

# Hyper V for engineers

A 5 day **Hands on** training course



## Description

This five day course will provide you with the knowledge and skills required to design and implement Microsoft Server Virtualization solutions using Hyper-V and System Center.

Please note that due to the nature of the lab / environment build delegates may be required to work in pairs.



## Key outcomes

By the end of the course delegates will be able to:

- ✓ Install and configure the Hyper-V server role.
- ✓ Create virtual machines, create and manage virtual hard disks and work with snapshots.
- ✓ Create and configure virtual machine networks in a Hyper-V environment.
- ✓ Provide high availability for Hyper-V environment by implementing failover clustering.
- ✓ Use System Center 2012 R2 Virtual Machine Manager.
- ✓ Create and manage virtual machines by using VMM.



## Training Approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning. Hands on sessions are used throughout to allow delegates to consolidate their new skills.



## Details

### Who will benefit?

Anyone designing, implementing, managing and maintaining a virtualization infrastructure.

### Prerequisites

Installing and Configuring Windows Server 2012 ,  
Administering Windows Server 2012.

**Duration:** 5 days

**Customer Rating:** New course

### Generic Training



Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".

*"Friendly environment with expert teaching that teaches the why before the how."*  
G.C. Fasthosts

### Small Class Sizes



We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.

*"Excellent course. The small class size was a great benefit..."*  
M.B. IBM

### Hands On Training



The majority of our courses use hands on sessions to reinforce the theory.

*"Not many courses have practice added to it. Normally just the theoretical stuff is covered."*  
J.W. Vodafone

### Our Courseware



We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.

*"Comprehensive materials that made the course easy to follow and will be used as a reference point."*  
V.B. Rockwell Collins

### Customise Your Course



Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.

*"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."*  
S.R. Qinetiq

# Hyper V for engineers

## Course Content

### Evaluating the environment for virtualization

Overview of Microsoft virtualization, Overview of system center 2012 R2 components, Evaluating current environment for virtualization, Extending virtualization to the cloud environment.

Selecting the appropriate virtualization method, Assessing the environment by using MAP.

### Installing and configuring the Hyper-V role

Installing the Hyper-V role, Managing Hyper-V, Configuring Hyper-V settings, Hyper-V Host storage and networking, Installing the Hyper-V server role, Configuring Hyper-V settings, Accessing and managing Hyper-V remotely.

### Creating and managing virtual hard disks, virtual machines, and checkpoints

Creating and configuring virtual hard disks, Creating and configuring virtual machines, Installing and Importing virtual machines, Managing virtual machine checkpoints, Monitoring Hyper-V, Designing virtual machines for server roles and services, Creating and managing virtual hard disks, Creating and managing virtual machines, Importing virtual machines and working with checkpoints monitoring Hyper-V.

### Creating and configuring virtual machine networks

Creating and using Hyper-V virtual switches, Advanced Hyper-V networking features, Configuring and using Hyper-V network virtualization, Creating and using Windows Server 2012 R2 Hyper-V virtual switches, Configuring and using advanced virtual switch features, Configuring Hyper-V Network virtualization.

### Virtual machine movement and Hyper-V replica

Providing high availability and redundancy for virtualization, Implementing virtual machine movement, Implementing and managing Hyper-V replica, Moving Hyper-V storage and virtual machines, Configuring and managing Hyper-V replica.

### Implementing failover clustering with Hyper-V

Overview of failover clustering, Configuring and using shared storage, Implementing and managing failover clustering with Hyper-V, Creating a Hyper-V failover cluster, Managing a Hyper-V failover cluster.

### Installing and configuring System Center 2012 R2 virtual machine manager

Integrating system center and server virtualization,

Overview of VMM, Installing VMM, Adding hosts and managing host groups, Installing and configuring System Center 2012 R2 VMM, Managing hosts and host groups.

### Managing the Networking and storage infrastructure in System Center 2012 R2 VMM

Managing networking infrastructure managing storage infrastructure, Managing infrastructure updates, Implementing a network infrastructure, Implementing a storage infrastructure, Managing infrastructure updates.

### Creating and managing VM using MS System Center 2012 R2 VMM

VMM tasks in VMM, Creating, cloning, and converting VMs, Overview of VM updating, Creating a VM and modifying it's properties, Cloning a VM.

### Configuring and managing the MS System Center 2012 R2 VMM library and library objects

Overview of the VMM library, Working with profiles and templates, Configuring and managing the VMM library, Creating and managing profiles and templates.

### Managing clouds in MS System Center 2012 R2 VMM

Introduction to clouds, Creating and managing a cloud, Working with user roles in VMM, Creating a cloud, Working with user roles, Deploying VMs to a private cloud.

### Managing services in MS System Center 2012 R2 VMM and app controller

Understanding services in VMM, Creating and managing services in VMM, Using app controller Creating a service template, Deploying a service and updating a service template, Configuring app controller, Deploying a VM in app controller.

### Protecting and monitoring virtualization infrastructure

Overview of backup and restore options for VM, Protecting virtualization Infrastructure using DPM, Using Operations Manager for monitoring and reporting, Integrating VMM with Operations Manager, Implementing MS System Center 2012 R2 Operations Manager agents, Configuring Operations Manager monitoring components, Configuring Operations Manager integration with System Center 2012 R2 VMM.

