# Oracle Enterprise Linux 5.10 Installation on Virtual Box

#### **Required Software**

Dracle Linux 5.10 V40139-01.iso [Enterprise-R5-U10-Server-x86_64-dvd	
Putty	putty.exe
Xming	Xming-6-9-0-31-setup.exe

**Note**: We assume that; VirtualBox, Xming and Putty are already installed on the server, since their installation are straightforward.

#### **Linux Installation**

- 1. Download the Linux iso file and run the VirtualBox
- 2. If you haven't configured your virtual machine folder, do it now. Click File > Preferences

File Machine Help		
Virtual Media Manager	Ctrl+D	
🔊 Import Appliance	Ctrl+I	C Details Details Details
Export Appliance     Export Appliance	Ctrl+E	
		Welcome to VirtualBox!
Preferences	Ctrl+G	The left part of this window is a list of all virtual machines on your computer. The list is empty
🔝 Exit	Ctrl+Q	now because you haven't created any virtual machines yet.
		In order to create a new virtual machine, press the <b>New</b> button in the main tool bar located at the top of the window.
		You can press the F1 key to get instant help, or visit www.virtualbox.org for the latest information and news.

### 3. Select the folder for the virtual machines and click "OK"

	General	General
•	Input Update	Default Machine Folder: Default Machines
	Language	VRDP Authentication Library: VBoxAuth
P	Network	
	Extensions	
	Ртоху	
		Displays the path to the library that provides authentication for Remote Display (VRDP) dients.
		OK Cancel Help

### 4. Click "New"



### 5. Click "Next"

6	Welcome to the New Virtual Machine Wizard!		
	This wizard will guide you through the steps that are necessary to create a new virtual machine for VirtualBox.		
	Use the <b>Next</b> button to go to the next page of the wizard and the <b>Back</b> button to return to the previous page. You can also press <b>Cancel</b> if you want to cancel the execution of this wizard.		
	< Back Next > Cancel		

6. Give a name to the virtual machine, and select the OS Type as follows:

0	VM Name and OS Type		
	Enter a name for the new virtual machine and select the type of the guest operating system you plan to install onto the virtual machine.		
	The name of the virtual machine usually indicates its software and hardware configuration. It will be used by all VirtualBox components to identify your virtual machine.		
	TestServer		
	OS Type		
	Operating System:     Linux       Version:     Oracle (64 bit)		
	< Back Next > Cancel		

## 7. Adjust the memory and click "Next" [since this is a test server 2GB is sufficient]

•	Memory		
	Select the amount of base memory (RAM) in megabytes to be allocated to the virtual machine.		
	The recommended base memory size is <b>512</b> MB.		
	Base Memory Size		
	2048 MB		
	4 MB 16384 MB		
	< Back Next > Cancel		

## 8. Choose "Create new hard disk" and click "Next"

6	Virtual Hard Disk		
	If you wish you can now add a start-up disk to the new machine. You can either create a new virtual disk or select one from the list or from another location using the folder icon.		
	If you need a more complex virtual disk setup you can skip this step and make the changes to the machine settings once the machine is created.		
	The recommended size of the start-up disk is <b>8.00 GB</b> .		
	<ul> <li>✓ Start-up Disk</li> <li>Oreate new hard disk</li> </ul>		
	O Use existing hard disk		
	Empty		
	< Back Next > Cancel		

## 9. Choose "VDI" and click "Next"

	Welcome to the virtual disk creation wizard		
	This wizard will help you to create a new virtual disk for your virtual machine.		
	Use the <b>Next</b> button to go to the next page of the wizard and the <b>Back</b> button to return to the previous page. You can also press <b>Cancel</b> if you want to cancel the execution of this wizard.		
	Please choose the type of file that you would like to use for the new virtual disk. If you do not need to use it with other virtualization software you can leave this setting unchanged.		
	File type  • VDI (VirtualBox Disk Image)		
	C VMDK (Virtual Machine Disk)		
	C VHD (Virtual Hard Disk)		
	O HDD (Parallels Hard Disk)		
	< Back Next > Cancel		

10. Click "Dynamically allocated" not to waste any space on the guest host. (Performance is not what we need here...) Click "Next"

0	Virtual disk storage details		
	Please choose whether the new virtual disk file should be allocated as it is used or if it should be created fully allocated.		
	A <b>dynamically allocated</b> virtual disk file will only use space on your physical hard disk as it fills up, although it will not shrink again automatically when space on it is freed.		
	A <b>fixed size</b> virtual disk file may take longer to create on some systems but is often faster to use. Storage details © Dynamically allocated		
	C Fixed size		
	< Back Next > Cancel		

## 11. Adjust the hdd size and click "Next"

e	Virtual disk file location and size
	Please type the name of the new virtual disk file into the box below or dick on the folder icon to select a different folder to create the file in.
	< <u>B</u> ack <u>N</u> ext > Cancel

## 12. Click "Create"

e	Summary
	You are going to create a new virtual disk with the following parameters:
	File type: VDI (VirtualBox Disk Image) Details: Dynamically allocated storage Location: C:\VirtualMachines\TestServer\TestServer.vdi Size: 20.00 GB (21474836480 B)
	If the above settings are correct, press the <b>Create</b> button. Once you press it the new virtual disk file will be created.
	< Back Create Cancel

## 13. Click "Start"

New Settings Start Discard	itton.	🔅 Details 💿 Snapshots
TestServer	📃 General	Preview
Powered Off	Name: TestServer OS Type: Orade (64 bit)	
	System	
	Base Memory: 2048 MB Boot Order: Floppy, CD/DVD-ROM, Hard Disk Acceleration: VT-x/AMD-V, Nested Paging, PAE/NX	TestServer
	Display Video Memory: 12 MB	
	IDE Controller IDE Scondary Master (CD/DVD): Emp SATA Controller SATA Port 0: Test	ty Server.vdi (Normal, 20.00 GB)
	🖗 Audio	
	Host Driver: Windows DirectSound Controller: ICH AC97	
		<u> </u>

### 14. Click Next

6	Welcome to the First Run Wizard!				
(M)	You have started a newly created virtual machine for the first time. This wizard will help you to perform the steps necessary for installing an operating system of your choice onto this virtual machine.				
ORACLE Virtu	Use the <b>Next</b> button to go to the next page of the wizard and the <b>Back</b> button to return to the previous page. You can also press <b>Cancel</b> if you want to cancel the execution of this wizard.				
	< Back Next > Cancel				

## 15. Select the media source -> V40139-01.iso and click "Next"

•	Select Installation Media
(In)	Select the media which contains the setup program of the operating system you want to install. This media must be bootable, otherwise the setup program will not be able to start.
ORACLE Virtu	Media Source V40139-01.iso (3.87 GB)
	< Back Next > Cancel

#### 16. Click "Start"

6	Summary	
ORACLE VITU	You have selected the following media to boot from:	
	Type: CD/DVD-ROM Device Source: V40139-01.iso (3.87 GB)	
	If the above is correct, press the <b>Finish</b> button. Once you press it, the selected media will be temporarily mounted on the virtual machine and the machine will start execution.	
	Please note that when you dose the virtual machine, the specified media will be automatically unmounted and the boot device will be set back to the first hard disk.	
	Depending on the type of the setup program, you may need to manually unmount (eject) the media after the setup program reboots the virtual machine, to prevent the installation process from starting again. You can do this by selecting the corresponding <b>Unmount</b> action in the <b>Devices</b> menu.	
	< Back Start Cancel	

### 17. Press "Enter"



## 18. Click "Skip"

elcome to Oracle Linux Server
CD Found
To begin testing the CD media before installation press OK.
Choose Skip to skip the media test and start the installation.
<tab>/<alt-tab> between elements   <space> selects   <f12> next screen</f12></space></alt-tab></tab>

19. Click "Next"

÷		ORACLE
**		
	ORACLE	
	Oracle Linux 👜	
	Copyright © 2010, Oracle. All rights reserved.	
<u>Release Notes</u>		Back Next

## 20. Click "Next"

x**	ORACLE
What language would you like to use during the installation process?	
Chinese(Simplified) (简体中文)	
Chinese(Traditional) (繁體中文)	
Croatian (Hrvatski)	
Czech (Čeština)	
Danish (Dansk)	
Dutch (Nederlands)	
English (English)	
Estonian (eesti keel)	
Finnish (suomi)	
French (Français)	
German (Deutsch)	
Greek (Ελληνικά)	
Gujarati (ગુજરાતી)	
<u>Release Notes</u>	◆ <u>B</u> ack ▶ Next

## 21. Choose appropriate keyboard and click "Next"

÷	ORACLE
Select the appropriate keyboard for the system.	
Slovakian	
Slovenian	
Spanish	
Swedish	
Swiss French	
Swiss French (latin1)	
Swiss German	
Swiss German (latin1)	
Tamil (Inscript)	
Tamil (Typewriter)	
Turkish	
U.S. English	
U.S. International	
Ukrainian	
United Kingdom	<b>V</b>
Release Notes	

## 22. Click "Yes" in the warning dialog

÷	ORACLE
Slovaklan	propriate keyboard for the system.
Spanish Swedish Swiss French Swiss German Swiss German (latin Tamil (lnscript) Tamil (Typewriter) Turkish U.S. English	<ul> <li>The partition table on device sda (ATA VBOX HARDDISK 20473 MB) was unreadable. To create new partitions it must be initialized, causing the loss of ALL DATA on this drive.</li> <li>This operation will override any previous installation choices about which drives to ignore.</li> <li>Would you like to initialize this drive, erasing ALL DATA?</li> </ul>
U.S. International Ukrainian United Kingdom	
<u>R</u> elease Notes	

## 23. Check the "Review and modify partitioning layout" checkbox and click "Next"

<b>A</b>			ORACL	<b>E</b> .
Installation requires pa By default, a partitioni	titioning of your hard drive. Ig layout is chosen which is			
reasonable for most us to use this or create yo	ers.  You can either choose ur own.			
Romovo linux partitio	as an solocted drives and create	dofault lavout		
Remove mux partitio	is on selected anves and create			
Encrypt system				
Select the drive(	) to use for this installation.			
✓ sda 20473	MB ATA VBOX HARDDISK			
<b>⊕</b> <u>A</u> c	vanced storage configuration			
Review and modify	partitioning layout	k.		
,				
<u>R</u> elease Notes			🖨 Back	Next

## 24. Click "Yes" in the warning dialog

<b>}</b> .	ORACLE <sup>®</sup>
Installation requires partition By default, a partitioning lay reasonable for most users. to use this or create your ow	ning of your hard drive. /out is chosen which is You can either choose vn.
Remove linux partit	Warning
Encrypt system	You have chosen to remove all Linux partitions (and ALL DATA on them) on the following drives:
Select the drive	sda (ATA VBOX HARDDISK 20473 MB)
🗹 sda 204	Are you sure you want to do this?
	<u>     No</u> <u>Yes</u>
dvance	ed storage configuration
Review and modify parti	tioning layout
Release Notes	

## 25. Edit the "/boot" partition, setting it to "180M" and "Fixed size", then click the "OK" button

*			(		:LE°
**					
		Edit Partition:	/dev/sdal		
	<u>M</u> ount Point:	/boot		•	
	File System <u>Type</u> :	ext3		\$	
		✓ sda 20473 MB	ATA VBOX HARDDISK		
	Allowable <u>D</u> rives:				
New	<u>S</u> ize (MB):	180		•	LVM
Device	Additional Size O	ptions			<u> </u>
LogVol00	<ul> <li>Fixed size</li> <li>Fill all space <u>u</u></li> </ul>	ip to (MB):	180		
LogVol01	<ul> <li>Fill to maximu</li> </ul>	um <u>a</u> llowable size			
⊽ /dev/sda	Force to be a p	rimary partition			=
/dev/sda1	🗌 <u>E</u> ncrypt				
/dev/sda2			X Cancel	<u>Фок</u>	
Hide RAID device					
<u>R</u> elease Notes	]			🖨 <u>B</u> ack	▶ <u>N</u> ext

## 26. Click "Next"

÷			OF	RACLE
н				
	Drive /dev/sda (20473 MB) (	Model: ATA VBOX H	ARDDISK)	
	20293 MB			
Ne <u>w</u>	<u>E</u> dit <u>D</u> el	ete Re <u>s</u> e	t R <u>A</u> ID	LVM
Device	Mount Point/ RAID/Volume	Format Size (MB)	itart End	<u>^</u>
∠VM Volume Group	s			
✓ VolGroup00		20288		
LogVol00	/ ext3	✓ 16288		
LogVol01	swap	4000		
▽ /dev/sda				•
Hide RAID device/L	VM Volume <u>G</u> roup members			
<u>R</u> elease Notes				

## 27. Click "Next"

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H							
The C	GRUB boot loader wil	l be installed on /dev/sda.					
O No be	oot loader will be ins	talled.					
You can to boot f change t	configure the boot lo rom the list. To add a he operating system	ader to boot other operating systems. It will allow yo dditional operating systems, which are not automat booted by default, select 'Default' by the desired op	ou to select an operating system ically detected, click 'Add.' To perating system.				
Default	Label	Device	Add				
<b>V</b>	Oracle Linux Server	/dev/VolGroup00/LogVol00	Edit				
A boot lo is recom	oader password preve mended that you set a boot loader passwo	ents users from changing options passed to the kern a password. rd Change password	el. For greater system security, it				
Confi	Configure advanced boot loader options						
	*						
<u>R</u> elea	se Notes						

## 28. Click "Next", we will configure this later

4	4					C	RACL	.e
	•							
	Network Devic	es						
	Active on Boot	Device	IPv4/Netmask	IPv6/Prefix	Edit			
		eth0	DHCP	Auto				
	Hostname							
	Set the hostnam	ie:						
	<u>a</u> utomaticall	y via DH	ICP					
	O manually Io	calhost.	localdomain		e.g., host.domai	n.com)		
	Miscellaneous	Setting	s					
	<u>G</u> ateway:							
	<u>P</u> rimary DNS:							
T	Secondary DNS:							
_		_						
	<u>R</u> elease Notes	5					⊕ Back     ■	<b>₽</b> Next

## 29. Select your region/city and click "Next"

*		ORACLE
Please click into the map to choose a re	glon:	State of the second
Europe/Istanbul \$		
	•	
☑ <u>S</u> ystem clock uses UTC		
Belease Notes		⊕ <u>B</u> ack

30. Enter a root password, then click "Next"

÷		0	RACLE
interioot acc by the system. En	count is used for administering the ter a password for the root user.		
Root <u>P</u> assword:	•••••		
<u>C</u> onfirm:	•••••		
	•		
<u>R</u> elease Notes	]		

## 31. Select "Customize now" and click "Next"

The default installation of Oracle Linux Server includes a set of software applicable for general internet usage. What additional tasks would you like your system to include support for?
Software Development
Web server
Virtualization
Clustering
Storage Clustering
You can further customize the software selection now, or after install via the software management application.
<u>■ R</u> elease Notes

32. Enable the following package groups and click "Next"

- Desktop Environments > GNOME Desktop Environment
- Applications > Editors
- Applications > Graphical Internet
- Development > Development Libraries
- Development > Development Tools
- Servers > Server Configuration Tools
- Base System > Administration Tools
- Base System > Base
- Base System > System Tools
- Base System > X Window System

•	ORACLE
Desktop Environments Applications Development Servers Base System Cluster Storage Clustering Virtualization	Image: Second secon
Release Notes	Optional packages

### 33. Click "Next"

*	ORACLE
	Click next to begin installation of Oracle Linux Server. A complete log of the installation can be found in the file '/root/install.log' after rebooting your system. A kickstart file containing the installation options selected can be found in the file '/root/anaconda-ks.cfg' after rebooting the system.
Release Notes	◆ <u>B</u> ack ♦ <u>N</u> ext

### 34. Click "Reboot"



### 35. Click "Forward"



### 36. Click "Forward"

Welcome	
<ul> <li>License</li> <li>Agreement</li> </ul>	Carling Agreement
Firewall	ORACLE LINUX LICENSE AGREEMENT
SELinux	
Kdump	We, us, our and Oracle refers to Oracle America, Inc. You and your refers to the individual o
Date and Time	We are willing to provide a copy of the Oracle Linux programs to you only upon the condition
Create User	
Sound Card	<ol> <li>Grant of Licenses to the Oracle Linux programs. Subject to the terms of this Agreement, O</li> </ol>
Additional CDs	2. Licenses to Additional Oracle Linux programs. Certain third-party technology (collectively
	3. Ownership. The Oracle Linux programs and their components and the Additional Oracle Li
	4. Trademark License. You are permitted to distribute unmodified Oracle Linux programs or u
	5. Limited Warranty. THE ORACLE LINUX PROGRAMS AND ADDITIONAL ORACLE LINUX PROGF
	6. Limitation of Liability. IN NO EVENT SHALL WE BE LIABLE FOR ANY INDIRECT, INCIDENTAL, S
	7. No Technical Support. Our technical support organization will not provide technical suppor
	8. Relationship Between the Parties. The relationship between you and us is that of licensee/li
	Entire Δαreement You agree that this Δαreement is the complete Δαreement for the Orac 💌
	Yes, I agree to the License Agreement
	○ N <u>o</u> , l do not agree

## 37. Disable firewall and click "Forward"

	Welcome License Agreement	Firewall						
ſ	FIFEWall	You can use a firewall to allow access to specific services on your computer from other computers and prevent unauthorized access from the outside world. Which services, if any, do you wish to allow access to?						
	Kdump							
	Date and Time	[minimum]						
	Create User	Firewall: Disabled						
	Sound Card	Trusted services: FTP						
	Additional CDs	Maii (SMTP)						
		□ NF54						
		☑ SSH						
		Samba						
		Secure WWW (HTTPS)						
		Differ ports						
		•						
		7						
		Sorward						

### 38. Disable "Selinux" and click "Forward"

Welcome License Agreement Firewall > SELinux Kdump Date and Time	Security Enhanced Linux (SELinux) provides finer-grained security controls than those available in a traditional Linux system. It can be set up in a disabled state, a state which only warns about things which would be denied, or a fully active state. Most people should keep the default setting.					
Create User Sound Card Additional CDs	SELinux Setting: Disabled					
	Seck Eorward					

### 39. Click "Forward"

Welcome License Agreement Firewall SELinux > Kdump Date and Time	Kdump is a kernel crash dumping mechanism. In the event of a system crash, kdump will capture information from your system that can be invaluable in determining the cause of the crash. Note that kdump does require reserving a portion of system memory that will be unavailable for other uses.								
Create User Sound Card	□ <u>E</u> nable kdump?								
Additional CDs	<u>T</u> otal System Memory (MB):	2006							
	Kdump Memory (MB):	128							
	<u>U</u> sable System Memory (MB):	1878							
	*								

### 40. Click "Forward"

Welcome License Agreement		Da	te	an	nd '	Ti	ne	
Firewall	Please	et the	date ar	nd time	for the	syste	m.	
SELinux			••••					
Kdump	Date &	lime	Net <u>w</u> o	rk lime	e Protoc			
Date and Time	Date							Time
Create User	▲ N	larch	•			•	2015 •	Current Time : 21:51:43
Sound Card	Sun	Mon	Tue	Wed	Thu	Fri	Sat	<u>H</u> our : 23
Additional CDs	1	2	3	4	5	6	7	Minuto E 1
	8	9	10	11	12	13	14	Minute : pi
	15	16	17	18	19	20	21	<u>S</u> econd : 35
	22	23	24	25	26	2/	28	
	29	50	-	8	9	10	4	

## 41. Click "Forward" without creating user

Welcome License Agreement	🖆 Create User				
Firewall SELinux Kdump	It is recommended that you create a 'username' for regular (non- administrative) use of your system. To create a system 'username,' please provide the information requested below.				
Date and Time → Create User Sound Card	Username:				
Additional CDs	Password:				
	lf you need to use network authentication, such as Kerberos or NIS, please click the ሀርድ Network Login button. Use Network Login				
	erward				

### 42. Click "Forward"

Welcome			
License Agreement	Sound Card		
Firewall	An audio device has been detected in your computer.		
SELinux	Click the "Play" button to hear a sample sound. You should hear a series of		
Kdump	three sounds. The first sound will be in the right channel, the second sound		
Date and Time	will be in the left channel, and the third sound will be in the center.		
Create User	The following audio device was detected.		
Sound Card			
Additional CDs	Selected card Vendor: Intel Corporation Model: 82801AA AC'97 Audio Controller Module: snd-intel8x0		
	Sound test		
	Device settings PCM device Intel 82801AA-ICH		
	◆ <u>B</u> ack ► Forward		

### 43. Click "Finish"

Welcome License Agreement	🖏 Additional CDs
Firewall SELinux	Please insert any additional software install cds at this time.
Kdump Date and Time Create User	Additional CDs Install
Sound Card > Additional CDs	
5	

## Configure the network to be able to use putty

Enter the "Settings" screen of the virtual machine and change the network setting to "Host-only Adapter" as seen below. Click "OK" and reboot the Linux OS

9	Oracle VM VirtualBox Manager 🔶 – 🗖 🗙				
File Machine He	TestServer - Settings ?				
New Settings Sh New Settings Sh TestServe Aunning Blueprint Blueprint Powered Netw Store New Store New Store New Store Store New Store Sto	Network       Adapter 1     Adapter 2     Adapter 3     Adapter 4       olay     Image     Image     Image     Image       dio     Attached to:     Host-only Adapter       dio     Name:     Image     Image       work     Name:     Image     Image       al Ports     Adapter Type:     Image     Image				
i Shar	red Folders       Promiscuous Mode:       Deny         Mac Address:       080027878597         Image: Color Color Color (Color (Co				
	OK Cancel Help				
Controller: ICH AC97					

Open Network and Sharing Center of the host (Windows) Note down the details of the Virtual Host-Only Network



#### Edit the network settings of the Linux server:



Edit the network config. as shown below by considerig the host gateway that was noted before. Click "OK" and then File > Save

Applications	Places System 🛞		12:12 AM 🗐 🛙
Computer	r	Ethernet Device	
	Network Configuration	General Boute Hardware Device	
root's Hom	Eile Profile Help	Nickname: eth0	
Trash	New Edit Copy Delete Activate Deactivate	<u>Activate device when computer starts</u> Allow all <u>u</u> sers to enable and disable the device	
in a shi	Dev <u>i</u> ces Hard <u>w</u> are IP <u>s</u> ec D <u>N</u> S H <u>o</u> sts	Enable IPv <u>6</u> configuration for this interface	
0	You may configure network devices associated w physical hardware here. Multiple logical devices associated with a single piece of hardware.	O Automatically obtain IP address settings with: dhcp \$	
VBOXADDITIO 1.10 7683	Profile Status Device Nickname Type	Hostname (optional):	
	🗹 🚿 Active 🗃 eth0 eth0 🛛 Ethernet	Automatically obtain DNS information from provider	
		Statically set IP addresses:	
		Manual IP Address Settings	
		A <u>d</u> dress: 192.168.56.101	
		Subnet mask: 255.255.255.0	
		Default gateway address: 192.168.56.1	
Edit device		🗌 Set MTU to: 0 🚔	
		Set MRU to: 0	
		X Cancel	

Now, you can connect with Putty...