

User guide

initoring Software



© 2021 AKIPS Holdings Pty Ltd

All rights reserved worldwide. No part of this document may be reproduced by any means, nor modified, decompiled, dissembled, published or distributed, in whole or in part, or translated to any electronic medium or other means, without the written consent of AKIPS Holdings Pty Ltd.

All rights, title and interest in and to the software documentation are and shall remain the exclusive property of AKIPS and its licensors.

All other trademarks contained in this document are the property of their respective owners.

Disclaimer

While the publisher (AKIPS Pty Ltd) has taken every precaution in the preparation of this guide to ensure that the information and instructions contained herein are accurate at the date of publication, it makes no expressed or implied warranty of any kind, and disclaims all responsibility for errors or omissions. The publisher assumes no liability for incidental or consequential losses or damages in connection with, or arising out of, the use of the information contained herein.

Publisher

AKIPS, PO Box 3422, Shailer Park, Queensland, 4128, Australia

Email: info@akips.com

Website: https://www.akips.com

Edition	Software release	Date
17	22.1	January 2022

Contents

1	Abo	ut this g	guide	4								
	1.1	Abbreviations										
	1.2	Text co	onventions	8								
	1.3	Syntax		9								
2	Dasł	nboards		10								
	2.1	Events	dashboard	10								
		2.1.1	Impact assessment	12								
		2.1.2	Status exceptions	12								
		2.1.3	Graphs	12								
		2.1.4	IPv4 ping availability	13								
		2.1.5	SNMP availability	13								
		2.1.6	Interface status availability	13								
	2.2	Device	dashboard	14								
		2.2.1	Graphs	15								
		2.2.2	Status exceptions	15								
		2.2.3	Device groups	15								
		2.2.4	Availability	16								
		2.2.5	Vitals	16								
		2.2.6	Interfaces	16								
		2.2.7	Syslog	16								
	2.3	Interfac	ce dashboard	17								
		2.3.1	Overview	18								
		2.3.2	Usage	18								
		2.3.3	Graphs	18								
		2.3.4	Device groups	18								
		2.3.5	Interface groups	18								
		2.3.6	Address	19								

C	OI	V7	Ē	V	ТS

3	Repo 3.1 3.2	prts Device summary Unreachable devices 3.2.1 Placing unreachable devices into maintenance mode	20 20 22 23
		3.2.2 Deleting unreachable devices	24
	3.3	Availability reporter	25
	3.4	NetFlow reporter	26
	3.5	Trap reporter	28
	3.6	Switch port mapper	29
4	Rege 4.1	x filters IP address filter	30 32
	4.2	Group filter	33
5	Cust 5.1	omising graphs Changing the height or width of a graph	34 35
	5.2	Removing the title or subtitle from a graph	37
	5.3	Removing the date, navigation or statistics from a graph	39
6	csv	output	40
7	User	settings	42
	7.1	Switching to a different profile group	43
	7.2	Changing your password	44
	7.3	Muting alerts	45
	7.4	Hiding unused reports	46
8	Trair	ing	47

Chapter 1

About this guide

The AKIPS *User guide* introduces the features available to users of AKIPS Network Monitoring Software.

The following **Abbreviations** (see 1.1), **Text conventions** (see 1.2) and **Syntax** (see 1.3) are used throughout AKIPS's guides.

1.1 Abbreviations

3DES	triple data encryption standard
ADB	AKIPS database
AES	advanced encryption standard
AKIPS	Always Keep It Purely Simple :)
API	application programming interface
ARP	address resolution protocol
AS	autonomous system
BFD	bidirectional forwarding detection
BGP	border gateway protocol
CA	certificate authority
CBQoS	class-based quality of service
CDP	Cisco discovery protocol
CGI	computer gateway interface
CIDR	classless inter-domain routing
CLI	command line interface
CPU	central processing unit
CSR	certificate signing request
CSV	comma-separated values
cURL	client url
DHCP	dynamic host configuration protocol
DN	distinguished name
DNS	domain name system
FQDN	fully qualified domain name
GB	gigabyte
GRE	generic routing encapsulation
GUI	graphical user interface
HTTP	hypertext transfer protocol
HTTPS	hypertext transfer protocol secure
IF-MIB	interface MIB
IP	internet protocol
IPFIX	internet protocol flow information export
IPSLA	internet protocol service level agreement
IS-IS	intermediate system to intermediate system

LAN	local area network
LDAP	lightweight directory access protocol
LLDP	link layer discovery protocol
MAC	media access control
MIB	management information base
NAS	network-attached storage
NDP	neighbour discovery protocol
NIC	network interface card
NMS	network-monitoring software
NTP	network time protocol
OID	object identifier
OS	operating system
PCRE	Perl-compatible regular expressions
PEM	privacy-enhanced mail
PFX	personal information exchange format
PKCS	public key cryptography standards
png	portable network graphics
POSIX	portable operating system interface
PSSH	parallel secure shell
QoS	quality of service
RADIUS	remote authentication dial-in user service
RAID	redundant array of independent disks
RAM	random-access memory
RTT	round-trip time
SAN	storage area network
SCSI	small computer system interface
SHA	secure hash algorithm
SMI	structure of management information
SMTP	simple mail transfer protocol
SNMP	simple network management protocol
SSH	secure shell
SSL	secure sockets layer
STARTTLS	start transport layer security
stderr	standard error
sysadmin	system administrator

CHAPTER 1. ABOUT THIS GUIDE

TACACS+	terminal access controller access-control system plus
TCP	transmission control protocol
TLS	transport layer security
TOS	type of service
UID	user identifier
UDP	user datagram protocol
UTC	coordinated universal time
VLAN	virtual local area network
VM	virtual machine
WAN	wide area network

CHAPTER 1. ABOUT THIS GUIDE

1.2 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**.

Links to other parts of this guide are shown as red boxes.

E.g. The following **Abbreviations** (see 1.1), **Text conventions** (see 1.2) and **Syntax** (see 1.3) are used throughout AKIPS's guides.

Websites and email addresses are in blue.

If they are also hyperlinks, they are shown as cyan boxes.

E.g. https://www.akips.com

Code is in monospace.

Further:

Command syntax is in **red monospace**.

E.g. {ddd} {hh:mm} to {hh:mm}

Input (by the user) is in **blue monospace**.

E.g. tf dump last7d

Output (by AKIPS) is in cyan monospace.

E.g. cisco-74-1-1 sys ip4addr = 10.74.1.1

1.3 Syntax

Syntax may be presented in this guide across multiple lines due to layout constraints. When using AKIPS, you will need to run commands in a single line.

Parameters (fields expecting a substituted value) are contained within $\{\ \}$ (braces).

E.g. {type} {value}

Optional parameters are contained within [] (square brackets).

E.g. [index,{description}]

Optional parameters may be nested.

E.g.

mlist {type} [{parent regex} [{child regex} [{attribute regex}]]]

For values separated by a | (pipe), choose one option only.

E.g. [any|all|not group {group name} ...]

Multiple parameters will have an ... (ellipsis).

E.g. not group {group name} ...

Chapter 2

Dashboards

2.1 Events dashboard

The events dashboard displays key information relating to events on your network.

You can access the events dashboard by going to **Dashboards > Events**.

From the drop-down list, select an individual vendor or leave as **All Groups** (default).

AKIPS will not display events which you have discarded through:

- muting alerts (see 7.3)
- auto grouping (refer to the 'Grouping' chapter in the AKIPS *Administrator guide*).

To view the video *AKIPS events dashboard*, visit https://vimeo.com/manage/videos/612187602

CHAPTER 2. DASHBOARDS



Graphic 1: navigating the events dashboard

- 1. impact assessment table (see 2.1.1); 2. status exceptions table (see 2.1.2);
- 3. graphs (see 2.1.3); 4. IPv4 ping availability chart (see 2.1.4);
- 5. SNMP availability chart (see 2.1.5);
- 6. interface status availability chart (see 2.1.6).

2.1.1 Impact assessment

The impact assessment table (see 2.1) shows details of any unreachable devices in your network, so you can assess the impact of these on your organisation.

2.1.2 Status exceptions

AKIPS populates the status exceptions table (see 2.1) from status alerts and attributes which you can configure through auto grouping.

Refer to the 'Alerts' and 'Grouping' chapters in the AKIPS Administrator guide.

2.1.3 Graphs

AKIPS collects data every 60 seconds and plots graphs (see 2.1) according to your selected timeframe.

The **critical events** graph plots events which you have defined as critical, e.g. core interfaces failing. Refer to the 'Alerts' chapter in the AKIPS *Administrator guide*.

The **critical thresholds** graph displays counters/gauges/meters which have failed to meet thresholds which you have defined as critical.

The **events** graph plots the results of outages and changes, including for ping, SNMP, Cisco IPSLA and spanning tree.

The **thresholds** graph charts any events in breach of threshold rules which you have defined. Refer to the 'Alerts' chapter in the AKIPS *Administrator guide*.

The **syslog** graph displays syslog entries which AKIPS has received according to your selected timeframe.

The **traps** graph charts the number of trap messages from devices which you have configured to send messages to AKIPS. Although AKIPS catches traps immediately, the dashboard takes 60 seconds to refresh.

When you point to a position on a graph, it highlights an interval. You can drill down to 60-second intervals.

2.1.4 IPv4 ping availability

The IPv4 ping availability chart (see 2.1) displays the ping results for the previous 24 hours with availability targets which you have set (between 95 and 100 per cent).

Refer to the 'Availability' chapter in the AKIPS Administrator guide.

2.1.5 SNMP availability

The SNMP availability chart (see 2.1) displays the SNMP results for the previous 24 hours with availability targets which you have set (between 95 and 100 per cent).

Refer to the 'Availability' chapter in the AKIPS Administrator guide.

2.1.6 Interface status availability

The interface status availability chart (see 2.1) displays the interface results for the previous 24 hours with availability targets which you have set.

Refer to the 'Availability' chapter in the AKIPS Administrator guide.

2.2 Device dashboard

The device dashboard provides reports on an individual device and its related interfaces.

The device and events dashboards share many of the same graphs and charts.

You can access the device dashboard by:

- going to **Dashboards > Device** and selecting a device
- clicking a specific device on the events dashboard (see 2.1).

To edit the device's configuration, click **Edit**.

To ping or walk the device, click **Ping/SNMP Walk**.

To view the video *AKIPS device and interface dashboards*, visit https://vimeo.com/manage/videos/619559203

Device Dashboard	Device IPv4 Uptime	Added SysUpTime Location	Identifier					Description			
ast 30 minutes v	cisco-131-16-7 10.131.16.7 6 hours 56 mins 09 Se	p, 2020 18:04 438 days 0 hours Tulsa OK CISCO-PRODUC	TS-MIB.catalyst	37xxSta	ck Cisco IO	S C3750 (C37	50-IPSEI	IVICESK9-M) Ve	sion 12	2(53)SE2	RELEASE (fc3)
roup Filter	Contact SSH										
ll Groups ~	demo@akips.com SSH										
vice Filter	Events	Availability: Jast30m					81 Inte	rfaces: 28 up	53 dov	m	
ma.131.15.7		95 96 97 98 99 100				Cont		nation Rest M	ner	Incomed	
na-131-15-8		100.00 IPv4 Ping					0		-		
na-131-15-9	2:50pm 3:00pm 3:10pm	100.00 SNMP	Interface	Status	Speed	Util %		Bits/Sec	Erro	rs Disca	rds Title
a-ctrl-5						Graph	Tx F	x Tx Rx	Tx	tx Tx	Rx
o-ctri-6	Threaderlate		Gi1/0/12	up	1 Gbps		78% 7	6 787 M 78	4 O	0 0	0 Po21-School of Business
o-ctrl-7	1 Inresholds	Marchael and Marchael	GI2/0/25	up	1 Gbps		49% 15	96 498 M 199	4 0	0 0	0) Manningkid
xo-ctrl-8		Vitals: last30m	CILIPIA		A Ches		2014 14	× 300 M 100			nia national of Ducloses
:o-ctrl-9	0	Ping \	G1170/4	up	1 opps		3079 11	196 386 M 198	N 0	0 0	613 P021-School of Business
:0-131-16-1	2:50pm 3:00pm 3:10pm	CTU	Gi2/0/27	up	1 Gbps	_	36% 50	96 365 M 507	4 0	0 0 1	.1 K VOIP-Manning
0-131-16-2		CF0 30%	Gi1/0/8	up	1 Gbps		18% 1	% 187 M 111	4 O	0 0	0 Po21-School of Business
0-131-16-6	1.0 Syslog	Mem 69% I/O	Gi2/0/4	up	1 Gbps		16% 5	% 161 M 519	4 0	0 782	0 Po21-School of Business
0.131.16.5			020042		1 Ches		1414 20	4 142 M 71		0 0	0 Pall School of Rusiness
:0-131-16-6		Mem 61% Processor	012/0712	op	T Gups		1479 7	0 142 M 71		0 0	o Pozit-School of Busiliess
:0-131-16-7	2:50pm 3:00pm 3:10pm	Mem 0% Driver text	Gi1/0/25	up	1 Gbps _		2% 3	96 22 M 317	4 0	0 0	0 Ciscokid; Link to
co-131-16-8			Po21	up	6 Gbps		1% 69	6 71 M 382	4 O	0 0	0 School of Business; Po21-172.2
co-131-16-9	Traps	Temp 35 °C SW#1 #1 GREEN	Gi1/0/27	up	1 Gbps		1% 63	96 11 M 639	4 321 8	50 0	0 VOIP-Philips
co-131-16-10	1										
20-131-16-12											
0-131-16-13	2:50pm 3:00pm 3:10pm										
0 131 16 15											
p-131-16-16					Syrlog						
p-131-16-17	Castor Constitution				Synog						
0-131-16-18	status exceptions	Data Mina			messages						
:0-131-16-19	Status Faults	Dater mile			mere	- de					
:0-131-16-21	No results found	Today 15:03 error local/ 1 2021-10-18115:0.	3:40 10.131.16.	STPlin	SPDU: Port-	 No associa 	ted STP	port for STP D	main ta	g 270 (Kat	e-limited)
x-131-16-22		Today 15:15 error local7 1 2021-10-18T15:1	5:38 10.131.16.	STP.Inf	3PDU: Port	1: No associa	ited STP	port for STP Da	main ta	ξ 270 (Rat	e-limited)
xx-131-16-23	Device Groups										
0-131-16-24	0-Melbourne										
01311023	0-Sydney										
n-131-16-27	1-Building-16										
.p-131-16-29	1-Network-A										
	Circo										

Graphic 2: navigating the device dashboard

- 1. graphs (see 2.2.1); 2. status exceptions table (see 2.2.2);
- 3. device groups table (see 2.2.3); 4. availability chart (see 2.2.4);
- 5. vitals chart (see 2.2.5); 6. interfaces table (see 2.2.6);
- 7. syslog table (see 2.2.7).

2.2.1 Graphs

AKIPS collects data every 60 seconds and plots graphs (see 2.2) according to your selected timeframe.

The **events** graph plots the results of outages and changes, including for ping, SNMP, Cisco IPSLA and spanning tree.

The **thresholds** graph charts any events in breach of threshold rules which you have defined. Refer to the 'Alerts' chapter in the AKIPS *Administrator guide*.

The **syslog** graph displays syslog entries which AKIPS has received according to your selected timeframe.

The **traps** graph charts the number of trap messages from devices which you have configured to send messages to AKIPS. Although AKIPS catches traps immediately, the dashboard takes 60 seconds to refresh.

When you point to a position on a graph, it highlights an interval. You can drill down to 60-second intervals.

2.2.2 Status exceptions

AKIPS populates the status exceptions table (see 2.2) from status alerts and attributes which you can configure through auto grouping.

Refer to the 'Alerts' and 'Grouping' chapters in the AKIPS Administrator guide.

2.2.3 Device groups

The device groups table (see 2.2) lists the groups to which you have assigned the device.

Refer to the 'Grouping' chapter in the AKIPS Administrator guide.

2.2.4 Availability

The availability chart (see 2.2) displays the ping and SNMP reachability (between 95 and 100 per cent) for the device for the past 30 minutes.

Refer to the 'Availability' chapter in the AKIPS Administrator guide.

2.2.5 Vitals

The vitals chart (see 2.2) shows vital statistics for the device for the past 30 minutes.

2.2.6 Interfaces

The interfaces table (see 2.2) displays all interfaces relating to the device, showing what is up and down, their speeds and traffic.

The **Config** button opens the interface configuration report for the device.

The **Statistics** button provides traffic data (bits/bytes/packets) and graphs for each interface on the device, along with any errors and discards.

The **Port Mapper** button displays the ARP and VLAN tables as well as a list of the addresses on the interface.

The **Unused** button provides details of any unused interfaces on the device.

2.2.7 Syslog

The syslog table (see 2.2) shows all syslog messages for the device for the past 30 minutes.

2.3 Interface dashboard

The interface dashboard provides reports on an individual interface.

You can access the interface dashboard by:

- going to Dashboards > Interface and selecting a device and then an interface
- clicking a specific interface on the device dashboard (see 2.2).

To view the video *AKIPS device and interface dashboards*, visit https://vimeo.com/manage/videos/619559203

AKIPS Dashboards Report	rts Tools Admin New PDF Licensed to demot v21.7	User: admin +
Interface Dashboard		
Last 30 minutes v	cisco 131-167 GiZ/WS Gizibitthemetz/WS Po21-School of Business	
Group Filter		
All Groups ~	Admin Operational Speed Duplex Type Util % Bits/Sec Bytes Packets Broadcast Multicast Errors Discards	
Device Filter	State Last Change State Last Change State Last Change It is in it	
cisco-131-16-5		
cisco-131-16-6	70 Illilization P33/IM Broadcast Volume Reg 1 min Device Crowned Interface Crowned	
cisco-131-16-7	60 Device groups interface groups	
cisco-131-16-8	40. 0-Melbourne ifspeed_1G	
cisco-131-16-9	50 K 0-Sydney iftype_ethernetCsmacd	
cisco-131-16-10	1 Puilding 16	
cisco-131-16-12	0 Sulturn & Stiam 910am OK Refam 850am 910am	
cisco-131-16-13	The Transmission of the Tr	
risco-131-16-14	Cisco 4	
risco-131-16-15	Bits Per Second Multicast Volume Per 1 min Circo. 2200.12	
cisco-131-16-16	100 100 100 100 100 100 100 100 100 100	
cisco-131-16-17	400 Mbps-tech_cisco_gos	
cisco-131-16-18	200 Mbps	
cisco-131-16-19	0 Mbps 0 X No address location data for cisco.131.16.7 GI2/0/8	
cisco-131-16-21	8.40µm 8.50µm 9.00µm 8.50µm 9.00µm 10.00µm 10.00µm)
All Interfaces 🗸	Pectors Packets Per Second Errors/Tim Error Volume Per 1 min	
Interface Filter	200 ×	
Title Filter	100 K	
0300131107 011/0/20	0 K Britism Britism Britism Britism Britism	
cisco-131-16-7 Gi2/0/1	The Text Sector	
cisco-131-16-7 Gi2/0/2		
cisco-131-16-7 Gi2/0/3	systex m Bytes Volume Per 1 min Discard Volume Per 1 min	
cisco-131-16-7 Gi2/0/4 Po21-Sch		
cisco-131-16-7 Gi2/0/5	4 68	
cisco-131-16-7 Gi2/0/6	2 68	
cisco-131-16-7 Gi2/0/7	0.68	
cisco-131-16-7 Gi2/0/8 Po21-Sch	8-40am 8:50am 9:00am 8:40am 8:50am 9:00am	
	Tx Rx Tx Rx	

Graphic 3: navigating the interface dashboard

- 1. overview table (see 2.3.1); 2. usage tables (see 2.3.2);
- 3. graphs (see 2.3.3); 4. device groups table (see 2.3.4);
- 5. interface groups table (see 2.3.5); 6. address parameter (see 2.3.6).

2.3.1 Overview

The overview table (see 2.3) provides an overview of the interface. It links to the device dashboard (see 2.2).

2.3.2 Usage

The usage tables (see 2.3) provide state and speed details for the interface, along with transmit receipts, errors and discards.

2.3.3 Graphs

AKIPS collects data every 60 seconds and plots graphs (see 2.3) according to your selected timeframe.

When you point to a position on a graph, it highlights an interval. You can drill down to 60-second intervals.

2.3.4 Device groups

The device groups table (see 2.3) lists the groups to which you have assigned the interface's device.

Refer to the 'Grouping' chapter in the AKIPS Administrator guide.

2.3.5 Interface groups

The interface groups table (see 2.3) lists the groups to which you have assigned the interface.

Refer to the 'Grouping' chapter in the AKIPS Administrator guide.

2.3.6 Address

If you have configured the interface in switch port mapper (see 3.6), the address parameter (see 2.3) shows a list of the addresses on the interface.

Chapter 3

Reports

3.1 Device summary

The device summary shows:

- $\bullet\,$ the total number of devices AKIPS is monitoring on your network
- an overview of individual devices.

To view the total number of devices:

Go to **Reports > Device > Summary**.

						Device Summary		
×						Tep 25 of 1,658		
	Device 🗸	IPv4	SysUpTime	Added	Location	Identifier	Description	
	accedian-131-2-1	10.131.2.1	425 days 2 hours	Thu, 13 May 03:07	Phoenix AZ	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	accedian-131-2-2	10.131.2.2	101 days 8 hours	Thu, 13 May 03:07	Minneapolis MN	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	accedian-131-2-3	10.131.2.3	247 days 4 hours	09 Sep, 2020 18:04	Honolulu HI	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	accedian-131-2-4	10.131.2.4	334 days 21 hours	09 Sep, 2020 18:04	Cincinnati OH	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	accedian-131-2-5	10.131.2.5	168 days 3 hours	09 Sep, 2020 18:04	Winnipeg MB	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	accedian-131-2-6	10.131.2.6	211 days 0 hours	09 Sep, 2020 18:04	Napier NZ	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	accedian-131-2-7	10.131.2.7	167 days 1 hour	09 Sep, 2020 18:04	Gold Coast AU	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	accedian-131-2-8	10.131.2.8	420 days 22 hours	09 Sep, 2020 18:04	San Francisco CA	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	accedian-131-2-9	10.131.2.9	449 days 21 hours	09 Sep, 2020 18:04	Omaha NE	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	accedian-131-2-10	10.131.2.10	163 days 19 hours	09 Sep, 2020 18:04	Memphis TN	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	accedian-131-2-11	10.131.2.11	176 days 20 hours	09 Sep, 2020 18:04	El Paso TX	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
1	accedian-131-2-12	10.131.2.12	175 days 23 hours	09 Sep, 2020 18:04	Charlotte NC	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
2	accedian-131-2-13	10.131.2.13	69 days 0 hours	09 Sep, 2020 18:04	Toronto ON	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
3	accedian-131-2-14	10.131.2.14	409 days 8 hours	Thu, 13 May 03:07	Christchurch NZ	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
4 c	accedian-131-2-15	10.131.2.15	457 days 10 hours	Thu, 13 May 03:07	Washington DC	ACD-DESC-MIB.acdDesc	AMN-1000-GT	
	adva-131-0-1	10.131.0.1	481 days 22 hours	09 Sep, 2020 18:04	Tampa FL	FspR7-MIB.fspR7V1	Fiber Service Platform F7	
	aerohive-131-3-1	10.131.3.1	228 days 20 hours	09 Sep, 2020 18:04	New York NY	AH-SMI-MIB.ahProduct	AP230 HiveOS 8.2r2 build-196060	
	aerohive-131-3-2	10.131.3.2	361 days 19 hours	09 Sep. 2020 18:04	Las Vegas NV	AH-SMI-MIB.ahProduct	AP230 HiveOS 6.5r9a build-194750	
	aerohive-131-3-3	10.131.3.3	370 days 18 hours	09 Sep, 2020 18:04	Dallas TX	AH-SMI-MIB.ahProduct	AP250 HiveOS 8.2r4 build-207023	
	aerohive-131-3-4	10.131.3.4	303 days 19 hours	09 Sep. 2020 18:04	Austin TX	AH-SMI-MIB.ahProduct	AP230 HiveOS 6.6r1b release build2338	
	aerohive-131-3-5	10.131.3.5	389 days 13 hours	09 Sep. 2020 18:04	Edmonton AB	AH-SMI-MIB.ahProduct	SR2148P HiveOS 6.5r6 build-149161	
	aerohive-131-3-6	10.131.3.6	308 days 18 hours	09 Sep. 2020 18:04	Sydney AU	EdgeSwitch-REF-MIB.broadcom	Aerohive SR2208P: 8 GE POE+ ports 2 GE dual media ports 1.0.1.22 Linux 3.6.5	
	alcatel-131-78-1	10.131.78.1	391 days 21 hours	Mon. 20 Sep 14:10	Dunedin NZ	ALCATEL-IND1-DEVICES.alcatelIND1DevicesMIB.12.1.2	Alcatel-Lucent OS6450-P10 6.6.3.520.R01 Service Release November 26 2013.	
	alcatel-131-78-2	10.131.78.2	245 days 11 hours	Mon. 20 Sep 14:10	Adelaide AU	unknown object	Alcatel-Lucent 056900-X40 7.3.4.236 R02 Service Release November 13 2015	
	alcatel,131,78,3	10 131 78 3	293 days 2 hours	Mon. 20 Sep 14:10	San Diego CA	unknown chiert	Alratel J urant 056900-X40 7 3 4 236 B02 Sanvice Belease November 13 2015	
	areater 131-78-3	10.1311/0.3	ass oups a nours	mong ato dep 14,10	son on go ch	and the state of t	Preside cardina doubles may have a sub-	

Graphic 4: viewing the total number of devices in AKIPS

To see an overview of an individual device:

From the list, select an individual device.

3.2 Unreachable devices

The unreachable devices report provides details of any devices which AKIPS cannot currently reach.

To determine reachability, AKIPS sends ping and SNMP requests at the following intervals:

Request	Interval	Considered down when unresponsive for
ping	15 seconds	45 seconds
SNMP	60 seconds	120 seconds

To view the video *AKIPS unreachable devices report*, visit https://vimeo.com/manage/videos/538524106

To display unreachable devices:

Go to **Reports > Device > Unreachable**.

You can refine the report by using the filter options.

3.2.1 Placing unreachable devices into maintenance mode

To place unreachable devices into maintenance mode:

Go to **Reports > Device > Unreachable**.

You can refine the report by using the filter options.

To place all unreachable devices into maintenance mode:

Click Select All.

To place individual unreachable devices into maintenance mode:

Select the checkboxes next to specific devices.

Click Maintenance Mode.

Click OK.

3.2.2 Deleting unreachable devices

To delete unreachable devices:

Go to **Reports > Device > Unreachable**.

You can refine the report by using the filter options.

To delete all unreachable devices:

Click Select All.

To delete individual unreachable devices:

Select the checkboxes next to specific devices.

Click Delete.

Click OK.

3.3 Availability reporter

To view the availability reporter:

Go to **Tools > Availability**.

You can refine the report by using the filter options:

Option	Action
time range	defines the time range of the report
report	charts one or all of the following: IPv4 Ping , IPv6 Ping , Interface Status , SNMP
sort	sorts devices either alphabetically (Sort Name), or from least used to most used (Sort Availability)
show	shows either all devices (Show All), or only those which have not met their target (Show Failed)

3.4 NetFlow reporter

To generate a table:

Go to **Tools > NetFlow**.

Select a device.

You can refine the report by using the filter options.

Click Table.

AKif	Dashbo	oards Rep	oorts Tools	Admin New PDF								License
NetFlow Reporter					Exporter: cisco-131-16-85							
Date	Jate hh:mm v				Top 20 of 17,560							
Last N	art N y 20 minuter			Source	Protocol	Packets		Bytes		Flows		
LUPTI	Last N V So minutes V						Graph	Total	Graph	Total 🌱	Graph	Total
cisco-131	-16-85				1 14.202.93.169	udp.unknown		369	\sim	162 K		12
cisco-13	1-16-19				2 213.59.130.62	udp.unknown		285	~~	143 K	\sim	9
cisco-13	cisco-131-16-49				3 131.181.118.171	udp.unknown	\sim	234	\sim	125 K	\sim	8
cisco-13 cisco-13	1-16-77 1-16-83		- 1		4 138.197.41.122	udp.unknown		248	\sim	121 K	~~	7
cisco-13	cisco-131-16-85				5 177.64.93.168	udp.unknown	~	225		121 K		8
none -	Address Filt	none -	Address Filt		6 79.103.41.5	udp.unknown	\sim	207		120 K	\sim	8
none +	AS Filter 1	none •	AS Filter 2		7 157.44.101.52	icmp.echoreply		231		119 K	\sim	8
none -	Interface Fil	none -	Interface Fil		8 64.203.186.68	tcp.kerberos-sec	\sim	186	\sim	118 K	\sim	5
All Proto	cols		~		9 69.174.57.102	icmp.echoreply		186	~~	118 K	$ \longrightarrow $	5
T 20				1	0 71.174.248.42	icmp.echoreply	~	262	\sim	118 K	~~~	10
Top 20	Ŷ	Sort Bytes V		1	1 40.76.90.243	icmp.echoreply		214		116 K		6
Source	Source IP		ation IP	1	2 50.204.22.250	icmp.echoreply		218		116 K		6
Source] Source Host		ation Host	1	3 37.191.218.239	udp.unknown		248		116 K		10
] Input I] Input Interface		t Interface	1	4 95.163.255.196	tcp.null		252	\sim	114 K	\sim	8
Source] Source AS		ation AS	1	5 196.37.70.181	icmp.echoreply	\sim	267	\sim	113 K		9
Protoc	Protocol		ation	1	6 205.201.130.248	udp.kerberos-sec		206		113 K		6
No. of	No. of Conv			1	7 209.222.66.189	udp.unknown		179		112 K		7
	Table		r Graph	1	8 115.178.17.190	tcp.kerberos-sec		237		109 K		9
Dis	Disk Usage		own Ports	1	9 120.147.48.111	udp.unknown		176		109 K	$\wedge \wedge$	4
Clear	Clear			2	0 94.143.105.73	tcp.source	-	176	\frown	109 K	\sim	6

Graphic 5: viewing the NetFlow reporter as a table

To generate a bar graph:

Click Bar Graph.

	-						
NetFlo	w Repo	rter					
hh:mm v							
Last N v 30 minutes v				cisco-13	1-16-85		
cisco.131.16.85					By	tes	
circo-121-16-19		150 K	100 K	50 K	0 K		
cisco-131-16-47					177.68.143.100 udp.unknown		
cisco-131-16-49							178.150.152.144 udp.unknown
cisco-131-16-77							115.178.17.190 tcp.kerberos-sec
cisco-131-16-83					94.229.14.54 udp.unknown		
usco-151-10-85							83.134.255.23 icmp.echoreply
none - Address	ilt none	 Address Filt 					75.54.18.56 tcp.null
none - AS Filter	none	 AS Filter 2 					209.222.66.189 udp.unknown
To to office		T					58.169.218.208 icmp.echoreply
none - Interrace	none	 Interface Fil 	1				164.107.145.47 udp.unknown
All Protocols		~	1				89.206.14.18 udp.unknown
Ton 20 v Sort By		vtes v					37.191.218.239 tcp.source
							76.65.195.192 icmp.echorepiy
Source IP	Dest	Destination IP					40.94.36.17 Icmp.ecnorepiy
Source Host		ination Host					116.118.19.83 udp.unknown
Input Interface Output Interface						207.46.231.25 icmp.echorepiy	
						40 107 02 102 ude unknown	
_ Source AS Destination		Ination AS					40.107.95.105 udp.unknown
Protocol Geolocation		location					210.244.13.211 uup.unknown
No. of Conv							212 50 120 62 udp upknown
Table		Bar Graph					215.59.150.02 uup.unknowii
		V					
Disk Usage	Uni	known Ports	1				
Chara							

Graphic 6: viewing the NetFlow reporter as a bar graph

To display the disk usage:

Click Disk Usage.

To display unknown ports:

Click Unknown Ports.

3.5 Trap reporter

To use the trap reporter:

Go to Tools > SNMP Traps.

Using the filter options, set the time and device filters.

Click Top Talkers.

3.6 Switch port mapper

Every hour, switch port mapper walks the:

- ARP and bridge tables
- IP and MAC addresses.

To use switch port mapper:

Go to Tools > Switch Port Mapper.

In the Address Locator text field, enter an IPv4/6 or MAC address.

To search for the switch, click **Search**.

To display the mapping history for the switch, click **History**.

You can refine the report by using the filter options.

Chapter 4

Regex filters

You can use regex to filter data in **Dashboards** (see 2) and **Reports** (see 3).

For information on regex, refer to *Regular Expressions Cookbook* (Goyvaerts & Levithan, 2012).

Examples

Must match akips09 or akips134:

/akips09|akips134/

Must match AKDSQ, AKDSI, AKDPR, MSD or EIA:

/AKDSQ|AKDSI|AKDPR|MSD|EIA/

Match anything with SD followed by any number from 4 to 9:

/SD[4-9]/

Match anything that starts with fa or gi and only those from 0 to 5:

/^(fa|gi)[0-5]/

To check your regex:

Go to Tools > Regex Checker.

Paste sample text into the text field.

Type the regex you want to check, without / / (forward slashes), into the ${\bf Regex}$ text field.

Click Test Regex.

CHAPTER 4. REGEX FILTERS

4.1 IP address filter

Metacharacter	Description	Notes	Example
*	wildcard		10.1.11.*
-	range		10.1.11.0-9
ļ	negate rule	use only for NetFlow/trap/ syslog reports	!10.1.11.7
/	CIDR notation	use to apply Netmask to the IP address	10.1.11.7/16

4.2 Group filter

Metacharacter	Description
/	(mandatory) binds all expressions
*	matches the preceding element zero or more times
+	matches the preceding element one or more times
^	start with
	matches a single character
\$	end with
[]	matches a single character contained within
[^]	matches a single character not contained within
()	a marked subexpression
	or

Chapter 5

Customising graphs

You can customise graphs in $\ensuremath{\textbf{Dashboards}}$ (see 2) and $\ensuremath{\textbf{Reports}}$ (see 3) by editing the url.

Individual commands in the url are separated by a ; (semicolon).

To view the video *Customising graphs in AKIPS*, visit https://vimeo.com/manage/videos/533784803

5.1 Changing the height or width of a graph

To change the height of a graph:

If the url includes a height component:

In the url, replace the height with your required height in pixels (maximum 1469).

If the url does not include a height component:

In the graph navigation controls, click either – (minus) or + (plus) next to **Height**. This will change the graph height and display it in the url.

Replace the height with your required height in pixels (maximum 1469).

Hit Enter.

To change the width of a graph:

If the url includes a width component:

In the url, replace the width with your required width in pixels.

If the url does not include a width component:

In the graph navigation controls, click either – (minus) or + (plus) next to **Width**. This will change the graph width and display it in the url.

Replace the width with your required width in pixels.

Hit Enter.



Graphic 7: changing the height of a graph

5.2 Removing the title or subtitle from a graph

To remove the title or subtitle from a graph:

To remove a title:

In the url, delete the text in the title component following title=

E.g. for title=cisco-131-16-137, delete cisco-131-16-137

If the url does not include a title component, add title=

To remove a subtitle:

In the url, delete the text in the subtitle component following subtitle=

E.g. for subtitle=cisco-cpu, delete cisco-cpu

If the url does not include a subtitle component, add subtitle=

Hit Enter.



Graphic 8: removing the title and subtitle from a graph

5.3 Removing the date, navigation or statistics from a graph

To remove the date from a graph:

In the url, add date=0

Hit Enter.

To remove the navigation controls from a graph:

In the url, add nav=0

Hit Enter.

To remove the statistics from a graph:

In the url, add legend_stat=0

Hit Enter.

Chapter 6

CSV output

This feature is available whenever the AKIPS toolbar displays the **CSV** button.

To export reports in CSV format:

Click CSV.

Either open the file by selecting a program, or save it by clicking Save File.

Click OK.



Graphic 9: exporting reports in CSV format

Chapter 7

User settings

To view the video *AKIPS user settings*, visit https://vimeo.com/manage/videos/537588719

7.1 Switching to a different profile group

Users with admin rights can switch to a different profile group with different settings.

(To configure profile groups, refer to the 'Access control' chapter in the AKIPS *Administrator guide*.)

To switch to a different profile group:

Hover your cursor over **User**, located on the right-hand side of the menu bar.

Select a profile.



Graphic 10: switching to a different profile group

7.2 Changing your password

To change your password:

Hover your cursor over **User**, located on the right-hand side of the menu bar.

Select Change Password.

Complete the text fields.

Click Change Password.

7.3 Muting alerts

You can mute alerts which you have previously configured in AKIPS.

(Refer to the 'Alerts' chapter in the AKIPS Administrator guide.)

To mute alerts:

Hover your cursor over **User**, located on the right-hand side of the menu bar.

Select Mute Alerts.

Click the button for the duration (from $1h\ \mbox{to}\ for\ \mbox{which}\ you\ \mbox{would}\ like\ \mbox{to}\ \mbox{mute}\ alerts.$

To resume alerts:

Click Cancel Mute.

7.4 Hiding unused reports

AKIPS displays all vendor reports in the **Reports** menu, including those which your network is not using.

To hide unused reports on your network:

Hover your cursor over **User**, located on the right-hand side of the menu bar.

Select Hide Unused Reports.

To show unused reports on your network:

Select Show All Reports.

Chapter 8

Training

To fully learn how to use AKIPS, you can register for training via https://www.akips.com/showdoc/training

AKIPS's training partner, KLARITY, trains customers in both hemispheres.

Training provides timesaving guidance in:

- discover, grouping and availability
- events, alerting and thresholding
- the AKIPS UI
- syslog, NetFlow and advanced reporting
- tips and tricks
- administrator training
- what's new in AKIPS.

Index

Α

Abbreviations (About this guide), 5 About this guide, 4 Address (Interface dashboard), 19 Availability (Device dashboard), 16 Availability reporter, 25

С

Changing the height or width of a graph, 35 Changing your password (User settings), 44 CSV output, 40 Customising graphs, 34

D

Dashboards, 10 Deleting unreachable devices (Reports), 24 Device dashboard, 14 Device groups (Device dashboard), 15 Device groups (Interface dashboard), 18 Device summary (Reports), 20

Ε

Events dashboard, 10

G

Graphic 1: navigating the events dashboard, 11 Graphic 2: navigating the device dashboard, 14 Graphic 3: navigating the interface dashboard, 17 Graphic 4: viewing the total number of devices in AKIPS, 21 Graphic 5: viewing the NetFlow reporter as a table, 26 Graphic 6: viewing the NetFlow reporter as a bar graph, 27 Graphic 7: changing the height of a graph, 36 Graphic 8: removing the title and subtitle from a graph, 38 Graphic 9: exporting reports in CSV format, 41 Graphic 10: switching to a different profile group, 43 Graphs (Device dashboard), 15 Graphs (Events dashboard), 12 Graphs (Interface dashboard), 18 Group filter (Regex filters), 33

Н

Hiding unused reports (User settings), 46

I

Impact assessment (Events dashboard), 12 Interface dashboard, 17 Interface groups (Interface dashboard), 18 Interface status availability (Events dashboard), 13 Interfaces (Device dashboard), 16 IP address filter (Regex filters), 32 IPv4 ping availability (Events dashboard), 13

М

Muting alerts (User settings), 45

INDEX

Ν

NetFlow reporter, 26

0

Overview (Interface dashboard), 18

Ρ

Placing unreachable devices into maintenance mode (Reports), 23

R

Regex filters, 30 Removing the date, navigation or statistics from a graph, 39 Removing the title or subtitle from a graph, 37 Reports, 20

S

SNMP availability (Events dashboard), 13
Status exceptions (Device dashboard), 15
Status exceptions (Events dashboard), 12
Switch port mapper (Reports), 29
Switching to a different profile group (User settings), 43
Syntax (About this guide), 9
Syslog (Device dashboard), 16

T

Text conventions (About this guide), 8 To change the height of a graph, 35 To change the width of a graph, 35 To change your password (User settings), 44 To check your regex (Regex filters), 31 To delete unreachable devices (Reports), 24 To display the disk usage (NetFlow reporter), 27 To display unknown ports (NetFlow reporter), 27 To display unreachable devices (Reports), 22 To export reports in CSV format, 40 To generate a bar graph (NetFlow reporter), 27 To generate a table (NetFlow reporter), 26 To hide unused reports on your network (User settings), 46 To mute alerts (User settings), 45 To place unreachable devices into maintenance mode (Reports), 23 To remove the date from a graph, 39 To remove the navigation controls from a graph, 39 To remove the statistics from a graph, 39 To remove the title or subtitle from a graph, 37 To resume alerts (User settings), 45 To see an overview of an individual device (Reports), 21 To show unused reports on your network (User settings), 46 To switch to a different profile group (User settings), 43 To use switch port mapper (Reports), 29 To use the trap reporter, 28 To view the availability reporter, 25 To view the total number of devices (Reports), 21 Training, 47 Trap reporter, 28

U

Unreachable devices (Reports), 22 Usage (Interface dashboard), 18 User settings, 42

V

Vitals (Device dashboard), 16