Remote Server Management

Software Based vs. Embedded Service vs. KVM-over-IP Switches

Important facts to consider when choosing your tools

Raritan®

A brand of legrand®
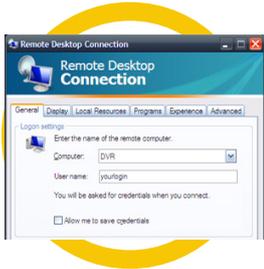
Raritan
A brand of **legrand**

1 Remote Server Management Overview

As an IT administrator, Lab or Network Manager, you need to access and control multiple computer systems, perhaps widely dispersed, for routine maintenance as well as for real-time troubleshooting and repair. The tools must enable you to work quickly and securely to access any system regardless of type, brand, or location.

Remote server management tools fall into three general categories:

Software-based remote access systems
(e.g. RDP, VNC)

Computer embedded service processors
(e.g. iLO, DRAC and RSA)

Out-of-band KVM-over-IP switches
(e.g. Dominion KX3 from Raritan)

While these categories merely describe how the tool itself is physically deployed, it is critical to understand the inherent advantages and limitations of the tools in each category in getting the job done.

How to make the best choice?

Raritan®
A brand of legrand®

2 Four Criteria for Selecting your Remote Server Management tool

Fortunately, these tools have been deployed for several years, so there is an abundance of real life experience and data to draw upon. There are four basic criteria to always consider when selecting a Remote Access and Control tool.

Is it..?

Reliable   ✓   will my remote access and control work when I need it most?

Secure   ✓   is my remote access and control tool safe from hackers and cyber attack?

Manageable   ✓   is my remote access and control tool easy to manage and maintain?

Power   ✓   can I access and control all my devices wherever they are and perform all my day-to-day tasks?

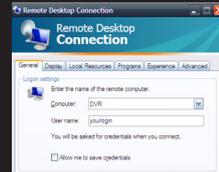How does each of the three categories stack up?
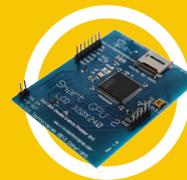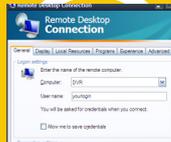
③ Software-Based Remote Server Management Systems

Overview

- Software applications installed on each target computer
  - Typical systems in this category include RDP, VNC, pcAnywhere
  - Can be free to acquire – e.g. RDP, VNC
  - No hardware to install

But consider …

- Software must be installed and maintained on every computer to be accessed
- Requires the Target Computer OS and production network to be running properly
- Does not provide BIOS-level access, which may be required for reboot or other emergency action
- Competes with production applications for system resources
- Well-documented security risks.
  - Poorly configured remote access is responsible for 62% of security breaches
  - 83 million open VNC ports and 230 million open RDP ports

Bottom Line

- Although commonly used, it has limited capabilities and presents security issues

4 Embedded Service Processors
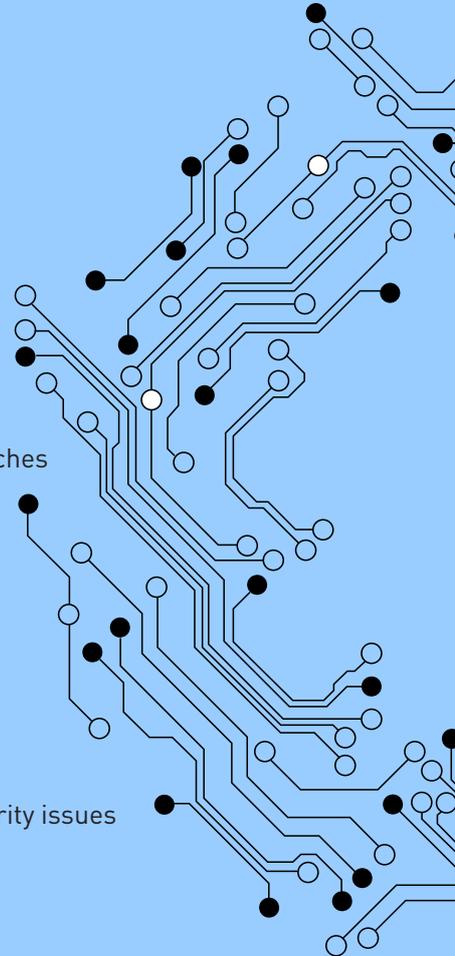
Overview

- Hardware-based remote access built into the computer
    - Examples: HP iLO, Dell DRAC, IBM RSA
    - Provides BIOS level access, virtual media and power control
    - Can be an out-of-band solution using a separate LAN port

But consider …

- Must pay a license fee for advanced features standard on KVM-over-IP switches
- Requires an additional LAN port for out-of-band access
- Difficult to manage 100's of service processors
- Nightmare to manage with multi-vendor systems and service processors
- Recent research has highlighted shocking vulnerabilities
    - Possible to login with no authentication, cleartext passwords, etc.
    - Department of Homeland Security issued CERT Alert (TA13-207A)

Bottom Line

- Good performance, but hidden costs, difficult to manage and presents security issues

Raritan®
A brand of legrand

5 KVM-over-IP Switches

Overview
- Hardware switches that physically connect to KVM ports of servers and computers
- Models to connect to 1, 8, 16, 32 and 64 servers, scalable to thousands
  - One-time cost and hardware installation

But consider …
- True out-of-band, BIOS-level remote access to multi-vendor servers
- Virtual media, including remote booting
- No hardware/software agents on computers - no reduction in production efficiency
- Secure access – no use of production network and independent of target servers OS
- Easier to configure and manage

Bottom Line
Highest performance, most reliable, secure, and easy to manage.

6 Remote Server Management Tools

Customer Need	Software Access	Service Processor	KVM-over-IP
Secure	☆ ☆	☆	☆ ☆ ☆ ☆
Performance	☆ ☆	☆ ☆ ☆ ☆	☆ ☆ ☆ ☆
Reliable	☆	☆ ☆ ☆ ☆	☆ ☆ ☆ ☆
Manageable	☆ ☆	☆ ☆	☆ ☆ ☆ ☆

Raritan.
A brand of legrand®

⑦ Why KVM-over-IP Switches Should Be Your Remote Server Management Tool

High Performance - just like being there

- BIOS-level Remote Access
- Virtual Media, including Remote Booting
- Option for remote power control

Secure - the most secure remote access method

- Independent security barrier to target computers
- Military-grade security and encryption

Reliable - reliable when you need it most

- Not dependent on target computer OS or network
- True out-of-band access - connects via KVM ports
- Optional modem access

Manageable - easy to manage and maintain

- Up to 64 times less configuration/maintenance
- Centralized access, management & logging

Raritan.
A brand of Legrand®

Take a test drive and see Raritan's KVM-over-IP Solution in action.

Click Here to Take the Test Drive

For More Information

Explore Raritan's Dominion KX III

Understand the security risks of software remote access

Understand the true cost of embedded service processors

Understand the security risks of embedded service processors

Raritan.
A brand of legrand®