

AKIPS Install and Upgrade Guide

Thank you for choosing to partner with AKIPS to achieve your network monitoring goals!

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1. ABOUT THIS GUIDE

The AKiPS Install & upgrade guide assists users to install and upgrade AKiPS Network Monitoring Software.

1.1. Text conventions

Menu options are in **bold**.

E.g. **Go to Admin > System > System Settings**

Bold is also used for emphasis or clarity.

E.g. The **backup** server must have double the disk space of the production server.

Websites and email addresses are in blue. E.g. <https://www.akips.com>

2. PLATFORM REQUIREMENTS

AKIPS is engineered for a VM environment.

Before installing AKIPS, ensure that your platform meets the minimum requirements below. Please also review the notes on the CPU and disk space provisioning on the next page.

Number of Interfaces	Minimum Requirements
50,000 interfaces	Virtual Machine 2+ CPU cores 8 GB RAM 200 GB disk space
100,000 interfaces	Virtual Machine 4+ CPU cores 16 GB RAM 500 GB disk space
250,000 interfaces	Virtual Machine 8+ CPU cores 32 GB RAM 1 TB disk space

If you are installing AKIPS onto a backup server, double the disk space listed. (Refer to the 'Backing up AKIPS' chapter in the AKIPS Backup & Restore guide.)

To view the video Deploying AKIPS on a VM vs hardware, visit:

<https://vimeo.com/manage/videos/524030745>

2.1. Software

2.1.1. CPU

AKIPS requires dedicated CPUs. CPU cores which are shared between VMs on a VM host will lead to CPU resource starvation. This typically leads to:

- Jumps in time
- Gaps in polling
- false outage reports.

You may allocate more than the minimum number of CPUs for your environment. However, due to inefficiencies in the allocation of CPUs by hypervisors, excessive allocation of CPUs may cause performance issues. Doubling the recommended amount should not cause issues, but higher allocations may. For example, if the recommended allocation for your environment is 2 CPUs, allocating 4 should not cause problems, but allocating 16 may do so.

2.1.2. Storage

AKIPS runs a real-time database. Its performance depends on sequential read/write performance, and minimal storage fragmentation and latency.

AKIPS requires:

- **preallocated/thick (not thin) provisioning**
- **eager (not lazy) zeroed**

2.1.3. VMware

When configuring a VMware guest:

- use an emulated LSI SCSI controller
- lock the MAC address to the VM.

2.2. Hardware

We recommend installing and evaluating AKiPS in a VM environment before investing in any hardware.

All hardware must be compatible with our FreeBSD OS.

AKiPS monitors 1,000,000+ interfaces without specialized hardware. However, it may require a dedicated RAID storage system instead of a SAN or NAS. In this case, contact support@akips.com to discuss your specific configuration needs.

3. Installing AKIPS

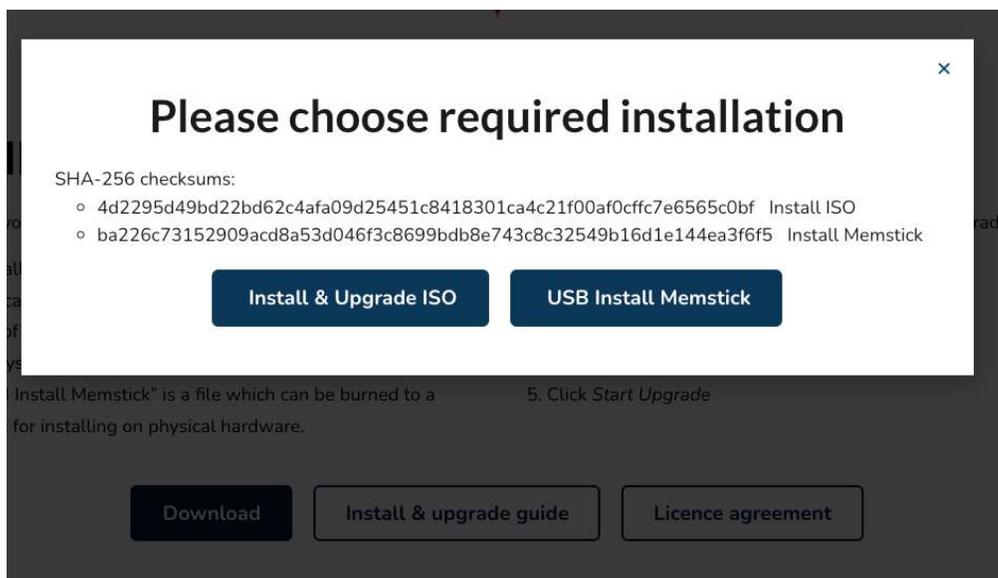
To view the video Installing AKIPS, visit <https://vimeo.com/manage/videos/521646329>

3.1. Install AKIPS:

Go to <https://www.akips.com/download>

In the **Install & upgrade** section, click **Download**. Read the AKIPS Software License Agreement.

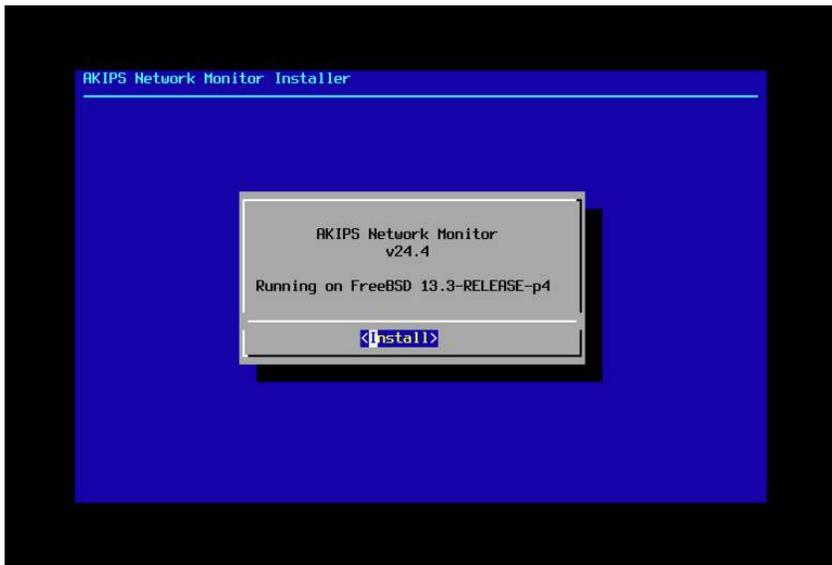
Click **Install & Upgrade ISO** only if you agree to the terms.



Graphic 1 Accepting the AKIPS license agreement

Create the VM and attach the **installer disk image file (ISO)**. Configure the VM settings and boot.

At the **AKIPS Network Monitor** screen, select **Install**.

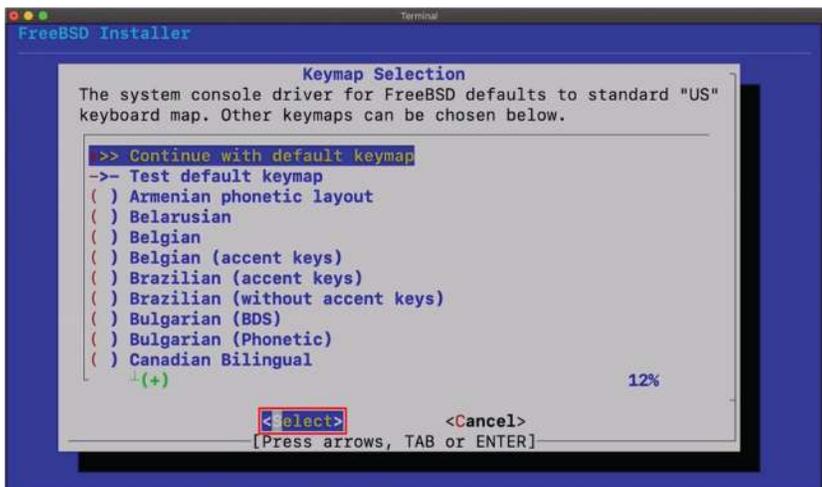


Graphic 2 Starting the AKIPS installation

At the **RISK OF DATA LOSS** screen, select **Yes**.

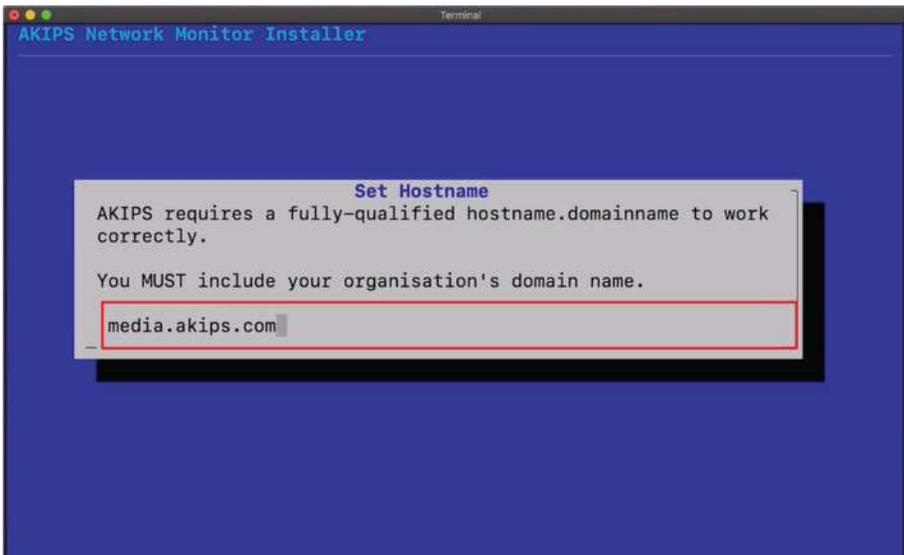
At the **Keymap Selection** screen:

- hit **Enter** to select the default or
- scroll to select your preference and then hit **Enter**.



Graphic 3 Configuring the keymap

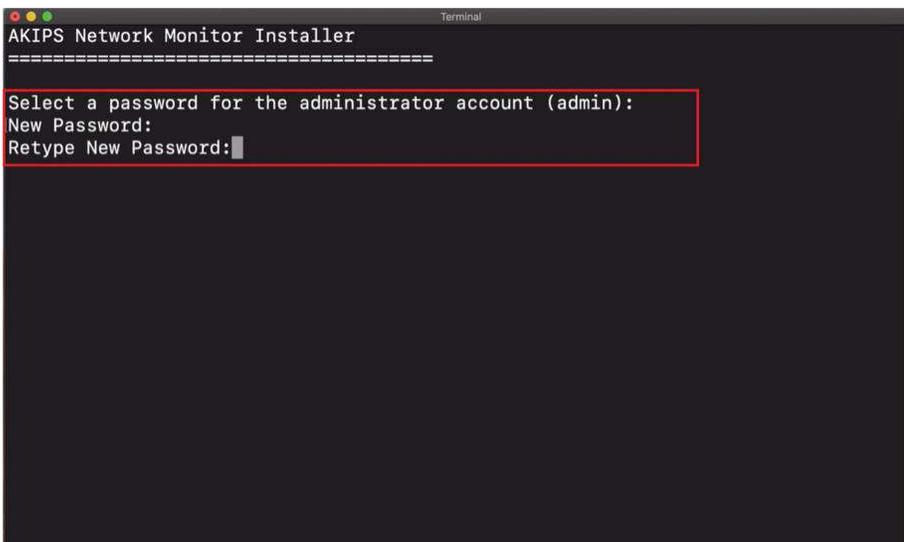
At the **Set Hostname** screen, type a valid hostname.domain. Hit **Enter**.



Graphic 4 Setting the hostname

Enter a password. This will apply to the root, AKiPS and admin accounts. Retype the password to confirm.

Hit **Enter**.



Graphic 5 Setting the password

At the **Network Configuration** screen, select a network interface.

Select **OK**.

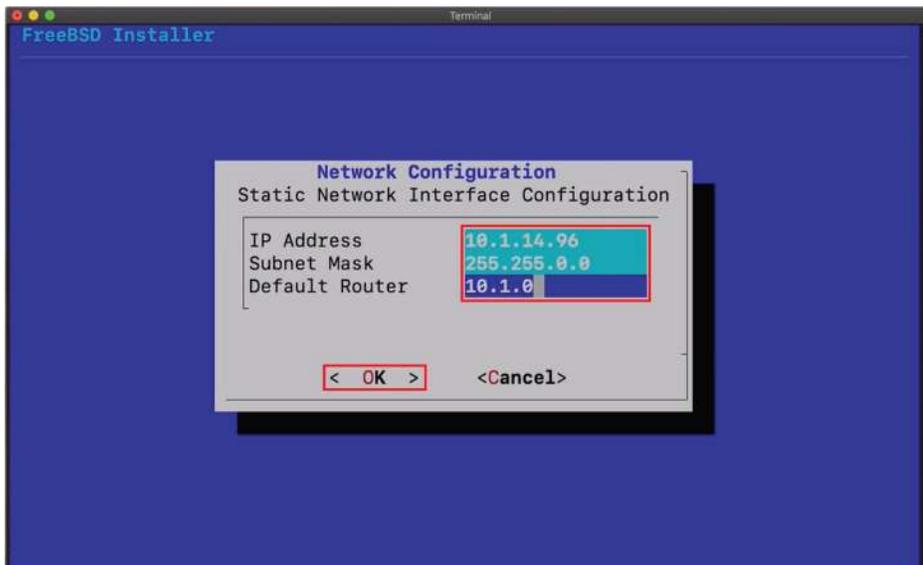
At the **IPv4** prompt, select **Yes**.

At the **DHCP** prompt, select **No**.

At the **Network Configuration: Static Network Interface Configuration** screen, complete the following text fields:

- IP address
- subnet mask
- default router

Select **OK**.

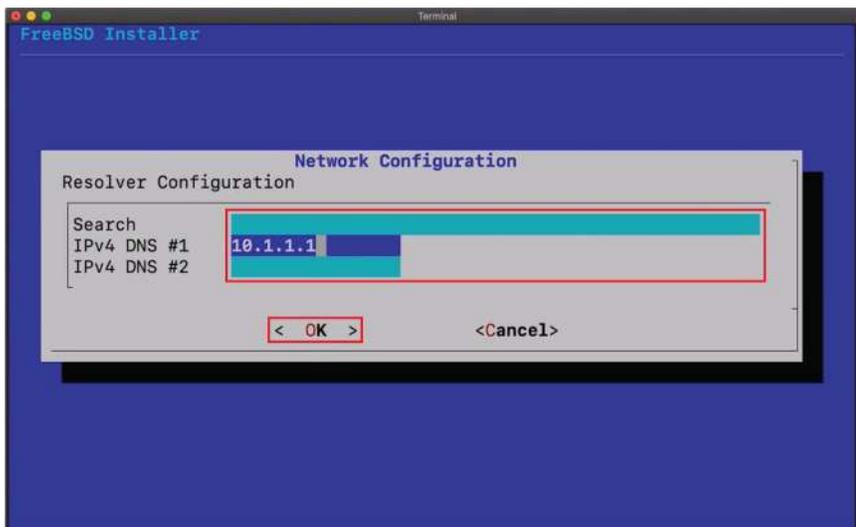


Graphic 6 Configuring the static network interface

At the **IPv6** prompt, select **No**.

At the **Network Configuration: Resolver Configuration** screen, enter at least one DNS address.

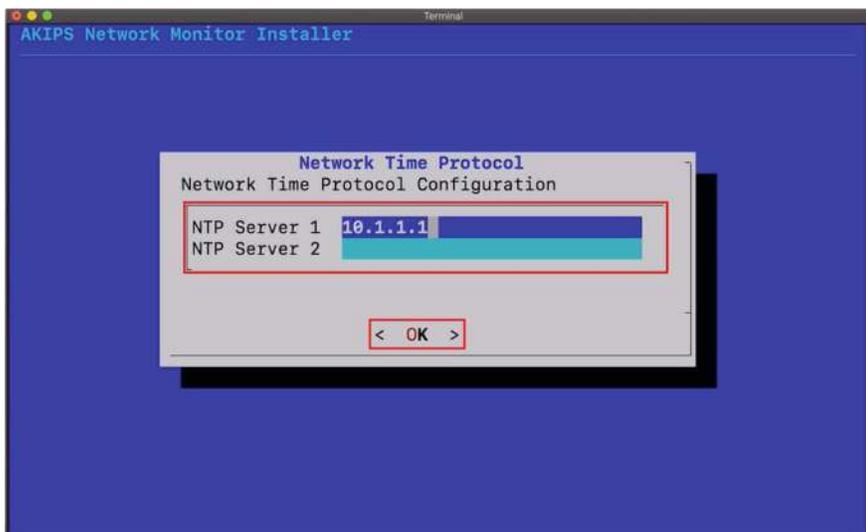
Select **OK**.



Graphic 7 Configuring the network resolver

At the **Network Time Protocol Configuration** screen, enter the NTP server address.

Select **OK**.

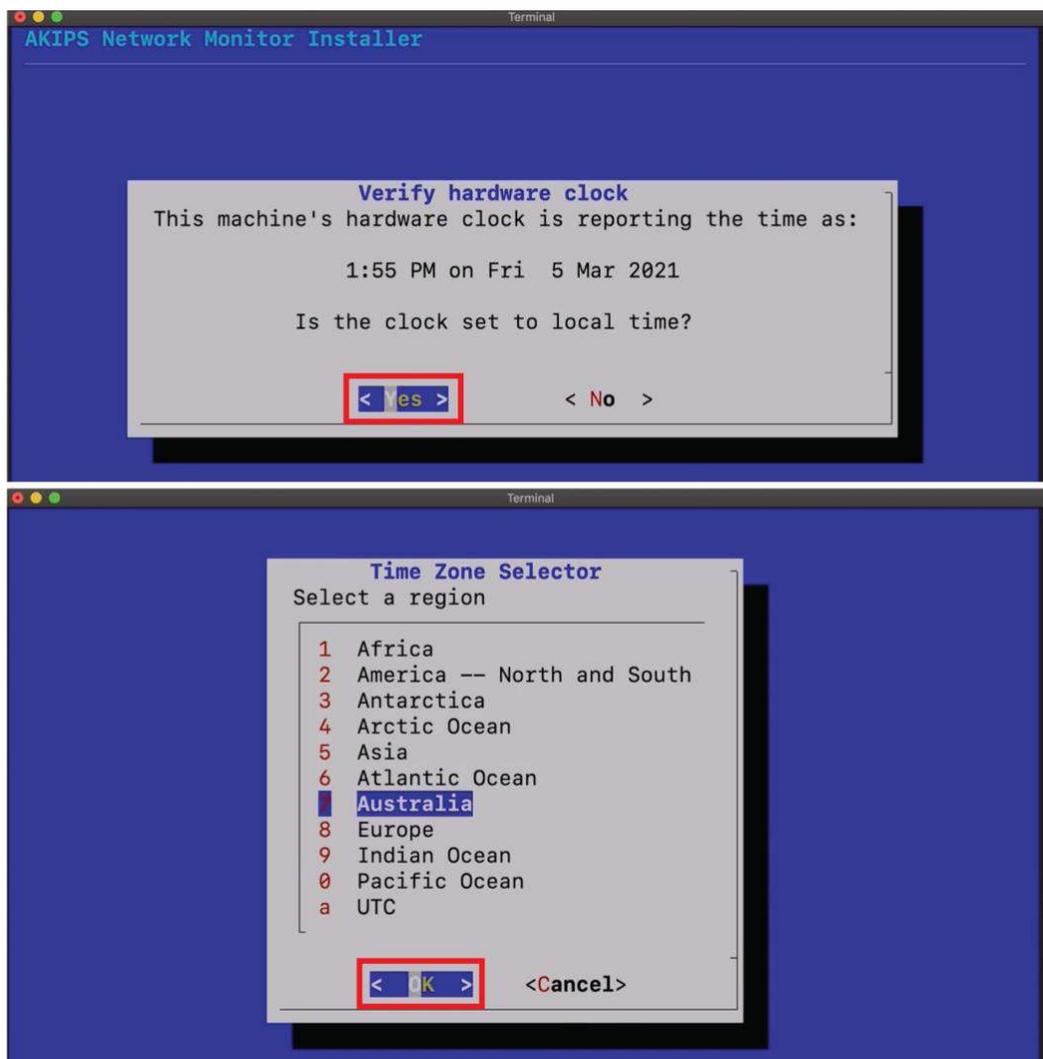


Graphic 8 Configuring the network time protocol

Review the **Verify hardware clock** screen:

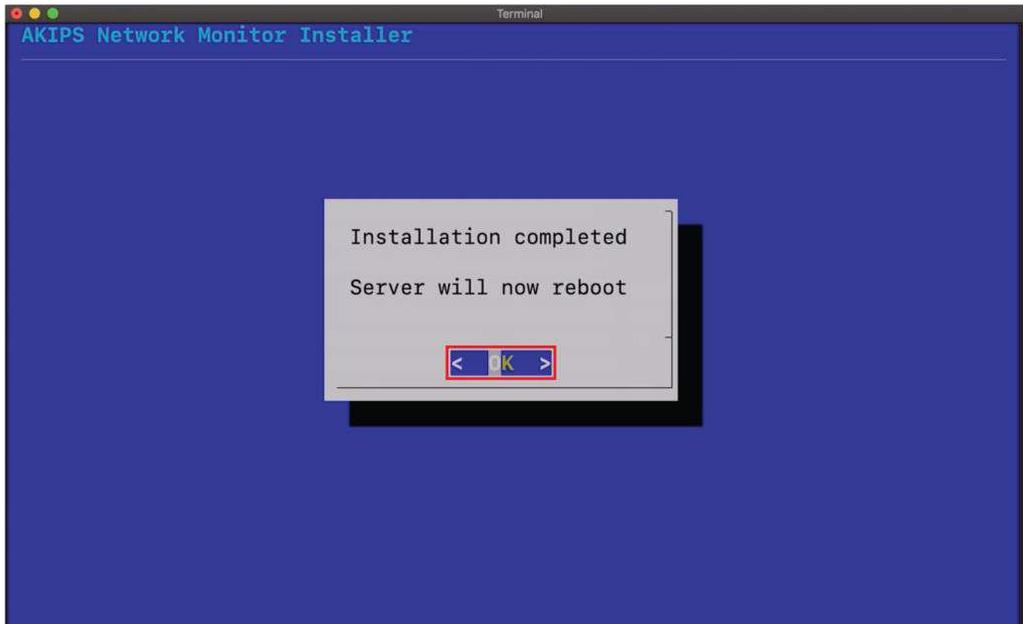
- if the clock is set to local time, select **Yes**
- if the clock is not set to local time, select **No**.

On the following time zone screens, select your applicable time zone



Graphics 9 & 10 Configuring the hardware clock and time zone

After AKIPS has finished installing, select **OK** to reboot the server.



Graphic 11 Rebooting the server

AKIPS will run several processes which will not require you to take any action.

AKIPS will prompt you to log in with your admin account.

To finalize the installation process, click **Accept License**.

4. DISCOVERING YOUR NETWORK

AKIPS runs its network discover based on IP address ranges and SNMP parameters.

4.1. Discover your network:

Log into AKIPS with your admin account.

Go to **Admin > Discover > Discover / Rewalk**.

Using the guidance on the right-hand side, complete the **Discover / Rewalk** panel.

Ensure that you complete both:

- Ping Scan Ranges
- SNMP Parameters

Click **Save Changes**.

The screenshot shows the AKIPS web interface for configuring network discovery. The top navigation bar includes 'Dashboards', 'Reports', 'Tools', 'Admin', 'New', and 'PDF'. The user is logged in as 'admin'. The main heading is 'Discover / Rewalk', with buttons for 'Save Changes', 'Discover', and 'Rewalk'.

1. Daily Discovery Schedule

Discover: 3am
Rewalk: 1am

2. Ping Scan Ranges

```
rate 2000
10.2.0.0/16
10.131.0.0/16
```

3. SNMP Parameters

```
version 2 community foobar
version 2 community public
version 3 user barney sha password aes128 password
version 3 user fred sha password aes256 password
version 3 user fred sha password des password
version 3 user wilma md5 password
```

Discover / Rewalk

- **Discover new devices**
Perform ping and SNMP scans of the address ranges specified in **Ping Scan Ranges**. This will scan for and add new devices. Any existing device found in the scan will have its configuration updated. Note that this will only update existing devices found in Ping Scan Ranges.
- **Rewalk existing devices**
Detect any changes to the network configuration of devices polled by AKIPS. This will not scan for new devices.

1. Daily Discovery Schedule

Schedules a daily automated discovery or rewalk of your network. The best time to schedule a discovery is while the network is being used (i.e. during business hours).

2. Ping Scan Ranges

This defines the IPv4 and IPv6 address ranges the discover will use when performing a ping sweep.

- Each rule is evaluated and executed in order.
- Lines starting with a '#' are ignored.
- The addresses for each rule are pinged intelligently so as not to affect any single link/interface.
- Tunable options include:
 - **rate**
Limits the number of ping requests sent per second. The default rate is 1000. The maximum rate is 100,000.
 - **pass**
This is the number of times each IP address is pinged. The default of 2 passes gives more reliable results than a single pass because it allows time for remote devices to wake up from sleep modes before they respond. The maximum number of passes is 3.
 - **limit**
This is the maximum number of seconds a rule is allowed per pass. If the calculated runtime of a rule is longer than the limit, then the rule is skipped. The default time limit is 60 seconds. The maximum value for limit is 1800 seconds (30 minutes).
 - **wait**
The number of seconds to wait for a ping response. The default is 3 seconds. The maximum wait value is 10 seconds.

Examples:

```
# Set some "go fast" things
rate 10000
pass 2

# Scan the 10.1.1.0 subnet
```

Graphic 12 Configuring the discover settings

Click **Discover**.

When AKIPS has finished discovering your network, it will display a message in green.

Wait for five minutes, then check the following tables:

- **Reports > Device > IPv4 Ping Statistics**
- **Reports > Interface > Statistics**

If the tables populate with data, then AKIPS is working.

5. AKIPS LICENSE

To view the video AKIPS license, visit

<https://vimeo.com/manage/videos/514080623>

5.1. Request an AKIPS evaluation key:

Log into AKIPS with your admin account.

On the homepage, click **Software Activation**. Click **Request Evaluation Key**.

Complete all mandatory text fields. Click **Request a Trial Key**.

AKIPS will display a message to confirm that we are processing your request.

5.2. Activate an AKIPS license:

After the AKIPS team has emailed a license key to you, copy the key. Log into AKIPS with your admin account.

On the homepage, click **Software Activation**. Paste the key into the **License Key** text field.

Click **Activate License**.

When AKIPS has successfully activated your license, it will display a message in green.

6. UPGRADING AKIPS

AKIPS recommends that you always upgrade to the latest version.

To view the video Upgrading AKIPS, visit <https://vimeo.com/manage/videos/516553339>

6.1. Case study

When a customer tried to upgrade AKIPS, the SHA256 matched the release notes, yet he received the error message 'Package has incorrect checksum'.

He was able to successfully upgrade when he used a different browser (Firefox instead of Chrome).

6.2. Upgrade AKIPS:

Go to <https://www.akips.com/download>

In the **Install & upgrade** section, click **Download**.

Click **Install & Upgrade ISO**. Save the file onto your computer.

The software will download, displaying the version number in the filename. E.g. akips-21.7-upgrade.iso

Log into AKIPS with your admin account.

Go to **Admin > System > Update**.

Click **Browse** to locate the downloaded file.

Click **Open**.

If the upgrade is for the AKIPS software only:

AKIPS will update the version details on the menu bar and resume monitoring your network.

If the upgrade is for both the OS and AKIPS software:

AKIPS will reboot your OS.

Refresh your browser to continue using AKIPS.