POWERSHIELD TROUBLESHOOTING GUIDE

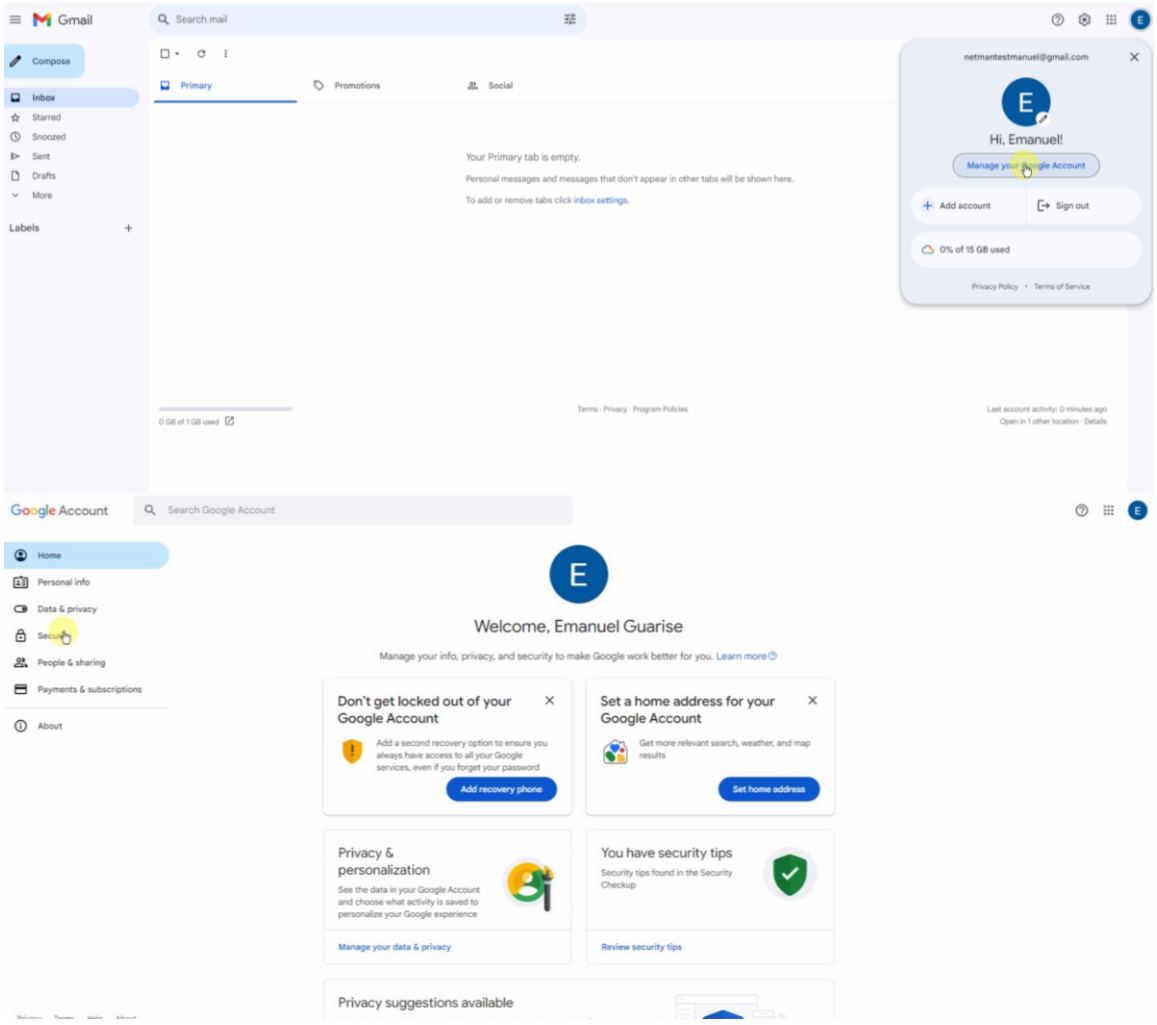
CONTENTS

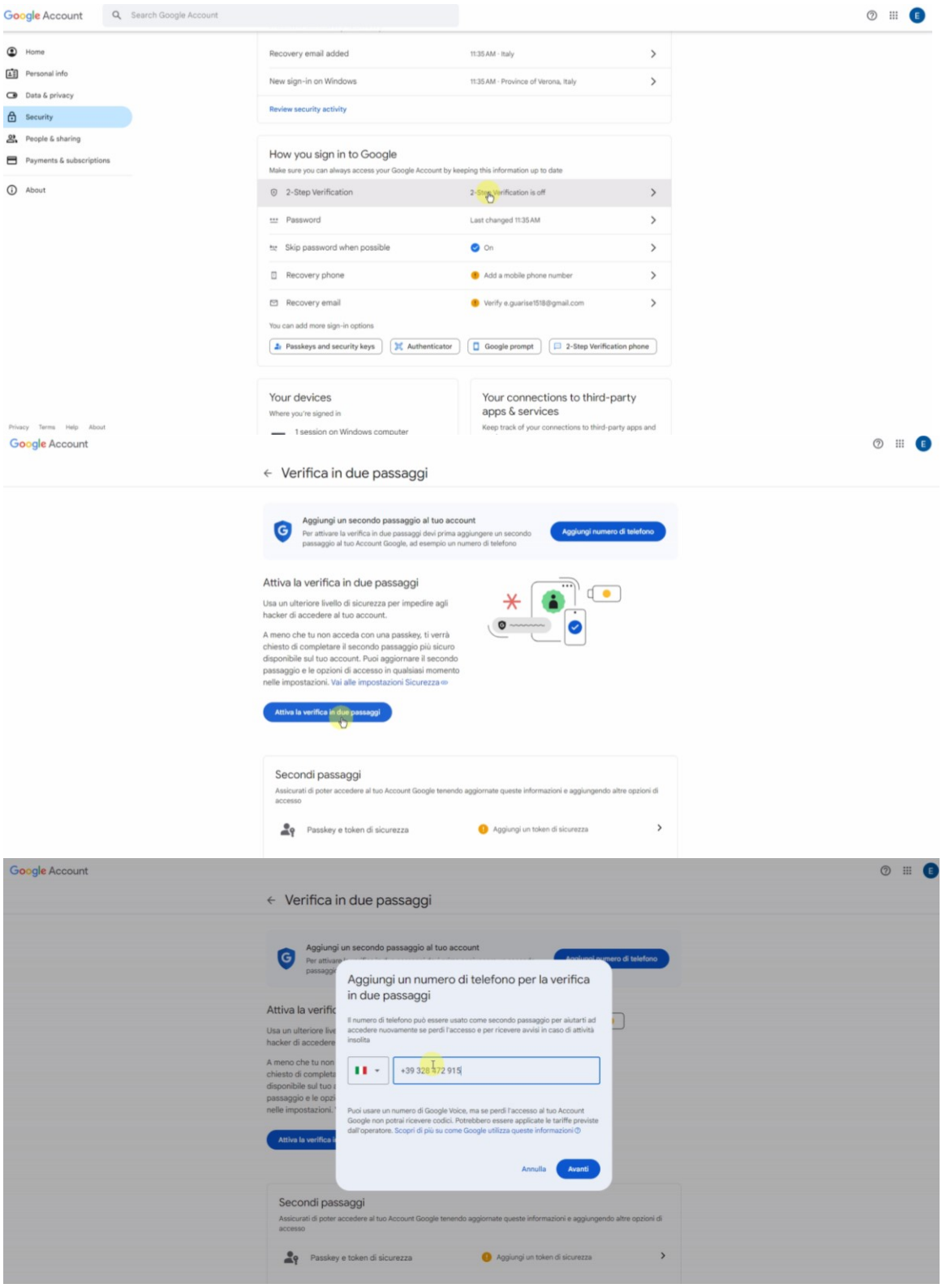
1. When should I enable the secure connection?

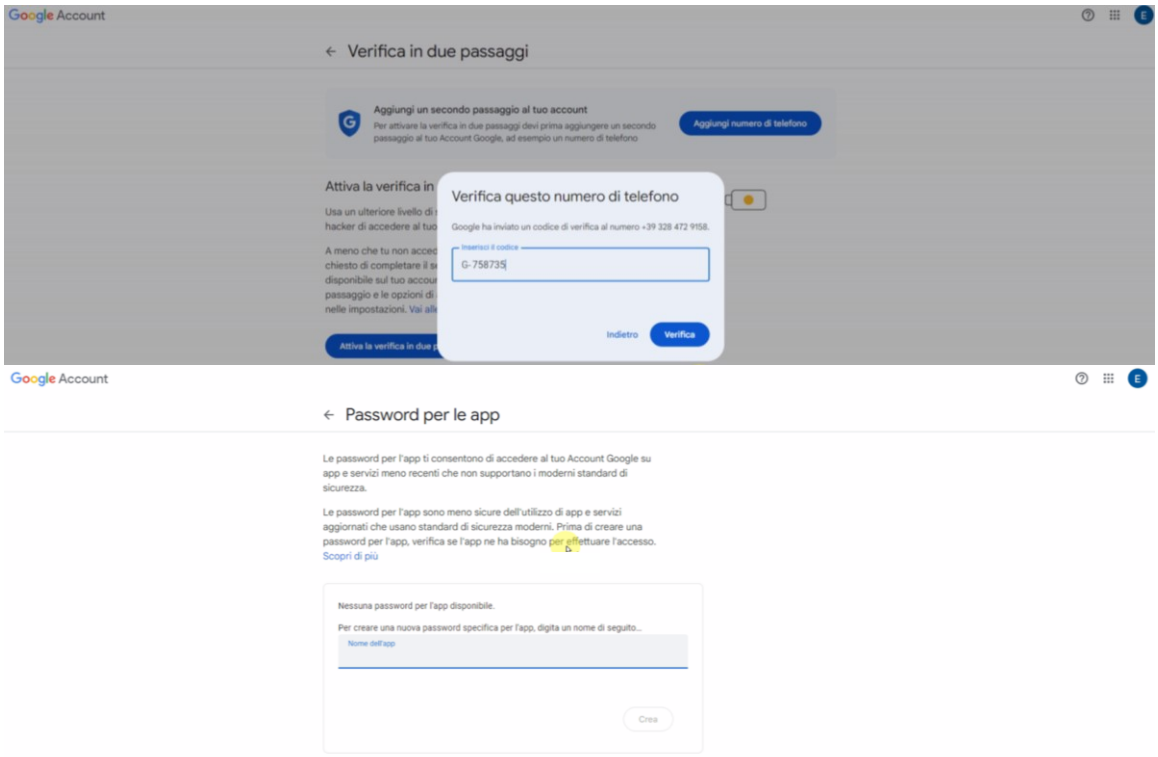
The secure connection field is disabled by default.
This function should only be used when using a NetMan certified for cybersecurity.
It must not be used in any other cases.

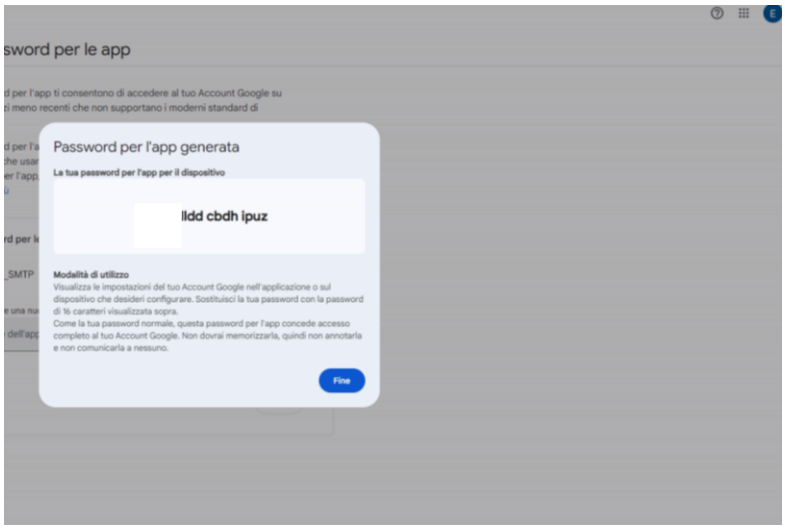
2. What are the SMTP settings with gmail?

To configure Gmail as the mail provider it is essential to follow specific steps
Firstly, ensure that two-factor authentication (2FA) is enabled on the Gmail account:




Google Account
Search Google Account
Home
Personal info
Data & privacy
Security
People & sharing
Payments & subscriptions
About
Recovery email added
11:35 AM · Italy
New sign-in on Windows
11:35 AM · Province of Verona, Italy
Review security activity
How you sign in to Google
Make sure you can always access your Google Account by keeping this information up to date
2-Step Verification
Password
Last changed 11:35 AM
Skip password when possible
On
Recovery phone
Add a mobile phone number
Recovery email
Verify e.guarise1518@gmail.com
You can add more sign-in options
Passkeys and security keys
Authenticator
Google prompt
2-Step Verification phone
Your devices
Where you're signed in
1 session on Windows computer
Your connections to third-party apps & services
Keep track of your connections to third-party apps and
Privacy Terms Help About
Google Account
Verifica in due passaggi
Aggiungi un secondo passaggio al tuo account
Per attivare la verifica in due passaggi devi prima aggiungere un secondo passaggio al tuo Account Google, ad esempio un numero di telefono
Aggiungi numero di telefono
Attiva la verifica in due passaggi
Usa un ulteriore livello di sicurezza per impedire agli hacker di accedere al tuo account.
A meno che tu non acceda con una passkey, ti verrà chiesto di completare il secondo passaggio più sicuro disponibile sul tuo account. Puoi aggiornare il secondo passaggio e le opzioni di accesso in qualsiasi momento nelle impostazioni. Vai alle impostazioni Sicurezza
Attiva la verifica in due passaggi
Secondi passaggi
Assicurati di poter accedere al tuo Account Google tenendo aggiornate queste informazioni e aggiungendo altre opzioni di accesso
Passkey e token di sicurezza
Aggiungi un token di sicurezza
Google Account
Verifica in due passaggi
Aggiungi un secondo passaggio al tuo account
Aggiungi un numero di telefono per la verifica in due passaggi
Il numero di telefono può essere usato come secondo passaggio per aiutarti ad accedere nuovamente se perdi l'accesso e per ricevere avvisi in caso di attività insolita
+39 328 372 915
Puoi usare un numero di Google Voice, ma se perdi l'accesso al tuo Account Google non potrai ricevere codici. Potrebbero essere applicate le tariffe previste dall'operatore. Scopri di più su come Google utilizza queste informazioni
Annulla
Avanti
Secondi passaggi
Assicurati di poter accedere al tuo Account Google tenendo aggiornate queste informazioni e aggiungendo altre opzioni di accesso
Passkey e token di sicurezza
Aggiungi un token di sicurezza





Please note that the app password generated by Gmail may include spaces. When entering this password into the Powershield, make sure to remove all spaces for proper functionality.
Next, use the app password generated in the Gmail account to enable the Powershield to send emails successfully

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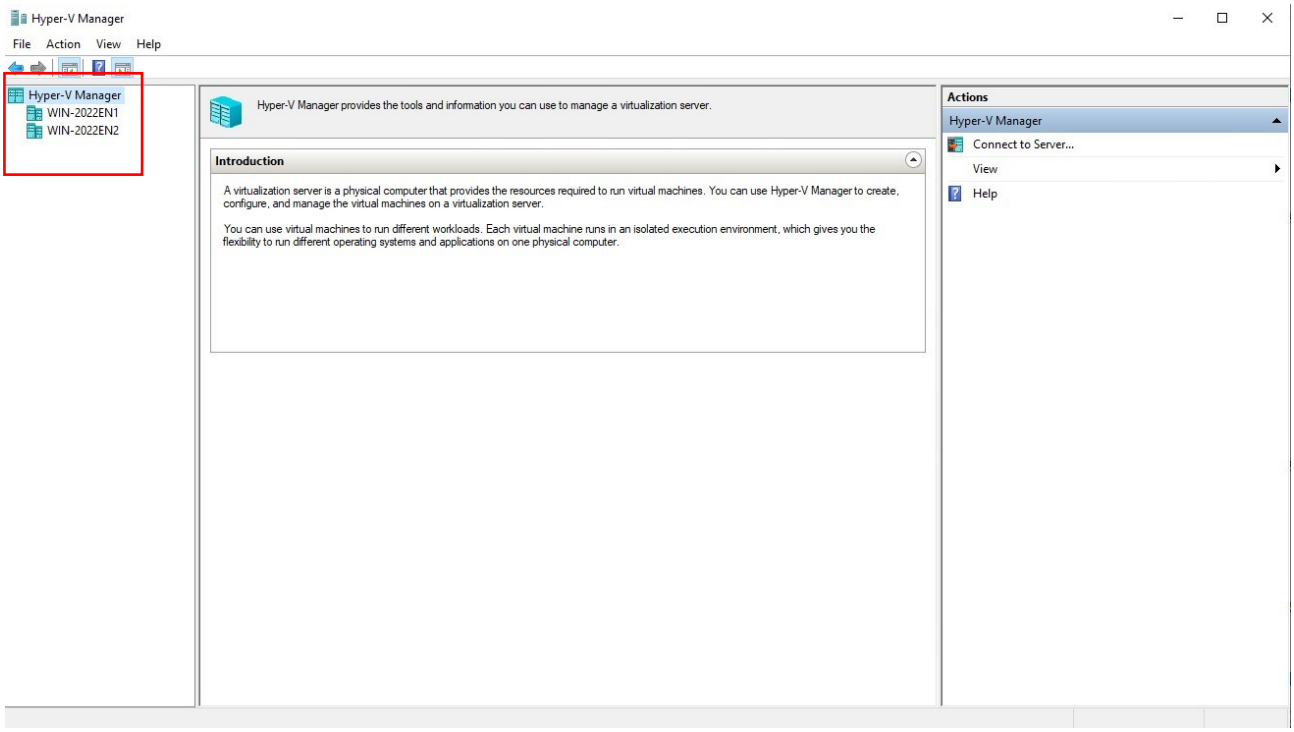
3. Is Poweshield compatible with Hyper-V management?

Powershield[3] can manage **Hyper-V**. It's possible to shutdown the virtual machine and one or more host.

An example of the configuration of **UpsConfigHyper-V** is described as following.

3.1 How to configure Powershield to manage Hyper-V?

This is an example of the structure of a Hyper-V, where two or more hosts are available.
This structure has been taken from the Hyper-V Manager that is running on the host Windows Server 2022 EN1:

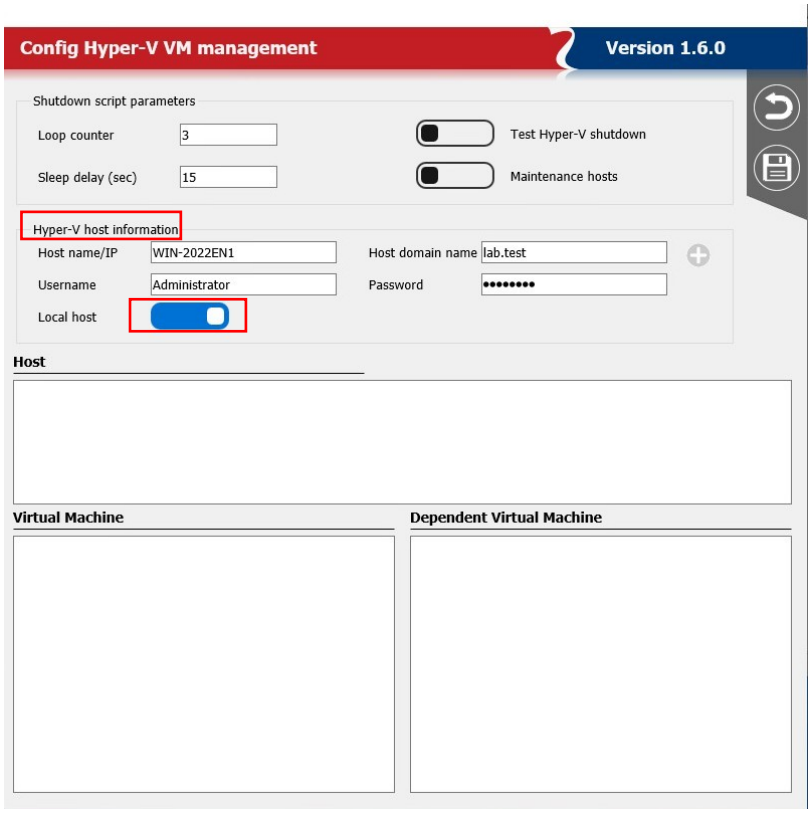


Powershield3 has been installed in Windows Server 2022 EN1 (**WIN-2022EN1**) and UpsConfigHyper-V is present in this host. We can say that, for Powershield3, this is the **local host**. This is referred to as the local host because Powershield3 is running on it.

The first goal of this installation is to shutdown the virtual machines present in the host **WIN-2022EN2** and then to shutdown the host itself.
The second goal of this installation is to shutdown the virtual machines present in the host **WIN-2022EN1** and then to shutdown the host itself.

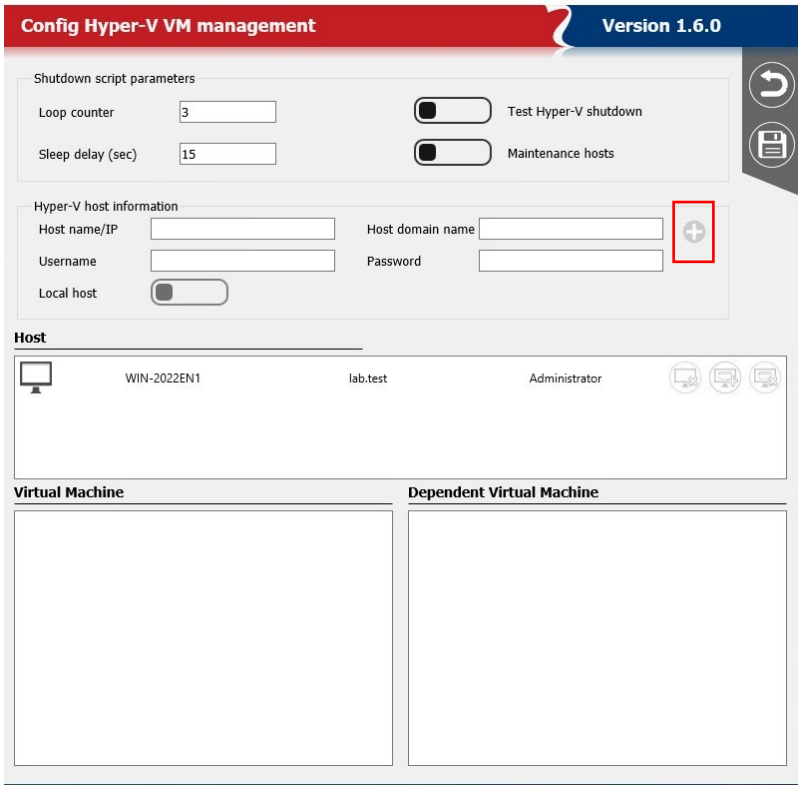
3.2 UpsConfigHyper-V configuration

First, set the **Hyper-V host information.**
The first host that should be added is the host where Powershield[3] is running (**local host**) and the **slider Local host** has to be **enabled**:

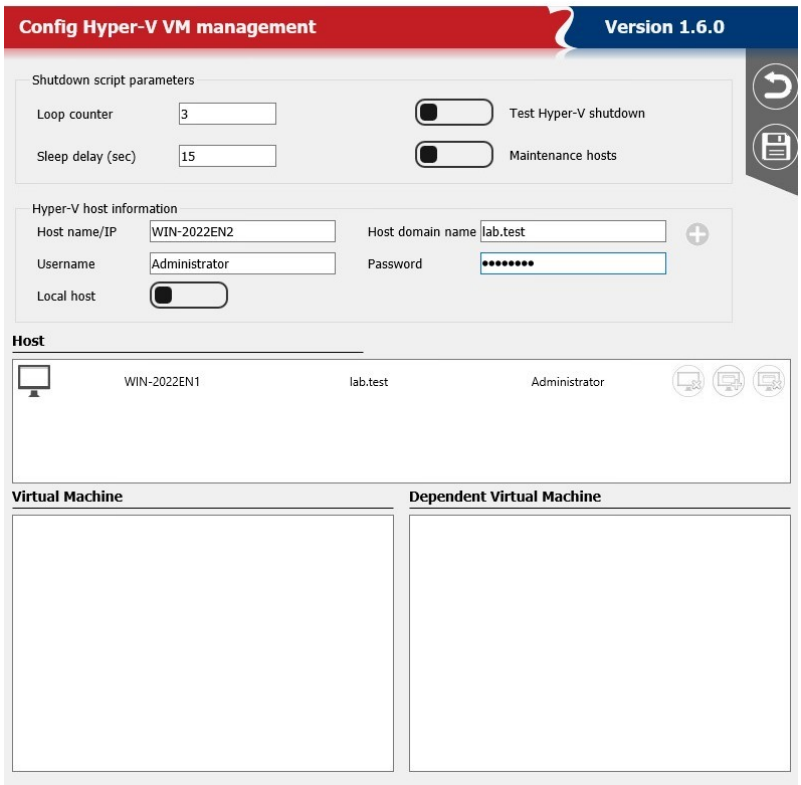


NOTE: The **username** (user) must be a **local administrator account** or in case it's not a local administrator account it must be added to the **Hyper-V Administrator** group

Press the “+” button to add it in the Host list:

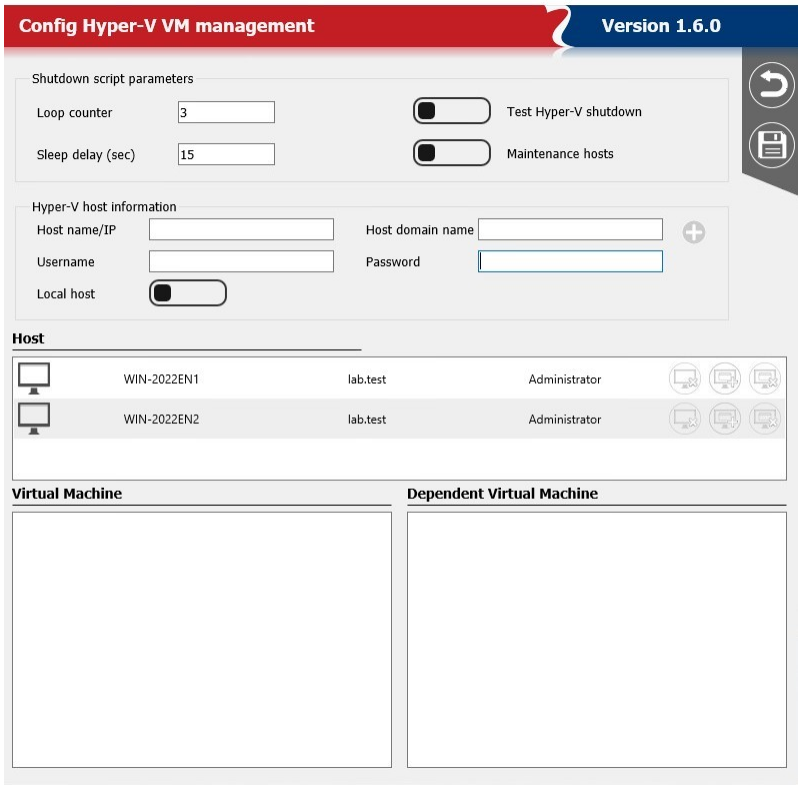


Then add all the other hosts. In this example, there is only one host left to be added. It’s the **WIN-2022EN2** host. As it’s not a local host, the slider is not to be enabled:



NOTE: The **username** (user) must be a **local administrator account** or in case it’s not a local administrator account it must be added to the **Hyper-V Administrator** group

Press the “+” button to add it in the Host list:

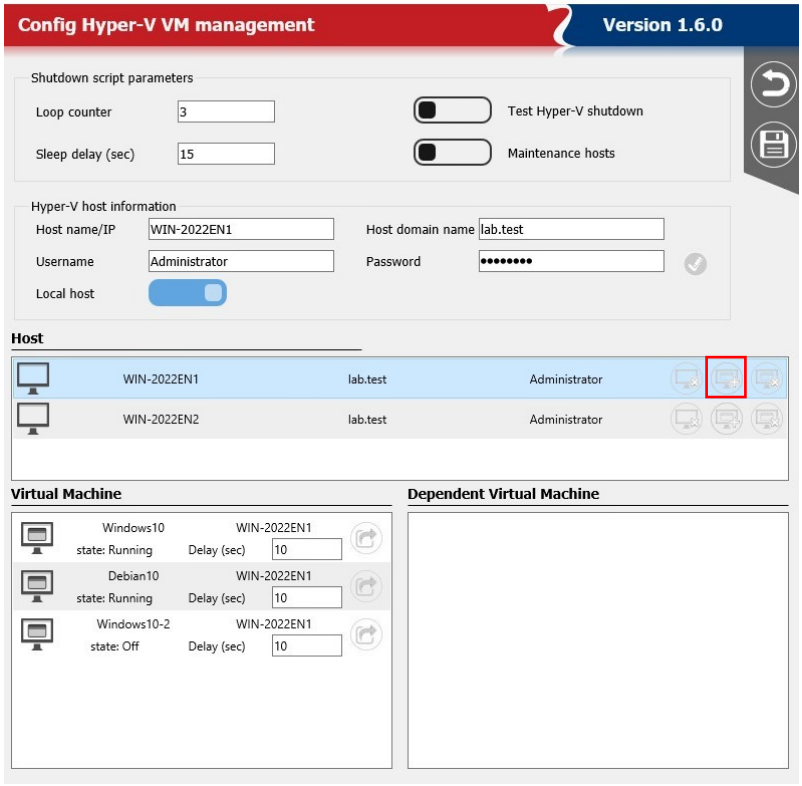


Repeat the action to add the hosts for all the hosts you want to manage / shutdown

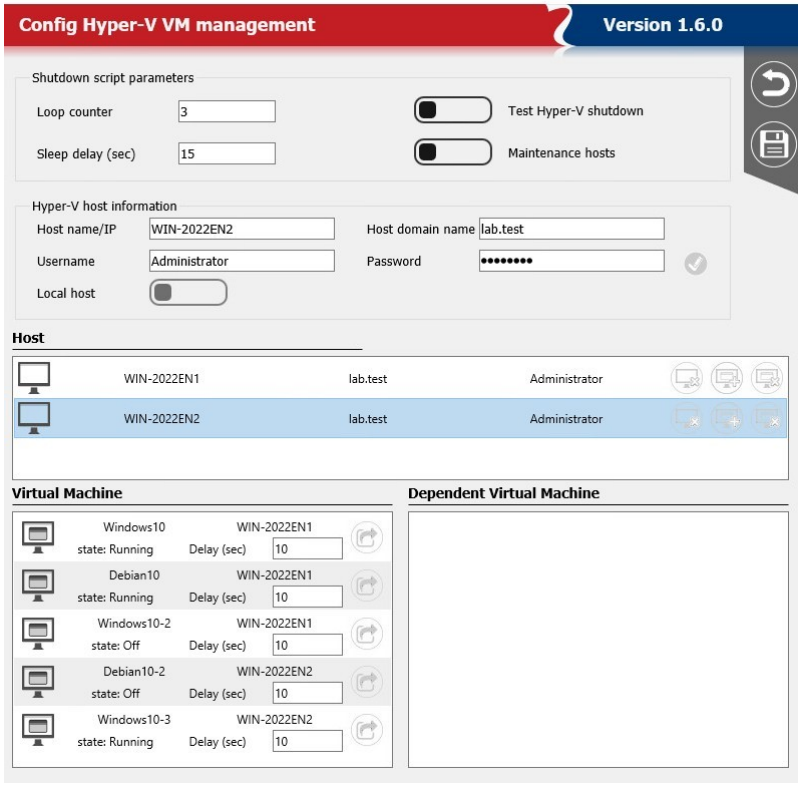
3.3 Retireving the virutal machines inside each host

Select the host and press the button “**Retrieve VM from host”** to get the virtual machine(s) running on that host.

Below **WIN-2022EN1** is selected and VMs are retrieved from it. You can see that three virtual machines are present in that host:



Below **WIN-2022EN2** is selected and VMs are retrieved from it. You can see that two virtual machines are present in that host:



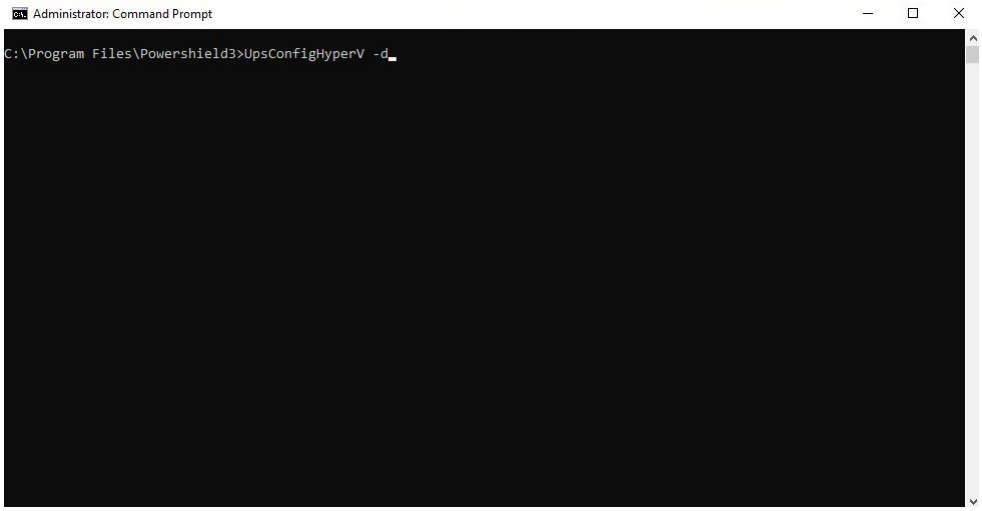
Note: not all the virtual machines are running. Some of the virtual machines are off.

3.4 Retireving the virutal machines inside each host

If it's not possible to retrieve the virtual machines from a host, it may be necessary to run the **UpsConfigHyperV** in **debug mode** to determine the cause.

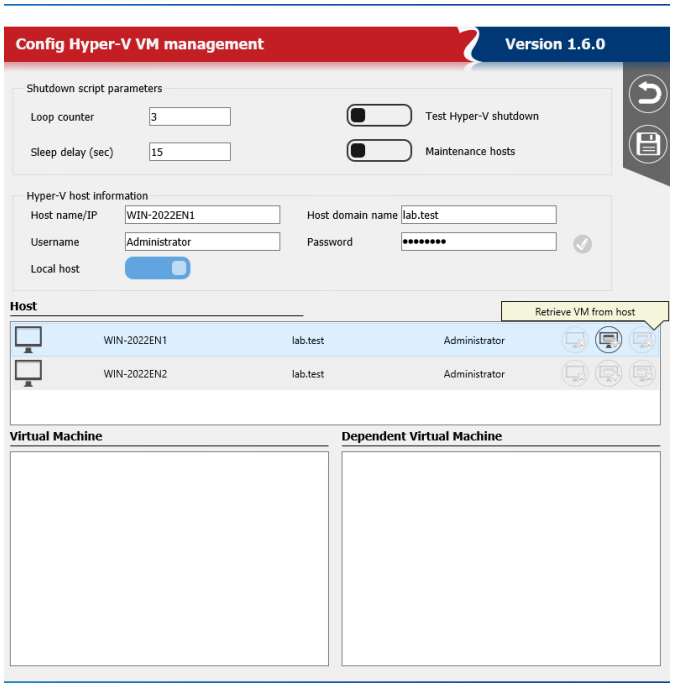
To do so, you need to **open command prompt** and to set the proper directory where UpsConfigHyper-V is running.

Then run the command "**UpsConfigHyperV -d**":

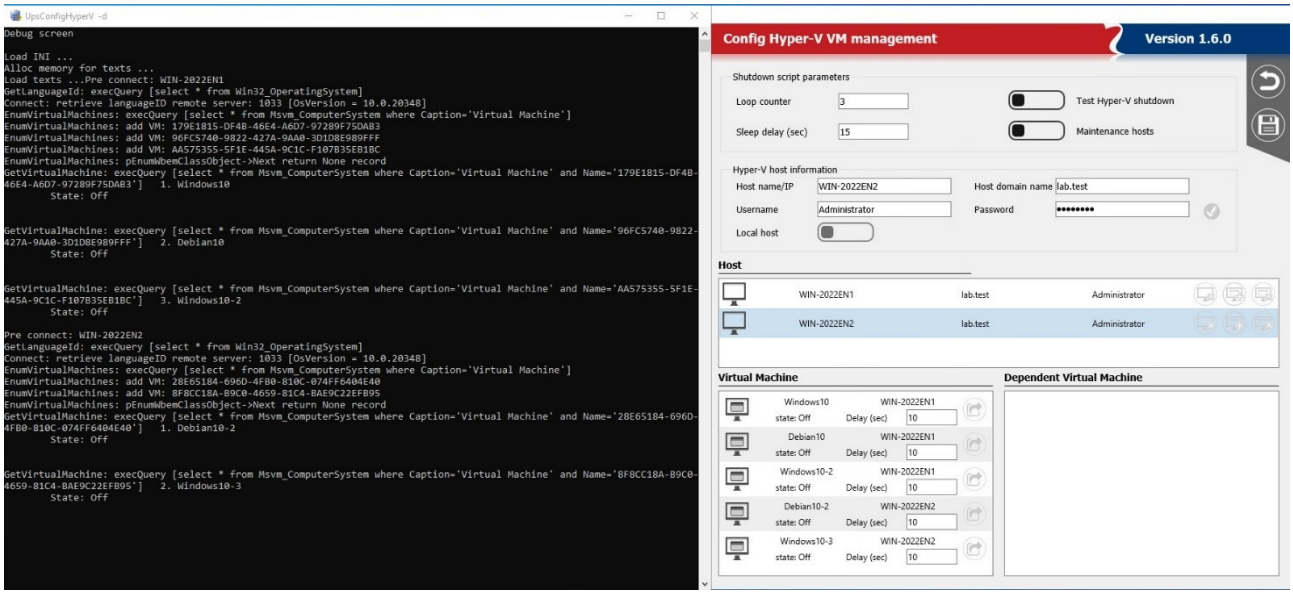


You will get:

Select “Configuring Hyper-V VM Shutdown”, select the host, and select “Retrieve VM from host”:



In the prompt window a log will be written, and the same log will be written in the file “**debugs.log**”. In this file you will be able to determine the reason why the VMs cannot be retrieved. In case of further information, please send the file debugs.log to the service dept.

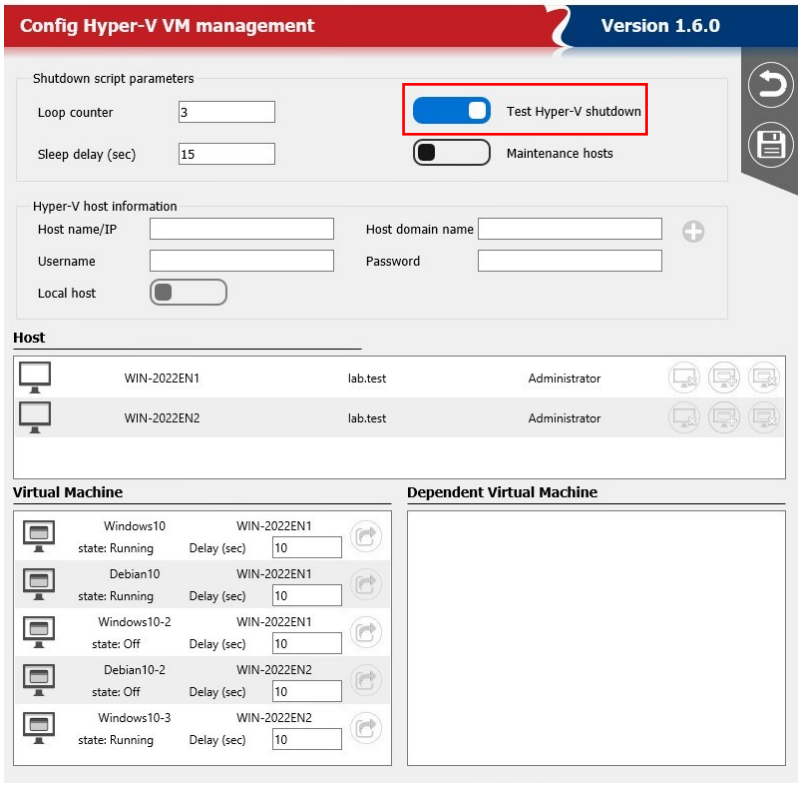


This procedure can be repeated for all the hosts.

3.5 Test Hyper-V shutdown

It's suggested to perform a test when the configuration have been completed.

Enable the "Test Hyper-V shutdown" with the slide and save:



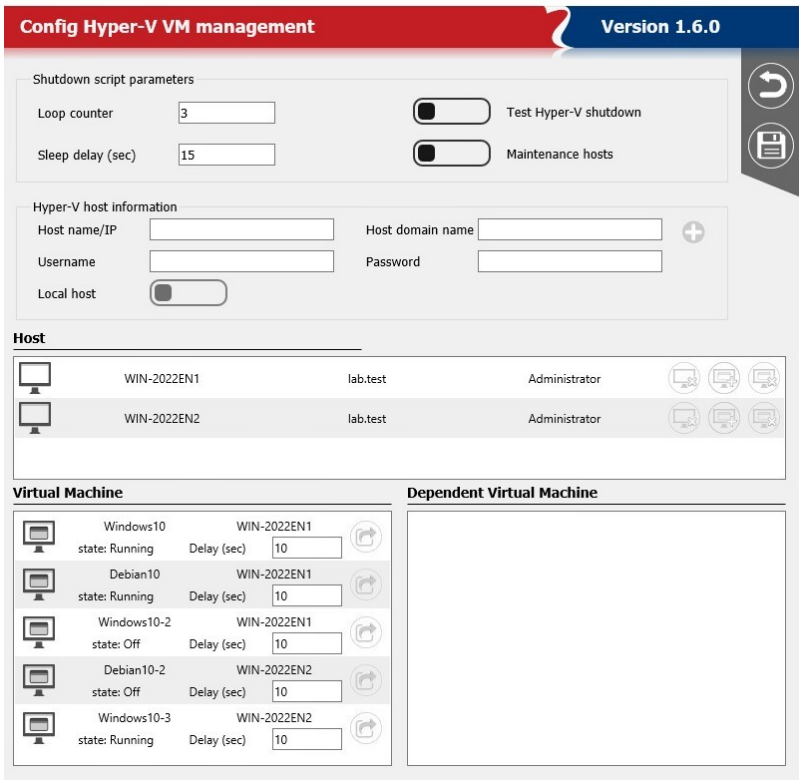
From the directory "**C:\ProgramData\Upsmon**" run the file "**ups_shut.bat**"
The test can be performed ONLY running the file "ups_shut.bat"
The test cannot be performed removing the mains from the UPS.
Once the file has been executed, you will find in the same directory a log file called "**ups.log**" where you can see the result of the test.
Taking as reference the above configuration, here the content of the file ups.log:

```
07.02.2023 12:08:55 Start             : HVshutdownRPS.ps1 [TEST MODE]

07.02.2023 12:08:56 Hostname          : WIN-2022EN1

07.02.2023 12:08:56 Major             : 10
07.02.2023 12:08:56 Minor             : 0
07.02.2023 12:08:56 Build             : 20348
07.02.2023 12:08:56 OS Version        : Microsoft Windows Server 2022 Standard
07.02.2023 12:08:56 OS Language       : en-US

07.02.2023 12:08:56 >>> Shutdown all independent VM(s)..
07.02.2023 12:08:56 Simulate shutdown : Windows10
07.02.2023 12:08:56 Simulate shutdown : Debian10

07.02.2023 12:08:56 Simulate wait/loop: 3 times / 15 seconds

07.02.2023 12:08:56 Hostname          : WIN-2022EN2

07.02.2023 12:08:56 Major             : 10
07.02.2023 12:08:56 Minor             : 0
07.02.2023 12:08:56 Build             : 20348
07.02.2023 12:08:56 OS Version        : Microsoft Windows Server 2022 Standard
07.02.2023 12:08:56 OS Language       : en-US

07.02.2023 12:08:56 >>> Shutdown all independent VM(s)..
07.02.2023 12:08:56 Simulate shutdown : Windows10-3

07.02.2023 12:08:56 Simulate wait/loop: 3 times / 15 seconds

07.02.2023 12:08:56 >>> Shutdown all Hosts without UPS-Host => WIN-2022EN1 ...
07.02.2023 12:08:56 Simulate shutdown : WIN-2022EN2
07.02.2023 12:08:56 Total elapsed time: 0.5819859 seconds

07.02.2023 12:08:56 End               : HVshutdownRPS.ps1 [TEST MODE]
```

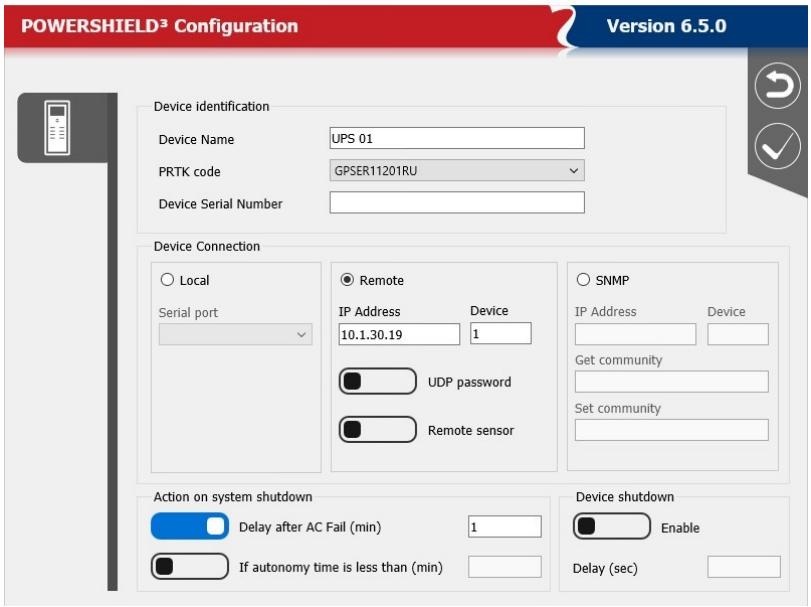
Note: In the log there will be present only the virtual machines that, in the moment of the shutdown, were running.

3.6 Hyper-V shutdown

To perform a real shutdown, the "**Test Hyper-V shutdown**" must be disabled:



Remove the mains on the UPS. The shutdown will be executed for all the virtual machines and for all the hosts.
NOTE: The host where Powershield3 is running (local host) will be shutdown last. To shutdown the host (local host), enable the shutdown in Upssetup:



In the file ups.log you will find the log of the real shutdown:

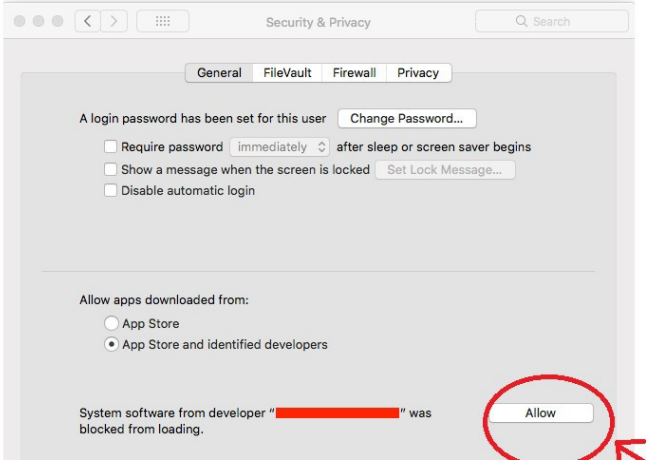
```
08.02.2023 15:52:21 Start             : HVshutdownRPS.ps1 [REAL MODE]

08.02.2023 15:52:21 Hostname          : WIN-2022EN1

08.02.2023 15:52:21 Major             : 10
08.02.2023 15:52:21 Minor             : 0
08.02.2023 15:52:21 Build             : 20348
08.02.2023 15:52:21 OS Version        : Microsoft Windows Server 2022 Standard
08.02.2023 15:52:21 OS Language       : en-US

08.02.2023 15:52:21 no independent VM(s) found for Shutdown!

08.02.2023 15:52:21 Hostname          : WIN-2022EN2

08.02.2023 15:52:21 Major             : 10
08.02.2023 15:52:21 Minor             : 0
08.02.2023 15:52:21 Build             : 20348
08.02.2023 15:52:21 OS Version        : Microsoft Windows Server 2022 Standard
08.02.2023 15:52:21 OS Language       : en-US

08.02.2023 15:52:21 >>> Shutdown all independent VM(s)..
08.02.2023 15:52:21 Execute shutdown : Windows10
08.02.2023 15:52:21 Execute shutdown : Debian10


08.02.2023 15:52:21 Wait 15 seconds, to give VM(s) time for shutdown.
08.02.2023 15:52:36 Wait for shutdown : Windows10
08.02.2023 15:52:36 Wait 15 seconds more..

08.02.2023 15:52:51 >>> Shutdown all Hosts without UPS-Host => WIN-2022EN1 ...
08.02.2023 15:52:51 Execute shutdown  : WIN-2022EN2
08.02.2023 15:52:52 Total elapsed time: 31.1434459 seconds

08.02.2023 15:52:52 End               : HVshutdownRPS.ps1 [REAL MODE]
```

4. How to setup a USB connection over MAC?

4.1 Prior to version HIGH SIERRA 10.13

1. Stop Powershield/Upsmon service from command line by typing:
sudo launchctl stop com.rps.upsmon
and pressing enter key
NOTE - It is recommended to use a user with root permissions

2. Verify if our application is allowed to load by following the steps shown in the screenshots below, it must be allowed:



3. Type **cd /Library/Extensions** and press enter

4. Type **ls** and press enter, for checking that in list appear **USBUPSDriver** items, and if so, do for each **USBUPSDriver** item command sudo kextload as below:

- If USBUPSDriver is present, type **sudo kextload USBUPSDriver.kext** and press enter
- If USBUPSDriver2 is also present, type **sudo kextload USBUPSDriver2.kext** and press enter
- If USBUPSDriver3 is also present, type **sudo kextload USBUPSDriver3.kext** and press enter

…

NOTE – If kextload command not allowed, type **sudo kextutil** for each USBUPSDriver

5. Repeat step 2

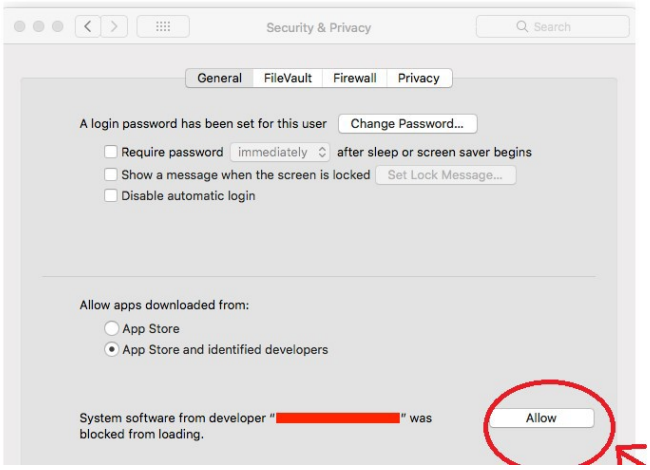
6. If the USB cable is connected, disconnect and reconnect it

7. Restart the Powershield/Upsmon service from the command line by typing:
sudo launchctl start com.rps.upsmon
and pressing enter

4.2 From version HIGH SIERRA 10.13 included

In macOS 10.13 High Sierra, Apple introduced Secure Kernel Extension Loading (SKEL), which builds upon the protections established by System Integrity Protection (SIP). While SIP requires all kernel extensions (KEXTs) to be signed, SKEL adds an additional layer of security by requiring explicit user approval before loading third-party KEXTs.

To proceed, ensure you are working with a clean installation of macOS (not an upgrade). Then, install the required KEXTs by following the steps outlined below:



4.3 Note

Currently, we do not have compatible kernel extensions (KEXTs) available for Apple ARM64-based systems (e.g., M1, M2 chips). This includes the following:

- MacBook Air (2020 and later, with M1, M2 and later chips)
- MacBook Pro (2020 onward, with M1, M2, M3 chips and Pro/Max/Ultra variants)
- Mac Mini (2020 onwards, with M1, M2 and later chips)
- iMac 24" (2021 onward, with M1 chips and later)
- Mac Studio (2022 onwards, with M1 Max, M1 Ultra, M2 Max, M2 Ultra chips)
- Mac Pro (2023 onwards, with M2 Ultra chip)

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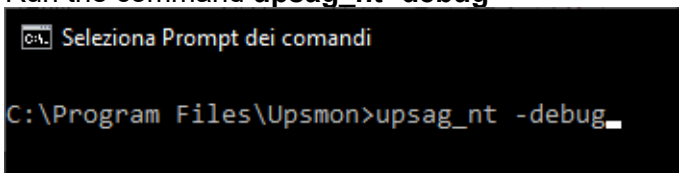
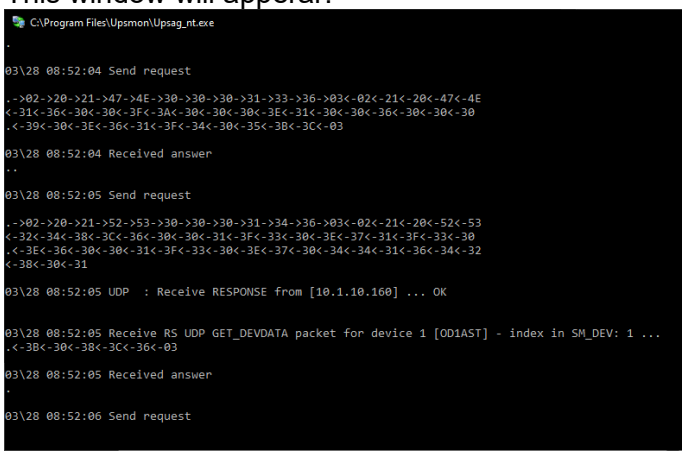
5. How to run upsagent in debug?

If a communication issue occurs, you can run UpsAgent in debug mode to generate a debug file, which should then be sent to the service department for analysis.

1. Open prompt
2. Open C:\Program Files\Upsmon directory or C:\Program Files\Powershield3
3. Run the command **upsag_nt -debug**



This window will apperar:

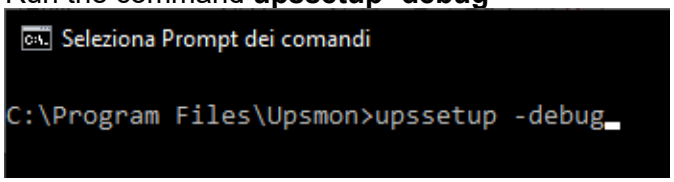


4. Stop the debug after 20 or 30 seconds pressing ctrl+c
5. Open C:\ProgramData\Upsmon
6. Locate the file **debug.log** and send it to your service contact

6. How to run upssetup in debug?

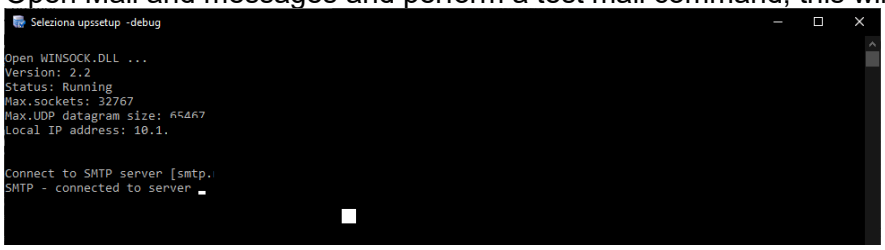
If a mail issue occurs, you can run UpsSetup in debug mode to geenrate a debug file, which should then be sent to the service department for analysis.

1. Open prompt
2. Open C:\Program Files\Upsmon directory or C:\Program Files\Powershield3
3. Run the command **upssetup -debug**



This window will appear:

4. Open Mail and messages and perform a test mail command, this window will appear:



5. Leave the above window running till the end
7. Exit from the UpsSetup window
8. Open C:\ProgramData\Upsmon
9. Locate the file **debugmail.log** and send it to your service contact

Changelog

DocRev	*Data*	*Change*
rev00	28/03/2025	First release
Rev01	22/05/2025	Added comments for MAC version SIERRA 10.31 Chapter 4.1 - Chapter 4.2 - Chapter 4.3