hyper-V

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1   Introduction

Here we spend some words on the virtualization topic

2   How many we have out there?

Here follows a list of the virtualization tools available on the internet to download and get to work with

- Hyper-V

- VMWare

- VirtualBox

- Qemu

3   Hyper-V

Here we focus specifically on hyper-V

3.1   What it is

Hyper-V is a *hypervisor-based* virtualization technology. Hyper-V uses the Windows hypervisor, which requires a physical processor with specific features. In most cases, the hypervisor manages the interactions between the hardware and the virtual machines.

3.1.1   hypervisor

A hypervisor is computer software or hardware that enables you to host multiple virtual machines able to run its own programs working optimally on a single piece of computer hardware.

3.1.2   PROs and CONs

Might not be relatively easy to install and set up especially on Windows 10 Home Edition.

You can have software running at a pretty decent performance as if it was not emulated at all

3.2 Installation on Windows 10 Home Edition

Unfortunately, the Hyper-V feature is only available in Windows 10 Professional and Enterprise editions. You can't install it on Windows 10 Home Edition by default unless you go through some steps.

3.2.1 Does your system support virtualization?

Before moving forward, we need to check if our system supports virtualization. Hardware virtualization is required for Hyper-V to function correctly. Otherwise, you can use other virtualization platforms like Virtualbox and VMWare.

There are four basic requirements for Hyper-V to be installed on a Windows 10 computer:

- VM Monitor Mode Extensions

- Virtualization enabled in firmware

- Second level address translation

- Data execution prevention

You can check all these requirements by opening the Command Prompt by running *cmd* and running the systeminfo command. You can check the Hyper-V requirements section.

3.2.2 Enable Hyper-V in Windows 10 Home

You need to run "optionalfeatures" and tick the *Hyper-V Management Tools* and *Hyper-V Platform*

4 network tester