

VMware Virtual Infrastructure Deployment Solution



Companies worldwide are using virtualization technology to optimize server utilization and operational ease of use. Dewpoint's server virtualization practice has extensive experience with designing, implementing, and supporting leading virtual server environments such as Xen, Microsoft Hyper V, Sun Logical Domains and VMware. As a VMware enterprise partner, Dewpoint can sell* and implement the full spectrum of VMware's product suite, and have integrated VMware with a wide variety of other products such as backup applications, physical to virtual tools, storage virtualization, provisioning and monitoring systems. The VMware Virtual Infrastructure Deployment Solution assists clients with configuring and implementing VMware VI3.



**Dewpoint is a VMware enterprise partner. Contact your Dewpoint representative, or email service@dewpoint.com, for a quote on the full line of VMware licensing and support.*

Program Elements

This Statement Of Work provides the services to deploy a VMware virtual infrastructure environment. This standard deployment consists of three servers running VMware VI3 Enterprise. A fourth server will be configured as a VMware Management Center server to control the VMware environment. A shared storage array will be used to store virtual machine images. A shared storage array is necessary to allow virtual machines to be moved between physical VMware hosts. The following sections provide the scope, tasks, deliverables, and costs associated with this engagement.

Project Planning

The Project Planning stage includes:

- Introduce key Dewpoint personnel
- Create a project schedule
- Check facilities for appropriate power, cooling, and network access
- Coordinate product delivery and appropriate engineering resources
- Identify initial storage configuration for internal drives and SAN volumes
- Determine initial network configuration for physical and virtual network interfaces
- Identify backup strategy for virtual machines and VMware servers
- Confirming hardware/software requirements for all installations
- Create test plan for virtual server farm
- Discuss procedures for onsite work and temporary work space of Dewpoint personnel
- Finalize project timeline

Hardware Installation & Configuration

This task involves installation and configuration of three servers and a SAN disk array. Specifically, this task includes:

- Install drives, RAM, and HBAs
- Rack mounting systems and connection of power, network, and KVM cables
- Confirm RAID configuration on internal hard drives
- Perform hardware verification tests
- Install SAN Storage Array and switches
- Configure array by creating RAID groups, LUNs, and Host Mappings
- Connect array and servers to the LAN and SAN switches

Virtual Center Implementation

This task involves installing and configuring VMware Virtual Center on a Customer provided server.

- Installing Windows Server operating system
- Install Virtual Center software
- Integrate Virtual Center with Active Directory for authentication

Program Benefits

- *Better Systems Utilization*
- *Improved Ease of Use*
- *Faster Implementation*
- *Operational Savings*

Virtual Infrastructure Installation

This task involves installing VMware Infrastructure 3 Enterprise on three servers. Specifically, this task includes:

- Loading Virtual Infrastructure Software
- Assign VMware servers to Virtual Center
- Configuring storage partitions for internal disk
- Installing VMware licenses

Storage & Network Configuration

This task involves configuring the storage and network adapters for connection to shared resources. Specifically, this task includes:

- Creating virtual networks and switches
- Configure Storage Area Network multi-pathing
- Mapping physical network interfaces to virtual switches and VMotion
- Create shared VMFS file systems and mount onto server farm members

Virtual Machine Creation

This task involves building virtual machines for use by Customer.

- Build a generic Windows 2003 Server and load current OS patches
- Convert the new virtual machine to a template
- Deploy the template for testing

Migration Of Selected Systems

This task involves assisting the administrators with migrating two physical servers to virtual machines.

- Prepare physical servers for migration
- Evaluate test virtual machine
- Perform a test migration into a private network
- Adjust process as necessary and perform real conversion

Testing

This task involves executing the test plan developed during project planning.

Knowledge Transfer

This task involves providing hands-on training on the administration of the VMware server farm.

This knowledge transfer includes:

- Starting and stopping virtual machines
- Using VMotion to move virtual machines between host servers
- Deploying a new virtual machine from a template
- Cloning a virtual machine
- Monitoring virtual machine performance

Documentation

This task involves documenting the software and hardware configuration implemented at Customer. Dewpoint will provide Customer with documentation and knowledge transfer to ensure that administrators have a detailed understanding of the implementation. The document will contain all of the relevant technical details necessary for an experienced administrator to re-create the installation. This documentation is not intended to be a step-by-step installation guide.

Program Deliverables

- Project plan including schedule
- Hardware components installed and servers racked for (3) servers
- Installation of VMware ESX on three servers
- Virtual Center running and controlling the server farm
- Installation and Configuration of Storage Area Network
- Configuration of physical and virtual network interfaces
- VMware servers connected to the LAN and SAN networks
- Generic Server Templates for typical deployments
- Two physical servers moved to the virtual environment
- Execution of test plan
- One day of knowledge transfer
- Document detailing processes to create the implemented VMware environment

Program Fee: \$12,000

Program fee subject to change. Contact your Dewpoint representative to confirm. Version 1; 01/21/2009

**Travel expenses are not included in the above cost of the service. Any travel expenses expected to be incurred in association with delivery of this service will be approved in advance by client and invoiced separately.*



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Statement Of Work

In order to ensure a successful project, it is important that both organizations identify and the following responsibilities:

Dewpoint is responsible for all tasks within this Statement Of Work.

Client Responsibilities

- Provide all hardware and operating system software specified in the statement of work. This hardware includes a server capable of running Windows Server 2003 to function as the VMware Virtual Center server.
- Provide access to Customer technical personnel responsible for the installation and implementation.
- Responsible for successful connections between the servers and the LAN and SAN networks.
- Responsible for providing Dewpoint the information necessary to successfully complete the tasks included in this statement of work.

This engagement will be scheduled after receipt of a signed copy of this Statement Of Work and a purchase order.

Dewpoint will invoice for the services associated with this engagement upon completion of the deliverables and meeting the associated acceptance criteria.

Payment terms are net 30 days.

The signature below represents approval of the above Statement of Work. The affixed signature provides all authorization to proceed with the project.

Client Name	Date	PO Number
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