Workshop	
Name	Windows Azure Platform for IT Pros
Duration	3 Days
Objective	Deep dive on the Infrastructure as a Service (IaaS) capabilities of the Windows Azure Platform.
Participants' Entry Profile	Participants attending this workshop should have the skills for installing and managing the following workloads: • Windows Server 2008/2012 • SQL Server 2012 – High availability • Active Directory • SharePoint Server 2013
Training Methodology	The workshop will follow Synergetics methodology of **Concept Visualization** **Active Experimentation** **Application Development**. The workshop will be **100% Hands-On** with each participant having access to system during the session

Setup Requirements	
Hardware and Software Requirements	Participant's as well as Trainer's Machine are required to have : **Hardware** Intel® Core™i5 Processor Minimum 4 GB RAM – 8 GB preferred LAN connectivity **High Speed Internet connectivity is mandatory** **Software** Windows Server 2008 R2 / Windows Server 2012 Visual Studio 2012 Latest VS.NET 2012 Tools for Azure Latest Windows Azure SDK Azure PowerShell IE9 SQL Server 2012 – with Management Studio
Training Lab Requirements	Whiteboard 6 feet by 4 feet (minimum) Whiteboard markers – Red, Blue, Green, Black Video Projector (1024 X 768 resolutions)

Course Contents

➢ Windows Azure Platform Overview

This session sets context for the session with discussion on what is cloud computing and its advantages and what are the different cloud service models. It will also review the current Azure Platform capabilities and the future roadmap for the same.

- Cloud Service Models
  - IaaS
  - PaaS
  - SaaS
- Windows Azure Core Services
  - Windows Azure Compute
  - Windows Azure Storage
  - Windows Azure Networking
  - Management
- Windows Azure Building Block Services
  - Service Bus Service
  - Active Directory Services
  - Caching Services
  - Mobile Services
  - Media Services
  - HDInsight

➢ Windows Azure IaaS Capabilities

This session we will understand the Infrastructure as a Service capabilities of Windows Azure and how the VM hosting model works. We will also understand Subscriptions and Roles, affinity groups, Cloud services, Virtual Machines and Virtual Networks. We will understand how to create and manage images and how to manage high availability and load balancing on the platform.

- Windows Azure Virtual Machines
  - Persistent Virtual Machines
  - Understanding provisioning of Virtual Machines
  - Virtual Machine Images
  - Virtual Machine Images v/s Disks
  - Understanding relation between Cloud Service and VM
- Virtual Machine Data Management
  - OS Disk
  - Data Disk
  - Adding a data disk to a VM
  - Configuring the data disk
- High Availability and Load Balancing for VMs
  - Understanding Availability Groups
  - Creating and deploying VMs in availability groups
  - Understanding Port redirection
  - Configuring external ports on the Load balancer for a VM
  - Configuring Load Balanced ports for VMs
- VM based on Custom Images
  - Creating a custom image

  - Running Sysprep on image
  - Uploading the image to Azure storage
  - Creating VM using the image

- Windows Azure Virtual Networks Overview
  - Need for Virtual Network
  - Scenarios for Virtual Network
  - Setting up a Virtual Network
  - Adding VMs and Cloud Services to a Virtual Network
  - Understanding Name resolution in Azure

- Hands-on Labs

➢ **Managing Virtual Machines with PowerShell**

Using PowerShell for automation and advanced management is powerful. This session we will learn how to simplify managing virtual machines, disk and image repository and configure virtual networks using powershell.

- Query, manage and configure VMs
- Provision fully configured VMs
- Configure VNet
- Hands-on Labs

➢ **Connecting IaaS and PaaS**

This session we will understand how you can build solutions by combining IaaS and PaaS together.

- Connect Cloud Apps via VIPs
- Direct connectivity using VNet
- Hands-on Labs

➢ **Moving workloads to Windows Azure IaaS**

With the IaaS capabilities of Azure it is now possible to move server workloads like Active Directory, SQL Server and SharePoint to the Windows Azure cloud. This session looks at the scenarios where it would be ideal to take these workloads to the cloud, best practices and configurations for the same. Also with the scale and economics provided by the cloud it also becomes the ideal place to provision and configure complete Dev and Test environments.

- Active Directory on IaaS
- SharePoint on IaaS
- SQL Server on IaaS
- Dev and Test Environments on IaaS
- Hands-on Labs

➢ **Monitoring VMs using System Center (Overview – No Handson)**

This session looks at how to manage the VMs deployed to Azure IaaS and PaaS using App Controller, Operations Manager and the Management Pack for Windows Azure.