

## AirDefense 10.5.0-05 Release Notes

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## AirDefense 10.5.0-05 Release Notes

### 1. New Features in AirDefense 10.5.0-05

The AirDefense 10.5.0-05 (ISO) release introduces the following key features and functionalities:

- CentOS 7 Upgrade
  - Base OS of AD server migrated from version 6 to 7.
  - Enhances security and overall system performance

Note: This is OS upgrade, ADSP upgrade requires specific upgrade process
- Introduction of Floorplan import in HTML5 UI
  - Import new floorplan and configure
  - Locate devices (BSS/Wireless Clients and BT/BLE devices) in floorplan from Network page
- New Signature to capture one of the vulnerabilities from Frag Attack
  - New alarm “Unauthorized EAPOL frame” added to detect on air and report.

## 2. Version Compatibility

The 10.5.0-05 ISO version is upgradable from previous AD releases (10.3, 10.4 and 10.4.1)

For existing customers who would like to upgrade to 10.5.0-05, AirDefense is an entitled Product and requires an active support contract.

### Firmware Version Compatibility

AirDefense 10.5.0-05 ISO has been tested for compatibility against

- WiNG 7.6.1.0
- XCC 05.26.03.0016

### Supported Sensor Model and Interop Build version validated

Sensor Model	WING Interop build
AP 7522, AP 7532, AP 7562	WING 7.6.1.0
AP 8533	WING 7.6.1.0
AP 8432	WING 7.6.1.0
AP 650/AP6532	WING 5.9.1.7
AP 8163	WING 5.9.6.0
AP 310 , AP360	WING 7.6.1.0
AP 410, AP460	WING 7.6.1.0
AP 505, AP 510, AP 560	WING 7.6.1.0

Sensor Model	Identifi Interop build
AP 3935, AP3965	10.51.17

Sensor Model	IQEngine/HOS
AP410C/AP460C	10.3r2

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 10.5.0-05 ISO has been tested for compatibility against

- Extreme Campus Controller 05.06.02

### Hardware Appliances

- Model NX-9500

- Model NX-9600

#### **Virtual Platforms**

- VMWare EXSi Hypervisor 5.5, 6.0, 6.5

#### **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 10.5.0-05 ISO has been tested for compatibility against

- XIQ Q3r5 (20.11.50.X)

#### **Supported Extreme Wireless Access Points**

- AP 410C/460C (10.2r3)

## Extreme Switch Compatibility

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

## Supported Browsers

Browser	HTML5
Chrome	Version 91.0.4472.77 (Official Build) (64-bit)
Firefox	88.0.1 (64-bit)
IE Edge	Version 91.0.864.37 (Official build) (64-bit)

### Supported OS

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

## 3. Installation

### Appliance Installation

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-10-5-0-05-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 3<sup>rd</sup> 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**”

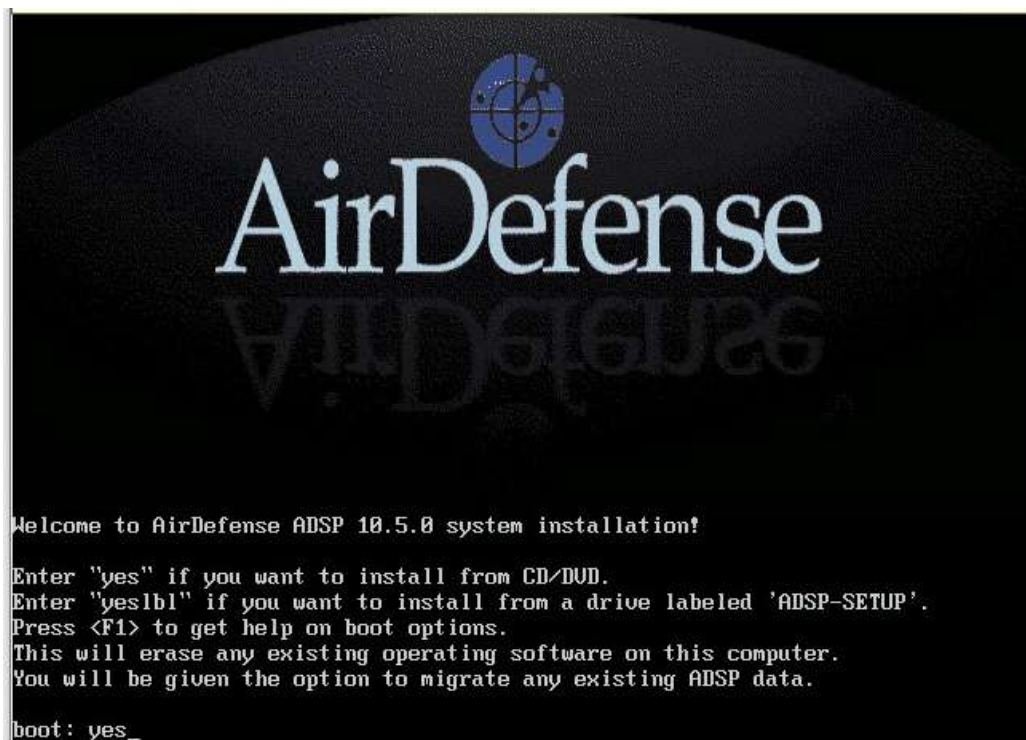
Insert the USB flash drive or DVD in NX and reboot the server. User will be provided with the following steps to install / upgrade to AD server 10.5.0-05.

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.

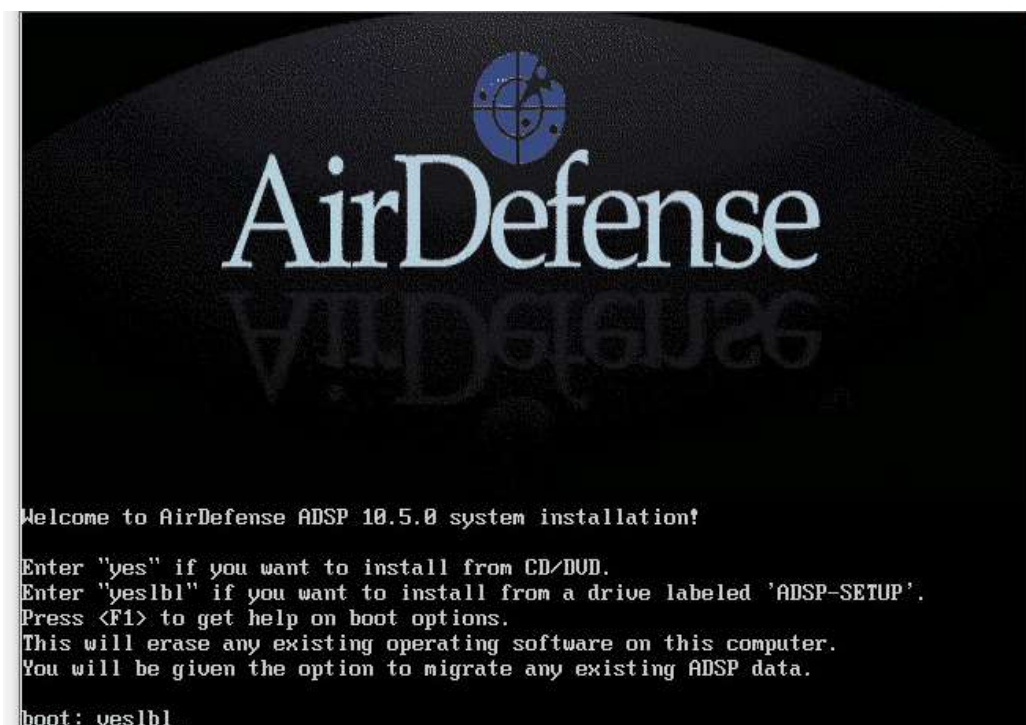
#### In DVD installation

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



#### In USB installation

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



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

**Fresh Install without any prior configuration**

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 10.5.0-05.

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.

#### **Installation complete**

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 10.5 from the bootable iso.

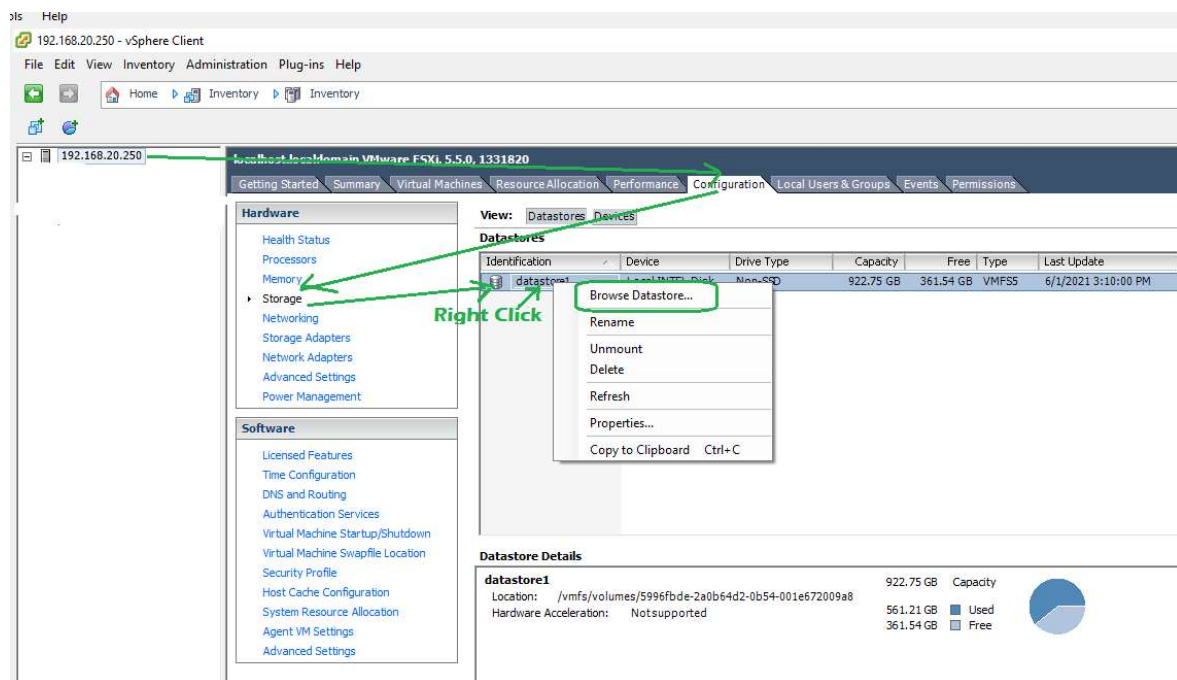
An existing VM instance, running any previous release of ADSP, can be upgraded to 10.5 with this iso.

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.

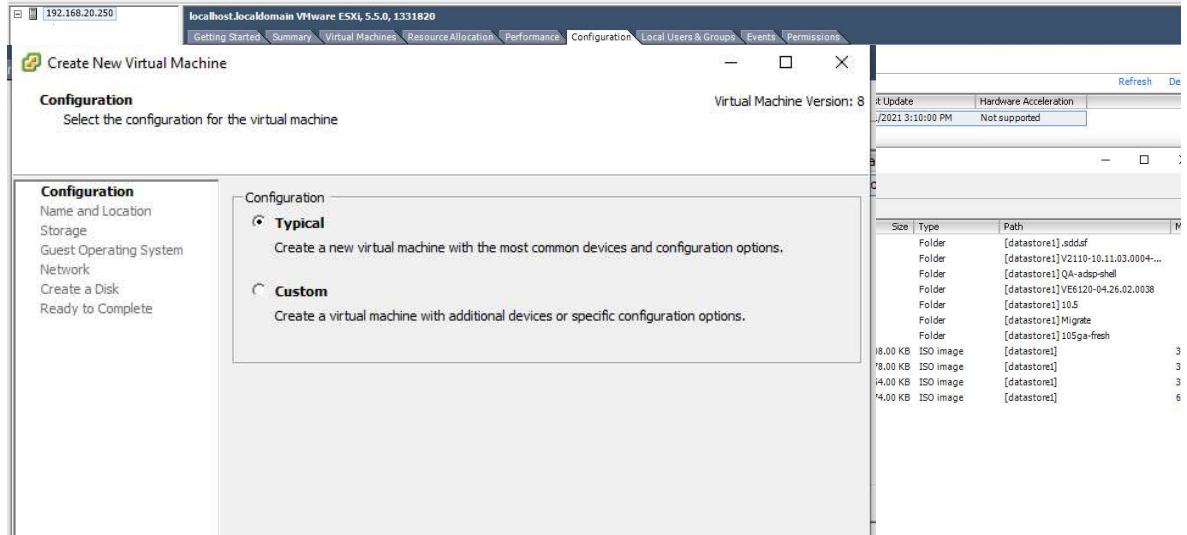
1. Login into VMware vSphere Client



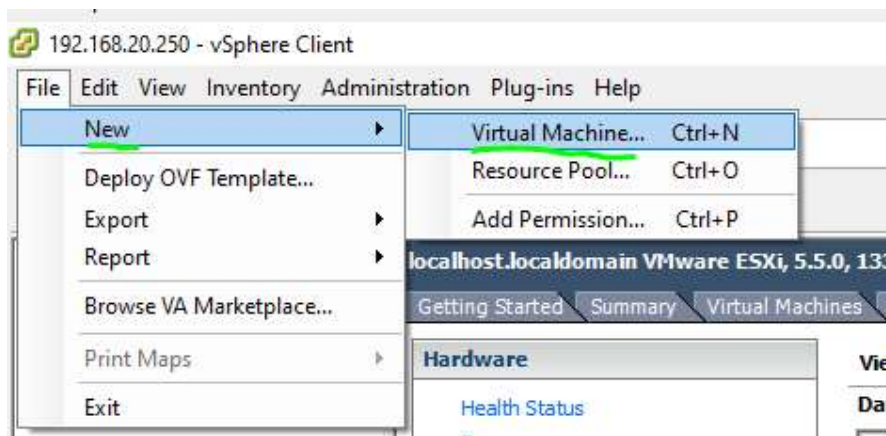
2. Select VMware hypervisor host → Context menu properties → Configuration tab → Storage → Browse the Datastore



3. Upload the AD-adsp-10-5-0-05-dvd.iso into the datastore



#### 4. Creating a new VM guest for ADSP.



Skip this step in-case of upgrade.

- a. Select File → New virtual Machine
- b. Select the typical configuration
- c. Enter a name for the new VM

Create New Virtual Machine

Virtual Machine Version: 8

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

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

Name:

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

Virtual Machine Version: 8

**Storage**  
Select a destination storage for the virtual machine files

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	Support

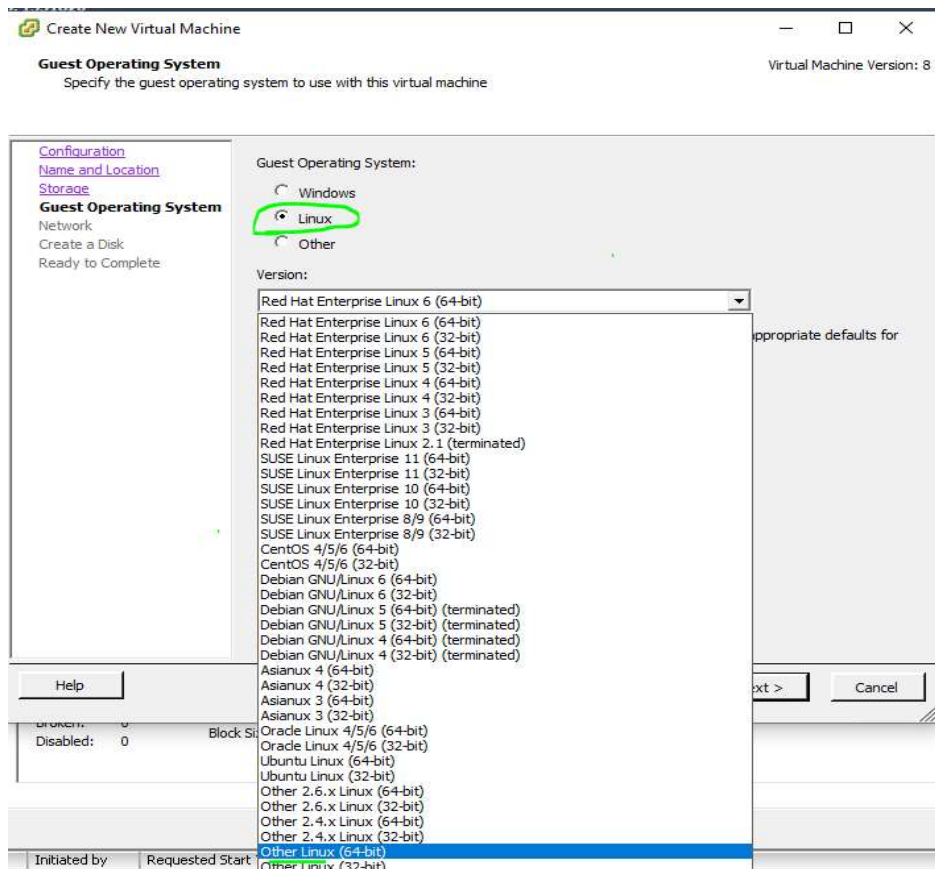
☐ Disable Storage DRS for this virtual machine

Select a datastore:

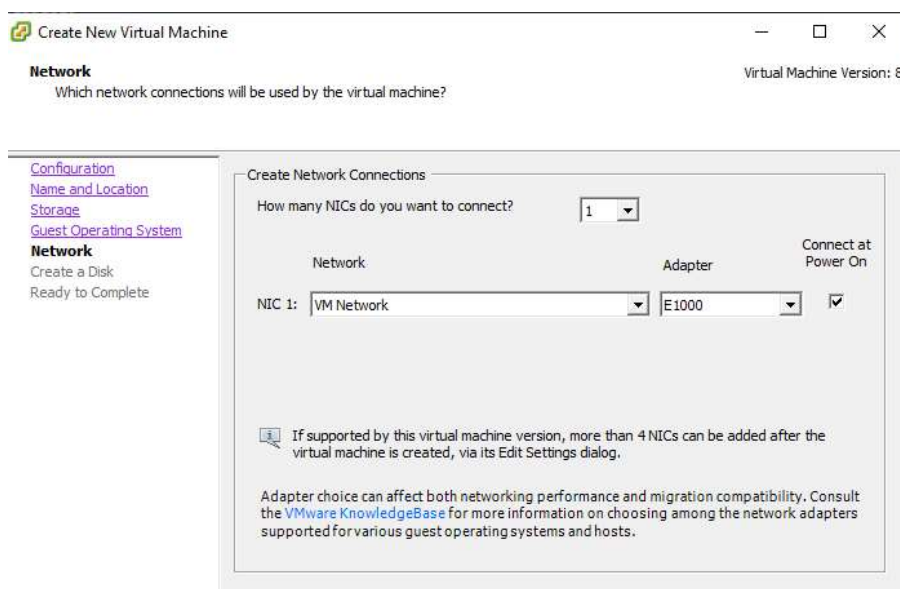
Name	Drive Type	Capacity	Provisioned	Free	Type	Thin Pro
------	------------	----------	-------------	------	------	----------

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

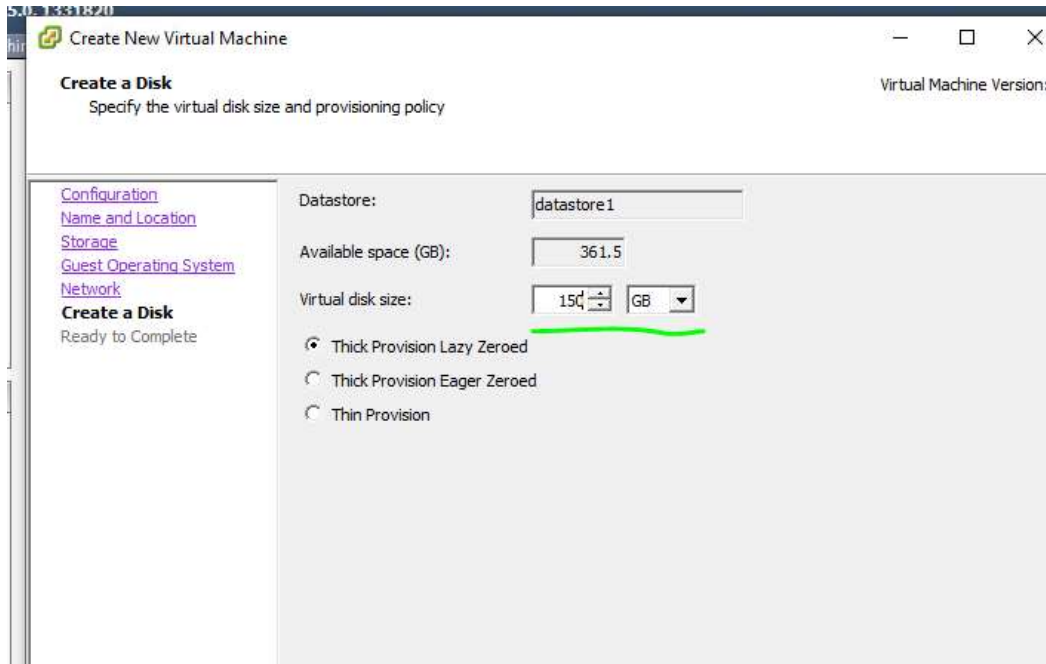
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f. Configure the desired network for connectivity. Minimum 1 adapter

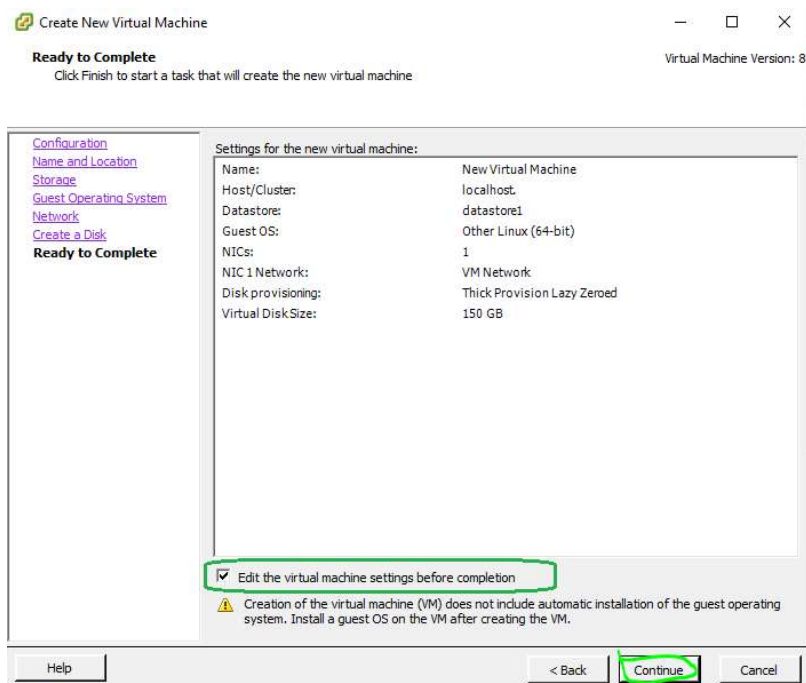


g. Configure the desired disk size. Minimum 50 GB.



The screenshot shows the 'Create New Virtual Machine' wizard in the 'Create a Disk' step. The left sidebar contains links for 'Configuration', 'Name and Location', 'Storage', 'Guest Operating System', 'Network', and 'Create a Disk' (which is highlighted). Below these links is the text 'Ready to Complete'. The main area is titled 'Specify the virtual disk size and provisioning policy'. It includes a 'Datastore' dropdown set to 'datastore1', an 'Available space (GB)' field showing '361.5', and a 'Virtual disk size' field with a spinner set to '150' and a unit dropdown set to 'GB'. Below these fields are three radio button options: 'Thick Provision Lazy Zeroed' (selected), 'Thick Provision Eager Zeroed', and 'Thin Provision'. A green line is drawn under the '150' in the 'Virtual disk size' field.

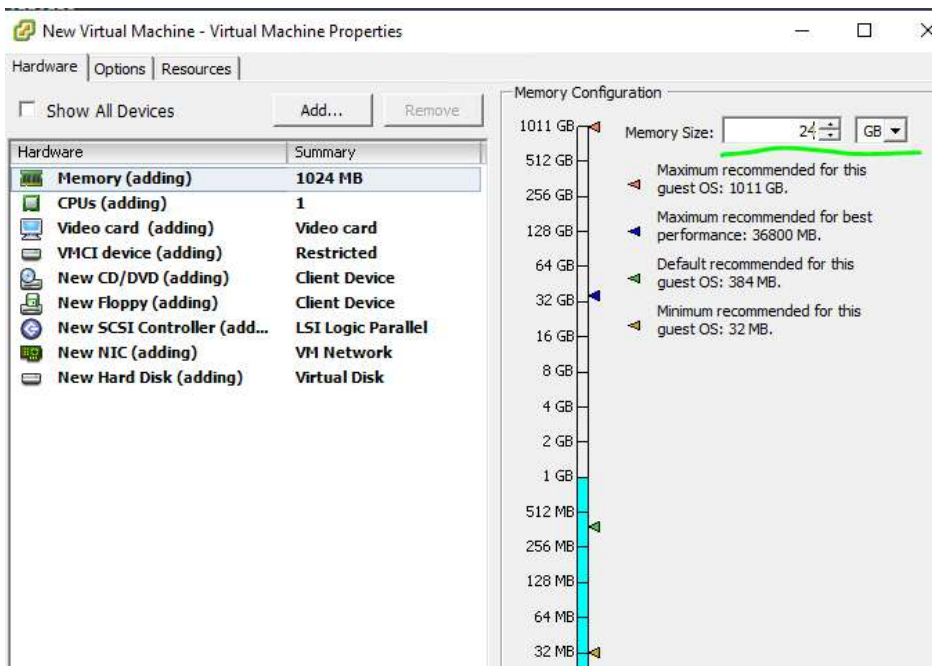
h. Continue the configuration wizard to add disk & memory



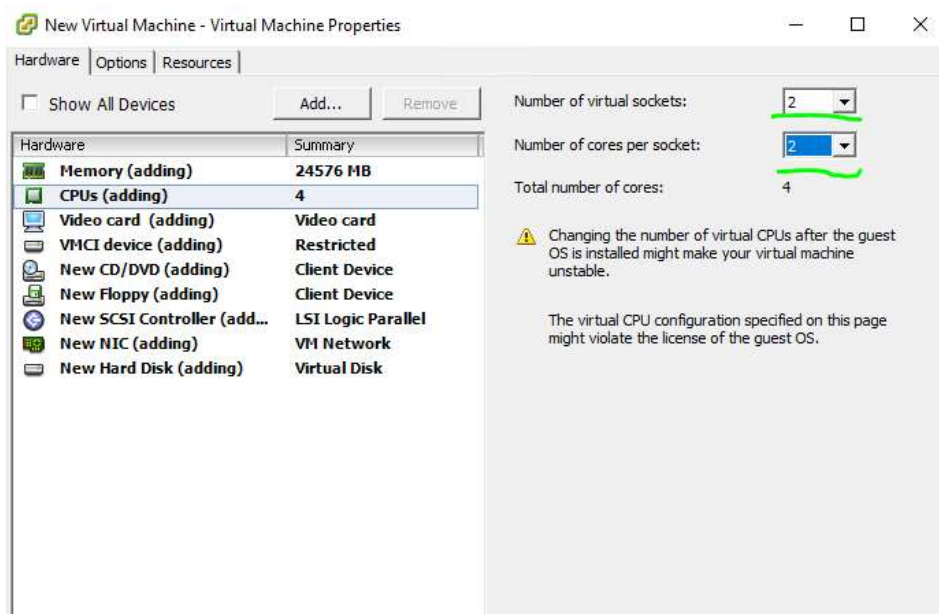
The screenshot shows the 'Create New Virtual Machine' wizard in the 'Ready to Complete' step. The left sidebar contains links for 'Configuration', 'Name and Location', 'Storage', 'Guest Operating System', 'Network', 'Create a Disk', and 'Ready to Complete' (which is highlighted). Below these links is the text 'Ready to Complete'. The main area is titled 'Click Finish to start a task that will create the new virtual machine'. It includes a 'Virtual Machine Version: 8' label. Below this is a table titled 'Settings for the new virtual machine:' with the following values: 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, and Virtual Disk Size: 150 GB. At the bottom, there is a checkbox labeled 'Edit the virtual machine settings before completion' which is checked and highlighted with a green box. Below this checkbox is a warning icon and text: '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.' At the bottom of the window are buttons for 'Help', '< Back', 'Continue' (highlighted with a green box), and 'Cancel'.

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



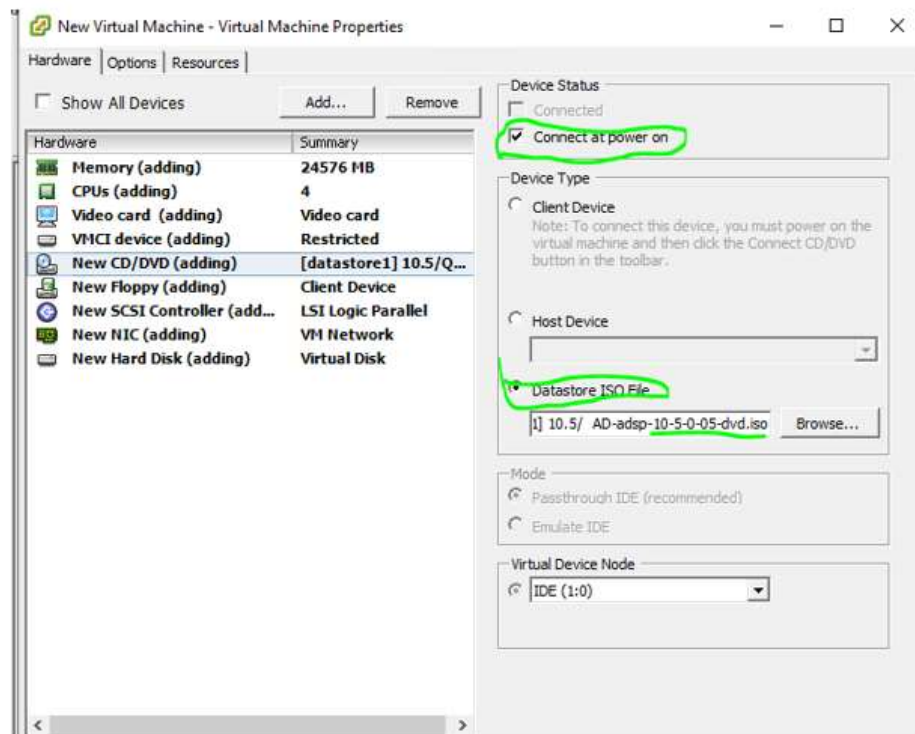


- j. Select CPUs → Configure the desired vCPUs count. Minimum 2 vCPUs (1 socket X 2 cores per socket)

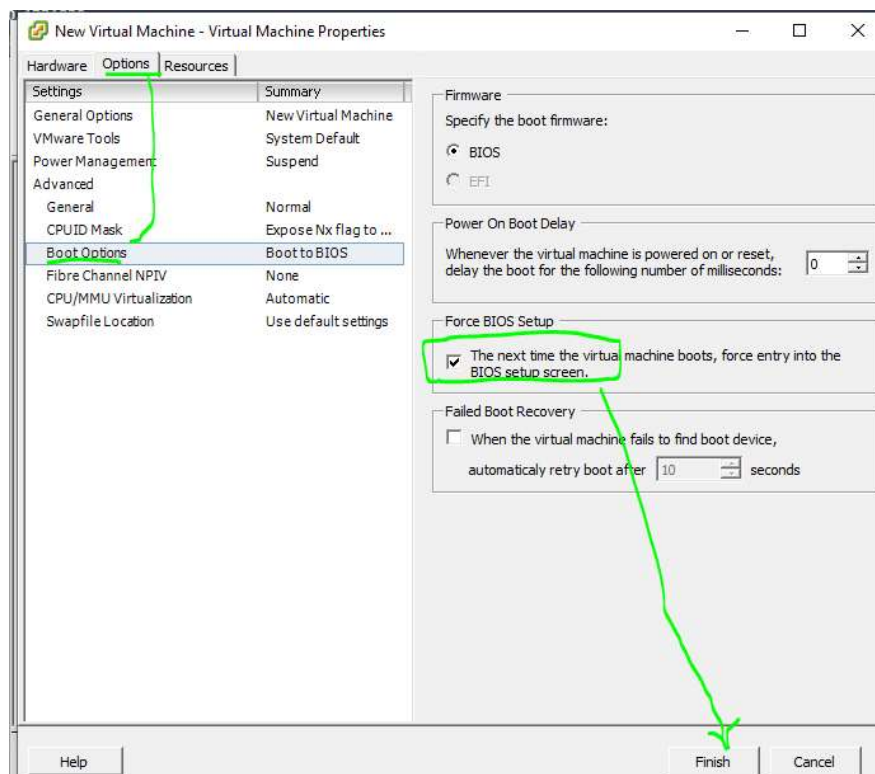


- k. Click 'Finish' to create the new VM
5. Select the new / existing VM → open properties from its context menu
- On Hardware tab, select the CD/DVD → Select 'Connect at power on' option on Device status → Select 'Datastore ISO File' as Device Type → Click Browse & select the ISO file from

datastore



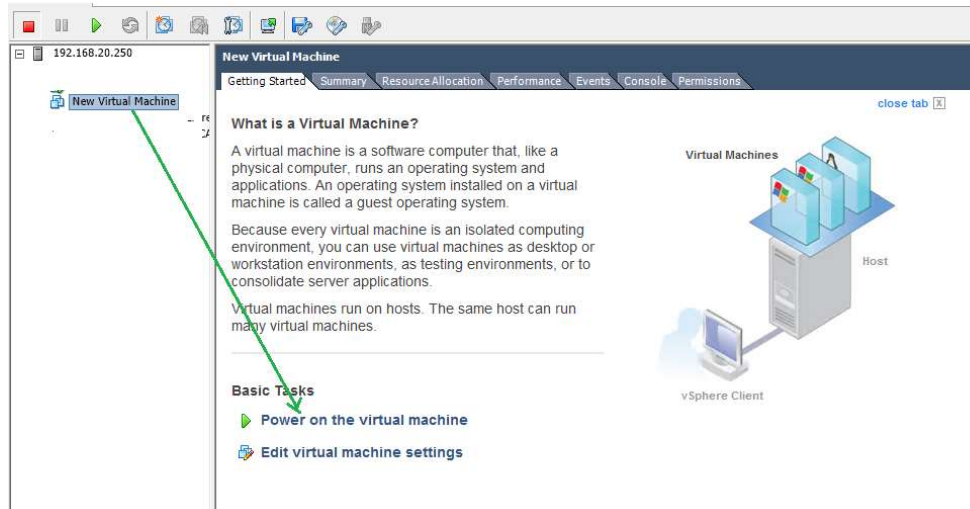
- b. Go to Options tab → Select 'Boot Options' settings → Force BIOS setup → Select the



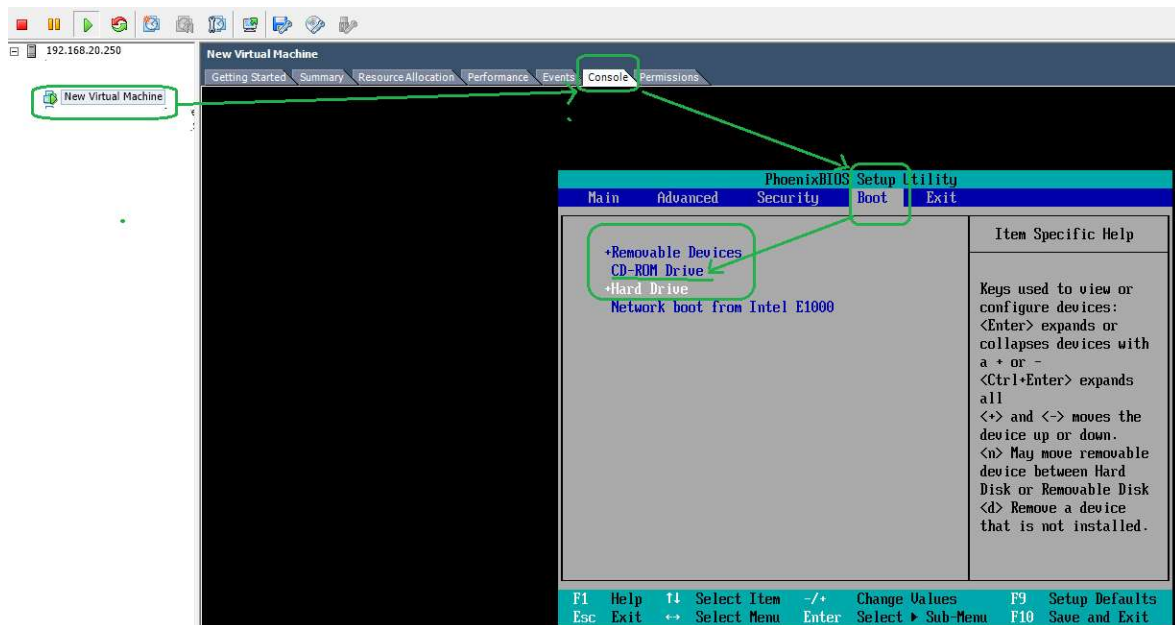
checkbox to enter BIOS setup on next bootClick 'Finish' to confirm the changes



6. Power ON the Created Virtual machine



- 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



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

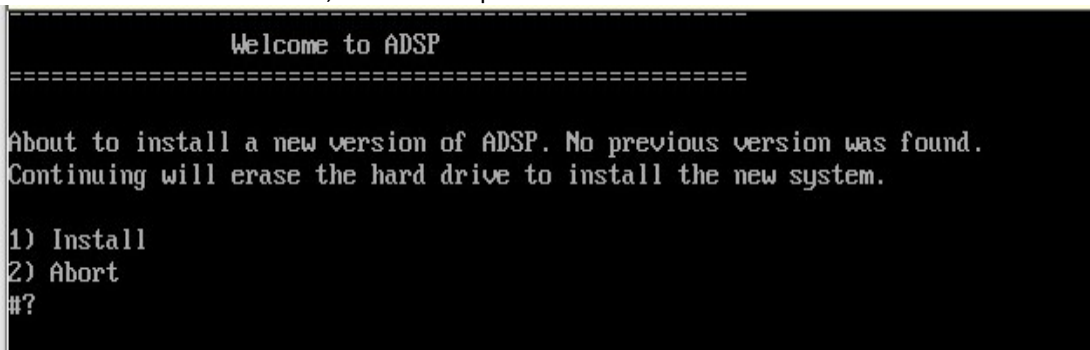
Type “yes” at the boot prompt & press ‘Enter’ to continue.



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

**Fresh Install without any prior configuration**

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



**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 10.5.0-05.

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 minimum 10-15 minutes to complete.
11. Once the installation completes, the user will be 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*.

## 4. 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 – Note that the minimum virtual disk size must be 50GB for the VM solution.
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 v 9.0.3 to v 9.1.0 (and higher) is not seamless. AirDefense architecture was significantly revised in v 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 v 9.0.3 be performed via v 9.2.0 release – which has enhancements to ease the upgrade.
8. When upgrading firmware to v 9.2.0 (from v 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/adburl.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]

In AirDefense 10.0, this configuration is done via the CLI. Login to the AirDefense CLI using the *smxmgr* credentials

```

*** ADSPadmin ***

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

(O) to quit      -> letmeout

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

```

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

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

```

## 5. SPR/Issues Fixed

SPR#	Summary
AD-10996	Unable to display Korean characters on pdf report
AD-10997	Spectrum Analysis UNI-III not sending correct list of frequencies to sensor
AD-11019	Watched Station Active alarm not being triggered when the client is set to neighbor
AD-11066	Sensors adopted Identify WLC displaying as either sensor only & sensor/AP icons in ADSP 10.2
AD-11260	Auto Placement rules vanish after editing/adding 3-5 more rules to current list of rules
AD-11269	AirDefense 10.4.1-06b2 cannot restore config backup from AirDefense 10.4.1-06b2
AD-11080	Termination does not occur when AAM Advanced Filter put Associate Equal to True

## 6. Vulnerabilities Fixed

CentOS 7 is coming up with the latest packages and no major vulnerabilities reported.

## 7. 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 an 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.
- As features supported for EW 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 access points.

### **Pre-requisites for multicore configuration**

- All the floors in the same building should be created under one area of network tree structure
  - This is mandatory as not doing so will result in devices being seen multiple times and may result in undefined WIPS behavior
- Auto-placement rules are mandatory 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 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 filters (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: Wippsd (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 the all of 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
- 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

### **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 – WEP keys entered in ASCII characters prevent successful testing of WEP networks when using M5x0 sensors. WEP keys entered as hex code work fine.
- AP Test – Due to hardware limitations AP testing using EAP-TLS or PEAP-TLS is not supported on the M5x0 sensor platforms.
- 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.

#### 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.

## 8. AirDefense Feature Matrix

AP Model Using Dedicated Sensor Mode	Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis	Advanced Spectrum Analysis	Live View	APTest	Connectivity Troubleshooting	Wireless Vulnerability Testing (WVA)	BT/BLE Security
AP650/6532	WING5.9.1.7	✓	✓	✗	✓	✓	✓	✓	✗
AP6522/6562	WING5.9.4.1	✓	✗	✓	✓	✓	✓	✓	✗
AP7532/7522/7562 <sup>1</sup>	WING7.3.1.0	✓	✗	✓	✓	✓	✓	✓	✗
AP7161	WING5.9.3.3	✓	✓	✗	✓	✓	✓	✓	✗
AP8163	WING5.9.6.0	✓	✗	✓	✓	✓	✓	✓	✗
AP8533 <sup>2</sup>	WING7.3.1.0	✓	✗	✓	✓	✓	✓	✓	✓
AP8432 <sup>2</sup>	WING7.3.1.0	✓	✗	✓	✓	✓	✓	✓	✓
AP7602/7622	WING5.9.5.0	✓	✗	✗	✗	✗	✗	✗	✓
AP7632/7662/7612 <sup>1</sup>	WING7.3.1.0	✓	✗	✗	✓	✗	✗	✗	✓
AP505/510/560	WING7.4.1.2	✓	✗	✗	✓	✓	✗	✓	✓
AP410ie/460	WING7.4.1.2	✓	✗	✓	✓	✓	✗	✓	✓
AP310/360	WING7.4.1.2	✓	✗	✓	✓	✓	✓	✓	✓
XCA 04.76.03– Distributed Mode									
AP8432 <sup>2</sup>	WING7.3.1.1	✓	✗	✓	✓	✓	✓	✓	✗
AP7632/7662/7612 <sup>1</sup>	WING7.3.1.1	✓	✗	✗	✓	✗	✗	✗	✗
AP505/510/560	WING7.3.1.1	✓	✗	✓	✓	✓	✗	✓	✗
AP410ie/460	WING7.3.0.1	✓	✗	✓	✓	✓	✗	✓	✗
XCA 04.76.03/ XCC 5.06.02 – Campus Mode									
AP505/510/560	WING7.4.1.2	✓	✗	✗	✓	✓	✗	✓	✗
AP410ie/460	WING7.4.1.2	✓	✗	✓	✓	✓	✗	✓	✗
AP310/360	WING7.4.1.2	✓	✗	✓	✓	✓	✗	✓	✗
Extreme Wireless(Identifi)									

AP3912/3915/3916/ 3917/3935/3965 <sup>1</sup>	10.51.12	✓	✗	✗	✓	✗	✗	✗	✗
Extreme Wireless(IQEngine)									
AP410C/AP460C	10.2r3	✓	✗	✗	✓	✗	✗	✗	✗

This section defines features supported by access point/ sensor module.

Notes:

<sup>1</sup>AP 7522, AP 7532, AP 7562, AP 7632, AP 7662, AP 7612, AP39XX radios are band-locked, entire AP needs to be dedicated as sensor

<sup>2</sup>Support is limited to the dedicated sensor (Radio 3) for AP 8533. For AP 8432 – either Radio 1 can be used as a dedicated sensor and Radio 2 for data or the entire AP can be dedicated as sensor.

3. Radio Share functionality (allows for enabling the Network Assurance toolkit in AirDefense, without dedicating a radio as a sensor) is available on the 802.11n/802.11ac/802.11ax APs with some caveats

– please see details below:

AP Model Using Radio Share Mode	Firmware Version	WIPS and Advanced Forensics	Spectrum Analysis <sup>2</sup>	Advanced Spectrum Analysis <sup>3</sup>	Live View	APTest <sup>5</sup>	Connectivity Troubleshooting	BT/BLE Security
AP650/6532	WING5.9.1.7	✓	✗	✗	✓	✗	✗	✗
AP7532/7522/7562 <sup>4</sup>	WING7.6.1.0	✓	✗	✗	✓	✓	✗	✗
AP8163	WING5.9.6.0	✗	✗	✗	✗	✗	✗	✗
AP8533	WING7.6.1.0	✗	✗	✗	✗	✗	✗	✗
AP8432	WING7.6.1.0	✓	✗	✗	✓	✗	✗	✓
AP505/510/560	WING7.6.1.0	✓	✗	✗	✓	✓	✗	✓
AP410ie/460	WING7.6.1.0	✗	✗	✗	✗	✗	✗	✓
AP310/360	WING7.6.1.0	✓	✗	✗	✓	✓	✗	✓
XCC 05.26.03.0016 – Campus Mode								
AP505/510/560	WING7.6.1.0	✓	✗	✗	✓	✓	✗	✓
AP410ie/460	WING7.6.1.0	✗	✗	✗	✗	✗	✗	✗
AP310/360	WING7.6.1.0	✓	✗	✗	✓	✓	✗	✓

Notes:

<sup>1</sup>AP 6522, 6562 – The first radio is band-locked to 2.4Ghz. The second radio is capable of ABGN sensor operation.

- In Radio 1 = Sensor, Radio 2 = Wlan configuration, the sensor will only scan 2.4Ghz channels on Radio 1.
- In Radio 1 = Wlan, Radio 2 = Sensor configuration, the sensor will scan both bands on Radio 2
- In Radio 1 = Sensor, Radio 2 = Sensor configuration, the sensor will scan 2.4GHz on Radio 1 and 5GHz on Radio 2

<sup>2</sup>Spectrum Analysis is not supported with Radio share enabled.

<sup>3</sup>Advanced Spectrum Analysis in RadioShare mode may impact WLAN performance.

<sup>4</sup>AP 7522, AP 7532, AP 7562, AP 7632, AP 7662, AP 7612, AP39XX radios are band-locked, both radios are required for sensing

<sup>5</sup>AP Testing in radio share mode - only single-cell/internal BSS AP testing is supported. AP Testing on remote BSS is not supported.

<sup>6</sup>WIPS, Advanced Forensics, Liveview and Advanced Spectrum Analysis are only supported in centralized mode with AP5XX

<sup>7</sup>AP410ie,460 are not supported in distributed mode in XCA-4.76.03

## 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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