

Deploy your own Hawkeye Management System in AWS EC2

Version: Hawkeye 6.0.x

Need to know

You must have an Amazon AWS account with a valid payment in place (invoice/CC) to proceed.

License Pre-Requisite

For the purposes of this document, the assumption is that you already possess an activation code or that you have received a demo activation code from your Ixia account manager.

Hawkeye management public AMI list

Following table lists the different public images available:

Region	Region name	AMI ID	AMI name
us-east-1	US East (N. Virginia)	ami-09d643e42df261dec	Hawkeye-ManagementServer-Public-6x
us-east-2	US East (Ohio)	ami-0c057112e5223ae96	Hawkeye-ManagementServer-Public-6x
us-west-1	US West (N. California)	ami-06f56a8f7b9bf1153	Hawkeye-ManagementServer-Public-6x
us-west-2	US West (Oregon)	ami-08525acbffe0c90f1	Hawkeye-ManagementServer-Public-6x
ca-central-1	Canada (Central)	ami-006cc8df1c3783c76	Hawkeye-ManagementServer-Public-6x
ap-southeast-2	Asia Pacific (Sydney)	ami-0c91bcb424c3df4e1	Hawkeye-ManagementServer-Public-6x
ap-northeast-2	Asia Pacific (Seoul)	ami-0eaa8d3e27080b354	Hawkeye-ManagementServer-Public-6x
ap-south-1	Asia Pacific (Mumbai)	ami-028aaa5f6dee094ad	Hawkeye-ManagementServer-Public-6x
eu-central-1	Europe (Frankfurt)	ami-0bf499eaf2d8167cf	Hawkeye-ManagementServer-Public-6x
eu-west-1	Europe (Ireland)	ami-07d2705582a312d63	Hawkeye-ManagementServer-Public-6x
eu-west-2	Europe (London)	ami-07c55ee923c0170b8	Hawkeye-ManagementServer-Public-6x
eu-west-3	Europe (Paris)	ami-043d39273e8dcfbb9	Hawkeye-ManagementServer-Public-6x
eu-north-1	Europe (Stockholm)	ami-0c4f47183c565a38b	Hawkeye-ManagementServer-Public-6x

Deploy AMI in your AWS
Select in AMI Region



1. Select your Region and pick **selected AMI** in public AMI.
In EC2 AMI menu select public image and look for the corresponding Hawkeye

Launch	EC2 Image Builder	Actions									
Public images	search: Hawkeye	Add filter									
☐	Name	AMI Name	AMI ID	Source	Owner	Visibility	Status	Creation Date	Platform	Root Device Type	Virtualization
☐		Hawkeye-ManagementServer-Public-422	ami-0ac1d47a87dc068c1	012284807008/...	012284807008	Public	available	September 9, 2020 at 12:19:...	Other Linux	ebs	hvm
☐		Hawkeye-XR2000VM-Public	ami-06e7584bf6b908e9	012284807008/...	012284807008	Public	available	September 9, 2020 at 12:19:...	Other Linux	ebs	hvm
☐		Hawkeye-XRVM-Public	ami-0a374d74d890efc2a	012284807008/...	012284807008	Public	available	September 9, 2020 at 12:19:...	Other Linux	ebs	hvm

Launch Instance

2. Launch the **ami public** image and use the following as guidelines for sizing
 - a) 1-10 user system → t2.large or t2.xlarge
 - b) Network: Launch into VPC with public IP enabled
 - c) Storage: Keep default at 256GiB (General Purpose SSD)
 - d) Tag: (optional but highly recommended) purpose, date of launch, project code, etc.
 - e) Security group: configure existing or new one with following requirements:

Edit inbound rules

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Anywhere	e.g. SSH for Admin Desktop
HTTPS	TCP	443	Anywhere	e.g. SSH for Admin Desktop
Custom TCP F	TCP	10117	Anywhere	e.g. SSH for Admin Desktop
Custom TCP F	TCP	25025-25050	Anywhere	e.g. SSH for Admin Desktop

Add Rule

- i) Note: **DO NOT enable SSH inbound permanently**. The example above states that ssh is opened from anywhere but it is highly recommended to restrict it from your originating IP address.
- f) “Review and Launch” will pose a Warning about SSH/Port-22 – you will need to select or create a key pair and continue.

Add new Elastic IP to your instance (Optional but recommended)

First, why an elastic IP? Endpoints have a keep-alive to a registration service residing on the console, using a fixed IP means if the instance is shut down, you do not have to reconfigure any endpoints. Associate the same elastic IP to the new server's instance and endpoints will re-register automatically.

3. Make sure the Hawkeye Management server instance is **running**.
4. Go to Elastic IPs section. Allocate New IP address, pick the VPC

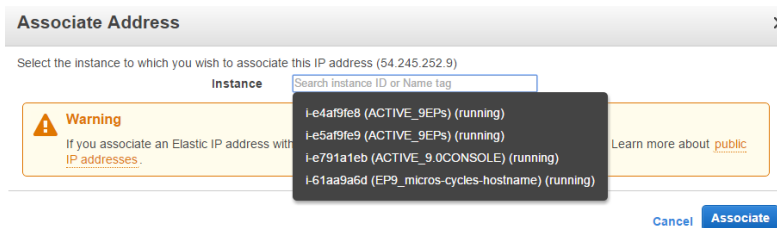
Allocate New Address

Are you sure you want to allocate a new IP address?

EIP used in: EC2

Cancel
Yes, Allocate

5. Select the new elastic IP and choose “Associate Address” option.
6. From the pop-up window, choose the recently launched instance



Next steps

7. Point your browser to the URL or the elastic IP of the instance. If you did not use elastic IP, find the instance's public IP and browse to it with [https://\(publicIP\)](https://(publicIP)).
8. You will be presented with a page that states Licensing needs to be activated. Click this link. Enter the activation code that was provided by Ixia. This is a BYOL model.

Activate / Deactivate a license

LICENSE SERVER: localhost **HOST ID:** 02753d-1362dd-840a01-1022

9. Login as sysadmin/Password0 and immediately **change** the password.
10. For more detailed information on the Hawkeye server access, please refer the user guide and getting started guide in the product. Also, please refer the release notes for further information.

Note: **DO NOT enable SSH inbound permanently**. Note inbound SSH is disabled in the security group already. IF SSH access is required, limit to IP address you will access the server from and add to security for the duration of need and remove it after use.

Deploying XRVM AMI image

XRVM AMI image can be deployed in any supported regions and attached to the Hawkeye server. They can be used as public endpoints .

License Pre-Requisite

No license is needed for XRVM but you will need a Hawkeye server with public IP to attach to make use of it.

XRVM public AMI list

Following table lists the different public images available:

Region	Region name	AMI ID	AMI name
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us-east-1	US East (N. Virginia)	ami-071f496b7b0ec5b80	Hawkeye-XRVM-Public-6x
us-east-2	US East (Ohio)	ami-0d51654b4ee019c3a	Hawkeye-XRVM-Public-6x
us-west-1	US West (N. California)	ami-0289cc5ebbbd62b78	Hawkeye-XRVM-Public-6x
us-west-2	US West (Oregon)	ami-0f788d2f0e860ed09	Hawkeye-XRVM-Public-6x
ca-central-1	Canada (Central)	ami-02fcbe02e1ae5e98d	Hawkeye-XRVM-Public-6x
ap-southeast-1	Asia Pacific (Singapore)	ami-0757237f4dae45430	Hawkeye-XRVM-Public-6x
ap-southeast-2	Asia Pacific (Sydney)	ami-00f351f33a6df1280	Hawkeye-XRVM-Public-6x
ap-northeast-2	Asia Pacific (Seoul)	ami-09a5a778e2884ffec	Hawkeye-XRVM-Public-6x
ap-south-1	Asia Pacific (Mumbai)	ami-0ff8a5850d55d913f	Hawkeye-XRVM-Public-6x
eu-central-1	Europe (Frankfurt)	ami-0905c93a846a1001f	Hawkeye-XRVM-Public-6x
eu-west-1	Europe (Ireland)	ami-04279baf8d8d10798b	Hawkeye-XRVM-Public-6x
eu-west-2	Europe (London)	ami-08c876699992caa2e	Hawkeye-XRVM-Public-6x
eu-west-3	Europe (Paris)	ami-04c2ca459e4d96571	Hawkeye-XRVM-Public-6x
eu-north-1	Europe (Stockholm)	ami-097a8dc68bd01a4ab	Hawkeye-XRVM-Public-6x

Select in AMI Region

11. Select your Region and pick **selected AMI** in public AMI.

In EC2 AMI menu select public image and look for the corresponding Hawkeye XRVM image

	Name	AMI Name	AMI ID	Source	Owner	Visibility	Status	Creation Date	Platform	Root Device T	Virtualizati
☐		Hawkeye-ManagementServer-Public-422	ami-0ac1d47a87dc068c1	012284807008/...	012284807008	Public	available	September 9, 2020 at 12:19:...	Other Linux	ebs	hvm
☐		Hawkeye-XR2000VM-Public	ami-06e7584bf6b908e9	012284807008/...	012284807008	Public	available	September 9, 2020 at 12:19:...	Other Linux	ebs	hvm
☐		Hawkeye-XRVM-Public	ami-0a374d74d890efc2a	012284807008/...	012284807008	Public	available	September 9, 2020 at 12:19:...	Other Linux	ebs	hvm

Launch Instance

1. Launch the **ami public** image and use the following as guidelines for sizing

- g) For low traffic t2.nano or t2.micro are sufficient. For bandwidth qualification tests t2.small or t2.medium are recommended
- h) Network: Launch into VPC with public IP enabled
- i) Storage: Keep default at 8GiB (General Purpose SSD)
- j) Tag: (optional but highly recommended) purpose, date of launch, project code, etc.

Security group: configure existing or new one with following requirements

For this the following security group needs to be configured:

Type	Protocol	Port range	Source
Custom TCP	TCP	10115 - 10116	0.0.0.0/0
SSH	TCP	22	80.149.122.40/29
SSH	TCP	22	54.89.32.11/32
Custom TCP	TCP	50000 - 60000	0.0.0.0/0
Custom UDP	UDP	10115 - 10116	0.0.0.0/0
Custom UDP	UDP	50000 - 60000	0.0.0.0/0

First set is for remote managements (ports 10115-10116) and second set is range of ports used for testing and need to be configured as well for a matching range into Hawkeye server under Traffic port management:

Review and Launch" will pose a Warning about SSH/Port-22 – you will need to select or create a key pair and continue.

To configure the XRVM, open ssh port in the security group temporarily, ssh with user ec2 and your key pair.

Before configuring XRVM for the first time make sure Hawkeye server is configured properly in preferences (see below)

After deployment, use your virtualization system's console solution to access the CLI.

The default login for XR-VM is username: ksuser and password: keysight , then run probeConfigure command that will prompt for probe name and Hawkeye server IP or URL.

Configuring Hawkeye server for running XRVM as public probes

The example below shows a matching configuration that will allow to use the settings as configured for the XRVM that you will find in Hawkeye sever :

Main
GUI
Alarms
Maps
Email
Traffic Port Management
Test Controller
Advanced Options
Installation Paths
Logs
Test Engine

Search..

Parameter Name	Value	Description	Details (Current Setting)
Add Port Numbers to Test Results	1	1 to add port used information in all N2N or Mesh tests. Note, one of "Destination Port Conf Option", "Source Port Conf Option" and/or "Use Skype4B Special range" must have the parameter set to "range".	Used port information in all N2N or Mesh tests is ADDED
Probe Firewall Configure	Configure	Applies to vision1s and xr_vm probe types only. Secure = Close all ports / Configure = Disable Firewall and open ports based on Destination Port Conf Option, Destination Ports, Use Skype4B and Voice Special Range, Skype4B and Voice Audio Destination Ports, and Skype4B Video Destination Ports.	Disable Firewall and open ports based on Destination Port Conf Option, Destination Ports, Use Skype4B and Voice Special Range, Skype4B and Voice Audio Destination Ports, and Skype4B Video Destination Ports
Destination Port Conf Option	1	0 - AUTO; 1 - range (increment 1 on per destination probe basis); 2 - range (increment 1 regardless of probe used);	Range; increment by 1 on per destination probe basis
First Destination Port	50001	Destination port for IxChariot test types start of range.	
Last Destination Port	55000	Destination port for IxChariot test types end of range.	
Source Port Conf Option	1	0 - AUTO; 1 - range (increment 1 on per source probe basis); 2 - range (increment 1 regardless of probe used);	Range; increment by 1 on per source probe basis
First Source Port	55001	Source port for IxChariot test types start of range.	
Last Source Port	60000	Source port for IxChariot test types end of range.	
Use Skype4B and Voice Special Range	0	Use special ports range for Skype4B and Voice traffic tests.	Use of special ports range for Lync tests is

Save
Cancel
Restore Section To Default
Restore All To Default
Save DB Config Checkpoint
Restore Last DB Checkpoint
Restart Endpoint Service

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