MagicFlex Smart Analysis v4.2
Installation Guide

MagicFlex Smart Analysis

Contents

MagicFleX Smart Analysis

1 System Requirements

This section describes the specific port, hardware, and software, requirements for installing MagicFlex Smart Analysis.

1.1 Port and Protocols Used by MagicFlex

This section describes the required and optional ports and protocols that are used by the MagicFlex system.

Table 1 Ports Used by MagicFlex

Source	Target	Port	Protocol or Description
User's workstation	Virtual appliance	443	TCP
Virtual appliance IP address	HPE Virtual Connect Management IP address	22	TCP
Virtual appliance IP address	HPE Onboard Administrator Management IP address	22	TCP
Virtual appliance IP address	HPE H3C Switch Management IP address	22	TCP
Virtual appliance IP address	Cisco Catalyst Switch Management IP address	22	TCP
Virtual appliance IP address	Cisco Nexus Switch Management IP address	22	TCP
Virtual appliance IP address	Brocade SAN Switch Management IP address	22	TCP
Virtual appliance IP address	VMware vCenter Server IP address	443	TCP
Virtual appliance IP address	HPE OneView Appliance IP address	443	TCP
Virtual appliance IP addss	Mail server	25	TCP

1.2 System and Hardware Requirements

This section describes the MagicFlex minimum storage, memory, and system requirements for installation.

Table 2 System and Hardware Requirements

System Component	Requirement
Storage	100 GB disk space
CPU	4 CPUs
Memory	8 GB RAM
Network	1 NIC
Platform	■ VMware vSphere 5.0 and later ■ Microsoft Hyper-V 2012 R2 and later

1.3 Supported Browsers

MagicFlex Smart Analysis v4.2 supports the following Web browsers.

- Google Chrome 31 and later
- Mozilla Firefox 25 and later

1.4 Supported Platforms and Products

MagicFlex Smart Analysis v4.2 supports the following platforms and products:

- HPE Virtual Connect interconnect devices (VCM and OneView)
- HPE BladeSystem c-Class Enclosure
- HPE Synergy Enclosure (OneView)
- HPE H3C Ethernet switches
- Cisco Catalyst Ethernet switches
- Cisco Nexus switches 5000 series and 7000 series
- Brocade SAN switches, including OEM branded switches
- Cisco MDS SAN switches
- VMware vCenter

2 Installing MagicFlex Smart Analysis

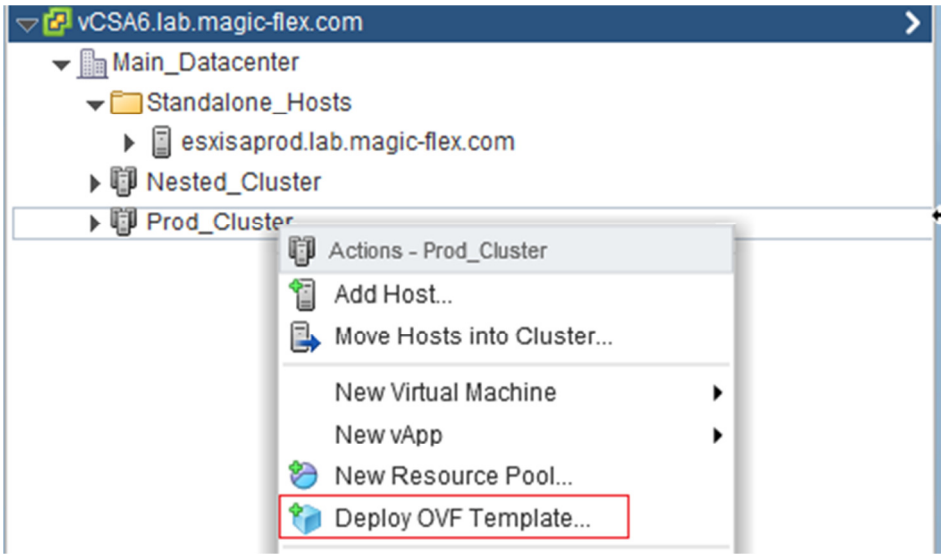
This section describes the process for installing MagicFlex Smart Analysis in both VMware and Hyper-V environments.

2.1 Deploying MagicFlex Smart Analysis Appliance in a VMware vSphere Environment

MagicFlex Smart Analysis is deployed by using the virtual appliance provided in the template.

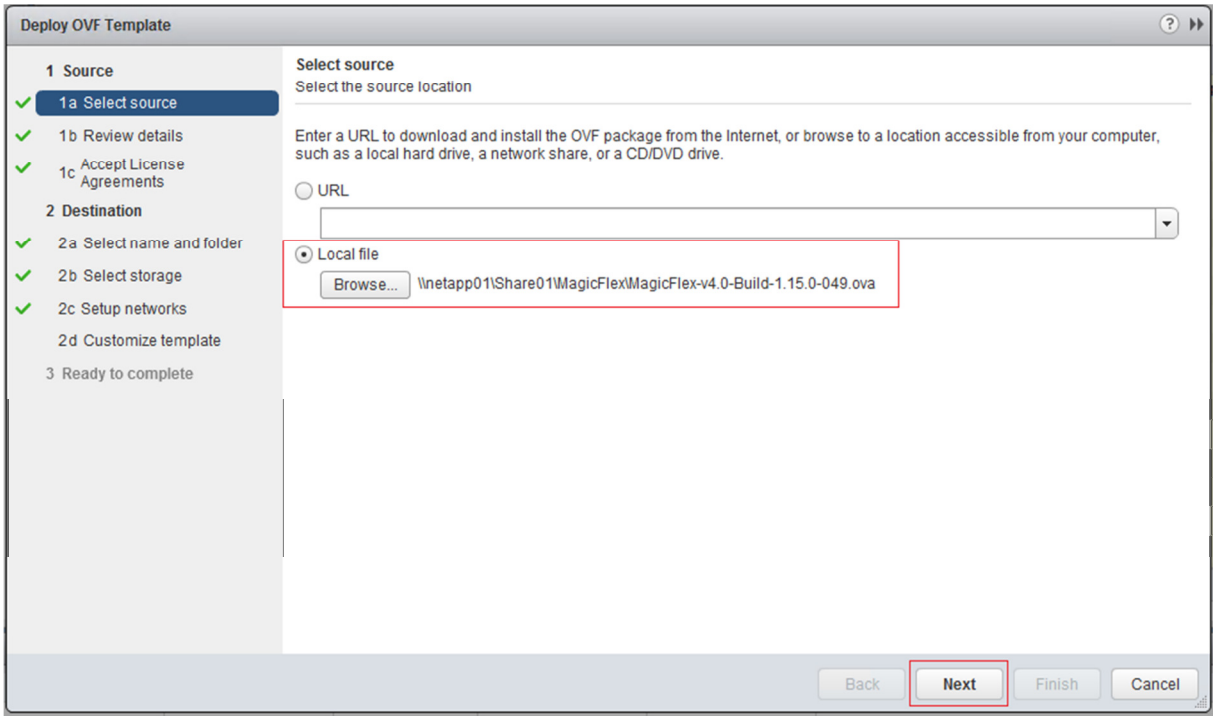
2.1.1 Select Deploy OVF Option

Right-Click where you want to deploy the MagicFlex appliance, and choose Deploy OVF Template…



2.1.2 Choose File to Deploy

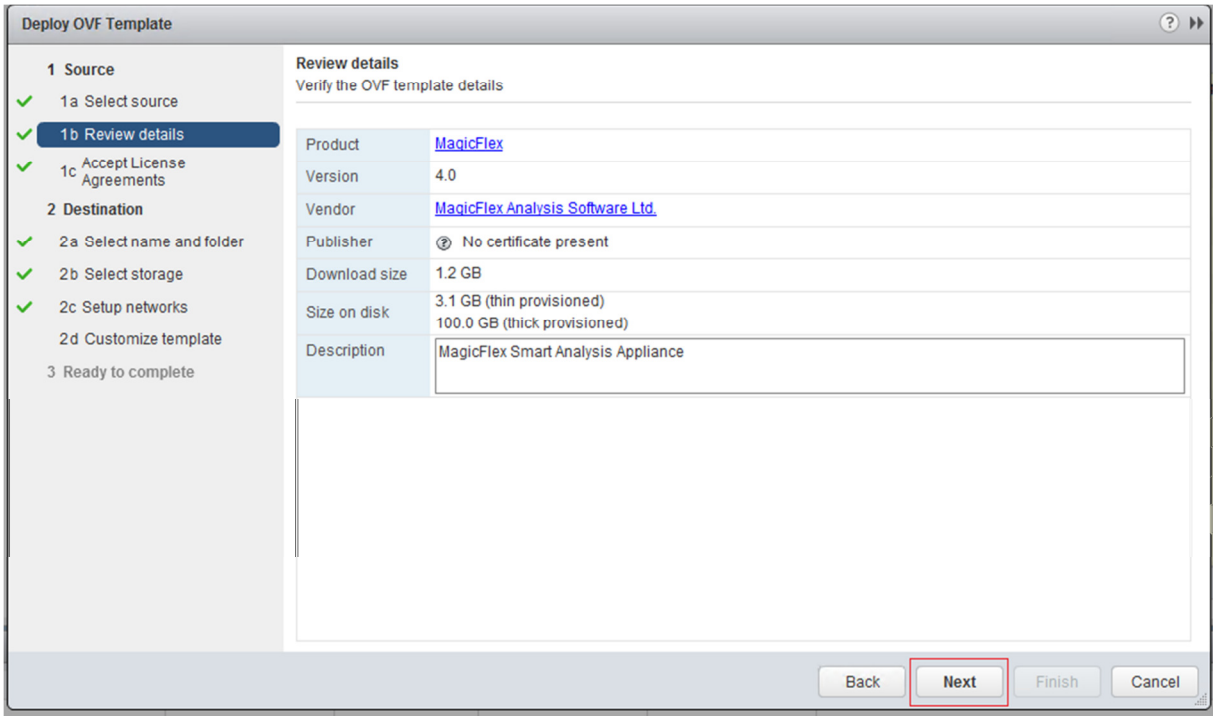
Choose the local file and browse to select the MagicFlex OVA file.



Click Next.

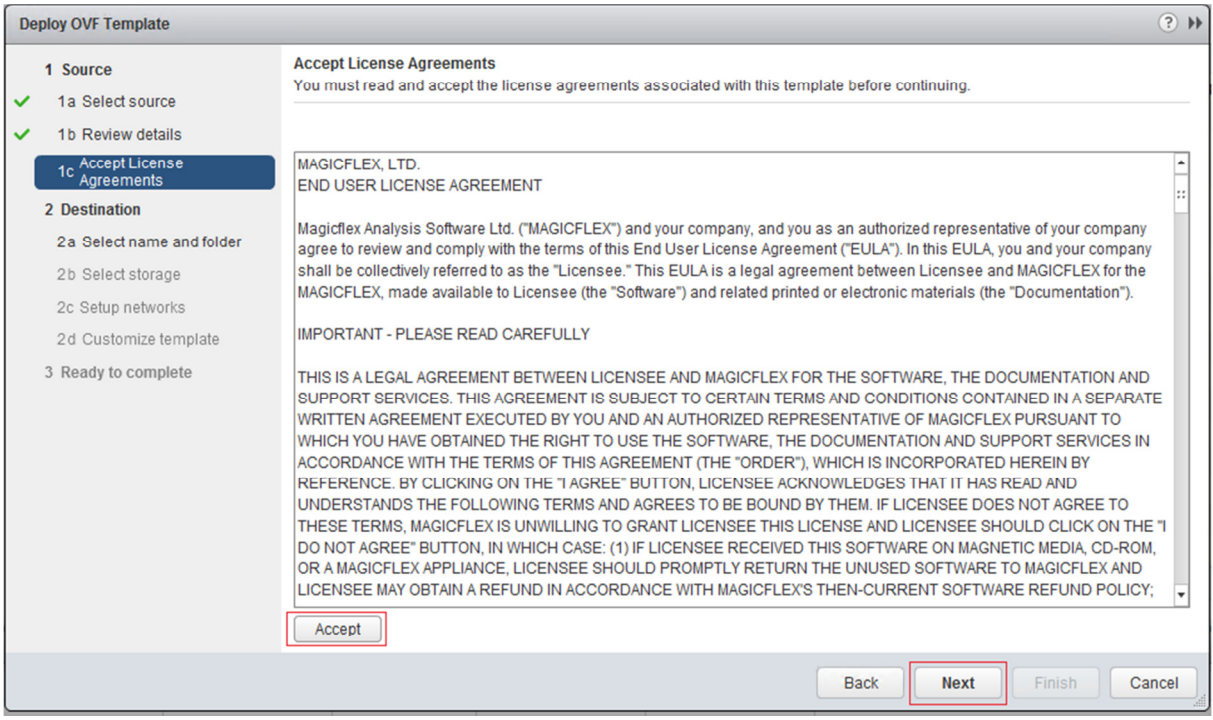
2.1.3 Confirm Deployment Details

Confirm the deployment details and click Next. If there are corrections to make, click Back.



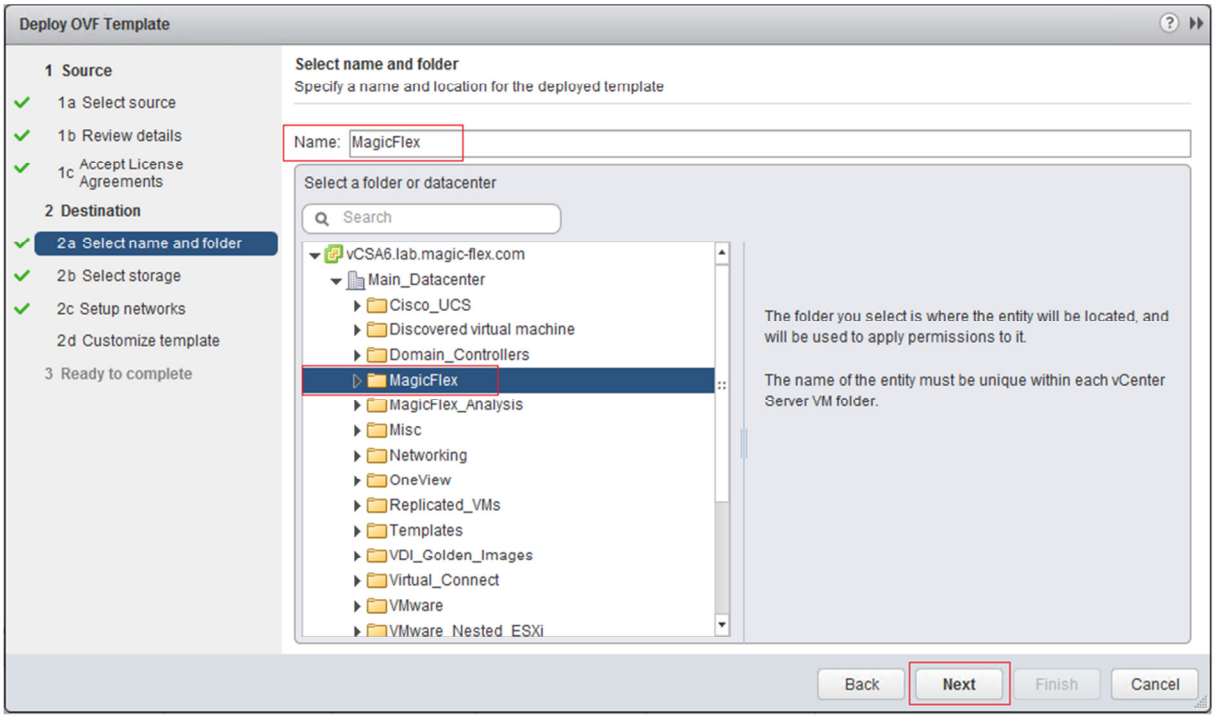
2.1.4 Accept License Agreements

Read and Accept the license agreements, then click Next.



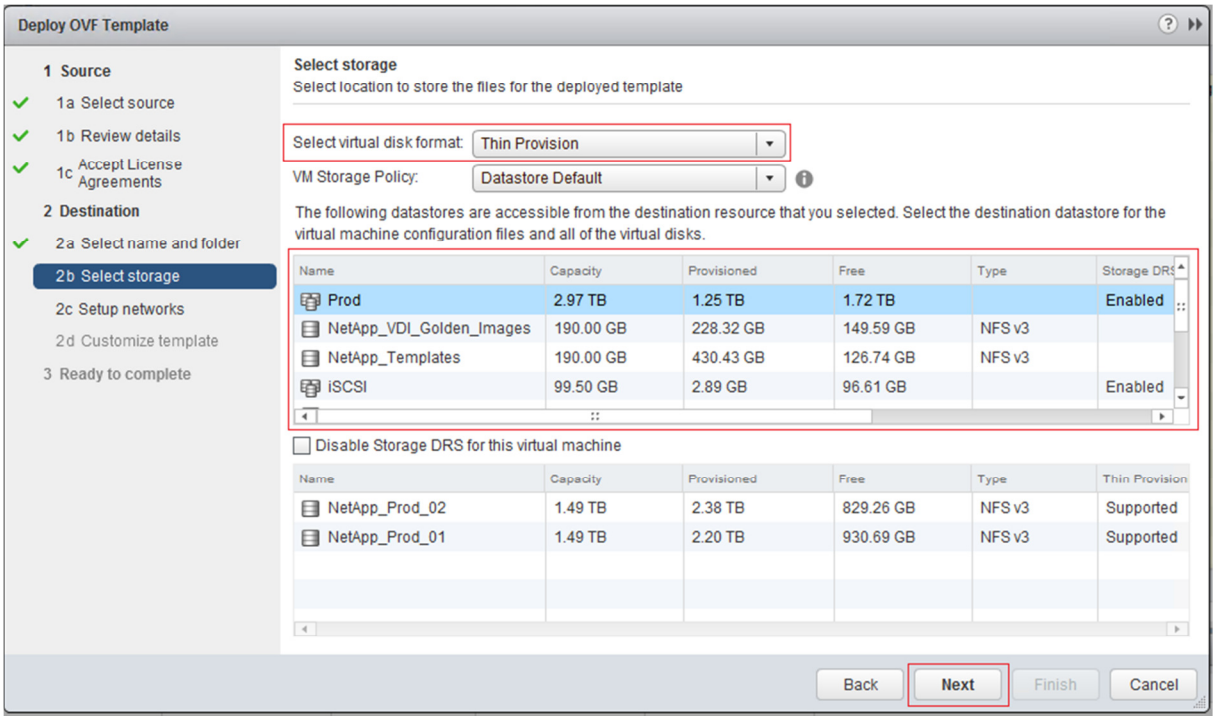
2.1.5 Select a Name for the Virtual Machine and a Folder for Deployment

Select the name for your deployment (default is MagicFlex), and in which folder to deploy the application, and click Next.



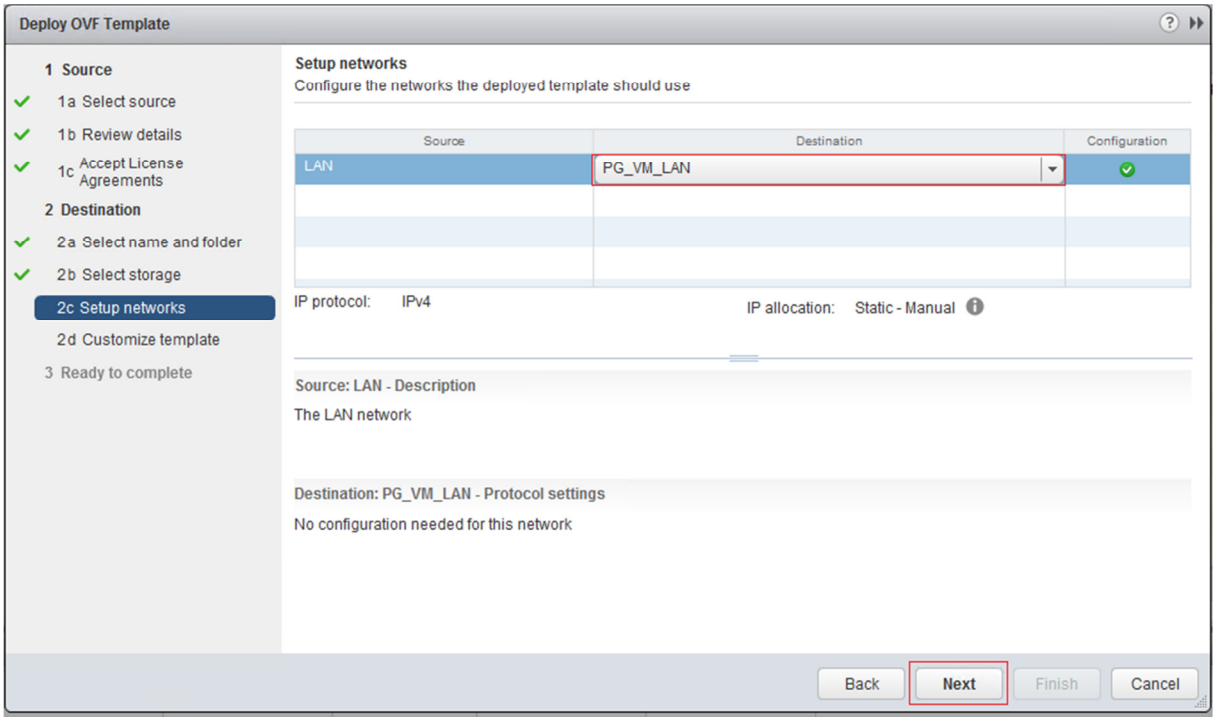
2.1.6 Select Virtual Disk Format & Datastore

Select the appropriate virtual disk format and the datastore/datastore cluster, then click Next.



2.1.7 Select a Network

Select appropriate Port Group and click Next.



2.1.8 Configure Network Settings

Configure the Network Settings.

> **Note**: It is recommended to work with static settings, although some or all of the settings may be allocated dynamically via DHCP.

2.1.8.1 Configure DNS

If working statically, configure one or more DNS servers. Multiple DNS servers should be separated with commas.

2.1.8.2 Configure Default Gateway

If working statically, configure the default gateway IP address.

2.1.8.3 Configure Hostname

Configure the Host Name.

2.1.8.4 Configure IP Address

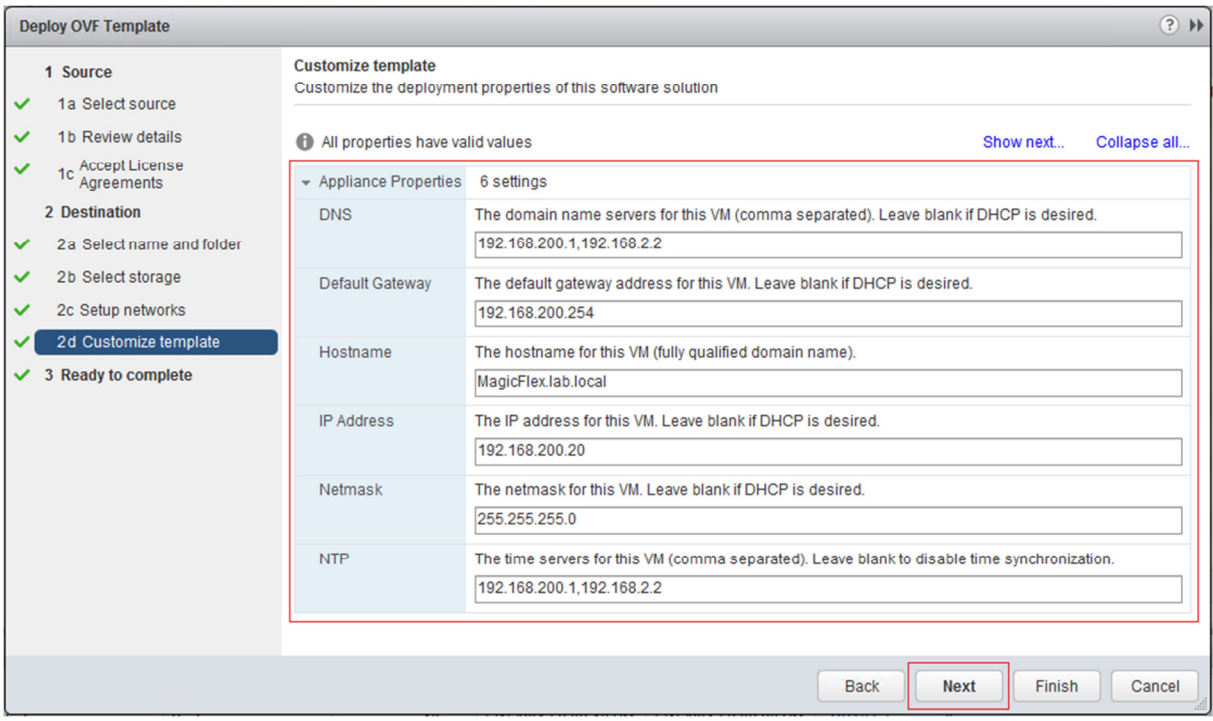
If working statically, configure the IP address of the appliance.

2.1.8.5 Configure Netmask

If working statically, configure the netmask of your IP address.

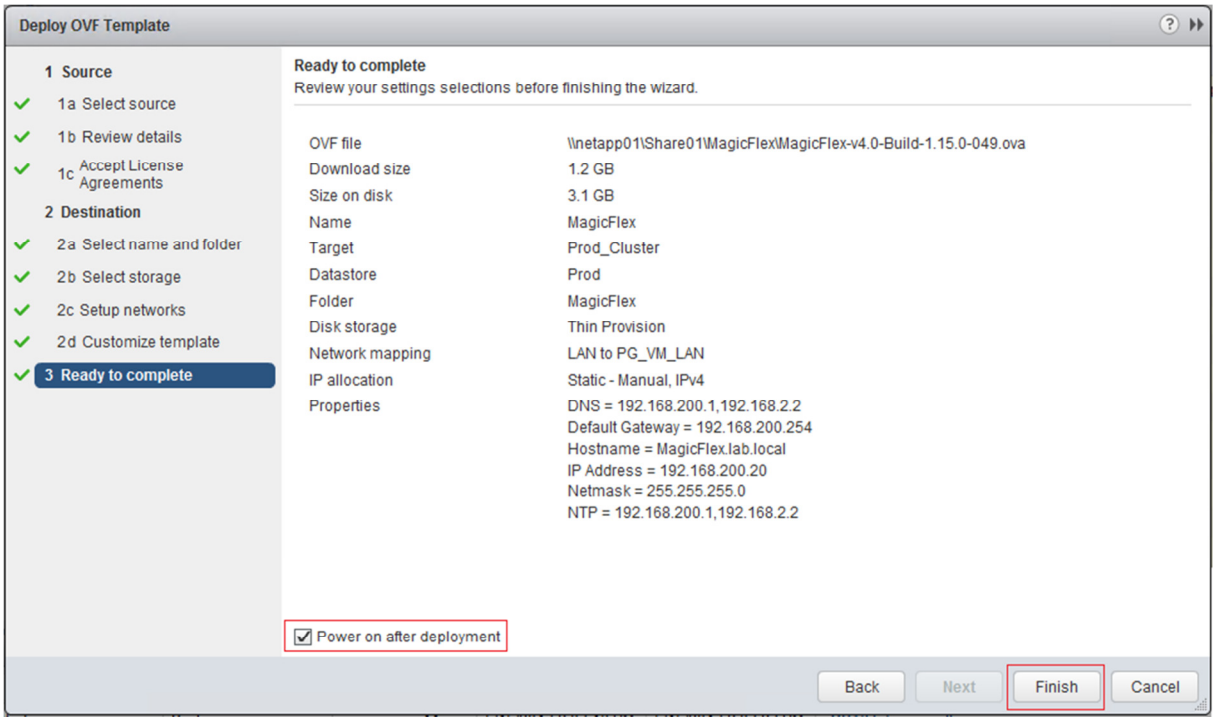
2.1.8.6 Configure NTP

Configure one or more NTP servers. Multiple NTP servers should be separated by commas. Leave blank to disable time synchronization.



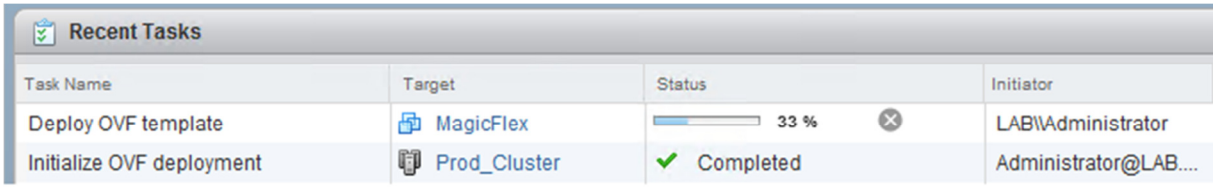
2.1.9 Review Summary Details

Review the Summary Screen. If all information is correct, decide if you want to select to Power on after Deployment, and click Finish. If corrections are required, click Back.



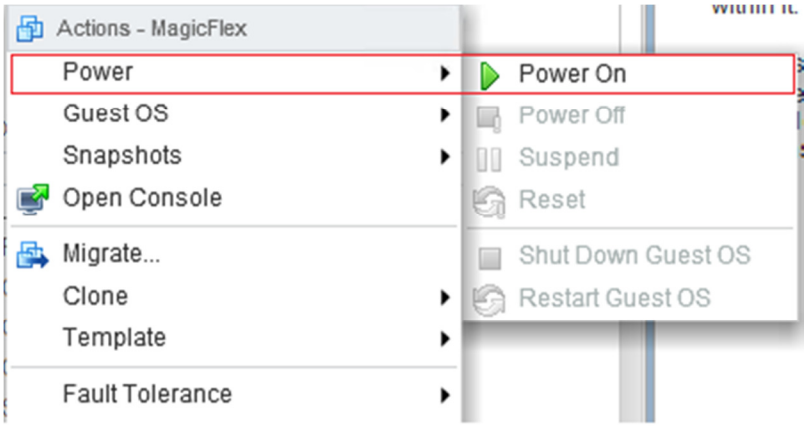
2.1.10 Follow Deployment Progress

You can follow the Deployment Process in Percentage as it progresses.



2.1.11 Start Appliance

If you did not choose to automatically power on the application after deployment, then choose the application, right click, and select Power On.



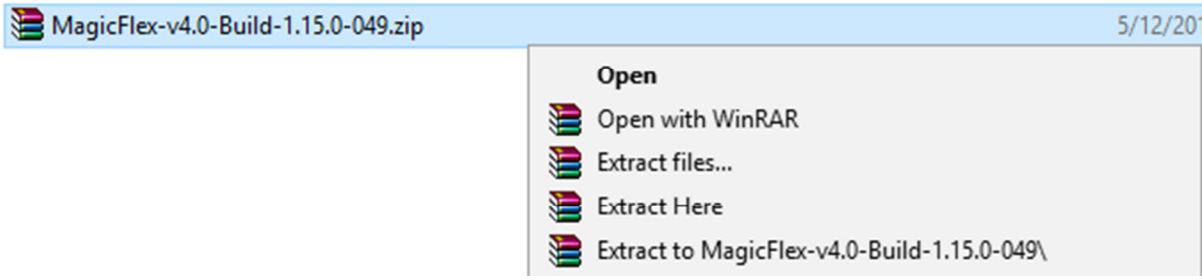
2.2 Deploying MagicFlex Smart Analysis Appliance in a Microsoft Hyper-V Environment

MagicFlex will supply you with the installation files in a zip (compressed) format.

2.2.1 Import MagicFlex Smart Analysis Appliance

2.2.1.1 Extract File from Zip

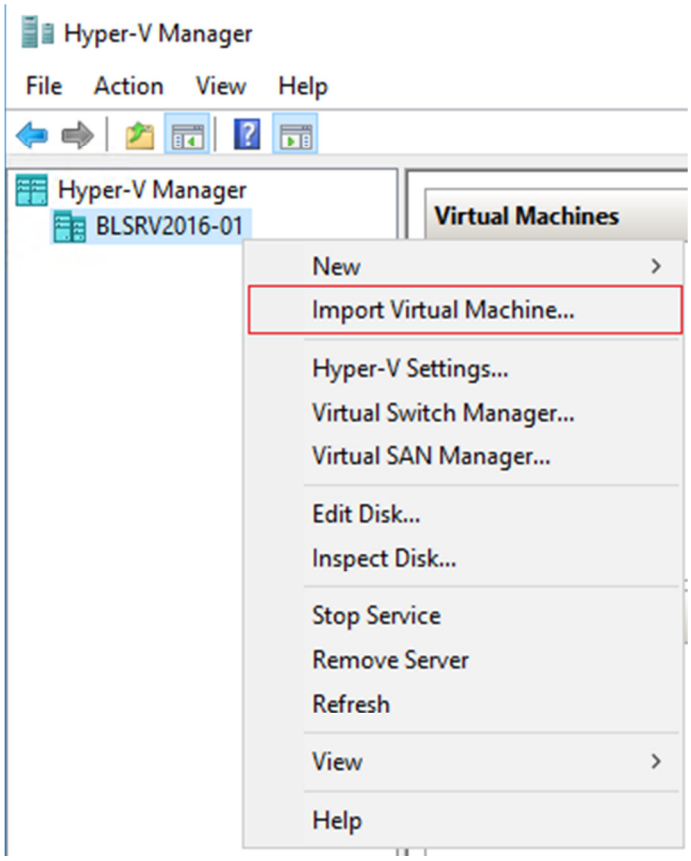
Extract files from zip. – The extracted files include both the virtual hard disks and the virtual machine configuration files.



2.2.1.2 Import Virtual Machine

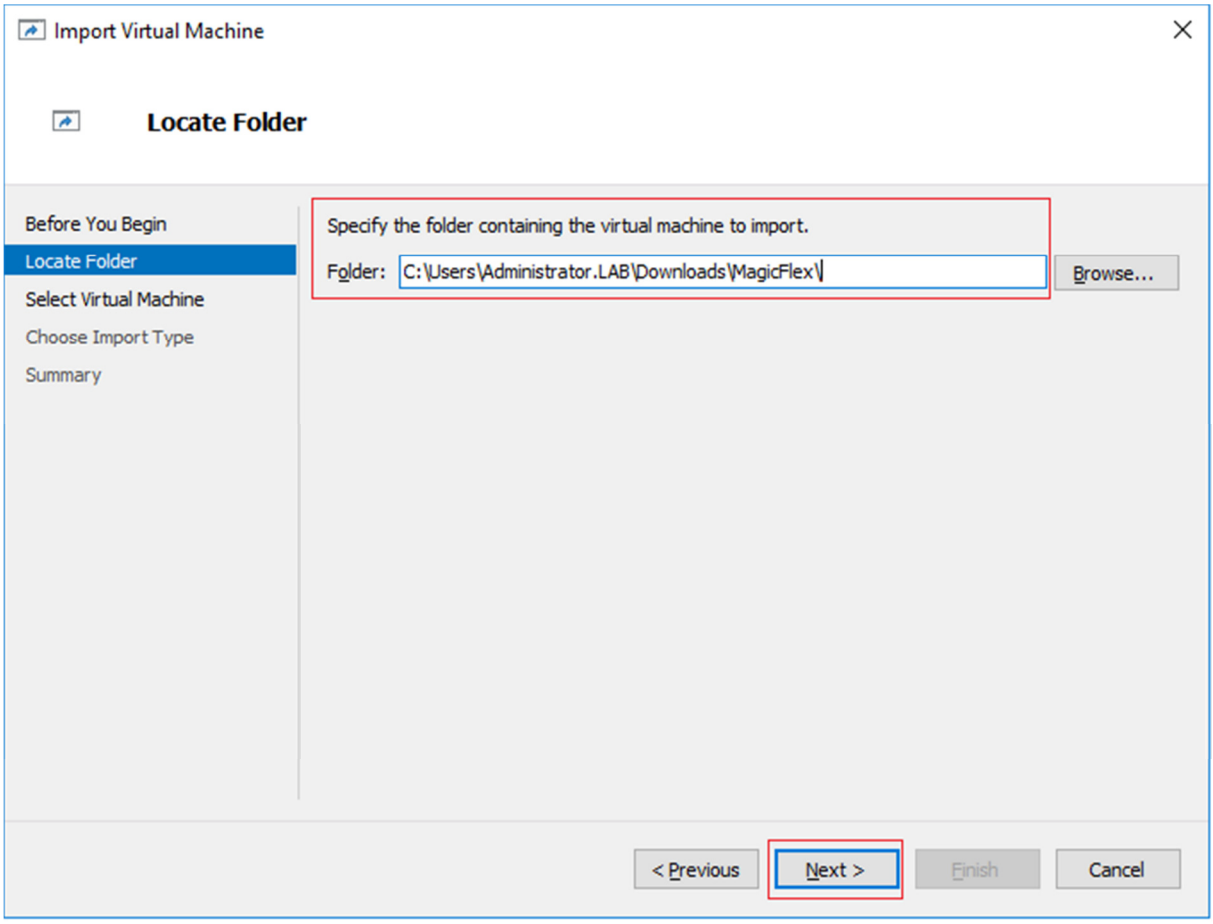
Login to a Hyper-V host via Hyper-V Manager.

Right Click on the host, and select Import Virtual Machine.



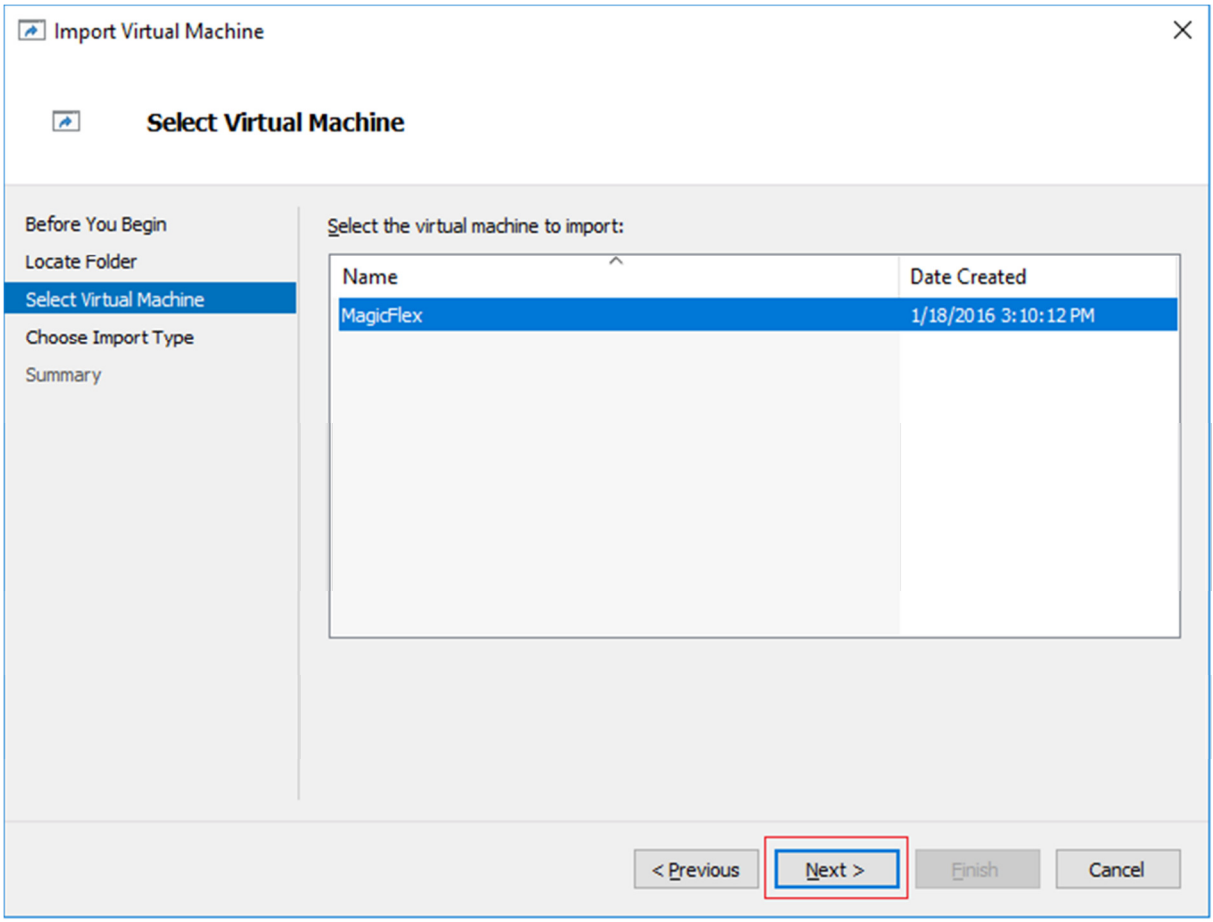
2.2.1.3 Choose Folder

Choose the folder where the zipped files were extracted using the Browse button, and then click Next.



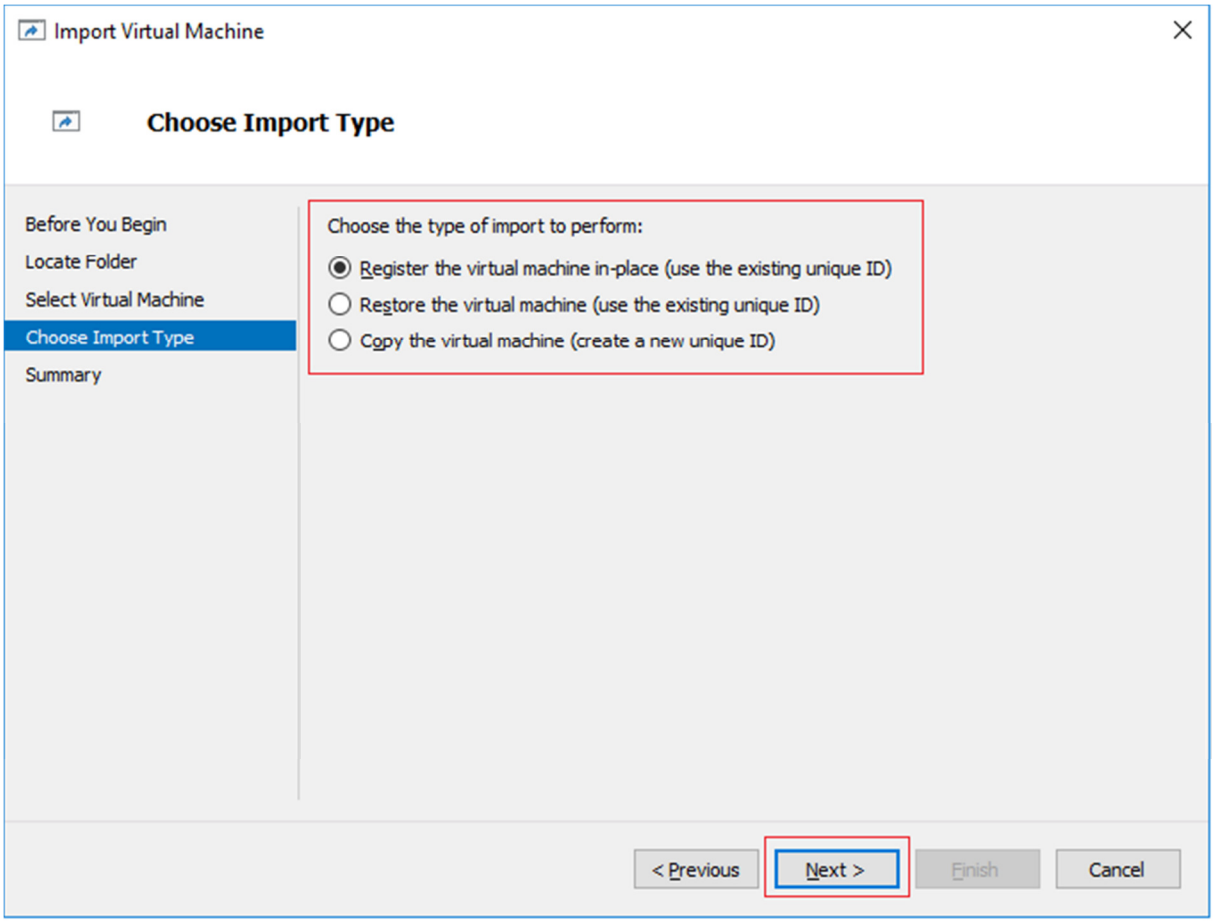
2.2.1.4 Select Virtual Machine

Review the virtual machine, then click Next.



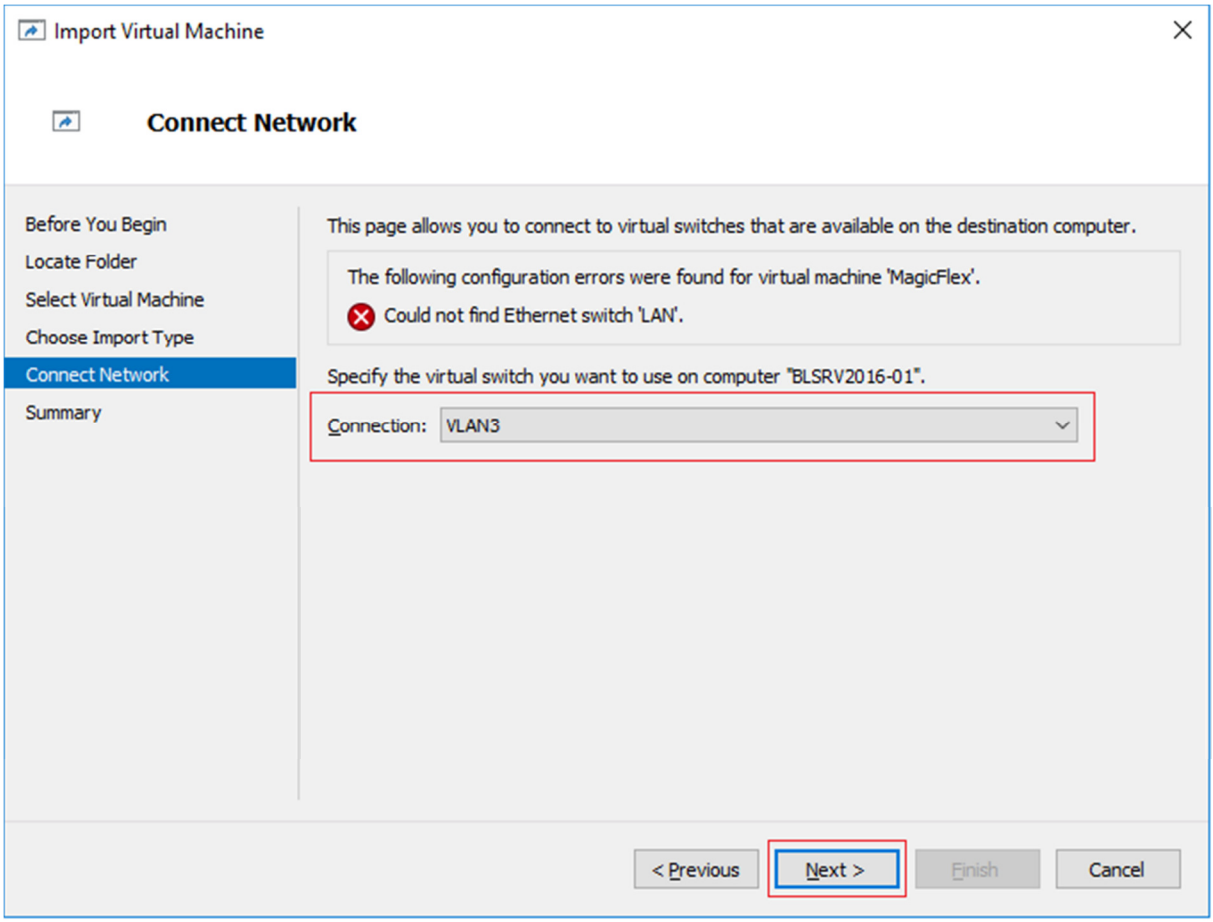
2.2.1.5 Select Import Type

Choose the appropriate Import Type and Click Next.



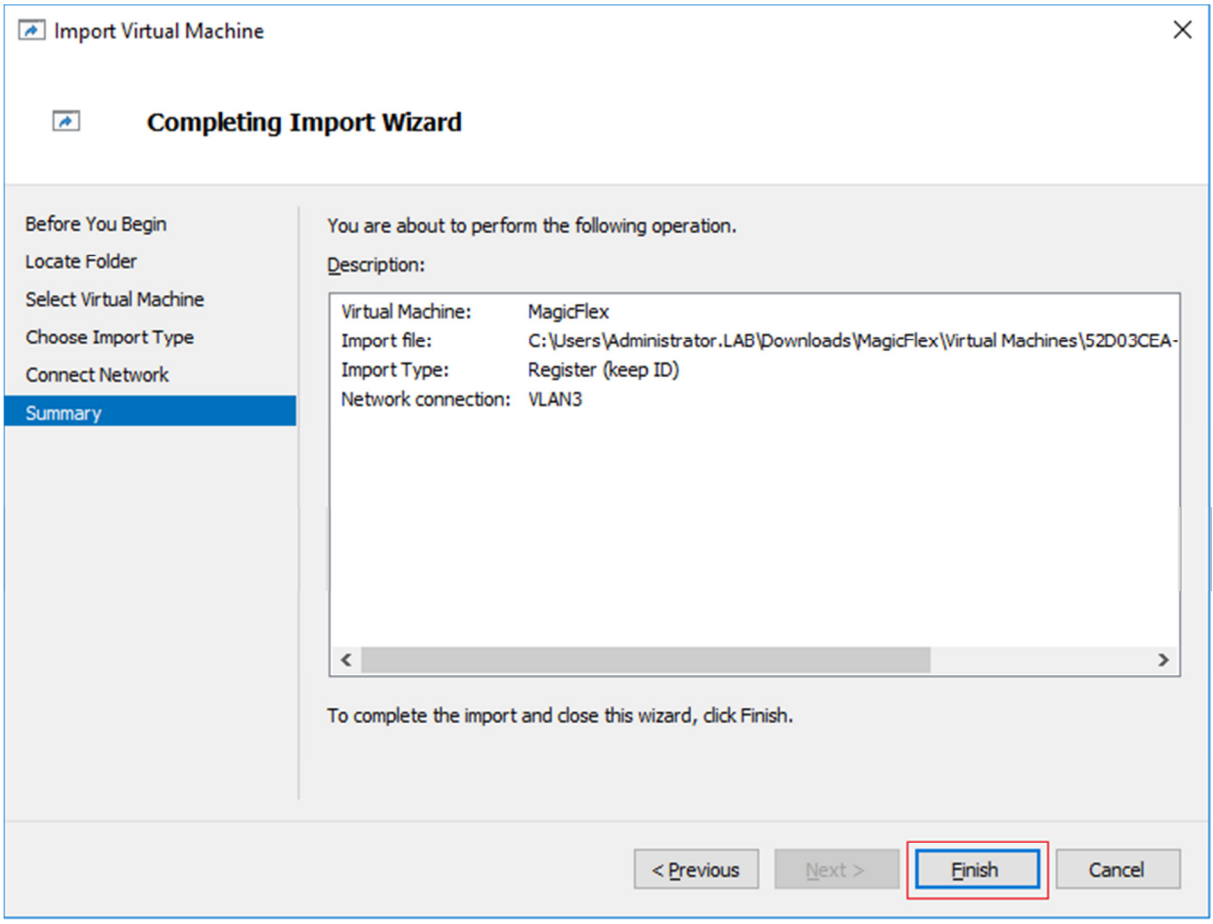
2.2.1.6 Select a Network

Choose the appropriate Virtual Switch and Click Next.



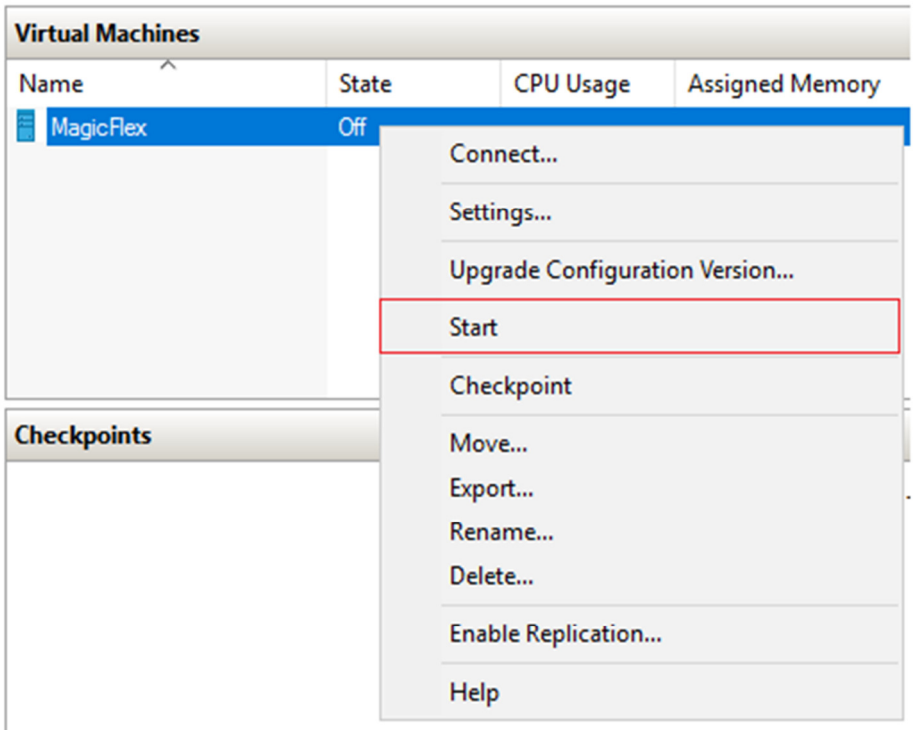
2.2.1.7 Review Summary Details

Review the information in the Summary Screen. If ok, click Finish. If there are corrections to be made, click Previous.



2.2.2 Start MagicFlex Appliance

Right Click on the Virtual Machine and choose Start.



2.2.3 Configuring MagicFlex Smart Analysis

After you install MagicFlex Smart Analysis, initiate a console connection and log in to the MagicFlex Appliance Administration console to view and configure system parameters for your MagicFlex system.

Press **ESC** at any time to return to the Menu Main page.

Table 3 Login Credentials for MagicFlex Console

Credential	Value
User name	**fmadmin**
Password	**fmadmin**

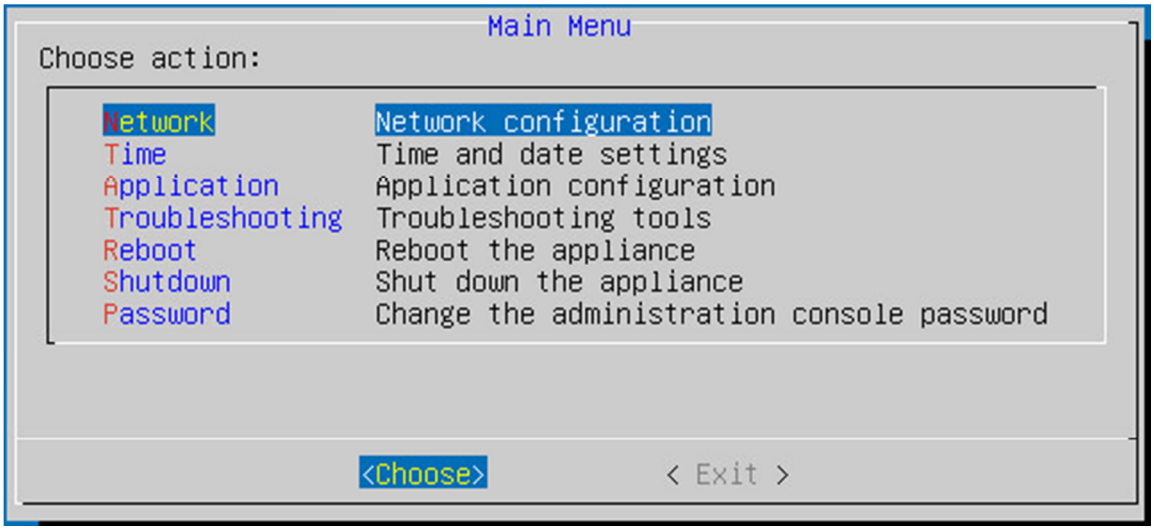


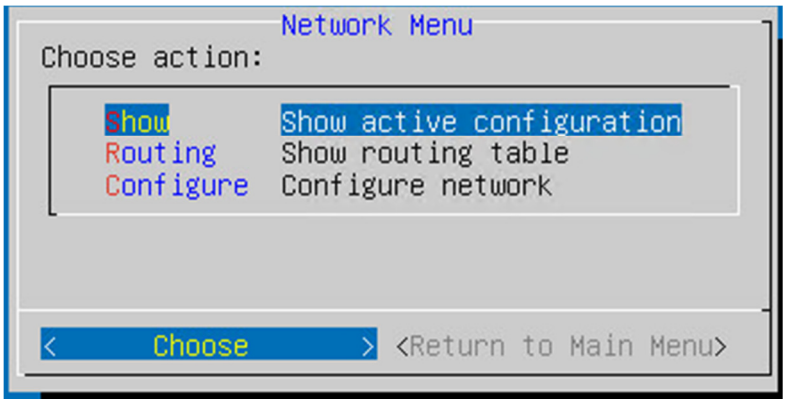
Figure 1 MagicFlex Appliance Administration Console Main Menu Page

2.2.3.1 Viewing System Parameters

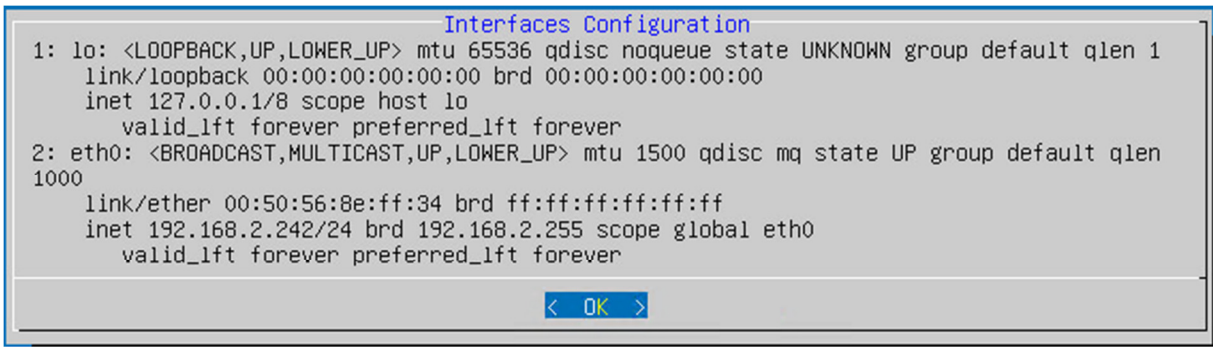
You can view the network parameters, routing table parameters, and the network time protocol (NTP) status for your MagicFlex system.

View Network Parameters

1. On the Main Menu page, navigate to **Network** and select **Choose**.
2. On the Network Menu page, navigate to **Show** and select **Choose**.



3. The network parameters display on the Interfaces Configuration page.

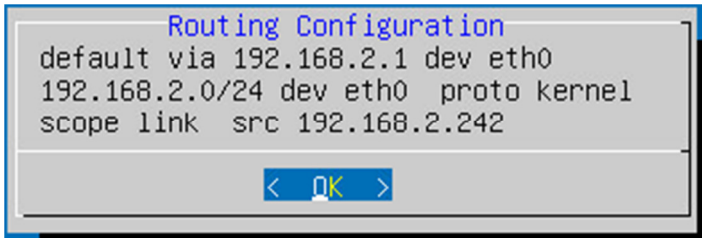


In the above example, the IP address of the MagicFlex Appliance is 192.168.2.242 and the Subnet is 255.255.255.0.

4. Select **OK** to exit the Interfaces Configuration page.

View the Routing Table

1. On the Main Menu page, navigate to **Network** and select **Choose**.
2. On the Network Menu page, navigate to **Routing** and select **Choose**.
3. The routing parameters display on the Routing Configuration page.



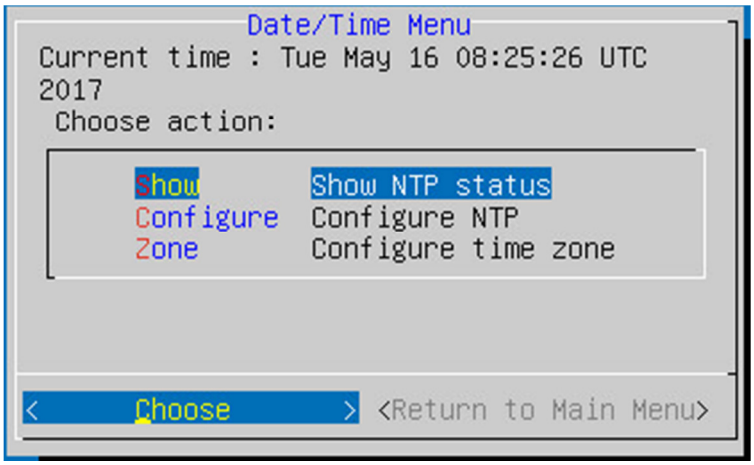
In the above example, the gateway of the MagicFlex Appliance is 192.168.2.1.1.

4. Select **OK** to exit the Interfaces Configuration page.

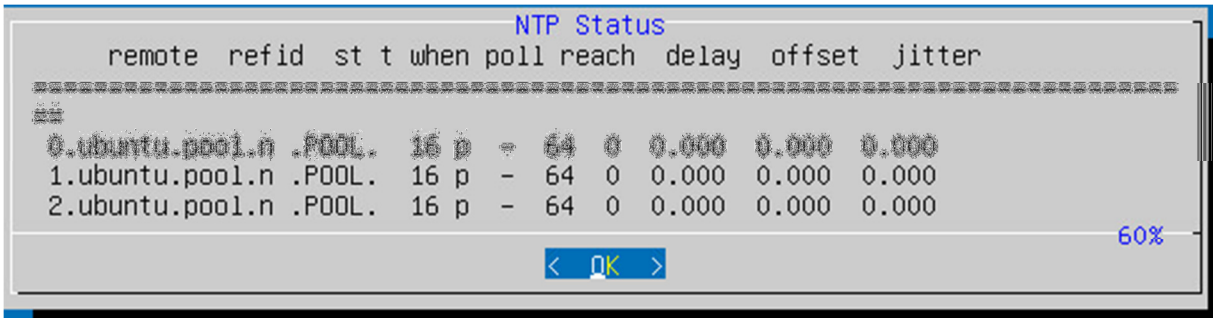
View the Network Time Protocol Status

By default, the NTP is configured to the internet NTP.

1. On the Main Menu page, navigate to **Time** and select **Choose**.
2. On the Date/Time Menu page, navigate to **Show** and select **Choose**.



3. The NTP Status page displays the NTP status.



2.2.3.2 Configuring System Parameters

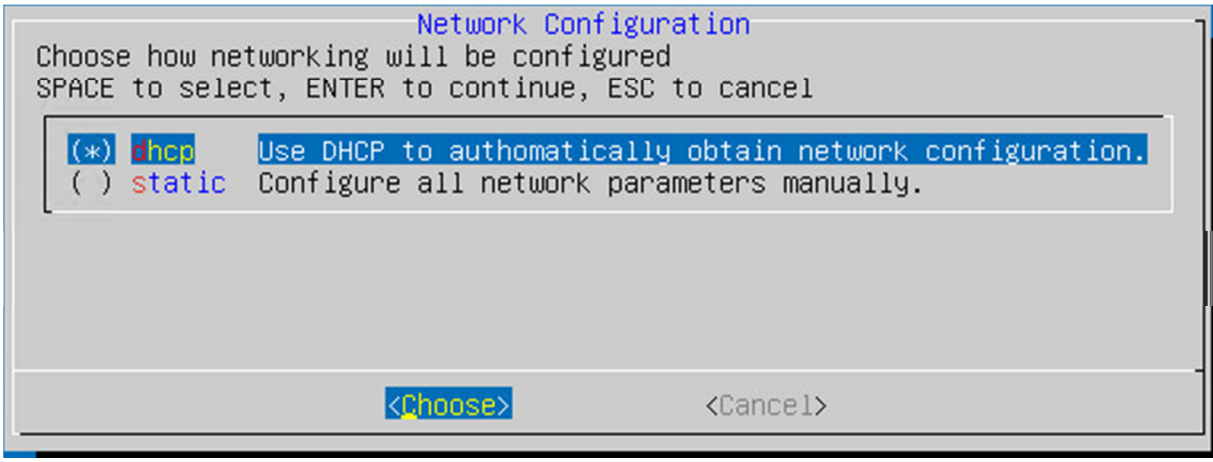
You can configure several parameters for system settings, such as network, time and date, and network time protocol.

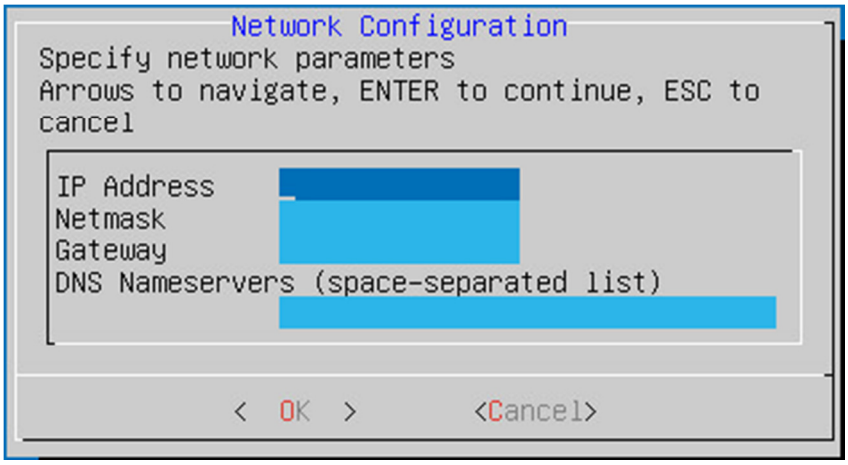
Configure Network Parameters

By default, the network configuration is set to DHCP.

If necessary, you can configure a static IP address, netmask, gateway, and DNS nameservers for your MagicFlex system.

1. On the Main Menu page, navigate to **Network** and select **Choose**.
2. On the Network Menu page, navigate to **Configure** and select **Choose**.
3. Configure the network parameters.



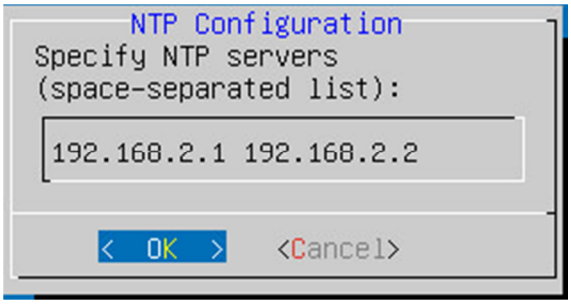


Configuration Option	Action
dhcp	To automatically obtain the network configurations, navigate to **dhcp** and select **Choose.**
Static	1. To manually enter the network configurations, navigate to **static** and click **Choose**. 2. Enter the IP address. 3. Enter the Netmask. 4. Enter the Gateway. 5. Enter the DNS Nameservers 6. Click **OK**. Note: If the new configuration is not applied within five minutes and the console hangs, please reboot the appliance. The new configuration will then be automatically applied.

Configure the Network Time Protocol Status

By default, the NTP is configured to the internet NTP.

1. On the Main Menu page, navigate to **Time** and select **Choose**.
2. On the Date/Time Menu page, navigate to **Configure** and select **Choose**.
3. On the NTP Configuration page, specify the NTP servers, and select **OK**.



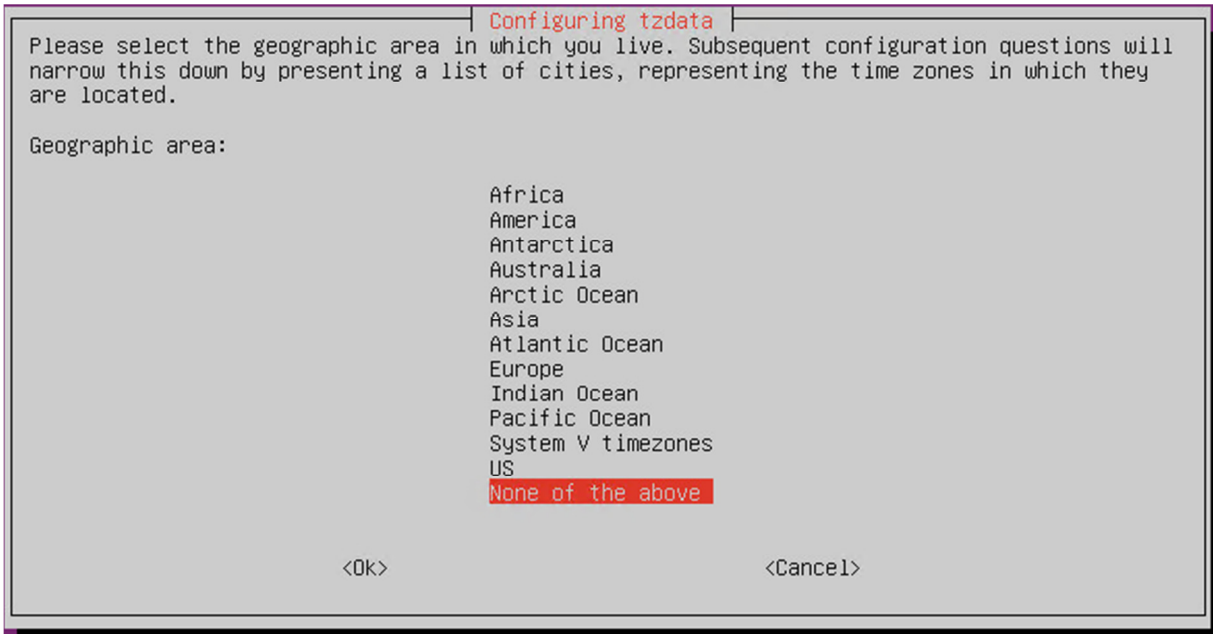
Configure the Time Zone

1. On the Main Menu page, navigate to **Time** and select **Choose**.
2. On the Date/Time Menu page, navigate to **Zone** and select **Choose**.

   On the Time Zone configuration page, configure the time zone parameters, configure the time zone parameters.

   a. Select a Geographic area, and select **OK**.

   b. Select a city or region, and select **OK**.



3 Getting Started with the MagicFlex UI

After you install and configure the MagicFlex system, you access the MagicFlex UI to monitor devices and collect data and/or generate a report.

To begin, open your web browser (Firefox or Google Chrome) and navigate to the MagicFlex web interface via the appliance's IP address.

3.1 Appliance IP Address

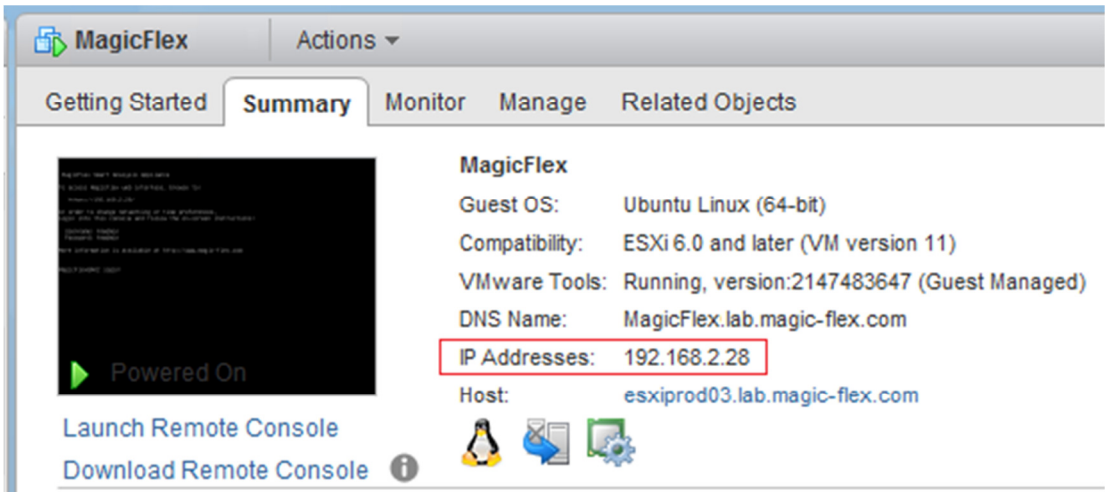
In order to determine the IP address of the MagicFlex appliance, follow the relevant procedure for your installation.

3.1.1 VMware - Display Appliance IP Address

There are two method to display the IP Address in a VMware environment.

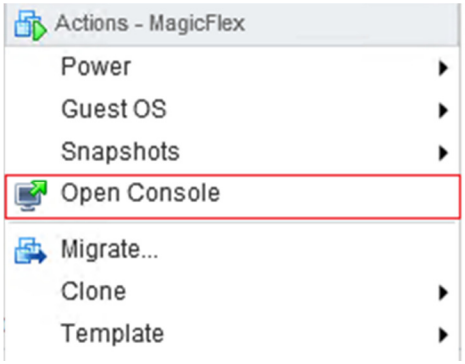
3.1.1.1 VMware - Display Appliance IP Address from vCenter Inventory

Select the MagicFlex virtual machine in the vCenter inventory, and select Summary. The IP address is displayed under IP Addresses.

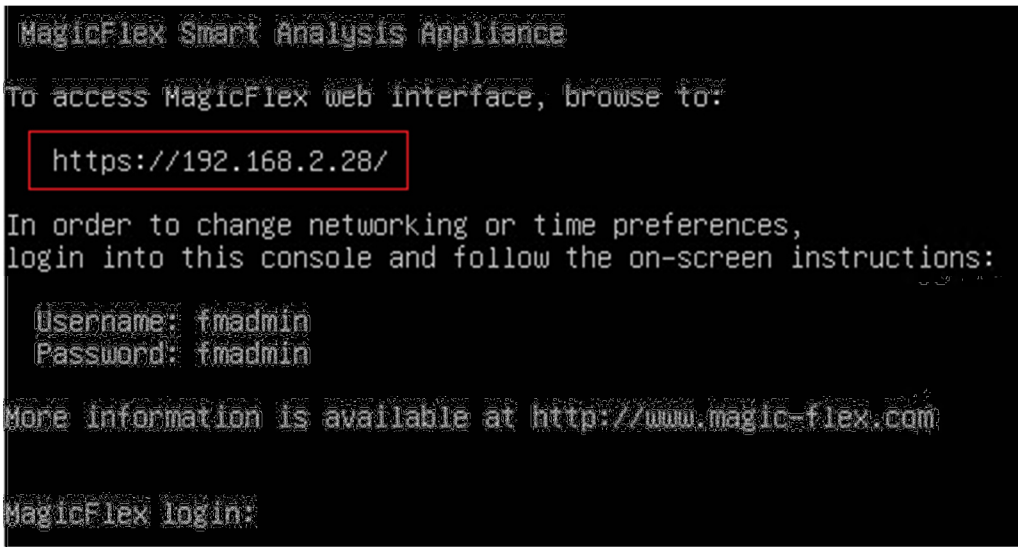


3.1.1.2 VMware - Display Appliance IP Address from Console

Right click on the MagicFlex virtual machine in the vCenter inventory, and select Open Console.

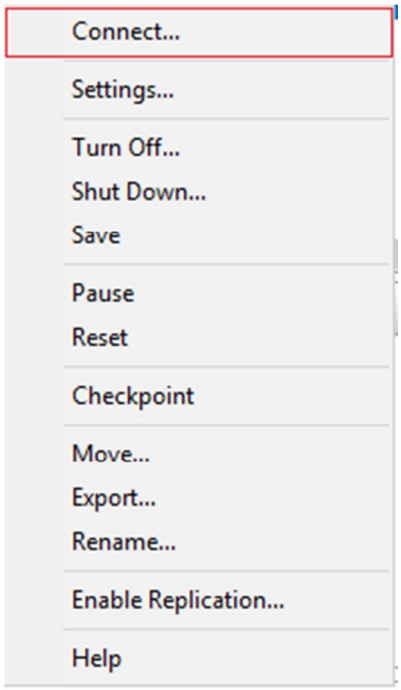


The IP address is displayed on the login screen.

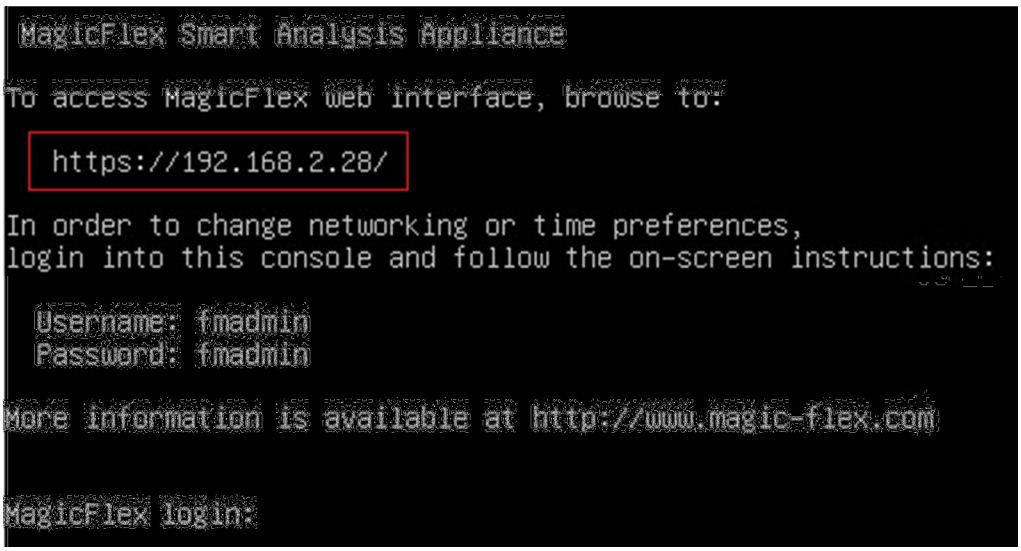


3.1.2 Hyper-V - Display Appliance IP Address

Right click on the MagicFlex virtual machine in Hyper-V inventory, and select Connect.



The IP address is displayed on the login screen.



3.2 Mode of Operation

3.2.1 Select Mode of Operation

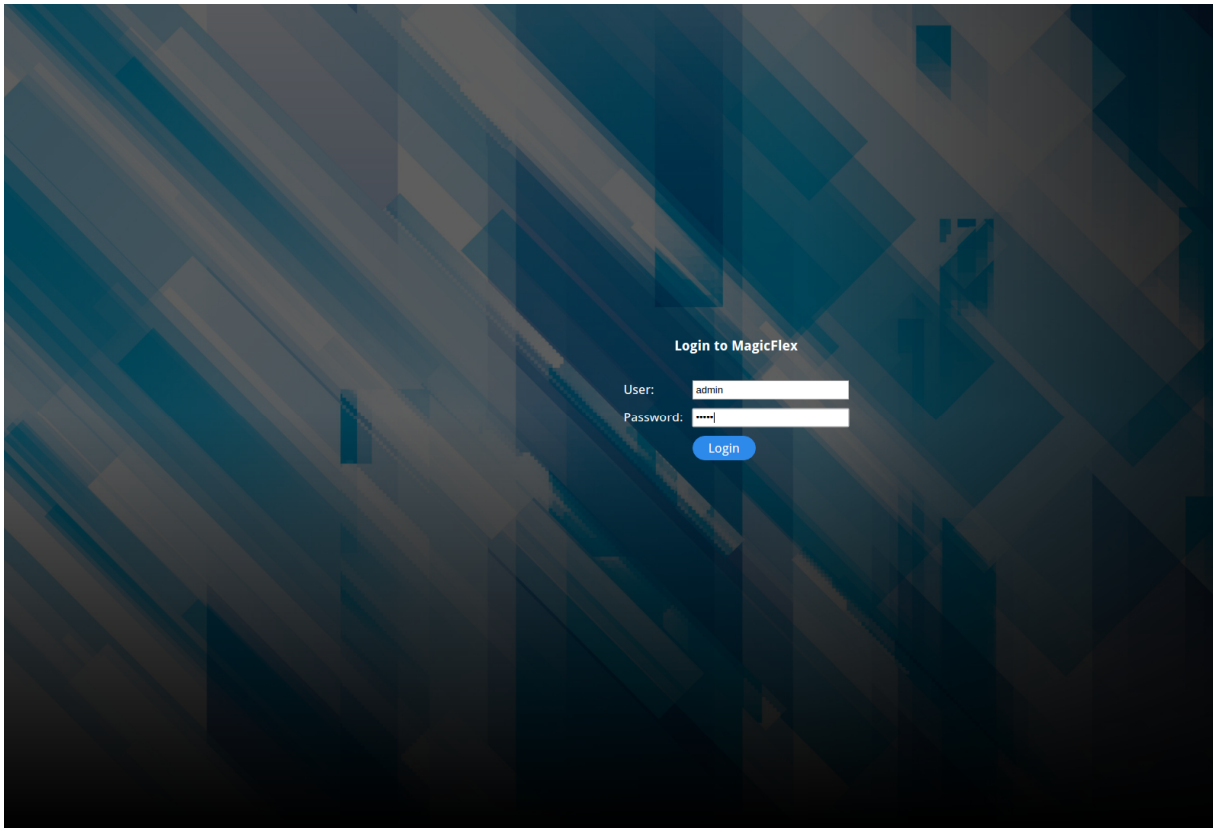
The opening screen of MagicFlex for the initial installation:

From the Mode Selection window, choose the mode that you will be working with. Please note that this selection must correspond to the order you made to MagicFlex when requesting your version:

- Interactive – Set up MagicFlex Interactive Mode
- Data Center Report – Set up MagicFlex Data Center Report Mode
- HPE Enclosure Report – Set up MagicFlex Single Enclosure Report Mode

3.2.2 Login to MagicFlex

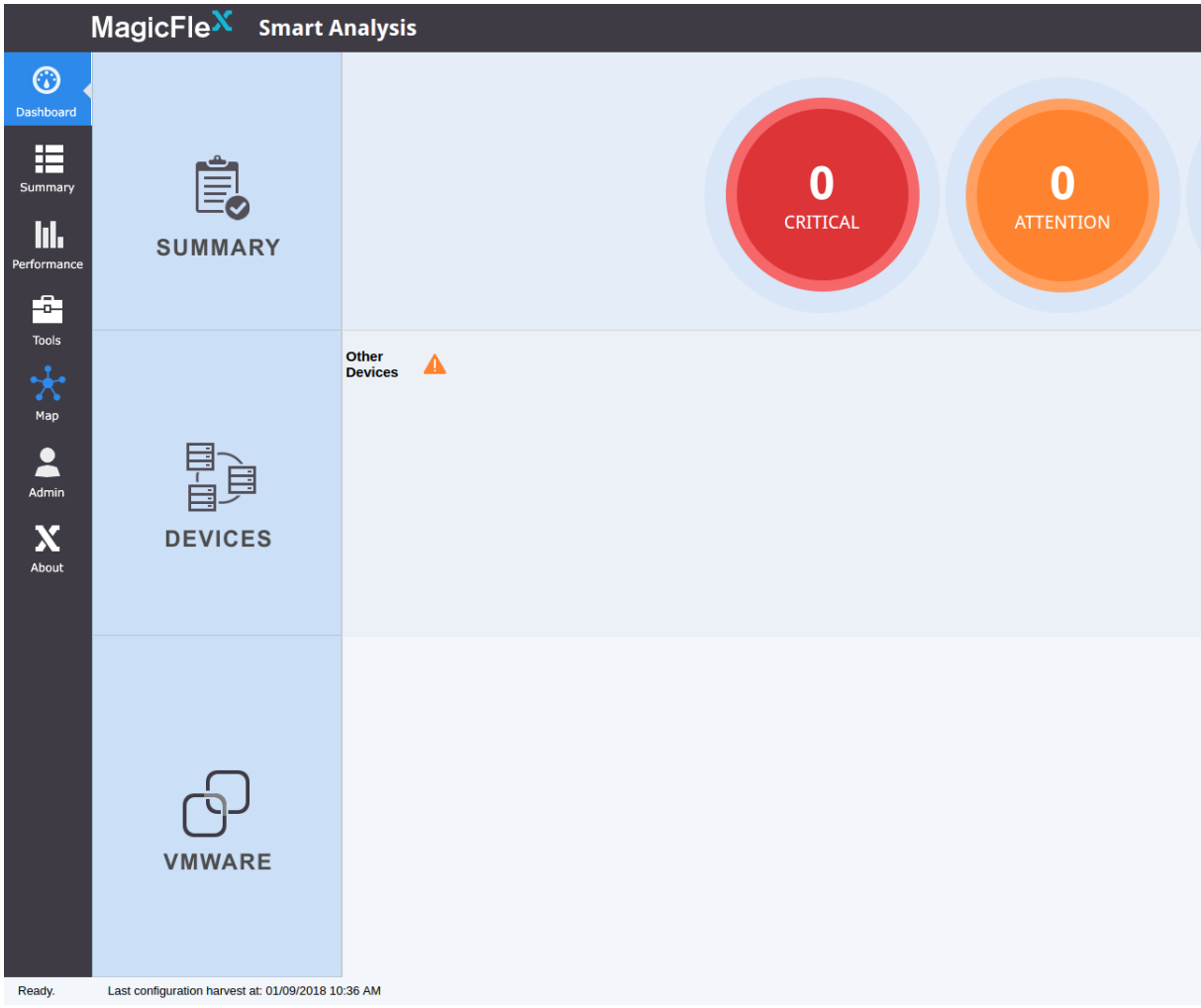
Login to the MagicFlex System



The default User and Password are “admin”.

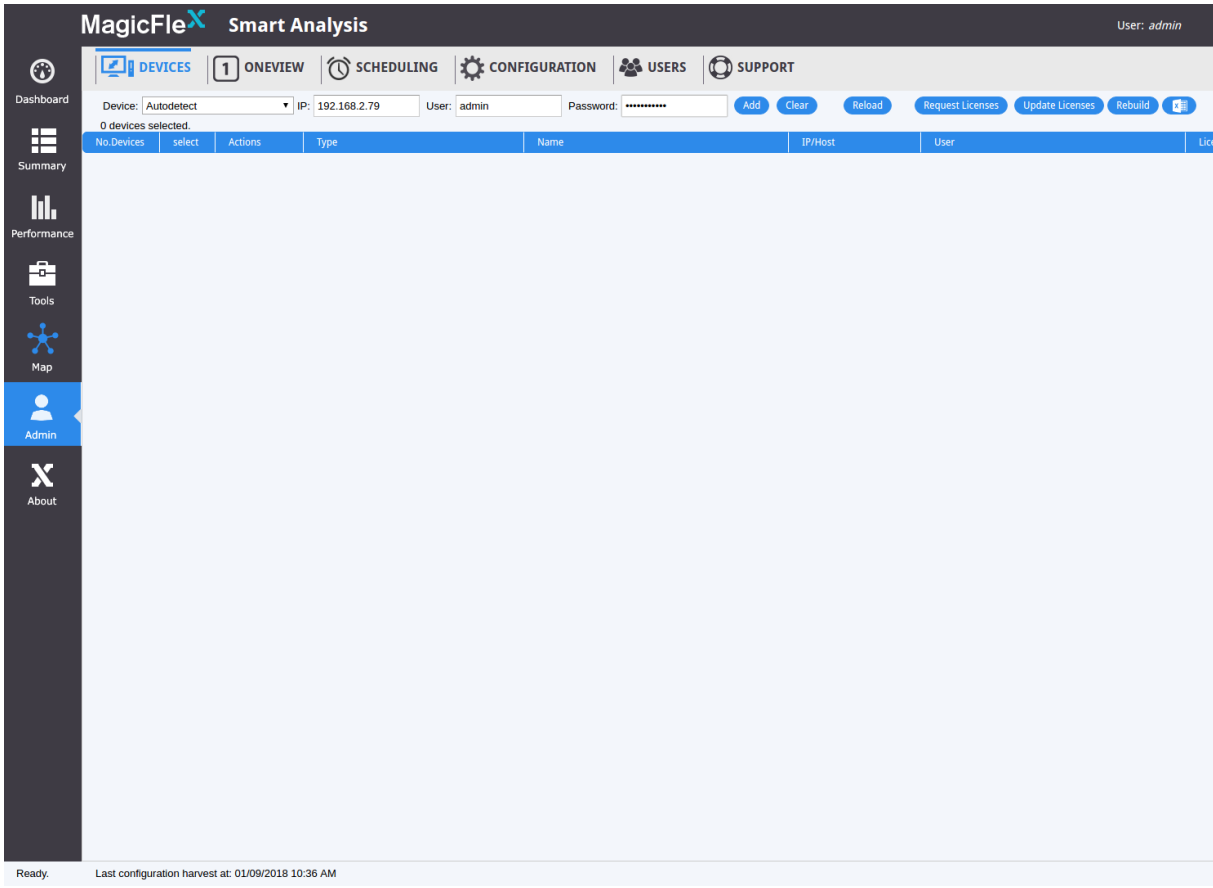
3.3 Configure Device IP Addresses for Interactive Mode

After you have logged into MagicFlex successfully, you will see the opening screen:



Click on the right-side menu option Admin to display the screen to add devices.

The screen will be displayed to add devices to MagicFlex.



3.3.1 Add Virtual Connect, SAN/LAN, Onboard Administrator to MagicFlex

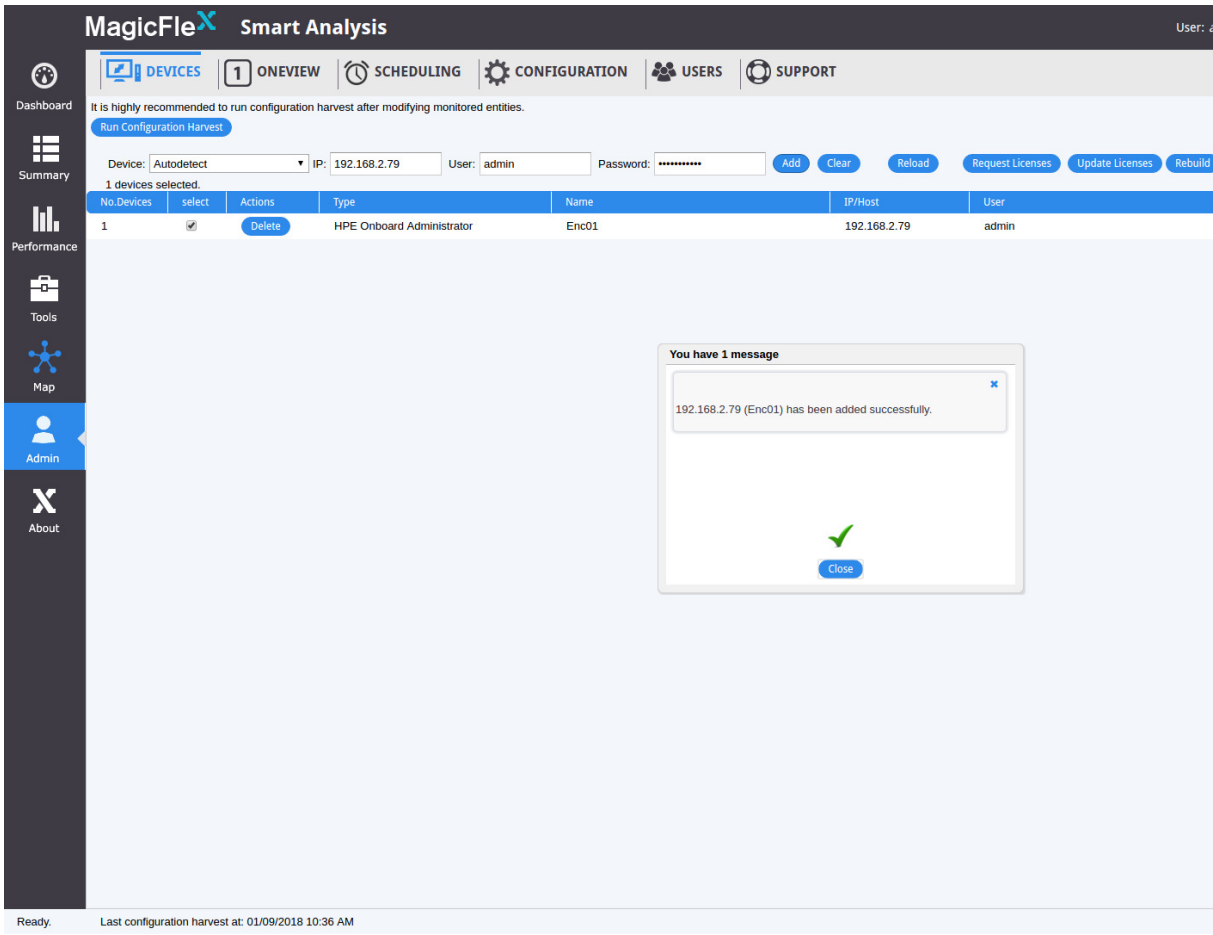
Leave the device setting as the default "Autodetect" when adding:

- Virtual Connect Domains
- Onboard Administrators
- SAN/LAN devices (if relevant)

Please note that if you are using OneView to manage your datacenter, you do not need to add the individual Virtual Connect and Onboard Administrator IP addresses. Instead, you should add OneView (see section 3.3.3), and MagicFlex will automatically detect the associated Virtual Connect and Onboard Administrator IP addresses.

For other devices, including HPE Virtual Connect Domains not managed by HPE OneView, HPE Onboard Administrators, LAN switches and SAN switches:

1. Configure the Device parameters.
   a. In the **IP** text box, enter the device IP address.
   b. In the **User** text box, enter the device username.
   c. In the **Password** text box, enter the device password.
2. Click **Add**.



3.3.2 Add VMware vCenter to your MagicFlex Environment

Select the device setting VMware vCenter to add vCenters.

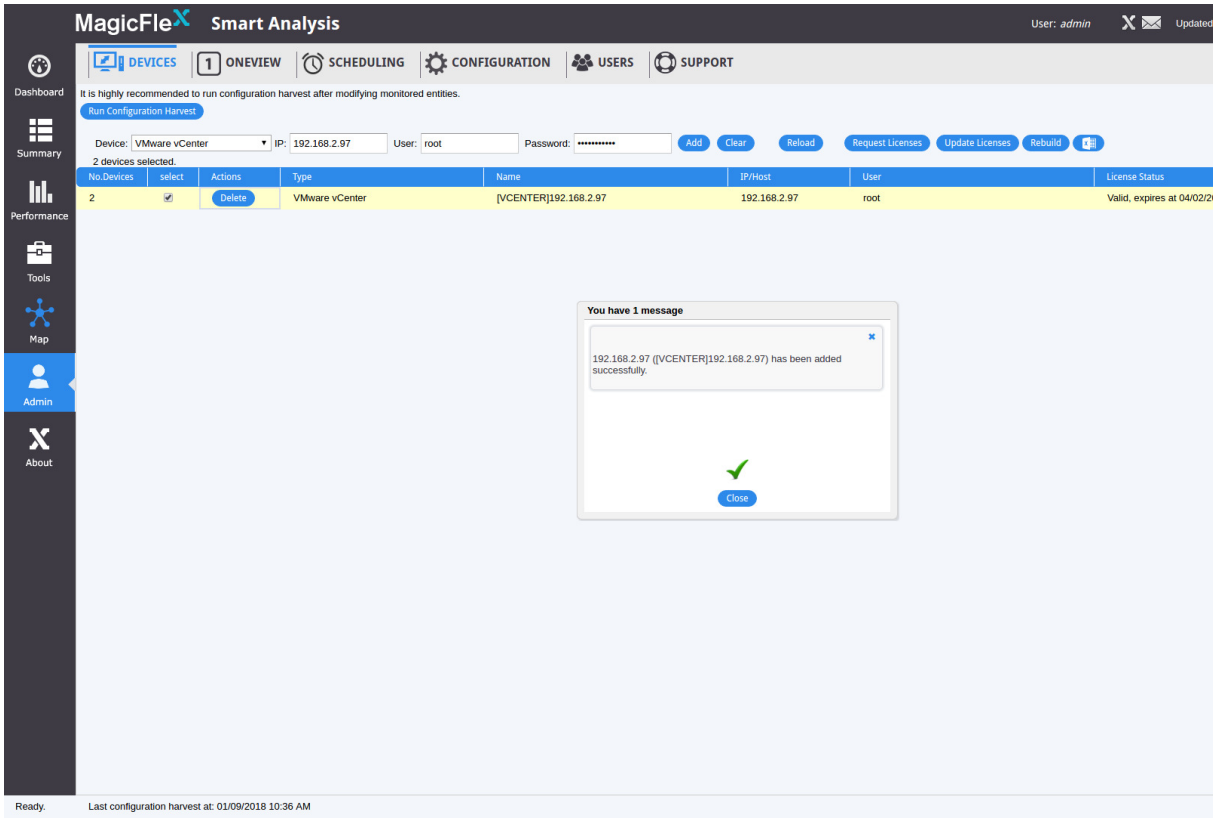
Enter each vCenter that will be part of the MagicFlex analysis:

1. Configure the vCenter parameters.
   a. In the **IP** text box, enter the vCenter IP address.

b. In the **User** text box, enter the vCenter username.

c. In the **Password** text box, enter the vCenter password.

2. Click **Add**.



3.3.3 Add OneView to your MagicFlex Environment

If the Virtual Connect enclosures that will be analyzed are managed by HPE OneView, click on the upper menu option OneView to add OneView to MagicFlex:

1. Configure the OneView appliance parameters.

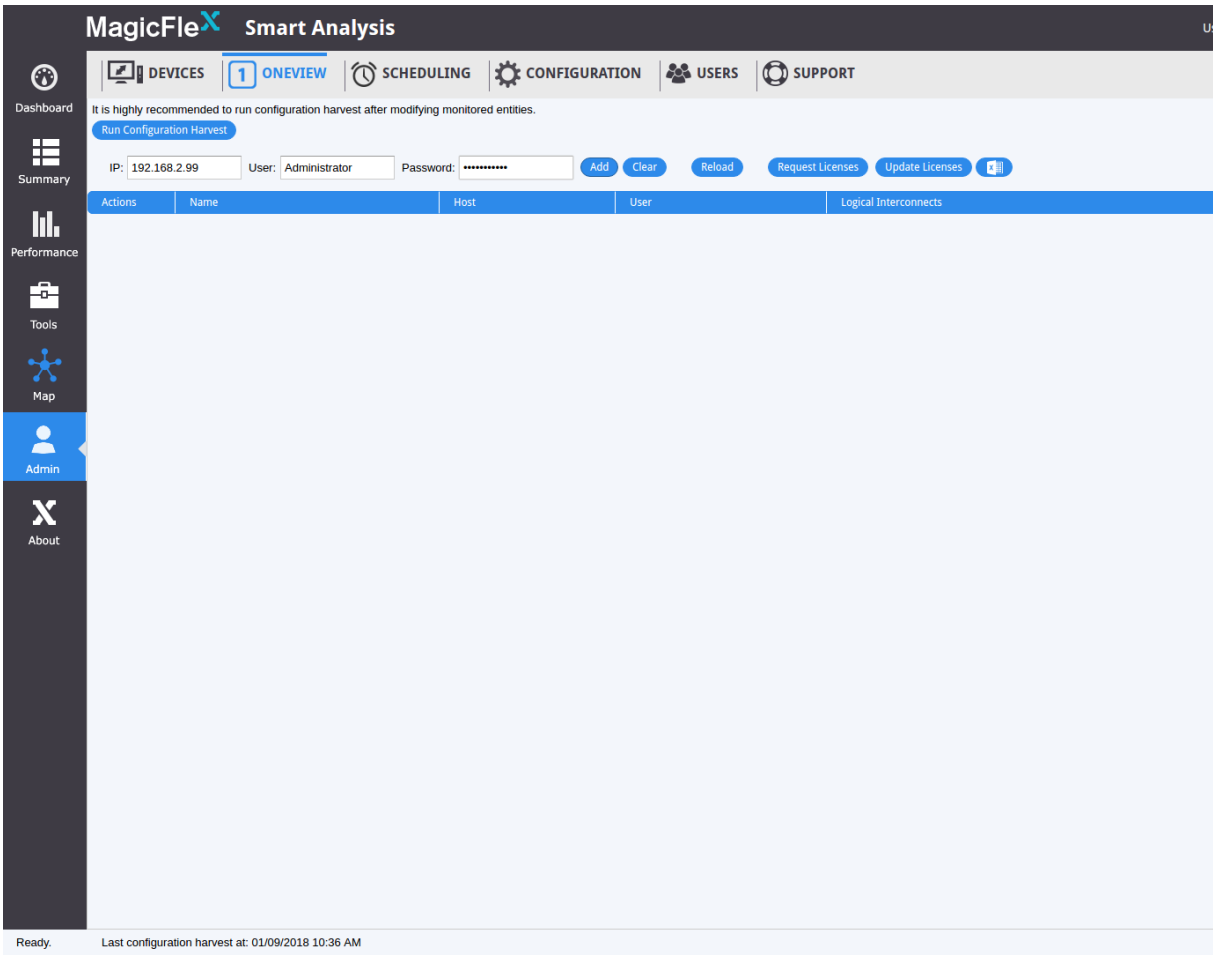
   a. In the **IP** text box, enter the OneView appliance IP address.

   b. In the **User** text box, enter the OneView appliance username.

   c. In the **Password** text box, enter the OneView appliance password.

2. Click **Add**.

Please note that MagicFlex will get to the IP addresses of the Virtual Connects and Onboard Administrators from OneView. Thus, the IP addresses of the Virtual Connects and Onboard Administrators do not need to be added to MagicFlex manually when using OneView.

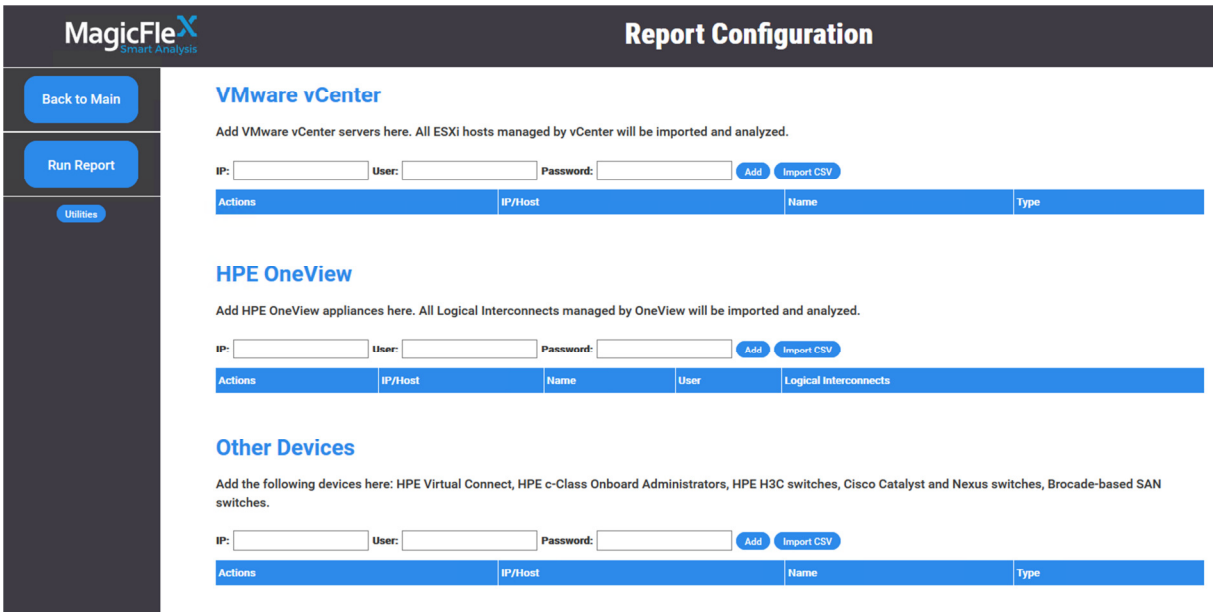


3.4 Configure Device IP Addresses for Data Center Mode

First, click on the left-menu option, Run Report.

Then, from the Report Configuration window:

- Add VMware vCenter to your MagicFlex environment
- Add OneView to your MagicFlex environment (if relevant)
- Add Additional Devices to your MagicFlex environment, including:
  - Virtual Connect Domains
  - Onboard Administrators
  - SAN/LAN devices (if relevant)
- Run a configuration harvest and generate report



3.4.1 Add VMware vCenter to your MagicFlex Environment

Enter each vCenter that will be part of the MagicFlex analysis:

1. Configure the vCenter parameters.
   a. In the **IP** text box, enter the vCenter IP address.
   b. In the **User** text box, enter the vCenter username.
   c. In the **Password** text box, enter the vCenter password.
2. Click **Add**.

3.4.2 Add HPE OneView to your MagicFlex Environment

If the Virtual Connect enclosures that will be analyzed are managed by HPE OneView:

1. Configure the OneView appliance parameters.
   a. In the **IP** text box, enter the OneView appliance IP address.
   b. In the **User** text box, enter the OneView appliance username.
   c. In the **Password** text box, enter the OneView appliance password.
2. Click **Add**.

3.4.3 Add Additional Devices (HPE Virtual Connect Domains, HPE Onboard Administrators, LAN/SAN switches) to your MagicFlex Environment

For other devices, including HPE Virtual Connect Domains not managed by HPE OneView, HPE Onboard Administrators, LAN switches and SAN switches:

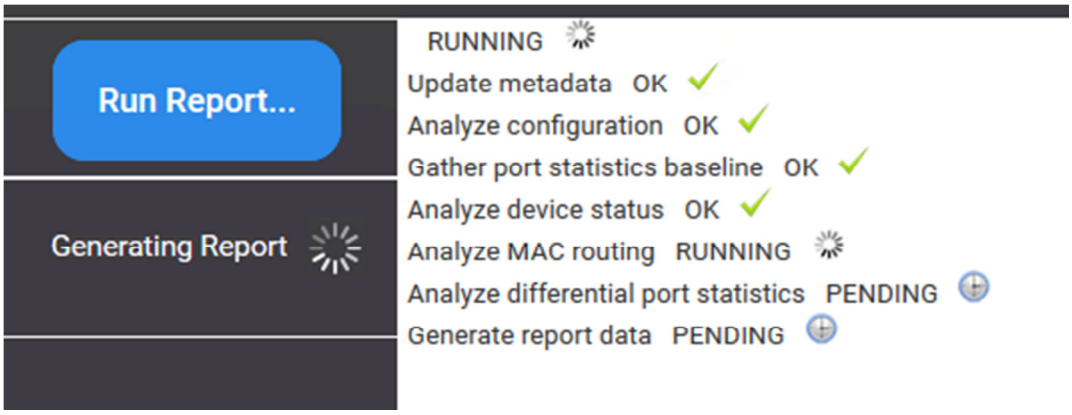
1. Configure the Device parameters.
    a. In the **IP** text box, enter the device IP address.
    b. In the **User** text box, enter the device username.
    c. In the **Password** text box, enter the device password.
2. Click **Add**.

Please note, if you are using OneView to manage your data center, you do NOT need to add Virtual Connect Domains or Onboard Administrators individually. MagicFlex will find them automatically from OneView.

3.4.4 Run a Harvest/Report

You can now create your report by clicking on the **Run Report** left-side menu option.

The Run Report will open up a window that goes through the process of harvesting the data, then creating and presenting the report.



This process consists of three steps performed automatically when you choose the Run Report option:

1. Running a Harvest, to gather the necessary information from the devices allocated to MagicFlex.
2. MagicFlex performs the analysis, using complex algorithms, best practices vendor advisories/recipes.

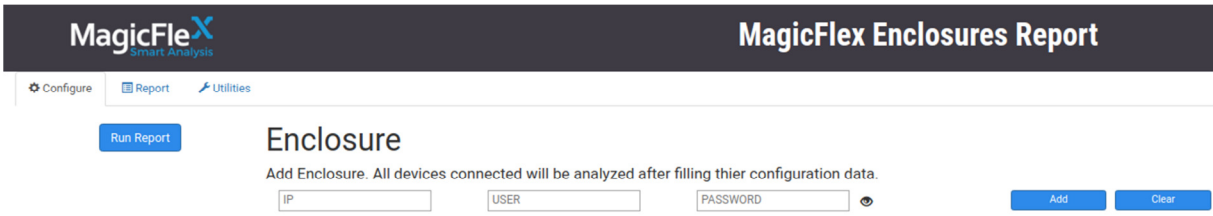
3. MagicFlex will present an abbreviated report, which you can review online, store as a file, and/or print.

3.5 Configure Device IP Addresses for Enclosure Mode

3.5.1 Add Enclosure to your MagicFlex Environment

Enter one of the devices (Virtual Connect, SAN Switch, LAN Switch, or Onboard Administrator) residing in the enclosure that will be part of the MagicFlex analysis:

1. Configure the device parameters.
   a. In the **IP** text box, enter the device IP address.
   b. In the **User** text box, enter the device username.
   c. In the **Password** text box, enter the device password.
2. Click **Add**.

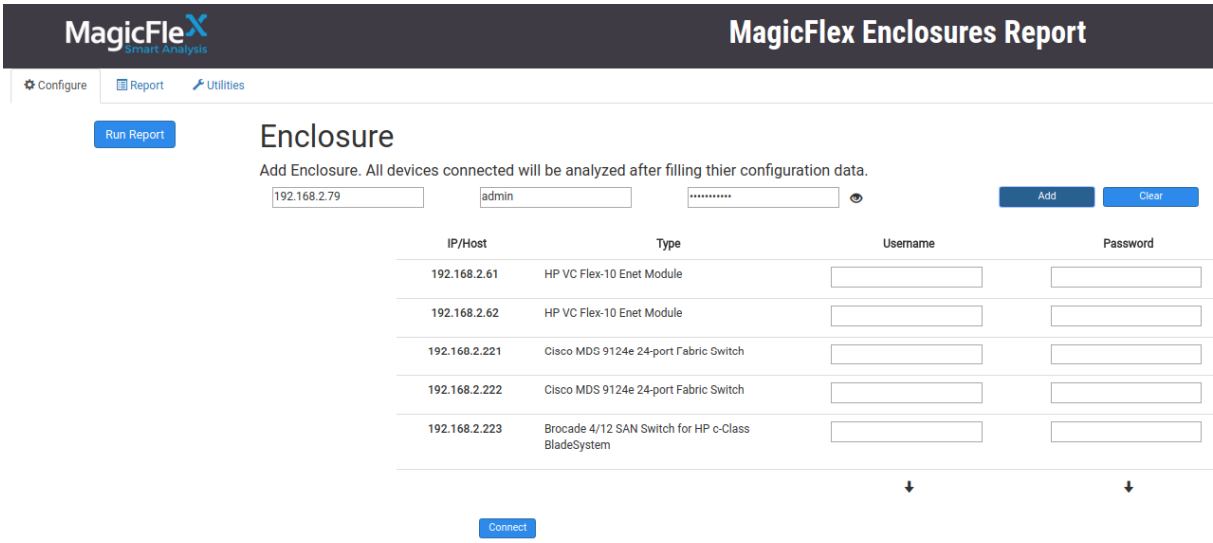


From this device, MagicFlex will automatically be able to detect all other devices residing in the same physical enclosure.

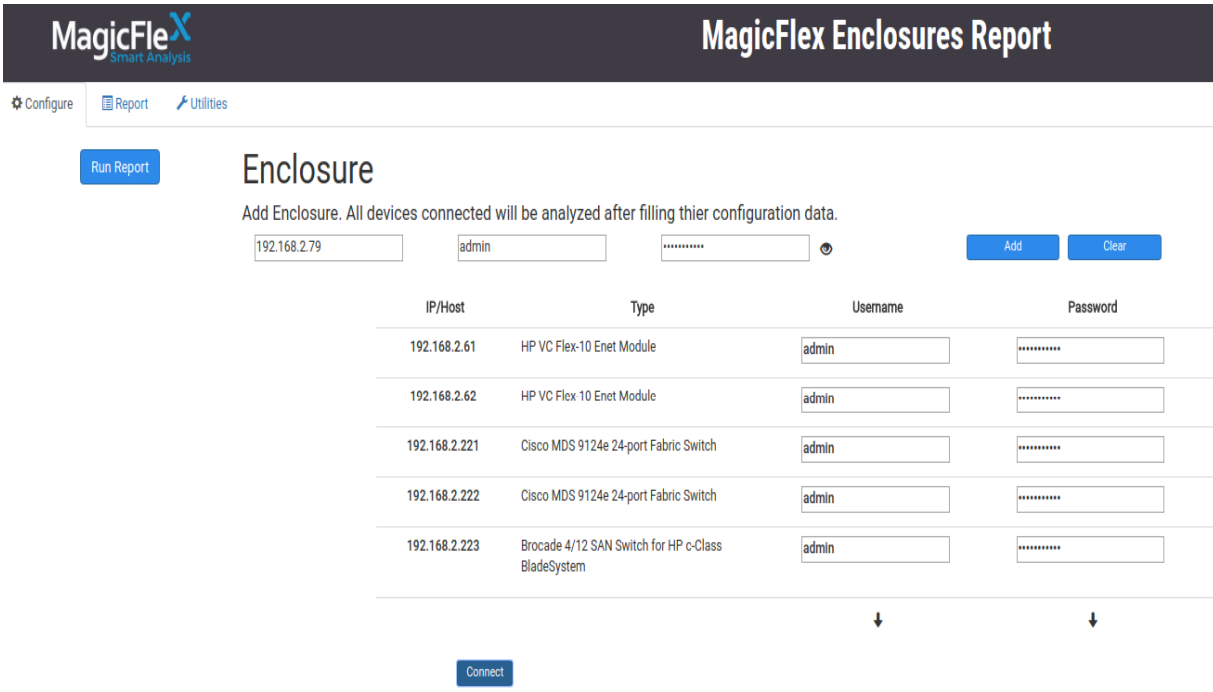
3.5.2 Provide Access Details to Devices in Enclosure

A list of devices found in the enclosure will be displayed. For each device, add the username and password. When you are finished, click on the Connect button to connect.

Note: if all (or many) of the devices have the same username/password, you can use the arrows at the bottom to copy the definition for the first device to the additional devices. Afterwards, you can edit as necessary.



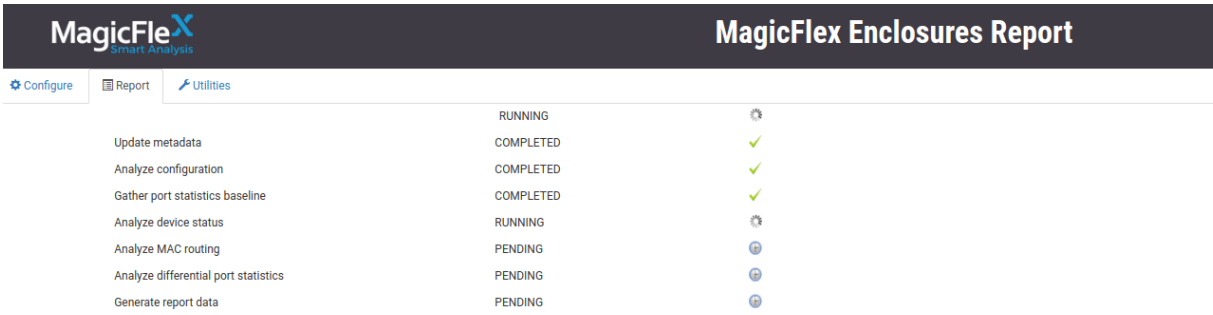
The status column will display the connection status as MagicFlex discovers the enclosure.



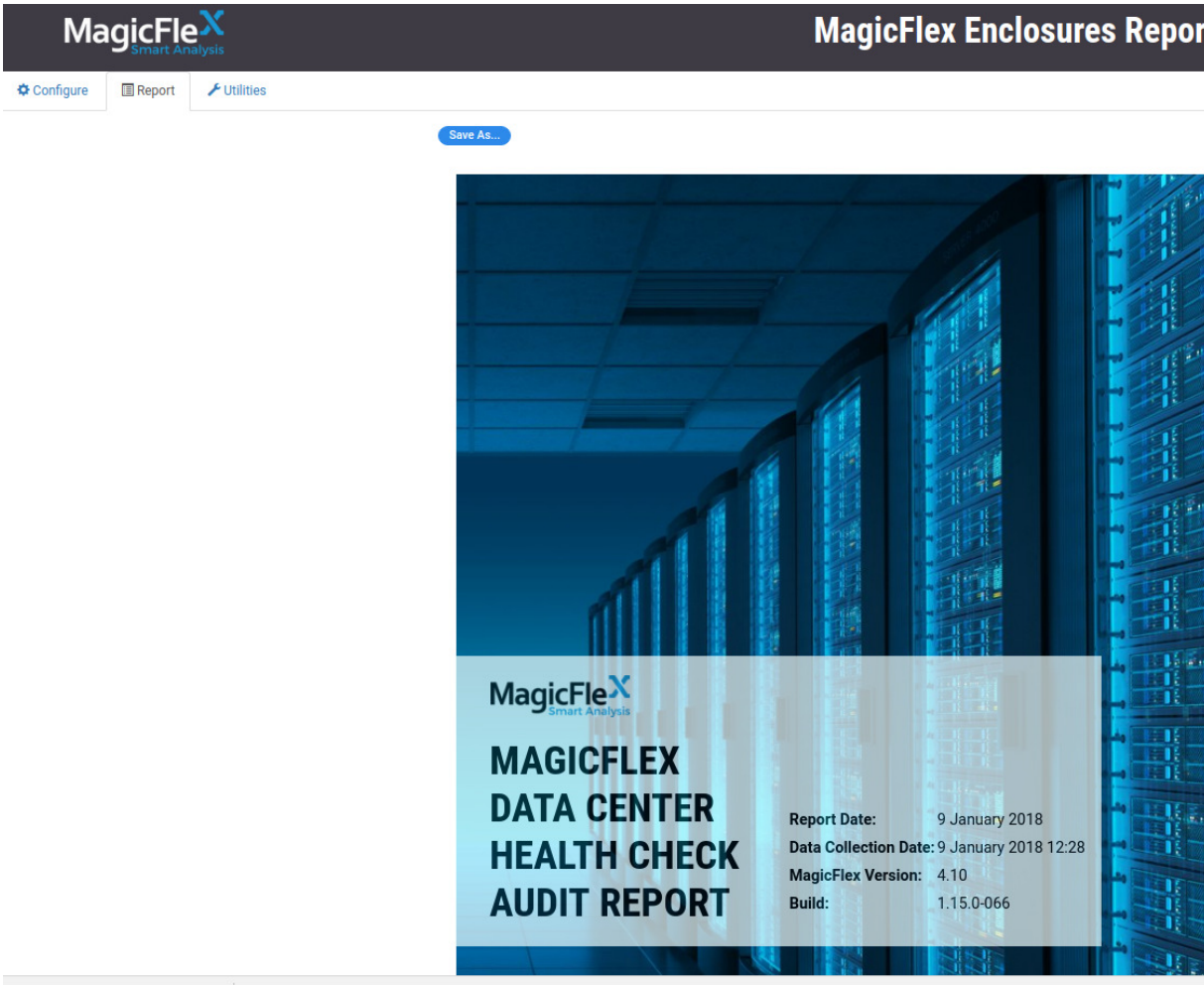
When the discovery process is complete, click on the Run Report button to create the report.

3.5.3 Run Enclosure Report

A screen will be displayed that automatically provides updates of the status of the report creation process.



When all steps are complete, the report will be displayed.


MagicFlex Smart Analysis
MagicFlex Enclosures Repor
Configure
Report
Utilities
Save As...
MagicFlex Smart Analysis
MAGICFLEX
DATA CENTER
HEALTH CHECK
AUDIT REPORT
Report Date: 9 January 2018
Data Collection Date: 9 January 2018 12:28
MagicFlex Version: 4.10
Build: 1.15.0-066