

Matthew Veroutis LIA Journal #1

Dates:

2024-11-10:

This was the first day where I thoroughly researched and tested the Checkmk software. I first went on YouTube to find a tutorial. I found an excellent one that was made by Checkmk: <https://www.youtube.com/watch?v=opO-SOgOJ1I&t=75s>. I first watched the video fully one time to see the step-by-step, and it seemed quite clear and easy so then I rewatched the video and followed along with the video. The video covered how to download and set up the site and also add monitoring hosts. I did notice that the video is three years old and some of the menus are slightly different but for the most part, the video is still useful. To follow exactly what the video did I downloaded the trial version of the paid one but I tried out the free version later. I downloaded it directly from the site: https://checkmk.com/download?method=cmk&edition=cre&version=2.3.0p20&platform=debian&os=bookworm&type=cmk&google_analytics_user_id=. The website also includes the first initial steps that were in the video. I did not face any major issues, so I was able to set up the monitoring website and set up the first monitored host which was the same machine.

2024-11-12:

Now I wanted to connect another VM to the monitoring system since the whole point of the monitoring system is to monitor multiple machines. First, I had to make another virtual machine, so instead of downloading another debian image, I made a full clone of the first machine. I did not know how to do this at first so I asked ChatGPT this prompt: how to make a full clone of a Debian machine in a virtual box? It gave me a very clear step-by-step tutorial which is the following:

Step-by-Step Guide

1. **Open VirtualBox Manager:**
 - Start VirtualBox and locate the machine you want to clone in the list of virtual machines.
2. **Shut Down the VM** (if running):
 - Ensure the VM is powered off. A powered-on or suspended VM cannot be cloned.
 - Right-click the VM and select **Close** → **Power Off**.
3. **Initiate Cloning:**
 - Right-click the VM you want to clone.
 - Select **Clone** from the context menu.
4. **Name and Clone Type:**
 - In the **Clone Virtual Machine** window:
 - **Name the Clone:** Choose a new name for the cloned VM.
 - **Choose Clone Type:**
 - **Full Clone:** Creates a completely independent copy, including all virtual disk files.
 - **Linked Clone:** Shares the base disk with the original VM (not recommended if you want an independent copy).
 - Select **Full Clone** and click **Next**.
5. **Snapshot Handling:**
 - If the original VM has snapshots, you can:

- **Clone the current machine state only:** Copies the VM as it is now, ignoring snapshots.
- **Clone everything:** Copies the entire snapshot chain.
- Choose based on your needs and click **Next**.
- 6. **Storage for the Clone:**
 - VirtualBox will create a new virtual hard disk for the clone.
 - The location for the cloned disk will default to the same folder as the original VM unless you specify otherwise.
- 7. **Start Cloning:**
 - Click **Finish** to start the cloning process.
 - The cloning time depends on the size of the virtual disk and your system's performance.
- 8. **Verify the Clone:**
 - After the cloning process completes, the cloned VM will appear in the VirtualBox Manager.
 - Start the cloned VM to verify it works correctly.

These steps were very clear and easy to follow. when I tried it out, it fully worked. I then needed to ensure that the machines were on the same network. To do this I watched the following YouTube video: <https://www.youtube.com/watch?v=cCaDsUjn5hs>, which showed me how to make a bridged network. (It was a lot easier than I originally thought since it's only one setting that you have to change). I then did the same steps that I followed to add the original host and it worked.

2024-11-13:

I also wanted to try the open-source (Raw) version. From what I could tell, it is nearly identical to the enterprise one for our use case. The download process is basically identical, with a few menus which look different. It was also just as easy to install and it worked just as well as the enterprise one, so we will continue with the open-source version.

2024-11-15:

Our team called to discuss all of our findings, we each made our case and we decided to continue to develop with Checkmk due to its ease of use.

2024-11-16:

I completed my journal 1 and wrote instructions for all the steps that I have done to set the software up so far. I also put the instructions on the git repository.

Instructions:

Set up the website:

1. Open up your terminal on your Debian machine type: **Wget**
https://download.checkmk.com/checkmk/2.3.0p20/check-mk-raw-2.3.0p20_0.noble_amd64.deb, which pulls the Checkmk package
2. Then you type **sudo apt install**
[./check-mk-raw-2.3.0p20_0.noble_amd64.deb](#), which installs all the packages and dependencies.
3. To verify a successful installation type **omd version**, which should show something like this under **OMD - Open Monitoring Distribution Version 2.3.0p20.cre**
4. To then create the monitoring site type **sudo omd create siteName** (replace siteName with any name you want for the site) something like this should show under:

Output

Adding /opt/omd/sites/monitoring/tmp to /etc/fstab.

Creating temporary filesystem /omd/sites/monitoring/tmp...OK

Restarting Apache...OK

Created new site monitoring with version 2.3.0p20.cre.

The site can be started with **omd start monitoring**.

The default web UI is available at http://your_server/monitoring/

The admin user for the web applications is cmkadmin with password: generated-password

(It can be changed with 'htpasswd -m ~/etc/htpasswd cmkadmin' as site user.)

Please do a **su - monitoring** for administration of this site.

(Pay attention to the highlighted line since that is the username and password for the site)

5. To start the site type: **sudo omd start siteName**
6. You can visit the site by typing the IP address of the machine and the site name in the browser, ex. (127.0.0.1/siteName) and enter username and password

Adding Hosts:

7. To add machines that you would like to monitor, navigate to the website on the machine, and on the left navigation click on **Setup**, then under **Agents** click

on **Linux**. Then near the top under **Packaged Agents** click on the first one which should be something like **check-mk-agent_2.3.0p20-1_all.deb**.

8. Open up the terminal and navigate to the download directory and type **sudo apt install ./check-mk-agent_2.3.0p20-1_all.deb** to download the agent
9. Then navigate back to the browser and on the left navigation click on **Setup**, then under **Hosts** click on **Host**. Then near the top right click on **Add Host**, then enter the desired **host name**, tick the box next to the **IPv4 address**, and enter the host's IP address. After entering all that information, Click on **save & run service discovery**
10. All the services to monitor will pop up so click on **x** or **+** to remove or add it to the monitored services
11. After deciding on all the desired services, on the top right click on **Changes**, then press **Activate on selected sites** to apply the changes.
12. You should now be able to see the newly added host

To add additional hosts, redo steps 7 thru 12 for each desired host.

Link to the GitHub: <https://github.com/4lex16/UnixProject.git>