

Advanced WCF

AdvWCF - Version: 1

 1 days Course

Description:

The Windows Communication Foundation (WCF) framework is being used in almost all .NET development platforms: Windows clients, web browsers, Windows Phone 7, Server side applications, and Windows Azure; but have you ever wondered how WCF works? How you can extend it to your organization's needs? How to monitor its work? How to tune it for better performance and scalability?

In this 2 day course we will deep dive into WCF, understand the concept of hosting and extensibility, and learn how to tune our WCF services and clients.

Intended audience:

This course is intended for professional .NET programmers who use Microsoft® Visual Studio® in a team-based, medium-sized to large development environment. Students should have experience consuming services within their Web and/or Windows® client applications and be interested in learning to develop service-oriented applications (SOA) using WCF. Students should be experienced users of Microsoft® Visual Studio® 2008 SP1, as well as cursory familiarity with Microsoft® Visual Studio® 2010 for Windows® client or Web application development.

Prerequisites:

Objectives:

Topics:

Monitoring & Tracing

- Performance counters

- Windows Management Instrumentation (WMI)
- Tracing
- Message logs
- ETW
- Message sniffing tools

Performance

- Throttling
- Instancing
- Concurrency
- ThreadPool
- Async services
- Client-side proxy and ChannelFactory<T>
- Timeouts, limits, and other configurations

Security

- Transport Security
- Message Security
- Service Authentication
- Impersonation
- Delegation

Extending WCF

- The WCF Service Pipeline
- Where Can We Interfere?
- How Do We Interfere?
- Which Custom Behavior to create?