eXpert Class
RealStuff Informatik

Windows 10 Always On VPN Hands-On Training

Richard M. Hicks

Richard Hicks is the founder and principal consultant of Richard M. Hicks Consulting, Inc., delivering enterprise mobility and security infrastructure solutions to customers around the world. He is a Microsoft Most Valuable Professional (MVP), currently recognized in the Cloud & Datacenter and Enterprise Security award categories. Richard has more than two decades experience working in large scale corporate computing environments. He has designed and deployed perimeter defense and secure remote access solutions for some of the largest companies in the world. He is also the author of Implementing DirectAccess with Windows Server 2016 from Apress Media (ISBN: 978-1484220580).

This 3-day training is delivered in English

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Course Syllabus - Windows 10 Always On VPN Hands-On Training

Course Description:

This three-day hands-on training class taught by enterprise mobility and security infrastructure expert Richard Hicks will cover many of the common aspects of the design, implementation, and support of a Windows 10 Always On VPN solution in the enterprise. Course topics will include (but are not limited to) the following:

- Windows 10 Always On VPN Overview
- Introduction to CSP
- Infrastructure requirements
- Planning and design considerations
- Installation and configuration
- Client provisioning
- Redundancy and high availability
- Considerations for cloud-based deployments
- Supporting third-party VPN infrastructure and clients
- Multifactor authentication and conditional access
- Maintenance and support
- Troubleshooting
- Always On VPN migration strategies

Objectives

At the end of this course, students will have a fundamental understanding of Windows 10 Always On VPN features and capabilities and how to deploy them according to implementation and security best practices. Students will learn how to prepare the supporting infrastructure requirements for Always On VPN, as well as how to implement a basic Windows Server 2016 Routing and Remote Access Service (RRAS) server to support VPN connections. In addition, students will learn to prepare Always On VPN connections using VPNv2CSP and ProfileXML using PowerShell and Microsoft Intune. Advanced topics include building a highly available VPN and NPS infrastructure, integrating Microsoft Azure MFA and conditional access, and implementing Always On VPN on cloud infrastructure. The use of third-party VPN servers and clients will also be covered.

Prerequisites
Students should have a fundamental understanding of basic Windows administration skills such as Active Directory and group policy, as well as operational experience with Microsoft supporting infrastructure such as DNS and DHCP. Students should also have working knowledge of IPv4 networking including routing, addressing, and subnetting. Experience with Active Directory certificate services is also helpful.

Material:
A printed lab manual and course outline will be provided to students attending the class.

Duration:
3 days

Course Schedule:
Each day will begin at 9:00AM and conclude at 5:00PM local time. The following topics will be covered each day during the training course.

Language:
English

Equipment:
All necessary materials for the class will be provided by RealStuff Informatik AG. Students can use the classroom PCs or bring their own laptop capable of accessing the public Internet and using the Microsoft Remote Desktop Protocol (RDP) to access the cloud-based test environment.

The following topics will be covered each day during the training course.

Day 1

- Introduction to remote access and compare/contrast Always On VPN with existing solutions
- Overview of infrastructure prerequisites
- Understanding VPNv2CSP and the Always On VPN management model
- Plan the VPN server network topology and review support VPN protocols
- Prepare and configure basic Always On VPN implementation
- Provisioning Always On VPN settings with Microsoft Intune (demonstration)

Day 2

- Prepare an advanced VPN deployment with multiple servers
- Explore high availability and redundancy options
- Evaluate advanced security configuration settings
- Review the considerations for cloud-based deployments
- Implementing Always On VPN with third party VPN servers and clients (demonstration)

Day 3

- Review implementation best practices
- Perform security hardening procedures
- Migrating from DirectAccess to Always On VPN
- Care and feeding of the Always On VPN infrastructure
- Troubleshooting
- Course review

Additional Information

Credentials for accessing the online hands-on lab environment will be provided to students just before the course is scheduled to begin. In addition, the environment will be accessible to students for a period of one (1) week after the course has concluded.