D-Link
FOR BUSINESS

BUSINESS

THE ART HOUSE

The Art House, Central Coast, NSW

A Flexible & Reliable Solution Seamlessly Integrated Into the Existing Network Infrastructure, Providing Easy Wi-Fi Access.

The flexibility & reliability we have gained has been the biggest outcome that all of our staff and crew have benefited from. This ultimately leads to a much higher production and show quality for our patrons and stakeholders.

— Tom Skelton, Production & Operations Manager, The Art House

Contact us for more information on D-Link Network Solutions for your business.

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In Partnership with

Colton Computer Technologies
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Background
Organisation:

The Art House is the Central Coast of New South Wales most exciting performing arts centre, bringing world-class theatre to a Central Coast audience. Consisting of a 500-seat theatre, 130-seat studio, a foyer exhibition space, meeting facilities, a café and bar, The Art House is a professional theatre designed for the entire community.

The Art House was running 12 physically separated networks, some of which included redundant networks for their audio systems, lighting control networks, communications equipment, video control systems, surveillance, security, as well as the standard corporate LAN, phone systems and visitor networks you see in most business premises.

As a modern, recently built Performing Arts Centre, it was built with sufficient physical infrastructure in terms of cabling within the building, however, running 12 physically separated networks is quite demanding even to the most well-resourced environment. With a shift away from Serial connections to Data delivered over IP for show related technical systems, it made sense to converge these networks onto a single managed platform.

Overview

The project is based around a selection of D-Link DGS-1210 Series Switches with different capacities applied in various locations around The Art House building, including comms rooms, technical spaces, multiple performance spaces and some preconfigured spare Switches for ad hoc setups.

The overarching idea was to use all of The Art Houses' existing cabling infrastructure to access the technical and corporate networks through any data point in the building. Comprehensive Wi-Fi coverage is available throughout all publicly accessible spaces. There are multiple SSID's across the Wi-Fi network, providing seamless Wi-Fi access to both visitors, staff, and the technical team, who are able to access their equipment via their smartphones, tablets or laptops.
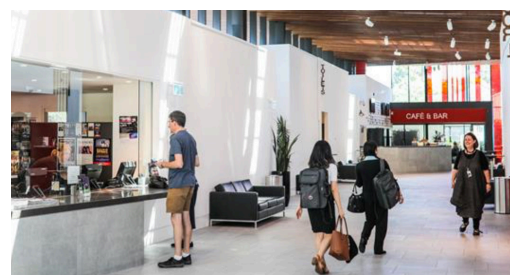
The Challenges

Reliability, redundancy and latency were the main challenges faced in this project. A network failure mid performance is not an option when audio, lighting and communications are reliant on that network. Not only does it cause massive stress to the performers and crew working on that show, but potential financial repercussions to the organisation through having to deal with disgruntled patrons. Delivering a converged solution with full redundancy was always going to be a challenge.

The other major challenge was latency. The Art House's audio systems run through the Dante Audio over IP standard which does monitor the network it is running on for latency. However, the smallest amount of latency in the network can create a noticeable audible change for their patrons and performers. This is much the same for their stage lighting control, the constant stream of data that is being sent from one of their lighting consoles to the receiving node is sent at an extremely high refresh rate and any latency that is created in this transmission can result in the physical lighting fixtures potentially not responding as expected or in a delayed fashion.

D-Link Solution & Implementation

The solution proposed and implemented consisted of 15 x DGS-1210 Series Switches and 8 x Wi-Fi Access Points. The Switches were configured in a way to allow redundant systems to have access to two or more Switches. These Switches are simultaneously run on physically separated cable paths to other required locations.

The D-Link Access Points were then installed into key locations around The Art House's foyer space, performance spaces and back of house areas which has created a **seamless Wi-Fi experience** for their patrons, performers, staff and crew.

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The WOW Factors

The biggest WOW factor The Art House has experienced is **the ability to easily access any of their networks from any location within the building**. As a theatre that is always pushing the boundaries in the performing arts world, they often find presenting shows and installations which sit outside of what designers of performing arts centres would consider "normal".

Prior to the upgrade, multiple networks would often be required in one location. Quite often huge, temporary cable runs would need to be installed, or a technical compromise would be made. **Not only does the D-Link solution provide access to all networks in any location, production quality has increased, and The Art House has saved money in time and labour costs.**

The Outcome

The Art House's Production and Operations Manager, Tom Skelton, said, "**The flexibility and reliability we have gained has been the biggest outcome that all of our staff and crew have benefited from.** This ultimately leads to a much higher production and show quality for our patrons and stakeholders. The transition from our old system to D-Link's solution was seamless, with no bumps in the road – and bumps in the road are not something you want to experience mid-show. We have seen a great adoption and acceptance from our staff, as they recognise this is the way technical show systems are moving forward, and are keen to learn how they can adopt it into their knowledge base."

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Products integrated in this solution include:

	8 x D-Link DAP-2680 Wireless AC1750 Wave 2 Concurrent Dual Band PoE Access Points
	2 x D-Link DGS-1210-52MP 52-Port Gigabit Smart Managed PoE Switches with 52 RJ45 and 4 SFP (Combo) Ports
	5 x D-Link DGS-1210-28P 28-Port Gigabit Smart Managed PoE Switches with 28 RJ45 and 4 SFP (Combo) Ports
	8 x D-Link DGS-1210-10P 10-Port Gigabit Smart Managed PoE Switches with 8 PoE RJ45 and 2 SFP Ports

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