

IBM Servers and Storage Demos IBM Virtual Client Solution

The IBM Virtual Client Solution uses server hosted virtual machines to deliver an end user desktop environment to a range of client hardware devices. In this demo, we will take a quick look at how VMware can be used to host end user desktops on a thin client device.

Let's first look at the back end server.

Here, we can see the VMware Virtual Center console showing a number of end user virtual machines which have been defined. In this simplified scenario, every end user has their own custom virtual machine.

From this console, we can see that Bob is not currently logged on so his virtual machine is inactive, or "suspended". We can also see the current host server assigned for Bob and the other virtual machines.

Let's see what happens when Bob needs to access his desktop.

At the moment, Bob is using this Wyse thin client device pictured in the upper right hand corner. After Bob enters his username and password at this device, the connection broker software will confirm his authority, match Bob to his assigned virtual machine, and call VMware to activate the virtual machine.

We can see the result on the administrator's screen, as the Virtual Center console indicates that Bob's virtual machine is now being power on.

The thin client device then connects to the virtual machine and delivers Bob's desktop environment through a remote desktop connection.

Since this desktop environment is a virtual machine hosted by VMware, features such as VMotion are available to move this workload from one server to another. Here, we can see the administrator on their screen, performing a manual migration of Bob's virtual machine from blade1 to blade 2.

With additional tools from VMware and IBM, this migration could also happen automatically in order to balance server performance or to shift workloads in anticipation of potential hardware problems.

Notice that the end user screen in the background is unaffected by the workload shifting from one server to another.

One of the advantages of a virtual hosted client, is the ability for an end user to switch client devices while their desktop environment remains active. In this example, Bob has a couple open applications on his desktop when he disconnects from his current thin client device.

At a later time, Bob needs to reconnect to his desktop. This time, however, he is using a different thin client device – the mobile Devon IT SafeBook. The login screen of the SafeBook

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looks a little different from the other device, but once the connection to Bob's virtual machine is complete, he is returned to his desktop environment – just as he left it.

By combining the power of server virtualization with the flexibility of thin client devices, the IBM Virtual Client Solution offers new possibilities to match end user needs with the right computing resources.