# IMM VM Server: Clone & Rename



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## Introduction

#### Please Read This First

It is important to read this entire document before proceeding and contact IMM if you have any questions or concerns. Issues with this process could leave your system inoperable.

This document is not a substitute for VMware, Windows or Domain Administration knowledge. Ensure that this process is being performed by someone who is familiar with those functionalities.

The process laid out in this document may not match what you have to do in your environment. There are significant differences between customer's systems/infrastructure and it is important that you understand how these steps will work in your environment and apply them appropriately.

#### Sysprep /Generalize Special Requirements

If your process of cloning a virtual server, performs a Sysprep /Generalize *or the equivalent of a Sysprep* /*Generalize* on the new server, you must take extra preparatory steps to allow the server to function after the cloning. If those actions are not taken, you will have to re-clone and perform the required steps. See the <u>Sysprep</u> section for more information.

#### Requirements

This document applies to all versions of IMM servers which were distributed as OVA files (virtual appliances).



Performing these processes on a server which **was not distributed as an OVA file** will render an inoperable server. If you are unsure if you can safely perform this process, contact IMM first.

#### Local Administrator Logon

You must log in to the new server as the actual "local" administrator as part of this process.

Before performing this process, ensure you know the Local Administrator's password. It is advisable to test logging in as the local admin, before performing any steps, to ensure you can do so once the cloned machine is removed from the domain (and domain logins no longer exist).

#### Restart / Shutdown Process

Some application servers have specific reboot or shutdown processes which must be followed to safely perform those tasks. Ensure you know the correct processes and follow them at each step where the server is to be restarted or shutdown.

#### Overview

This document covers four major activities:

- 1) Cloning the Server
- 2) Renaming the Server
- 3) Performing any **Product Specific** post-renaming steps (some servers don't have these)
- 4) Testing system functionality

# Licensing Compliance

All IMM application servers require licensing for each copy that exists (Live, Test, Training, DR, etc.). Verify that you have the appropriate number of licenses to cover the additional server copy this process will generate.

If you are unsure of your licensing or need additional licensing, please contact your IMM Representative for assistance.

## Cloning

This section makes a copy of the existing (fully functional / tested) server, for the purpose of creating an additional server instance.

Ensure you understand the process of cloning a server and if it is appropriate in your environment. Things like available data store space as well as system load should be taken into consideration.

If you are using Microsoft HyperV instead of VMware ESXi, you will need to think through and determine how the documented process is different for you.

1. Shut down the server, using the correct shutdown process for this server.



**NOTE:** Because this process will create a duplicate server, it is necessary to make certain both servers are not online at the same time, until after you have completed the renaming.

- 2. Locate the server within VMWare
- 3. Right click and select **Clone**...



Depending on your environment and the size of the server, this process may take a while to complete.



**Do not** proceed until VMware reports the task as complete with no errors or warnings.

## Renaming

If you are going to use this server at the same time as the server that it was cloned from (in the same network as your existing server) you will need to follow the Rename steps to give it a new / unique name.



**WARNING**: It is **important** that the newly cloned server is NOT connected to the network and powered on, before it is renamed. Failure to disconnect the cloned server from the network *before* powering it on will result in application and data issues which may require significant time and resources to resolve.

#### Disconnect the vNIC

- 1. Select the cloned machine and select Edit Settings
- 2. On the Hardware tab
  - a. select Network Adapter
  - b. Uncheck the option to Connect at power on
  - c. Click OK

Hardware Options Resources VSer	vices	Virtual Machine Version: 8
Show All Devices	Add Remove	Device Status Connected 2
Hardware	Summary	Connect at power on
Memory	8080 MB	A la
CPUs	4	Adapter Type
🛄 Video card	Video card	Current adapter: E1000E
VMCI device	Deprecated	MAC Address
USB xHCI controller	Present	MAC Address
SCSI controller 0	LSI Logic SAS	00:50:56:09:00:77
💁 CD/DVD drive 1	Client Device	Automatic C Manual
🚍 Hard disk 1	Virtual Disk	
😅 Hard disk 2	Virtual Disk	DirectPath I/O
Floppy drive 1	Client Device /	Status: Not supported 🕦
Network adapter 1 (edite	VM Network	Network Connection
		Network label:
		Ma Natural
		OK Cancel

## Start the Server

- 1. Power on the server
- 2. Log into the server as the local administrator

#### Remove from Domain

- 1. Make the machine a Member of **Workgroup** and click OK
  - a. If the new server is connected to the network during this step it will affect the original server.

fou can change the name	e and the membership of this
computer. Changes might	affect access to network resources.
Computer name:	
immvmserver	
ull computer name:	
immvmserver	
	More
Mambaraf	
O Domain:	
Workgroup:	
WORKGROUP	
	OK Cancel

- 2. Click OK
- 3. It is important that you choose **Restart Later** and use the proper reboot process for this server.

Microsoft Windows
You must restart your computer to apply these changes
Before restarting, save any open files and close all programs.
Restart Now Restart Later

4. Restart the server, using the correct reboot process for this server.

## Rename the Server

1. Rename the server to a new unique name on your network.

	Computer Name/Domain Changes 🗙
You c comp	an change the name and the membership of this uter. Changes might affect access to network resources.
Comp	uter name:
imm	vmcns58gk
Full o	omputer name:
imm	vmcns58gk
	More
Mer	mber of
C	Domain:
۲	Workgroup:
	WORKGROUP
	·
	OK Cancel

2. Shutdown the server, using the correct shutdown process for this server.

## Re-enable vNIC

- 1. For the renamed server, Edit virtual machine settings
  - a. Enable all Network adapters
  - b. Check to connect at power on
  - c. Click OK

Hardware Options Resources vSer	vices	Virtual Machine Version: 8
Show All Devices	Add Remove	Device Status Connected
Hardware	Summary	Connect at power on
Memory	8080 MB	Adapter Type
CPUs	4	Ourrent adapter E1000E
Video card	Video card	
VMCI device	Deprecated	-MAC Address
USB xHCI controller	Present	00:50:56:b9:00:77
SCSI controller 0	LSI Logic SAS	
CD/DVD drive 1	Client Device	Automatic     C Manual
Hard disk 1	Virtual Disk	DirectPath I/O
Hard disk 2	Virtual Disk	Status Natsupported
Floppy drive 1	Client Device	Status: Not supported
Network adapter 1 (edite	VM Network	Network Connection
		Network label:
		VM Network
		,
		OK Cancel
		,

2. Start the server.

## Add Server to Domain

1. Add the server to your domain

compu	ter, Granges Might allect a	access to netv	vork resources.
Compu	ter name:		
immvn	icns58gk		
Mem	her of		More
()	Domain:		
Ŭ	immlab.com		
0	Workgroup:		
	WORKGROUP		

- 2. Click OK
- 3. It is important that you choose **Restart Later** and use the proper reboot process for this server.



4. Restart the server, using the correct reboot process for this server.

# Product Specific Configuration Steps

Some application servers will have product specific steps which must be completed before the new server is ready for use.

• Should this product server require additional steps, they would be performed at this stage of the cloning and renaming process.



Ensure you have the *<product\_name> VM Server: Clone & Rename - Supplemental Instructions* document for performing these steps.

If you are unsure or need assistance, please contact IMM.

# Sysprep the Cloned Server

If you sysprep server clones, this is the point in the process to perform that process.

If Sysprep /Generalize is used in your environment, you must perform the process provided in the **Sysprep Generalize Repair** document <u>before you Sysprep /Generalize</u>. If you don't have this document, please ask your project manager for a copy.

Other processes may provide functionality similar to Microsoft's Sysprep /Generalize utility and require the same repair steps. Ensure you know your process and mechanisms so you know if the additional repair steps are needed.

Failure to handle the Sysprep /Generalize as documented in the repair document will render the clone unusable and IMM will not be able to repair it. The only solution will be to discard the clone and do it again with the correct steps.

## Post Renaming Administrative Processes

You will need to do everything you normally have to do with a new server in your environment. For example:

- 1. Apply a valid Windows license key
- 2. Put the server in the correct Active Directory OU
- 3. Ensure the server is in the backup plan
- 4. Modify virtual server settings to be correct for your environment (e.g. storage adapter and NIC type, etc.)

The above is not an exhaustive list of tasks that you need to take with the server. It is simply a prompt to think through what needs to be done. Your server administrative staff will know what steps to take in your environment.

## Time & Time Zone

Ensure that you set the server to be the correct time zone. It will come configured as Eastern Time. In some IMM servers the correct time is very important and failure to set it correctly may have a significant impact on functionality.

## Snapshot the Server

After all of the preceding processes are complete, you should make a snapshot of the server to ensure you have a backup.

- 1. Shut down the server, using the correct shutdown process for this server.
- 2. Take a Snapshot the Server

		Power	•		
_		Guest	•		
		Snapshot		0	Take Snapshot
-	2	Open Console	1		Revert to Grrent Snapshot
	₽	Edit Settings	1	10	Snapshot Manager
	Ē.	Migrate			Consolidate
	*	Clone		_	
		Template	•		
		Fault Tolerance	+		
		Add Permission Ctrl+P			
		Alarm	•		
		Report Performance			
		Rename			
		Open in New Window Ctrl+Alt+N			
		Remove from Inventory			
_		Delete from Disk			

# Notify IMM

For support and project purposes we need to know about the new server.

Email the Project Manager that the server has been cloned / renamed and provide the following:

- Cloned server name
   IP address
- 3. Date Cloned

# Support

If you have trouble completing this procedure, contact your IMM Project Team.

Please do not contact IMM Support for installation assistance.