

# **Control and Security of Web Applications** HANDS-ON or LECTURE

<b>Course Duration:</b>	1 or 2 Days
<b>CPE Hours:</b>	8 or 16 Hours
<b>Level:</b>	Beginner/Group-Live
<b>Prerequisites:</b>	None
<b>Advanced Preparation:</b>	None

Now that the Internet is a part of everyday life, web applications are an essential component of every business activity. Customers and trading partners expect fast, accurate and secure applications with robust functionality. Companies want sites that are easy to maintain and update, yet cost effective. Auditors and security officers want to ensure that the web applications are controlled and that there is strong data integrity. All of these requirements need to be blended to ensure that each web application meets the company's goals, satisfies the customers and trading partners, and is secure and reliable. This seminar is specifically designed to explain and provide auditors and security officers with an approach to assist them in auditing and controlling web applications. Throughout the course, the participants will complete a series of simulations and exercises designed to build the knowledge to safely and sanely use available tools. Participants will gain hands-on knowledge of the vulnerabilities threatening their Internet presence, such as cross-site scripting and SQL injection, learn techniques required to assist them with their web application audits and security assessments, and will receive an audit guide to assist them with their next web application audit. Participants are required to have a network-enabled Win2K/XP/Vista laptop with administrative rights to both the operating system and anti-virus software (to create a directory exempt from anti-virus scanning), an office suite with word processing and spreadsheet capabilities (i.e. MS Word and Excel), and a CD-ROM drive.

## **Who Should Attend:**

This seminar is intended for IT Auditors and Security Officers who will be performing technical reviews of web applications.

## **Seminar Outline:**

### **I Introduction**

- What are web applications?
- Internet/Intranet fundamentals
- Web architecture
- Web server functionality
- E-Commerce

### **II Understanding Web Applications**

- Website development
- Website data integrity
- Website testing
- Best practices for developing/maintaining web applications
- Policy and guidelines for web applications
- Legal considerations
- Risk/Control Tables
- Control and Security Checklists

### **III Types of Web Applications**

- Sales and product support
- Banking and financial services
- Procurement and trading partner services
- Promotion
- Investor relations
- Recruitment and employee services
- Education and training
- Risk/Control Tables
- Control and Security Checklists

### **IV Auditing Web Applications**

- Need for thorough documentation
- Configuration
- Optimization
- Site integrity
- Performance
- Maintenance
  - Control over updates
  - Outdated information
- Reliability
- Risk/Control Tables
- Control and Security Checklists

## **V Authentication**

- Customer and trading partner authentication
  - Account setup
  - Authentication techniques
  - Automated authentication support
- Customer maintenance
  - Inactive account procedures
  - Consolidating duplicated customer accounts
  - Automated customer contact procedures
- Risk/Control Tables
- Control and Security Checklists

## **VI Encryption**

- Types of encryption
- eTrust and other technologies
- Customer support and assistance
- Confirm encryption and data integrity
- Risk/Control Tables
- Control and Security Checklists

## **VII Security**

- Web vulnerabilities
  - Types of unauthorized access
- Network security
  - Firewalls and routers
  - Intrusion detection and monitoring
  - Virus detection and monitoring
  - Encryption
- Operating system security
  - Windows, Unix and Novell
- Security tools
  - Scanners, password crackers and exploiters
  - Sniffers and misc
- Business continuance and disaster preparedness
- Hacker sites
- Risk/Control Tables
- Control and Security Checklists

## **VIII New Technologies**

- Emerging technologies
- Integrating new technology into web applications