

Microsoft Office

866-963-4440

2362 –Deploying MS .NET Applications for Systems Engineers

3 Day

This three-day instructor-led course teaches System Engineers how to deploy .NET applications and the .NET Framework, using different deployment techniques. It includes the basic architecture of .NET applications and how to secure, monitor, and maintain them.

WHO SHOULD ATTEND

The typical audience for this learning product is a skilled System Engineer with at least three years of network and server management experience.

PREREQUISITES

Before attending this course, students must have:

- Experience with Microsoft Windows 2000 Server and/or Microsoft Windows Server 2003
- Experience with Microsoft Active Directory
- Experience with TCP/IP including DHCP, DNS, etc.

AT COURSE COMPLETION

After completing this course, students will be able to:

- Describe what the Microsoft .NET Framework components are and how they work together.
- Describe the elements of and best practices for securing .NET applications.
- Configure .NET application security, including code-access and role-based security, using guidelines for best practices.
- Describe the different deployment mechanisms for a .NET application.
- Deploy applications built on the Microsoft .NET Framework using a variety of methods.
- Update components of an application built on the .NET Framework.
- Describe the elements of managing .NET assemblies.
- Deploy .NET assemblies.
- Configure ASP.NET applications and Enterprise Services.
- Monitor .NET applications, including the use of the Enterprise Instrumentation Framework (EIF).



Microsoft Office

866-963-4440

LESSON TOPICS

Module 1: Introduction to the .NET Framework

This module describes the .NET Framework components and how they work together. It also describes the architecture of a .NET application and how it relates to various other systems including Microsoft Active Directory directory service, the operating system, IIS, COM+, and other services. Overall, it identifies when the .NET Framework and .NET applications will and will not affect common existing operational procedures including development, packaging and deployment, testing and monitoring.

Lessons

- Life after .NET
- .NET Framework Components
- .NET Framework Components and .NET Applications
- The Role of the Global Assembly Cache (GAC)
- Communications Between .NET Applications and Services

After completing this module, students will be able to:

- Describe how using the .NET Framework and applications will and will not affect daily operations for the Systems Engineer.
- Describe the basic components of the .NET Framework.
- Explain how .NET applications and the .NET Framework components work together.
- Describe how the Global Assembly Cache (GAC) works.
- Describe, at a high level, the architecture of a .NET application.

Module 2: Implementing a .NET Application Security Strategy

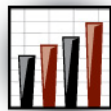
This module identifies the security layers that are built into the .NET Framework and describes guidelines for implementing .NET application security.

Lessons

- Identifying .NET Framework Security Layers
- Applying .NET Security Principles

After completing this module, students will be able to:

- Identify .NET framework security layers.
- Describe the guidelines for implementing .NET security.



Microsoft Office

866-963-4440

Module 3: Configuring .NET Application Security

This module describes how to configure code access and role-based security for .NET applications. Application security must be configured before an application can be deployed.

Lessons

- Configuring Code Access Security
- Configuring Role-Based Security

Lab: Configuring Code Access Security

After completing this module, students will be able to:

- Configure code access security.
- Configure role-based security.

Module 4: Introduction to .NET Application Deployment

This module provides an overview of installing .NET applications including hardware and software requirements, how to troubleshoot problems that may occur during the installation of applications, and guidelines for interoperation. It will outline the tasks for deploying the .NET Framework and deploying .NET applications by using Xcopy and No-Touch Deployment. It will also stress best practices for packaging and deploying .NET applications.

Lessons

- Options for Deploying the .NET Framework
- Overview of Deploying .NET Applications
- Deploying a .NET Application using XCopy
- Deploying a .NET Application with No-Touch Deployment (NTD)

Lab: Deploying Applications using XCopy and NTD

After completing this module, students will be able to:

- Deploy the .NET Framework.
- Describe, at a high level, how .NET applications are deployed.
- Deploy .NET applications using Xcopy.
- Deploy .NET applications using No-Touch Deployment (NTD).



Microsoft Office

866-963-4440

Module 5: Deploying .NET Applications by Using Microsoft Windows Installer (MSI)

This module will build on the previous module to describe specifically how to deploy .NET applications by using Microsoft Windows Installer (MSI). The module will cover how MSI works, what the conditions are for a successful deployment, and how to create desktop icons, menu shortcuts, and create custom actions. It will conclude with best practice guidelines for using MSI.

Lessons

- Microsoft Windows Installer (MSI) Features
- Creating Launch Conditions for an MSI Installation
- Creating Desktop Icons and Menu Shortcuts
- Creating Custom Actions

Lab: Building an MSI Installer Using the Microsoft Visual Studio .NET Setup

After completing this module, students will be able to:

- Describe MSI features.
- Create launch conditions for an MSI installation.
- Create desktop icons and menu shortcuts.
- Create custom actions.
- Explain the best practices for building an MSI installation.

Module 6: Deploying Automatically-updating .NET Applications

This module will complete the deployment cycle by describing how to deploy .NET applications that will automatically update. It will cover the process for combining NTD and MSI installations and how to use the Application Updater Block. Finally, it will explain the guidelines for best practices for deploying .NET applications that will be automatically updated.

Lessons

- Overview of Automatically-updating Applications
- Deploying and Updating a Smart Client Application
- Deploying and Updating .NET Applications using the Application Updating Block (AUB)

Lab: NTD and Smart Clients

After completing this module, students will be able to:



Microsoft Office

866-963-4440

- Describe the basic process for updating applications.
- Deploy and update a smart client application.
- Describe the process of deploying and updating .NET applications using the AUB.

Module 7: Signing .NET Assemblies

In this module, the students will learn how to sign an assembly with a strong name, and use additional signing options to ensure the source of an assembly.

Lessons

- Creating Strong-Named Assemblies
- Identifying Additional Signing Options

Lab: Signing .NET Assemblies

After completing this module, students will be able to:

- Create strong-named assemblies.
- Identify additional signing options.

Module 8: Managing .NET Assemblies

This module describes how to manage .NET assemblies by deploying an assembly to the Global Assembly Cache (GAC) and configuring assemblies for side-by-side deployment.

Lessons

- Deploying Assemblies to the Global Assembly Cache
- Configuring Assemblies for Side-by-Side Deployment

Lab: Deploying .NET Assemblies

After completing this module, students will be able to:

- Deploy assemblies to the Global Assembly Cache (GAC).
- Configure assemblies for side-by-side deployment.



Microsoft Office

866-963-4440

Module 9: Configuring .NET Components

This module describes how to configure certain .NET Framework components that affect operational tasks, including ASP.NET applications, Enterprise Services, and .NET remoting.

Lessons

- Configuring the ASP.NET Process Model
- Configuring .NET Enterprise Services
- Implementing .NET Remoting

Lab: Configuring .NET Components

After completing this module, students will be able to:

- Configure ASP.NET applications.
- Configure Enterprise Services.
- Configure .NET remoting.

Module 10: Monitoring .NET Applications

The final module of this course will outline the basics of monitoring .NET applications. It will cover the identification and analysis of common problems with .NET applications and provide hands-on experience with monitoring a .NET application with the Enterprise Instrumentation Framework (EIF). It will also cover testing .NET applications using the Windows Application Compatibility Toolkit (ACT). Finally, it will outline the best practices for monitoring .NET applications.

Lessons

- Monitoring .NET Applications
- Testing Web Applications with ACT

Lab: Instrumentation with EIF

After completing this module, students will be able to:

- Monitor .NET applications using Enterprise Instrumentation Framework (EIF).
- Test Web applications using the Windows Application Compatibility Toolkit (ACT).
- Evaluate results from EIF and ACT.