Tender Specs for UniStation

Overview

DB-UniStation stands for “A Unified Work Station”, which is designed to improve the decision-making efficiency, ergonomics and comfortability in the working area for mission critical situation.

It is capable to manage several monitors with single keyboard and mouse set. By freely sliding the mouse cursor across monitors, the operator is able to manage any remote computers within the system.

Structure:

- The system should be purely hardware based and completely isolated from operating systems. The control signal should be transmitted via a dedicated cable, considering the system safety and stability to avoid blue screen, virus effect or hacker attack.
- The system should be modular designed including I/O cards, fans and PSUs, flexible for expansion and easy in maintenance.
- The front panel of hardware should include a display screen and push buttons for view and manual setting of IP.
- AV and KVM transmission should be over fiber. With video wall function system should be able to push the content to video wall at any position with any size.
- Support modular routing system for complete in-band signal distribution of high definition video, audio and data over multi-mode or single-mode fiber optic cable supporting up to 576 I/O ports in a single frame.

Features:

- The system should support multiple interface transmission types including CVBS, YPbPr,

VGA, HDMI, DVI and SDI.

- The system should support collect AV (audio & video) signals from various platforms i.e. PC, Server, other AV platform as well as USB signals, in order to manage audio/video sources and USB signals from all platforms as per user requirement.
- Single operator should be able to control multiple computers, each monitor can display and operate several platforms sources, which can expand operator's operation scope.
- The system should support flexible mobile officing, operator with different authorities can access any workstation at any time with his own user name and password.
- Transmission of data and KVM signal should be over fiber without compression and delay.
- The switching between different computers should be seamless with no delay, no blank intervals.
- The system should support 1920x 1080/60Hz and 3840x 2160/30Hz without compression when used with supported cards.
- One keyboard and mouse set should be able to control at least 15x monitors simultaneously.
- One monitor must support to display Single-View or Quad-View with 4 different sources. In Quad-View mode, the system must support monitor toggling between singe-view mode and quad-view mode.
- The operator should be able to move mouse cursor freely across different monitors of each workstation.
- The system should support pushing of sources from any screen of workstation to master screen.
- The system should support collaboration between different workstations, the operator is able to push the content and KVM authority to another workstation and retrieve content or KVM authority any time.
- The system should support unlimited quantity of presets for each workstation either its saving whole workstation layout or just specific screen. The system should support user-define hotkey to recall preset.
- he system must support screen lock to disable source switching when operator needs to focus on one specific source.
- The system should support live preview of all computer sources, the source switching can be

conducted via OSD menu by just clicking or by drag & drop.

- The system must support extended screen when the server comes with a multiple-head graphic card.
- The system should support different operating systems with different resolution, interface and servers i.e. Windows, Linux and Mac for fast and reliable operation.
- The system must have access level management, administrator is able to distribute different access levels to all users.
    - Higher level user can view or operate lower level user's source without his permission.
    - If users are in the same level, second user can view the source, and can request for keyboard mouse access from first user.
    - Lower level user cannot request for KVM permission from higher level user.
- The system must integrate KVM switching and Video Wall Control in one.
- The system should support push any source to video wall of any size at any position, should also support at least 8x layers per screen
- The system must have graphical menu for users to select the window on the video wall to push the content from their workstation.
- The system must support users to toggle control from workstation to video wall, vice versa.
- The system must support control system that can support seamless integration with it.
    - Integrated control system must support preview function of the system.
    - Integrated control system must support video wall drag and drop function of video source of the system.
- The system should support edit, find, show/hide source name, which can help operator to maintain, track and follow the source.
- The system should be able to adjust the video volume.
- The system should be able to set mouse DPI via OSD menu to achieve the best operation experience.
- The system should highlight the cursor position over multiple screens, a highlighted frame will be showed when the mouse moving to that screen, operator will also able to customize frame color and transparency.
- The system should support USB drive/U-Key/USB camera etc.

- The system should support workstation user to follow other user's operation upon certain screen in real time without KVM authority.
- The system should support switch sources, save or recall preset, follow, layout etc via OSD menu but the OSD should be mouse based.
- Support RS232 and other interfaces that makes it flexible to be controlled by third party by third party central control system.

Reliability:

- The system should support redundant PSUs.
- The system should be able to display whether it have access to sources KVM or not on OSD menu to monitor in real time.
- The system must support hot swappable of I/O cards and recover time should less than 3s when changing cards.
- For backup the Transmitter and receiver should be with dual optical ports.

Access Level Management

- The system should support allocating different access levels based on operator roles.
- Administrator should pre-define access to users as per requirement for example, user can have full access to control portions (KVM &content) of computers or can only have access to view content.

Transmitter

- Transmitter should support different physical ports i.e. HDMI, DVI, VGA, SDI.
- Transmitter should be with loop out port.
- Transmitter should support audio transmission.
- The transmitter must have two optical ports, to support one for back up.

Receiver

- Receiver should support different physical ports i.e. HDMI, DVI, VGA, SDI.
- Receiver should support audio.
- Receiver should support external devices like USB memory stick, scanner and printer.
- The receiver must have two optical ports, to support one for back up.