Sound and visuals play an important part in providing ambience and information in car showrooms.
Nial Anderson sees how MCS handled a recent installation for Audi.

Audi shows off

The well-known ethos of car brand Audi is advancement through technology. It is only logical then that AV would be harnessed to make an impact on potential customers visiting its new showroom in Tunbridge Wells, UK.

The dealership is owned by Inchcape PlC, a British motor franchised retail group. Inchcape engaged the expertise of UK integrator MCS to design and deliver the AV systems for its new dealership, having successfully worked with the integrator on a number of car retail projects previously.

"MCS already has a track record within the automotive industry for supplying high-end audio systems to various franchise dealerships including Audi," explained Marc Hatton, MD of MCS.

"The requirements were to have a number of displays located within the dealership, both front-of-house in the showroom areas and in rear-of-house in the workshops and sales offices. The client wanted to be able to utilise the displays in a number of different ways, including rolling corporate content from dedicated media players, local connectivity, Apple TV, Freeview and infotainment channels to customer lounges. Additionally, rear-of-house displays should be able to be updated with internal sales information, vehicle service schedules and CCTV viewing. This flexibility enables the client to maximise their investment in the products."

Building on a system it had installed at Inchcape's Cooper BMW dealership in Durham, UK earlier in the year, MCS used a HD networking product to dynamically deliver content to the multiple screens in the form of WyreStorm's NetworkHD product range encompassing NHD-IP-CTL (HD Over IP Control Interface), NHD-IP-TX (HD Over IP Transmitter) and NHD-IP-RX (HD Over IP Receiver).

"On previous showroom deployments we've used a matrix product which has served us well but is still limited in terms of the number of fixed inputs and outputs," Hatton explained.

"The timing of WyreStorm's introduction of its NetworkHD product was perfect for us. By utilising NetworkHD we were able to configure a dynamic modular system with multiple inputs and outputs, removing the limitations of a conventional matrix system. This enabled us to quickly and easily expand the system by simply adding more transmitters and receivers as required by the project. It's a very flexible way of creating a matrix which doesn't have inherent

Video case study

tinyurl.com/q3gp3k9

> " *From the outset, in planning stage, the knowledge and input by MCS was very good and the overall project went very smoothly.* "
>
> - *Richard Wheeler, Audi Tunbridge Wells*

waste built into it in terms of redundant inputs and outputs.

"We extended this into WyreStorm's own Enado ENA-010-001 AV control system, which is a very intuitive front-end control system. It has a number of assignable IR ports, eight integrated network ports and four assignable RS232 ports which makes it very versatile. With NetworkHD supporting RS232 and IR pass-through we were able to use Enado to control of all the source content at the comms room, enabling source switching and control to each display within the NetworkHD network."

Using a brand new product brought inevitable challenges.

"The most complex element was establishing throughput of coding to various devices controllable utilising RS232," Hatton recalled.

"Our previous install earlier in the year at Durham Cooper BMW was the UK's first install for WyreStorm's NetworkHD and the first global install of NetworkHD controlled via Enado. During set up we ran into the inevitable small number of minor issues commensurate with any new IT/AV product. The guys at WyreStorm were fantastic and as a team working intensively alongside MCS, any initial configuration issues were resolved.

"The flexibility the system offers us, as an installer, is extremely important. NetworkHD functions on its own LAN which allows for minimal installation requirements. IP addresses to both transmitters and receivers are taken care of by the NHD-IP-CTL and Enado can be seamlessly integrated on the LAN."

MCS installed a dedicated AV LAN to the dealership, thereby enabling separation from the client's LAN, ensuring all bandwidth requirements and QOS of the HD networking system did not impact the client's data network.

A range of content is delivered to the various areas of the dealership throughout the day. This includes marketing videos from a media player; video feeds from the workshop and TV channels for the customer areas.

There is a legal requirement in the UK that customers must be able to view their cars undergoing the MOT inspection (a yearly test of roadworthiness for British cars). While many car workshops solve this by simply adding a viewing window to a waiting room, MCS created a solution using the AV system.

"It was simply a matter of incorporating the CCTV output from a camera installed to the MOT bay into the HD networking system as an additional source," Hatton explained.

"This was incorporated into the Enado control system which allowed us to provide that feed to any display the client requested. This example highlights the simple flexibility of the NetworkHD system."

An iPad Mini, with a customised Enado user interface, including Audi branded buttons and graphics, located within the dealer principle's office gives the dealership staff the ability to control which input source is being routed to where, as well as full control of the front-of-house music system.

"We develop our own user interface templates which are unique to each brand and dealership," Hatton said.

"This enables them to route content from a number of sources including Blu-ray, Freeview and laptops. This controls the day-to-day operation of the displays and what is displayed on them. The customer lounge may just have Freeview while the displays in the sales areas will be showing rolling corporate content throughout the day. If the dealership were launching a new vehicle, an external company might connect to the NetworkHD system and play a launch video on all displays around the dealership."

Content routing, switching and control are seamless operations.

The control system being browser-based, allowed MCS to install a number of user interfaces on devices around the dealership. The receptionist had a duplicated copy of the user interface on the iPad installed onto the reception PC. Each sales assistant has their own individual iPad, which is used for sales configurations. Apple TV is installed in a number of the front-of-house displays, allowing the sales assistants to mirror the configuration app on the larger display. To facilitate this, MCS developed a simplified user interface which gives the sales assistant the ability to switch input sources for the display as well as to control other functions.

Additionally, as it is browser-based MCS can remotely access the system from its offices in Burgess Hill, West Sussex.

"This is a major advantage for us with respect to any requirements in terms of interface reconfiguration and software updates," noted Hatton.

In the boardroom, MCS installed

Tech-Spec

Video

Apple TV and iPad Mini 16GB, Black

HP 1910-24G-PoE 24 Port Gigabit Switch

Humax HD-FoxT2 Freeview Set-top Box

Launch Port Sleeve and Port Base Station

LG 42in and 47in LY330 Commercial Pro TVs, 55in WL30 commercial monitors and BP645 Smart Blu-ray player

Logitech Harmony 650 Remote

Peerless SA752PU Cantilever Bracket

Raspberry Pi

Sanus ML11 and LL11 brackets

Sharp 80in Consumer TV

WyreStorm Enado Controller, NetworkHD Controller, NetworkHD Transmitters, NetworkHD Receivers, VGA to HDMI converter, 70m HDBaseT Extender Set and 2:1 HDMI /VGA auto switcher

< a WyreStorm VGA/HDMI switcher/scaler so that meeting participants using either format can connect and share content on the Sharp 80-in screen without having to change any input settings.

In regard to the displays used in the dealership, Hatton said that appearance was an important consideration.

"The visual side of things is very important with a brand like Audi," he explained. "The aesthetics of everything has to be in keeping and of a high quality and high standard. For displays, the quality of image is very important, as is the aesthetic appeal. The LG products that we use fit that bill very well. We use a combination of Professional Monitor series, the WL30, in all front-of-house showroom areas and the Commercial TV Pro, the LY330 in the rear-of-house workshop and sales office areas."

Audio routing within the dealership delivers sound to both the showroom areas as well as rear-of-house areas.

"Our audio system uses Cloud

iPad control at MCS' Inchcape BMW installation

CXA6 multi-channel amplification routed by their DCM1 digital control processor," Hatton explained.

"The DCM1 is controllable by the Enado system. Source switching and volume control is offered to the user interface for control of the front-of-house audio. Rear-of-house is controlled by a number of CDR-1 remote music source / volume control panels. Acoustics in buildings like these does not pose much of a challenge. This would only be an issue if you were going to go very loud and that is not what the system is designed to do."

MCS's showroom audio solution uses Penton speakers to deliver sound reinforcement and is capable of reproducing music and speech with clarity.

On occasions such as a model launch, a PA rig is

used which is capable of establishing more serious sound levels.

Hatton noted that the system installed at Tunbridge Wells, Audi, had worked perfectly from day one and that the client, Inchcape, and Audi Tunbridge Wells are also very pleased with it.

He said: "The success of a project such as this is very much down to the simplicity and ease of day to day operation. This inspires confidence in the system as well as the way in which it is used."

This successful deployment has inspired Inchcape to adopt more technology in the showroom.

Hatton explained: "Audi Tunbridge Wells have two fantastic handover bays in the showroom and we are currently developing a system for the client to bring a bit of showmanship to that area, including high quality sound and lighting that is in keeping with the brand."

Richard Wheeler, head of business for Audi Tunbridge Wells, said: "MCS have been working with Inchcape for many years but this was the first time that I have been involved with them. From the outset, in planning stage, the knowledge and input by MCS was very good and the overall project went very smoothly.

"I would like to wish Marc and his team the best of luck and would recommend them to anyone for AV installations and project management." ∾

Tech-Spec

Audio

Apple iPod Nano

Cloud DCM-1 8 ZoneProcessor, CXA6 6-Channel Power Amplifier, CXL100T 100v Transformer, CXL800 Rack Tray, CDR-1 Surface Mount Remote and PM4 Four Zone Paging Microphone

Denon Dual Zone DAB Tuner and DAB Module

LG Commercial Speakers for WL30

Penton Music Horn Speakers, Sound Projectors and In-Ceiling 8-in and 6-in speakers