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Audio Visual (AV) System Recovery Plan

for Academia Education Facilities

Aim

The education facilities at Academia are heavily utilised for the training of healthcare professionals. One of the tools frequently used to support this is the audio-visual (AV) system. Any disruption to the system may cause training to be delayed, postponed or cancelled. To avoid this, we sought to develop and implement an AV system recovery plan.

Methodology

The recovery plan was developed following a structured process:

Analysis

Step 1:

Review and analyse the AV network design, configurations and operations.

- To identify recovery shortcomings

Development

Step 2:

Design and formulate a plan to address the shortcomings (both technical and procedural) and attain full system availability.

- To implement zonal integration for efficient transmissions of signals and similar functions switching

Installation/ Testing

Step 3:

Following the plan, install by-pass and re-route fixtures, and develop standard operating procedures to initiate quick system recovery. Test and make improvements as required.

- To include spare parts, bypass cables, backup software for re-installation/ re-configuration

Implementation

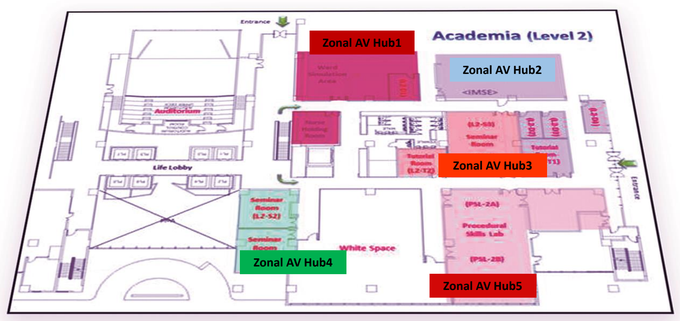
Step 4:

Implement the recovery plan, and ensure process, procedural and equipment readiness.

- To replicate the test scenarios and achieve the required recovery timings

Result

By segmenting each level training facilities into zonal AV hubs, these cluster-divided hubs will have identical systems; integrated together to form a seamless linked AV network. Refer to below diagram.



Education Facitlities zonal integrated AV network

3 Tiers Recovery

With this connection, recovery can be achieved via the following 3 tiers recovery modes:

By-pass/ re-route	AV Hub modular-designed. Matrix switching enable equipment/ cable to re-route easily	Reconfigured under 10 minutes
By Substitution	Portable equipment can be swiftly brought in to replace	Turnaround below 20 minutes
By Replacement	Interchangeability of equipment; Reloading of software	Reconnect within 1 hour

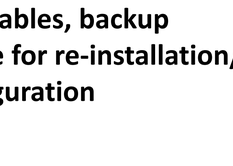
The time to recover the AV system ranges from 10 minutes to less than one hour. In the worst case scenario that the system do need repairs, downtime will extended to a maximum of four hours.

AV Recovery Main Functions

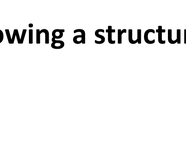
The following AV main functions can be recovered via a combination of equipments in the 3 tiers recovery.

Image and Audio Projection	Spare projector && speakers && audio mixer system && bypass cables
Live streaming	Tie-line (Fibre optics cable) ||Cat 6 cable && Reach System || Video-conferencing
Recording	Reach System && Mediasite System || backup encoders (recorders) && Tie-line || Cat 6 cable
Video-conferencing	Tie-line || Cat 6 cable && backup video-conferencing encoders

Remarks: && denote AND combination
|| denote OR combination



Conclusion



This fail-safe recovery plan achieved the followings:

- Maximising the availability of the AV system
- Minimising the disruptions that any system downtime may cause in the training of healthcare professionals
- This contributes to a more conducive learning environment, helping to improve the expertise and professionalism of healthcare professionals, which ultimately translates into better care for patients

In the six months since implementation of the plan, there has been full system availability and minimal disruption to events. The confidence of AV staff has increased with standard operating procedures instituted in place of the previously haphazard and uncoordinated processes.

You that read right
You read that right too!

For AV matters, dial (6576) 7176 or 7177 to speak with our friendly AV Heroes for assistance

Education Facilities managed by Academy, SingHealth Group Education