FUJITSU

Product Insights
Why KVM over IP?

PRIMERGY S2/S3 Console Switches: TOP of the Rack

- ■ Centralized management of heterogeneous datacenter assets
- ■ Transparent and easy to use from one single point of view instead of having a single IP address per asset and individually setting up
  - ✓ Connect to your Server...
  - ✓ Connect to your Rack...
  - ✓ Connect to your data center...

Security
It's hard to maintain security when many people need access to the server room. With KVM over IP the doors to the server room can be locked. The Fujitsu KVM solution can authenticate against Active Directory and thereby allow the right people to connect to the right servers. Implement logical security and only the correct people will get access to the resources they are managing. Implement physical security and nobody will get a chance to physically touch the IT infrastructure that keeps the company running.

Eliminate mistakes
Is the fileserver located in the same rack as the exchange server? What happens when somebody makes a mistake and pulls out the wrong cables? What happens if somebody in the server room slips on a cable and pulls out the power for a raid array or router?

Lower time to problem resolution
Imagine a problem appearing on a business critical server at 2am on a Saturday morning. Normally the administrator would drive to the company where he can finally start trying to figure out what the problem is. This will take time and it's not efficient. With Remote Access this significantly lowers the time to resolution and also the costs.

Virtual Media also works over IP
With Virtual Media an administrator can boot a remote server from a CD in a laptop. The Fujitsu KVM Virtual Media is fast – about the speed of a 15 x CD-ROM, so it's no problem to transfer large files or even to install an OS remotely.

Cost effective and time efficient
KVM over IP allows for the same level of access as if the administrator was standing right in front of the rack. This access even reaches down to changing server BIOS settings and loading a CD /memory stick. The whole IT infrastructure can be controlled from one central location and this is not limited to the servers. Also network switches, serial devices e.g. are controlled centralized.

Comparison of remote solutions - KVM vs. SW/HW solutions

Software:
Runs on top of the OS which runs on top of the server hardware. When something goes wrong, the chances are that the software which runs on top of everything else will not work properly.

Onboard solution:
Not for heterogeneous IT infrastructure.
Examples of these are:

- FTS iRMC
- Dell's DRAC
- IBM's RSA
- HP's iLO

The attractiveness of the above solutions is that they often come with the servers for free or at low cost. The other is that they offer functions like Virtual Media and power control in addition to remote access. They are also hardware solutions which enable the same as KVM – BIOS level access to the server, independent of the OS.

Benefits of KVM comparing with other hardware solutions are:

IP address space:
Each server will require an extra IP address to allow for remote access to the server. With a digital FTS KVM switch the customer will only need one extra IP address for every 16 servers.

Network ports:
That each server will require an extra IP address which eats up address space is a headache, but what's worse is that the customer will need somewhere to plug in all these extra network cables.
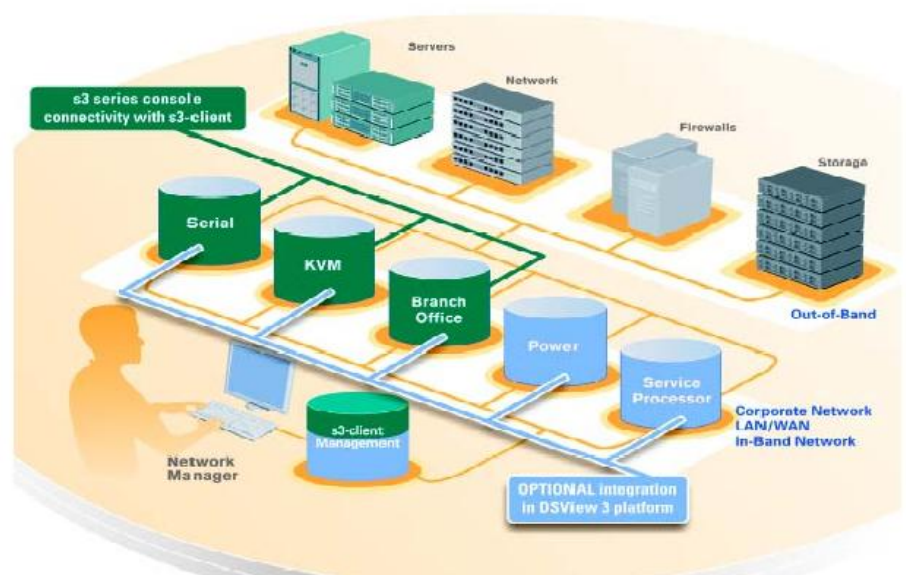All of a sudden there is an actual impact in the form of hardware cost since each server requires an extra network port.

No cross-vendor solution
Few customers rely on only one vendor for their IT infrastructure. Most have some Fujitsu, some Dell, some IBM and maybe a few SUN servers. With the built-in hardware solutions each brand will have to be managed separately since the Dell DRAC only works with
Dell servers and the IBM RSA only work with IBM servers, and so forth.
Here a KVM switching solution plays an important role as its independent of the target server hardware and OS.
This means a single point of access, but not of failure for the customer. This spells out ease of management for any customer who chooses to implement the Fujitsu KVM switching solution.

Further Information
can be found at http://fujitsu.avocent.com
And on the Fujitsu Technology Solutions' Extranet pages:
https://partners.ts.fujitsu.com/com/products/servers/primergy/rackcomp/components/switches/Pages/default.aspx