



**ROTORUA  
LAKES COUNCIL**

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# **GALA CANCELLATION**

Report

## **OPENING GALA 16 - 18 FEBRUARY**

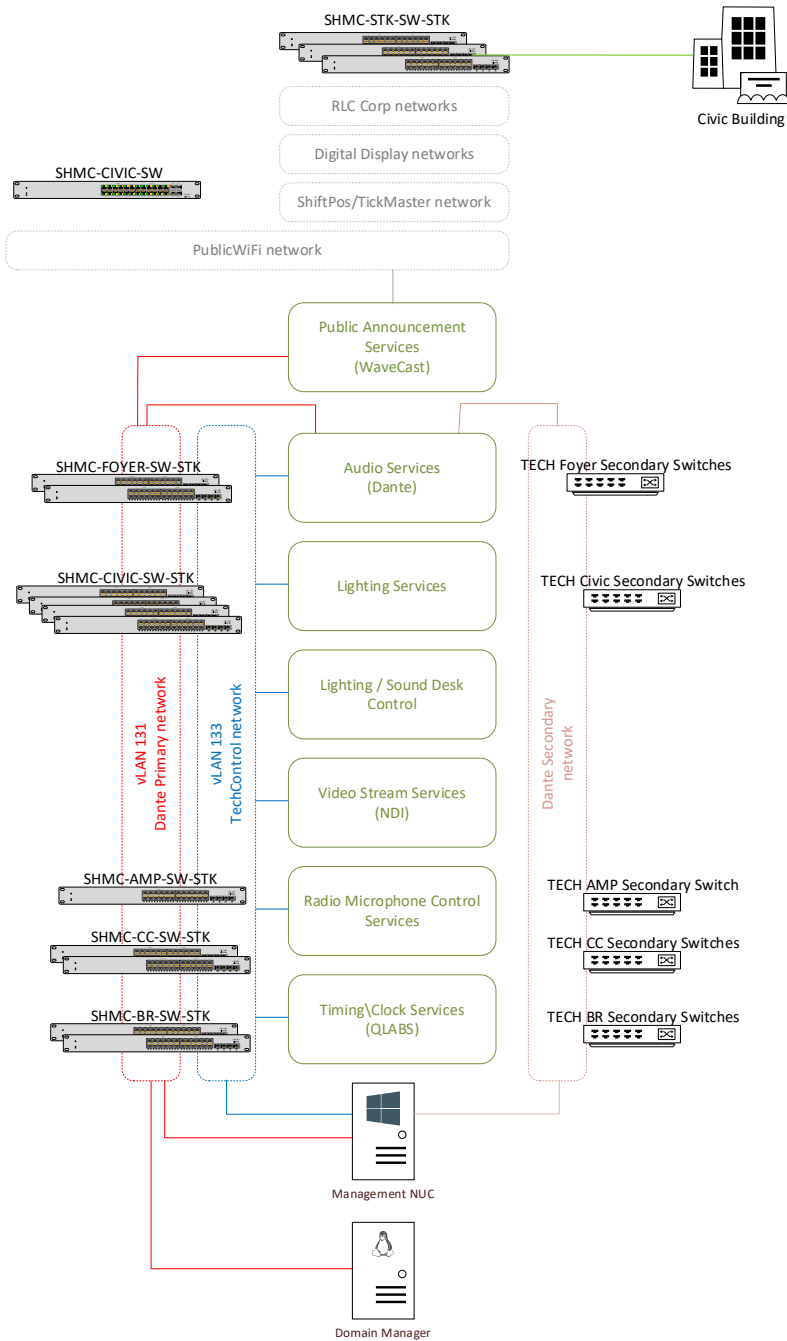
Thursday opening night, the team and artists experienced issues with sound quality

The following morning, an Artist requested their sound engineer be given access to sound controls to improve sound quality

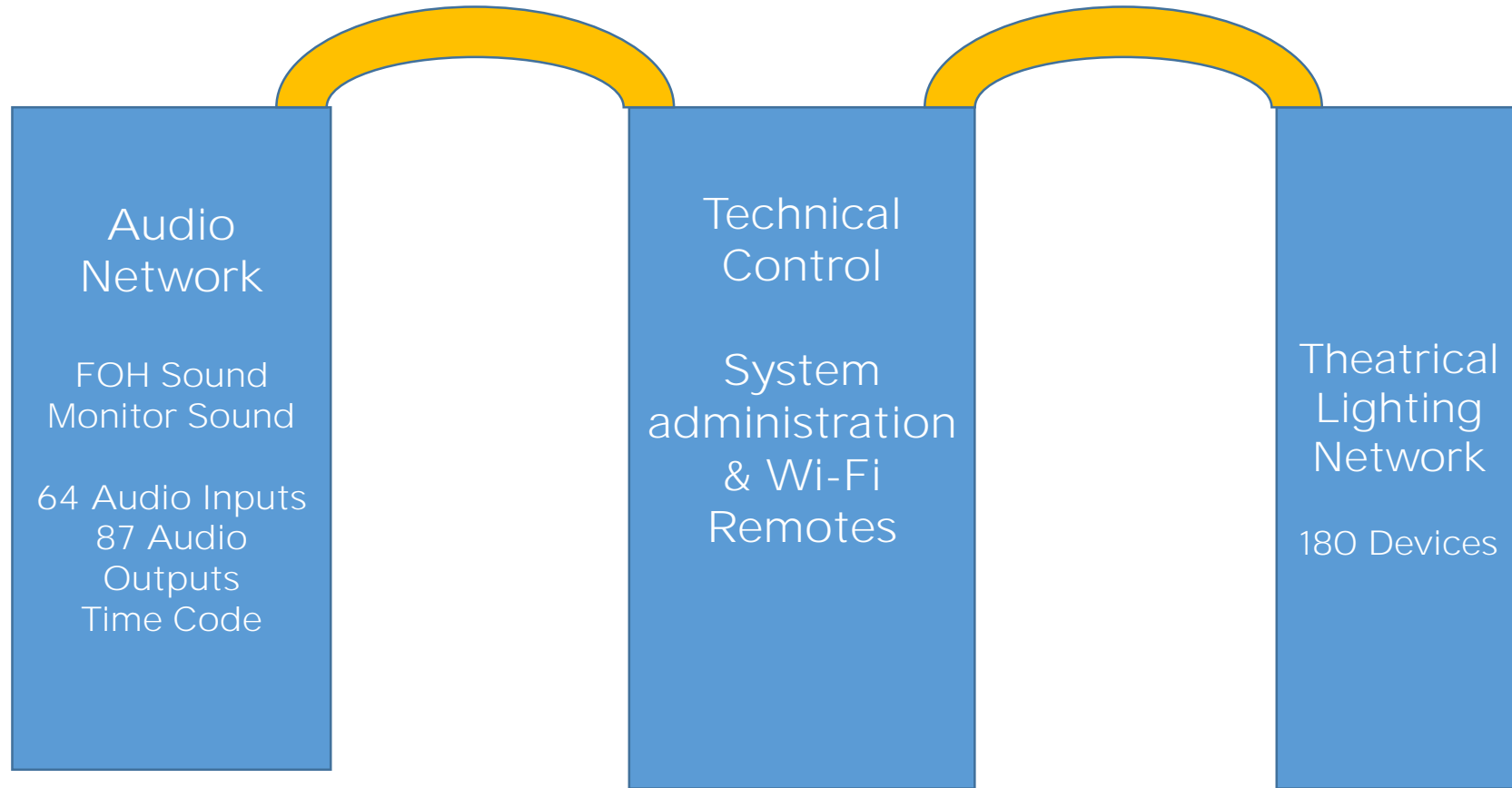
The team agreed to give access and worked to reconfigure the sound controls so that it could be actively adjusted from the Stage and the Sound desk at the rear. This work commenced at approximately 2pm with the show scheduled to start at 7pm



# DETAILED SYSTEM VIEW



# SIMPLIFIED SYSTEM VIEW



Three system, bridge together so information can be shared between them



## **ROOT CAUSE OF TECHNICAL FAILURE**

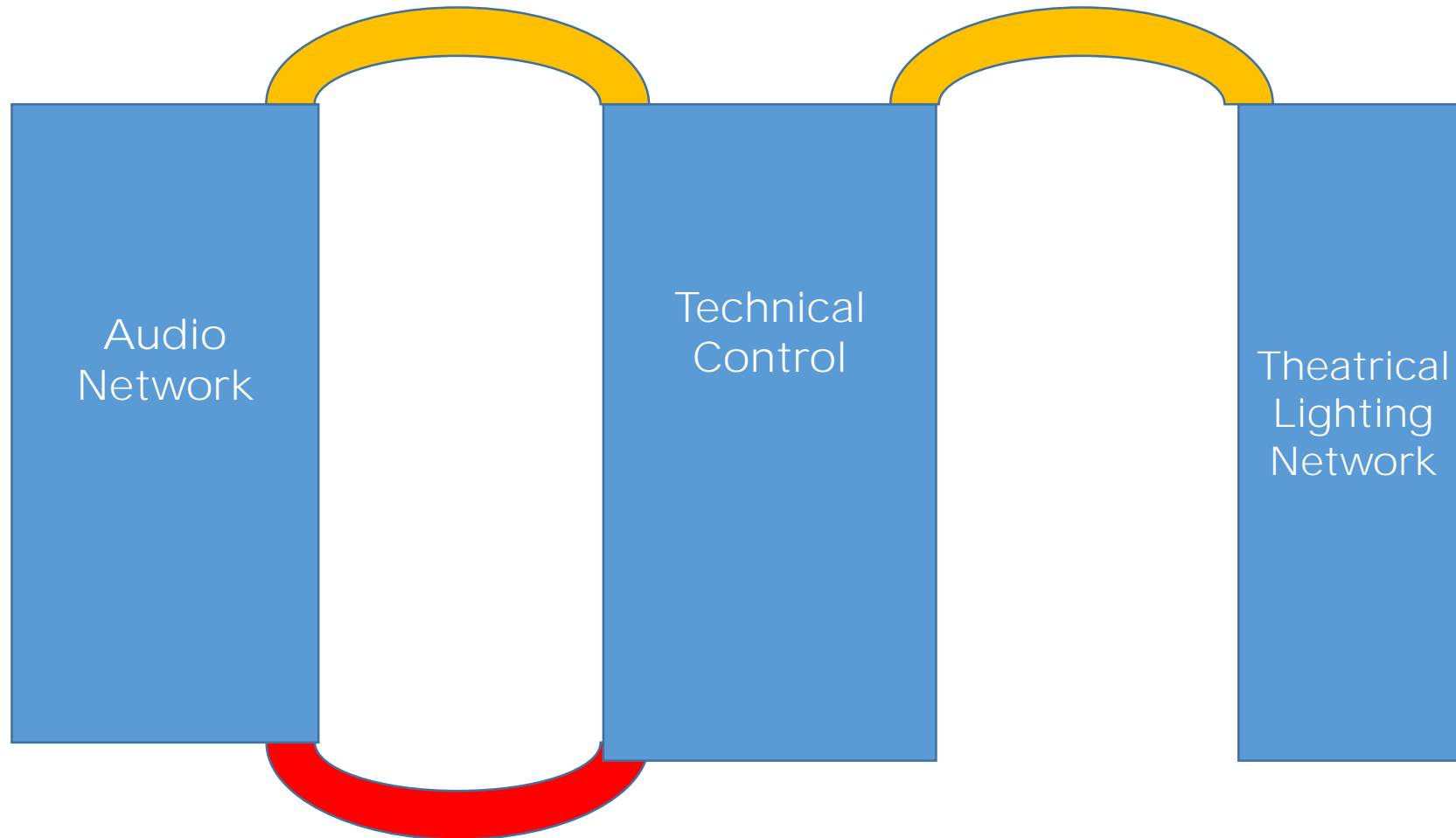
To accommodate access to the sound controls from the stage, the team connected the sound desk to the control network (wifi access) via an extra data cable being plugged in.

This caused a loop between the systems as the sound desk was configured in bridge mode rather than access mode.

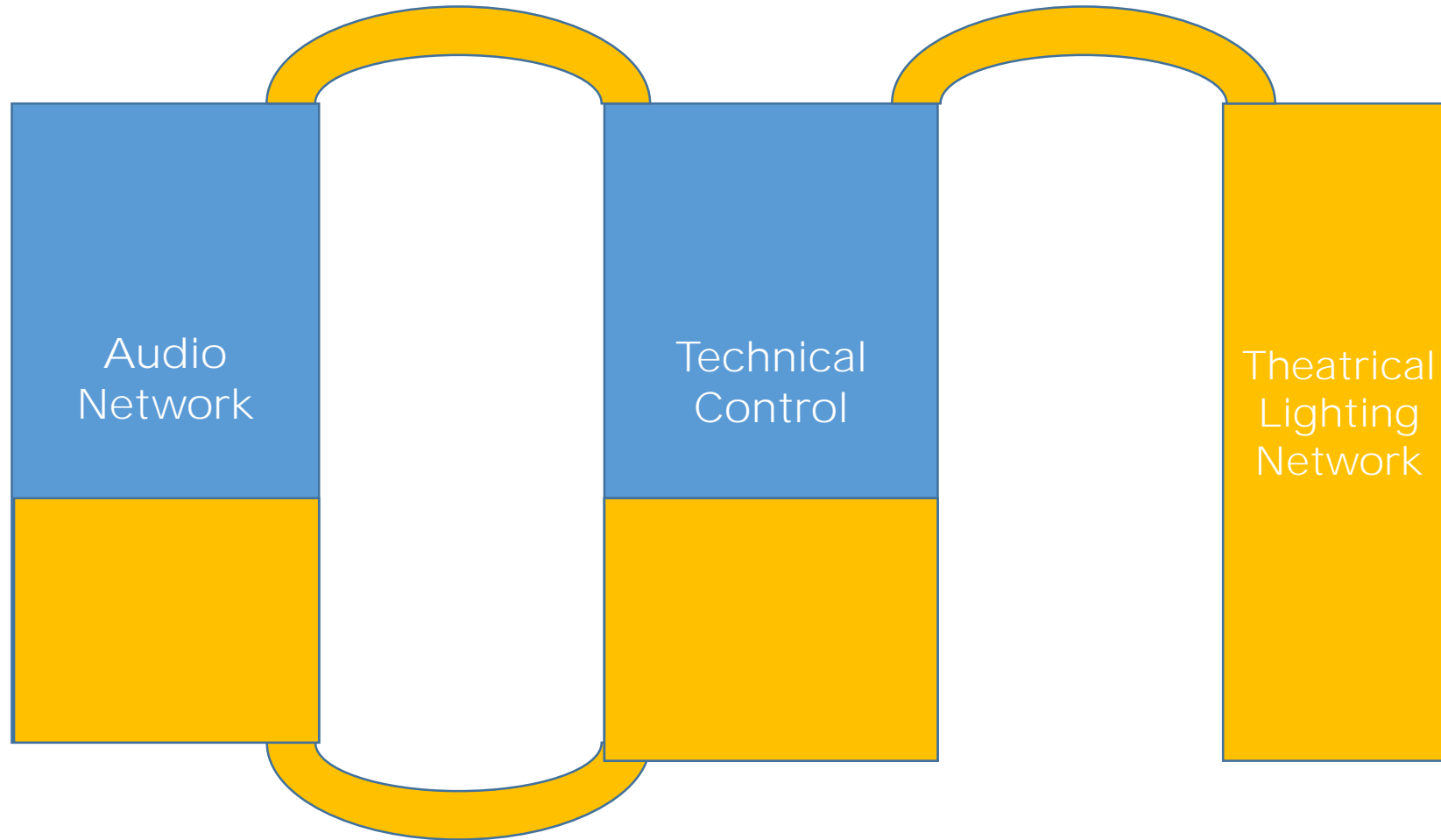
This bridging of the technical networks caused a data storm that lead to network saturation system failure.



# TECHNICAL NETWORK BRIDGED 2.44PM



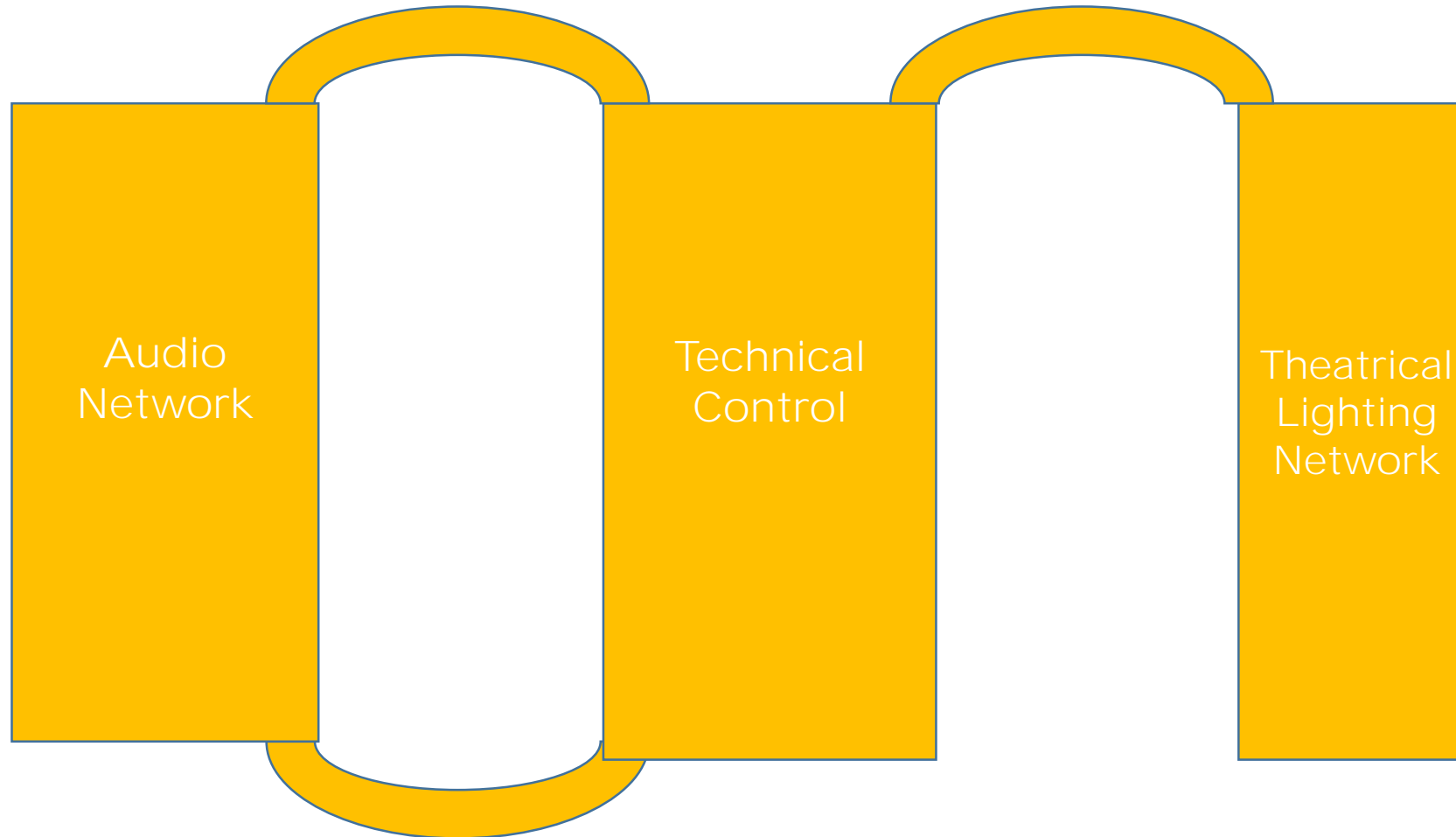
# BROADCAST STORM EFFECTS OTHER SERVICES



The Lighting System overloaded first which caused the power distribution to turn off



# ALL NETWORK SERVICES REACH CAPACITY - 3PM



Eventually the loop of data caused all three system to reach capacity and stop functioning





## HOW WAS IT FIXED

The SHMC technical team:

- disconnected the sound desk from the control network
- Reverted to analogue sound connectivity instead of network based
- Reverse other changes made to the technical network

IT staff were identified traffic flooding the firewall and restored internet services

IT staff and technical team worked together to restore services

Services were partially back online in an analog state at 6.15pm but the team did not have full control of both sound and lighting to guarantee the show could go ahead without incident

With a fatigued team, and the systems not being 100% a decision was made to cancel the event



## WHY WAS IT DIFFICULT TO DIAGNOSE?

The technical team were unaware the sound desk was configured in bridge mode causing the data storm

Delays in key equipment arriving from overseas added pressure to staff to install and become familiar with this equipment.

During attempts to problem-solve after the network failure, key SHMC Technical Team members were being pressured and distracted by the visiting sound engineer and artists.

As the internet was down, the SHMC team assumed this was the cause of the problem. When internet services were restored, the technical system was still inoperable

Key staff were fatigued after working 11-16 hours each day in the week preceding the show.



## FUTURE MITIGATION

A thorough investigation was undertaken by both IT and SHMC teams which have identified and implemented a number of initiatives to mitigate any future issues:

- Improved systems familiarity
- Introducing a systems dark day - no system changes allowed close to showtime
- Implementing cable colour coding standards for connected devices to improve visual identification of device connections
- More training and hands-on time with the equipment has been scheduled together with ongoing training
- IT and SHMC technical teams have an improved communication culture and a better understanding of each other's requirements.

