

ASP.NET Troubleshooting

Provides the troubleshooting skills for web based application to help reduce time to resolution

Key benefits or customer evidence

- Learn the basics of IIS and ASP.NET applications
- Learn the troubleshooting and techniques specific for web based applications
- Learn dump analysis tools and techniques to be able to make root cause analysis
- Learn how performance baseline and capacity planning can be made for web based applications

Overview

This workshop develops the skills required to troubleshoot and resolve common scenarios such as connectivity issues, performance issues, hangs, crashes and memory leaks in ASP.NET applications (including but not limited to web service applications) using various tools and techniques.

How the Offering Works

The workshop is delivered in 3 days, and mainly consists of lab activities regarding many different possible real life scenarios.

Target Audience

This workshop is designed and intended for ASP.NET developers mainly, but web server administrators with some development knowledge would also benefit. Although all dump analysis labs are ASP.NET based, most information provided in this workshop is applicable to any .NET application.

This workshop is intended for organisations who wish to learn about production environment troubleshooting and debugging; mostly user mode dump analysis which is many times the only way to troubleshoot issues.



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Pre-requisites

To ensure the high-quality knowledge transfer expected by the attendees of this 3-day workshop, class size is limited to a maximum of 15 students who meet the following criteria:

- Developers
- Test engineers
- Web server administrators with at least beginner level development skills

Syllabus

Module 1: Architecture

- IIS architecture
- Worker process architecture
- ASP.NET compilation structure
- .NET memory management

Module 2: Types of potential issues

- HTTP protocol basics
- Connection issues and usage of Fiddler tool
- Exceptions and exception handling
- Performance counters

Module 3: Dump analysis

- What is a memory dump
- User mode and kernel mode dumps
- What is a symbol
- Dump collection tools and practices
- Dump analysis – windbg tool
- Debugging extensions – psscor2.dll IIS logs and Log Parser tool

Module 4: Dump analysis labs

- 7 dump analysis labs on
 - Crash scenarios
 - Hang scenarios
 - Memory leak scenarios
 - Performance issues

Benefits

After completing this course, attendees will be able to:

- Troubleshoot day-to-day issues about web applications and web services hosted on IIS servers
- Check web server access logs for past problems and general performance analysis
- Learn the tools which can be used for performance baselining and capacity planning
- Get hands on practice on dump analysis for various scenarios