AKips

AKIPS Install and Upgrade Guide

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

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Table of Contents

1 About this guide	. 1
1.1 Text conventions	. 3
2 Platform requirements	. 4
2.1 Software	. 5
2.1.1 CPU	. 5
2.1.2 Storage	. 5
2.1.3 VMware	. 5
2.2 Hardware	. 6
3 Installing AKIPS	. 7
3.1 Install AKIPS:	. 7
4 Discovering your network	14
4.1 Discover your network:	14
5 AKIPS license	15
5.1 Request an AKIPS evaluation key:	15
5.2 Activate an AKIPS license	15
6 Upgrading AKIPS	16
6.1 Case study	16
6.2 Upgrade AKIPS:	16



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

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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.

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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.

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3. Installing AKIPS

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

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.

Place choose required installation	×	
Flease choose required installation		
SHA-256 checksums: • 4d2295d49bd22bd62c4afa09d25451c8418301ca4c21f00af0cffc7e6565c0bf Install ISO • ba226c73152909acd8a53d046f3c8699bdb8e743c8c32549b16d1e144ea3f6f5 Install Memstick	re	ide
Install & Upgrade ISO USB Install Memstick		
Install Memstick" is a file which can be burned to a 5. Click Start Upgrade		
for installing on physical hardware. Download Install & upgrade guide Licence agreement		

Graphic 1 Accepting the AKIPS license agreement

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

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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

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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

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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**.

••• FreeBSD Installer	Terminal
1	Network Configuration Static Network Interface Configuration
	IP Address 10.1.14.96 Subnet Mask 255.255.0.0 Default Router 10.1.0
	< OK > <cancel></cancel>
-	

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**.

And the second se	Terminal	
eBSD Installer		
Desslars Orafi	Network Configuration	
Resolver Conti	Juration	
Search		
IPv4 DNS #1	10.1.1.1	
IPv4 DNS #2		
F.		
	Cance	-
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Graphic 7 Configuring the network resolver

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

0 0 0 Terminal
AKIPS Network Monitor Installer
Network Time Dectary
Network Time Protocol Configuration
NTP Server 1 10.1.1.1
NTP Server 2
< 0K >

Graphic 8 Configuring the network time protocol

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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

	Terminal	
AKIPS Networ	k Monitor Installer	T
Th	Verify hardware clock is machine's hardware clock is reporting the time as: 1:55 PM on Fri 5 Mar 2021 Is the clock set to local time? < No >	
	Terminal	
	Time Zone Selector Select a region 1 Africa 2 America North and South 3 Antarctica 4 Arctic Ocean 5 Asia 6 Atlantic Ocean Mustralia 8 Europe 9 Indian Ocean 0 Pacific Ocean a UTC	

Graphics 9 & 10 Configuring the hardware clock and time zone

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AKIPS Network Monitor Installer

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.

PS Dashboards Reports Tools Admin New PDF	Licensed to demo1 v21.7.1 User: a
Discover / Rewalk	
Save Changes Discover Rewalk	Discover / Rewalk
1. Daily Discovery Schedule Discover 3am v	 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.
2. 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.
rate 2000 10.2.0.0/16	1. Daily Discovery Schedule
10.131.0.0/16	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
	 Inside mess the Irva and Irva address frages the discover will use when performing a ping sweep. Each rule is evaluated and executed in order. Lines starting with a "ir are ignored. The addresses for each rule are pinged intelligently so as not to affect any single link/interface. Tunable options include: ate Units 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 result than a single pass because it allows time for remote devices to wake up from sleep modes before they
3. SNMP Parameters	 Imit
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	This is the maximum number of seconds a rule is allowed per pass. If the calculated rule in 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 in 10 seconds. Examples:
	# Set some "go fast" things rate 10000 pass 2
L.	# Scan the 10.1.1.0 subnet

Graphic 12 Configuring the discover settings

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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.

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6. UPGRADING AKIPS

AKIPS recommends that you always upgrade to the latest version.

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

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**.

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	1. Download the update ! 2. Select the ISO file Browse No file sele 3. Press "Start Upgrade"	Software Upda ISO file from the AKIPS web acted.	te isite to your compt	ıter		
Favorites	<)> (三 •) 關 •	Start Upgrade Cano	el O	Q Search		
Downloads	Name	Size	Kind	Date Added	÷	
A Application:	akips-21.7.1-install.iso	417.3 MB	ISO Disk Image	Today at 3:06 pm		
Locations D fileserver Network						

Graphic 13 Locating and opening the software update file

Click Start Upgrade.

After the upload has completed, AKIPS will automatically upgrade the software.

AKIPS Dashboards	Reports Tools Admin New PDF	Licensed to demo1 v21.7.1 User: adml
Softv	vare Update	
linera	ding 21 7 to 21 7 1	
22425	1995 	
Inst	alling new operating system onto the alternate root device	
This	should only take a few moments.	
*****	*******	
Insta	lling 21.7.1 to skips-root1 on ada@	
Clear	ing (alt (akips-root))	
Extra	cting operating system	
Extra	sting kernel	
Setti	ng time zone	
Copyi	ng /boot files	
Copys	ng /etc files	
Mergi	ng password file	
Mersi	ng group file	
Mount	ing package directory	
Insta	lling peckages	
Insta	iling ca_root_nss-3.69_1.txz	
Insta	lling expat-2.4.1.txz	
Insta	lling freetype2-2.11.0.txz	
Insta	lling fribidi-1.0.10.txz	
Insta	lling graphite2-1.3.14.txz	
Insta	lling icu-69.1,1.txz	
Insta	lling indexinfo-0.3.1.txz	
Insta	lling iperf3-3.10.1.1.txz	
Insta	lling jpeg-turbo-2,1.1.txz	
Insta	lling libdnet-1.13_3.txz	
Insta	lling libepoll-shin-0.0.20210418.txz	
Insta	lling libffi-3.3_1.txz	
Insta	lling libiconv-1.16.txz	
Insta	lling libumwind-20201110.txz	
Insta	11ing pcre-8.45.txz	
Insta	lling per15-5.32.1_1.txz	
Insta	lling pixman=0.40.0_1.txz	
Insta	lling png-1.6.37_1.txz	
Insta	lling postgresql11-client-11.13.txz	
Insta	lling smartmontools-7.2_1.txz	
Insta	lling_snappy-1.1.9_1.txz	
Insta	lling stream-5.10.txz	
Insta	lling teux-3.2a.txz	
Insta	lling cyrus-sasl-2.1.27_2.txz	

Graphic 14 Upgrading AKIPS

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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.