How to Add Linux Host to Nagios Monitoring Using NRPE Plugin 🎆 闪 By Raj Last updated Jul 4, 2017 Share C-) Alibaba Cloud | TIAOCHI Win \$210000+USD cash prize! Join FashionAl Global Algorithm Challenge Now Nagios How to Add Linux Host to Nagios Monitoring Using NRPE Plugin RE Add Linux Host to Nagios Monitoring In the last article, we discussed about installing Nagios server on CentOS 7, Ubuntu 16.04, and Debian 9. Here, in this post, we will add Linux host to Nagios Monitoring tool using NRPE plugin. I'm assuming that you have a working Nagios setup, if not, use any one of the below links and setup Nagios server. READ: How to Install and Configure Nagios 4.3.2 on CentOS 7 / RHEL 7 READ: Install and Configure Nagios on Ubuntu 16.04 READ: How to Install and Configure Nagios 4.3.2 on Debian 9 Stretch NRPE Plugin: Nagios Remote Plugin Executor (abbreviated as NRPE) plugin allows you to monitor applications and services running on remote Linux / Windows hosts. This NRPE Add-on helps Nagios to monitor local resources like CPU, Memory, Disk, Swap, etc. of the remote host. Finally, your remote system must have this NRPE plugin installed. Steps to add Linux Host to Nagios monitoring, On Nagios Remote Host: Install NRPE Add-on & Nagios plugins 2. Configure NRPE Add-On 3. Configure Nagios Checks On Nagios Server Host: Configure Nagios Server 2. Monitor the remote machine. Nagios Remote Host: Install NRPE Add-on & Nagios Plugins: NRPE and Nagios plugins are not available in the base repository. So, for CentOS 7 / RHEL 7, you should have EPEL repository configured on your machine. READ: How to configure EPEL repository on CentOS 7/ RHEL 7 rpm -ivh https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm Use the following command to install NRPE Add-on and Nagios plugins. yum install -y nrpe nagios-plugins-all apt-get install -y nagios-nrpe-server nagios-plugins Configure NRPE Add-on: Modify the NRPE configuration file to accept the connection from the Nagios server, Edit the /etc/nagios/nrpe.cfg file. vi /etc/nagios/nrpe.cfg Add the Nagios servers IP address, separated by comma like below. Free Plans netlify Click here free forever allowed\_hosts=127.0.0.1,192.168.12.10 Configure Nagios Checks: The /etc/nagios/nrpe.cfg file contains the basic commands to check the attributes (CPU, Memory, Disk, etc.architecure) and services (HTTP, FTP, etc.) on remote hosts. Below command lines lets you monitor attributes with the help of Nagios plugins. Note: The path to Nagios plugins may change depends on your operating system architecture (i386 or x86\_64) CentOS 7 / RHEL 7: command[check\_users]=/usr/lib64/nagios/plugins/check\_users -w 5 -c 10 command[check\_load]=/usr/lib64/nagios/plugins/check\_load -w 15,10,5 -c 30,25,20 command[check\_root]=/usr/lib64/nagios/plugins/check\_disk\_-w\_20%\_-c\_10%\_-p\_/dev/mapper/centos-root command[check\_swap]=/usr/lib64/nagios/plugins/check\_swap -w 20% -c 10% command[check\_total\_procs]=/usr/lib64/nagios/plugins/check\_procs -w 150 -c 200 Ubuntu 16.04 / Debian 9: command[check\_users]=/usr/lib/nagios/plugins/check\_users -w 5 -c 10 command[check\_load]=/usr/lib/nagios/plugins/check\_load -w 15,10,5 -c 30,25,20 command[check\_root]=/usr/lib/nagios/plugins/check\_disk -w 20% -c 10% -p /dev/mapper/server--vg-root command[check\_swap]=/usr/lib/nagios/plugins/check\_swap -w 20% -c 10% command[check\_total\_procs]=/usr/lib/nagios/plugins/check\_procs -w 150 -c 200 In the above command definition -w stands for warning and -c stands for critical. For example, execute the below command in another terminal. Tested on Ubuntu 16.04: /usr/lib/nagios/plugins/check\_procs -w 150 -c 200 Output: PROCS WARNING: 190 processes | procs=190;150;200;0; Nagios plugin will count running processes and will warn you when the process count is more than 150, or it will report you critical when the process count is more than 200, and at the same time, the output will state OK if the count is below 150. You can adjust the alert level as per your requirements. Change warning to 200 and critical to 250 for testing purpose. Now you can see an OK message. /usr/lib/nagios/plugins/check\_procs -w 200 -c 250 Output: PROCS OK: 189 processes | procs=189;200;250;0; These command definitions have to be entered on template file on the Nagios server host to enable the monitoring. Restart the NRPE service. systemctl start nrpe systemctl enable nrpe /etc/init.d/nagios-nrpe-server restart Nagios Server Host: NRPE and Nagios plugins are not available in the base repository. So, for CentOS 7 / RHEL 7, you should have EPEL repository configured on your machine. READ: How to configure EPEL repository on CentOS 7/ RHEL 7 rpm -ivh https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm Install check\_nrpe plugin: Use the following command to install "check\_nrpe" plugin on your machine. yum -y install nagios-plugins-nrpe apt-get -y install nagios-nrpe-plugin Edit the Nagios configuration file to include all "\*.cfg" files inside the "/usr/local/nagios/etc/servers" directory. vi /usr/local/nagios/etc/nagios.cfg Add or uncomment the following line. cfg\_dir=/usr/local/nagios/etc/servers Create a configuration directory. mkdir /usr/local/nagios/etc/servers Configure Nagios Server: For more great fares, visit singaporeair.com **BOOK NOW** Terms & conditions apply Now it's time to configure the Nagios server to monitor the remote client machine, and You'll need to create a command definition in Nagios object configuration file to use the "check\_nrpe" plugin. Open the "commands.cfg" file.... vi /usr/local/nagios/etc/objects/commands.cfg Add the following Nagios command definition to the file. # .check\_nrpe. command definition define command{ command\_name check\_nrpe command\_line /usr/lib64/nagios/plugins/check\_nrpe -H \$HOSTADDRESS\$ -t 30 -c \$ARG1\$ ### Ubuntu 16.04 Debian 9 ### # .check\_nrpe. command definition define command{ command\_name check\_nrpe command\_line /usr/lib/nagios/plugins/check\_nrpe -H \$HOSTADDRESS\$ -t 30 -c \$ARG1\$ Add a Linux host to Nagios server: Create a client configuration file (/usr/local/nagios/etc/servers/client.itzgeek.local.cfg) to define the host and service definitions of remote Linux host. You can also use the following template and modify it according to your requirement. The following template is for monitoring "logged in users, system load, disk usage (/ - partitions), swap, and total process. vi /usr/local/nagios/etc/servers/client.itzgeek.local.cfg Copy the below content to the above file. define host{ linux-server use client.itzgeek.local host\_name alias client.itzgeek.local address define hostgroup{ hostgroup\_name linux-server alias Linux Servers client.itzgeek.local members define service{ local-service use client.itzgeek.local host\_name service\_description SWAP Uasge check\_nrpe!check\_swap check\_command define service{ local-service use client.itzgeek.local host\_name service\_description Root / Partition check\_command check\_nrpe!check\_root define service{ local-service use host\_name client.itzgeek.local service\_description Current Users check\_command check\_nrpe!check\_users define service{ local-service use client.itzgeek.local host\_name service\_description **Total Processes** check\_command check\_nrpe!check\_total\_procs define service{ local-service use client.itzgeek.local host\_name service\_description Current Load check\_command check\_nrpe!check\_load Verify Nagios for any errors. /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg Restart the Nagios server. service nagios restart Firewall: Configure the firewall so that the Nagios server can able to reach NRPE server running on remote Linux host. Run these commands on remote Linux machine. FirewallD: firewall-cmd --permanent --add-port=5666/tcp firewall-cmd --reload UFW: ufw allow 5666/tcp ufw reload ufw enable Monitor the remote machine: Go and check the Nagios web interface to view the new services we added just now. The screenshot of the remote Linux box with the service we configured few steps before: Firefox ESR 

▼ Tue 02:46 . ₩ 🗋 Activities Nagios Core on localhost - Mozilla Firefox Nagios Core on localh... × (i) / localhost/nagios/ Q Search 90% G 自 Current Network Status **Host Status Totals** Service Status Totals <u>N</u>agios' Last Updated: Tue Jul 4 02:45:58 EDT 2017 Updated every 90 seconds Nagios® Core™ 4.3.2 - www.nagios.org Up Down Unreachable Pending Ok Warning Unknown Critical Pending 0 0 1 0 0 Logged in as nagiosadmin All Problems All Types All Problems All Types Home 0 2 13 View History For all hosts View Notifications For All Hosts View Host Status Detail For All Hosts Documentation Current Status Service Status Details For All Hosts Tactical Overview Map (Legacy) Hosts 100 ~ Limit Results: Services Attempt ★ Status Information Host ♣♣ Service \*\* Duration ★ Host Groups Status ♣♦ Last Check ♣♦ Summary client.itzgeek.local Current Load 07-04-2017 02:45:24 0d 0h 0m 34s OK - load average: 0.00, 0.05, 0.05 Grid Current Users OK 07-04-2017 02:45:32 Od 0h 0m 26s 1/4 USERS OK - 1 users currently logged in Service Groups Root / Summary OK 07-04-2017 02:45:32 Od 0h 0m 26s DISK OK - free space: / 50165 MB (98.02% inode=100%): Partition Grid SWAP Uasge OK 07-04-2017 02:45:09 Od 0h 0m 49s 1/4 SWAP OK - 100% free (2063 MB out of 2063 MB) **Problems** Total 07-04-2017 02:45:35 Od 0h 0m 23s PROCS OK: 90 processes OK (Unhandled) Hosts (Unhandled) Current Load 07-04-2017 02:43:05 Od 0h 57m 49s 1/4 OK - load average: 1.07, 0.64, 0.27 localhost Network Outages Quick Search: Current Users OK 07-04-2017 02:43:51 Od 0h 57m 11s 1/4 USERS OK - 1 users currently logged in HTTP OK: HTTP/1.1 200 OK - 10975 bytes in 0.088 second OK 07-04-2017 02:44:37 Od 0h 56m 34s 1/4 response time OK 07-04-2017 02:45:02 Od 0h 55m 56s 1/4 PING OK - Packet loss = 0%, RTA = 0.04 ms Root Partition CRITICAL 07-04-2017 02:42:07 Od 0h 55m 19s 4/4 DISK CRITICAL - free space: / 269 MB (6.17% inode=50%): SSH OK 07-04-2017 02:41:17 Od 0h 54m 41s 1/4 SSH OK - OpenSSH\_7.4p1 Debian-10 (protocol 2.0) Availability SWAP OK - 100% free (1905 MB out of 1905 MB) Swap Usage OK 07-04-2017 02:41:54 Od 0h 54m 4s 1/4 Trends (Legacy) Total Alerts 07-04-2017 02:41:10 Od 0h 53m 26s 1/4 PROCS OK: 42 processes with STATE = RSZDT Processes History Summary Histogram (Legacy) Results 1 - 13 of 13 Matching Services Notifications Event Log System Comments Downtime Process Info Performance Info Scheduling Queue

Add Linux Host to Nagios Monitoring – Nagios Web Interface