

# HIAB Setup Guide

64-Bit

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## About This Guide

The purpose of this document is to help you install and configure your HIAB appliance when setting it up for the first time in your organization's environment. This document has been elaborated under the assumption that the reader has access to the OUTSCAN account and HIAB license.

For support information, visit <https://www.outpost24.com/support>.

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# 1 Getting Started

This guide will help the appliance administrator/network technician to set up the HIAB appliance in your data center. Once the appliance is enrolled and configured to send out the alerts through the proper channels, then the vulnerability program should be implemented (not covered in this document).

## 1.1 Checklist

The below table displays the checklist for HIAB installation.

Number	Action
1	Setting up the HIAB.
2	Set up the IP assignment in the console.
3	Verify the required communication settings.
4	Enroll the server.
5	Log on to the portal interface.
6	Configure additional network settings.
7	Verify time zone.
8	Set up automatic updates.
9	Configure backup.
10	Set up events and notification.

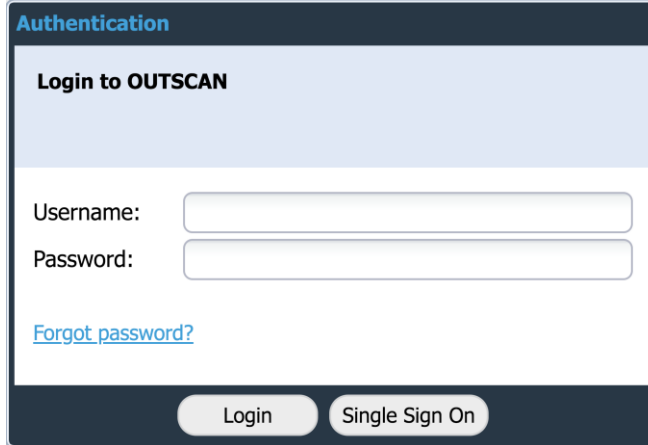
## 1.2 Prerequisites

It is required to have access to an OUTSCAN account to download the image.

## 2 Getting Started

To launch the OUTSCAN application, navigate to <https://outscan.outpost24.com>.

**Note:** Use *HTTPS* protocol.



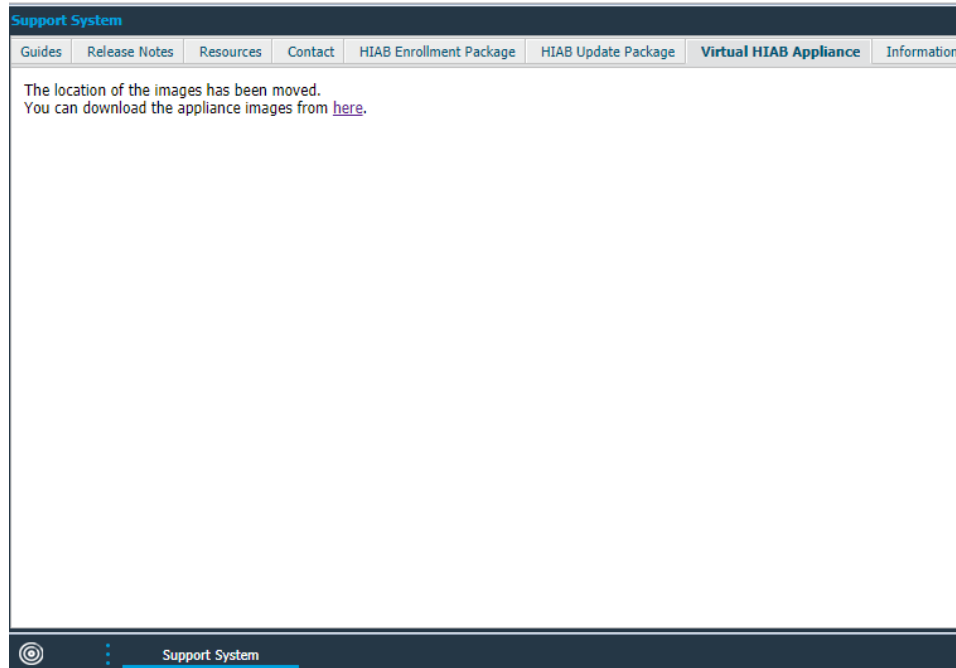
The screenshot shows a web browser window with a dark blue header containing the word "Authentication" in white. Below the header is a light blue box with the text "Login to OUTSCAN". Underneath this box are two white input fields: the first is labeled "Username:" and the second is labeled "Password:". Below the password field is a blue hyperlink that says "Forgot password?". At the bottom of the form are two buttons: "Login" and "Single Sign On".

Log in using your credentials.

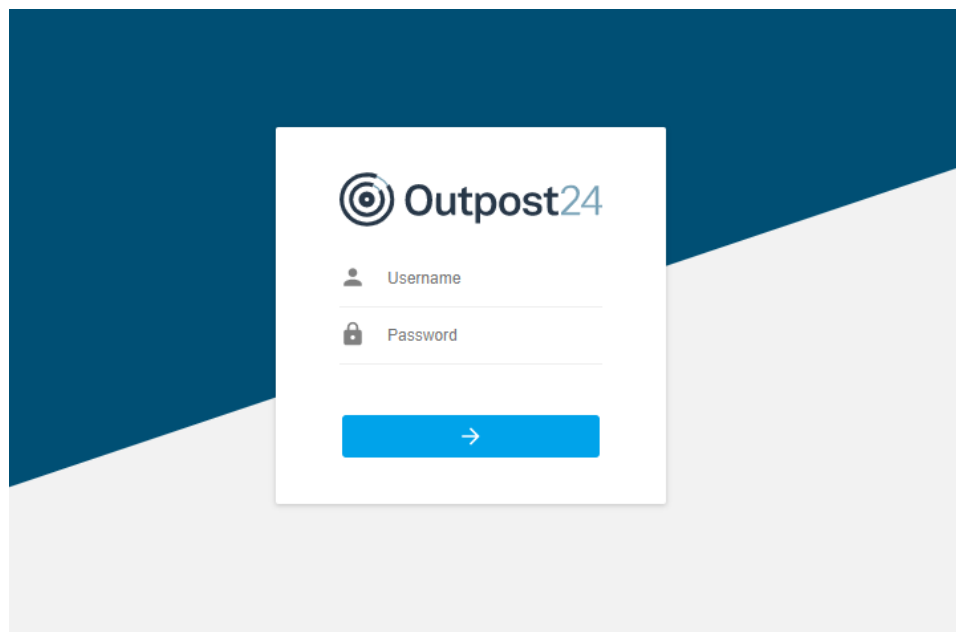
### 3 Downloading HIAB Image

To download the HIAB image:


1. Open the **Main Menu** in the lower left corner of the screen and select **Support**.
2. In the *Support System* window select the **Virtual HIAB Appliance** tab:



3. Click on the link, it leads to a new view in the UI  
<https://outscan.outpost24.com/portal/#/account/downloads>.
4. Log in to the portal using the same credentials as for <https://outscan.outpost24.com>.







5. Available VMWare and Hyper-V download options are displayed.






Downloads

← BACK

### HIAB VMware Virtual Image

<p><b>150 GB</b></p> <p>CPU(s) <b>2</b></p> <p>RAM (GB) <b>8</b></p> <p>Hard drive (GB) <b>150</b></p> <p>Hypervisor ESXi 5.5 Fusion 6.x Workstation 10.x Player 6.x</p> <p>SHA256 checksum bb8fdb ... be138b</p> <p>Updated 2019-04-26</p> <div style="background-color: #0070c0; color: white; padding: 5px; border-radius: 5px; display: flex; align-items: center; justify-content: center; margin: 0 auto; width: 80%;">  Download         </div>	<p><b>150 GB</b></p> <p>CPU(s) <b>8</b></p> <p>RAM (GB) <b>32</b></p> <p>Hard drive (GB) <b>150</b></p> <p>Hypervisor ESXi 5.5 Fusion 6.x Workstation 10.x Player 6.x</p> <p>SHA256 checksum 438ab1 ... f2d030</p> <p>Updated 2019-04-26</p> <div style="background-color: #0070c0; color: white; padding: 5px; border-radius: 5px; display: flex; align-items: center; justify-content: center; margin: 0 auto; width: 80%;">  Download         </div>	<p><b>1024 GB</b></p> <p>CPU(s) <b>2</b></p> <p>RAM (GB) <b>8</b></p> <p>Hard drive (GB) <b>1024</b></p> <p>Hypervisor ESXi 5.5 Fusion 6.x Workstation 10.x Player 6.x</p> <p>SHA256 checksum b3c602 ... 42ac21</p> <p>Updated 2019-04-26</p> <div style="background-color: #0070c0; color: white; padding: 5px; border-radius: 5px; display: flex; align-items: center; justify-content: center; margin: 0 auto; width: 80%;">  Download         </div>	<p><b>Recommended</b></p> <p>CPU(s) <b>8</b></p> <p>RAM (GB) <b>32</b></p> <p>Hard drive (GB) <b>1024</b></p> <p>Hypervisor ESXi 5.5 Fusion 6.x Workstation 10.x Player 6.x</p> <p>SHA256 checksum c29c79 ... e51ced</p> <p>Updated 2019-04-26</p> <div style="background-color: #0070c0; color: white; padding: 5px; border-radius: 5px; display: flex; align-items: center; justify-content: center; margin: 0 auto; width: 80%;">  Download         </div>
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### HIAB Hyper-V Virtual Image

<p><b>150 GB</b></p> <p>CPU(s) <b>1</b></p> <p>RAM (GB) <b>8</b></p> <p>Hard drive (GB) <b>150</b></p> <p>Hypervisor Hyper-V Server 2012</p> <p>SHA256 checksum 732f27 ... d79faa</p> <p>Updated 2019-04-26</p> <div style="background-color: #0070c0; color: white; padding: 5px; border-radius: 5px; display: flex; align-items: center; justify-content: center; margin: 0 auto; width: 80%;">  Download         </div>	<p><b>1024 GB</b></p> <p>CPU(s) <b>1</b></p> <p>RAM (GB) <b>8</b></p> <p>Hard drive (GB) <b>1024</b></p> <p>Hypervisor Hyper-V Server 2012</p> <p>SHA256 checksum 68545f ... b392d2</p> <p>Updated 2019-04-26</p> <div style="background-color: #0070c0; color: white; padding: 5px; border-radius: 5px; display: flex; align-items: center; justify-content: center; margin: 0 auto; width: 80%;">  Download         </div>	<p><b>Recommended</b></p> <p>CPU(s) <b>8</b></p> <p>RAM (GB) <b>32</b></p> <p>Hard drive (GB) <b>1024</b></p> <p>Hypervisor Hyper-V Server 2012</p> <p>SHA256 checksum adbb38 ... feb1ce</p> <p>Updated 2019-04-26</p> <div style="background-color: #0070c0; color: white; padding: 5px; border-radius: 5px; display: flex; align-items: center; justify-content: center; margin: 0 auto; width: 80%;">  Download         </div>
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6. Select the option that is most suitable for your virtual environment and click on the **Download** button located on the bottom of each option. See *Download Options* for more information.
7. Select a location to store the downloaded file.

After downloading the HIAB image, follow the appropriate installation instructions to set up the appliance.

## 4 Installation Instructions for HIAB VMware Appliance

1. Open the **administration tool** for the virtual environment.
2. Select the option to **deploy an OVF or OVA file**.
3. Follow the instructions in the application. For more information on Deploying OVF or OVA files see VMware documentation about *Deploying OVF and OVA Templates*.
4. Start the virtual machine.

**Note:** *Select any Linux 64-bit system as the type of operating system.*

Once the machine is started, you are presented with the HIAB menu in the virtual console. Use the console to set up the virtual HIAB according to your network environment.



## 5 Installation Instructions for HIAB Hyper-V Appliance

The installation can be done by using Microsoft Hyper-V import guide as well as other management tools for Hyper-V. Following instructions are written for PowerShell Management Library for Hyper-V.

1. Extract the downloaded ZIP-file to a directory on the Hyper-V server, for example C:\HIAB\_HYPER-V.
2. Run **Show-HypervMenu** from PowerShell on the server.
3. Import the virtual machine by selecting **[7] Import Virtual Machine**.
4. Enter the path to the directory holding the extracted files you want to import. For example, C:\HIAB\_HYPER-V\HIAB\_VIRTUAL01.
5. Do you wish to re-use IDs?  
 **No**

**Note:** *If the virtual machine is unique on the Hyper-V server, then IDs may be re-used. If the imported HIAB is a copy of an existing virtual HIAB on this server, then IDs cannot be re-used and attempt to import the machine fails.*

6. Are you sure you want to perform this action?  
 **Yes**
7. Start the virtual machine.

**Note:** *Select any Linux 64-bit system as the type of operating system.*

Once the machine is started, you are presented with the HIAB menu in the virtual console. Use the console to set up the virtual HIAB according to your network environment.

**Note:** *The current Network Test may not provide adequate information with regards to access to the license server. This can be addressed using the Traceroute utility found under the Tools menu by manually testing access towards the host `outscan.outpost24.com` over TCP port 443.*

**Download Options**

Name	CPUs	RAM	Hard drive
<b>VMware</b>			
HIAB VMware Virtual Image (150 GB)	2	8 GB	150 GB
HIAB VMware Virtual Image (150 GB)	8	32 GB	150 GB
HIAB VMware Virtual Image (1024 GB)	2	8 GB	1024 GB
<b>HIAB VMware Virtual Image (1 TB) (Recommended)</b>	<b>8</b>	<b>32 GB</b>	<b>1024 GB</b>
<b>Hyper-V</b>			
HIAB Hyper-V Virtual Image (150 GB)	1	8 GB	150 GB
HIAB Hyper-V Virtual Image (1 TB)	1	8 GB	1024 GB
<b>HIAB Hyper-V Virtual Image (1 TB) (Recommended)</b>	<b>8</b>	<b>32 GB</b>	<b>1024 GB</b>

## 6 Set up the IP Assignment in the Console

Once the HIAB has booted (or if you connect to the HIAB via SSH), the following screen is displayed on your monitor.

```
Main menu
-----
(n) Network settings
(s) Network status
(t) Test network connections
(r) Request password recovery
(m) Maintenance
(T) Tools
(a) About
(M) Password Management
(K) Keymap settings
(C) Email remote support public key
(c) Deactivate remote support (Connected)
```

The main menu is a multi-choice menu that allows you to access different sections of the configuration of the HIAB. From this menu, you can configure, update and harden your HIAB.

If you want to restrict the access, define a password.

1. Select option **M** in the above menu and provide a password.

---

### ***Important Note***

*Do not forget this password or you may be locked out of the console and require remote access to reset the password.*

---

## 6.1 Static IP

Perform the following steps from the **Main Menu** to set up the HIAB to use a static IP:

1. Select option **n** to configure **Network Settings**.

### Network Settings:

2. Select option **d (Devices)** to see to the available devices.
3. Use the arrow keys to select the right device.
4. Select the option **c** to connect the selected device.
5. Select option **q** to go back to the network settings menu.
6. Select option **c (Connections)** to go the connections window.
7. Use the arrow keys to select the right connection.
8. Select option **a** to activate the selected connection.

### Modify selected connection:

9. Still in the **n (Network Settings) > c (Connections)**, select option **m** to modify the selected connection.
10. Select option **a (Addresses)** to go to the addresses window.
11. Select option **4** or **6** depending on which IP version that are used.  
*Note: An IP address need to be added before setting the IPv4/v6 to manual.*
12. Type **manual** and press **Enter**.
13. Select option **a** to **Add IP**.
14. Enter the wanted IP address, for example 192.168.2.3/24 and press **Enter**.  
*Note: Specified in CIDR.*
15. Exit the addresses menu **q** and go to **r (Routes)** to specify a default gateway. A default gateway is usually required for the communication from and to the HIAB.
16. Select option **q** twice to go back to **Connections**.
17. Select option **d** and thereafter **a** to reactivate the interface.

## 6.2 DHCP Assigned IP for IPv4/IPv6

To enable the server to be granted an IP address via DHCP, please perform the following steps from the **Main Menu**.

1. Select option **n** to configure network settings.
2. Select option **c (Connections)** from the network settings menu.
3. Use the arrow keys to select an interface which you wish to change.
4. Select option **m** to modify the selected connection.
5. Select option **a** to modify the addresses for the interface.
6. Select option **4** or **6** to set DHCP for an IPv4 or IPv6 address.
7. Type **auto** and press **Enter**.
8. Select option **q** twice to go back to **Connections**.
9. Select option **d** and thereafter **a** to reactivate the interface.

## 6.3 Verify the Required Communication Settings

During the installation, it is required that the HIAB is able to communicate with the following locations:

- ▶ Outbound to 91.216.32.141 over TCP port 443 (Enrollment server)
- ▶ Outbound to 91.216.32.142 over TCP port 443 and TCP port 5000 (Update server)

To verify if the HIAB is able to communicate with the above locations, perform the following steps from the Main Menu.

1. Select option **t** to test network connections
2. Select option **r** to run network tests
3. Select option **q** to go back

Refer to *HIAB 64-Bit Console Manual* for information regarding additional ports required for full functionality.

**Note:** *The update connection in the network tests will fail if the HIAB is not enrolled due to the required certificate not yet being obtained. The certificate is obtained during the license check with OUTSCAN during the enrollment procedure.*

## 7 Enroll the Server

The HIAB needs to be registered to the correct account to be able to perform any scanning. Therefore, you need to pair it with the *Main Account*, this is done through an enrollment process.

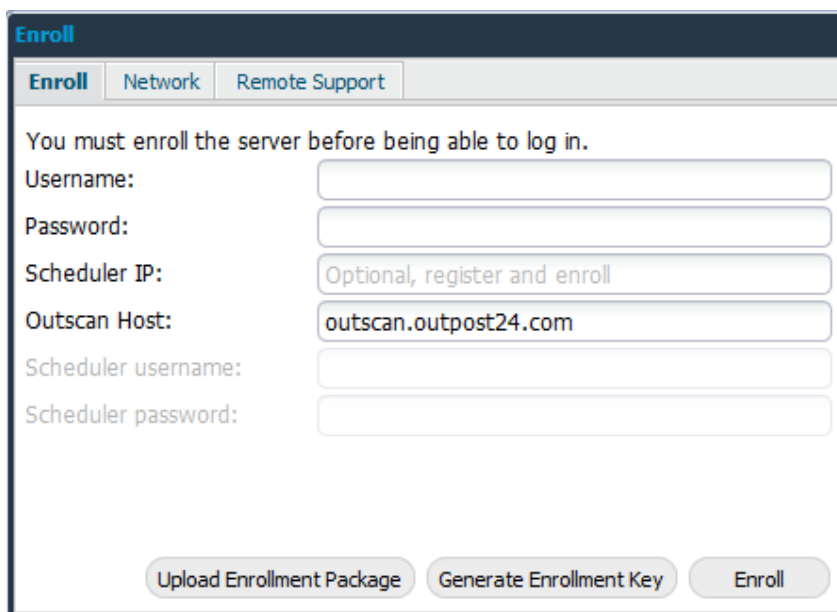
You can enroll the appliance through console or portal interface.

If you are enrolling using console, you need to perform the following steps:

1. Select option **m** (Maintenance), from the main menu.
2. Select option **u** (Update).
3. Select option **e** to enroll.
4. Insert the user name for the HIAB license, which you have received in an email from Outpost24 and press **Enter**.
5. Type the password given in the email and press **Enter**.  
***Note:** Make sure that the correct **K (Keymap)** in **Main Menu** has been selected before typing in the password for enrollment.*
6. Now the HIAB connects to the update server to register.

If you are enrolling through portal interface, you need to perform the following steps:

1. Navigate to **https://<hiab-ip>**
2. Provide your details and click **Enroll**.



The screenshot shows a web browser window titled "Enroll". At the top, there are three tabs: "Enroll" (selected), "Network", and "Remote Support". Below the tabs, a message reads: "You must enroll the server before being able to log in." The form contains several input fields: "Username:", "Password:", "Scheduler IP:" (with a placeholder "Optional, register and enroll"), "Outscan Host:" (with the value "outscan.outpost24.com"), "Scheduler username:", and "Scheduler password:". At the bottom of the form, there are three buttons: "Upload Enrollment Package", "Generate Enrollment Key", and "Enroll".

You can also configure your **Network** settings and **Activate Remote Support**.

***Note:** Use the main account or any account with the **Allow enroll HIAB** option checked on the OUTSCAN system, to enroll the HIAB.*

***Note:** The Enrollment Package is bound to the generated key, in other words, it can only be uploaded on the specific HIAB on which the key was generated. Similarly, the key is bound to the HIAB on which it was generated.*

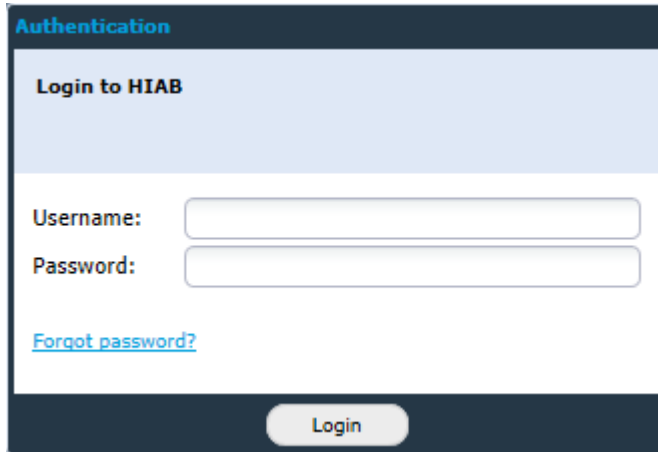
*The Enrollment Package contains:*

- ♦ *An SQL file with license information, containing username, name, email, and hashed password.*
- ♦ *A key file containing a unique key. The key file does not contain any information about MAC or IP.*
- ♦ *Rules update.*
- ♦ *Exploits update.*
- ♦ *Updated RPM packages.*
- ♦ *A certificate used for enrolling.*

## 8 Log on to the Portal Interface

Once you enroll the server, you are able to see the below screen available at **https://<hiab-ip>**.

*Example: If your assigned IP is 192.168.2.3, navigate to <https://192.168.2.3>*



The screenshot shows a web interface titled "Authentication" with a sub-header "Login to HIAB". It contains two input fields: "Username:" and "Password:". Below the password field is a blue link labeled "Forgot password?". At the bottom center, there is a "Login" button.

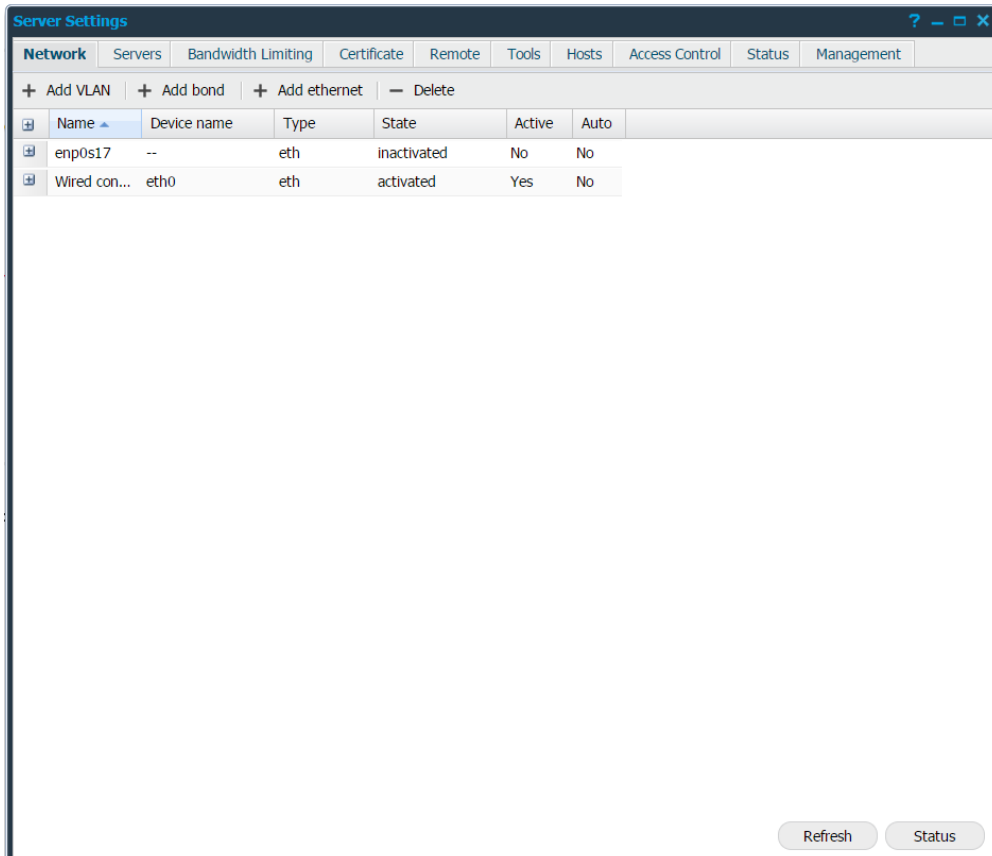
Log in using your credentials.



## 9 Configure Additional Network Settings

Once logged in, you are able to set up any additional network interfaces and define any additional routes if required.

The network settings are available in the **Main Menu** → **Settings** → **Server**, under the **Network** tab.



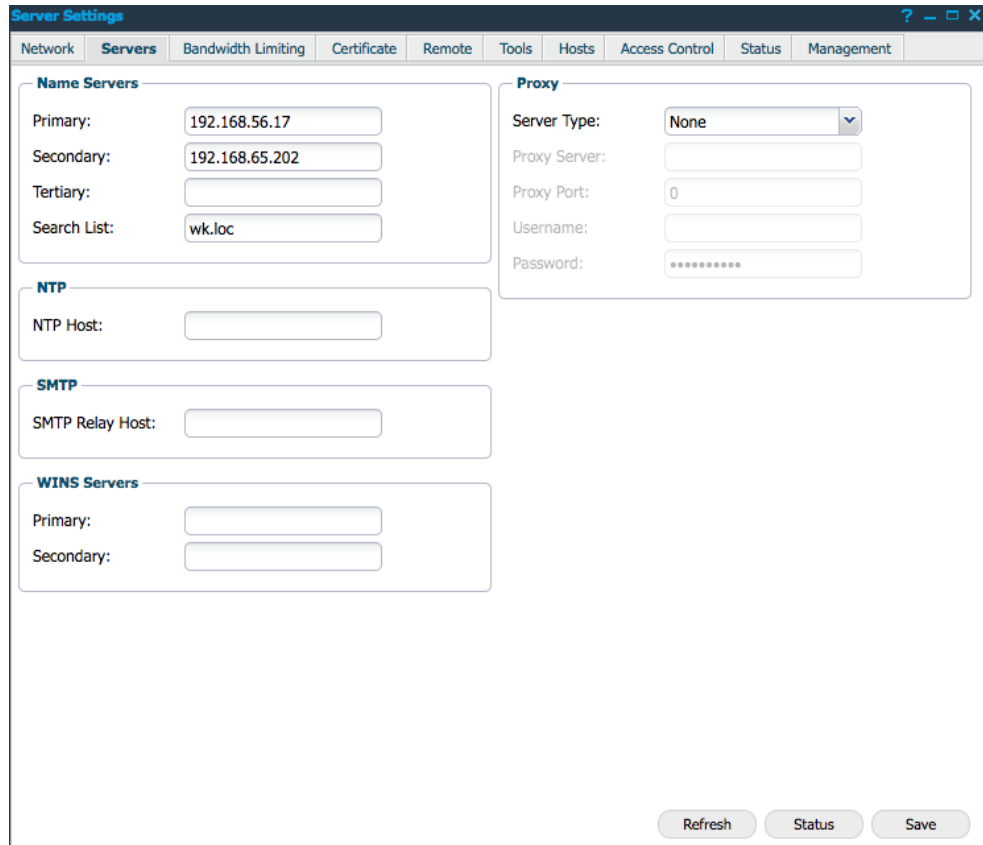
The screenshot shows the 'Server Settings' window with the 'Network' tab selected. The window has a top navigation bar with tabs: Network, Servers, Bandwidth Limiting, Certificate, Remote, Tools, Hosts, Access Control, Status, and Management. Below the navigation bar, there are buttons for '+ Add VLAN', '+ Add bond', '+ Add ethernet', and '- Delete'. A table displays the network interfaces:

Name	Device name	Type	State	Active	Auto
enp0s17	--	eth	inactivated	No	No
Wired con...	eth0	eth	activated	Yes	No

At the bottom right of the window, there are two buttons: 'Refresh' and 'Status'.

## 9.1 NTP Settings

NTP settings can be configured in **Servers** tab under: **Main Menu** → **Settings** → **Server**.



**Server Settings**

Network **Servers** Bandwidth Limiting Certificate Remote Tools Hosts Access Control Status Management

**Name Servers**

Primary:

Secondary:

Tertiary:

Search List:

**NTP**

NTP Host:

**SMTP**

SMTP Relay Host:

**WINS Servers**

Primary:

Secondary:

**Proxy**

Server Type:

Proxy Server:

Proxy Port:

Username:

Password:

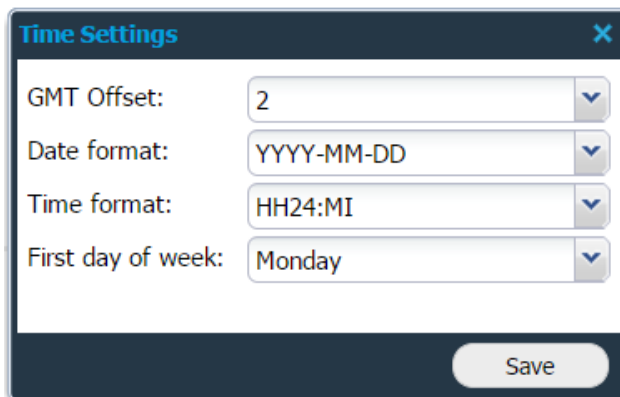
Refresh Status Save

## 10 Verify Time Zone

All references to time can be modified to reflect the time in the current time zone. Click on the time section of the window in the lower right corner of the window to modify the time zone offset from GMT.



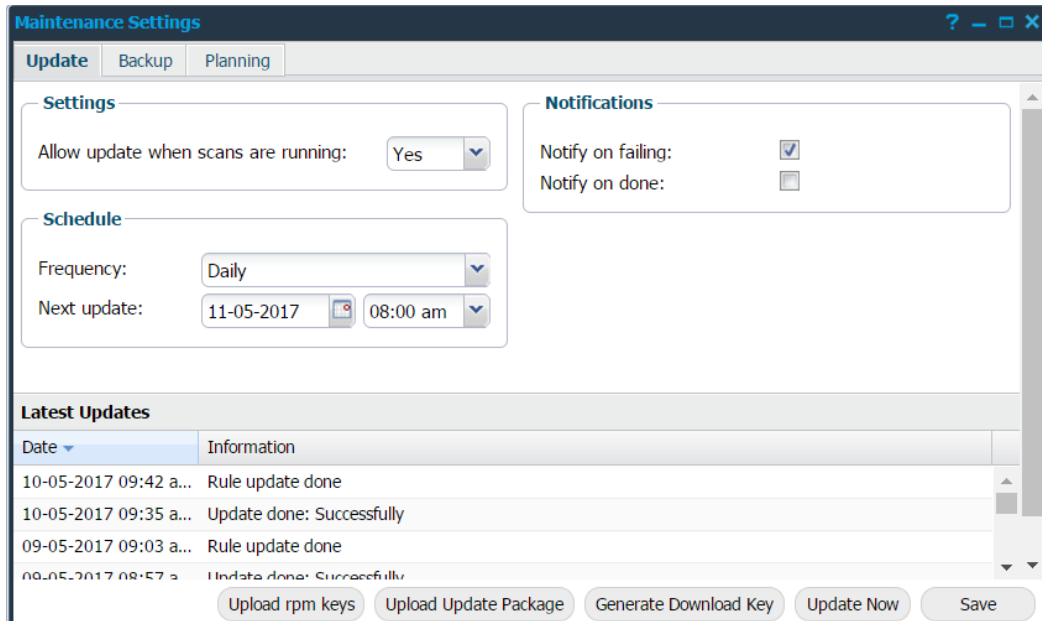
You can also change the date and time format and what is considered the first day of the week.



## 11 Set up Automatic Updates

Before you start using your HIAB, it is a good idea to set up automatic updates. This enables you to always receive the latest vulnerability tests and provide you with new features as they become available.

To schedule your updates, go to **Main Menu → Settings → Maintenance**, select the **Update** tab.



**Maintenance Settings**

Update Backup Planning

**Settings**

Allow update when scans are running: Yes

**Notifications**

Notify on failing:

Notify on done:

**Schedule**

Frequency: Daily

Next update: 11-05-2017 08:00 am

**Latest Updates**

Date	Information
10-05-2017 09:42 a...	Rule update done
10-05-2017 09:35 a...	Update done: Successfully
09-05-2017 09:03 a...	Rule update done
09-05-2017 08:57 a...	Update done: Successfully

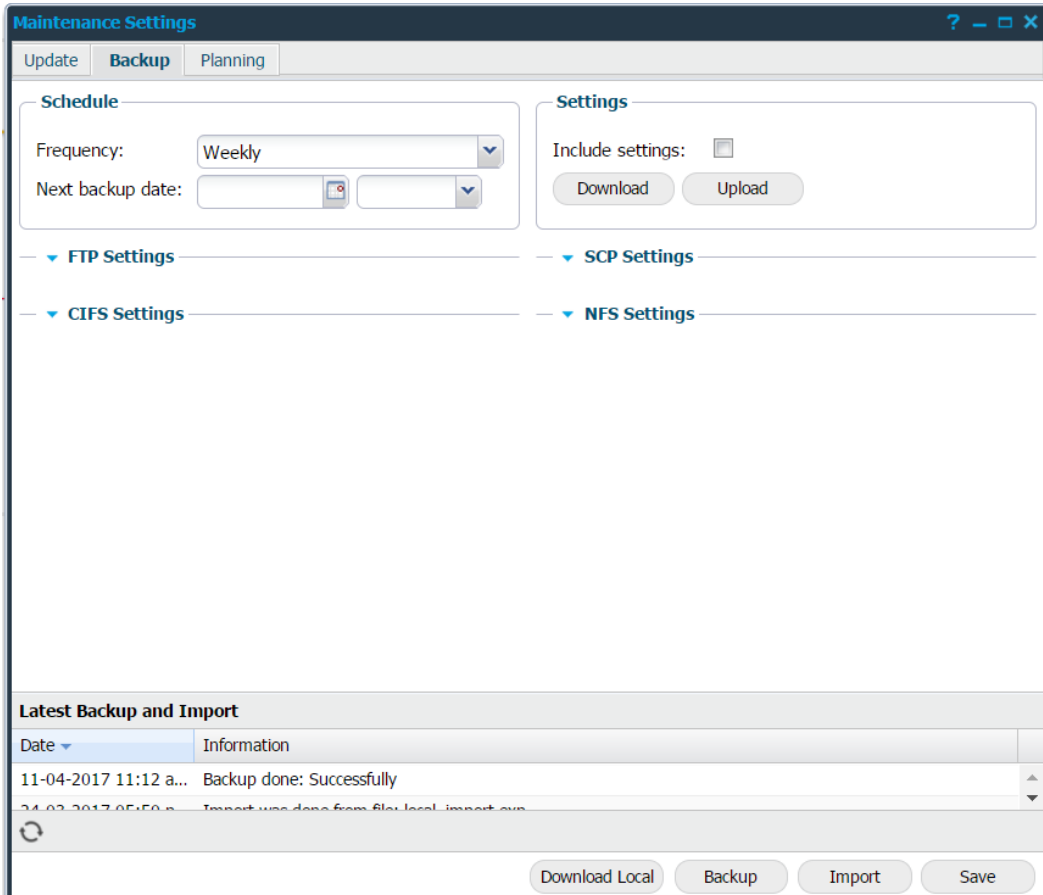
Upload rpm keys Upload Update Package Generate Download Key Update Now Save

Here you can define if the updates are allowed to terminate any running scans (they will be resumed afterwards if they are still within their scanning window).

Select the frequency for the update and provide a start time, then click **Save** to save the current settings.

## 12 Configure Backup

The HIAB can be set up to perform regular backups and transfer them over various protocols to a remote location for safekeeping. To configure these settings, go to **Main Menu → Settings → Maintenance**, select the **Backup** tab.



The screenshot shows the 'Maintenance Settings' window with the 'Backup' tab selected. The interface is divided into several sections:

- Schedule:**
  - Frequency: Weekly (dropdown menu)
  - Next backup date: [calendar icon] [dropdown menu]
- Settings:**
  - Include settings:
  - Buttons: Download, Upload
- FTP Settings** (collapsed)
- CIFS Settings** (collapsed)
- SCP Settings** (collapsed)
- NFS Settings** (collapsed)

At the bottom, there is a 'Latest Backup and Import' section with a table:

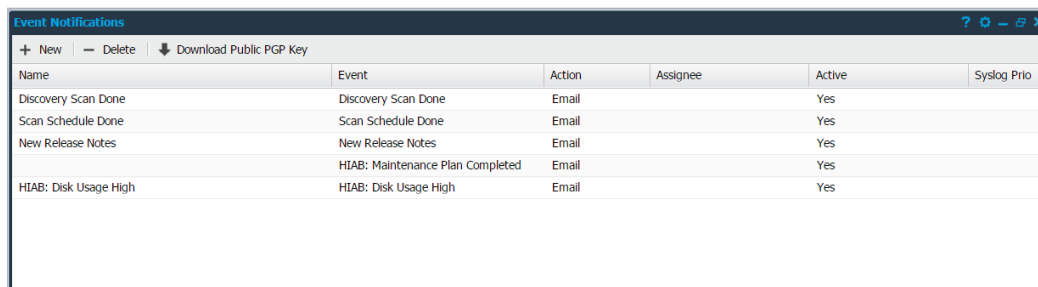
Date	Information
11-04-2017 11:12 a...	Backup done: Successfully
11-03-2017 05:50 p...	Import was done from file local import sup...

At the bottom right of the window are buttons: Download Local, Backup, Import, and Save.

Refer to *HIAB Maintenance Settings* guide for detailed information about Update and Backup.

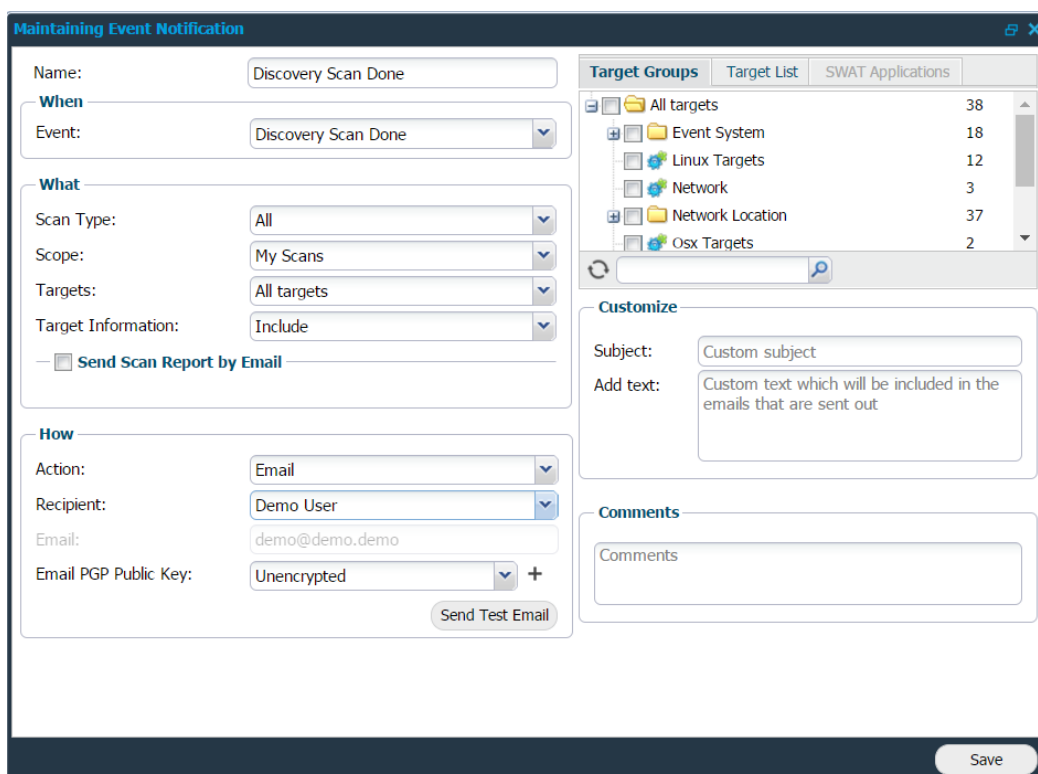
## 13 Set up Events and Notifications

The HIAB can send you the notifications either through email, Syslog or SNMP traps. The supported events that can be defined are located under **Main Menu → Settings → Event notifications**.



Name	Event	Action	Assignee	Active	Syslog Prio
Discovery Scan Done	Discovery Scan Done	Email		Yes	
Scan Schedule Done	Scan Schedule Done	Email		Yes	
New Release Notes	New Release Notes	Email		Yes	
	HIAB: Maintenance Plan Completed	Email		Yes	
HIAB: Disk Usage High	HIAB: Disk Usage High	Email		Yes	

Click on **+ New** button, to add a new event to the system. Right click on any event and select **edit** to set the event notification.



**Maintaining Event Notification**

Name:

**When**

Event:

**What**

Scan Type:

Scope:

Targets:

Target Information:

**Send Scan Report by Email**

**How**

Action:

Recipient:

Email:

Email PGP Public Key:

**Target Groups** | Target List | SWAT Applications

All targets	38
Event System	18
Linux Targets	12
Network	3
Network Location	37
Osx Targets	2

**Customize**

Subject:

Add text:

**Comments**

Click on ? (help button) on the top right corner of the window to know more details about the available options.