AirDefense 10.6.2-05 Release Notes

AirDefense 10.6.2-05 Release Notes

1. New Features in AirDefense 10.6.2-05

The AirDefense 10.6.2-05 release introduces the following key features and functionalities:

1. Automatic addition of Security Profiles for the SSIDs imported as part of XIQ.
2. Automatic Import Floor Plan and Sensor Placement from XIQ
3. Persist added columns in the Network Devices and Alarms screens across login sessions.
4. Change default columns for the Polled, BSS, and Wireless Client Listing table.
5. 6 GHz support for XIQ sensors

Version Compatibility

The 10.6.2-05 is available in both ISO & SM release .

1. 10.6.2-05 ISO release. This can be used to install ADSP on a new server or on 10.5-05 ISO also.

2. 10.6.2-05 Service Module 3 (SM3) release. This is a SM upgrade on ADSP server. 10.6.1-07 SM2 installation is mandatory before upgrading to this release.

For existing customers who would like to upgrade to 10.6.2-05, AirDefense is an entitled Product and requires an active support contract.

Firmware Version Compatibility

AirDefense 10.6.2-05 has been tested for compatibility against

- WiNG 7.9.4.0
- XIQC 10.09.01
- XIQ 24r3 and higher

6 GHz validated Sensor Models and Interop Build version

Sensor Model	Campus/Identifi Interop build
AP 5010	10.9.1.0-038R
AP 3000	10.9.1.0-038R
AP 4000	10.9.1.0-038R

2.4 GHz/5 GHz Supported Sensor Model and Interop Build version validated

Sensor Model	WING Interop build
AP 5010, AP5010u	WING 7.9.4.0
AP 410C-1	WING 7.9.4.0
AP 302w	WING 7.9.4.0
AP 305C-1	WING 7.9.4.0
AP 505i	WING 7.9.4.0
AP 310i, AP410i, AP510i	WING 7.9.4.0

Sensor Model	Identifi Interop build
AP 5010, AP5010u	10.9.1.0
AP 410C-1	10.9.1.0
AP 302w	10.9.1.0
AP 305C-1	10.9.1.0
AP 505i	10.9.1.0
AP 460c	10.9.1.0
AP 310i, AP410i, AP510i	10.9.1.0
AP 5050D, AP5050U	10.9.1.0

Sensor Model	XIQ/HOS
AP410C, AP460C	10.6.7
AP4000	10.6.7
AP510CX	10.6.7
AP302w	10.6.7
AP305c-1	10.6.7
AP5010, AP5010U	10.6.7
AP3000, AP3000X	10.6.7
AP5050D, AP5050U	10.6.7

Please see the section titled “DFS Tables, Sensor and Radio Share” in the corresponding WiNG release notes for a detailed matrix of sensor features supported for each access point in that WiNG release.

Extreme Campus Controller Version Compatibility

AirDefense 10.6.2-05 has been tested for compatibility against

- Extreme Campus Controller 10.9.1.0

Hardware Appliances

- Model NX-9500
- Model NX-9600

Virtual Platforms

- VMWare EXSi Hypervisor 5.5, 6.0, 6.5,7.0

Supported WiNG Wireless Access Points

- AP 6522, AP 6562
- AP 7161
- AP 7522, AP 7532, AP 7562
- AP 8163
- AP 8533
- AP 8432
- AP 7602
- AP 7622
- AP 7612, AP 7632, AP 7662
- AP 505, AP 510, AP 560
- AP 410, AP 460
- AP 310, AP 360

For feature support by WiNG release, please refer to the section titled "DFS Tables, Sensor and Radio Share" in the WiNG release notes.

Supported Extreme Wireless Access Points

- AP 3915
- AP 3916
- AP 3917
- AP 3912
- AP 3935
- AP 3965

Extreme CloudIQ Version Compatibility

AirDefense 10.6.2-05 has been tested for compatibility against

- XIQ (24R3)

Supported Extreme Wireless Access Points

- AP 410C/460C (10.6R1)
- AP305C/305CX
- AP302W
- AP4000
- AP5010/5010U
- AP5050D/5050U
- AP3000X/3000W
- AP510C

Extreme Switch Compatibility

- X440 (31.2.1.1 patch2-1)
- X590 (Firmware 30.5.1.15)

Supported Browsers

Browser	HTML5
Chrome	Version 122.0.6261.128 (Official Build) (64-bit)
Firefox	112.0.6261.128 (Official Build) (64-bit)
IE Edge	Version 123.0.2420.65 (Official build) (64-bit)

Supported OS

- Windows 7 Enterprise
- Windows 10 Enterprise
- Linux
- Mac (Thin Client Applications Only)

2. Installation

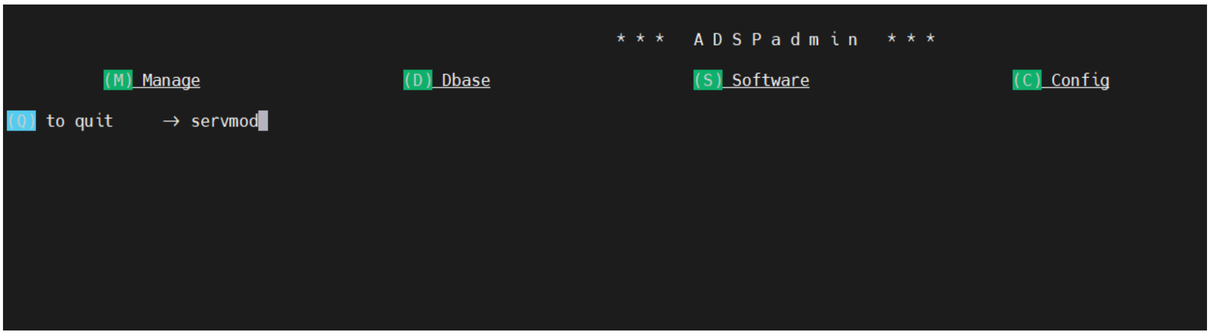
Appliance Installation of SM3 build

Please follow the below steps to upgrade an AirDefense system that is currently running a previous release of AirDefense firmware.

Note :- Installation of 10.6-1-07 is mandatory before installing 10.6.2-05 SM3.

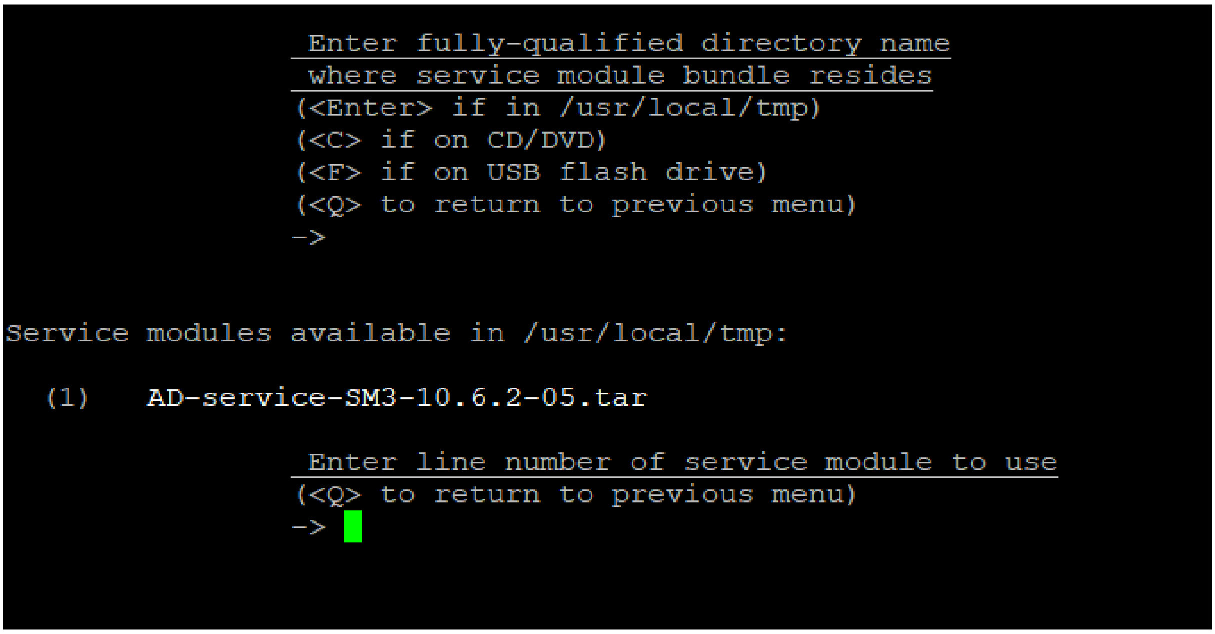
Step 1: - Copy AD-service-SM2-10.6.2-05.tar to /usr/local/tmp folder.

Step 2:- Run WIPSadmin command & type servmod . Press ENTER.



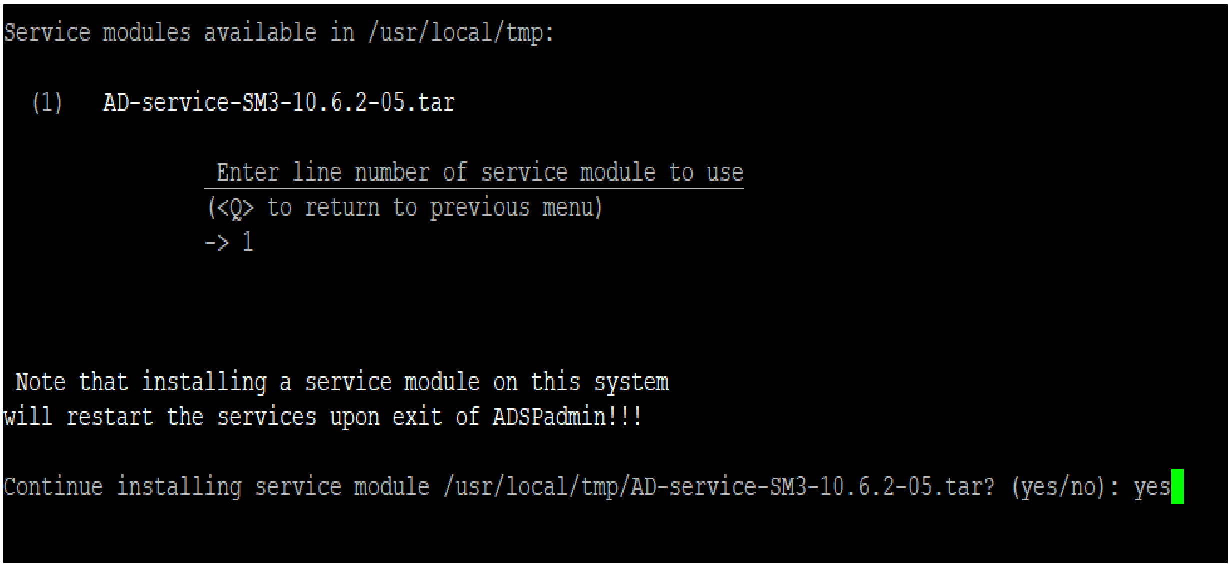
```
                                                  * * *   A D S P a d m i n   * * *

          (M) Manage                (D) Dbase                (S) Software                (C) Config

(Q) to quit     → servmod
```

Step 3:- Select appropriate tar file by entering its listed line number and Press ENTER



```
                              Enter fully-qualified directory name
                              where service module bundle resides
                             (<Enter> if in /usr/local/tmp)
                             (<C> if on CD/DVD)
                             (<F> if on USB flash drive)
                             (<Q> to return to previous menu)
                             ->


Service modules available in /usr/local/tmp:

  (1)    AD-service-SM3-10.6.2-05.tar

                              Enter line number of service module to use
                             (<Q> to return to previous menu)
                             ->
```

Step 4:- Type "yes"



```
Service modules available in /usr/local/tmp:

  (1)   AD-service-SM3-10.6.2-05.tar

                Enter line number of service module to use
               (<Q> to return to previous menu)
               -> 1



 Note that installing a service module on this system
will restart the services upon exit of ADSPadmin!!!

Continue installing service module /usr/local/tmp/AD-service-SM3-10.6.2-05.tar? (yes/no): yes
```

Appliance Installation of ISO build

Please follow the below steps to fresh install or upgrade an AirDefense system that is currently running any previous release of AirDefense firmware:

Ready the installation media

- Copy the file AD-adsp-10-6-2-05-dvd.iso file to the local machine
- If preferred installation media is DVD, burn the iso to an empty DVD
- If preferred installation media is USB flash drive, make the flash drive bootable from this iso. Use 3rd party tools like Rufus for this.
  Copy the iso file to the root directory of flash drive as well.
  Change the disk label of flash drive to "**ADSP-SETUP**"

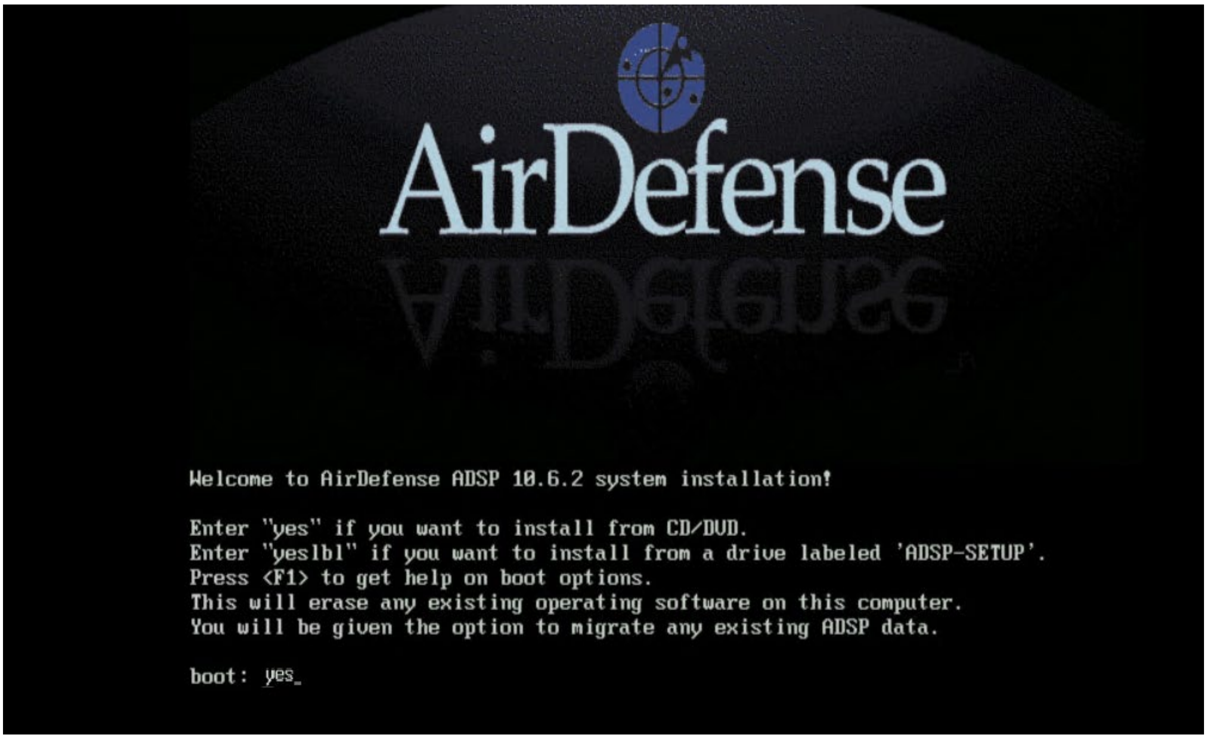
Insert the USB flash drive or DVD in NX and reboot the server. User will be provided with the following steps to install / upgrade to AD server 10.6.2-05.

The installation procedure varies between USB & DVD and between fresh install & upgrade.

1. The server will boot from the installation media to the boot prompt.

In DVD installation

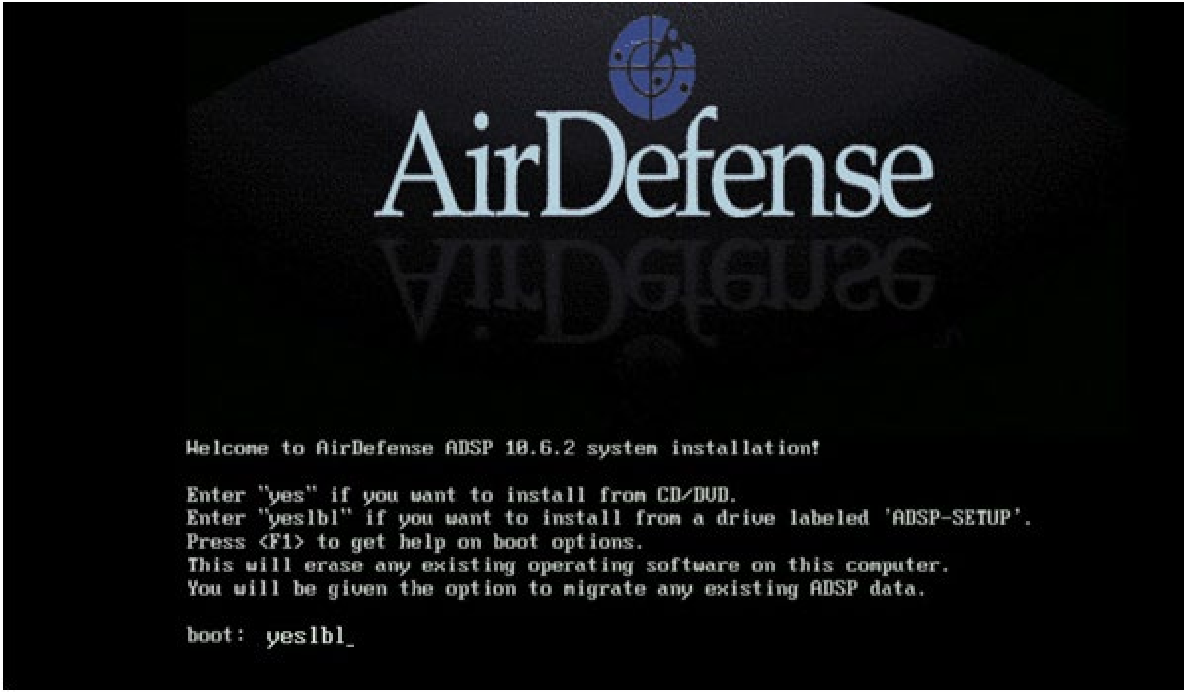
Type "yes" at the boot prompt & press 'Enter' to continue.



```
Welcome to AirDefense ADSP 10.6.2 system installation!

Enter "yes" if you want to install from CD/DVD.
Enter "yeslbl" if you want to install from a drive labeled 'ADSP-SETUP'.
Press <F1> to get help on boot options.
This will erase any existing operating software on this computer.
You will be given the option to migrate any existing ADSP data.

boot: yes_
```

In USB installation

Type “yeslbl” at the boot prompt & press ‘Enter’ to continue.

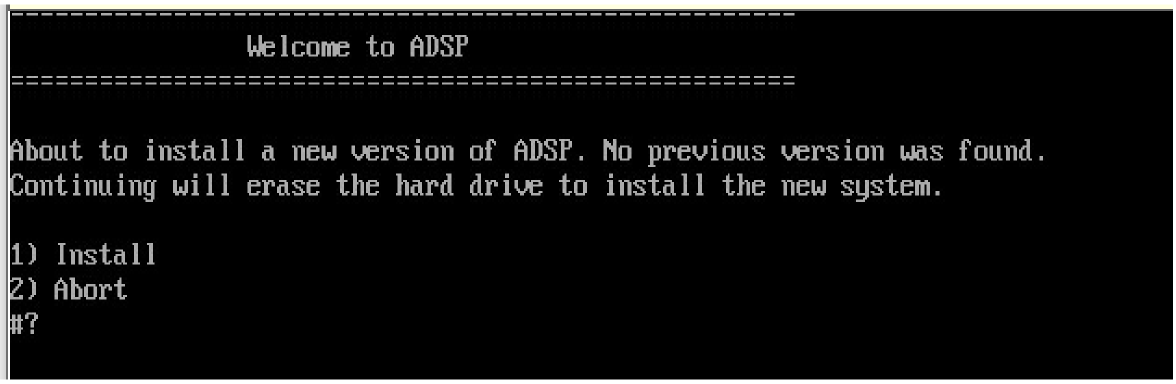


```
Welcome to AirDefense ADSP 10.6.2 system installation!

Enter "yes" if you want to install from CD/DVD.
Enter "yeslbl" if you want to install from a drive labeled 'ADSP-SETUP'.
Press <F1> to get help on boot options.
This will erase any existing operating software on this computer.
You will be given the option to migrate any existing ADSP data.

boot: yeslbl_
```

2. The server will continue and will provide the following options to select.

Fresh Install without any prior cnfiguration

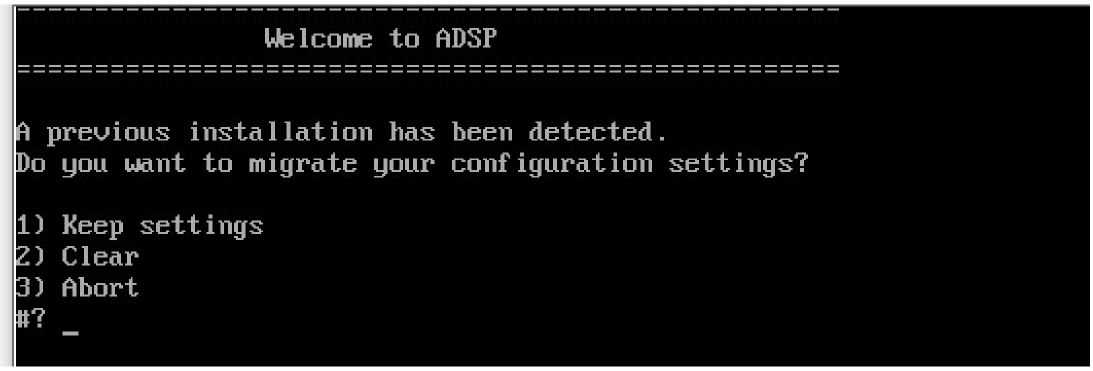
If it is a fresh install, select “1” & press ‘Enter’ to continue



```
====================================================
                Welcome to ADSP
====================================================

About to install a new version of ADSP. No previous version was found.
Continuing will erase the hard drive to install the new system.

1) Install
2) Abort
#?
```

Installation over previous configuration

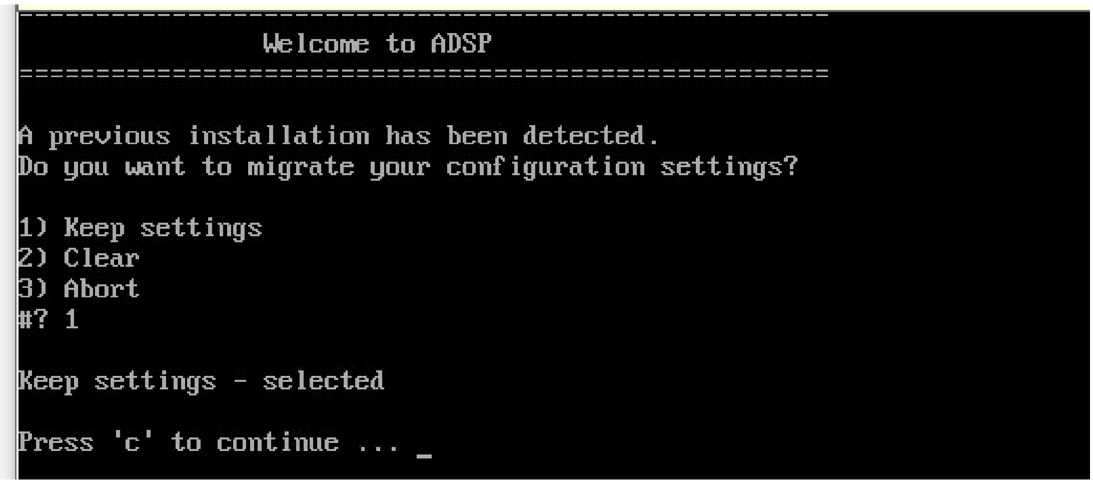
If the current server is running any of the previous version of AD, the user can:
choose ‘1’ to retain the running configuration, license & forensic files
(or)
choose ‘2’ to clear them & continue like a fresh installation (cleared files cannot be retrieved)



```
====================================================
                Welcome to ADSP
====================================================

A previous installation has been detected.
Do you want to migrate your configuration settings?

1) Keep settings
2) Clear
3) Abort
#? _
```

The ‘Keep Settings’ option will restore the configurations, license & forensic files on the new version AD 10.6.2-05.

3. User selected option is shown on the screen. Press ‘c’ to continue.
   If the shown option is not the desired, press ‘Ctrl + Alt + Del’ to abort & reboot.



```
=====================================================
                Welcome to ADSP
=====================================================

A previous installation has been detected.
Do you want to migrate your configuration settings?

1) Keep settings
2) Clear
3) Abort
#? 1

Keep settings - selected

Press 'c' to continue ... _
```

4. The product installation starts and will take minimum 10-15 minutes to complete.

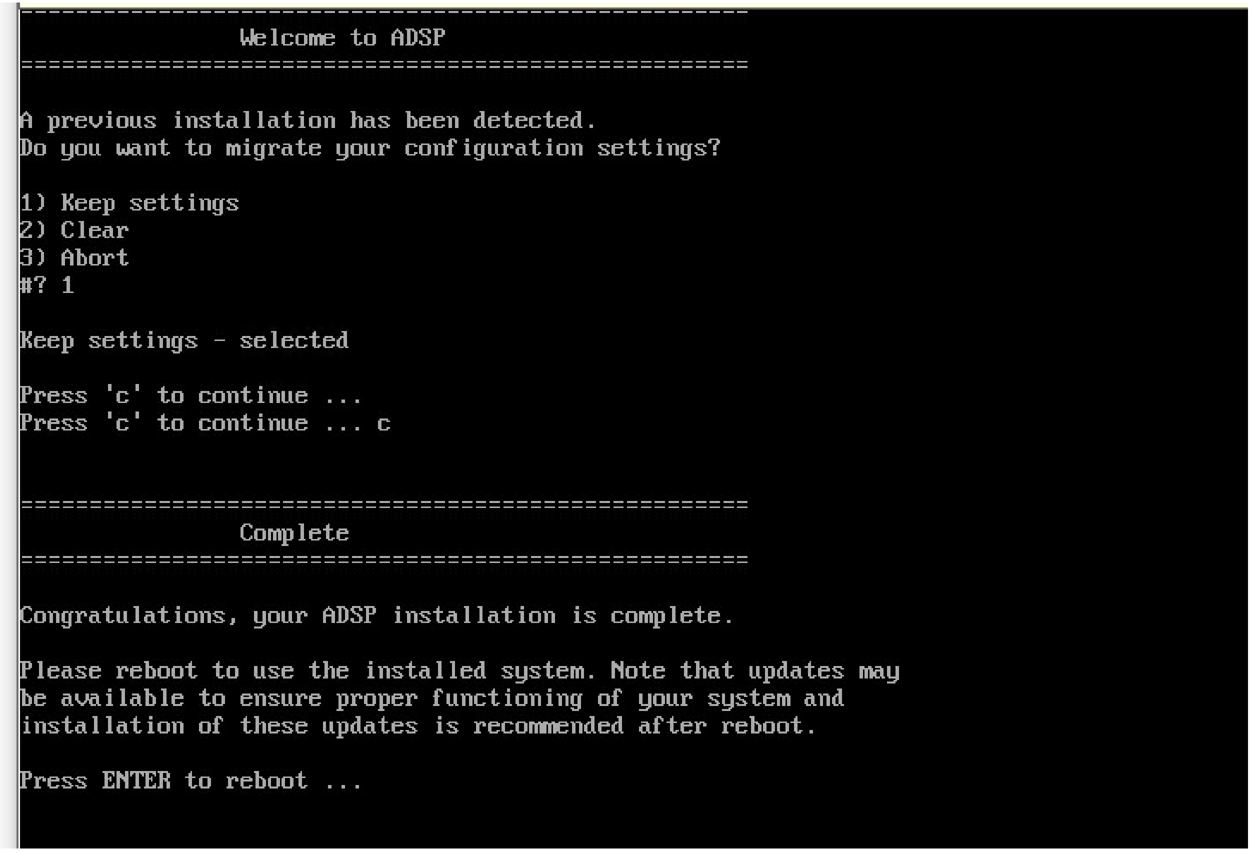
5. Once the installation completes, the user will be presented with the installation status.

<u>Installation complete</u>

Press ‘Enter’ to reboot the server.

NOTE: **DO NOT REMOVE THE USB OR DVD at this point.**

Please remove the USB flash drive or eject DVD only at next BIOS screen.



```
=====================================================
                Welcome to ADSP
=====================================================

A previous installation has been detected.
Do you want to migrate your configuration settings?

1) Keep settings
2) Clear
3) Abort
#? 1

Keep settings - selected

Press 'c' to continue ...
Press 'c' to continue ... c


=====================================================
                Complete
=====================================================

Congratulations, your ADSP installation is complete.

Please reboot to use the installed system. Note that updates may
be available to ensure proper functioning of your system and
installation of these updates is recommended after reboot.

Press ENTER to reboot ...
```

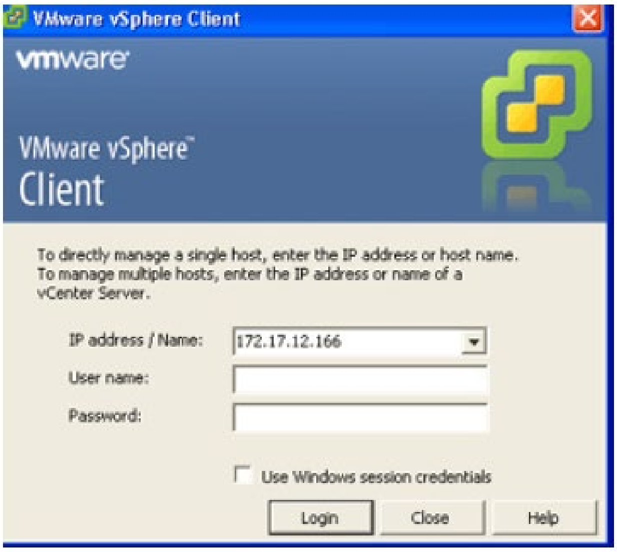
Install / Upgrade VM guest on ESXi

This document explains the procedure to create a new VM instance on VMware ESXi and install ADSP 10.6.2 from the bootable iso.

An existing VM instance, running any previous release of ADSP, can be upgraded to 10.6.2 with this iso.

The existing VM might have been created either by importing a ADSP ova or by installing from a ADSP iso. Both VMs can be upgraded. The procedure is the same for fresh install & upgrade unless mentioned. The procedure is explained using VMware ESXi 5.5. It is same on other versions as well.

1. Login into VMware vSphere Client



To directly manage a single host, enter the IP address or host name.
To manage multiple hosts, enter the IP address or name of a vCenter Server.

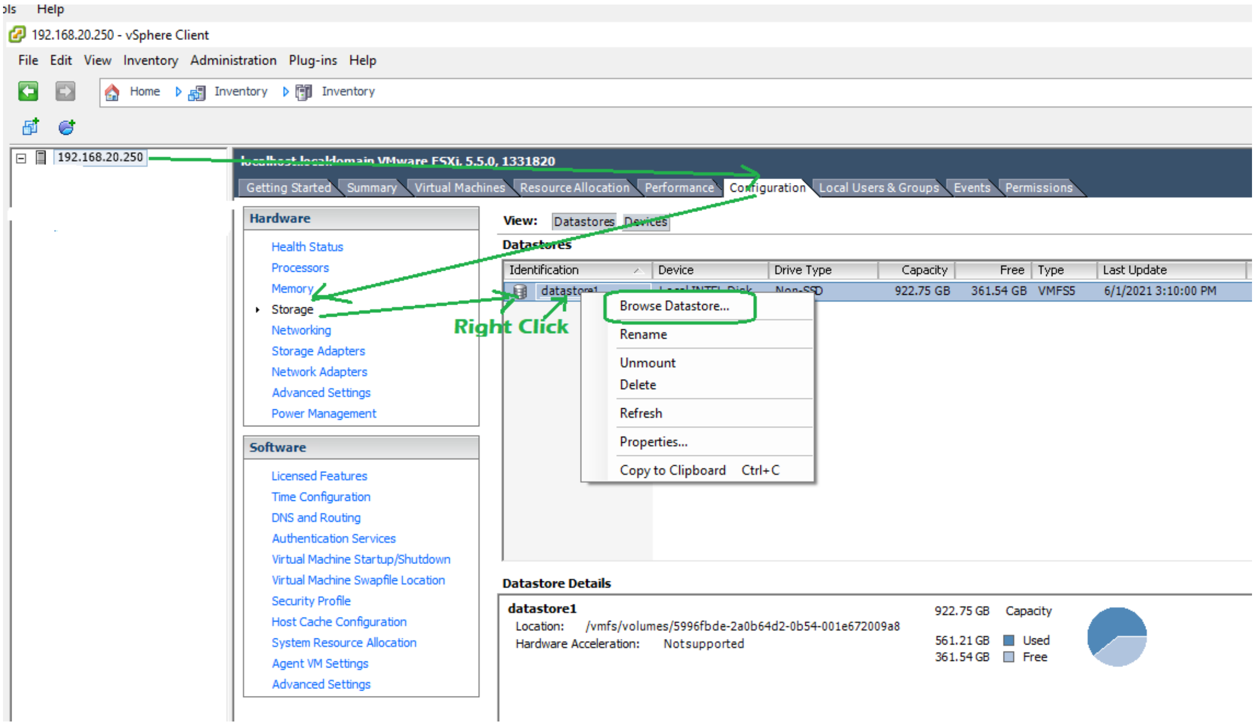
IP address / Name: 172.17.12.166

User name:

Password:

□ Use Windows session credentials

2. Select VMware hypervisor host → Context menu properties → Configuration tab → Storage → Browse the Datastore



Datastores

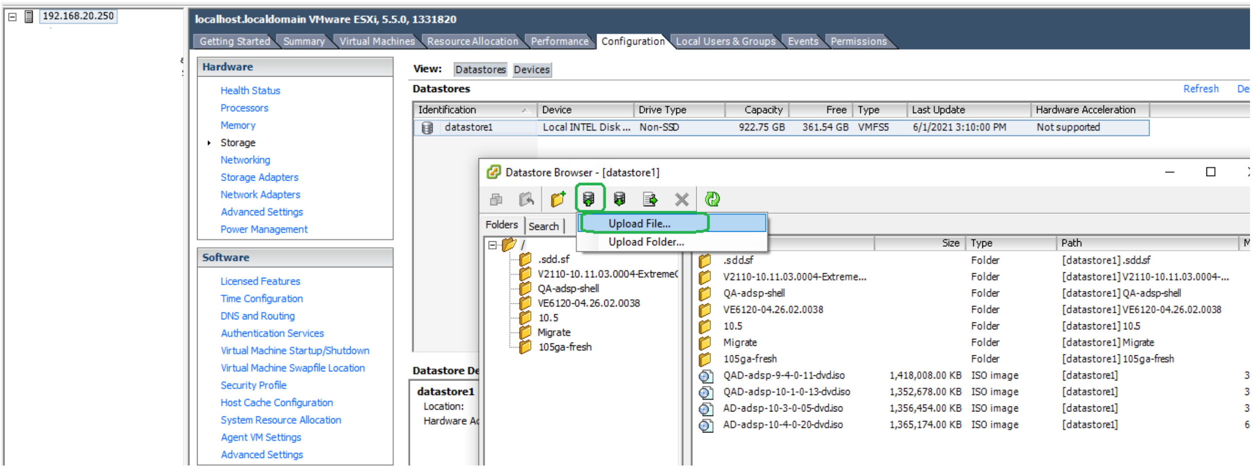
Identification	Device	Drive Type	Capacity	Free	Type	Last Update
datastore1	Local INTEL Disk	Non-SSD	922.75 GB	361.54 GB	VMFS5	6/1/2021 3:10:00 PM

Datastore Details

datastore1
Location: /vmfs/volumes/5996fbde-2a0b64d2-0b54-001e672009a8
Hardware Acceleration: Not supported

922.75 GB	Capacity
561.21 GB	Used
361.54 GB	Free

3. Upload the AD-adsp-10-6-2-05-dvd.iso into the datastore



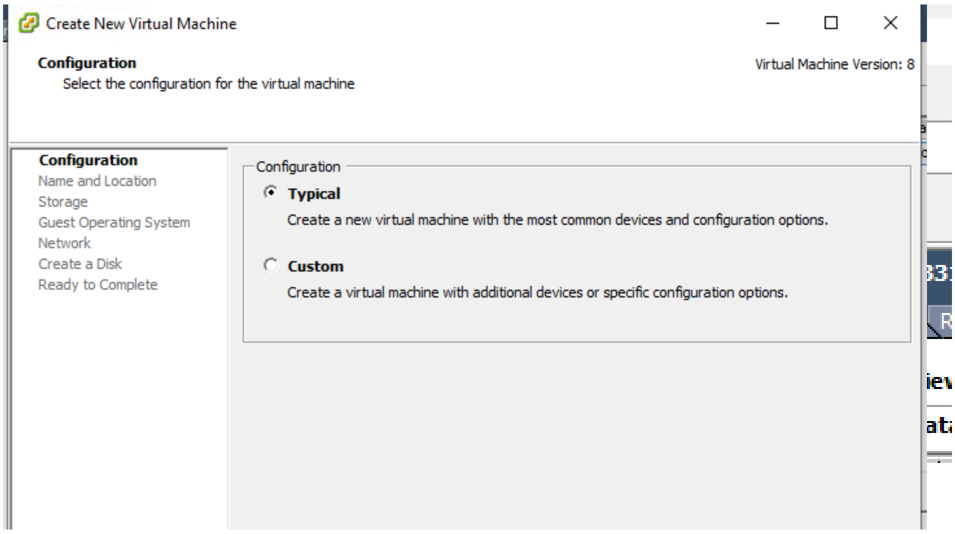
Datastores

Identification	Device	Drive Type	Capacity	Free	Type	Last Update	Hardware Acceleration
datastore1	Local INTEL Disk ...	Non-SSD	922.75 GB	361.54 GB	VMFS5	6/1/2021 3:10:00 PM	Not supported

	Size	Type	Path
.sdd.sf		Folder	[datastore1] .sdd.sf
V2110-10.11.03.0004-Extreme...		Folder	[datastore1] V2110-10.11.03.0004-...
QA-adsp-shell		Folder	[datastore1] QA-adsp-shell
VE6120-04.26.02.0038		Folder	[datastore1] VE6120-04.26.02.0038
10.5		Folder	[datastore1] 10.5
Migrate		Folder	[datastore1] Migrate
105ga-fresh		Folder	[datastore1] 105ga-fresh
QAD-adsp-9-4-0-11-dvd.iso	1,418,008.00 KB	ISO image	[datastore1]
QAD-adsp-10-1-0-13-dvd.iso	1,352,678.00 KB	ISO image	[datastore1]
AD-adsp-10-3-0-05-dvd.iso	1,356,454.00 KB	ISO image	[datastore1]
AD-adsp-10-4-0-20-dvd.iso	1,365,174.00 KB	ISO image	[datastore1]

4. Creating a new VM guest for ADSP.
Skip this step in-case of upgrade.

   a. Select File → New virtual Machine


Create New Virtual Machine

Configuration
Select the configuration for the virtual machine

Virtual Machine Version: 8

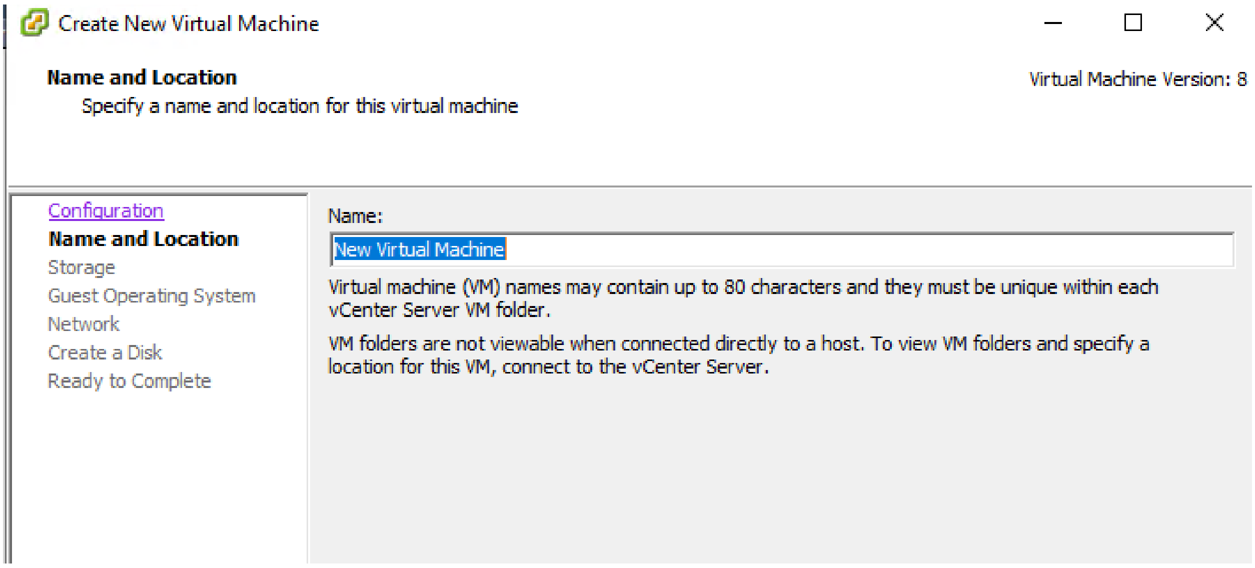
Configuration

● Typical
Create a new virtual machine with the most common devices and configuration options.

○ Custom
Create a virtual machine with additional devices or specific configuration options.

b. Select the typical configuration

c. Enter a name for the new VM


Create New Virtual Machine

Name and Location
Specify a name and location for this virtual machine

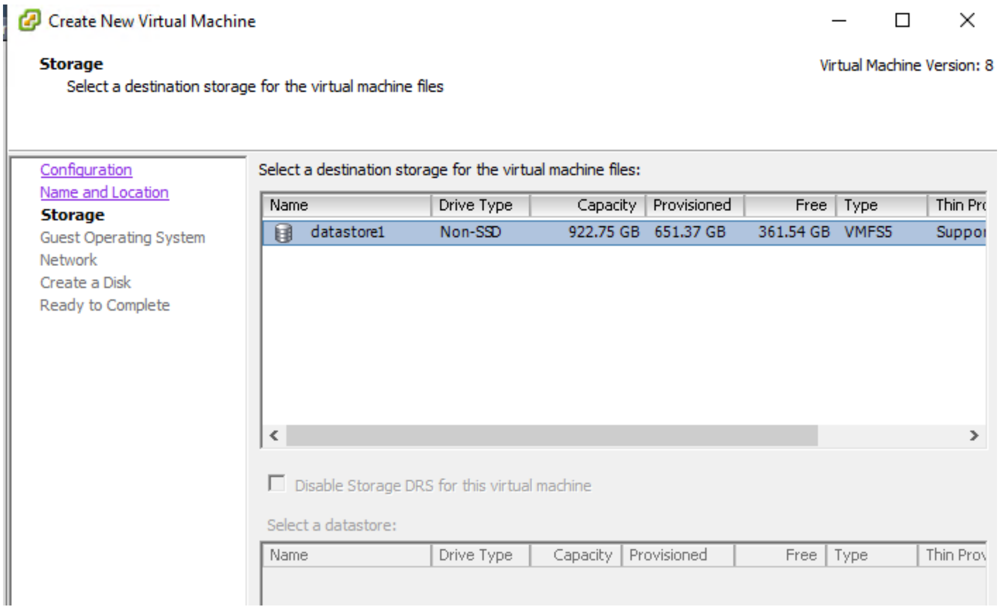
Virtual Machine Version: 8

Name: New Virtual Machine

Virtual machine (VM) names may contain up to 80 characters and they must be unique within each vCenter Server VM folder.

VM folders are not viewable when connected directly to a host. To view VM folders and specify a location for this VM, connect to the vCenter Server.

d. Select the datastore for the VM files



Create New Virtual Machine

Storage
Select a destination storage for the virtual machine files

Virtual Machine Version: 8

Configuration
Name and Location
Storage
Guest Operating System
Network
Create a Disk
Ready to Complete

Select a destination storage for the virtual machine files:

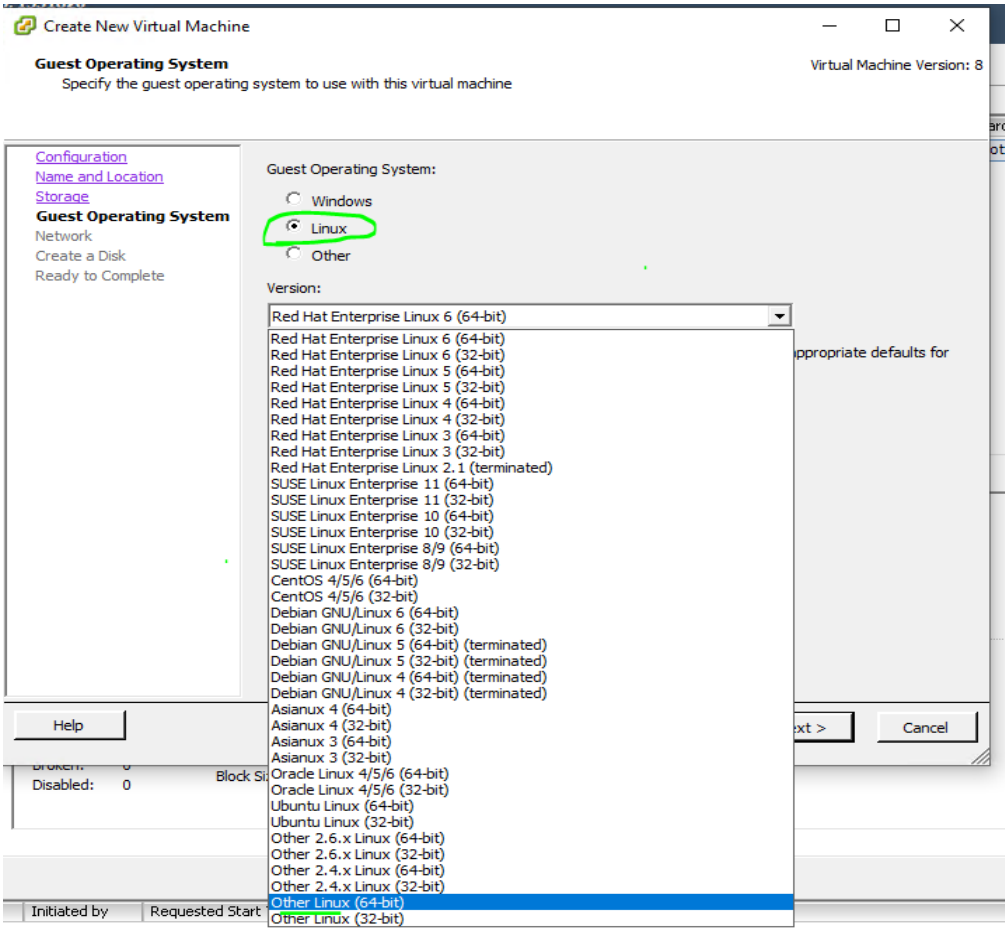
Name	Drive Type	Capacity	Provisioned	Free	Type	Thin Pro
datastore1	Non-SSD	922.75 GB	651.37 GB	361.54 GB	VMFS5	Suppo

□ Disable Storage DRS for this virtual machine

Select a datastore:

Name	Drive Type	Capacity	Provisioned	Free	Type	Thin Prov

e. Select 'Linux' as guest OS → 'Other Linux (64-bit)' as version



Create New Virtual Machine

Guest Operating System
Specify the guest operating system to use with this virtual machine

Virtual Machine Version: 8

Configuration
Name and Location
Storage
Guest Operating System
Network
Create a Disk
Ready to Complete

Guest Operating System:

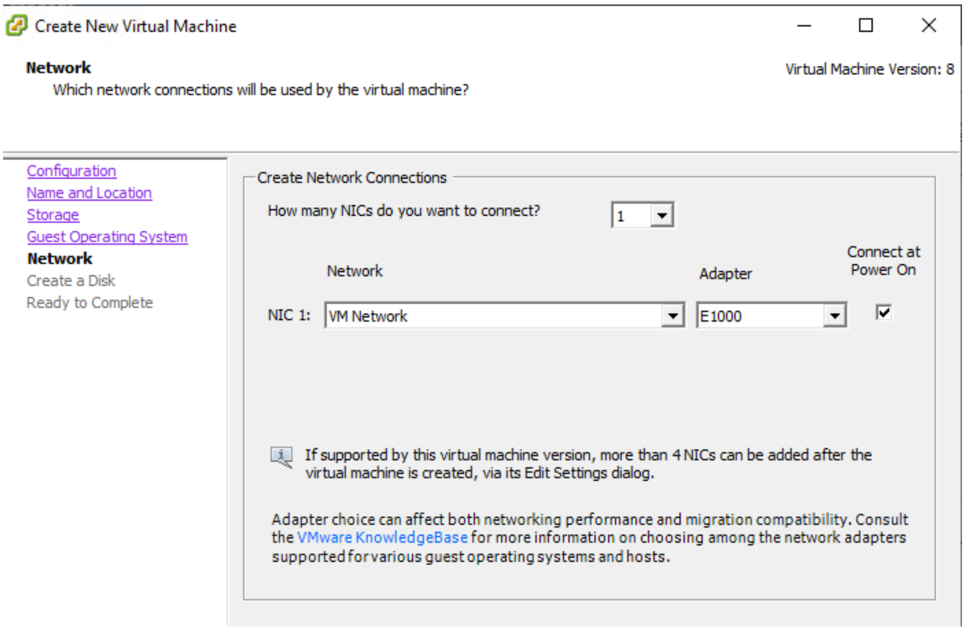
○ Windows
● Linux
○ Other

Version:

Red Hat Enterprise Linux 6 (64-bit)

Red Hat Enterprise Linux 6 (64-bit)
Red Hat Enterprise Linux 6 (32-bit)
Red Hat Enterprise Linux 5 (64-bit)
Red Hat Enterprise Linux 5 (32-bit)
Red Hat Enterprise Linux 4 (64-bit)
Red Hat Enterprise Linux 4 (32-bit)
Red Hat Enterprise Linux 3 (64-bit)
Red Hat Enterprise Linux 3 (32-bit)
Red Hat Enterprise Linux 2.1 (terminated)
SUSE Linux Enterprise 11 (64-bit)
SUSE Linux Enterprise 11 (32-bit)
SUSE Linux Enterprise 10 (64-bit)
SUSE Linux Enterprise 10 (32-bit)
SUSE Linux Enterprise 8/9 (64-bit)
SUSE Linux Enterprise 8/9 (32-bit)
CentOS 4/5/6 (64-bit)
CentOS 4/5/6 (32-bit)
Debian GNU/Linux 6 (64-bit)
Debian GNU/Linux 6 (32-bit)
Debian GNU/Linux 5 (64-bit) (terminated)
Debian GNU/Linux 5 (32-bit) (terminated)
Debian GNU/Linux 4 (64-bit) (terminated)
Debian GNU/Linux 4 (32-bit) (terminated)
Asianux 4 (64-bit)
Asianux 4 (32-bit)
Asianux 3 (64-bit)
Asianux 3 (32-bit)
Oracle Linux 4/5/6 (64-bit)
Oracle Linux 4/5/6 (32-bit)
Ubuntu Linux (64-bit)
Ubuntu Linux (32-bit)
Other 2.6.x Linux (64-bit)
Other 2.6.x Linux (32-bit)
Other 2.4.x Linux (64-bit)
Other 2.4.x Linux (32-bit)
Other Linux (64-bit)
Other Linux (32-bit)

f. Configure the desired network for connectivity. Minimum 1 adapter



Create New Virtual Machine

Network
Which network connections will be used by the virtual machine?

Virtual Machine Version: 8

Create Network Connections

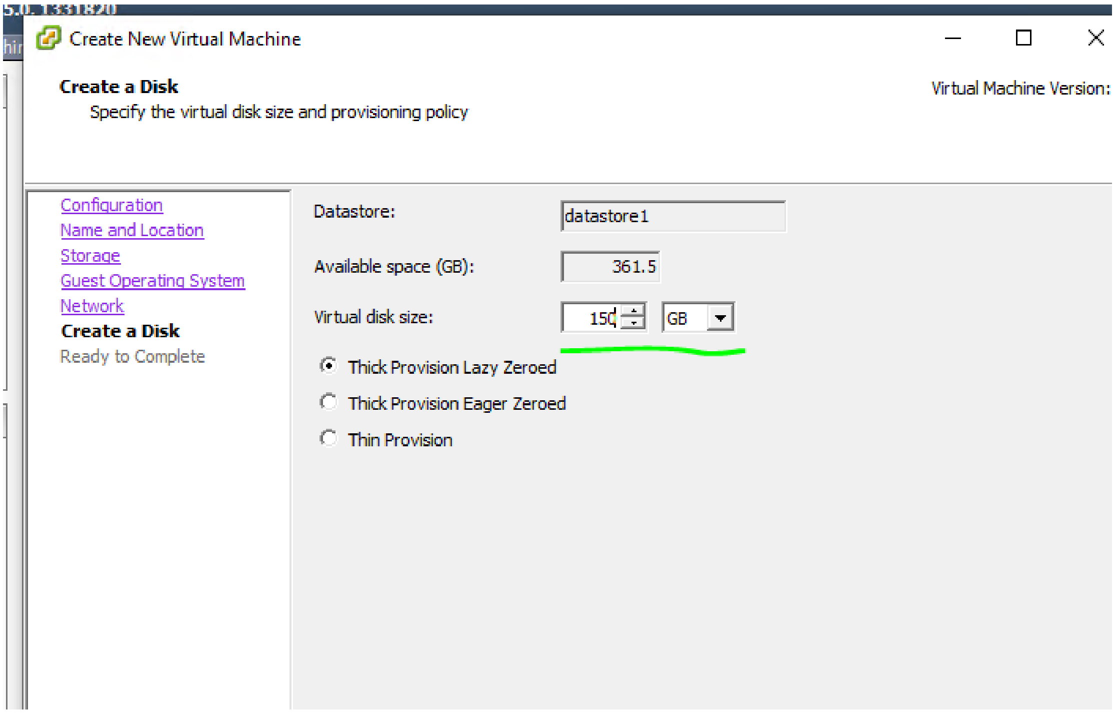
How many NICs do you want to connect? 1

	Network	Adapter	Connect at Power On
NIC 1:	VM Network	E1000	☑

If supported by this virtual machine version, more than 4 NICs can be added after the virtual machine is created, via its Edit Settings dialog.

Adapter choice can affect both networking performance and migration compatibility. Consult the VMware KnowledgeBase for more information on choosing among the network adapters supported for various guest operating systems and hosts.

g. Configure the desired disk size. Minimum 50 GB.



Create New Virtual Machine

Create a Disk
Specify the virtual disk size and provisioning policy

Virtual Machine Version:

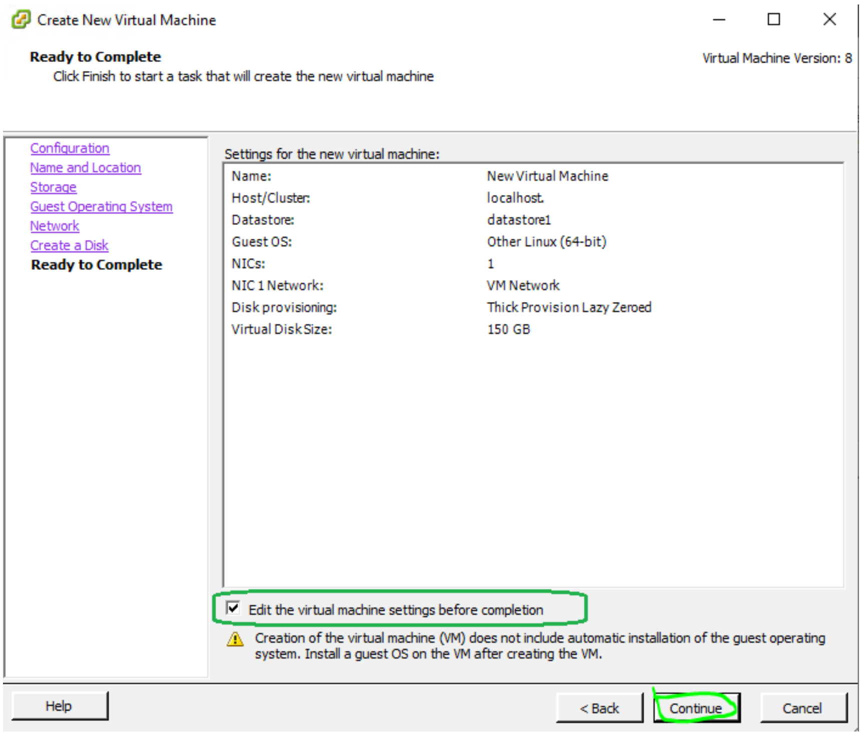
Datastore: datastore1

Available space (GB): 361.5

Virtual disk size: 150 GB

● Thick Provision Lazy Zeroed
○ Thick Provision Eager Zeroed
○ Thin Provision

h. Continue the configuration wizard to add disk & memory



Create New Virtual Machine

Ready to Complete
Click Finish to start a task that will create the new virtual machine

Virtual Machine Version: 8

Configuration
Name and Location
Storage
Guest Operating System
Network
Create a Disk
Ready to Complete

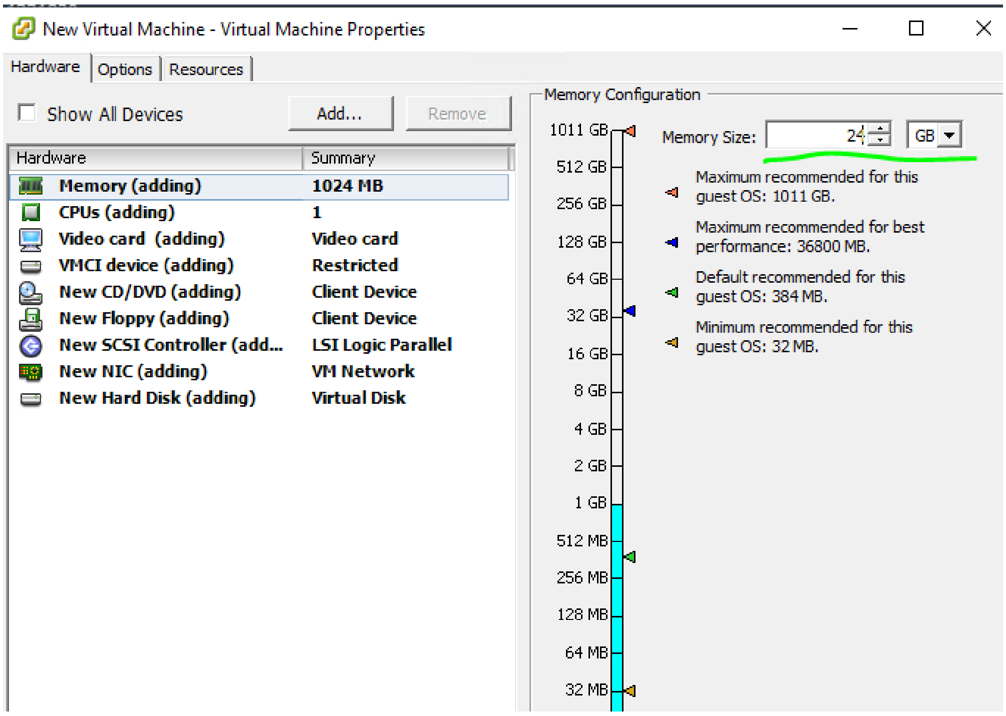
Settings for the new virtual machine:

Name:	New Virtual Machine
Host/Cluster:	localhost.
Datastore:	datastore1
Guest OS:	Other Linux (64-bit)
NICs:	1
NIC 1 Network:	VM Network
Disk provisioning:	Thick Provision Lazy Zeroed
Virtual Disk Size:	150 GB

☑ Edit the virtual machine settings before completion

⚠ Creation of the virtual machine (VM) does not include automatic installation of the guest operating system. Install a guest OS on the VM after creating the VM.

i. Select Memory → Configure the desired RAM size. Minimum 2 GB



New Virtual Machine - Virtual Machine Properties

Hardware	Summary
Memory (adding)	1024 MB
CPUs (adding)	1
Video card (adding)	Video card
VMCI device (adding)	Restricted
New CD/DVD (adding)	Client Device
New Floppy (adding)	Client Device
New SCSI Controller (add...	LSI Logic Parallel
New NIC (adding)	VM Network
New Hard Disk (adding)	Virtual Disk

Memory Configuration

Memory Size: 24 GB

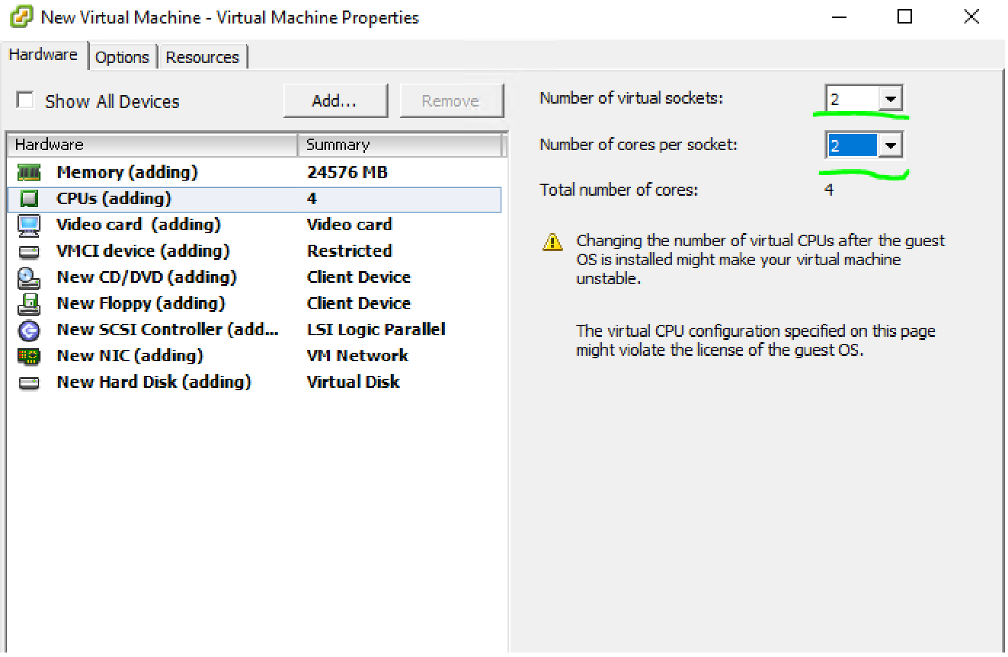
Maximum recommended for this guest OS: 1011 GB.

Maximum recommended for best performance: 36800 MB.

Default recommended for this guest OS: 384 MB.

Minimum recommended for this guest OS: 32 MB.

j. Select CPUs → Configure the desired vCPUs count. Minimum 2 vCPUs (1 socket X 2 cores per socket)



New Virtual Machine - Virtual Machine Properties

Hardware | Options | Resources

☐ Show All Devices Add... Remove

Hardware	Summary
Memory (adding)	24576 MB
CPUs (adding)	4
Video card (adding)	Video card
VMCI device (adding)	Restricted
New CD/DVD (adding)	Client Device
New Floppy (adding)	Client Device
New SCSI Controller (add...	LSI Logic Parallel
New NIC (adding)	VM Network
New Hard Disk (adding)	Virtual Disk

Number of virtual sockets: 2

Number of cores per socket: 2

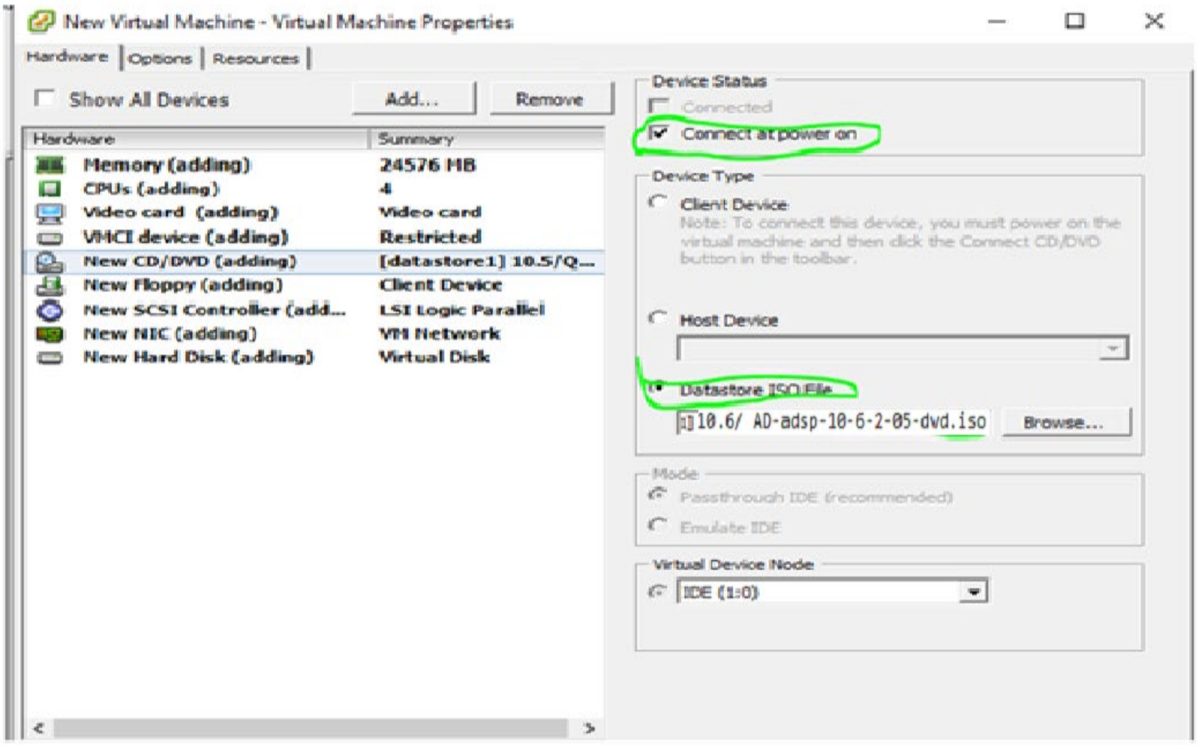
Total number of cores: 4

Changing the number of virtual CPUs after the guest OS is installed might make your virtual machine unstable.

The virtual CPU configuration specified on this page might violate the license of the guest OS.

k. Click 'Finish' to create the new VM

5. Select the new / existing VM → open properties from its context menu
   a. On Hardware tab, select the CD/DVD → Select 'Connect at power on' option on Device status → Select 'Datastore ISO File' as Device Type → Click Browse & select the ISO file from datastore



New Virtual Machine - Virtual Machine Properties

Hardware | Options | Resources

☐ Show All Devices Add... Remove

Hardware	Summary
Memory (adding)	24576 MB
CPUs (adding)	4
Video card (adding)	Video card
VMCI device (adding)	Restricted
New CD/DVD (adding)	[datastore1] 10.5/Q...
New Floppy (adding)	Client Device
New SCSI Controller (add...	LSI Logic Parallel
New NIC (adding)	VM Network
New Hard Disk (adding)	Virtual Disk

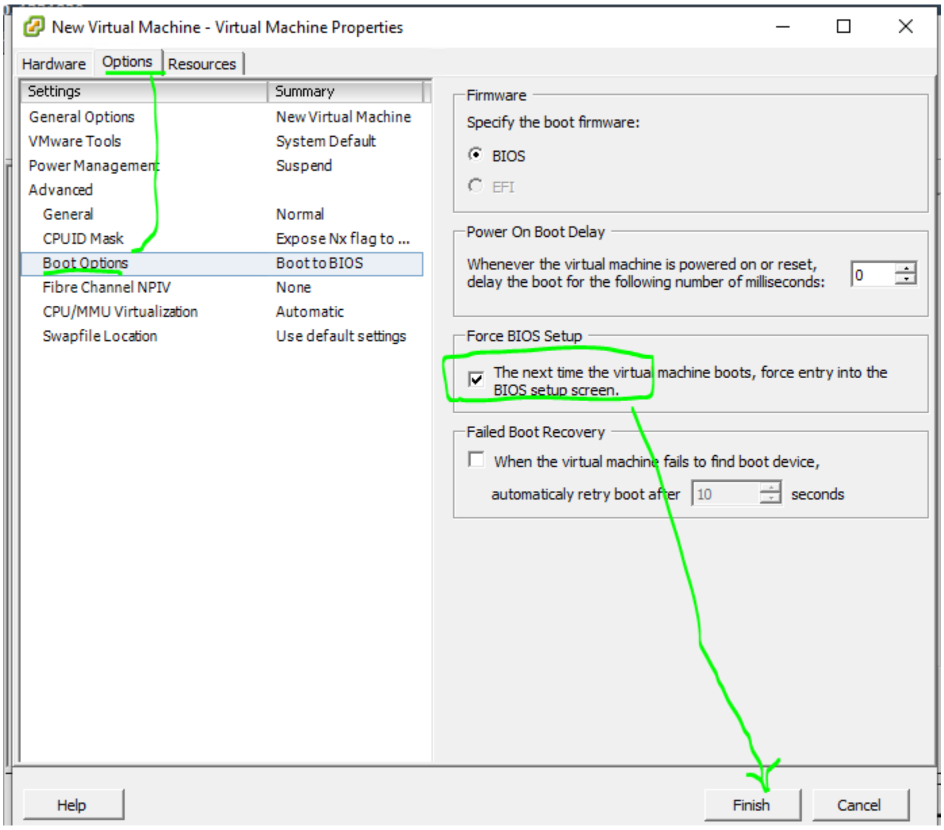
Device Status
☐ Connected
☑ Connect at power on

Device Type
○ Client Device
Note: To connect this device, you must power on the virtual machine and then click the Connect CD/DVD button in the toolbar.
○ Host Device
● Datastore ISO File
[]10.6/ AD-adsp-10-6-2-05-dvd.iso Browse...

Mode
● Passthrough IDE (recommended)
○ Emulate IDE

Virtual Device Node
● IDE (1:0)

b. Go to Options tab → Select 'Boot Options' settings → Force BIOS setup → Select the checkbox to enter BIOS setup on next bootClick 'Finish' to confirm the changes



New Virtual Machine - Virtual Machine Properties

Settings	Summary
General Options	New Virtual Machine
VMware Tools	System Default
Power Management	Suspend
Advanced	
General	Normal
CPUID Mask	Expose Nx flag to ...
Boot Options	Boot to BIOS
Fibre Channel NPIV	None
CPU/MMU Virtualization	Automatic
Swapfile Location	Use default settings

Firmware

Specify the boot firmware:

● BIOS

○ EFI

Power On Boot Delay

Whenever the virtual machine is powered on or reset, delay the boot for the following number of milliseconds: 0

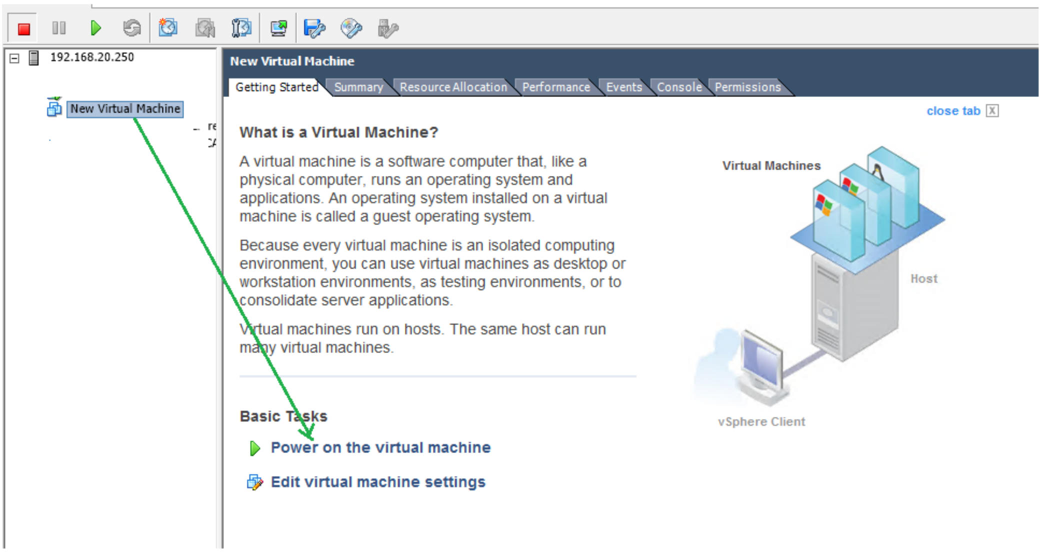
Force BIOS Setup

☑ The next time the virtual machine boots, force entry into the BIOS setup screen.

Failed Boot Recovery

□ When the virtual machine fails to find boot device, automaticaly retry boot after 10 seconds

6. Power ON the Created Virtual machine



What is a Virtual Machine?

A virtual machine is a software computer that, like a physical computer, runs an operating system and applications. An operating system installed on a virtual machine is called a guest operating system.

Because every virtual machine is an isolated computing environment, you can use virtual machines as desktop or workstation environments, as testing environments, or to consolidate server applications.

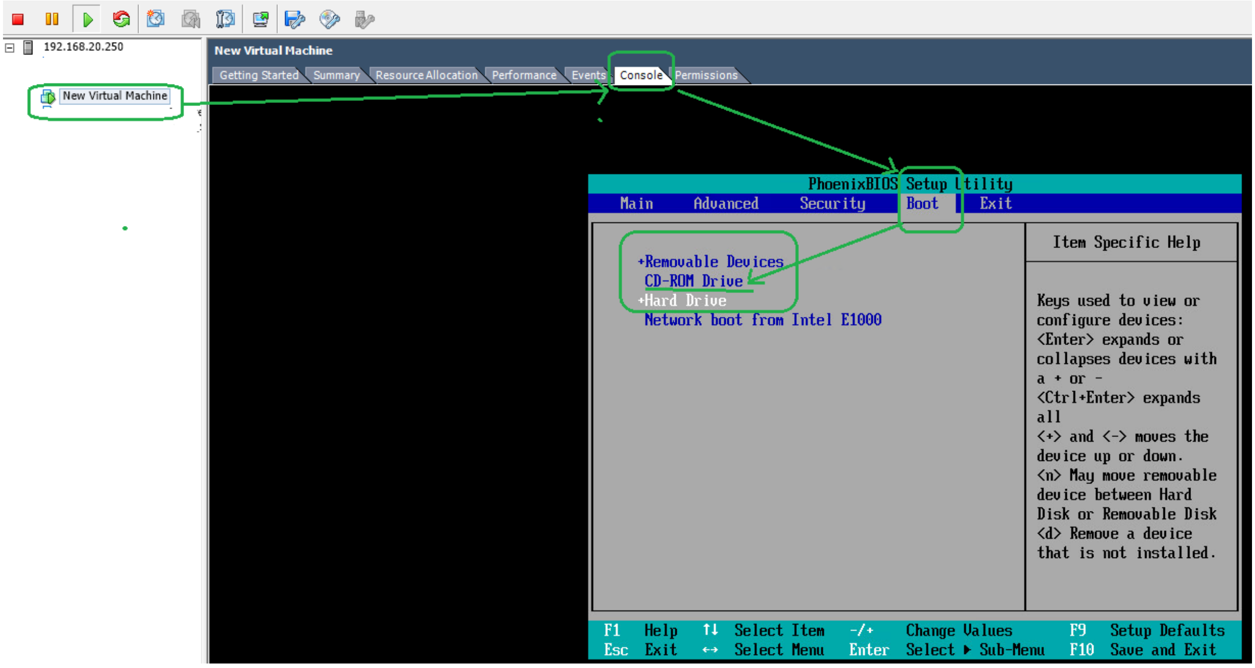
Virtual machines run on hosts. The same host can run many virtual machines.

Basic Tasks

Power on the virtual machine

Edit virtual machine settings

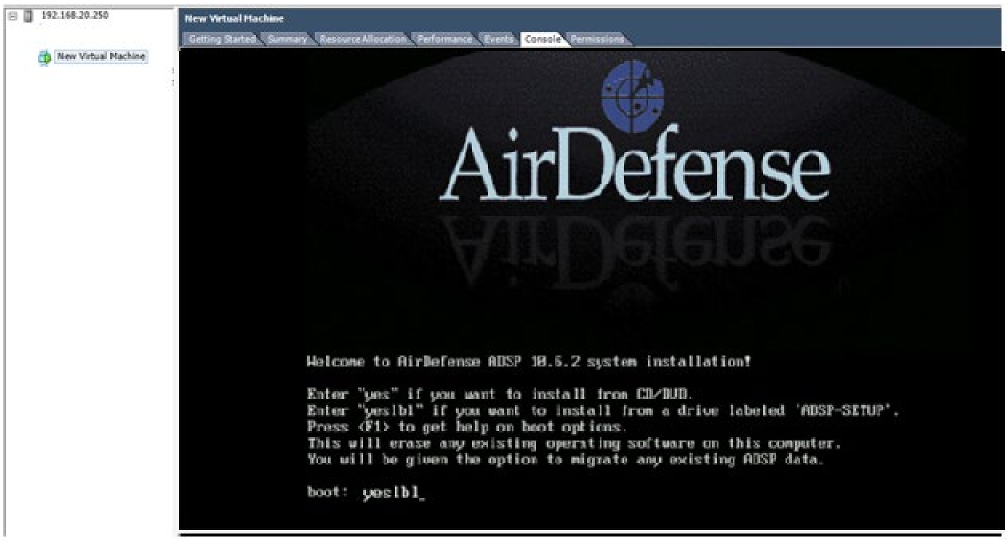
a. On BIOS menu, go to Boot tab → Reorder devices such that CD-ROM drive is moved above Hard Drive → Press F10 to save and continue



```
                        PhoenixBIOS Setup Utility
   Main      Advanced     Security     Boot     Exit

                                                 Item Specific Help
  +Removable Devices
   CD-ROM Drive                                Keys used to view or
  +Hard Drive                                  configure devices:
   Network boot from Intel E1000               <Enter> expands or
                                               collapses devices with
                                               a + or -
                                               <Ctrl+Enter> expands
                                               all
                                               <+> and <-> moves the
                                               device up or down.
                                               <n> May move removable
                                               device between Hard
                                               Disk or Removable Disk
                                               <d> Remove a device
                                               that is not installed.

F1   Help   ↑↓  Select Item   -/+    Change Values       F9   Setup Defaults
Esc  Exit   ↔   Select Menu   Enter  Select ▸ Sub-Menu   F10  Save and Exit
```

7. The VM will boot from the bootable iso to the boot prompt.

   Type “yes” at the boot prompt & press ‘Enter’ to continue.

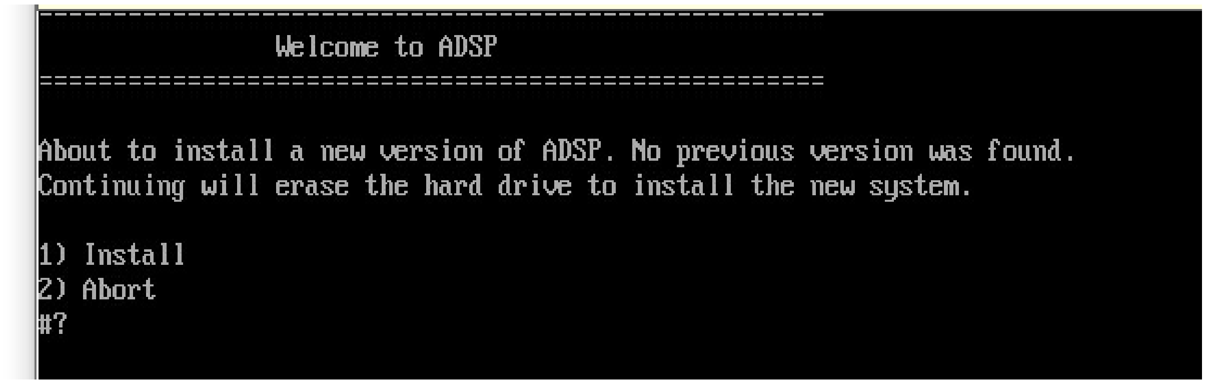


```
Welcome to AirDefense ADSP 10.5.2 system installation!

Enter "yes" if you want to install from CD/DVD.
Enter "yeslbl" if you want to install from a drive labeled 'ADSP-SETUP'.
Press <F1> to get help on boot options.
This will erase any existing operating software on this computer.
You will be given the option to migrate any existing ADSP data.

boot:  yeslbl_
```

8. The VM will continue and will provide the following options to select.

<u>Fresh Install without any prior cnfiguration</u>

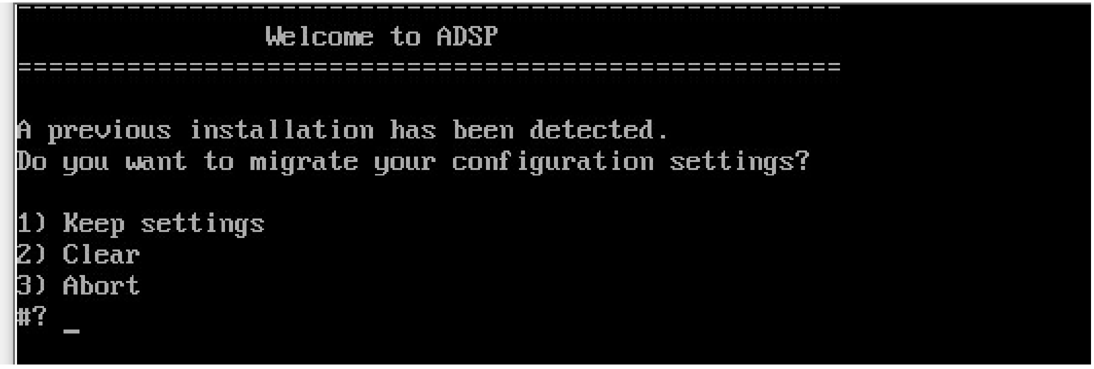
If it is a fresh install on New VM, select “1” & press ‘Enter’ to continue



```
-----------------------------------------------------
                Welcome to ADSP
=====================================================

About to install a new version of ADSP. No previous version was found.
Continuing will erase the hard drive to install the new system.

1) Install
2) Abort
#?
```

Installation over previous configuration

If the current VM is running any of the previous version of AD, the user can:
choose ‘1’ to retain the running configuration, license & forensic files
(or)
choose ‘2’ to clear them & continue like a fresh installation (cleared files cannot be retrieved)

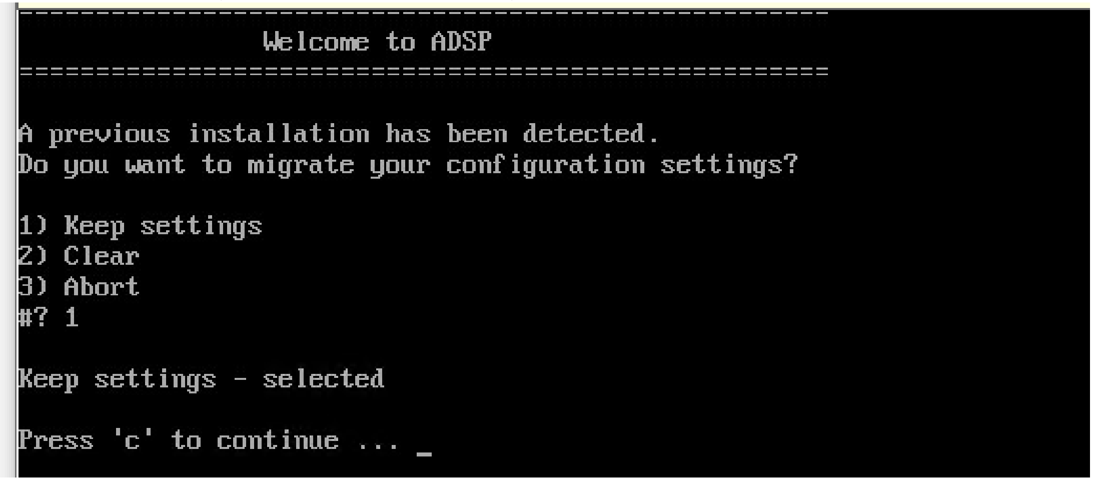


```
-----------------------------------------------------
                Welcome to ADSP
=====================================================

A previous installation has been detected.
Do you want to migrate your configuration settings?

1) Keep settings
2) Clear
3) Abort
#? _
```

The ‘Keep Settings’ option will restore the configurations, license & forensic files on the new version AD 10.6.2.

9. User selected option is shown on the screen. Press ‘c’ to continue.

   If the shown option is not the desired, press ‘Ctrl + Alt + Ins’ to abort & reboot.

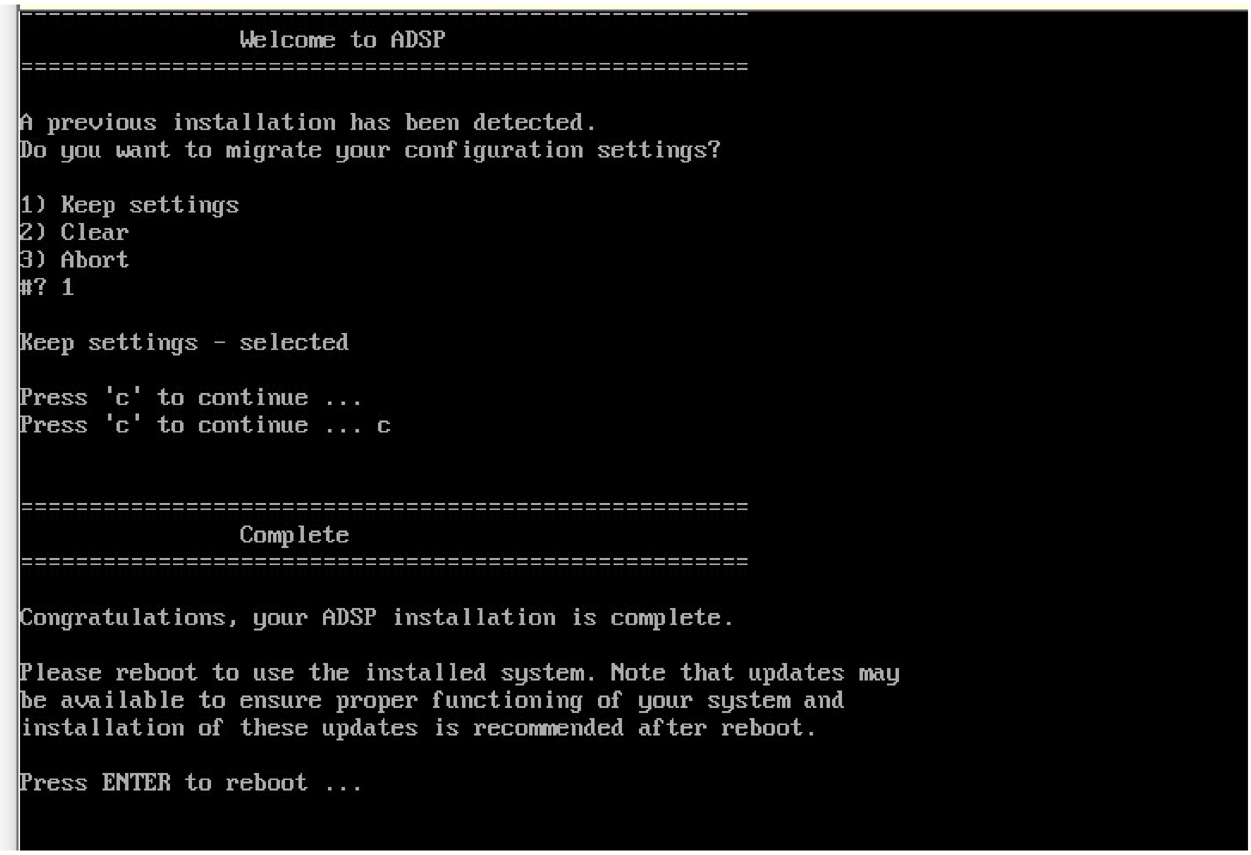


```
-----------------------------------------------------
                Welcome to ADSP
=====================================================

A previous installation has been detected.
Do you want to migrate your configuration settings?

1) Keep settings
2) Clear
3) Abort
#? 1

Keep settings - selected

Press 'c' to continue ... _
```

10. The product installation starts and will take a minimum of 10-15 minutes to complete.

11. Once the installation is complete, the user is presented with the installation status.

    Press ‘Enter’ to reboot the VM.



```
-----------------------------------------------------
                Welcome to ADSP
=====================================================

A previous installation has been detected.
Do you want to migrate your configuration settings?

1) Keep settings
2) Clear
3) Abort
#? 1

Keep settings - selected

Press 'c' to continue ...
Press 'c' to continue ... c


=====================================================
                Complete
=====================================================

Congratulations, your ADSP installation is complete.

Please reboot to use the installed system. Note that updates may
be available to ensure proper functioning of your system and
installation of these updates is recommended after reboot.

Press ENTER to reboot ...
```

12. The BIOS will automatically select the Hard Drive as the primary boot device from this reboot.

For further instructions on how to install this iso on a VM or to upgrade an existing VM, please refer the *Extreme AirDefense Users Guide*.

3. Important Notes

1. Backup all config and forensics files prior to upgrade
2. Toolkit will need to be re-installed. Toolkits installed in prior versions should not be reused.
3. *Anomalous Behavior Detection* thresholds are lost when the system reboots or when services are restarted. Also, Live and Threshold values are shown in the Alarm Details page while the alarm is in the active state; when the alarm becomes inactive, these values are changed to “unknown”.
4. AirDefense VM Installations – VM installs of AirDefense must be allocated with a minimum of 50GB of virtual disk.
5. With AirDefense 9.4.0 (and higher) SSLv3 (and TLS 1.0, TLS 1.1) communication for sensor to server communication can be turned off completely. For all other communications, (for example, UI/ Toolkit etc.) SSLv3 was disabled in the previous releases. By default, SSLv3

communication is left enabled in AirDefense 9.4 to permit communication with legacy sensors. To disable the SSLv3 communication entirely, please follow the steps below. Note that WiNG version 5.8.3 or higher firmware must be used on sensors when SSLv3 is turned off as only those releases support TLS v1.2

- Login to AirDefense with *smxmgr* credentials
- Select the "Config option" (type C) item.
- At the end of the menu options, a "(SSLv3) Enable/Disable SSLv3 for Sensor-Server Communication" item is shown.
- Type **"SSLv3".**
- The system will display current status of SSLv3 in the system. If it is currently disabled, this option will allow the user to enable it.
- Type [E] to enable/ [D] to disable.
- Type [Q] to quit.
- System will now warn that AirDefense services will need to restart.
- Type **Yes** to continue.
- Once you exit out of the WIPSadmin login, AirDefense service will be restarted.

6. From AirDefense version 9.2.0, the communication between sensors and AirDefense server is switched to use 2048-bit key length and TLS 1.2. By default, AirDefense will use 2048 key length certificate. In order to fall back to 1024-bit key length (not recommended), please follow the following steps.
    - Login to AirDefense as *root* (contact support for assistance)
    - Touch file */usr/local/smx/.k/key1024*
    - Restart AirDefense services.

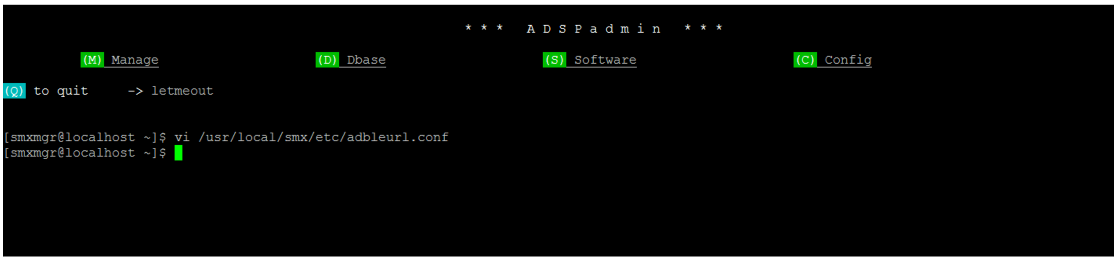
    Upon restarting, AirDefense will fall back to 1024 bit certificate for sensor to server communication.

   To switch back to 2048 bit certificates:
    - Login to AirDefense as *root* (contact support for assistance)
    - Delete the */usr/local/smx/.k/key1024* file
    - Restart AirDefense services.
7. Upgrade from AirDefense ver. 9.0.3 to ver. 9.1.0 (and higher) is not seamless. AirDefense architecture was significantly revised in ver. 9.1 to improve scalability requiring changes to *config* file. Some manual changes may be required to the *config* to upgrade successfully. It is recommended that upgrades from ver. 9.0.3 be performed via ver. 9.2.0 release – which has enhancements to ease the upgrade.
8. When upgrading firmware to ver. 9.2.0 (from ver. 9.0.3), a *config restore* MUST be performed using the 9.0.3 backup config file. In several cases, this will help restore config items that might be lost during the upgrade.
9. Alarm action manager profiles – exception option has been removed from GUI in 9.1.2 and added to the advanced filter.
10. By default, notification emails are sent once every 5 minutes. E.g. To increase this to one day emails - change the repetition periods as follows:
    In file */usr/local/smx/notification/lib/notification.properties*,
    email.repetitionPeriod = 86400 // In seconds; Default = 300 seconds
    syslog.repetitionPeriod = 86400 // In seconds; Default = 300 seconds
    Restart AirDefense after the file is modified for the changes to take effect.
11. Bluetooth Beacon using unauthorized URL: EddyStone URLs are validated against the configured URLs *in /usr/local/smx/etc/adbleurl.conf* file. Advertised URLs from EddyStone BLE beacons are validated against these allowed URL list for checking whether authorized or

not. AirDefense will check the sensed URL from beacons against the configured URLs and trigger an alarm if any violation is detected. There are two types of configurations allowed.

a. List of allowed URLs
b. Allowed URLs for a specific BLE beacon mac address [Note: there is no short mac address and tiny URLs are not allowed]

Instructions to configure the URLs in a file:
In AirDefense 10.0, this configuration is done via the CLI. Login to the AirDefense CLI using the *smxmgr* credentials



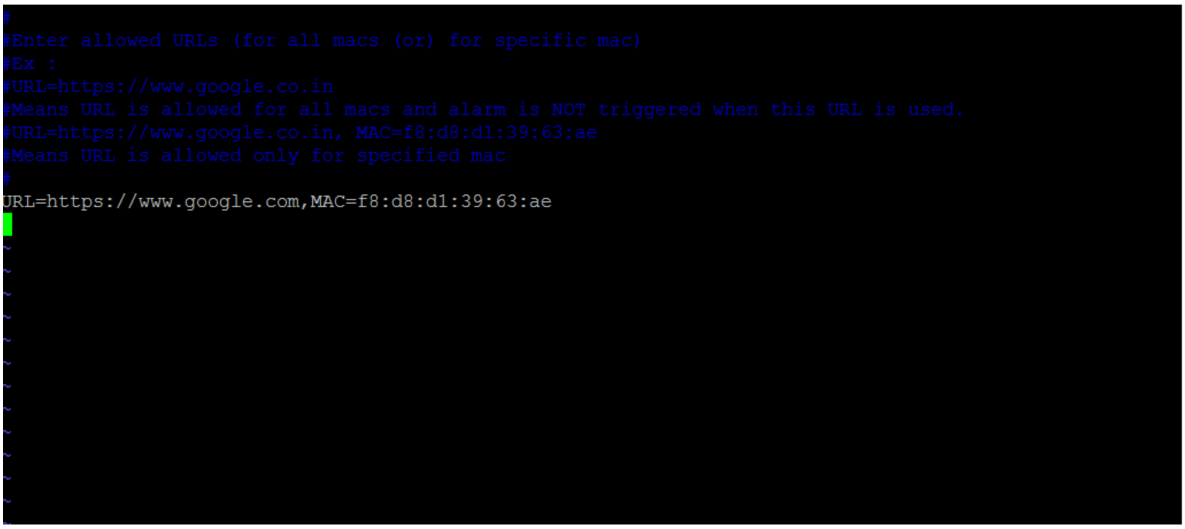
```
                                    * * *   A D S P a d m i n   * * *

         (M) Manage                  (D) Dbase                  (S) Software                  (C) Config

(Q) to quit     -> letmeout

[smxmgr@localhost ~]$ vi /usr/local/smx/etc/adbleurl.conf
[smxmgr@localhost ~]$
```

On the menu item, type *letmeout* and get the prompt **smxmgr#localhost ~]$**

Edit the file using vi */usr/local/smx/etc/adbleurl.conf*

#Enter allowed URLs (for all macs (or) for specific mac)
#URL=https://www.google.co.in
#Means URL is allowed for all macs and alarm is NOT triggered when this URL is used.
#URL=https://www.google.co.in, MAC=f8:d8:d1:39:63:ae
#Means URL is allowed only for specified mac

Users can add/edit the URL and MAC address as required.



```
#
#Enter allowed URLs (for all macs (or) for specific mac)
#Ex :
#URL=https://www.google.co.in
#Means URL is allowed for all macs and alarm is NOT triggered when this URL is used.
#URL=https://www.google.co.in, MAC=f8:d8:d1:39:63:ae
#Means URL is allowed only for specified mac
#
URL=https://www.google.com,MAC=f8:d8:d1:39:63:ae

~
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```

4. SPR/Issues Fixed

SPR#	Summary
AD-11413	No data for radio status under XCC polled devices
AD-11417	The "Radio Status -Radio Bands on WLAN" tile has all 0s in the dashboard
AD-11419	RXO | Unable to view devices past first or second (per page 250) AirDefense 10.6
AD-11436	ADSP | Manual Redundant Appliance Synchronization Not Working
AD-11437	Alarm details help menu shows empty bubble
AD-11443	In the advanced settings of alarm unable to add multiple VLANs
AD-11444	ADSP User Account Login setting issue

5. Vulnerabilities Fixed

Severity Level 4

1. CentOS Security Update for rsync (CESA-2022:6170)
2. CentOS Security Update for open-vm-tools (CESA-2022:6381)
3. CentOS Security Update for krb5 (CESA-2022:8640)
4. CentOS Security Update for device-mapper-multipath Security Update (CESA-2022:7186)
5. CentOS Security Update for libXpm (CESA-2023:0377)
6. CentOS Security Update for sudo (CESA-2023:0291)
7. CentOS Security Update for open-vm-tools (CESA-2023:7279)
8. CentOS Security Update for libssh2 (CESA-2023:5615)

6. Known Issues and Recommendations

General Note

- AP5XX sensors do not show supported protocols as “ax” even though these access points are capable of supporting the protocol.
- In CentOS 7, vmtools is open source and it is provided as pre-installed.

General note for EW 39XX series access points:

- Support for Extreme Wireless Access Points has been added beginning with the AirDefense 9.5 release. Therefore, any upgrade issues from prior releases documented in the “Upgrade Related” section are not applicable.

- The features supported for EW (IQC) 39xx access points are WIPS, Advanced Forensics and Liveview. Known issues in the Network Assurance, Proximity and Bluetooth sections below are not applicable to these access points.
- Any WING sensor specific issues documented below are not applicable to Extreme Wireless ((IQC)access points.

Pre-requisites for multicore configuration

- When adding Areas (which are normally used to represent buildings) to the tree structure, all floors in that Area/building must be created under that same single Area/building.
- Do not create multiple copies of the same Area/building and then place some of the floors under one instance of the Area/building and other floors under a second instance of the Area/building.
  - This is mandatory as not doing so will result in devices being seen multiple times and may result in undefined WIPS behavior
- Better to have Auto-placement rules for network devices placement
  - Messages from sensors in unplaced folder will not be processed
  - Polled devices in unplaced folder will not be considered for any WIPS processing
  - Do not manually move Sensor/AP within your network tree if these devices were placed using auto-placement rules.
-

Issues specific to EW access points

- The following alarms do not trigger on EW (IQC)AP 39XX –Fake AP flood attack, AirSnarf (3912, 3915)

Upgrade related

- In 9.1.x Device/Alarm Action Manager, *None(Any)* filter and *None(All)* filters were reversed compared to 9.0.3. This is fixed in 9.2.
  - If upgrading from 9.0.3 – this conversion happens automatically when restoring the 9.0.3 config
  - If upgrading from 9.1.x - Any rules that were deliberately reversed by the administrator after upgrading from 9.0.3 to work around such configs need to be reversed manually on upgrading to 9.2 (after restoring the config)
- Alarm Action Manager: In AirDefense 9.1 and higher releases, a maximum of 25 filters are supported in the filter list as well as in the expression filter list.
- Alarm Action Manager rule descriptions may not be preserved on upgrade to 9.1 and higher releases.
- Alarm Action Manager: In some cases, on upgrade from 9.0.3 to 9.2 you may see special characters in expression filers (e.g.' %' or ')') in the advanced filter expression editor. These characters are needed for internal operation. They do not impact end user functionality and can be ignored from an administrator perspective.
- Device and Alarm Action Managers: On upgrading from 9.0.3 to 9.2, an AAM profile that was left disabled at the global scope appears to be enabled. However, with 9.1 and higher releases, there is a separate "Enable Profile" checkbox to really enable the profile.

Platform

- Rogue Locationing did not work consistently as devices sometimes placed in the corner of the floor.
- BSS/WC termination is not happening on DFS channels using AP410 sensor
- AP Test is failing with WPA2 security mode using AP410 sensor
- Those sanctioned wireless clients not seen in your network for more than 10 days will not be shown in the UI till they sensed or polled again. This duration can be configured via *airids.conf* parameter.
- Import devices via CLI will not be able to place the devices based on firmware version filter in Auto placement rule.
- Moving BT_Sensor between floors will not move the respective BT/BLE devices.
- Custom dashboards created in the old Flex UI will not show up in the new UI.
- The following alarms do not trigger on AP 7612/ 7632/ 7662 - Airsnarf.
- The following alarms do not trigger on AP 7662 - Honeypot, Multipot, Hotspotter and Hunter-Killer.
- AirDefense Toolkit is only supported on Windows. It is not supported on Linux.
- "DeviceVendorprefix,AssociatedVendorPrefix and DeviceManufacturer should be used with the full name when used with =,!=,IN and NOT IN operators"". It is recommended that operators LIKE/ ILKE be used for DeviceVendorprefix,AssociatedVendorPrefix and DeviceManufacturer filters.
- WSP-8561 : CMC Server Unreachable message in tooltip - After adding the CMC appliance to Master AirDefense, it says "Server Unreachable" even though the server is reachable. After some time the "Server Unreachable" message disappears and "login failed" appears. Ignore the unreachable message - go ahead and share the certificate and restart the appliance to get the CMC working.
- NOT IN operator is not supported in AirDefense Alarm Action Manager.
- AirDefense does not generate the alarm "Frequency hopping interference detected" when using AP 7532 as a sensor.
- WIPS-OCS: LiveView does not display frames on channel 1 configured in OCS channel list.
- WIPS: Wipsd (on the AP) sometimes restarts when radio is changed from radio share to dedicated sensor.
- WIPS – Rogue AP Detection – In select cases like enterprise class rogue AP that is set up as a router (not an AP) and the BSSID of the wireless interface is completely unrelated to the MAC address of the wired interface, AirDefense uses a data pattern matching technique to classify the device as a rogue. For the sensor to see the wired side data from the AP, the port on the L2 switch should be configured as a SPAN port. If this is not done, the rogue AP will be marked as an unsanctioned device but AirDefense will not be able to classify it as a rogue.
- Forensics does not show all the data when the date range is long (15 days or longer). Workaround is to run multiple reports each of duration less than 15 days.
- Scheduled Configuration or Forensic Backup using TFTP protocol is not supported. Please use FTP or SFTP.
- "Wireless devices overload observed" alarm is only generated on NX 9500 in Standalone AirDefense (not supported on other appliances nor in Unified mode)
- Action Rules on demand discrepancy in Job Status, rules are not applied –Recommendation is - Admin needs to apply the Action Manager rule before running "Action Manager Rules on Demand" option. Action Manager Rule runs every minute by default.
- Job list in job status does not age out after 7 days
- ADIQ-745 APtest/WVA fails with 802.1x authentication

- Backup and Restore does not work when the profile name has a space at the end. Edit the profile to remove the extra "space" character.
- When Korean language is selected, the following do not work correctly
  - Cannot delete some SNMP Community settings when others are in use.
  - Unable to display "device name" correctly when number of characters exceeds 10.
- Port suppression fails on an RFS6000
- Backslash in LDAP authenticated user name causes loss of all user permissions on restart of services.
- The CMC slave authentication mechanism has been changed significantly in AirDefense 9.1.0. It is recommended that the user review the on-line help for CMC for a description of how to configure slave servers.
- After adding a Slave Server on a CMC Master Server, the user is not able to view configuration or other pages on the Slave Server from the Master Server because of a permission error. The workaround is to click the Reset button, log out of master server, and restart browser.
- 'Copy settings to all appliances' action in CMC results in GUI application error with numeric value as prefix in profile name.
- Data collection on WiNG 5.2.x devices was changed to occur over SNMP vs HTTPs. Data collection and configuration management requires the communication profile settings for SNMP timeout interval and retry to be set to 9999 milliseconds and 3 retries to avoid excessive timeouts which might disrupt connection resulting in incomplete data collection and device showing as offline when it is not actually offline to the network.
- Data collection set to a short interval may result in devices going offline; it is recommended to set the time between data collections to an interval longer than the time a complete data collection takes.
- SFTP is not supported with the internal relay server, it is only supported with an external relay server.
- The format of the folder for CLI variables must be:
  /<serverName>/<country>/<region>/<city>/<campus>/<building>/<floor>
  For example, /AirDefense/USA/South/Atlanta/Alpharetta/Atlanta_main/Floor_2
  All other profiles accept the following folder format:
  <country>/<region>/<city>/<campus>/<building>/<floor>
- CQ 201328 – AP 7532 device icons displayed incorrectly when device goes offline
- ADIQ-790: Scheduled AP test results are displayed with non-zero numbers when no tests are scheduled. Select specific device & option from right click to perform AP Test.
- AD-11418 "AirDefense 10.6 import failure of XIQ-C v10.05.02.0019" -- manually drawn floor plan images are not imported to AirDefense, and this is not supported.
- Stations not having associated BSS information in the XIQ , as part of XIQ import will not be listed(shown) in ADSP server.
- ADIQ-842 Rogue AP on Sensor Segment alarm is not generating for Aerohive APs
- ADIQ-832 Sensed Authentication and Encryption in the Properties page of 6G BSS is inaccurate
- ADIQ-833 Information of Non-transmitted SSID carried by mbssid 6E SSID is not displayed in the AirDefense server
- Non transmitted SSID are not listed in the AirDefense server.
- Live view, Wireless Vulnerability Assessment , AP Test & Termination functionalities are not supported for 6E devices.

- AD-11436 – In Redundant Appliance settings special character number (#) should not be used in the password.
- Radio Status -Radio Bands on WLAN in dashboard , number may not be accurate for XIQ/IQC import. It will correct on subsequent import.

Network Assurance

- AP Test and WVA fails on legacy platforms (AP650,AP8163,AP7532, AP8533 and AP8432). AP Test works , but WVA is failing on WiFi 6 platforms
- Radio share 310 sensor is keep disconnecting from ADSP server in idle state in distributed mode
- Liveview with more than 4 session hanging the UI
- Liveview is not showing any 5Ghz channel frames if we enable Background SA Scan.
- Campus Mode - 5ghz scanning is not happening when we enable background scan
    - For both the above issues, background SA to be disabled in ADSP to scan 5GHz. This is Fixed in Wing 7.3.1.2.
- In AP505, liveview is not showing any data when it is enabled in radioshare mode
- Clearing configuration in Appliance Manager may prevent edits to Live-RF application configuration. If the system gets into this state, please contact the support team or re-install AirDefense.
- Changes to duty cycle field in the Advanced Spectrum Analysis window will cause all channel extensions to be set to 0 on the sensor. A manual stop and start of ASA fixes the issue.
- Cannot schedule Advanced Spectrum Analysis dedicated scan with default values – change atleast one value from default to turn on the OK button.
- The Advanced Spectrum Analysis on AP 6522 displays spurs when the frequency range is extended to cover Channel 14. These spurs cause the Advance Spectrum Analysis alarm "Utilization Exceeded Threshold" to be triggered.
- Spectrum Analysis – On changing chart options Duty cycle, Device count, Spectral density and Real time FFT data is lost. Do not change chart options to preserve existing data.
- AP Test – AP Test with Captive Portal is not supported. It requires a custom plugin to be created for the specific captive portal. Workaround: Use the ping test to verify reachability to the captive portal.
- AP Test – The AP Test supplicant does not support certificates which are protected with a passphrase, only certificates which do not require a passphrase to access the key are supported.
- AP Test - AP Test scheduled using alarm action manager does not run according to the chosen profile
- AP Test - AP Test license does not get automatically applied when Auto Licensing is selected
- AP Test and Wireless Vulnerability assessment – works at a BSS level only and not at a floor/ scope level.
- AP Test – Scheduled AP Test disappears from menu despite the presence of a radio-share AP Test license. Support can issue an AP test license which will re-enable this functionality.
- AP Test – SPR 27984 - AP-Test with EAP-TLS fails with error message "Network
- AP Test – AP Test Downlink test fails for AP 7522 and AP 7532 with WiNG 5.8.4
- AP Test – AP 8432 and AP 6522 Uplink test fails while running AP test with WiNG 5.8.4
- AP Test – When using TKIP-CCMP , AP 622 acting as a client does not get an IP address via DHCP with WiNG 5.8.4
- Authentication: EAP authentication failed" – has been fixed in WiNG 5.8.1 & higher releases.
- Multiple Vlan IDs cannot be removed – they can only be removed one at a time.

- Liveview: SSID and RSSI value do not appear in devices tab occasionally.
- Live RF with AP 75xx is only supported at 11n rates

Bluetooth Monitoring

- BT/BLE devices are always placed on the sensor while locating on demand
- The actions are not carried out with filter as device client type for BLE devices
- Bluetooth Devices imported via a csv file and with a selected folder are placed in unplaced devices folder. They are moved to the correct folder when the device is seen
- Some Eddystone tags have non-standard fields and may not be correctly recognized by the AP. Some tags do not advertise a URL in the beacon – such tags cannot be protected with the BT 4.0/ BLE security feature. The following tags have been tested against AirDefense:
    - Kartographer eddystone beacons – UFOBeacon Odyssey
    - Ibeacons – used Wing Devices as advertisers. Apple ibeacons were also sensed.
    - BLE simulator app – TxEddystone
    - BLE Scanning app -- Beacon simulator
- Some tags advertise additional ".com"'s in the URL field. This does not impact URL matching, however, they will show up in the alarm description text.

HTML5 UI

- Classification of BSS/Wireless Client to Sanctioned(Assign profiles) is not working properly from manual option in network page
- Override and Inherit options across new UI are inconsistent. It requires to save multiple times.
- Networks/Dashboard/Alarm tabs appear even though the licenses are removed
- In Network page, polled device count mismatch, neighboring bss/wireless client are not computed properly.
- In user management, custom profile permissions do not get updated in user associated with that custom template. The workaround for this issue to modify at individual user level
- In License management page, Delete Devices in License Assignment screen does not delete these devices as expected. The UI shows these devices as being deleted successfully. However, these devices are not deleted, and their license will not get released. To work around this issue, use the legacy UI for releasing these licenses.
- In the new user workflow, creation of Discovery Profile with SNMP fails. Use the *Advanced Configurations* option to overcome this issue.
- The image is broken in Mozilla Firefox in the toolkit download page.
- The new UI is supported for the *admin* user in this release. Support for other user roles will be added in a future release.
- New UI - Unknown devices turned into rogue devices widget does not show data. Will be addressed in a future release.
- New UI – In the network snapshot grid, the total BT device count does not match the old UI. Sensor details are missing. Will be addressed in a future release.
- New UI - Radio Bands on WLAN do not show the correct count of WLANs.
- NEW UI: Search filter for the "polled devices" column does not work.
- New UI: BLE device classification widget doesn't show correct counts.
- In Multi-core acknowledge all alarms do not work at AirDefense level. But works in child level.
- All AP Test functionality don't work in Tool Kit page.

WIPSADMIN CLI

- In CLI, execution of some commands throws some exceptions as file not found error for logs. This can be ignored, and the requested function will be executed and provide the results as expected.

7. Feature Matrix Dedicated Sensing

ExtremeCloud IQ (XIQ) Managed

AP Model Dedicated Sensor	Earliest Supported Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis	Advanced Spectrum Analysis	Live View	AP Test	Wireless Vulnerability Assessment (WVA)	BT/BLE Security
AP410C[2]/AP460C[2]	10.6r4	✓	✗	✓	✓	✗	✗	✗
AP410C-1[2]	10.4r6	✓	✗	✗	✓	✗	✗	✗
AP4000[5]	10.4r1	✓	✗	✓	✓	✗	✗	✗
AP4000-1[5]	10.5r1	✓	✗	✓	✓	✗	✗	✗
AP5010[6]	10.5r1	✓	✗	✓	✓	✗	✗	✗
AP5050U[2]/AP5050D[2]	10.5r3	✓	✗	✓	✓	✗	✗	✗

ExtremeCloud IQ Controller v10.x (XIQC) Managed

AP Model Dedicated Sensor	Earliest Supported Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis	Advanced Spectrum Analysis	Live View	AP Test	Wireless Vulnerability Assessment (WVA)	BT/BLE Security
AP305C[1]/CX[1]	10.0.0.0	✓	✗	✓	✓	✓	✓	✗
AP305C-1[1]	10.1.0.0	✓	✗	✓	✓	✓	✓	✗
AP310ie[3,4]/360ie[3,4]	10.0.0.0	✓	✗	✓	✓	✓	✓	✓
AP410ie[2]/460ie[2]	10.0.0.0	✓	✗	✓	✓	✓	✓	✓
AP410C[2]/AP460C(S)[2]	10.0.0.0	✓	✗	✓	✓	✓	✓	✓
AP410C-1[2]	10.1.0.0	✓	✗	✓	✓	✓	✓	✗
AP505i[1]/510ie[4]/560ih[4]	10.0.0.0	✓	✗	✓	✓	✓	✓	✗
AP4000[5]	10.0.0.0	✓	✗	✓	✓	✗	✗	✗
AP4000-1[5]	10.1.0.0	✓	✗	✓	✓	✗	✗	✗
AP5010[6]/AP5010U	10.03.01	✓	✗	✓	✓	✓	✓	✓
AP5050U[2]/AP5050D[2]	10.6.0	✓	✗	✓	✓	✗	✗	✗
AP3000[1]/AP3000X[1]	10.6.0	✓	✗	✓	✓	✗	✗	✗

Extreme Campus Controller v5.x (XCC) Managed

AP Model Dedicated Sensor	Earliest Supported Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis	Advanced Spectrum Analysis	Live View	AP Test	Wireless Vulnerability Assessment (WVA)	BT/BLE Security
AP305C/CX[1]	7.3.5.0	✓	✗	✓	✓	✓	✓	✗
AP310ie[4]/360ie[4]	7.8.5.0	✓	✗	✓	✓	✓	✓	✗
AP310ie-1[4]	7.8.5.0	✓	✗	✗	✓	✓	✓	✗
AP410ie[2]/460ie[2]	7.8.5.0	✓	✗	✓	✓	✓	✓	✗

AP410ie-1[2]	7.8.5.0	✓	✗	✗	✓	✓	✓	✗
AP410C[2]/AP460C[2]	7.8.5.0	✓	✗	✓	✓	✓	✓	✓
AP505i[1]/510ie[4]/560ih[4]	7.8.5.0	✓	✗	✗	✓	✓	✓	✗
AP510ie-1[4]	7.8.5.0	✓	✗	✗	✓	✓	✓	✗
AP4000[6]	7.8.5.0	✓	✗	✗	✓	✓	✗	✓

ExtremeCloud Appliance v4.76.08 (XCA) Managed

AP Model Dedicated Sensor	Earliest Supported Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis	Advanced Spectrum Analysis	Live View	AP Test	Wireless Vulnerability Assessment (WVA)	BT/BLE Security
AP310ie[4]/360ie[4]	WING 7.3.1.4	✓	✗	✓	✓	✓	✓	✗
AP410ie[2]/460ie[2]	WING 7.3.1.4	✓	✗	✓	✓	✓	✓	✗
AP505i[1]/510ie[4]/560ih[4]	WING 7.3.1.4	✓	✗	✗	✓	✓	✓	✗
AP7522[1]/7532[1]/7562[1]	WING 7.3.1.4	✓	✗	✗	✓	✓	✓	✗
AP8432[2]	WING 7.3.1.4	✓	✗	✓	✓	✓	✓	✗
AP8533[2]	WING 7.3.1.4	✓	✗	✗	✓	✓	✓	✗

WiNG Controller Managed

AP Model Dedicated Sensor	Earliest Supported Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis	Advanced Spectrum Analysis	Live View	AP Test	Wireless Vulnerability Assessment (WVA)	BT/BLE Security
AP7532[1]/7522[1]/7562[1]	WING 7.3.1.1	✓	✗	✓	✓	✓	✓	✗
AP8533[2]	WING 7.3.1.1	✓	✗	✓	✓	✓	✓	✓
AP8432[2]	WING 7.3.1.1	✓	✗	✓	✓	✓	✓	✓
AP310ie[4]/360ie[4]	WING 7.4.1.2	✓	✗	✓	✓	✓	✓	✓
AP410ie[2]/460ie[2]	WING 7.4.1.2	✓	✗	✓	✓	✓	✓	✓
AP410C[2]/AP460C[2]	WiNG 7.6.4.0	✓	✗	✓	✓	✓	✓	✓
AP505i[1]/510ie[4]/560[4]	WING 7.9.3	✓	✗	✓	✓	✓	✓	✓
AP310ie-1[4]	WING 7.9.3	✓	✗	✓	✓	✓	✓	✗
AP410C-1[2]	WING 7.9.3	✓	✗	✓	✓	✓	✓	✗
AP410i-1[2]	WING 7.9.3	✓	✗	✓	✓	✓	✓	✗
AP510i-1[5]	WING 7.9.3	✓	✗	✓	✓	✓	✓	✗
AP5010[6]/AP5010U[6]	WING 7.9.3	✓	✗	✓	✓	✗	✗	✗

Notes:

[1] Both radios must be configured as a sensor. No client service possible when operating as a sensor

[2] Third radio capable of only 2.4/5GHz sensor functionality. For AP 8432 – First radio can be used either as a dedicated 2.4/5GHz sensor and second radio for data, or both radios can operate as sensors (No client service).

[3] First radio can operate as 2.4/5GHz sensor. With first radio operating as sensor, only 5GHz client service on second radio

[4] First radio 2.4/5GHz dedicated sensor capable. Second radio also able to operate as dedicated 5GHz single band sensor

[5] Third radio can operate as 2.4/5/6GHz sensor. When enabled, no client service on 6GHz possible

[6] First radio can operate as 2.4/5/6GHz sensor. When enabled, second and third radio provide 5/6GHz client service

8. Feature Matrix Radio-Share Sensing

ExtremeCloud IQ (XIQ) Managed

AP Model Dedicated Sensor	Earliest Supported Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis	Advanced Spectrum Analysis	Live View	AP Test	BT/BLE Security
AP302W	**10.2r3**	✓	✗	✗	✓	✗	✗
AP3000/AP3000X	**10.6r1**	✓	✗	✗	✓	✗	✗
AO650/510C	**10.2r3**	✓	✗	✗	✓	✗	✗

ExtremeCloud IQ Controller v.10.x (XIQC) Managed

AP Model Radio-Share Sensor	Earliest Supported Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis	Advanced Spectrum Analysis	Live View	AP Test	BT/BLE Security
AP302w	**10.0.0.0**	✓	✗	✗	✓	✗	✗
AP305C/CX[3]	**10.0.0.0**	✓	✗	✗	✓	✗	✗
AP305C-1	**10.1.0.0**	✓	✗	✗	✓	✗	✗
AP310ie[3]/360ie[3]	**10.0.0.0**	✓	✗	✗	✓	✓	✓
AP505i[3]/510ie[3]/560ih[3]	**10.0.0.0**	✓	✗	✗	✓	✓	✗
AP4000[2]	**10.0.0.0**	✓	✗	✓	✓	✗	✗
AP4000-1[2]	**10.1.0.0**	✓	✗	✓	✓	✗	✗
AP3000/AP3000X	**10..06.01**	✓	✗	✗	✓	✗	✗

Extreme Campus Controller v5.x (XCC) Managed

AP Model Radio-Share Sensor	Earliest Supported Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis	Advanced Spectrum Analysis	Live View	AP Test	BT/BLE Security
AP310ie[3]/360ie[3]	7.8.5.0	✓	✗	✓	✓	✓	✗
AP310ie-1[3]	7.8.5.0	✓	✗	✗	✓	✓	✗
AP505i[3]/510ie[3]/560[3]	7.8.5.0	✓	✗	✗	✓	✓	✗
AP510ie-1[3]	7.8.5.0	✓	✗	✗	✓	✓	✗

WiNG Controller Managed

AP Model Radio-Share Sensor	Earliest Supported Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis	Advanced Spectrum Analysis	Live View	AP Test	BT/BLE Security

AP7532/7522/7562[1]	WING 7.3.1.1	✓	×	×	✓	✓	×
AP8432[2]	WING 7.3.1.1	✓	×	×	✓	×	✓
AP310ie[3]/360ie[3]	WiNG 7.6.1.0	✓	×	×	✓	✓	✓
AP505i[3]/510ie[3]/560[3]	WiNG 7.6.1.0	✓	×	×	✓	✓	✓
AP310ie-1	WiNG 7.7.1.0	✓	×	×	✓	✓	×
AP510i-1	WiNG 7.7.1.0	✓	×	×	✓	✓	×
AP3000/AP3000X	7.9.2	✓	×	×	✓	×	×

Notes:

[1] Both the first and second radio can operate with radio-share sensing together or independently.

[2] Spectrum Analysis is not supported with radio-share mode enabled.

[3] AP Testing in radio-share mode - only single-cell/internal BSS AP testing is supported. AP Testing on remote BSS is not supported.

9. AirDefense Extreme Wireless Feature Matrix

For the EW 39xx series access points operating as dedicated sensors, AirDefense supports the following features:

- WIPS
- Advanced Forensics
- Liveview

AirDefense also supports the following features for AP 39xx operating as radio-share sensors.

- WIPS
- Advanced Forensics
- Liveview

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