

Hướng dẫn sử dụng PRTG giám sát Bandwidth trên Cisco Router

(Bùi Quốc Kỳ - VnPro)

**

Yêu cầu

1. Tải phần mềm PRTG từ trang chủ.
2. Cài đặt PRTG trên Win7 32bit.
3. Cấu hình SNMP Community String trên Cisco Router.
4. Hướng dẫn khai báo SNMP cho Cisco Device trên PRTG.

Thực hiện

Yêu cầu 1. Tải phần mềm PRTG từ trang chủ.

Tải phần mềm tại: <https://www.paessler.com/prtg>

AND EASY TO USE!

- Network monitoring for professionals
- Installed in 2 minutes
- Automatically discovers your network
- Monitors your network 24/7
- Alerts you **before** emergencies occur
- Used by 150,000 administrators worldwide

PRTG fits into any budget and grows with your needs. Try PRTG now and see how it can make your network more reliable and your job easier.

Everything you need is contained in one simple installer, no additional downloads are required.

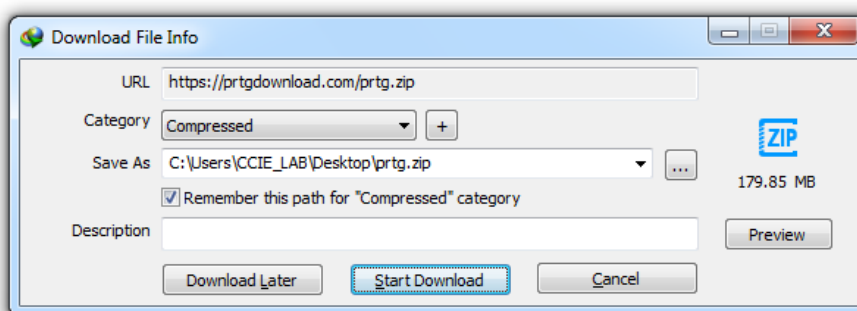
We make it simple for you, now and later!

FREE TRIAL DOWNLOAD >>

You will be up & running in less than 2 minutes

FREWARE DOWNLOAD

Limited to 100 Sensors, Free Forever

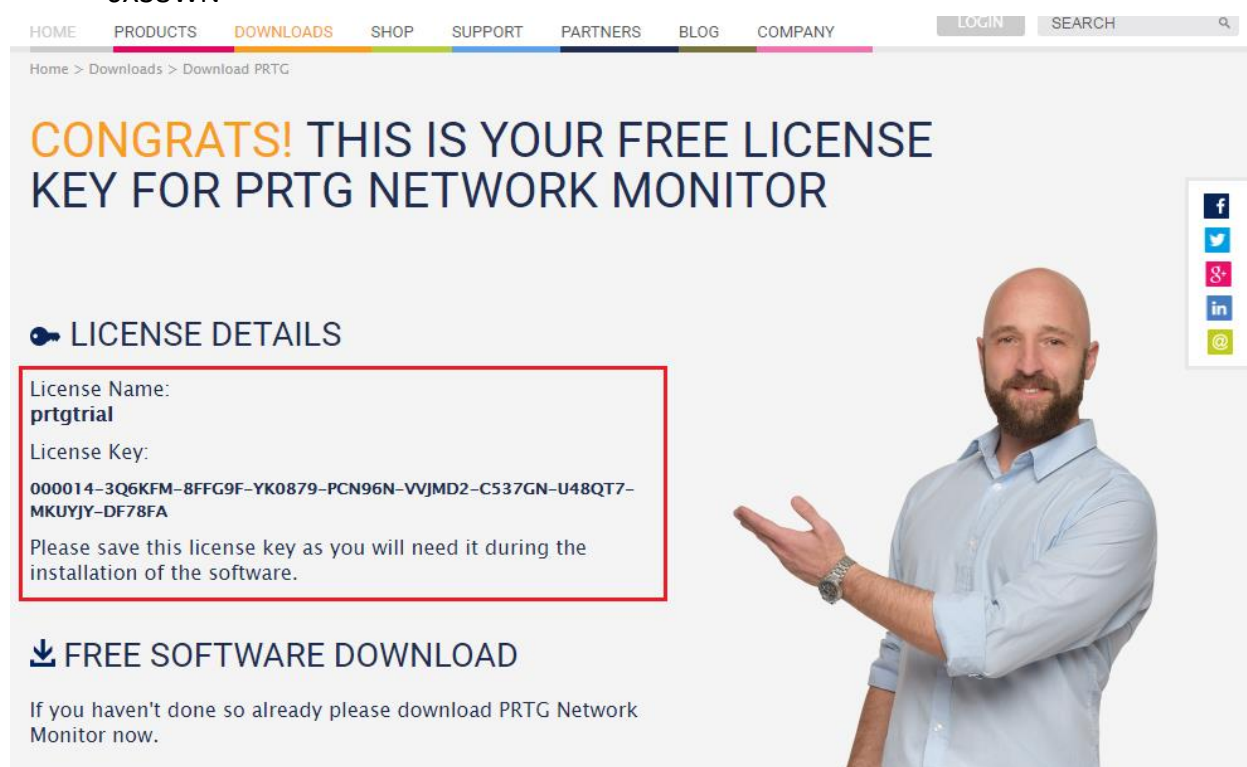


License Name: prtgtrial

License Key:

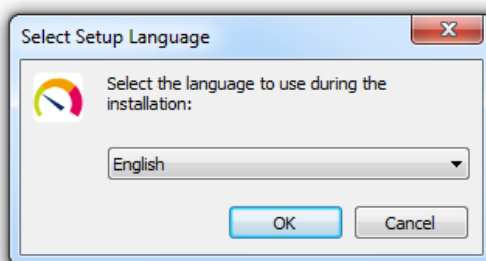
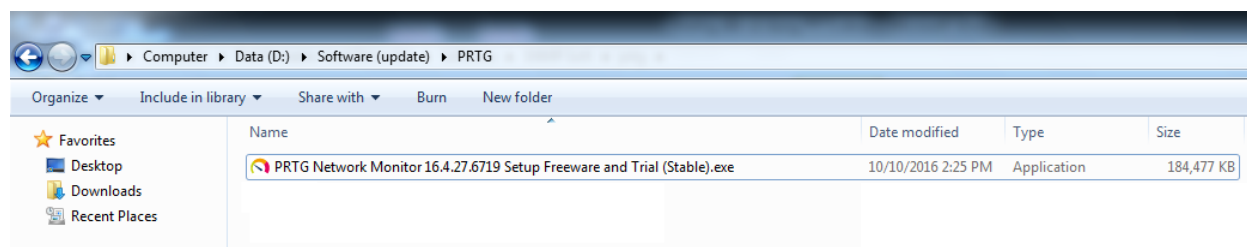
- 000014-3Q6KFM-8FFG9F-YK0879-PCN96N-VVJMD2-C537GN-U48QT7-MKUYJY-DF78FA

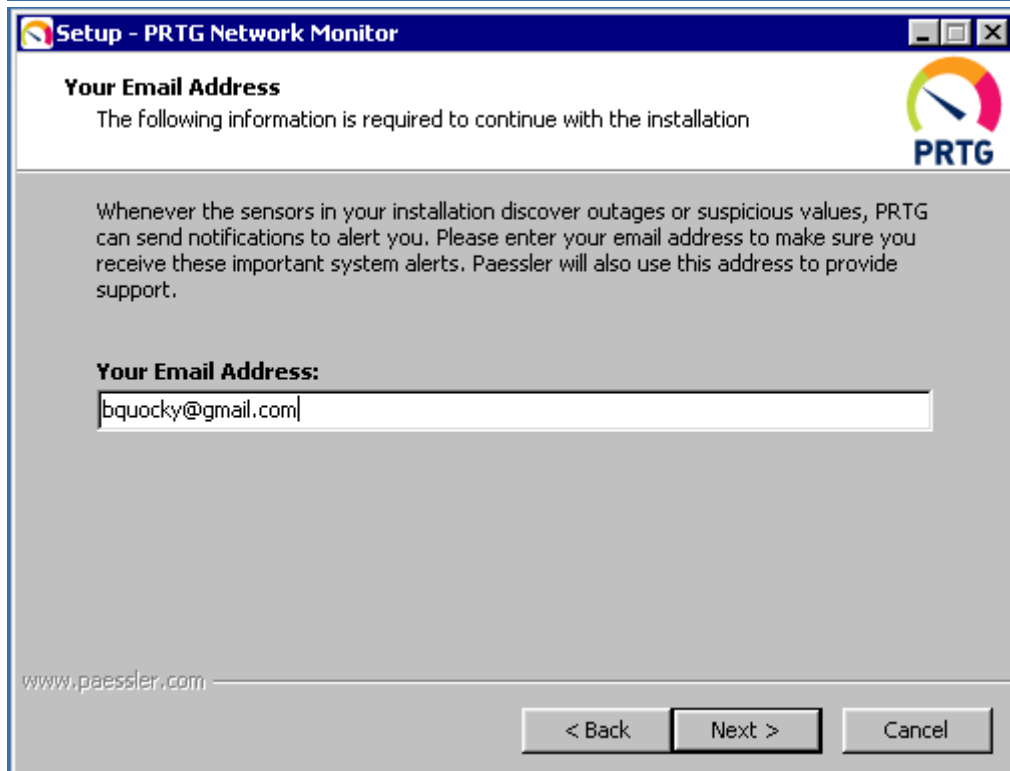
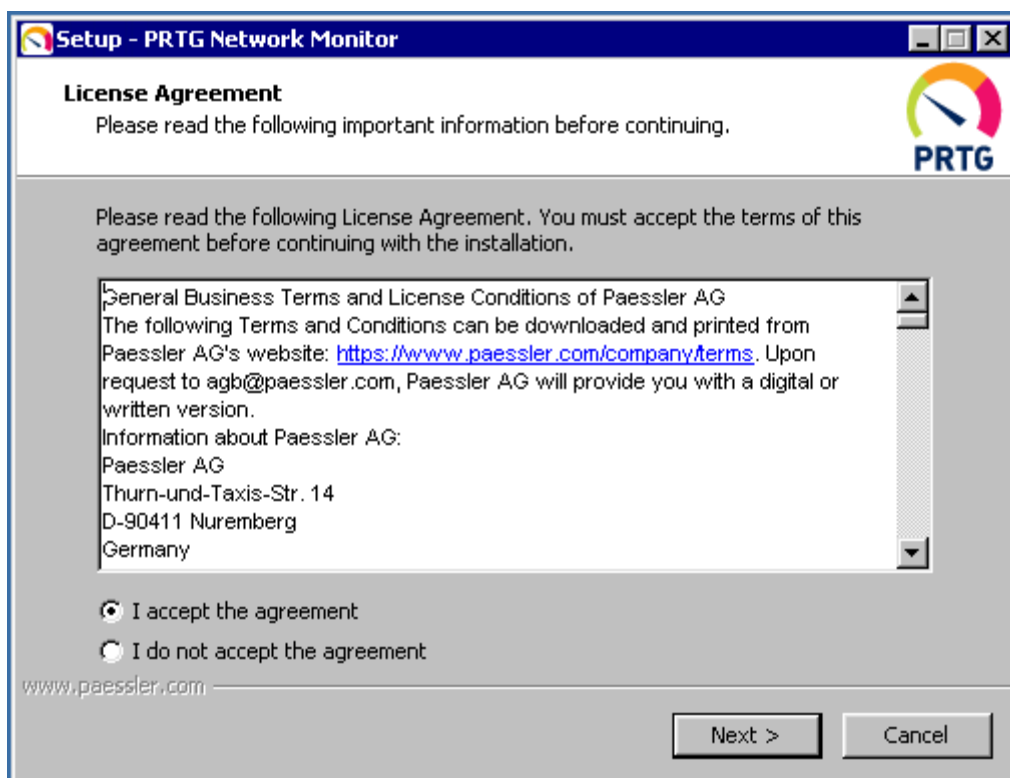
- 000014-4EUKFM-8FFZ8W-B10QD9-055C1P-R7T54E-HA6A5R-NECRTM-0Z7J4E-6X38WN



Yêu cầu 2. Cài đặt PRTG trên Win7 32bit.

PRTG sử dụng Port 8080 nên cần phải kiểm tra xem PC có Software nào chiếm dụng Port này chưa.





Setup - PRTG Network Monitor

Your License Key
The following information is required to continue with the installation

Please enter your license key! Both, name and key, must be entered exactly as provided in the email (or license document) from Paessler. Using copy&paste is recommended!

License Name:

License Key:


Don't have a license key?
Try unlimited sensors for 30 days, then use 100 sensors for free forever!
[CLICK HERE to request your free license key \(no questions asked\).](#)

www.paessler.com

< Back Next > Cancel

Setup - PRTG Network Monitor

Select Destination Location
Where should PRTG Network Monitor be installed?

 Setup will install PRTG Network Monitor into the following folder.

To continue, click Next. If you would like to select a different folder, click Browse.

 Browse...

At least 735.1 MB of free disk space is required.

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< Back Next > Cancel



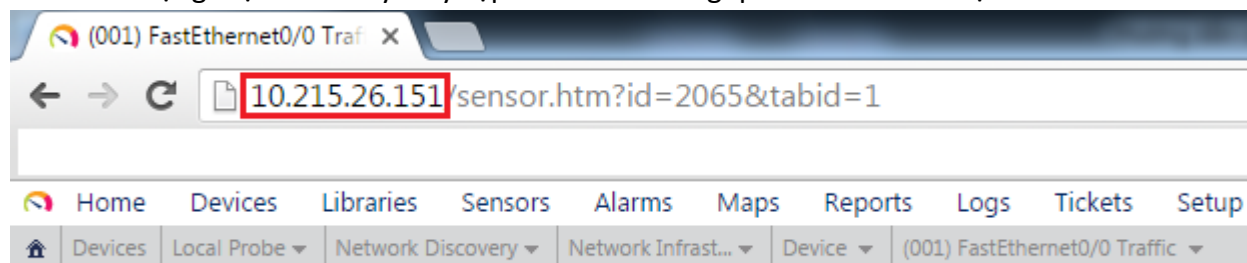
Sau khi cài xong PRTG, ta cài tiếp Javascript và Chrome.

Yêu cầu 3. Cấu hình SNMP Community String trên Cisco Router.

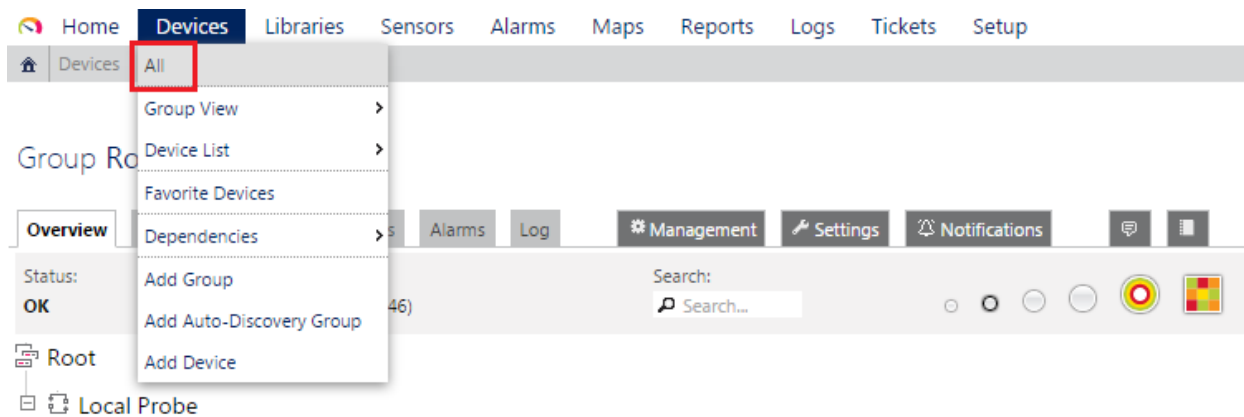
```
interface f0/0
  ip address 10.215.13.16 255.255.255.0
  no shutdown
  exit
snmp-server community vnpro wr
```

Yêu cầu 4. Hướng dẫn khai báo SNMP cho Cisco Device trên PRTG.

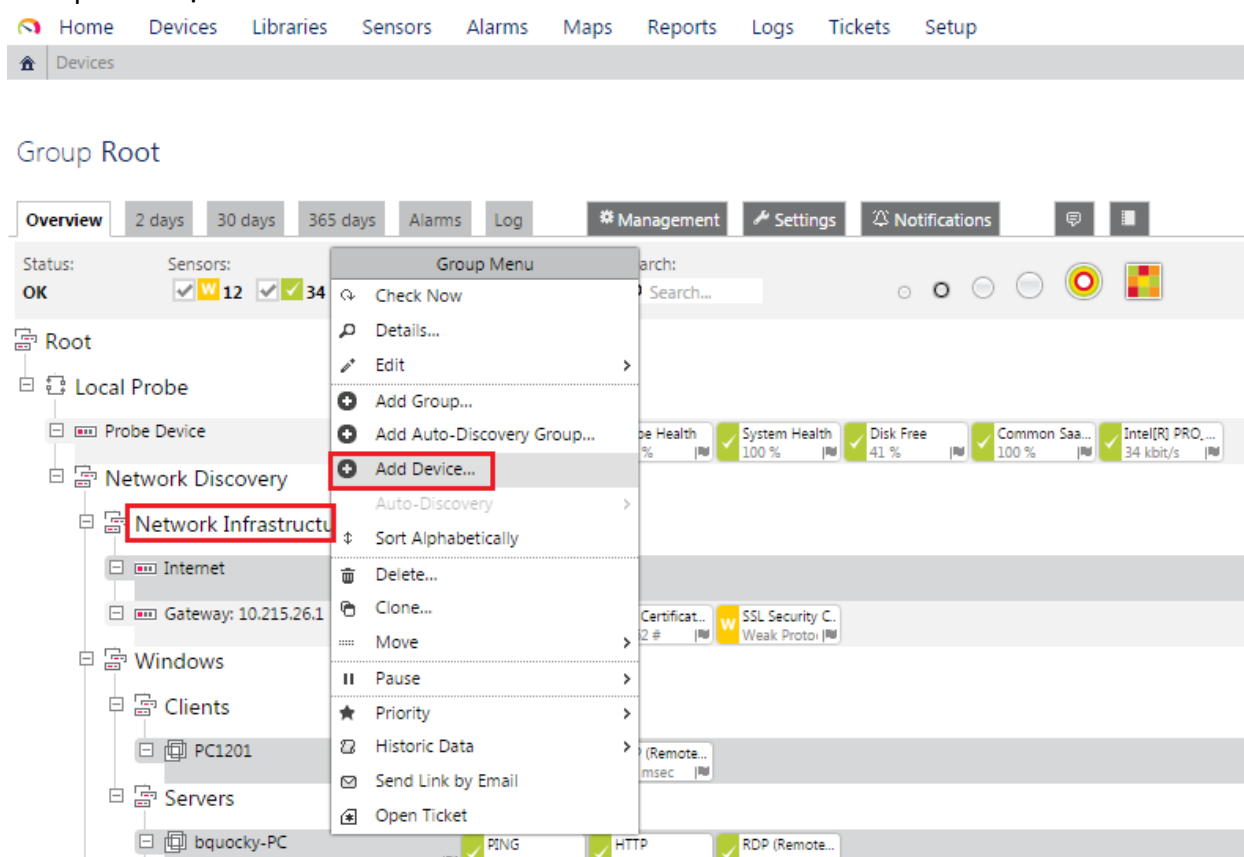
Có thể sử dụng một PC bất kỳ truy cập vào PRTG thông qua IP của PC cài đặt PRTG.



Devices > All.



Click phải chuột vào Network Infrastructure > Add Device.



Khai báo IP của thiết bị cần giám sát > Continue.

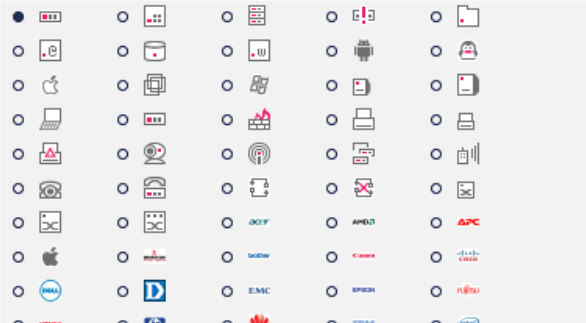
Add Device to Group Network Infrastructure

ADD A NEW DEVICE

Define a device name and address, options for auto-discovery, and credential settings for Windows, Linux, VMware/XEN, and SNMP, if necessary.

Help: Add a Device

DEVICE NAME AND ADDRESS

Device Name	<input type="text" value="Device"/>
IP Version	<input checked="" type="radio"/> Connect using IPv4 <input type="radio"/> Connect using IPv6
IPv4 Address/DNS Name	<input type="text" value="10.215.13.16"/>
Tags	<input type="text"/>
Device Icon	<div>  </div>

Continue >

Cancel

Chọn thiết bị Router/Switch.

[Home](#)
[Devices](#)
[Libraries](#)
[Sensors](#)
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[Maps](#)
[Reports](#)
[Logs](#)
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Devices

Group Root

[Overview](#)
[2 days](#)
[30 days](#)
[365 days](#)
[Alarms](#)
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[Management](#)
[Settings](#)
[Notifications](#)

Status: **OK**
Sensors: ☒ 12 ☒ 34 (of 46)
Search:

Root

- Local Probe
 - Probe Device
 - Core Health 100 %
 - Probe Health 100 %
 - System Health 100 %
 - Disk Free 41 %
 - Common Saa... 100 %
 - Intel[R] PRO... 37 kbit/s
 - Network Discovery
 - Network Infrastructure
 - Internet
 - HTTP 128 msec
 - Gateway: 10.215.26.1
 - PING 1 msec
 - SSL Certificat... 1.162 #
 - SSL Security C... Weak Proto...
 - Device
 - Add Sensor
 - Run Auto-Discovery

Khai báo SNMP String cho Router/Switch > Settings. Tại section CREDENTIALS FOR SNMP DEVICES, click vào mục Inherit from, khai báo SNMP Community String > Save.

Home Devices Libraries Sensors Alarms Maps Reports Logs Tickets Setup

Home Devices Local Probe Network Discovery Network Infrast... Device

Device Device ★★★★★

Overview 2 days 30 days 365 days Alarms System Information Log Settings Notifications

BASIC DEVICE SETTINGS

Device Name	device
Status	<input checked="" type="radio"/> Started <input type="radio"/> Paused
IP Version	<input checked="" type="radio"/> IPv4 device <input type="radio"/> IPv6 device
IPv4 Address/DNS Name	10.215.13.16

CREDENTIALS FOR SNMP DEVICES

<input type="checkbox"/> inherit from Network Infrastructure (SNMP Version: V2, SNMP Port: 161, SNMP Timeou...)	
SNMP Version	<input type="radio"/> v1 <input checked="" type="radio"/> v2c (recommended) <input type="radio"/> v3
Community String	vnpro
SNMP Port	161
SNMP Timeout (Sec.)	5

Due to internal limitations, you can only monitor a limited number of sensors per second when using SNMP v3. The main limiting factor is CPU power. Currently, PRTG is able to handle roughly 40 requests per second and computer core, depending on your system. This means that you can run about 5,000 SNMP v3 sensors with a 60 seconds scanning interval on a computer with two cores, and around 10,000 sensors with 60 seconds interval on a system with four cores. If you experience an increased "Interval Delay" or "Open Requests" reading of the Probe Health sensor, you need to distribute the load over multiple probes. SNMP v1 and v2 do not have this limitation.

CREDENTIALS FOR DATABASE MANAGEMENT SYSTEMS

☒ inherit from Network Infrastructure (Timeout (Sec.): 60 seconds)

CREDENTIALS FOR AMAZON CLOUDWATCH

Save	Cancel
------	--------

Click Add Sensor để lựa chọn Object cần giám sát.

Home Devices Libraries Sensors Alarms Maps Reports Logs Tickets Setup

Devices Local Probe Network Discovery Network Infrast... Device

Device Device ★★★★★

Overview 2 days 30 days 365 days Alarms System Information Log Settings Notifications

Status: OK Sensors: (of 0) DNS/IP: 10.215.13.16 Dependency: Parent Default Interval: every 60 seconds

Pos	Sensor	Status	Message
-	-	-	-

Add Sensor Recommend Now

Khai báo các Object cần giám sát.

Home Devices Libraries Sensors Alarms Maps Reports Logs Tickets Setup

Devices Local Probe Network Discovery Network Infrast... Device Add Sensor (Step 1 of 2)

Add Sensor to Device Device [10.215.13.16] (Step 1 of 2)

SEARCH

10 Matching Sensor Types

MONITOR WHAT?

- ☐ Availability/Uptime
- ☒ Bandwidth/Traffic
- ☐ Speed/Performance
- ☐ CPU Usage
- ☐ Disk Usage
- ☐ Memory Usage
- ☐ Hardware Parameters
- ☐ Network Infrastructure
- ☐ Custom Sensors

TARGET SYSTEM TYPE?

- ☐ Windows
- ☐ Linux/macOS
- ☐ Virtualization OS
- ☐ File Server
- ☐ Email Server
- ☐ Database
- ☐ Cloud Services

TECHNOLOGY USED?

- ☐ Ping
- ☒ SNMP
- ☐ WMI
- ☐ Performance Counters
- ☐ HTTP
- ☐ SSH
- ☐ Packet Sniffing
- ☐ NetFlow, sFlow, jFlow
- ☐ Powershell
- ☐ Push Message Receiver
- ☐ PRTG Cloud

MOST USED SENSOR TYPES

SNMP Traffic

Monitors bandwidth and traffic on servers, PCs, switches, etc. using SNMP

Add This

Lựa chọn cổng giao tiếp muốn giám sát > Continue.

Home Devices Libraries Sensors Alarms Maps Reports Logs Tickets Setup

Devices Local Probe Network Discovery Network Infrast... Device Add Sensor (Step 2 of 2)

TRAFFIC SPECIFIC

Select all connected interfaces		Select all disconnected interfaces		Deselect all interfaces		
Interface Number						
<input type="checkbox"/>	◆ Name	◆ Status	◆ Speed	◆ Type	◆ 64bit	◆ Internal name
<input checked="" type="checkbox"/>	(001) FastEthernet0/0 Traffic	Connected	100 MBit/s	Ethernet	Yes	FastEthernet0/0
<input type="checkbox"/>	(002) FastEthernet0/1 Traffic	Not Connected	100 MBit/s	Ethernet	Yes	FastEthernet0/1
<input type="checkbox"/>	(003) VoIP-Null0 Traffic	Connected	10 GBit/s	Other	Yes	VoIP-Null0
<input type="checkbox"/>	(004) Null0 Traffic	Connected	4 GBit/s	Other	No	Null0

Additional Channels

- ☐ Errors In & Out
- ☐ Discards In & Out
- ☒ Unicast Packets In & Out
- ☐ Non Unicast Packets In & Out (32bit only)
- ☐ Multicast Packets In & Out (64bit only)
- ☐ Broadcast Packets In & Out (64bit only)
- ☐ Unknown Protocols

Connection Status Handling

- ☐ Show alarm for all "disconnected" states
- ☐ Show alarm when disconnected, but ignore when deactivated
- ☒ Ignore all "disconnected" states

Description "IN" Channel

Traffic In

Description "OUT" Channel

Traffic Out

Description "TOTAL" Channel

Traffic Total

Continue >

Cancel

Quan sát thông tin thống kê của interface.

Home Devices Libraries Sensors Alarms Maps Reports Logs Tickets Setup

Devices Local Probe Network Discovery Network Infrast... Device

Device Device ★★★★★

Overview

2 days

30 days

365 days

Alarms

System Information

Log

Settings

Notifications

Status:OK

Sensors:

?

1 (of 1)

DNS/IP:10.215.13.16

Dependency:Parent

Default Interval:every 60 seconds

Last Auto-Discovery:(never)

1 to 1 of 1

Pos

Sensor

Status

Message

Graph

Priority

1.

?

(001) FastEthernet0/0 Traffic

Unknown

No data yet

Traffic Total

No data

★★★★★

1 to 1 of 1

[HTML](#)

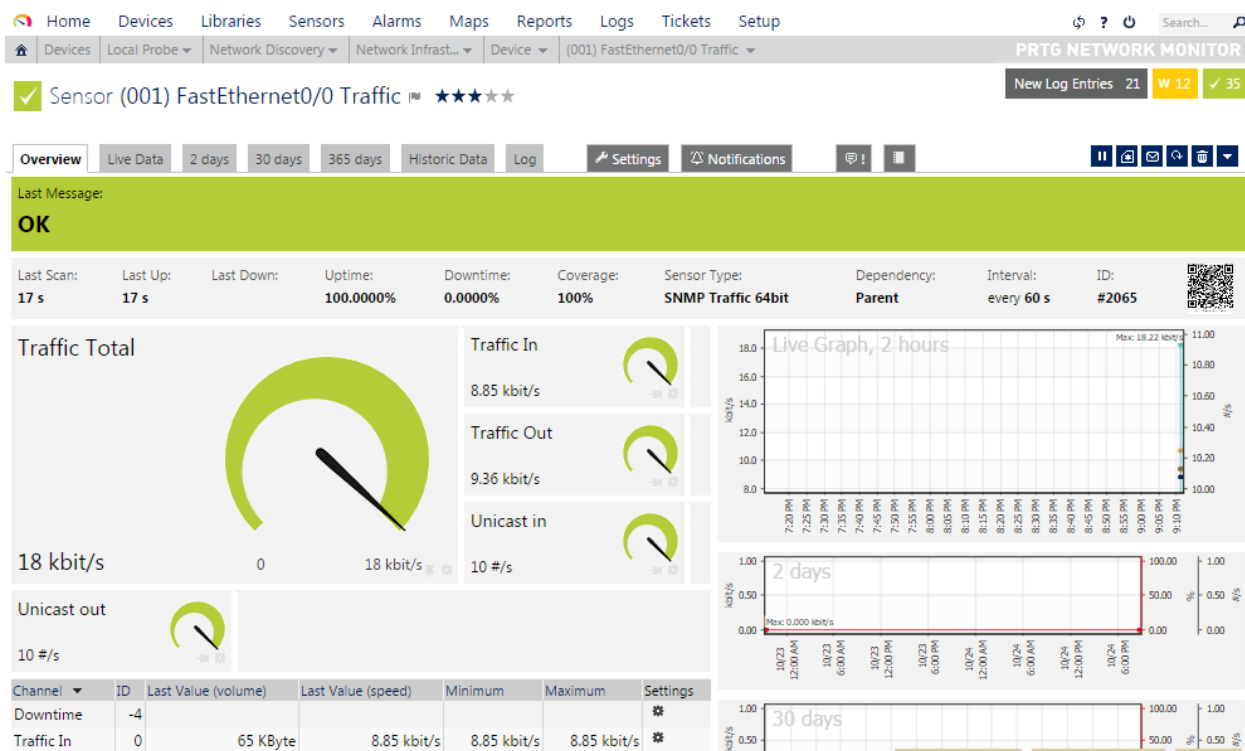
+

Add Sensor

i

Recommend Now

Thông tin thống kê tự động được Refresh sau mỗi 60s.



Tham khảo tiếp tại:

<https://kb.paessler.com/en/topic/803-how-can-i-see-all-interfaces-when-adding-an-snmp-sensor-for-my-cisco-device>

<https://anninhmang.net/cong-cu/cong-cu-giam-sat-thong-mang-prtg/>

<http://quantrimang.com/kiem-tra-hieu-suat-mang-voi-prtg-ban-mien-phi-55781>