

POWERSHIELD TROUBLESHOOTING GUIDE

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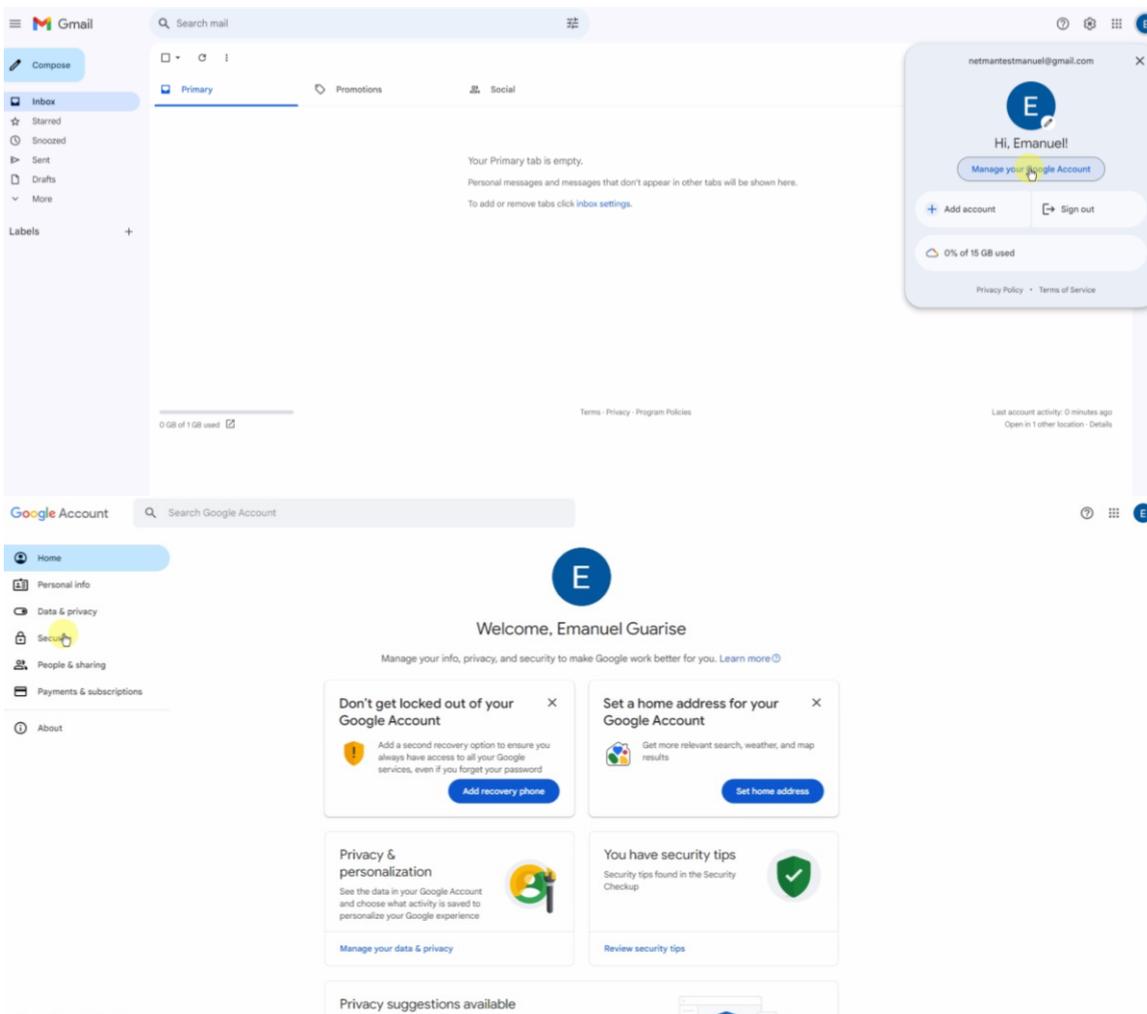
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1. When should I enable the secure connection?

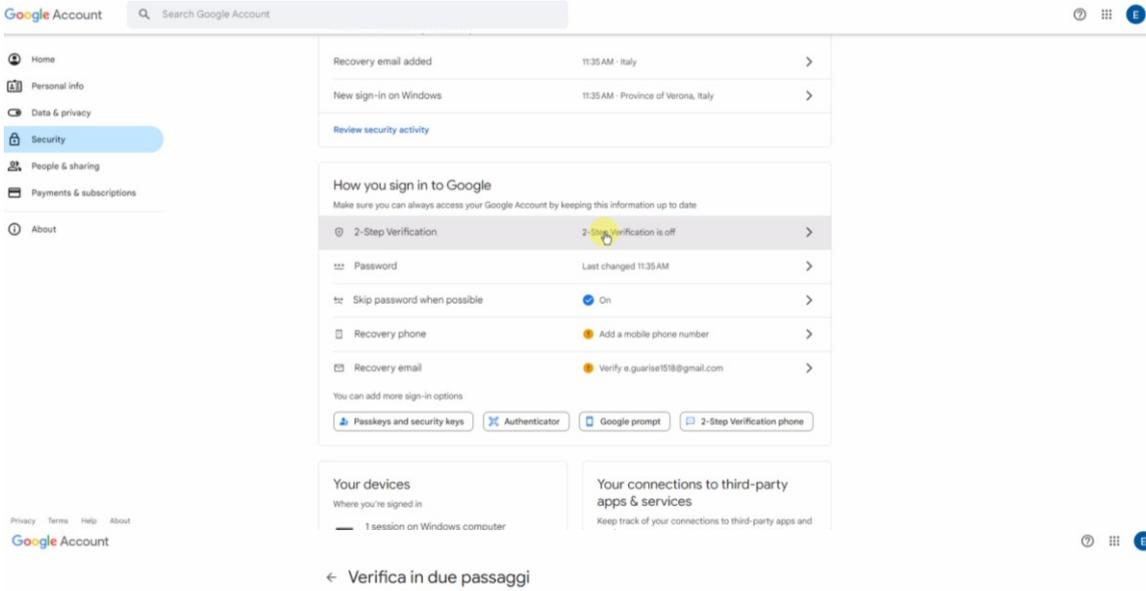
The secure connection field is disabled by default. This function should only be used when using a NetMan certified for cybersecurity. It must not be used in any other cases.

2. What are the SMTP settings with gmail?

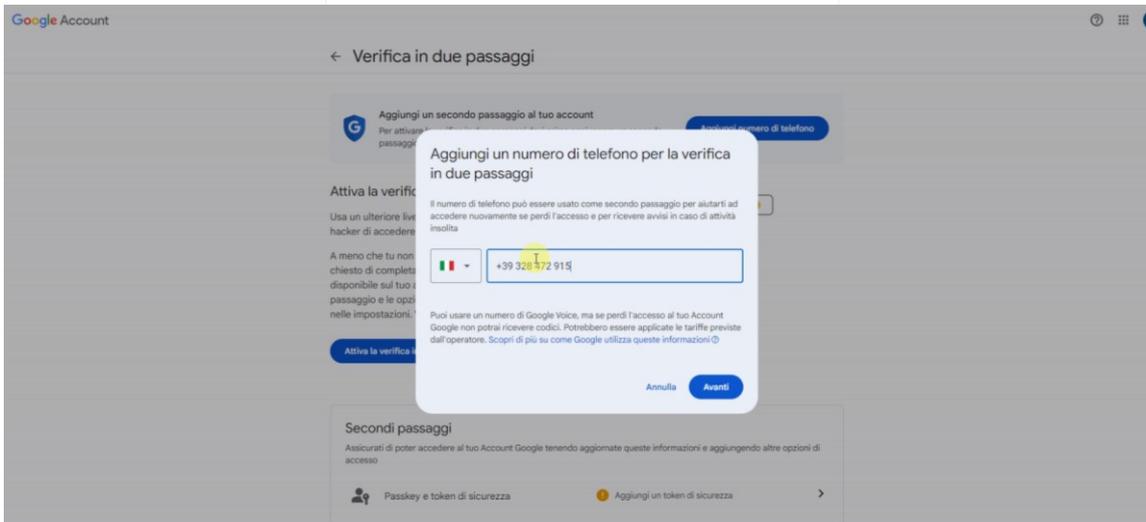
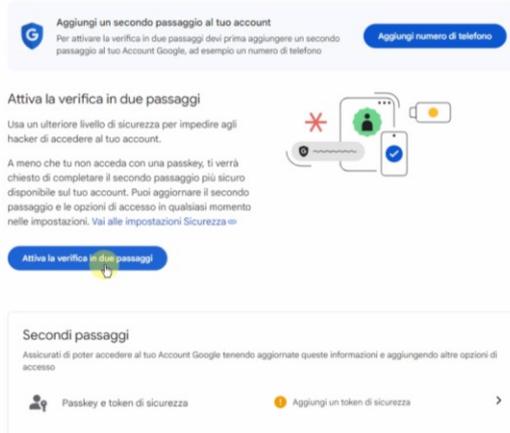
To configure Gmail as the mail provider it is essential to follow specific steps. Firstly, ensure that two-factor authentication (2FA) is enabled on the Gmail account:



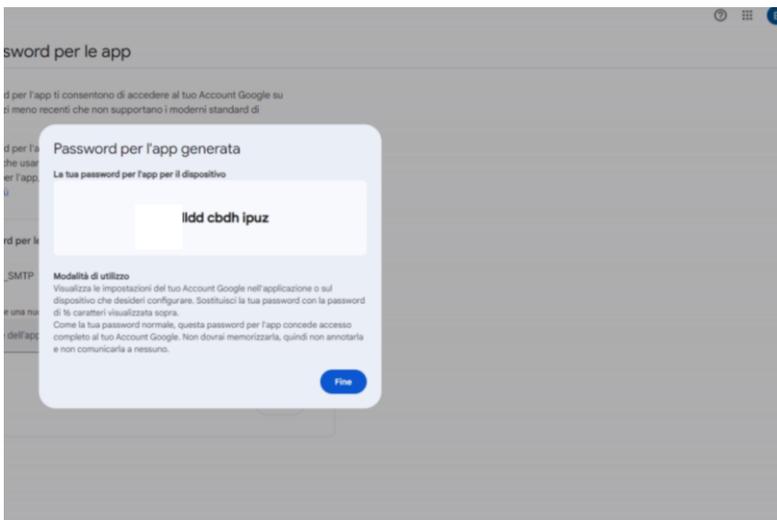
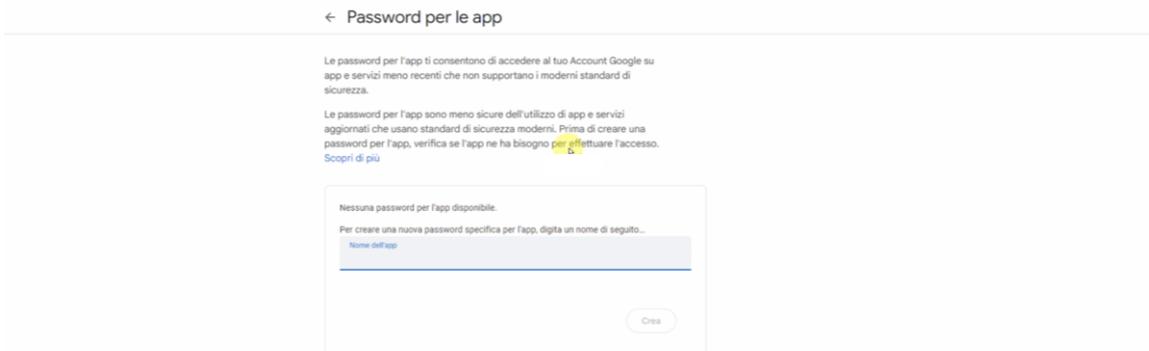
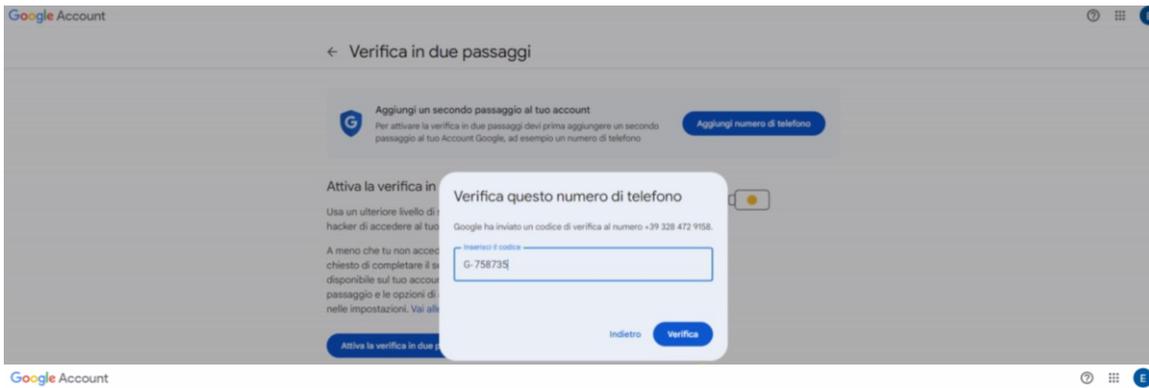
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Please note that the app password generated by Gmail may include spaces. When entering this password into the Powershield, make sure to remove all spaces for proper functionality. Next, use the app password generated in the Gmail account to enable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

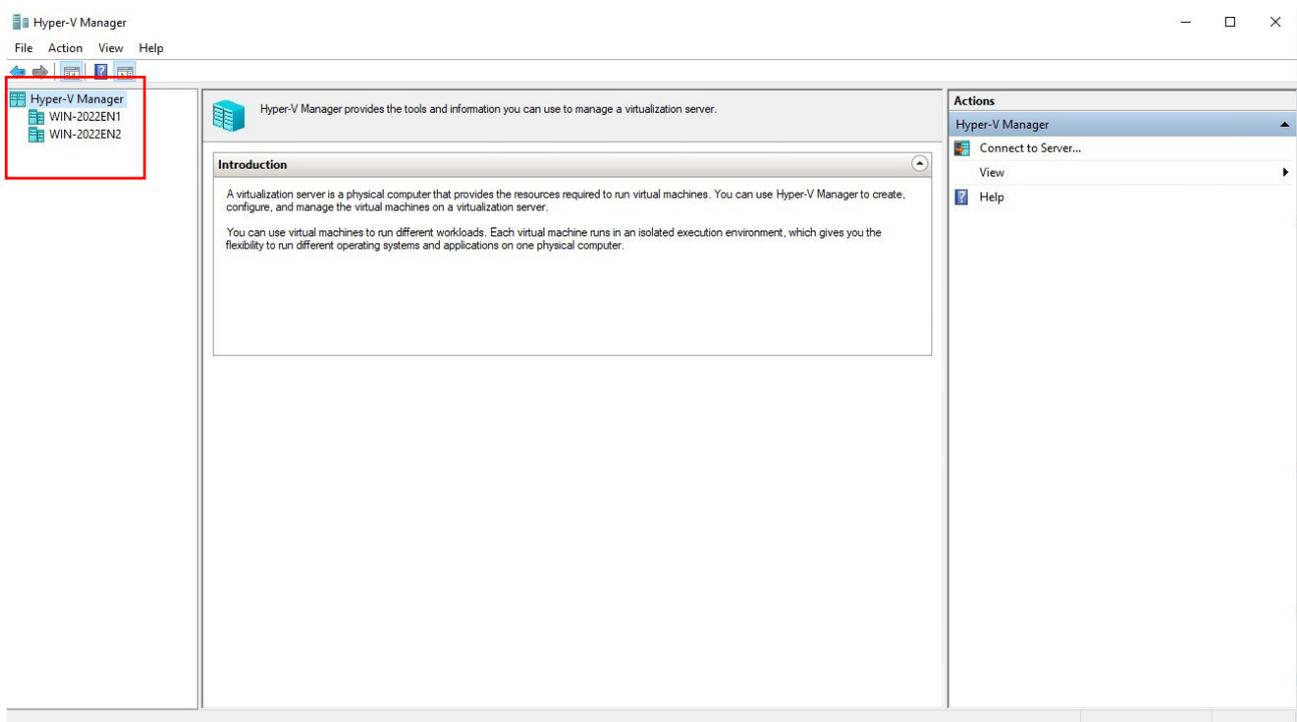
3. Is Powershield compatible with Hyper-V management?

Powershield³ 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 Powershield³ is running (**local host**) and the **slider Local host** has to be **enabled**:

Config Hyper-V VM management Version 1.6.0

Shutdown script parameters

Loop counter: Test Hyper-V shutdown

Sleep delay (sec): Maintenance hosts

Hyper-V host information

Host name/IP: Host domain name: +

Username: Password:

Local host:

Host

Virtual Machine	Dependent Virtual Machine

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:

The screenshot shows the 'Config Hyper-V VM management' interface, Version 1.6.0. The 'Hyper-V host information' section contains the following fields and controls:

- Shutdown script parameters:
 - Loop counter:
 - Sleep delay (sec):
 - Test Hyper-V shutdown:
 - Maintenance hosts:
- Hyper-V host information:
 - Host name/IP:
 - Host domain name:
 - Username:
 - Password:
 - Local host:

A red box highlights the '+' button next to the Host domain name field. Below this section is a 'Host' list with one entry: WIN-2022EN1, lab.test, Administrator. At the bottom, there are empty sections for 'Virtual Machine' and 'Dependent Virtual Machine'.

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:

The screenshot shows the 'Config Hyper-V VM management' interface, Version 1.6.0. The 'Hyper-V host information' section is now filled out with the following values:

- Host name/IP:
- Host domain name:
- Username:
- Password:
- Local host:

The '+' button is still visible. The 'Host' list now contains two entries: WIN-2022EN1 and WIN-2022EN2, both with domain lab.test and Administrator user. The 'Virtual Machine' and 'Dependent Virtual Machine' sections remain empty.

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:

Config Hyper-V VM management Version 1.6.0

Shutdown script parameters

Loop counter: Test Hyper-V shutdown

Sleep delay (sec): Maintenance hosts

Hyper-V host information

Host name/IP: Host domain name: +

Username: Password:

Local host:

Host

	WIN-2022EN1	lab.test	Administrator			
	WIN-2022EN2	lab.test	Administrator			

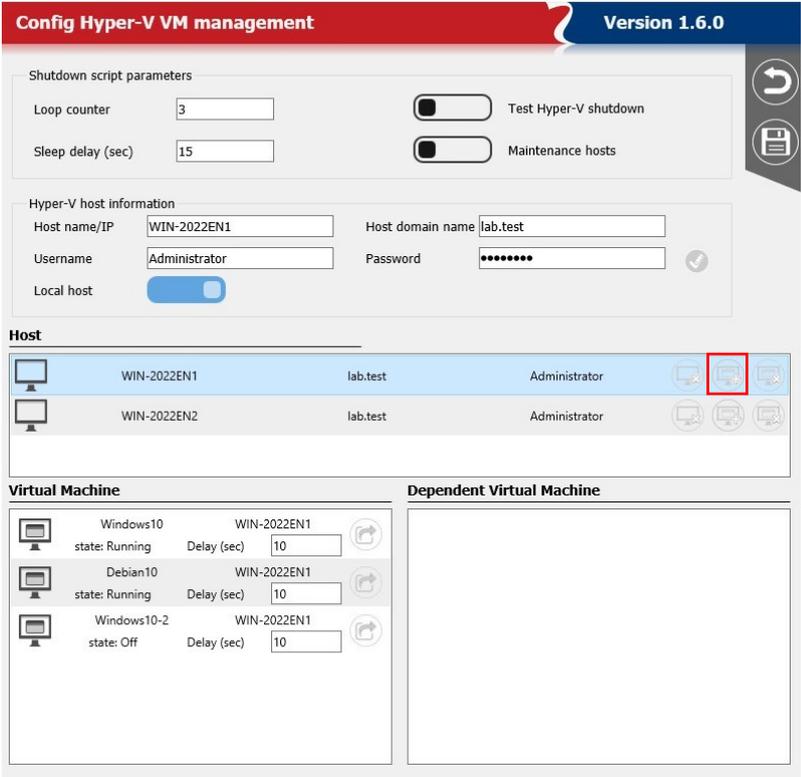
Virtual Machine **Dependent Virtual Machine**

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:



POWERSHIELD_TROUBLESHOOT_rev00

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

The screenshot displays the 'Config Hyper-V VM management' interface, Version 1.6.0. It is divided into several sections:

- Shutdown script parameters:** Includes input fields for 'Loop counter' (3) and 'Sleep delay (sec)' (15). There are two toggle switches: 'Test Hyper-V shutdown' (disabled) and 'Maintenance hosts' (disabled).
- Hyper-V host information:** Includes fields for 'Host name/IP' (WIN-2022EN2), 'Host domain name' (lab.test), 'Username' (Administrator), and 'Password' (masked with dots). A 'Local host' toggle is also present.
- Host:** A table listing hosts. The second host, WIN-2022EN2, is selected and highlighted in blue. It has domain 'lab.test' and user 'Administrator'.
- Virtual Machine:** A table listing VMs. The first two VMs are associated with WIN-2022EN1, and the last three are associated with WIN-2022EN2. Their states are: Windows10 (Running), Debian10 (Running), Windows10-2 (Off), Debian10-2 (Off), and Windows10-3 (Running). Each VM has a 'Delay (sec)' field set to 10.
- Dependent Virtual Machine:** This section is currently empty.

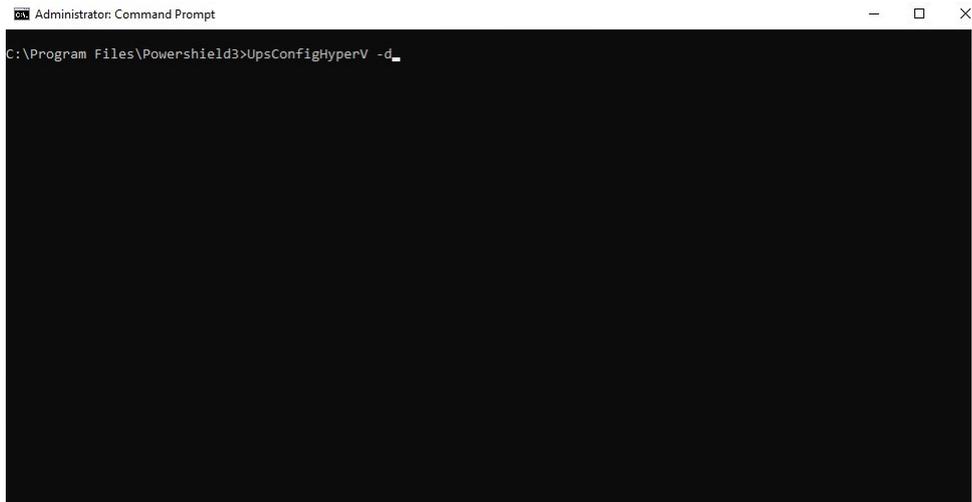
Note: not all the virtual machines are running. Some of the virtual machines are off.

3.4 Retrieving the virtual 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.

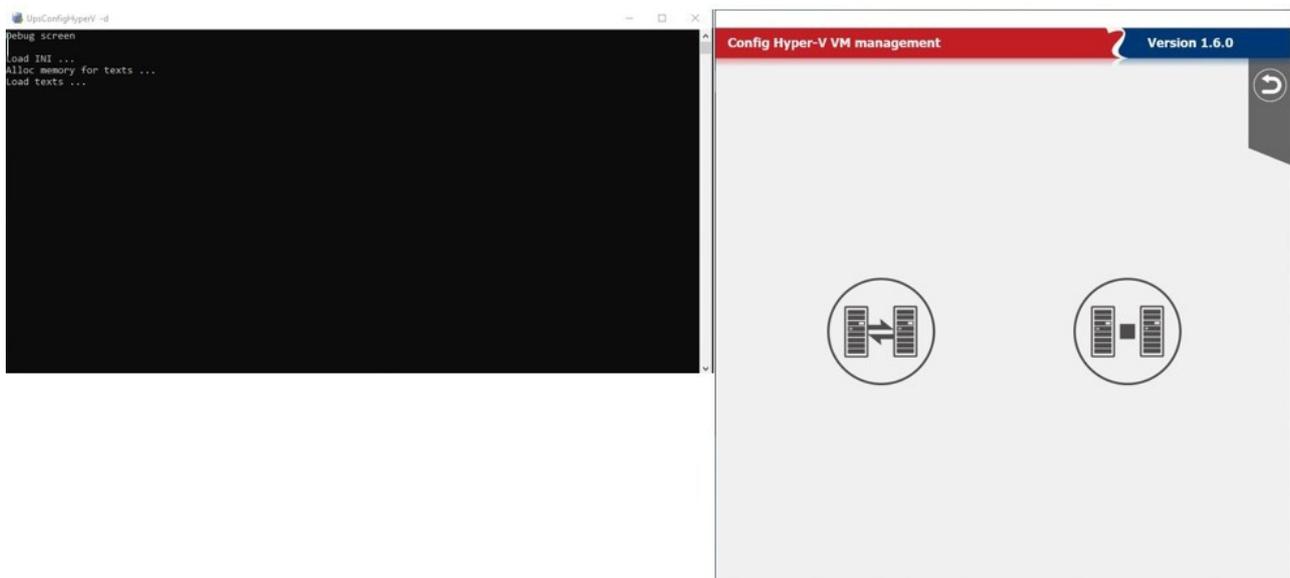
To do so, you need to **open command prompt** and to set the proper directory where UpsConfigHyper-V is running.

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

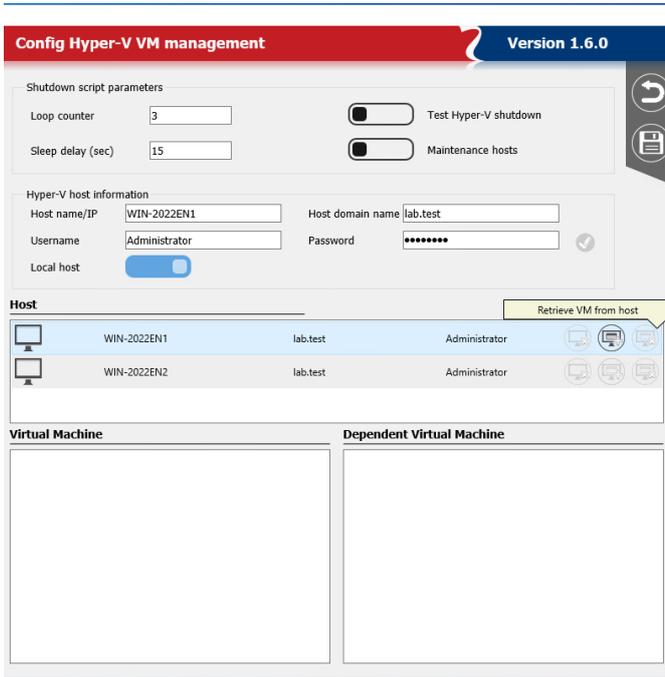


```
Administrator: Command Prompt
C:\Program Files\Powershield3>UpsConfigHyperV -d
```

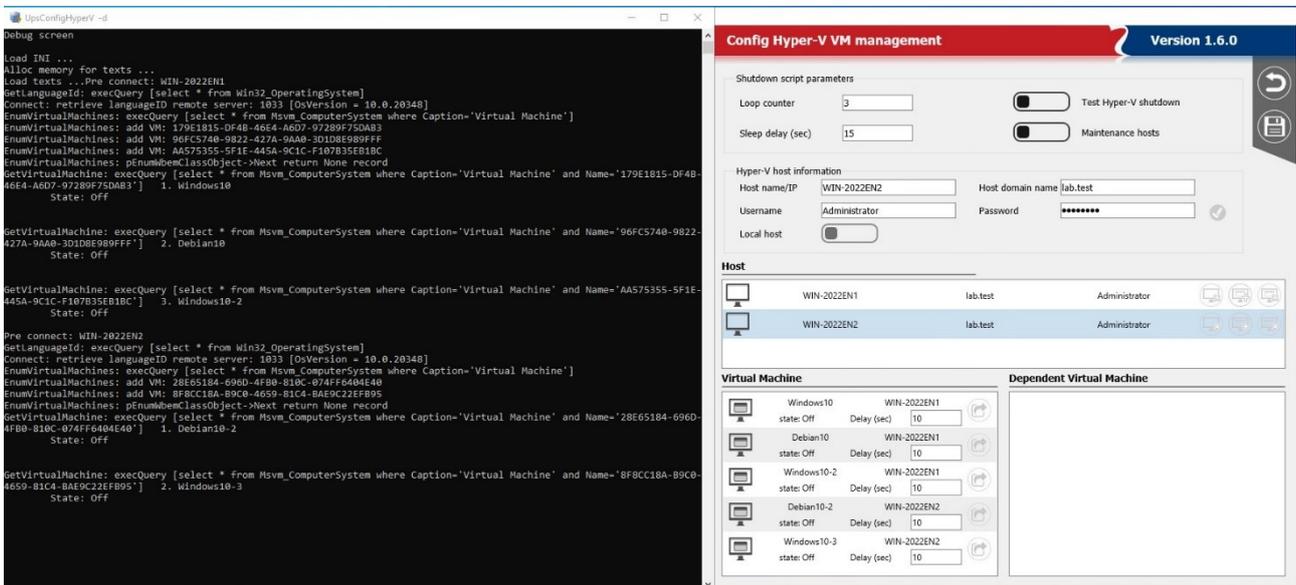
You will get:



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.

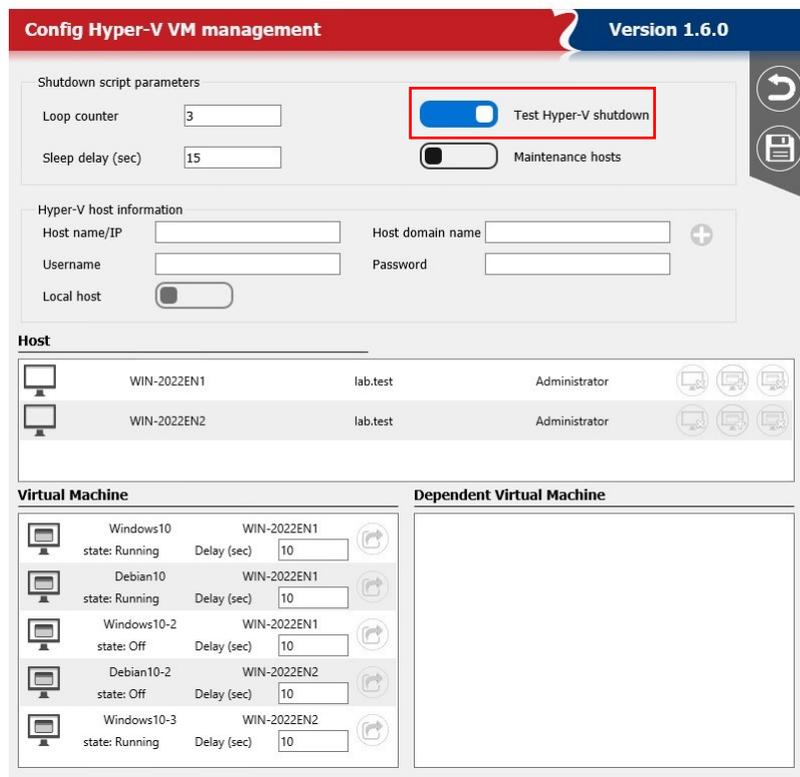


This procedure can be repeated for all the hosts.

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:\ProgramDataUpsmon**” 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

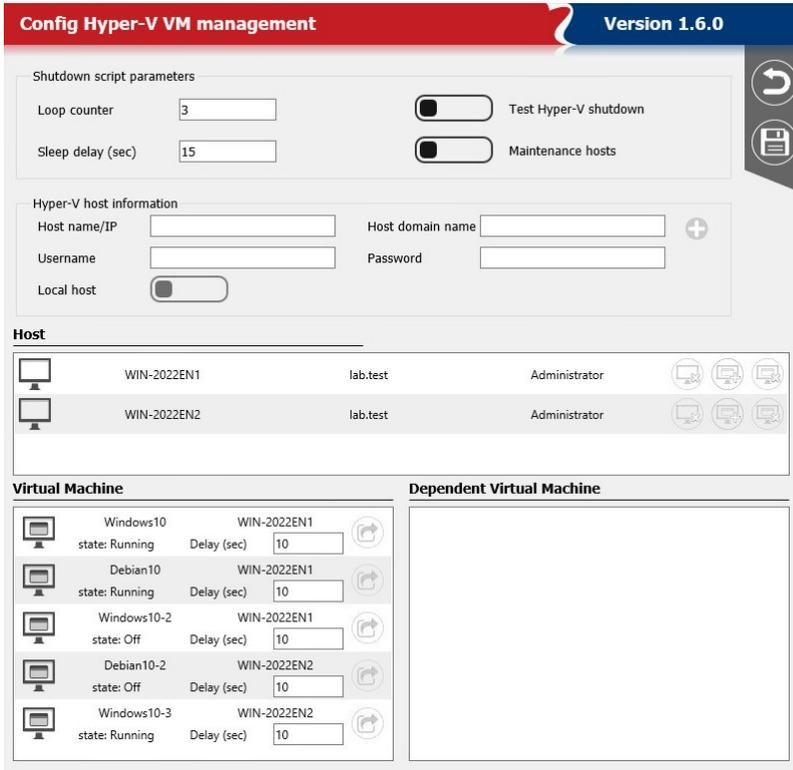
07.02.2023 12:08:56 >>> Shutdown all Hosts without UPS-Host => WIN-2022EN1 ...
07.02.2023 12:08:56 Simulate shutdown : WIN-2022EN2
07.02.2023 12:08:56 Total elapsed time: 0.5819859 seconds

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.

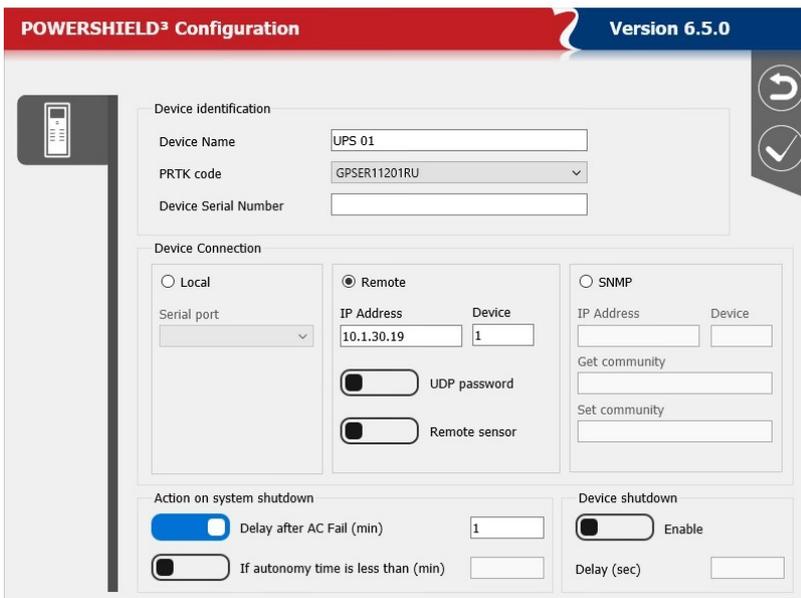
3.6 Hyper-V shutdown

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:

POWERSHIELD_TROUBLESHOOT_rev00

```
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?

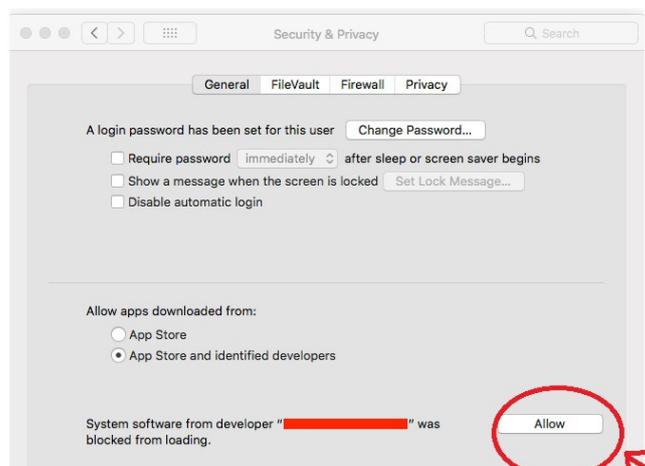
1. Stop Powershield/Upsmon service from command line by typing:

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

...

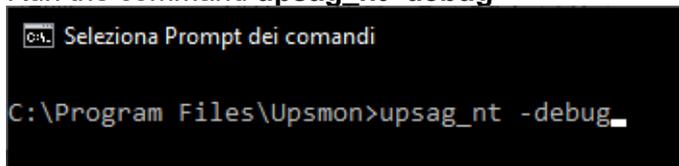
NOTE – If kextload command not allowed, type **sudo kextutil** for each USBUPSDriver

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
-

5. How to run upsagent in debug?

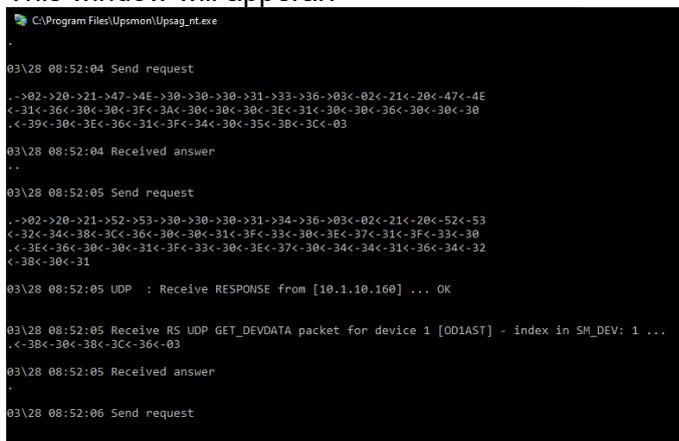
If a communication issue occurs, you can run UpsAgent in debug mode to generate a debug file, which should then be sent to the service department for analysis.

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



```
C:\Program Files\Upsmon>upsag_nt -debug_
```

This window will appear:



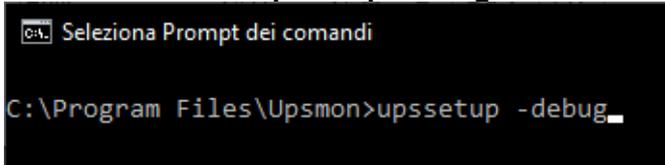
```
C:\Program Files\Upsmon\Upsag_nt.exe
.
.
03\28 08:52:04 Send request
.-->02->20->21->47->4E->30->30->30->31->33->36->03<-02<-21<-20<-47<-4E
<-31<-36<-30<-30<-3F<-3A<-30<-30<-30<-3E<-31<-30<-30<-30<-30<-30
.<-39<-30<-3E<-36<-31<-3F<-34<-30<-35<-38<-3C<-03
.
03\28 08:52:04 Received answer
..
.
03\28 08:52:05 Send request
.-->02->20->21->52->53->30->30->30->31->34->36->03<-02<-21<-20<-52<-53
<-32<-34<-38<-3C<-36<-30<-30<-31<-3F<-33<-30<-3E<-37<-31<-3F<-33<-30
.<-3E<-36<-30<-30<-31<-3F<-33<-30<-3E<-37<-30<-34<-34<-31<-36<-34<-32
<-38<-30<-31
.
03\28 08:52:05 UDP : Receive RESPONSE from [10.1.10.100] ... OK
.
.
03\28 08:52:05 Receive RS UDP GET_DEVDATA packet for device 1 [001AST] - index in SM_DEV: 1 ...
.<-38<-30<-38<-3C<-36<-03
.
03\28 08:52:05 Received answer
.
.
03\28 08:52:06 Send request
```

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 generate a debug file, which should then be sent to the service department for analysis.

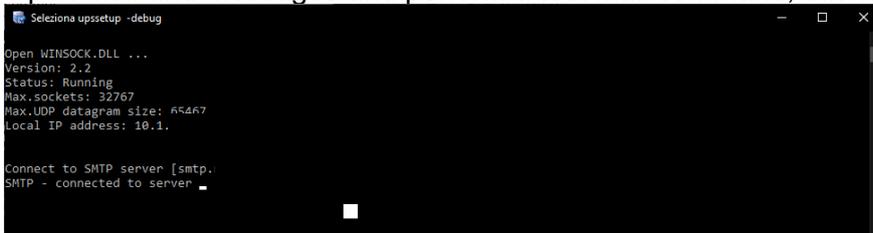
1. Open prompt
2. Open C:\Program Files\Upsmon directory or C:\Program Files\Powershield3
3. Run the command **upssetup -debug**



This window will appear:



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



```

Open WINSOCK.DLL ...
Version: 2.2
Status: Running
Max.sockets: 32767
Max.UDP datagram size: 65467
Local IP address: 10.1.

Connect to SMTP server [smtp.
SMTP - connected to server
    
```

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

<i>DocRev</i>	<i>Data</i>	<i>Change</i>
rev00	28/03/2025	First release