SECURE COMPUTING IN A HIGH RISK ENVIRONMENT

PROBLEM STATEMENT

- Traditional configurations of computer networks involve distribution of computing resources with both local and centralized data storage.
- When an event occurs that threatens the physical security of the site, these resources are vulnerable as there may not be adequate time to secure or destroy the computing/storage resources.
- Difficult and complex to distribute and manage multiple classifications (Top Secret, Secret, Classified, Unclassified) of video, audio and computer data to meet increasing security requirements.

A SOLUTION

- Deploy Keyboard Video Mouse (KVM) extension technology to facilitate colocation of all computing and storage resources in a central physically secure location.
- Full user functionality is preserved while securing all critical resources.
- In the event of a security breach, all computing resources are in a central location with higher physical security. Storage devices are accessible for "grab and go" or destruction if required.





THINKLOGICAL BENEFITS

THE THINKLOGICAL APPROACH

- Thinklogical's patented uncompressed transmission technology does not touch or alter the signal, for maximum security and integrity of the content, highest video resolution, and computer peripheral performance.
- Thinklogical supports this high security approach using a high-bandwidth, highly reliable and IA (information assurance) security accredited KVM extension and switching/routing technology.
- Computers (and local storage) previously located throughout the facility can be centrally located with server and network storage in a physically secure location.
- Thinklogical equipment provides an interface to the computer resources and "extends" that connection to the users over a fiber-optic connection. A receiver unit is located at the user location to connect to the Keyboard, Video (monitors) and Mouse.
- All processing, storage and electrical interconnection is contained at the source computer within the secure room. No intelligible data leaves the room to the user workstations.

SECURITY

- All computing resources can be co-located and isolated for higher physical security.
- There is NO electronic data transfer to the user workstations. Signal transmitted is essentially pixels and keystrokes over fiber-optic cable, creating no electrical emanations (TEMPEST certified), unintelligible if intercepted, and immune to external RF and electrical interference.
- Input/output connectivity can be limited or denied to the user stations (transparent to USB Key authentication).
- The system can be configured to allow flexible or limited user access to various data sources.
- Users cannot change rights and permissions.
- The Switch/Router is Information Assurance (IA) certified to allow multiple classifications of data to flow through the one system (EAL-4).

ERGONOMICS

- Computers are removed from the workstation and office environment which lowers workplace clutter, heat and noise.
- Maintenance activities no longer happen near users, therefore there is no disruption of work.
- Configurations can be easily changed by administrator as conditions dictate.

COST

- Cost savings are possible through a resource pooling approach where users share a pool of computers rather than one-to-one.
- Multiple classifications through a single switch reduces the need for parallel air-gapped systems to meet security requirements, resulting in less overall hardware and infrastructure to buy or maintain.

PERFORMANCE

- Instant situational awareness immediate access to information for improved decision-making.
- Enhanced team collaboration and productivity.
- Faster system reconfiguration to meet changing mission requirements.









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