



CRUZ OPERATIONS CENTER (CruzOC)

.OVA Installation Guide

1 VMware Linux OVA installation

1.1 Quick Start Step for Installation and Initialization of the Virtual Appliance

Get started quickly by importing and starting the Virtual Appliance as follows:

1. Import the .OVA file and power on. We recommend you review Understanding Prerequisites.
2. Start the VM and login with: **user= synergy / password=synergyP@\$**
3. Run the ./setup command.
4. Select Option #1 for initial VM configuration. This configures the VM's static IP address and installs the 30-day trial license.
5. Restart the VM.
6. Go to the ./setup menu.
7. Run the "Check server status option" from the ./setup menu. This allows you to confirm server startup.
8. Enter the following URL from your browser:
<http://yourIP:8080> or <https://yourIP:8443>
9. Your VM environment should be up and running. Sign in with the default credentials: **username=admin / password=admin**
10. IMPORTANT: Complete the tasks on the Home page -> Getting started task. If you encounter issues or need more detailed steps, see the following sections:
[Detail Steps to Start Virtual Appliance](#)
[Upgrading the VM](#)
[Troubleshooting VM Installation](#)

1.2 Detail Steps for Installation and Initialization of the Virtual Appliance

This section provides detailed steps for importing/configuring and starting the Virtual Appliance. The Quick Start section 1.1 shows you how to get the appliance up and running quickly with no issues. Section 1.2 is intended for users that are experiencing issues during the quick start or if more information is needed regarding the process.

To configure the software application as a virtual appliance, follows these steps:

1. Understanding Prerequisites
2. Deploying the OVA Template
3. Starting the Virtual Machine
4. Completing the Initial VM Host Configuration
5. Starting the Application
6. Getting Started Tasks (this is a post-installation setup task) ^[1]_[SEP]
7. Before putting the CRUZOC Virtual Appliance into a production environment, make sure that you change the MySQL. **See Securing MySQL Passwords for detailed instructions.**

1.3 Understanding Prerequisites

The VM is intended and sized to support trial/evaluation of the software for up to 100 devices. Other deployments may be supported and may require additional VM configuration. Many factors affect the VM performance. The underlying hardware resources must be able to support the desired deployment configuration. Reconfiguration may require more RAM, hard drives, faster hard drives, CPU/cores, or storage allocated to the VM. **Refer to the software User Guide for sizing details.**

The virtual machine file (.ova) was created with the ESXi 6.0 and is compatible with following VMware products:

- Fusion 5.0
- Workstation 8.0, 9.0
- ESX 6.0, 6.5

If the Virtual Appliance requires reconfiguration, you are limited to these maximum resource settings:

- 64 GB memory limit
- 8 processor limit
- 10 network adapter limit
- 2 TB disk size limit

If you need resources more than these constraints, you will need to create your own VM by performing a package installation on your new VM. If you need to expand an existing system beyond these limits, you need to follow the database migration procedures to back up the mysql database, re-install the same software version on your target VM, and then restore the database files to the target VM.

Make sure that you have the following:

- A downloaded the .ova file the IPv4 address identified for the VM appliance
- The VM host has a connectivity to the target managed devices
- Neither Firewalls nor other restrictions block communication for ICMP, SNMP, FTP, TFTP, SCP, SSH, Telnet, HTTP.
- SMTP and internet access are required for notification from CRUZOC by e-mail as well as for license/subscription renewal
- The following system requirements:

Pre-requisites

Requirement	Description
Virtual Machine	<p>VM is configured with 1 processor and 6 cores. 6-8 cores are recommended for Production/Non-trial environments with 500-1000 devices.</p> <p>Adjust the number of cores needed based on the application performance by right clicking the imported VM and selecting a settings option for adjusting a VM’s resources.</p>
CPU	Speed exceeds 3.0 Ghz.
Memory	Minimum 12 GB RAM allocated to the VM.
Disk Space	<p>Minimum 105 GB allocated to the VM. The software’s VM is pre-set to installation defaults and dynamically grows up to 85 GB. If the VM is used beyond a trial evaluation, you may need more space depending on your specific usage and needs. For example, higher data retention policies for performance, TFA, audit logs, and events increase the database space needs.</p> <p>Allocate more space by increasing the:</p> <ul style="list-style-type: none"> • Space allocated to the VM from the hypervisor (Hypervisor > select the VM > settings) • Mysql database size. Refer to the CruzOC User Guide for detailed steps on how to extend the Mysql database size. Consult your VM and/or Linux administrator before adjusting the VM size. <p>The database should consist of 1 or more 10-15K RPM disk, or the equivalent solid-state disk for better performance.</p> <ul style="list-style-type: none"> • Make sure that the VMware virtual disk runs on adequately performing physical disk infrastructure. • Heavy performance monitoring and TFA requires disk IO speeds that support this configuration. • If you plan to use the VM beyond the initial trial configuration, consider some configuration changes to ensure proper system sizing. Refer to the software User Guide for sizing recommendations before converting the trial VM to a production usage. You may need to: <ul style="list-style-type: none"> • Expand the storage capacity to accommodate the workload data and retention preferences. • Allocate additional memory to support a production environment

Pre-requisites

Requirement	Description
Virtual Appliance Software	The software runs as a virtual appliance. It requires the following Hypervisors: <ul style="list-style-type: none"> • VMware Workstation v8 or higher • vSphere® Hypervisor (ESXi) 5.0 and higher (must meet virtual appliance, port access, and listening port requirements)
Ports Use	All necessary ports and firewall settings are pre-configured on this VM. Refer to the software User Guide for ports details.
Browser	This version supports the latest browser versions: <ul style="list-style-type: none"> • Chrome (V59 and above) • Safari (V10 and above) • Firefox (V54 and above) • Internet Explorer (V11 and above)
Adobe	VM does not come with graphics capabilities to view PDF or run Flash. Remote access is required using a Web browser and therefor you need: <ul style="list-style-type: none"> • FlashPlayer (32-bit or 64-bit) • Reader
Java	<ul style="list-style-type: none"> • 1.6 or later
Screen	Screen resolution must equal or exceed 1280x1024 pixels. Your screen must be at least 1250 pixels wide.

Now that all the prerequisites are in place, you are ready to get started deploying the OVA template.

1.4 Deploying the OVA Template

You can deploy the Open Virtualization Format (OVA) template with VMware workstation, VMware Player, or ESX. High Availability Deployment options are available for the software that you can deploy with or without VMs. Contact your [sales representative](#) if you are interested in these options. The trial version is not intended to support conversion to a HA platform.

NOTE: If you see an error message about in-compatibility or OVF specifications, make sure that you have sufficient disk space and are using a local drive (not a share).

Deploy the OVA template as follows:

1. Deploy the OVA template from the VMware Workstation.
 - a. Select File > Open menu.
 - b. Select the Ova File.
 - c. Power on the VM.
2. Deploy the OVA Template from the VMware Player.
 - a. Select File > Open Virtual Machine.
 - b. Right-click and then select Play Virtual machine.
3. Deploy the OVA Template from the vSphere/ESX server.
 - a. Start the VMware vSphere client.
 - b. The vSphere client is displayed.
 - c. Select File > Deploy OVA Template.
 - d. Select the Deploy from file option and then browse to where you copied the software OVA file.
4. Select the .ova file and then click the Next button.
5. Continue with Starting the Virtual Machine.

1.5 Starting the Virtual Machine

After you have completed the above steps, you can start the application in the VM console.

NOTE: Before you start the VM console, make sure that you make any needed VM setting modifications by right- clicking the Image to get the menu of options.

1. Start the VM by clicking on its name and then selecting Power > Power On.
2. Open the VM Console.
3. Log in with the default credentials (synergy user).

Username: synergy Password: synergyP@\$
The synergy user has sudo privileges.

Continue with Completing the Initial VM Host Configuration.

1.6 Completing the Initial VM Host Configuration

A user setup menu script simplifies VM initialization. Complete the initial VM host configuration from the command line as follows:

1. Log in as the synergy user (synergy/synergyP@\$\$).
2. Enter the following command: `./setup`
3. Select 1) VM Configuration Menu and follow the prompts.
4. If the setup is not successful, resolve any issues and then repeat step 3.
*NOTE: The VM initialization is designed to detect all available ethernet interfaces. Typically, this is eth0 or ens32. Make sure eth<zero> is entered when asked. ethO (oh) is not a valid Linux interface and interface configuration will not be successful. If no interfaces are listed, do not proceed, and do not make up an interface name. **Contact your VMware administrator.** If a customized VM configuration is required to support alternate interfaces, DNS, or other environments, **contact your Linux and network administrator.***
5. Reboot the VM

1.7 Starting the Application

By default, the software servers are configured to automatically start. After restarting the VM, all servers should come up and the application is ready soon after startup. You can use the menu option or the corresponding status command to check.

1. After VM reboot, log in as the synergy user
2. Enter `./setup` and then select the Check Server Status option.
This continuously checks the server status until the servers start successfully. If startup is successful, the following message is displayed:
Application server status:---- appserver: ready
Web server Status:----- synergy is running Synergy is ready
Database server status:----- owareddb is running
3. Once application server and web server are ready, open a browser and enter the following URL: `http://hostIPAddress:8080` or `https://hostIPAddress:8443`
4. Sign in to the application using the default credentials:
Username: admin / Password: admin

The initial login prompts for a Password reminder for the admin user. This supplies the information for the Forgot password link in the login page.

5. Set a password reminder and then click Save. The software Home page is displayed. Continue with Getting Started post-installation setup tasks.

1.8 The Application is Ready to Use - What's Next?

The CruzOC home page contains the "Getting Started" portlet. Walk through each step to configure the primary features for managing and monitoring your network.

1.8.1 Application Setup Tasks

Once the Web portal is up you must perform some initial setup and validation tasks.

1.8.2 File server information.

For device backup/ restore / deploy firmware capabilities, the VM/Linux OS comes with two pre-installed and configured File Servers. You can set your own external file server parameters for any existing server you may already have in your environment.

The settings below apply the two pre-configured file servers on the Virtual Appliance. The VM_FTP_TFTP file server is dynamically used for devices that support FTP AND TFTP. The VM_FS_SCP file server supports devices that require a more secure protocol like SCP. These file servers are automatically created during the VM initialization (./setup - option 1) process when you set the IP address for the VM. The following list defines the built-in files server attributes. The file server settings are found in the application in the **File Servers Portlet** in the **Configuration Management menu**.

Leave **Address** blank -- this is only required if the managed devices are using a different IP address to reference this same File Server.

Attribute	Value
Name	VM_FS_FTP_TFTP or VM_FS_SCP
Enabled	Checked
Select File Server Type	FTP with optional TFTP or SCP only
IP address	Same IP set for the VM
Login	ftpuser
Password	ftpuserPaSS
External IP	Leave blank. This is only required if the managed devices are using a different IP address to reference this same File server.
Net Mask	The mask used to determine which file server to use

To create an entry for a new **File Server** in CruzOC, follow these steps:

1. Go to **Setting -> Common Setup** task under **Settings** and edit the "**File servers**" task.
2. Click **New File Server** .
3. Fill required data with your file server type, IP, login, password.
4. Click **Test Button** on the lower right to confirm the server is working.
5. Click **Save**, once everything works.

This completes the file server setup for your system.

1.9 Upgrading the VM

Upgrade the CruzOC Virtual Appliance/VM like a standard Linux upgrade. Upgrade the CRUZOC Virtual Appliance/VM installation from the command line as follows:

1. Transfer the unzipped CRUZOC installation package to the VM using FTP or mount a share on the VM with access to the CRUZOC install files.
2. Log in as a non-root user, such as synergy.
3. Modify installer CruzOC_SingleInstall_Linux_9.0.x.x.bin permission to allow its execution.

For example:

```
chmod +x CruzOC_SingleInstall_Linux_9.0.0.92.bin
```

4. Start the installer: `./CruzOC_SingleInstall_Linux_9.0.0.92.bin`
5. Accept the license agreement to start the upgrade process. A message is displayed indicating that an existing installation was detected and this will be an upgrade. Also noted are the installed features. Click Enter to continue. Otherwise, enter quit to cancel the upgrade.

Answer each prompt appropriately. If you did not backup your database before starting the update, you are given a chance to do so. The database backup is stored in the `installPath/backup.sql` file by default. If you elect not to rebuild the database, the update still re-seeds the system settings. If you encounter port conflicts, resolve them before continuing. The servers automatically start when the update finishes. You may need to reboot the server if your performance monitor information does not appear. If you are running either MySQL or Oracle as your database on a separate server, you must also run `dbpostinstall` on the (primary) Application Server before starting your system. If your upgrade fails, see the `install.log`, `db_setup.log` or `app_setup.log` file in the destination directory for messages that may help fix the failure.

2 Troubleshooting VM Installation

In addition to the troubleshooting section in your application's guides, you may want to try the following if the application server does not start:

1. Check the server status (option 5) to see if there is a license expired error.
2. Verify that your system has the minimum hardware requirements. If there are not enough RAM or CPU or Disk, the servers cannot start.
3. Contact support if your server still fails to start.

Upon reboot or system restart, by default, the Application, Web, and Database servers are configured to automatically start (autostart). If you need to stop or start a server without rebooting the VM, use the following commands:

- Stop or start the Application server: `sudo service oware stop | start`
- Stop or start the Synergy server (web server service):
`sudo service synergy stop | start`
- Stop or start the database
`sudo service owaredb stop | start`
- The startup process takes a few minutes and depends on the host speed. The application server needs to be fully up before the Web server can provide full client access. The Web server should be fully functional within five minutes of the Application server being up.

About Dorado Software

Dorado Software, Inc. is a leading provider of integrated resource management, performance monitoring, and service orchestration software to automate cloud operations across converged infrastructure fabrics. Dorado helps IT professionals to monitor, configure, and manage converged infrastructures (physical and virtual storage, servers, networking, applications), virtualized network functions and cloud services. Discover more at www.doradosoftware.com.

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