

Introduction to WCF Using C# (VS2008) (3 Days) CTI 4153

This course covers the essentials of the technology of Windows Communication Framework (WCF), Microsoft's new framework for building distributed systems. WCF enables developers to produce highly configurable, secure, reliable and transactional services using a single simplified programming model.

Prerequisites: *Good working knowledge of building .NET applications with C#. Knowledge of building distributed systems and Web services will also be helpful.*

Minimum software requirements: *Windows XP Professional with Internet Information Services, Visual Studio 2008 Standard Edition or higher, and Microsoft .NET 3.5.*

Minimum hardware requirements: *Pentium PC running at 2 GHz; 512 Mb RAM; 4 GB free hard disk space before installation.*

Microsoft PowerPoint and Internet access *on instructor's workstation for presentation purposes.*

Module 1: Introduction to WCF

- What is WCF?
- Address, Binding and Contract
- WCF Services and Clients
- IIS Hosting
- WCF Architecture

Module 2: Addresses and Bindings

- Addresses
- Bindings
- Message Exchange Patterns
- Configuring Bindings
- Interoperating with ASMX Web Services
- Hosting in a Console Application
- Channel Factories
- Multiple Endpoints

Module 3: Service Contracts

- Defining Service Contracts
- Defining Operation Contracts
- Services with Multiple Contracts
- Contract Inheritance
- Operation Overloading

Module 4: Instance Management

- Using Per-Call Services
- Using Per-Session Services
- Using Singleton Services
- Configuring Behaviors

Module 5: Data Contracts

- Implementing Data Contracts
- Mapping Data Contracts to XSD Schema
- Serialization
- Arrays and Generic Collections
- Enums
- Versioning Data Contracts

Module 6: More About Service Contracts

- Versioning Service Contracts
- Implementing Message Exchange Patterns
- Oneway Contracts
- Duplex Contracts
- Asynchronous Proxies

Module 7: Handling Errors

- Faults and Exceptions
- Generating and Handling Faults
- Fault Contracts
- Faults and Sessions