A:** It is desirable to install SP4 or later since the server will remain a NT 4.0. member server after the migration, and SP4 provides Windows 2000 compatibility. However, since the server will not immediately require any special Windows 2000 services, the service pack upgrade can be delayed. Depending on the current service level, adding SP4 could have a major impact on the applications on the server, and may be incompatible with the applications. For example, if the server is running IIS3, SP4 would upgrade the IIS to 4.0 and any Internet/Intranet applications could have problems.
- B:** Migration of the server first would be a high impact move, if there were any problems, ALL users would be affected. If the users were move first, you could control which users and how many would be affected by doing controlled incremental moves.
- C:** Installing the applications again will not ensure proper operation of the server. Unless it is absolutely required, a mass re-install could cause more problems and disable or break some of the applications. Unless the applications had real specific code that depended on the account records, a recompile would not help, more likely a rewrite of the code would have been needed instead.

Question No: 12

You are preparing litware.com and proseware.com for migration. To run ADMT, you need to create new trust relationships. Create a diagram that illustrates the minimum number of necessary trust relationships that you must create.



Answer:

You are preparing litware.com and proseware.com for migration. To run ADMT, you need to create new trust relationships. Create a diagram that illustrates the minimum number of necessary trust relationships that you must create.



Explanation: Litware.com needs a two-way trust with proseware.com to enable the use of ADMT to migrate the user accounts. Litware.com would also need a two-way trust with resource.proseware.com; however, there is already a transitive trust between resource.proseware.com and proseware.com so the two-way trust is not required.