



SNMP Management

Gateway to the monitoring world

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Simple What? (.1.3.6.1)

- Industry standard tool for retrieving information from a device or software stack on a network.



SNMP Breakdown

- ◊ Agent (net-snmp, systemEDGE, others)
- ◊ Client (net-snmp, rubysnmp, pysnmp,...)
- ◊ Mibs
- ◊ Oids
- ◊ Monitoring Software (Software that uses a client)



Mibs

- Database of all oids you can access
- You must download a Mib to resolve the oid to a meaningful name.
- Provided by Hardware or Software vendor
 - Jboss, Oracle, HP, Dell, Cisco



Object Identifier (OID)

- Object that holds a single value
- Tables
- String, Numbers, boolean



Monitoring Software

- ◊ Opennms -- open source
- ◊ Nimsoft -- Adobe Flash/Flex framework frontend
- ◊ Solarwinds -- Good for advanced beginners
- ◊ Whats up Gold – Good for small shops
- ◊ Nagios – open source



SNMP Monitoring Basics

- ◊ Monitor values of OIDS (Polling)
 - ◊ Watch for specific values
- ◊ Draw graphs of OID values over time
- ◊ SNMP traps (easy way to receive data without polling)
 - ◊ Listen for traps













Quick Demo of SNMP

Corey Osman's View

[Export to PDF](#) [Customize P](#)
Sunday, May 15, 2011 9:00:36

Top 10 Nodes by CPU Load

[HELP](#)

NODE	CPU LOAD
	100 %
	99 %
	65 %
	59 %
	50 %
	49 %
	41 %
	40 %
	39 %
	35 %

All Nodes - Tree (AJAX)

[MANAGE NODES](#) [EDIT](#) [HELP](#)

NO GROUPING APPLIED

-  American Power Conversion Corp.
-  Catalyst 37xx Stack
-  Cisco 2821
-  Cisco 3845
-  Cisco IPS SSM 20
-  Cisco Wireless LAN Controller
-  Linux
-  masterSwitchrPDU
-  net-snmp - Linux
-  [Unknown]
-  Windows 2000 Server
-  Windows 2003 Domain Controller
-  Windows 2003 Server











Top 10 VMware Hosts by CPU Load

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VMWARE HOST	CPU LOAD
	49 %
	41 %
	39 %
	24 %
	17 %
	15 %
	12 %
	9 %
	9 %
	8 %

Top 10 Nodes by Percent Memory Used

[HELP](#)

NODE	MEMORY USED
	94 %
	90 %
	88 %
	85 %
	85 %
	85 %
	84 %
	82 %
	81 %
	78 %

Search for Nodes

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Find Search By [SEARCH](#)

Examples: Cisco*, 10.15.*, W?ndows, Server-*, *.SolarWinds.Net

PX Power Usage

LAST 30 DAYS

View Options

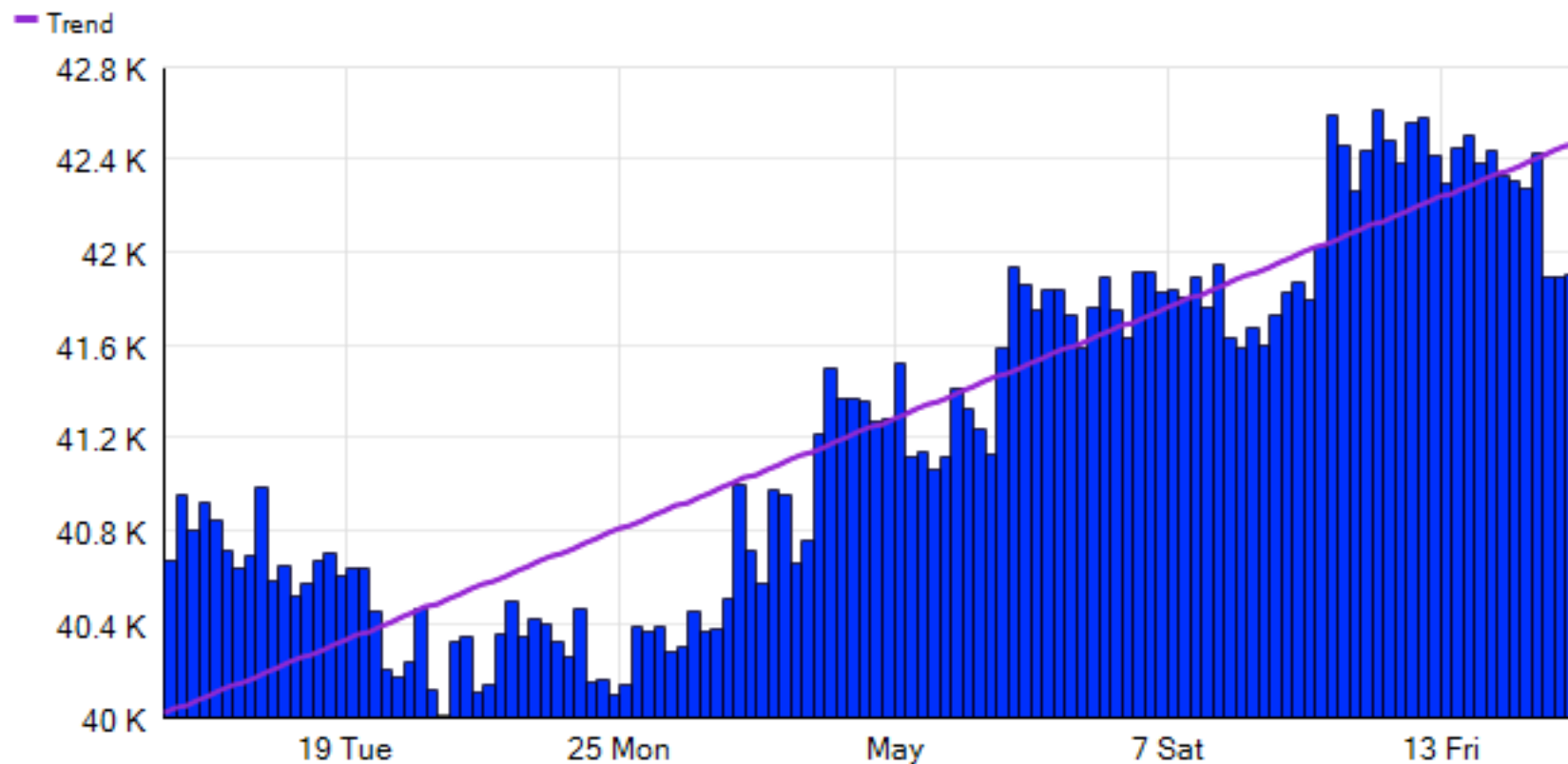
EDIT

HELP

PX Power Usage

LAST 30 DAYS

atl-ups1



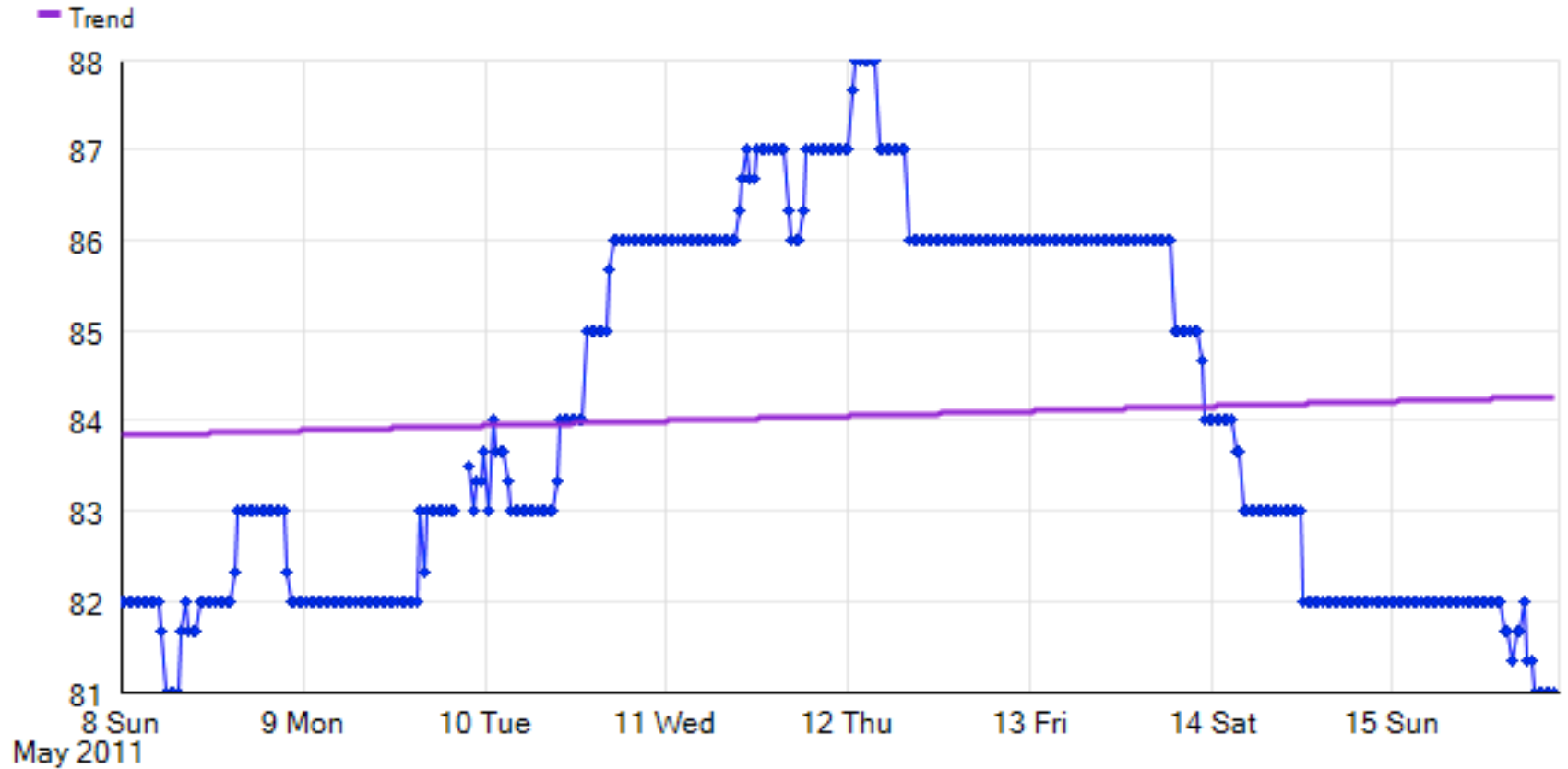
Apr 2011

SolarWinds Orion Core Services 2011.1

LAST 7 DAYS

Environment Temperature

LAST 7 DAYS
ord-ups1



SolarWinds Orion Core Services 2011.1



My Basic Needs

- ◊ Device Dependency
- ◊ Excellent Alerting Engine
- ◊ Excellent Reporting Engine
- ◊ RRD Like Graphs (multiple datapoints on a graph)
- ◊ Easy to setup and backup
- ◊ Support for 3rd party (API)



Helpful Tidbits

- Users who demanded a nice GUI are only end users.
- Don't Judge a book by the cover.
- Integration and well thought out API are key.
- Alerting, Reporting and Configuration should be well designed.
- Most used interface is SMTP

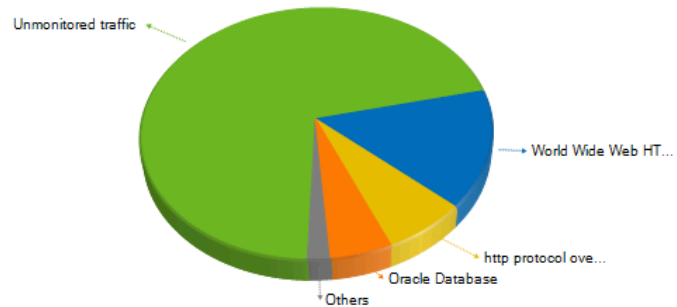
NetFlow

NetFlow Applications Summary

Top 5 Applications

LAST HOUR

EDIT HELP



	APP	ROUTER	INTERFACE	INGRESS BYTES	EGRESS BYTES	INGRESS PACKETS	EGRESS PACKETS
+	Unmonitored traffic			1.7 Gbytes	1.5 Gbytes	2.3391 M	2.0116 M
+	World Wide Web HTTP (80)			362.5 Mbytes	315.9 Mbytes	580.851 K	524.405 K
+	http protocol over TLS/SSL (443)			168.7 Mbytes	143.4 Mbytes	320.861 K	287.474 K
+	Oracle Database			203.7 Mbytes	27.4 Mbytes	641.625 K	86.489 K
+	NewOps			42.8 Mbytes	42.8 Mbytes	89.67 K	89.67 K