Audio networking solutions

Audinate untangles the AV puzzle

This young Australian company that listed on the ASX last month has become a world-leading provider of audio networking systems.

An Australian dark horse has taken the lead in the race to digitise the worldwide audio-visual industry.

Recently listed Audinate is now the leading provider of audio networking solutions globally, according to RH Consulting.

In March 2017, 360 manufacturer brands were incorporating its Dante technology into 1077 products, compared with only 220 products using technology from Audinate's nearest competitor, Cobranet, RH said.

The brands that have opted for Audinate include the biggest names in the professional audio industry, such as Yamaha, Bose, Roland, Shure and Sony, and encompass all aspects of the AV industry –sound reinforcement, recording and broadcasting.

Audinate was conceived back in 2004 when Aidan Williams, an amateur musician and R&D engineer, saw how software could transform rats' nests of analogue cabling into neat networks.

Williams, now Audinate's CTO, seized his chance after Motorola did him "the favour" of closing down its Australian research centre in 2003, laying off the whole R&D team.

"You could probably convince one of your friends to sit in a garage with you for 12 months, but you couldn't convince five of them," he says.

In the event, NICTA, the forerunner of CSIRO's Data61 ICT research centre, hired the ex-Motorola engineers "as a job lot". "NICTA was great," Williams says. "It acted as an incubator where we could do some real R&D, solvesome really difficult problems, develop prototypes and show them to Australian and overseas audio manufacturers."

Within just a few years, Audinate's Dante technology was installed at Lord's cricket ground, Twickenham rugby stadium and was underpinning the Foo Fighters and the Pope during World Youth Day.

Overtime, Dante has become the dominant provider of audio networking technology, and has been used by Sydney Trains for platform audio, in major convention centres (Sydney, Melbourne and Adelaide) and in sporting venues like ANZ Stadium and Randwick Racecourse. The AV industry held out against the digital revolution far longer than most other forms of communication due to some technical conundrums.



'Our technology allows people to distribute high quality, uncompressed audio signals using a typical computer network without becoming an IT expert.'

Aidan Williams

Traditional analogue cabling is good at delivering audio with tight synchronisation and low sound lag, or latency, but has certain disadvantages, such as interference from other electrical equipment and signal degradation over long cable runs.

Digital alternatives had answers for the analogue challenges, but struggled with synchronisation and latency until Audinate made its breakthroughs.

And the Audinate approach has at last solved Williams' original problem—the tangle of analogue wires. "Our technology allows people to distribute high quality, uncompressed audio signals using a typical computer network without becoming an IT expert." he says.

"Using Dante is assimple as plugging devices into an Ethernet switch and using software to configure audio connections between devices."

The Dante product suite includes the Dante Controller software application for configuring devices connected to the network, and the Dante Virtual Soundcard, which turns a computer into a Dante audio interface for multitrack recording and media playback.

Because Dante uses software routing rather than physical cable connections, the network can be expanded and reconfigured at any time with a few mouse clicks.

Williams says Audinate's Dante has become the defacto industry standard, and has won numerous industry awards, including the Grand Prix (or company of the year) award from *Installation* magazine this year.

"Essentially, we provide all the building blocks that a manufacturer would need to take one of their products and convert that to a networked product," Williams says.

"While our business model is centred on supplying networking chips and electronic modules to AV equipment manufacturers, the real value and intellectual property is the software inside."

And while some companies that make a range of AV products could try to develop their own proprietary systems, Audinate gives them an

alternative. "Now they have to decide: Do I roll my own, or do I go with an open technology like Dante?" he says. "We are the equal opportunity player. We are about interoperability, and we guarantee that if it has Dante inside it, it can talk to all the other pieces of the network, whether they are from Yamaha, Bose or Sony."

In the first half of 2017, several companies decided to pull their IPOs as the market appetite for floats diminished, but Audinate listed on the ASX on June 30.

"That speaks to the quality of the business we've built up over 10 years," Williams says.

Audinate was the first commercial spin-out from CSIRO's Data61 and the listing generated a nice payout for the research centre. After floating at \$1.22, Audinate stock went as high as \$1.80 and has recently been trading slightly above \$1.55.

Williams is keen both to attract new talent to the company and to encourage tech entrepreneurs generally to back their own ideas.

Heis impressed by the confidence and risk-appetite evident among young start-up players. "I think there really is a generational difference," he says. "I meet a lot of Gen Y and Gen Z and I think they really are more entrepreneurial. This mindset helps to fuel innovation inside Audinate and we expect the next 10 years to be as exciting as the first decade."



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Audinate Group Ltd shares are traded on the Australian Securities Exchange (ASX) under the ticker code AD8.

