
Lab 13B: Securing Files by Using EFS

Objectives

After completing this lab, you will be able to:

- Encrypt a file.
- Sharing an encrypted file.
- Decrypt a file.

Prerequisites

Before working on this lab, you must have:

- Basic knowledge of file encryption.
- Basic knowledge of Active Directory™.

Estimated time to complete this lab: 30 minutes

Exercise 0

Lab Setup

Tasks	Detailed steps
<p>1. Log on as Administrator with a password of password, and join the Microsoft® Windows® 2000 domain nwtraders.</p>	<p>a. Log on as Administrator with a password of password.</p> <p>b. Click Start, right-click My Computer, and then click Properties.</p> <p>c. On the System Properties page, click Computer Name, and then click Change.</p> <p>d. Click Domain, type NWTRADERS.MSFT and then click OK.</p> <p>e. In the Domain Username and Password dialog box, type Administrator for the name and password for the password, and then click OK.</p> <p>f. In the Computer Name Changes message box, which displays Welcome to the NWTRADERS.MSFT domain, click OK.</p> <p>g. Click OK to restart the computer.</p> <p>h. Close the System Properties page, and restart the computer.</p>
<p>2. Log on to the NWTraders domain as DomAdmin with a password of dopass.</p>	<p>a. Press CTRL+Alt+Del to open the logon screen.</p> <p>b. Type DomAdmin in the User Name box.</p> <p>c. Type dopass in the Password box.</p> <p>d. Ensure that NWTraders is listed in the Domain box.</p> <p>e. Click OK.</p>
<p>3. Run Labfiles.exe from the Labfiles folder on the student CD-ROM to create the files and folders needed to complete this lab.</p>	<p>a. Click Start, and then click Run.</p> <p>b. In the Run dialog box, type: CD-ROM:\labfiles\labfiles.exe</p> <p>c. Click OK.</p> <p>d. Close all open windows and log off.</p>




Exercise 1

Encrypting Files

In this exercise, you will encrypt a folder and the files contained in the folder.

Scenario

The Developers group at Northwind Traders has started traveling to remote customer locations. The Developers group still needs access to data for some of the products that must be on their portable computers. The data that the developers use is confidential highly valuable, thus you want to enable a higher level of security for access to this data. You will use EFS to encrypt the files, so that even if another user does manage to log on, that user will be unable to gain access to the files.

Tasks	Detailed steps
<p>1. Log on as DomUser.xxx (where xxx is your three character city designation) with a password of doppass. Encrypt the files in the folder C:\MOC\2272\Labfiles\Mod13. Give the Users local group Full Control NTFS permissions to the contents of the Mod13 folder. Disable encryption for the file Encrypt1.txt.</p>	<ol style="list-style-type: none"> Log on as DomUser.xxx (where xxx is your three character city designation) with a password of doppass. Start Windows Explorer. Open the Mod13 folder, located at C:\MOC\2272\Labfiles, and then open the Properties dialog box for the Mod13 folder. Click Security, and then click Users, and then click Full Control, and then click OK. Open the Properties dialog box for the Mod13 folder, and then in the Mod13 Properties dialog box, click Advanced. In the Advanced Attributes dialog box, click Encrypt contents to secure data, and then click OK. In the Mod13 Properties dialog box, click OK.  <i>The Confirm Attribute Changes dialog box appears, informing you that you are about to encrypt the folder.</i> Click Apply changes to this folder, subfolders and files, and then click OK. In the Mod13 folder, open the Properties dialog box for the Encrypt1.txt file. In the Encrypt1.txt Properties dialog box, click Advanced.  <i>The Advanced Attributes dialog box appears, with the Encrypt contents to secure data check box selected.</i> Clear the Encrypt contents to secure data check box, and then click OK twice.
<p>2. Verify the encryption of the Encrypt2.txt file, by checking the encryption attributes for that file.</p>	<ol style="list-style-type: none"> In the Mod13 folder, open the Properties dialog box for the Encrypt2.txt file. In the Encrypt2.txt Properties dialog box, click Advanced.  <i>The Advanced Attributes dialog box appears, with the Encrypt contents to secure data check box selected.</i> Click Cancel twice. Close all open windows, and then log off.




Exercise 2

Testing the Encrypted Files

In this exercise, you will log on by using the Guest account, and then attempt to open an encrypted file.

Scenario




You have implemented encryption on the files on the laptop, and you want to test access to the files to verify that the computer is configured correctly. Before the laptop is sent out to the customer location with a developer, you also want to test that the user is able to gain access to the files and that other users are denied access.

Tasks	Detailed steps
1. Log on to the nwtraders domain as DomUseryyy (where yyy is your partners city designation) with a password of dopass . Test the encrypted files Encrypt1.txt and Encrypt2.txt.	<ol style="list-style-type: none"> Log on to the nwtraders domain as DomUseryyy (where yyy is your partners city designation) with a password of dopass. Start Windows Explorer, and then open the Mod13 folder, located at C:\MOC\2272\Labfiles\Mod13. Double-click Encrypt1.txt, and then quit Notepad. Double-click Encrypt2. <ul style="list-style-type: none">  <i>Note that an Access is denied message appears, this is because the file is still encrypted, and your partner's account has not been given access to this file.</i> Click OK, and then close Notepad.
2. Attempt to disable the encryption by clearing the Encrypt contents to secure data check box and log off.	<ol style="list-style-type: none"> Open the Properties dialog box for the Mod13 folder. In the Mod13 Properties dialog box, click Advanced. In the Advanced Attributes dialog box, clear the Encrypt contents to secure data check box, and then click OK. In the Mod13 Properties dialog box, click OK. <ul style="list-style-type: none">  <i>The Confirm Attribute Changes dialog box appears, informing you that you are about to decrypt the folder.</i> Click Apply changes to this folder, subfolders, and files, and then click OK. <ul style="list-style-type: none">  <i>The Error Applying Attributes dialog box appears informing you that access was denied applying the attributes.</i> Click Cancel twice. Right-click Encrypt1, and then click Properties, and then click Advanced. Check Encrypt contents to secure data, and then click OK twice. Click Encrypt the file only, and then click OK. Close all open windows, and then log off.

Exercise 3

Sharing an Encrypted File

In this exercise, you will share a folder that contains encrypted files and make some of those files available to another user.

Tasks	Detailed steps
1. Log on as DomUser.xxx (where xxx is your 3 character city designation) and share the encrypted file Encrypt2.txt with DomUseryyy .	<ol style="list-style-type: none"> Log on as DomUser.xxx (where xxx is your city designation) with a password of dompass. Open Windows Explorer. Open the Mod13 folder, located at C:\MOC\2272\Labfiles, and then open the Properties dialog box for the Encrypt2.txt file. In the Encrypt2.txt Properties dialog box select Advanced. In the Advanced Attributes dialog box select Details. In the Encryption Details dialog box select Add. In the Select User dialog box select DomUseryyy and click OK.  Notice that both the DomUserxxx and DomUseryyy are listed in the Users Who Can Transparently Access This File list. . Click OK three times. Close all windows and log off.
2. Log on as DomUseryyy and verify transparent access to file encrypt2.txt .	<ol style="list-style-type: none"> Log on to the nwtraders domain as DomUseryyy with a password of dompass. Open Windows Explorer. Open the Mod13 folder and then double-click encrypt2.txt. Close Notepad.
 Why was DomUseryyy able to access a file encrypted by DomUserxxx ? DomUserxxx allowed EFS certificate of DomUseryyy to access this file. <hr/> <hr/>	
 Will DomUseryyy be able to access al files encrypted by DomUserxxx ? No, shared access to encrypted files is on a file-by-file basis. <hr/> <hr/>	


Exercise 4

Decrypting Folders and Files

In this exercise, you will decrypt the folder and the file that you previously encrypted.

Scenario

You have implemented encryption on the files and folders on the laptop. Some of the older files that have been encrypted no longer need the protection of being encrypted, so you will decrypt the files and folders that no longer need encryption.

Tasks	Detailed steps
<p>1. Decrypt the files by clearing the Encrypt contents to secure data check box in the properties for the Mod13 folder.</p>	<ul style="list-style-type: none">a. Start Windows Explorer.b. Open the Mod13 folder, located at C:\MOC\2272\Labfiles, and then open the Properties dialog box for the Mod13 folder.c. In the Mod13 Properties dialog box, click Advanced.d. In the Advanced Attributes dialog box, clear the Encrypt contents to secure data check box, and then click OK.e. In the Mod13 Properties dialog box, click OK. <p> <i>The Confirm Attribute Changes dialog box appears, informing you that you are about to decrypt the folder.</i></p> <ul style="list-style-type: none">f. Click Apply changes to this folder, subfolders, and files, and then click OK.g. Close all windows and log off.