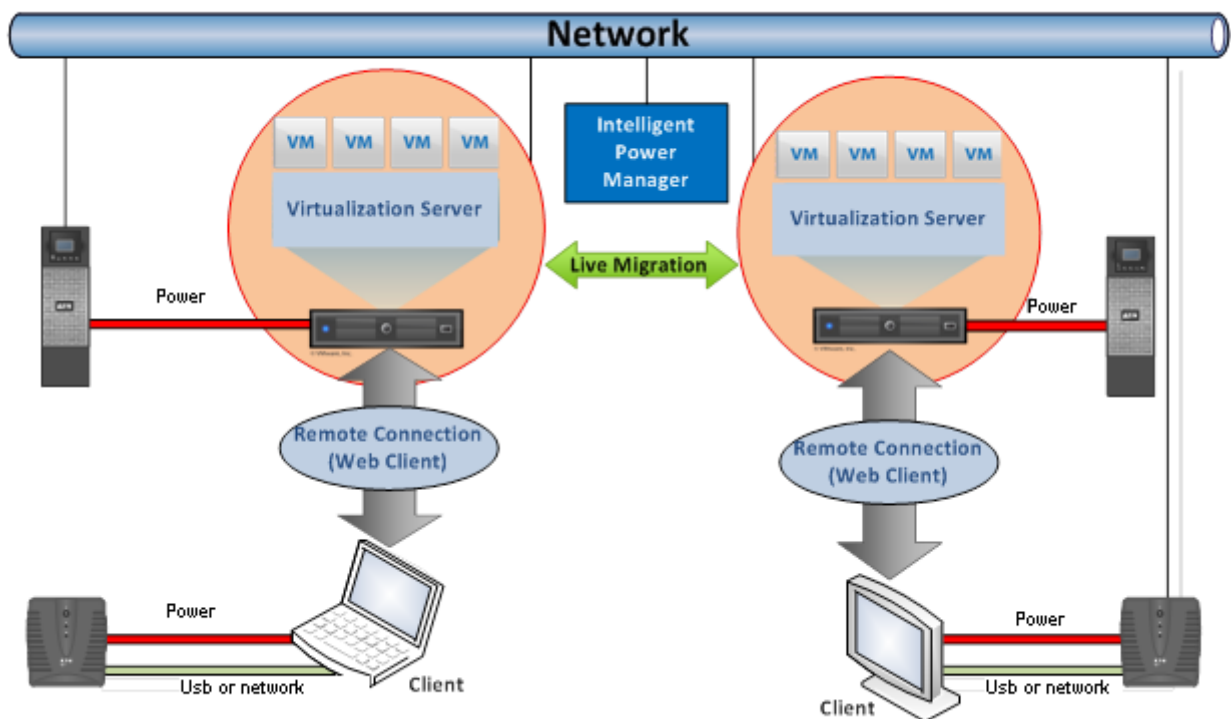


Using Intelligent Power® Manager (IPM) & Intelligent Power® Protector (IPP) on Virtual Desktop Infrastructure (VDI)





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1. Purpose of the document

Both current Eaton's software solutions like Intelligent Power Protector (IPP) or Intelligent Power Manager (IPM) are compatible with VDI environment.

VDI environment is considered as a software application that is compatible with existing IPP and IPM features under many virtualization environments (VMware, Hyper-V, Xen...)

The goal of this document is to explain how existing IPM or IPP can protect the VDI environment.

2. Virtual Desktop Infrastructure

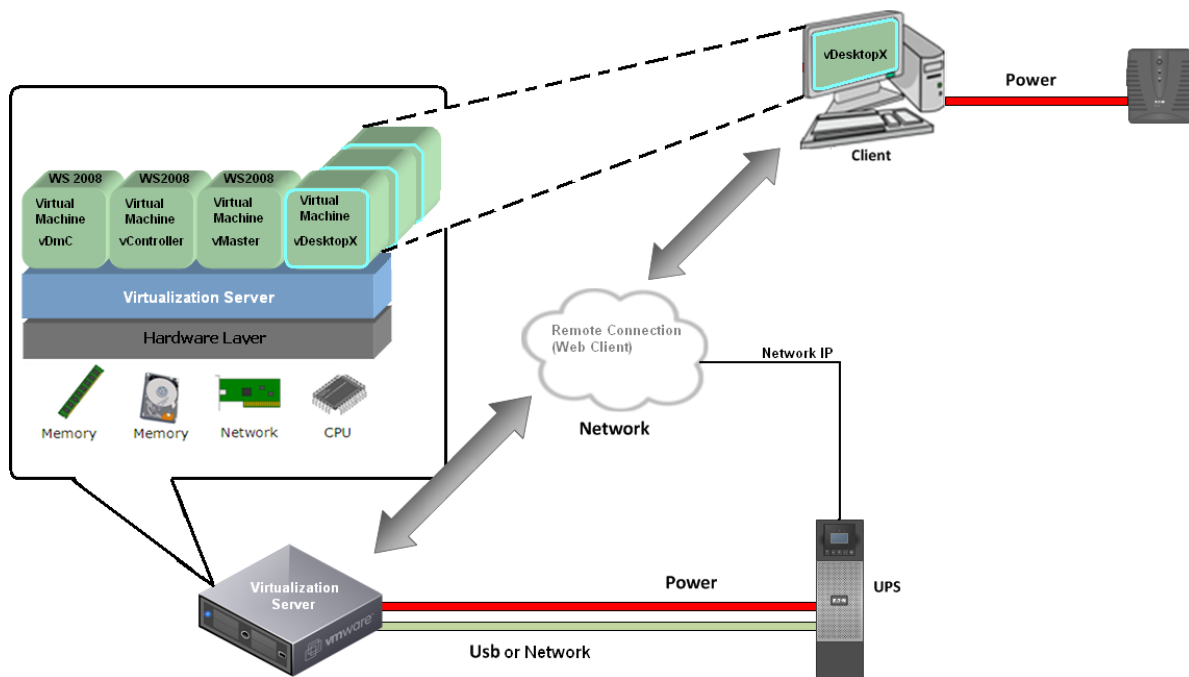
VDI Concepts

Virtual Desktop Infrastructure (VDI) is the server computing model enabling desktop virtualization, encompassing the hardware and software systems required to support the virtualized environment.

VDI is not a product exclusive to VMware. Other VDI vendors include Citrix XenDesktop & Kidaro (now owned by Microsoft).

With VDI, virtual desktops are provided by enterprise virtualization servers running products like VMware ESX, Microsoft Hyper-V, and Xen Server. With the addition of the VDI products, these desktops can be dynamically created, pooled & shared, or even accessed from a GUI menu, over a web page.

You can see below an example of a connection between a client and the virtual desktop infrastructure.



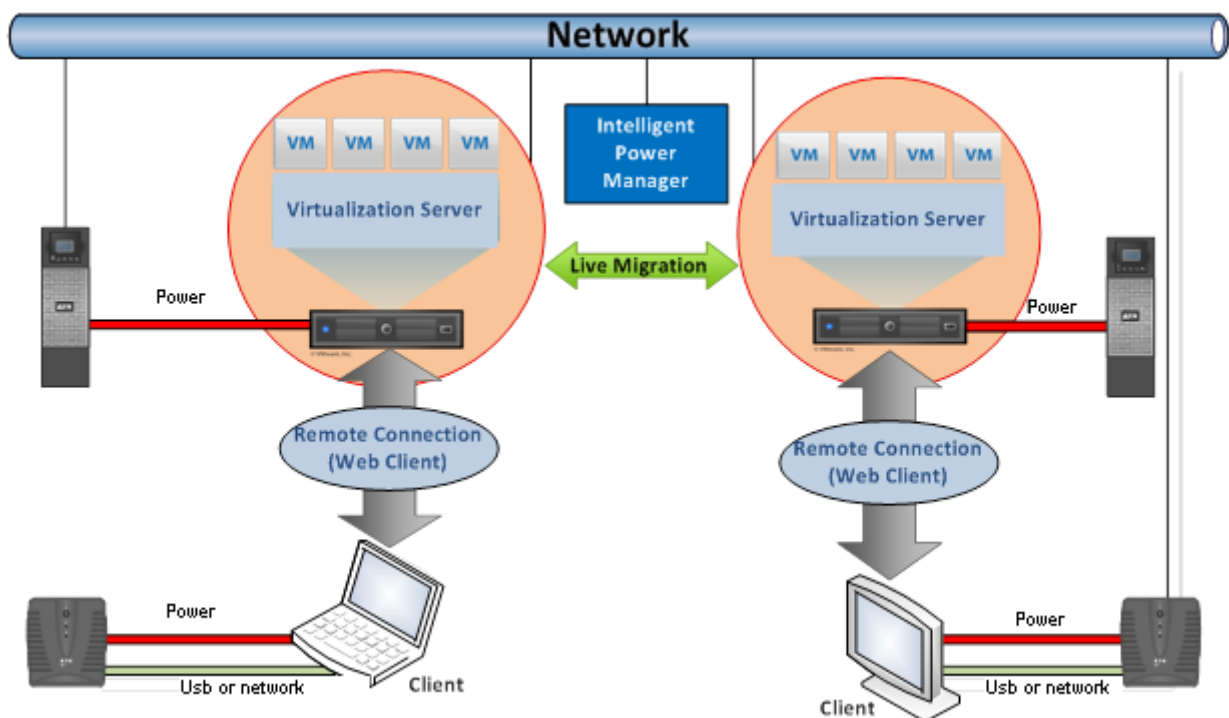
VDI Architecture with IPM & IPP

Eaton's software allows the power protection of "Virtualization Server" and "Client", if both are connected to Eaton's UPSs.

Eaton provides software solutions to protect VDI environment. A typical architecture is illustrated below.

You have following two options:

- You can choose to install **local shutdown** for the Virtualization Servers:
 - IPP installed on each Virtualization Server provides local graceful shutdown.
 - IPP installed on each Client provides local graceful shutdown.
- Or you can choose to install **remote shutdown** for the Virtualization Servers:
 - IPM installed on any server trigs VM's live migration and remote shutdown for all the Virtualization Servers. (as illustrated on next diagram)
 - IPP installed on each Client provides local graceful shutdown.



For more information about VDI products:

<http://www.citrix.com/> (Product Xen Desktop).

<http://www.vmware.com/> (Product VMware View).

3. Eaton's solutions with IPM & IPP

IPM & IPP presentation

- IPM software discovers and supervises Eaton's UPSs and ePDUs connected across a network either by means of a card or proxy. It supervises the remote servers hosting IPP software. It also provides local computer graceful shutdown. Eaton's IPM software interface can be accessed remotely using a web browser.
- IPP software provides local computer graceful shutdown. IPP software interface can be accessed remotely using a web browser.

Installation and Configuration

The Intelligent Power Software Suite (IPSS: IPM & IPP) and his documentation can be found on Eaton website (<http://pqsoftware.eaton.com/>)

Virtualization platform supported

Eaton's software allows the protection on virtualized environment like VMware, Microsoft or Citrix please refer to the documentation on the website

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