Lab: Configuring and Managing Permissions and Shares

Exercise 1: Creating, Managing, and Sharing a Folder

▶ Task 1: Create a folder structure

1. On **LON-CL1**, sign in as **Adatum\Administrator** with the password **Pa55w.rd**

2. On the taskbar, click **File Explorer.**

3. In File Explorer, in the navigation pane, expand This PC, and then click **Local Disk (C:)**. In the details pane, right-click the **empty space**, select **New**, select **Folder**, and then **type Data** for the new folder's name.

4. In File Explorer, in the navigation pane, **expand Local Disk (C:),** click **Data**. In the details pane, right-click the **empty space**, select **New**, select **Folder**, and then **type Marketing** for the new folder's name.

5. In File Explorer, in the details pane, right-click the **empty space**, select **New**, select **Folder**, and then **type IT** for the new folder's name.

▶ Task 2: Review default permissions

1. On LON-CL1, in File Explorer, in the navigation pane, double-click **Data** below Local Disk (C:), right-click **IT**, and then select **Properties**.

2. In the IT Properties window, click the **Security tab**, and then click **Edit**.

3. In the Permissions for IT dialog box, verify that Authenticated Users is selected in the Group or user names section, and then click Remove. Read the text in the Windows Security dialog box that appears, which explains why you cannot remove an authenticated user. Click **OK**, and then click **Cancel**.

4. In the IT Properties window, on the Security tab, click **Advanced**.

5. In the Advanced Security Settings for IT dialog box, verify that all permissions entries are inherited from C:\. Also, verify that Users (LON-CL1\Users) have Read & execute Access, while Authenticated Users have Modify Access. Click OK twice.

▶ Task 3: Configure permissions for the IT and Marketing folders

1. On LON-CL1, in File Explorer, in the navigation pane, right-click the **IT folder**, select **Give access to**, and then select **Specific people**.

2. In the File Sharing dialog box, verify that Administrator is selected, click **Read/Write** in the Permission Level column, and then select **Remove**.

3. In the Type a name and then click **Add,** or click the arrow to find someone text box, **type IT**, and then click **Add**.

4. Verify that IT is added and selected. Click **Read** in the Permission Level column, select **Read/Write**, click **Share**, and then click **Done**.

5. In File Explorer, in the navigation pane, right-click **Marketing**, and then select **Properties**.

6. In the Marketing Properties dialog box, select the **Sharing tab**. In the Network File and Folder Sharing section, verify that Marketing is not shared, and then in the Advanced Sharing section, click **Advanced Sharing**.

7. In the Advanced Sharing dialog box, select the **Share this folder check box**. Verify that the share name is Marketing (the same as the folder name), and that Limit the number of simultaneous users to is set to 20. Click **Permissions**.

8. In the Permissions for Marketing dialog box, select the **Everyone** group and click **Remove**. Click **Add**, in the Enter the object names to select (examples) box, type **Marketing**, and then click **OK**. In the Permissions for Marketing section, select the **Change check box** in the Allow column, and then click **OK** twice.

9. In the Marketing Properties dialog box, in the Network File and Folder Sharing section, verify that Marketing is now shared as \\LON-CL1\Marketing, and then click **Close**.

10. Click the **Start** icon, type **cmd** and then select **Command Prompt**.

11. At the command prompt, view shares created on LON-CL1 by typing **net view \\lon-cl1**, and then pressing Enter. **Close** the command prompt.

12. Right-click the **Start** icon, and then select **Computer Management.**

13. In Computer Management, in the navigation pane, expand **Shared Folders**, and then click **Shares**. In the details pane, verify that you see IT and Marketing shares, and the default Windows 10 shares. **Close** Computer Management.

▶ Task 4: Review configured permissions

1. On LON-CL1, in File Explorer, in the navigation pane, right-click **IT**, and then select **Properties**.

2. In the IT Properties window, click the **Security tab**, and then click **Advanced**.

3. In the Advanced Security Settings for IT dialog box, verify that all the permissions entries are set explicitly at this level, because their permission inheritance is set to None.

4. Verify that only an Administrator, Administrators [LON-CL1\Administrators group, SYSTEM and IT (ADATUM\IT)] group have access to the IT folder. These settings match the permissions that you configured in the File Sharing dialog box.

5. In the Advanced Security Settings for IT dialog box, click **OK**. In the IT Properties dialog box, select the **Sharing tab**, in the Network File and Folder Sharing section, verify that IT now is shared as \\Lon-cl1\it, and then click **Advanced Sharing**.

6. In the Advanced Sharing dialog box, click **Permissions**. In the Permissions for IT dialog box, verify that the Everyone and Administrators groups have Full Control permissions to the share, click **OK** twice, and then click **Close**.

📃   Note: If you share a folder by using the File Sharing dialog box, you will modify the local file permissions to match your configuration, while the Everyone and Administrators groups will have the Full Control share permission.

7.   In File Explorer, in the navigation pane, right-click **Marketing**, and then select **Properties**.

8.   In the Marketing Properties window, click the **Security tab**, and then click **Advanced**.

9.   In the Advanced Security Settings for Marketing dialog box, verify that all of the permissions entries are inherited from C:\. Also verify that Users (LON-CL1\Users) have Read & execute access, while Authenticated Users have Modify access, which are the same file permissions as before you shared the Marketing folder. Click **OK** twice.

📃   Note: If you share a folder by using the Advanced Sharing feature, this does not modify local file permissions. You only modify share permissions if you use Advanced Sharing.

10. Click the **Start** icon, select the **user icon**, and then select **Sign out**.

▶ Task 5: Test local file permissions

1.   On LON-CL1, sign in as **Adatum\Bill** with the password **Pa55w.rd**

     Bill is a member of the Marketing group, but is not a member of the IT group.

2.   On the taskbar, click **File Explorer**. In File Explorer, in the navigation pane, expand **This PC**, expand **Local Disk (C:)**, expand **Data**, and then select **Marketing**.

3.   In the details pane, right-click the **empty space**, select **New**, select **Text Document**, and then type **File10** as the name of the file.

📃   Note: Adam has local file permissions to create a new file in the Marketing folder, because permissions were configured by using the Advanced Sharing feature. This modified only the share permissions, while the default local file permissions were not modified. By default, Authenticated Users have the Modify permission.

4.   In File Explorer, in the navigation pane, select **IT**, and then click **Cancel**.

📃   Note: You will get an error, because Adam does not have local file permissions to the IT folder. Permissions were configured by File Sharing, and only members of the IT group have local file permissions to the folder.

5.   Click the **Start** icon, select the **user icon**, and then select **Sign out**.

6.   On LON-CL1, sign in as **Adatum\Beth** with the password **Pa55w.rd**

     April is member of the IT group, and she is not member of the Marketing group.

7. On the taskbar, click **File Explorer.** In File Explorer, in the navigation pane, expand **This PC**, expand **Local Disk (C:)**, expand **Data**, and then select **Marketing**.

8. In the details pane, verify that you can see File10 that was created by Bill. Right-click the **empty space**, select **New**, select **Text Document**, and then type **File20** as the name of the file.

📋   Note: April has local file permissions to create a new file in the Marketing folder because you configured permissions by using the Advanced Sharing feature. This modified only the share permissions, while the default local file permissions were not modified. By default, Authenticated Users have the Modify permission.

9. In File Explorer, in the navigation pane, select **IT**. In the details pane, right-click the **empty space**, select **New**, select **Text Document**, and then type **File21** as the name of the file.

📋   Note: April is able to create a file, because you configured permissions by using File Sharing. Members of the IT group have local file permissions to the IT folder.

📋   Note: Be aware that Network File and Folder Sharing modifies file permissions and share permissions. However, the Advanced Sharing feature does not modify file permissions, and only sets share permissions.

10. Right-click the **Start** icon, select **Shut down or sign out**, and then select **Sign out**.

▶ Task 6: Test share permissions

1. **Switch to LON-CL2**, sign in as **Adatum\Bill** with the password **Pa55w.rd**

    Bill is a member of the Marketing group, but he is not a member of the IT group.

2. On the taskbar, click **File Explorer**. In File Explorer, click the **arrow** in the Address bar, type **\\LON-CL1**, and then press **Enter**.

3. Verify that you can see the IT and Marketing shares in the details pane. Double-click **Marketing**. Verify that you can see the files that Bill and Beth created locally.

4. In the details pane, right-click the **empty space**, select **New**, select **Text Document**, and then type **File30** as the name of the file. Bill has permissions to create a new file in the Marketing share because he is a member of the Marketing group.

5. In File Explorer, click **LON-CL1** in the address bar. In the details pane, double-click **IT**. Read the text in the Network Error dialog box, and then click **Close**.

📋   Note: Bill is not a member of the IT group, so he does not have permissions to the IT share.

6. Right-click the **Start** icon, select **Shut down or sign out**, and then select **Sign out**.

7. Sign in as **Adatum\Beth** with the password **Pa55w.rd**

    Beth is a member of the IT group, but she is not a member of the Marketing group.

8. On the taskbar, click **File Explorer**. In File Explorer, click the **arrow** in the Address bar, type **\\LON-CL1**, and then press **Enter**.

9. Verify that you can see the IT and Marketing shares in the details pane. Double-click **Marketing**.

10. Read the text in the Network Error dialog box. Beth is not a member of the Marketing group, so she does not have permissions to the Marketing share. Click **Close**.

11. In the details pane, double-click **IT**. Right-click the **empty space** in the details pane, select **New**, select **Text Document**, and then type **File40** as the name of the file. Beth has permissions to create a new file in the IT share because she is a member of the IT group.

📄   Note: Users can connect only to shares that were shared for groups in which they are members, regardless of whether they were shared by File Sharing or Advanced Sharing.

Results: After completing this exercise, you will have created a folder structure for the Marketing and information technology (IT) departments, shared their folders, and tested local and share permissions.

Exercise 2: Using Conditions to Control Access and Effective Permissions

▶ Task 1: Configure conditions to control access

1. On **LON-CL1**, sign in as **Adatum\Administrator** with the password **Pa55w.rd**

2. On the taskbar, click **File Explorer**.

3. In File Explorer, in the navigation pane, expand **Local Disk (C:)**, and then click **Data**. In the details pane, right-click the **empty space**, select **New**, select **Folder**, and **type Research** as the new folder name.

4. Right-click **Research**, select **Properties**, select the **Sharing tab**, and then click **Advanced Sharing**.

5. In the Advanced Sharing dialog box, select the **Share this folder check box**, and then click **Permissions**.

6. In the Permissions for Research dialog box, in the Permissions for Everyone section, select the **Change check box** in the Allow column, and then click **OK** twice.

7. In the Research Properties dialog box, select the **Security tab**, click **Advanced**, and then verify that all permissions entries are inherited from C:\.

8. In the Advanced Security Settings for Research dialog box, select **Users (LON-CL1\Users)**, and then click **Remove**. Read the text in the Windows Security dialog box that appears, click **OK**, and then click **Disable inheritance**.

9. In the Block Inheritance dialog box, click **Convert inherited permissions into explicit permissions on this object**, and then verify that all permissions entries are set explicitly at this level because their permission inheritance is set to None.

10. In the Advanced Security Settings for Research dialog box, select **Users (LON-CL1\Users)**, and then click **Remove**. Entry for Users is removed from the Permission entries because it was explicitly set at this level.

11. Verify that **Authenticated Users** is selected, and then click **Edit**.

12. In the Permission Entry for Research dialog box, click **Add a condition**, and compose the following expression: **User department Equals Value research**. You will need to type research manually in the last box. Click **OK** twice, and then click **Close**.

13. In File Explorer, in the navigation pane, expand **Data**, right-click **IT**, select **Properties**, select the **Security tab**, and then click **Advanced**.

14. In the Advanced Security Settings for IT dialog box, select **IT (ADATUM\it)**, and then click **Edit**.

15. In the Permission Entry for IT dialog box, click **Add a condition**, and compose the following expression: **User Country Equals Value US**. You will need to type US manually in the last field. Click **OK** three times.

▶ Task 2: Test conditions to control access

1. **Switch to LON-CL2**, where you are signed in as **Adatum\Beth**, in File Explorer, in the address bar, click **LON-CL1**. In the details pane, double-click **Research**. Read the text in the Network Error dialog box, and then click **Close**.

2. Click the **Start** icon, type **cmd** and then select **Command Prompt** in the list.

3. At the command prompt, view user claims by typing **whoami /claims**, and then press **Enter**. Review the output, and then **close** the command prompt.

   Note: Beth has a department claim value of IT and she cannot connect to the Research share.

4. In File Explorer, in the address bar, click **LON-CL1**. In the details pane, double-click **IT**.

5. In the details pane, right-click the **empty space**, select **New**, select **Text Document**, and then **type File50** as the name of the file.

   Note: Beth has permissions to create a new file in the IT share because she is a member of the IT group and her Country claim has a value of US.

6. Right-click the **Start** icon, select **Shut down or sign out**, and then select **Sign out**.

7. Sign in as **Adatum\Nestor** with the password **Pa55w.rd**

   Nestor is a member of the IT group.

8. On the taskbar, click **File Explorer**. In File Explorer, click the **arrow** in the Address bar, type **\\LON-CL1**, and then press **Enter**.

9. In the details pane, double-click **IT**. Jesper is a member of the IT group, but he cannot connect to the IT share. Click **Close**.

10. Click the **Start** icon, type **cmd** and then select **Command Prompt** in the list.

11. At the command prompt, view user claims by typing **whoami /claims**, and then press **Enter**. Review the output, and then **close** the command prompt.

📋 Note: Jesper has a Country claim with the value of GB, so he cannot connect to the IT share, even though he is a member of the IT group.

12. Right-click the **Start** icon, select **Shut down or sign out**, and then select **Sign out**.

13. Sign in as **Adatum\Max** with the password **Pa55w.rd**

14. Click the **Start** icon, type **cmd** and then select **Command Prompt** in the list.

15. At the command prompt, view user claims by typing **whoami /claims**, and then pressing **Enter**. Review the output, and then **close** the command prompt.

📋 Note: Max is in the Research department, and his department claim has the value of Research.

16. On the taskbar, click **File Explorer**. In File Explorer, click the **arrow** in the Address bar, type **\\LON-CL1**, and then press **Enter**.

17. In the details pane, double-click **Research**, and then verify that Max can view the contents of the Research folder.

18. In the details pane, right-click the **empty space**, select **New**, select **Text Document**, and then type **File60** as the name of the file.

📋 Note: Max has permissions to create a new file in the Research share because his department claim has a value of Research.

▶ **Task 3: View effective permissions**

1. **Switch to LON-CL1**, in File Explorer, in the navigation pane, right-click **Marketing**, select **Properties**, select the **Security tab**, click **Advanced**, and then select the **Effective Access tab**.

2. In the Advanced Security Settings for Marketing dialog box, click **Select a user**, in the Enter the object name to select (examples) box, **type Ernie**, click **OK**, and then click **View effective access**. View the effective permissions, and then click **OK** twice.

📋 Note: As Authenticated Users have the Modify permission to the Marketing folder, you can see that Ernie has the most permissions allowed.

3. In File Explorer, in the navigation pane, right-click **Research**, select **Properties**, select the **Security tab**, click **Advanced**, and then select the **Effective Access tab**.

4. In the Advanced Security Settings for Research dialog box, click **Select a user**, in the Enter the object name to select (examples) text box, type **Bruno**, click **OK**, and then click **View effective access**. Bruno is a member of Development group.

📋   Note: Only users with the department claim with a value of Research have permissions to the folder, you can see that Bruno has no permissions allowed.

5. In the Advanced Security Settings for Research dialog box, click **Include a user claim**, select **department** in the drop-down list, **type Research** in the Enter value here text box, and then click **View effective access**.

📋   Note: You can see that if Bruno had the department user claim with the value of Research, he would have most permissions allowed.

6. In the Advanced Security Settings for Research dialog box, click **Select a user**, in the Enter the object name to select (examples) box, type **Arturs**, click **OK**, and then click **View effective access**. Review the effective permissions, and then click **OK** twice.

📋   Note: If Arturs had the user claim of department with the value of Research, he would have the most permissions allowed.

7. Sign out of LON-CL1.

Results: After completing this exercise, you will have configured and tested conditions to control access. You will have also viewed effective permissions.