

Install Cacti Monitoring Tool on CentOS 8 / RHEL 8

Step 1) Install Apache web server

```
[root@observium ~]# dnf install httpd -y
```

Step 2) Install PHP and additional PHP extensions

```
[root@observium ~]# dnf install -y php php-xml php-session php-sockets php-ldap php-gd php-json php-mysqlnd
```

Step 3) Install MariaDB database server

```
[root@observium ~]# dnf install -y mariadb-server mariadb
```

Step 4) Install SNMP and RRD tool

Next, we are going to install [SNMP](#) and [RRDtool](#) which are essential in gathering and processing system metrics.

```
[root@observium ~]# dnf install -y net-snmp net-snmp-utils net-snmp-libs rrdtool
```

Step 5) Start and enable services

Having installed all the necessary services required for Cacti to run, we are going to start them as shown:

```
[root@observium ~]# systemctl start httpd
```

```
[root@observium ~]# systemctl start snmpd
```

```
[root@observium ~]# systemctl start mariadb
```

Additionally, ensure to enable them on boot, such that they automatically start upon booting or a reboot.

```
[root@observium ~]# systemctl enable httpd
```

```
[root@observium ~]# systemctl enable snmpd
```

```
[root@observium ~]# systemctl enable mariadb
```

Create a database for Cacti

```
MariaDB [(none)]> CREATE DATABASE cacti;  
  
MariaDB [(none)]> GRANT ALL ON cacti.* TO cactiuser@localhost IDENTIFIED BY 'cactipassword';  
  
MariaDB [(none)]> flush privileges;  
  
MariaDB [(none)]> exit
```

```
[root@observium ~]# mysql -u root -p  
Enter password:  
Welcome to the MariaDB monitor. Commands end with ; or \g.  
Your MariaDB connection id is 1925  
Server version: 10.3.28-MariaDB MariaDB Server  
  
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement  
  
MariaDB [(none)]>  
MariaDB [(none)]>  
MariaDB [(none)]>  
MariaDB [(none)]> CREATE DATABASE cacti;
```

```
[root@observium ~]# mysql -u root -p mysql < /usr/share/mariadb/mysql_test_data_timezone.sql
```

```
[root@observium ~]# mysql -u root -p  
MariaDB [(none)]> GRANT SELECT ON mysql.time_zone_name TO cactiuser@localhost;  
MariaDB [(none)]> flush privileges;  
MariaDB [(none)]> exit
```

Installing and configuring Cacti monitoring tool

```
[root@observium ~]# dnf install epel-release -y  
  
[root@observium ~]# yum -y install cacti  
[root@observium ~]# rpm -qi cacti  
[root@observium ~]# rpm -ql cacti | grep cacti.sql
```

```
[root@observium ~]# mysql cacti < /usr/share/doc/cacti/*/*cacti.sql -u root -p
```

```
[root@observium ~]# vim /usr/share/cacti/include/config.php  
  
/* make sure these values reflect your actual database/host/user/password */  
$database_type = "mysql";  
$database_default = "cacti";
```

```
$database_hostname = "localhost";
$database_username = "cactiuser";
$database_password = "cactipassword";
$database_port = "3306";
$database_ssl = false;
```

```
[root@observium ~]# vim /etc/cron.d/cacti
Uncomment the following entry to poll every five min.
```

```
*/5 * * * * apache /usr/bin/php /usr/share/cacti/poller.php > /dev/null 2>&1
```

Set the timezone by editing /etc/php.ini file.

```
[root@observium ~]# vim /etc/php.ini
```

Update the timezone.

```
date.timezone = Asia/Dhaka
memory_limit = 512M
max_execution_time = 60
```

```
[root@observium ~]# vim /etc/httpd/conf.d/cacti.conf
```

```
Alias /cacti    /usr/share/cacti

    <IfModule mod_authz_core.c>
        # httpd 2.4
        Require host localhost
        Require all granted
    </IfModule>
    <IfModule !mod_authz_core.c>
        # httpd 2.2
        Order deny,allow
        Deny from all
        Allow from 10.200.10.0/24
    </IfModule>
</Directory>

<Directory /usr/share/cacti/install>
    # mod_security overrides.
    # Uncomment these if you use mod_security.

```

```
[root@observium ~]# systemctl restart httpd
```

```
[root@observium ~]# firewall-cmd --permanent --add-service=http
```

```
[root@observium ~]# firewall-cmd --reload
```

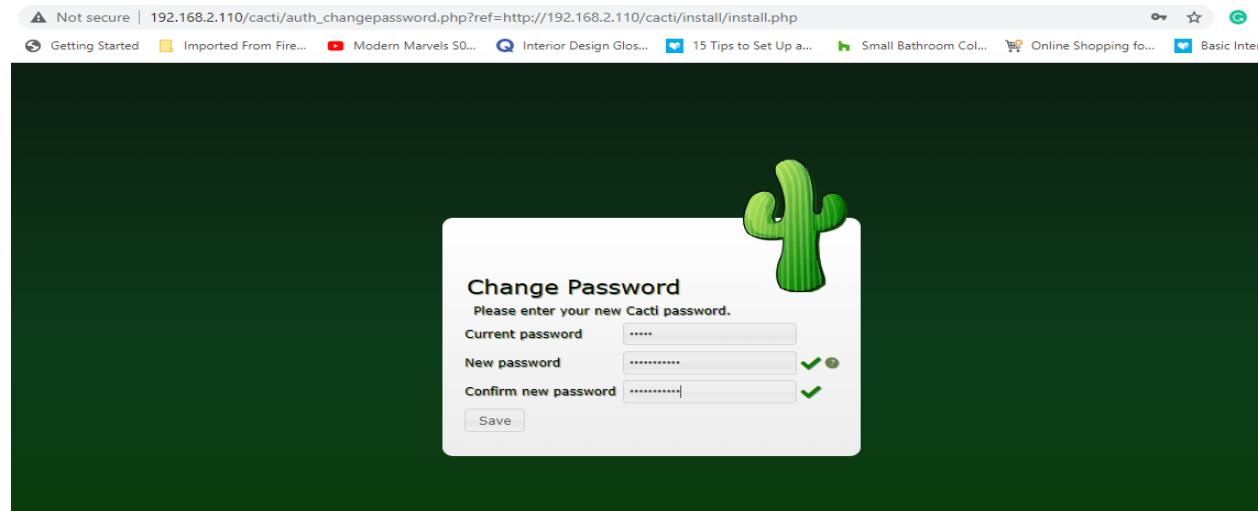
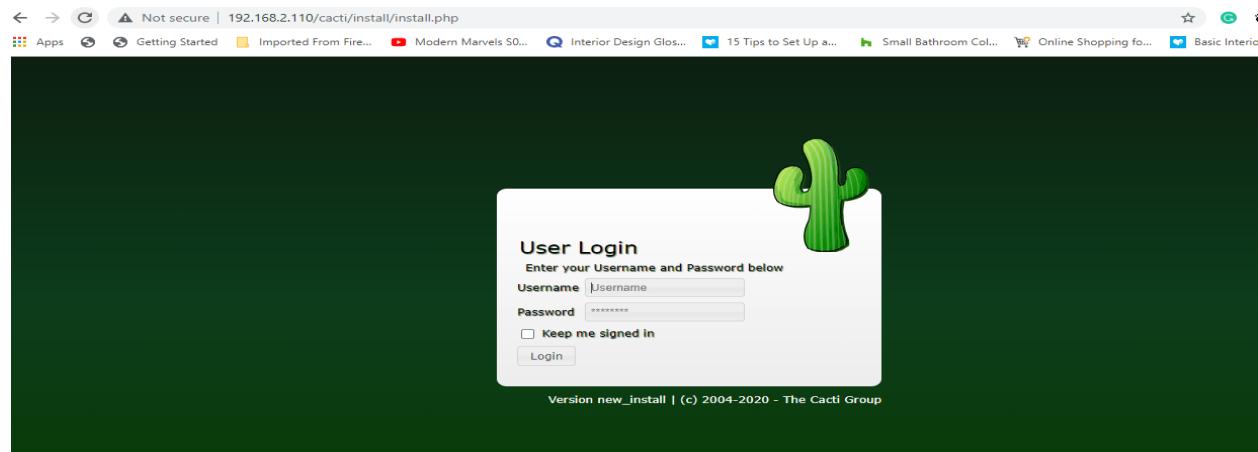
Set the SELinux context for Cacti logs:

```
[root@observium ~]# yum install -y policycoreutils-python  
[root@observium ~]# semanage fcontext -a -t httpd_sys_rw_content_t "/var/log/cacti(/.*)?"  
[root@observium ~]# restorecon -Rv /var/log/cacti/
```

```
[root@localhost ~]# vim /usr/share/cacti/log/  
[root@localhost ~]# setenforce 0  
[root@localhost ~]# systemctl restart httpd.service  
[root@localhost ~]# systemctl restart mariadb.service
```

<http://your-ip-address/cacti>

<http://10.200.10.52/cacti>



Not secure | 192.168.2.110/cacti/install/install.php?data={"Step":"1","Eula":true,"Theme":"modern","Language":"en-US"}
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Cacti Version 1.2.14 - License Agreement

Thanks for taking the time to download and install Cacti, the complete graphing solution for your network. Before you can start making cool graphs, there are a few pieces of data that Cacti needs to know.

Make sure you have read and followed the required steps needed to install Cacti before continuing. Install information can be found for Unix and Win32-based operating systems.

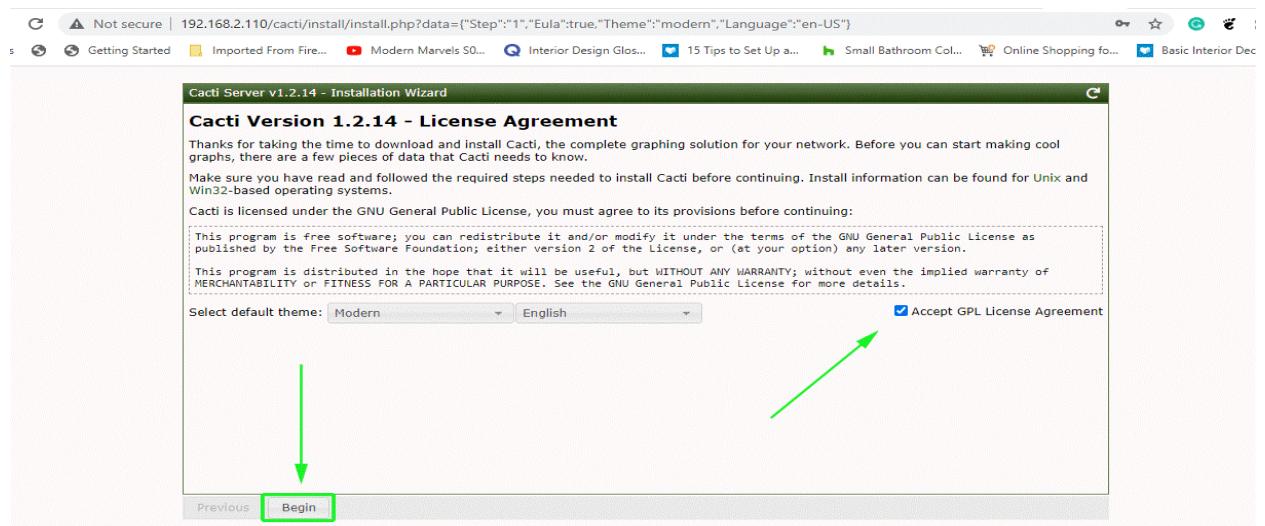
Cacti is licensed under the GNU General Public License, you must agree to its provisions before continuing:

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

Select default theme: Modern English Accept GPL License Agreement

Previous **Begin**



Not secure | 192.168.2.110/cacti/install/install.php?data={"Step":"2","Eula":true}
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Cacti Server v1.2.14 - Installation Wizard

Pre-installation Checks

Location checks

PHP - Recommendations (web)

PHP - Recommendations (cli)

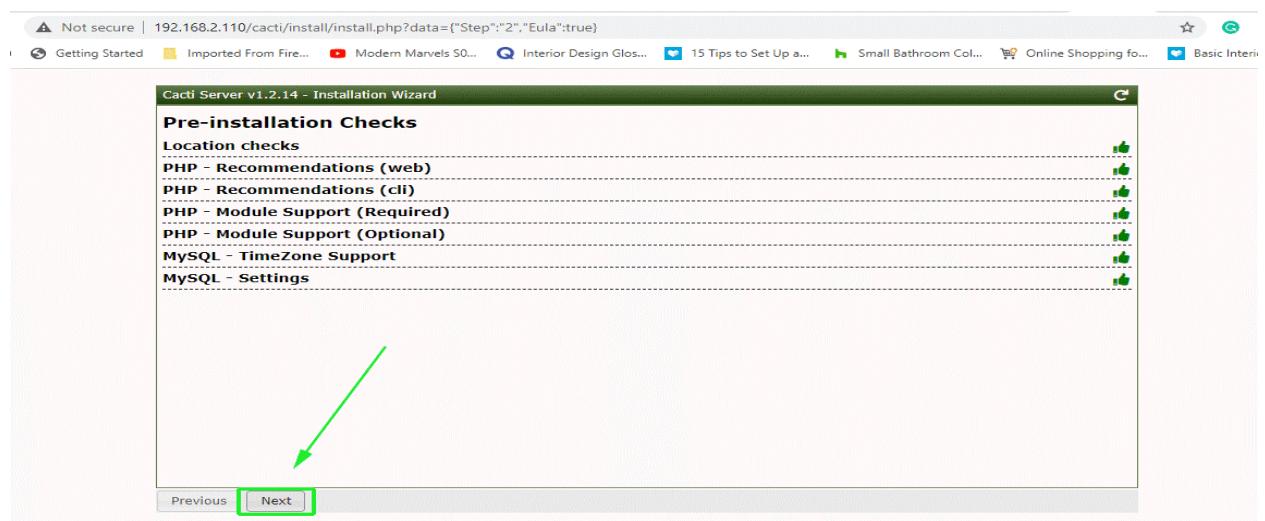
PHP - Module Support (Required)

PHP - Module Support (Optional)

MySQL - TimeZone Support

MySQL - Settings

Next



Not secure | 192.168.2.110/cacti/install/install.php?data={"Step":"3","Eula":true}
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Cacti Server v1.2.14 - Installation Wizard

Installation Type

Please select the type of installation

Installation options:

- New Primary Server - Choose this for the Primary site.
- New Remote Poller - Remote Pollers are used to access networks that are not readily accessible to the Primary site.

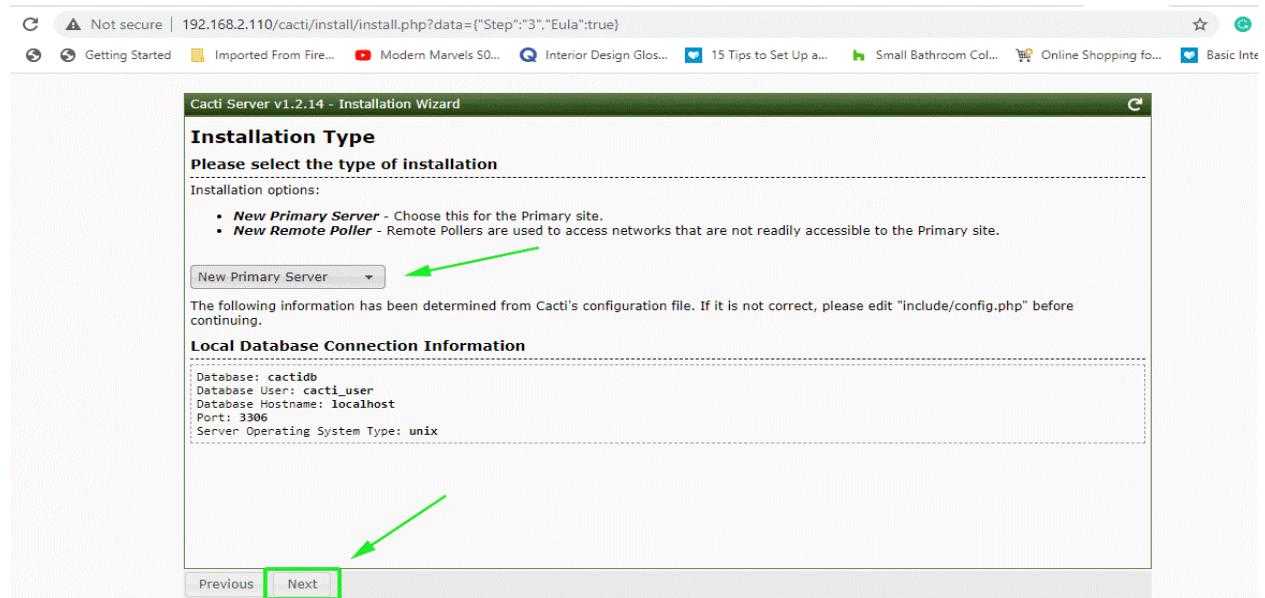
New Primary Server

The following information has been determined from Cacti's configuration file. If it is not correct, please edit "include/config.php" before continuing.

Local Database Connection Information

Database: cactidb
Database User: cacti_user
Database Hostname: localhost
Port: 3306
Server Operating System Type: unix

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Cacti Server v1.2.14 - Installation Wizard

Directory Permission Checks

Please ensure the directory permissions below are correct before proceeding. During the install, these directories need to be owned by the Web Server user. These permission changes are required to allow the Installer to install Device Template packages which include XML and script files that will be placed in these directories. If you choose not to install the packages, there is an 'install_package.php' cli script that can be used from the command line after the install is complete.

After the install is complete, you can make some of these directories read only to increase security.

NOTE: If you are installing packages, once the packages are installed, you should change the scripts directory back to read only as this presents some exposure to the web site.

Potential permission issues

Required Writable at Install Time Only

Required Writable after Install Complete

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Cacti Server v1.2.14 - Installation Wizard

Critical Binary Locations and Versions

Make sure all of these values are correct before continuing.

PHP Binary Path	/usr/bin/php	
RRDtool Binary Path	/usr/bin/rrdtool	
snmpwalk Binary Path	/usr/bin/snmpwalk	
snmpget Binary Path	/usr/bin/snmpget	
snmpbulkwalk Binary Path	/usr/bin/snmpbulkwalk	
snmpgetnext Binary Path	/usr/bin/snmpgetnext	
snmptrap Binary Path	/usr/bin/snmptrap	
Sendmail Path	/usr/sbin/sendmail	
Spine Binary File Location	/usr/local/spine/bin/spine	
Spine Config File Path	Enter a valid file path	
Cacti Log Path	/usr/share/cacti/log/cacti.log	
Poller Standard Error Log Path	/usr/share/cacti/log/cacti_stder.log	
RRDtool Version	RRDtool 1.7+	

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Not secure | 192.168.2.110/cacti/install/install.php?data={"Step":"6","Eula":true}

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Cacti Server v1.2.14 - Installation Wizard

Input Validation Whitelist Protection

Cacti Data Input methods that call a script can be exploited in ways that a non-administrator can perform damage to either files owned by the poller account, and in cases where someone runs the Cacti poller as root, can compromise the operating system allowing attackers to exploit your infrastructure.

Therefore, several versions ago, Cacti was enhanced to provide Whitelist capabilities on the these types of Data Input Methods. Though this does secure Cacti more thoroughly, it does increase the amount of work required by the Cacti administrator to import and manage Templates and Packages.

The way that the Whitelisting works is that when you first import a Data Input Method, or you re-import a Data Input Method, and the script and or arguments change in any way, the Data Input Method, and all the corresponding Data Sources will be immediately disabled until the administrator validates that the Data Input Method is valid.

To make identifying Data Input Methods in this state, we have provided a validation script in Cacti's CLI directory that can be run with the following options:

- `php -q input_whitelist.php --audit` - This script option will search for any Data Input Methods that are currently banned and provide details as to why.
- `php -q input_whitelist.php --update` - This script option un-ban the Data Input Methods that are currently banned.
- `php -q input_whitelist.php --push` - This script option will re-enable any disabled Data Sources.

It is strongly suggested that you update your config.php to enable this feature by uncommenting the `$input_whitelist` variable and then running the three CLI script options above after the web based install has completed.

Check the Checkbox below to acknowledge that you have read and understand this security concern

I have read this statement

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C Not secure | 192.168.2.110/cacti/install/install.php?data={"Step":"7","Eula":true}

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Cacti Server v1.2.14 - Installation Wizard

Default Profile

Please select the default Data Source Profile to be used for polling sources. This is the maximum amount of time between scanning devices for information so the lower the polling interval, the more work is placed on the Cacti Server host. Also, select the intended, or configured Cron interval that you wish to use for Data Collection.

Default Profile	5 Minute Collection
Cron Interval	Every 5 Minutes

Default Automation Network

Cacti can automatically scan the network once installation has completed. This will utilise the network range below to work out the range of IPs that can be scanned. A predefined set of options are defined for scanning which include using both 'public' and 'private' communities. If your devices require a different set of options to be used first, you may define them below and they will be utilized before the defaults. All options may be adjusted post installation.

Default Options

Scan Mode	<input checked="" type="checkbox"/>
Network Range	192.168.2.0/24
Additional Defaults	<input checked="" type="checkbox"/>

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C Not secure | 192.168.2.110/cacti/install/install.php?data={"Step":"8","Eula":true}

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Cacti Server v1.2.14 - Installation Wizard

Template Setup

Please select the Device Templates that you wish to use after the Install. If your Operating System is Windows, you need to ensure that you select the 'Windows Device' Template. If your Operating System is Linux/UNIX, make sure you select the 'Local Linux Machine' Device Template.

Name	Description	Author	Homepage	<input checked="" type="checkbox"/>
Cisco_Router.xml.gz	Cisco Router Package	The Cacti Group	cacti.net	<input checked="" type="checkbox"/>
Generic_SNMP_Device.xml.gz	Generic SNMP Device Package	The Cacti Group	cacti.net	<input checked="" type="checkbox"/>
Local_Linux_Machine.xml.gz	Local Linux Machine Package	The Cacti Group	cacti.net	<input checked="" type="checkbox"/>
NetSNMP_Device.xml.gz	Net-SNMP Device Package	The Cacti Group	cacti.net	<input checked="" type="checkbox"/>
Windows_Device.xml.gz	Windows Device Package	The Cacti Group	cacti.net	<input checked="" type="checkbox"/>
Cacti_Stats.xml.gz	Cacti Stats Package	The Cacti Group	cacti.net	<input checked="" type="checkbox"/>

Device Templates allow you to monitor and graph a vast assortment of data within Cacti. After you select the desired Device Templates, press 'Finish' and the installation will complete. Please be patient on this step, as the importation of the Device Templates can take a few minutes.

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C Not secure | 192.168.2.110/cacti/install/install.php?data={"Step":"9","Eula":true}

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Cacti Server v1.2.14 - Installation Wizard

Server Collation

Your server collation appears to be UTF8 compliant

Database Collation

Your database default collation appears to be UTF8 compliant

Table Setup

All your tables appear to be UTF8 and Dynamic row format compliant

Previous Next

The image consists of three vertically stacked screenshots of a web-based software installation interface for Cacti Server v1.2.14. The interface has a green header bar with the title 'Cacti Server v1.2.14 - Installation Wizard'.

Screenshot 1: Confirm Installation

This screen displays a confirmation message: "Your Cacti Server is almost ready. Please check that you are happy to proceed." It includes a note: "NOTE: Press 'Confirm Installation' then click 'Install' to complete the installation process after selecting your Device Templates." A checkbox labeled "Confirm Installation" is checked. A green arrow points from the text above the checkbox to the checkbox itself. Another green arrow points from the bottom right of the checkbox area to the "Install" button, which is highlighted with a green border.

Screenshot 2: Installing Cacti Server v1.2.14

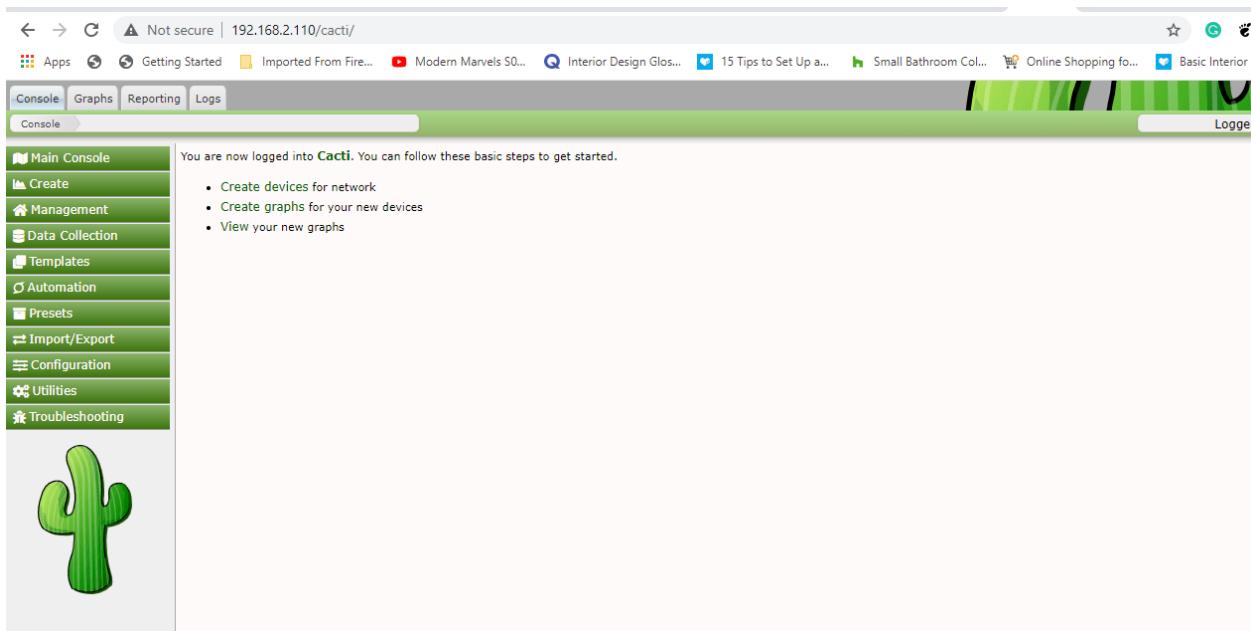
This screen shows the progress of the installation. A progress bar at the top indicates "41 %". Below it, a log window displays the command-line output of the installation process. The log shows various "INSTALL" commands being run, such as "INSTALL: always: About to import Package #1 'Cacti_Stats.xml.gz'", "INSTALL: always: Found 6 templates to install", and "INSTALL: always: Starting INSTALL Process for v1.2.14". A green arrow points from the bottom left of the log window to the "Get Started" button at the bottom of the page.

Screenshot 3: Complete

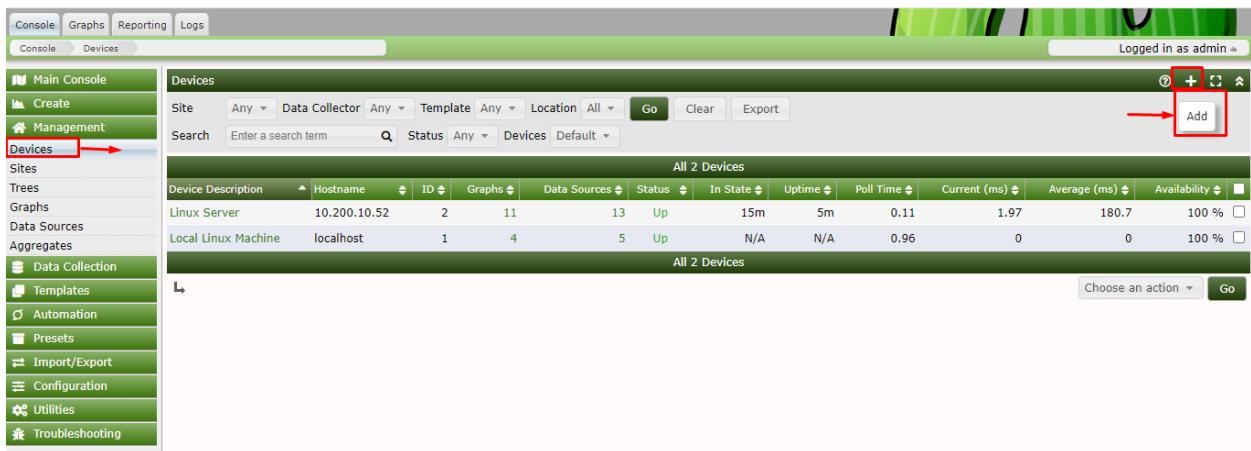
This screen informs the user that "Your Cacti Server v1.2.14 has been installed/updated. You may now start using the software." It contains a "Process Log" section with a large amount of command-line output identical to the previous screenshot. A green arrow points from the bottom left of the log window to the "Get Started" button at the bottom of the page.

Bottom Buttons

At the very bottom of each screenshot, there are several small, semi-transparent buttons with text like "Get Started", "Imported From Fire...", "Modern Marvels S0...", "Interior Design Glos...", "15 Tips to Set Up a...", "Small Bathroom Col...", "Online Shopping fo...", and "Basic Interi...".



Device Add and + Button Click =>



Console Graphs Reporting Logs

Console Devices (Edit)

SNMP Information

System: Linux obsrvn.com 4.15.0-400.118.x86_64 #1 SMP Mon Jul 18 17:42:52 UTC 2022 x86_64
Uptime: 66980 (8days, 8hours, 1min)

Hostname: obsrvn.com
Location: Data/Room/Building, Street, City, Country [GPSX,Y]
Contact: Contact Person <your@email.address>

Ping Results
ICMP Ping Success (0.871 ns)
Device [edit: Linux Server]

General Device Options

Description: Linux Server
Hostname: 10.200.10.52
Location: None
Poller Association: Main Poller
Device Site Association: Edge
Device Template: Local Linux Machine
Number of Collection Threads: 1 Thread

SNMP Options

SNMP Version: Version 2
SNMP Community String: redhat
SNMP Port: 161
SNMP Timeout: 500
Maximum OIDs Per Get Request: 10 OID's

Device IP or Host Name

Device Name

Console Graphs Reporting Logs

Console Devices (Edit)

SNMP Timeout

Maximum OIDs Per Get Request: 10 OID's
Bulk Walk Maximum Repetitions: Auto Detect on Re-Index

Availability/Reachability Options

Downed Device Detection: Ping or SNMP Uptime
Ping Method: ICMP Ping
Ping Timeout Value: 400
Ping Retry Count: 1

Additional Options

Notes:

External ID

Associated Graph Templates

Graph Template Name	Status
1) Apache HTTP Kbits Passed	Is Being Graphed (Edit)
2) Apache HTTP Thread Details	Is Being Graphed (Edit)
3) Apache HTTP Thread Details %	Is Being Graphed (Edit)
4) Apache HTTP Thread Scoreboard	Is Being Graphed (Edit)

Associated Graph Templates

Graph Template Name	Status
1) Device - Polling Time	Is Being Graphed (Edit)
2) Device - Uptime	Is Being Graphed (Edit)
3) Host MIB - Logged in Users	Is Being Graphed (Edit)
4) Host MIB - Processes	Is Being Graphed (Edit)

Add Graph Template: Apache HTTP Kbits Passed Add

Associated Data Queries

Data Query Name	Re-Index Method	Status	Actions
1) SNMP - Get Mounted Partitions	None Uptime Index Count Verify All	Success [12 Items, 4 Rows]	↻ ↻ ✘
2) SNMP - Get Processor Information	None Uptime Index Count Verify All	Success [5 Items, 5 Rows]	↻ ↻ ✘
3) SNMP - Interface Statistics	None Uptime Index Count Verify All	Success [565 Items, 56 Rows]	↻ ↻ ✘

Add Data Query: Cacti Stats - Data Collector Stats Re-Index Method: Uptime Add

Return Save

Graph Template Name

1) Device - Polling Time	Status	x
2) Device - Uptime	Status	x
3) Host MIB - Logged in Users	Status	x
4) Host MIB - Processes	Status	x

Add Graph Template Apache HTTP Kbits Passed Add

Associated Data Queries

Data Query Name	Re-Index Method	Status	Actions
1) SNMP - Get Mounted Partitions	None Uptime Index Count Verify All	Success [12 Items, 4 Rows]	x
2) SNMP - Get Processor Information	None Uptime Index Count Verify All	Success [5 Items, 5 Rows]	x
3) SNMP - Interface Statistics	None Uptime Index Count Verify All	Success [565 Items, 56 Rows]	x

Add Data Query Cacti Stats - Data Collector Stats Re-Index Method Uptime Add

Return **Save**

Console Graphs Reporting Logs

Console Devices (Edit)

Logged in as admin ▾

Main Console

Linux Server (10.200.10.52)

SNMP Information

System: Linux observium.com 4.18.0-408.e18.x86_64 #1 SMP Mon Jul 18 17:42:52 UTC 2022 x86_64
Uptime: 92800 (0days, 0hours, 15minutes)
Hostname: observium.com
Location: Rack/Room/Building, Street, City, Country [GPSX,Y]
Contact: Contact Person your@email.address

Ping Results
ICMP Ping Success (0.156 ms)

Device [edit; Linux Server]
General Device Options

Description: Linux Server
Hostname: 10.200.10.52
Location: None
Poller Association: Main Poller
Device Site Association: Edge
Device Template: Local Linux Machine
Number of Collection Threads: 1 Thread
Disable Device:

SNMP Options

Create New Device **Create Graphs for this Device** **Re-Index Device** **Disable Device Debug** **Repopulate Poller Cache** **View Poller Cache** **Data Source List** **Graph List**

Linux Server (10.200.10.52)

SNMP Information

System: Linux observium.com 4.18.0-408.e18.x86_64 #1 SMP Mon Jul 18 17:42:52 UTC 2022 x86_64
Uptime: 111300 (0days, 0hours, 18minutes)
Hostname: observium.com
Location: Rack/Room/Building, Street, City, Country [GPSX,Y]
Contact: Contact Person your@email.address

Ping Results
ICMP Ping Success (0.127 ms)

Click **Create New Device** **Create Graphs for this Device** **Re-Index Device** **Disable Device Debug** **Repopulate Poller Cache** **View Poller Cache** **Data Source List** **Graph List**

Console Graphs Reporting Logs

Console Create New Graphs

Main Console Create New Graphs New Device Management Data Collection Templates Automation Presets Import/Export Configuration Utilities Troubleshooting



New Graphs for [windows Host] (10.200.10.27 Windows Device)

Graph Templates

Graph Template Name

- Device - Polling Time
- Device - Uptime
- Host MIB - Logged in Users
- Host MIB - Processes

Create... (Select a graph type to create) ▾

Data Query [SNMP - Get Mounted Partitions]

All 4 Items		
Index	Description	Storage Allocation Units
1	C: Label: Serial Number cca03...	4096
2	D:	0
3	Virtual Memory	65536
4	Physical Memory	65536

Data Query [SNMP - Get Processor Information]

All 5 Items		
Processor Index Number		
0		
1		part - 1
2		

Main Console Create New Graphs New Device Management Data Collection Templates Automation Presets Import/Export Configuration Utilities Troubleshooting



9 Down Up WAN Miniport (SSTP) tunnel_32768 Local Area Connection* 3 tunnel 0 0 Select a Graph Type to Create Set Default In/Out (Broadcasts) Click Cancel Create

10 Up Up Intel(R) Dual Band Wireless-AC... wireless_32768 Wi-Fi ieee80211 433300000 433 34:e1:2d:37:da:98 10.200.10.27

11 Down Up WAN Miniport (PPTP) tunnel_32771 Local Area Connection* 6 tunnel 0 0

12 Up Up WAN Miniport (IPv6) ethernet_32771 Teredo Tunneling Pseudo-Interf... tunnel 0 0

13 notPresent Down Microsoft Teredo Tunneling Ada... tunnel_32512 Teredo Tunneling Pseudo-Interf... tunnel 0 0

14 Down Up Realtek PCIe GbE Family Contr... ethernet_32769 Ethernet ethernetCsmacd 0 0 8c:16:45:d3:c7:77

15 Up Up WAN Miniport (IP) ethernet_32770 Local Area Connection* 8 ethernetCsmacd 0 0

16 Down Up WAN Miniport (PPPOE) ppp_32768 Local Area Connection* 7 ppp 0 0

17 notPresent Down Microsoft Kernel Debug Netwo... ethernet_32768 Ethernet (Kernel Debugger) ethernetCsmacd 0 0

18 Down Up Microsoft Wi-Fi Direct Virtual A... wireless_32770 Local Area Connection* 2 ieee80211 0 0 36:e1:2d:37:da:98

19 Up Up VMware Virtual Ethernet Adapt... ethernet_32775 VMware Network Adapter VMn... ethernetCsmacd 100000000 100 0:50:56:c0:0:8 192.168.30.1

20 Down Up Microsoft Wi-Fi Direct Virtual A... wireless_32769 Local Area Connection* 1 ieee80211 0 0 34:e1:2d:37:da:99

21 Up Up VMware Virtual Ethernet Adapt... ethernet_0 VMware Network Adapter VMn... ethernetCsmacd 100000000 100 0:50:56:c0:0:8 In/Out (Errors/Discards)

22 Up Up VMware Virtual Ethernet Adapt... ethernet_1 VMware Network Adapter VMn... ethernetCsmacd 100000000 100 0:50:56:c0:0:8 In/Out (Multicasts)

23 Down Up Realtek PCIe GbE Family Contr... ethernet_2 Ethernet-WFP Native MAC Lay... ethernetCsmacd 0 0 8c:16:45:d3 In/Out (Non-Unicast)

24 Down Up Realtek PCIe GbE Family Contr... ethernet_3 Ethernet-Npcap Packet Driver ... ethernetCsmacd 0 0 8c:16:45:d3 In/Out (Unicast)

25 Down Up Realtek PCIe GbE Family Contr... ethernet_4 Ethernet-QoS Packet Scheduler... ethernetCsmacd 0 0 8c:16:45:d3 In/Out Bits

26 Down Up Realtek PCIe GbE Family Contr... ethernet_5 Ethernet-WFP 802.3 MAC Layer... ethernetCsmacd 0 0 8c:16:45:d3 In/Out Bits (64-bit, 95th)

27 Up Up Intel(R) Dual Band Wireless-AC... wireless_0 Wi-Fi-WFP Native MAC Layer I... ieee80211 433300000 433 34:e1:2d:37:da:98 In/Out Bits (64-bit, BW)

28 Up Up Intel(R) Dual Band Wireless-AC... wireless_1 Wi-Fi-Npcap Packet Driver (NP... ieee80211 433300000 433 34:e1:2d:37:da:98 In/Out Bits (95th)

29 Up Up Intel(R) Dual Band Wireless-AC... wireless_2 Wi-Fi-Virtual WiFi Filter Driv... ieee80211 433300000 433 34:e1:2d:37:da:98 In/Out Bytes

30 Up Up Intel(R) Dual Band Wireless-AC... wireless_3 Wi-Fi-Native WiFi Filter Driver... ieee80211 433300000 433 34:e1:2d:37:da:98 In/Out Bytes (64-bit, BW)

Console Graphs Reporting Logs

Console Graph Trees (Edit) ▾

Main Console Create Management Devices Sites **Trees** Graphs Data Sources Aggregates Data Collection Templates Automation Presets Import/Export Configuration Utilities Troubleshooting



Name Windows-10

Sorting Type Manual Ordering (No Sorting) ▾

Publish Public enable Save

Finish Filler Create Finish Editing Tree Add Root Branch This tree has been locked for Editing on 2022-12-07 12:19:40 by admin.

Display All ▾

Tree Items Available Sites Available Devices Available Graphs

Tree Items	Available Sites	Available Devices	Available Graphs
Site Name	Device Description	Graph Name	
Linux-Server	Search	Search	Search
Windows-10	Edge Core System	Linux Server (10.200.10.52) Local Linux Machine (localhost) windows Host (10.200.10.27)	Linux Server - Apache HTTP - CPU Usage Linux Server - Apache HTTP Kbits Passed Linux Server - Apache HTTP Thread Details % Linux Server - Apache HTTP Thread Scoreboard Linux Server - Apache HTTP Web Hits / s Linux Server - Apache HTTP - Bytes/Hit Linux Server - Apache HTTP Thread Details Device Folder Add Linux Server - Load Average Linux Server - Logged in Users

Full Device Add Filler

Graph Management [windows Host]

Site: Any Device: **windows Host** Template: Any Orphaned Go Clear

Search: Enter a regular expression

None

Graph Name: windows Host - Available Disk

All 9 Graphs

ID	Source Type	Source Name	Size
20	Data Query	Disk Space	200x700
21	Data Query	Disk Space	200x700
22	Data Query	Disk Space	200x700
23	Data Query	Disk Space	200x700
18	Template	Host MIB - Logged in Users	200x700
16	Template	Device - Polling Time	200x700
19	Template	Host MIB - Processes	200x700
24	Data Query	In/Out Bits (64-bit, BW)	200x700
17	Template	Device - Uptime	200x700

All 9 Graphs

Choose an action Go

Graph Filters

Search: Enter a regular expression

Graphs: 10 Columns: 2 Columns Thumbnails: Off

Presets: Last Day From: 2022-12-06 12:27:45 To: 2022-12-07 12:27:45

All 9 Graphs

Tree: Windows-10

Windows-10

Uptime, Traffic - Wi-Fi, Processes, Polling Time

User Add

User Management

Search: Enter a search term Realm: All Users: Default Go Clear

All 2 Users

User Name	User ID	Full Name	Enabled	Realm	Graph Policy	Device Policy	Template Policy	Last Login
admin	1	Administrator	Yes	Local	ALLOW	ALLOW	ALLOW	Wednesday, December 07, 2022 11:46:42
guest	3	Guest Account	No	Local	ALLOW	ALLOW	ALLOW	N/A

All 2 Users

Choose an action Go

User Management [new]

User Name	ikbal
Full Name	Ikbal Hossain
Email Address	ikbal@gmail.com
Password	***** *****
Enabled	<input checked="" type="checkbox"/>
Locked	<input type="checkbox"/>
Account Options	<input checked="" type="checkbox"/> Must Change Password at Next Login <input checked="" type="checkbox"/> Change Password <input checked="" type="checkbox"/> Maintain Custom Graph and User Settings <input checked="" type="checkbox"/> User Has Rights to Tree View <input checked="" type="checkbox"/> User Has Rights to List View <input checked="" type="checkbox"/> User Has Rights to Preview View <input checked="" type="checkbox"/> Show the page that user pointed their browser to. <input type="checkbox"/> Show the default console screen. <input type="checkbox"/> Show the default graph screen.
Graph Options	<input checked="" type="checkbox"/> Graph Options
Login Options	<input checked="" type="checkbox"/> Login Options
Authentication Realm	Local

Create **Create**

Permission User

User Permissions [edit: ikbal]

General	<input checked="" type="checkbox"/> Graphs	<input type="checkbox"/> Log Viewing	<input type="checkbox"/> Update Profile	<input type="checkbox"/> Reports Creation	<input type="checkbox"/> External Links
	<input type="checkbox"/> Realtime Graphs	<input type="checkbox"/> Show Graph Action Icons	<input type="checkbox"/> Show User Help Links		
Template Editor	<input checked="" type="checkbox"/> Console Access	<input type="checkbox"/> Data Input Methods	<input type="checkbox"/> Data Source Profiles	<input type="checkbox"/> Graph Templates	<input type="checkbox"/> Data Templates
	<input type="checkbox"/> Device Templates	<input type="checkbox"/> Data Queries	<input type="checkbox"/> Presets	<input type="checkbox"/> Export Templates	<input type="checkbox"/> Import Templates
General Administration	<input checked="" type="checkbox"/> Spike Handling	<input type="checkbox"/> Sites/Devices/Data	<input type="checkbox"/> Trees	<input type="checkbox"/> Graphs	<input type="checkbox"/> Automation
	<input type="checkbox"/> System Administration	<input type="checkbox"/> Settings/Utilities	<input type="checkbox"/> Installation/Upgrades	<input type="checkbox"/> Users/Groups	<input type="checkbox"/> Log Administration
	<input type="checkbox"/> Reports Administration	<input type="checkbox"/> Plugin Administration			

Save

Settings

Selective Plugin Debug: Selective Device Debug: Syslog/Eventlog Item Selection: Internationalization (i18n):

Language Support	Enabled
Language	English
Auto Language Detection	Enabled
Preferred Language Processor	Use the First Handler Found
Date Display Format	Year, Month Number, Day
Date Separator	-
Other Settings	Has Graphs/Data Sources Checked: RRDtool Version: Enable gradient support: Graph Permission Method: Graph/Data Source Creation Method: Show Form/Setting Help Inline: Local Page Help Only: Deletion Verification:
	Permissive Restrictive Device Based Graph Template Based

Graphs Permission

Device Perms

Description	ID	Effective Policy	Graphs	Data Sources	Status	Hostname
Linux Server	2	Access Granted	11	13	Up	10.200.10.52
Local Linux Machine	1	Access Granted	4	5	Up	localhost
windows Host	3	Access Granted	9	9	Up	10.200.10.27

All 3 Devices

Action Buttons: Revoke Access, Go, Choose an action, Revoke Access, Grant Access.

Device Perms

Description	ID	Effective Policy	Graphs	Data Sources	Status	Hostname
Linux Server	2	Access Restricted	11	13	Up	10.200.10.52
Local Linux Machine	1	Access Restricted	4	5	Up	localhost
windows Host	3	Access Restricted	9	9	Up	10.200.10.27

All 3 Devices

Action Buttons: Choose an action, Go.

Graph Perms

Graph Title	ID	Effective Policy
Linux Server - Apache HTTP - CPU Usage	6	Restricted
Linux Server - Apache HTTP Kbytes Passed	8	Restricted
Linux Server - Apache HTTP Thread Details %	11	Restricted
Linux Server - Apache HTTP Thread Scoreboard	10	Restricted
Linux Server - Apache HTTP Web Hits / s	7	Restricted
Linux Server - Apache HTTP - Bytes/Hit	5	Restricted
Linux Server - Apache HTTP Thread Details	9	Restricted
Linux Server - Load Average	13	Restricted
Linux Server - Logged in Users	14	Restricted
Linux Server - Memory Usage	15	Restricted
Linux Server - Processes	12	Restricted

Note: System Graph Policy is 'Restrictive' meaning the User must have access to either the Graph or the Device and Graph Template to gain access to the Graph

Action Buttons: Show All, Go.

Users
User Groups
User Domains
Plugins
Utilities
Troubleshooting

	windows Host - Available Disk Space	20	Restricted	
	windows Host - Available Disk Space	21	Restricted	
	windows Host - Available Disk Space	22	Restricted	
	windows Host - Available Disk Space	23	Restricted	
	windows Host - Logged in Users	18	Restricted	
	windows Host - Polling Time	16	Restricted	
	windows Host - Processes	19	Restricted	
	windows Host - Traffic - Wi-Fi	24	Restricted	
	windows Host - Uptime	17	Restricted	

All 24 Graphs

Choose an action
Revoke Access
Grant Access
Choose an action ▾ Go

Console Graphs Reporting Logs

Console Users (Edit)

Logged in as admin ▾

Main Console Create Management Data Collection Templates Automation Presets Import/Export Configuration

Users

Graph Permissions [edit: Ikbal]

Search windows Template Any Graphs Default Show All Go Clear

Default Graph Policy

Default Graph Policy for this User Allow Update

Note: System Graph Policy is 'Restrictive' meaning the User must have access to either the Graph or the Device and Graph Template to gain access to the Graph

Graph Title	ID	Effective Policy	
windows Host - Available Disk Space	20	Granted	
windows Host - Available Disk Space	21	Granted	
windows Host - Available Disk Space	22	Granted	
windows Host - Available Disk Space	23	Granted	
windows Host - Logged in Users	18	Granted	
windows Host - Polling Time	16	Granted	
windows Host - Processes	19	Granted	
windows Host - Traffic - Wi-Fi	24	Granted	
windows Host - Uptime	17	Granted	

All 9 Graphs

Choose an action
Revoke Access
Grant Access
Choose an action ▾ Go

এখানে User Click and Device Perms তার পরে যে Device Permission দেব এই Device Select and Grant Access click and Go Click

Console Graphs Reporting Logs

Console Users (Edit)

Logged in as admin ▾

Main Console Create Management Data Collection Templates Automation Presets Import/Export Configuration

Users

Device Perms

Devices Permission [edit: Ikbal]

Search Enter a search term Template Any Devices Default Only Show Exceptions Go Clear

Default Device Policy

Default Device Policy for this User Allow Update

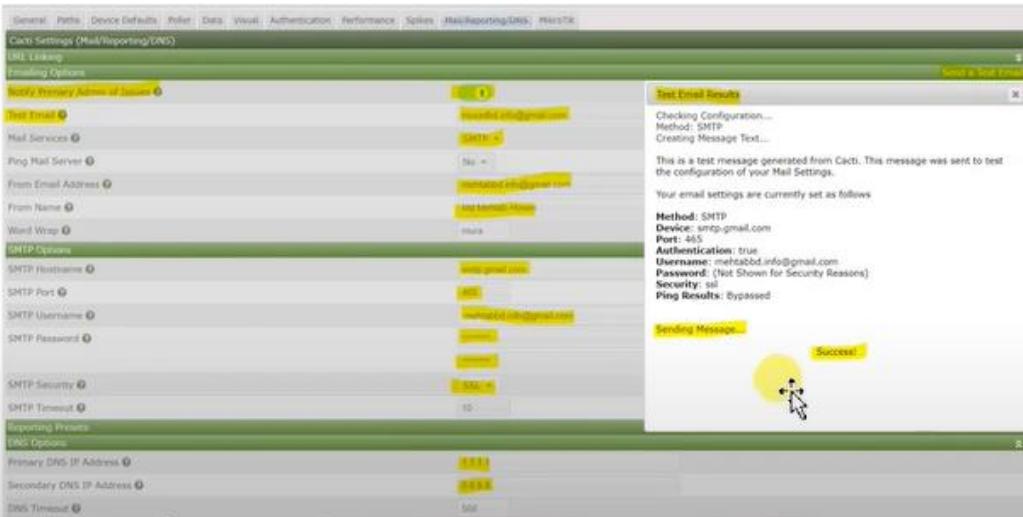
Description	ID	Effective Policy	Graphs	Data Sources	Status	Hostname	
Linux Server	2	Access Restricted	11	13	Up	10.200.10.52	
Local Linux Machine	1	Access Restricted	4	5	Up	localhost	
windows Host	3	Access Granted	9	9	Up	10.200.10.27	

All 3 Devices

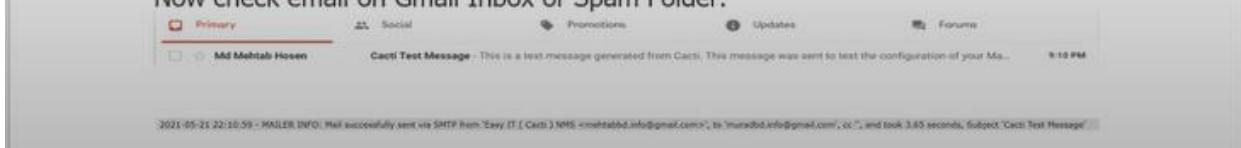
Choose an action
Choose an action
Revoke Access
Grant Access

<https://myaccount.google.com/lesssecureapps?pli=1&rapt=AfJML4NpwmtunsnPg85tABoqqI0vYAwONsTxszYfVUmTa-zzMu6VQdW8utsot9jSfPuFSQqSyoUCAJXCIRSJoJkNLcrru6uA>

Go to Configurations -> Settings -> Mail/Reporting/DNS ->
 Notify Primary Admin Email : Enable
 Test Email : muradbd.info@gmail.com
 Mail Services : SMTP
 Ping Mail Server : no
 From Email Address : mehtabbd.info@gmail.com



Now check email on Gmail Inbox or Spam Folder.



Plugins Install

```
[root@observium tmp]# cd /var/www/html/cacti/plugins
[root@observium plugins]# wget -O thold.zip https://github.com/Cacti/plugin\_thold/archive/develop.zip
[root@observium plugins]# unzip thold.zip
[root@observium plugins]# mv plugin_thold-develop thold
```

```
[root@observium tmp]# cd /usr/share/cacti/plugins/
[root@observium plugins]# ls
index.php thold
[root@observium plugins]# wget -O thold.zip https://github.com/Cacti/plugin_thold/archive/develop.zip
--2022-12-07 14:29:15-- https://github.com/Cacti/plugin_thold/archive/develop.zip
Resolving github.com (github.com)... 20.205.243.166
Connecting to github.com (github.com)|20.205.243.166|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/Cacti/plugin_thold/zip/refs/heads/develop
[following]
--2022-12-07 14:29:16-- https://codeload.github.com/Cacti/plugin_thold/zip/refs/heads/develop
Resolving codeload.github.com (codeload.github.com)... 20.205.243.165
Connecting to codeload.github.com (codeload.github.com)|20.205.243.165|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/zip]
Saving to: 'thold.zip'

thold.zip      [ => ] 944.17K  2.19MB/s   in 0.4s

2022-12-07 14:29:17 (2.19 MB/s) - 'thold.zip' saved [966835]
```

All 1 Plugins							
Actions	Plugin Name	Plugin Description	Status	Author	Requires	Version	Load Order
	Thold	Thresholds	Installed	The Cacti Group		1.6	
All 1 Plugins							

Thold Device Status

All 3 Devices											
Actions	Description	ID	Graphs	Data Sources	Status	In State	Uptime	Hostname	Current (ms)	Average (ms)	Availability
	Linux Server	2	11	13	Up	3h:15m	0d:03h:05m	10.200.10.52	0.03	13.95	100
	Local Linux Machine	1	4	5	Not Monitored	N/A	N/A	localhost	N/A	N/A	N/A
	windows Host	3	9	9	Up	2h:45m	0d:03h:15m	10.200.10.27	0.18	0.17	100
All 3 Devices											
Down	Error	Recovering	Up	Unknown	Disabled	Not Monitored					

Devices => Mark Option Click and = Global and List Below
=>Notification List => System

Notification List => [+] Button Click Add Group

Settings => Alerting/Thold



User : admin

Password : Ikbal@0171

Install source :

<https://www.linuxtechi.com/install-cacti-monitoring-tool-centos-8-rhel-8/>

<https://www.linuxtechi.com/category/monitoring-tools/>

<https://www.fosslinux.com/7527/how-to-install-and-configure-cacti-on-centos-7.htm>

https://www.youtube.com/watch?v=rdOmSUBkThw&list=PLrkmsAubb27blmoMNT-p48-qADuxgWall&index=10&ab_channel=EasyIT