

Creating Instances on a Virtual Machine

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Americas Headquarters

OAISYS 7965 S. Priest Drive, Suite 105 Tempe, AZ 85284 USA www.oaisys.com

Tel: (480) 496-9040



OAISYS AND VMWARE INSTANCING

OVERVIEW

VM support is available with the OAISYS solutions. Virtualization combines server resources onto one host server and reduces the number and identity of individual physical servers, processors, and operating systems. The host server can be divided into multiple isolated virtual environments. These virtual environments can run the OAISYS software; Tracer, Talkument, and Tracer Screen Recording.

Benefits of virtualization include:

- Consolidation of applications onto fewer servers
- Expense reduction through reduced hardware, power, cooling, and administrative costs.



The above illustration provides an example of a Virtual Server running several virtual machines, and demonstrates how Tracer, Tracer Screen Recording, and other VMWare-compatible third-party applications can be configured.

MINIMUM REQUIREMENTS

Many factors go into selecting the best hardware platform to meet your call recording needs. Consider how many ports you plan to record and how many call recordings you would like to store online.

VoIP call recording (with the exception of Mitel Secure Recording Connector and ShoreTel TAPI-WAV configurations) requires a network switch with port mirroring and VoIP recording servers require two network interface ports. One port provides connectivity to the LAN and for client access. The second port is dedicated to capturing VoIP traffic.

NOTE: Digital Tap systems (Station Tap, Digital Trunk Tap, VOX, and Analog Tap) are not supported in a virtual environment as these require a server chassis which have the capacity to hold **<u>full length PCI cards.</u>**



The following chart provides recommended specifications for a customer-provided call recording server or VMware environment.

Port Count	CPU	Memory	Operating System	SQL Server	Storage
1-350	Quad Core	8GB	Windows 7 Windows 8.1 Windows Server 2008 Windows Server 2008 R2 Windows Server 2012	SQL Server 2008 Express w/Advanced Services SQL Server 2008 R2 SQL Server 2012 Express w/Advanced Services SQL Server 2012 Standard	2TB (40GB min for OS partition)

Notes: Beginning with Release 8.0, OAISYS recommends installs be completed using 64-bit Windows 7, Windows 2008, or Windows 2012. New capabilities, such as Talkument Navigator, are not supported on a 32-bit OS. *Contact Technical Support if you need 32 bit versions for the server software.*

ShoreTel TAPI-WAV integration requires a ShoreTel TAPI Application Server software license and Windows Server 2008 (or Windows 2012). ShoreTel version 10.1 and lower requires the same version of the OS be installed on both the Headquarters Server and the OAISYS Recording Server. ShoreTel only supports Windows 2008 R2 (Windows 2012 Standard) for 64-bit installs of their TAPI application server.

ShoreTel 14.1 supports Windows Server 2012 Standard.

For VMWare environments, All CPU and Memory values are minimum reserve requirements.

Drive Speed: SATA drives up to 3Gbps data rate and 7200rpm spin rate min

VM TEMPLATES

OAISYS can provide a virtual "image" containing an unlicensed OS, SQL, OAISYS software, and all of the supporting modules.

NOTE: The virtual "image" contains an unlicensed OEM/Retail OS version; we do not offer a volume license option. The customer must provide their own third-party software, OS and SQL licenses when using a VMware template.

The image will be available as a VM template (also known as an "appliance" or "blade"). Two template options are available:

- 1. Windows 7 with SQL 2012 Express
- 2. Windows Server 2012 with SQL 2012 Express



Default Windows usernames and passwords have been set as part of the OAISYS server and VM template deployment, as shown below. It is strongly recommended these be changed, and securely documented during installation. With Windows Server 2012, Microsoft requires the use of "complex" passwords.

Windows 7	Windows Server 2012	
Username: <i>oaisys</i>	Username: <i>oaisys</i>	
Password: O@isysCR	Password: O@isysCR	

See VMware Instancing documentation for more information http://www.oaisys.com//downloads/OAISYS_Instances.pdf

ADDITIONAL INFORMATION

- 1. OAISYS Versions 7.1 and higher support a keyless licensing arrangement
- OAISYS uses VMWare Vsphere 4.1 and 5.x (ESX and ESXi) with OAISYS keyless licensing.
 - a. Onboard USB is supported with Vsphere versions 4 and 5 when OAISYS keyless licensing is not used
- 3. Each OAISYS application (Tracer, Talkument, and Tracer Screen Recording) will require a set of reserved requirements (separate VM)
- 4. OAISYS recommends server-class processors such as Intel Xeon for the host platform
- 5. If using AudioCodes/Smartworks version 5.9 or higher is required and there will be a USB key for licenses.



DEPLOYING AN OVF TEMPLATE

This document details the steps to deploy an Open Virtualization Format (OVF) template. OVF provides efficient, adaptable, and secure distribution of enterprise software, enabling the mobility of virtual machines and offering customers vendor and platform independence.

An OVF template is a virtual machine that includes the software you plan to run on the machine. An OVF template can be deployed from a local file system accessible to the vSphere Client machine.

OVF templates can be found here: <u>ftp://templates.oaisys.com/OVF/</u>

- 1. To deploy the OVF Template Wizard, from the vSphere Client
 - a. Select File \rightarrow Deploy OVF Template

Specify the source location: Deploy from File

Browse your file system for an OVF or OVA template Click Next

- 2. View the OVF Template Details page and click Next
 - a. If license agreements are packaged with the OVF template, the End User License Agreement page appears. Agree to accept the terms of the licenses and click Next.

Optional: Edit the name and select the folder location within the inventory where the vApp will reside and click Next

NOTE: When the vSphere Client is connected directly to an ESXi host, the option to select the folder location does not appear.

- 3. Select the deployment configuration from the drop-down menu and click Next
 - a. The option selected typically controls the memory settings, number of CPUs and reservations, and application-level configuration parameters.



NOTE: This page appears only if the OVF template contains deployment options.

- 4. Select the host or cluster on which to deploy the OVF template and click Next
- 5. Select the host on which to run the deployed OVF template and click Next

NOTE: This page appears only if the destination is a resource pool associated with a cluster with DRS disabled or in manual mode

6. Navigate to, and select the resource pool from which to run the OVF template and click Next

NOTE: This page appears only if the cluster contains a resource pool *Optional:* Apply a virtual machine storage profile from the VM Storage Profile drop-down menu

NOTE: You cannot select a virtual machine storage profile if the host or cluster in which the virtual machine runs has a license that does not include virtual machine storage profiles.

- 7. The list of datastores shows which datastores are compatible and which are incompatible with the selected virtual machine storage profile.
 - a. Select a datastore to store the deployed OVF template, click Next
 - b. Datastores are a unifying abstraction for storage locations such as Fibre Channel, iSCSI LUNs, or NAS volumes. On this page, you select from datastores already configured on the destination cluster or host. The virtual machine configuration file and virtual disk files are stored on the datastore.
 - c. Select a datastore large enough to accommodate the virtual machine and all of its virtual disk files.



8. Select the disk format to store the virtual machine virtual disks, and click Next

Format	Description	
Thick Provisioned Lazy Zeroed	Creates a virtual disk in a default thick format. Space required for the virtual disk is allocated when the virtual disk is created data remaining on the physical device is not erased during creation, but is zeroed out on demand at a later time on first write from the virtual machine.	
Thick Provision Eager Zeroed	A type of thick virtual disk that supports clustering features such as Fault tolerance. Space required for the virtual disk is allocated at creation time. In contrast to the flat format the data remaining on the physical device is zeroed out when the virtual disk is created. it might take much longer to create disks in this format than to create other types of disks	
Thin Provision	Use this format to save storage space. For the thin disk, you provision as much datastore space as the disk would require based on the value that you enter for the disk size. However, the thin disk starts small and at first, uses only as much datastore space as the disk needs for its initial operations.	

- 9. If the appliance you are deploying has one or more vService dependencies, select a binding service provider
- 10. For each network specified in the OVF template, select a network by rightclicking the Destination Network column in your infrastructure to set up the network mapping and click Next
- 11.On the IP Allocation page, configure how IP addresses are allocated for the virtual appliance and click Next

Option	Description
Fixed	You will be prompted to enter the IP addresses in the Appliance Properties page
Transient	IP addresses are allocated from a specified range when the appliance is powered on. The IP addresses are released when the appliance is powered off
DHCP	A DHCP server is used to allocate the IP addresses.

NOTE: This page does not appear if the deployed OVF template does not contain information about the IP scheme it supports



- 12. Set the user-configurable properties and click Next
 - a. The set of properties that you are prompted to enter depends on the selected IP allocation scheme. For example, you are prompted for IP related information for the deployed virtual machines only in the case of a fixed IP allocation scheme
- 13. Review your settings and click Finish
- 14. The progress of the import task appears in the vSphere Client Status panel.