

# dCS Network Bridge

Designed to provide a link between your network music and streaming services and a DAC, does this simple-looking box have a role beyond its manufacturer's product line?  
Review: **Andrew Everard** Lab: **Paul Miller**

The £3250 dCS Network Bridge is a pretty good example of 'do what it says on the tin' engineering. So this very plain little unit wears its heart on its sleeve – well, on its box, anyway – being all about forming the missing link between music stored on a home network and the digital input of a hi-fi system.

Now it's true that there are more than a few ways of achieving what it does without spending £3250. In my current set-up I can stream music from my servers or access Internet services using everything from a simple Mac mini computer to an even simpler Raspberry Pi fitted with one of the HiFiBerry digital output cards, these connecting to DACs via either USB or conventional S/PDIF digital links. So there needs to be something special going on within this dCS unit to justify its existence – and of course that price-tag.

## BUILDING BRIDGES

Before I get into how it does what it does, a brief overview of why a Network Bridge is needed. As mentioned in our review of the flagship Melco Music Library [see p54], solutions for delivering 'local' music files may involve network music storage – either on the computer itself or a dedicated Network Attached Storage device – and a network player connected to the hi-fi system, or, alternatively simply pushing files from a computer straight into a DAC. Both approaches have their advocates, but a rapprochement of sorts seems to be happening with the arrival of devices like the dCS Network Bridge.

What it does, in essence, is take data from the network and output it in a form acceptable to a hi-fi DAC, while also providing a control-point for the navigation and playback of your music collection. In other words, combine this Network

Bridge with one of the DACs in the dCS range, and it instantly becomes a network audio device, controlled by a free app on a smartphone or tablet. As a sign of the times, more recent dCS DACs, the Rossini and Vivaldi, already have this network capability built-in, so the Network Bridge also brings older dCS models, such as the Scarlatti, Paganini and Elgar, up to speed.

Thus it adds not just network UPnP streaming playback, but also Apple AirPlay connectivity for suitable computers and portable devices, plus Spotify Connect and Tidal capability, and also has the ability to act as a Roon endpoint [see boxout].

Inside, proprietary dCS code runs on standard hardware from StreamUnlimited, in this case the Stream 820, chosen for its Wi-Fi support and other improvements over the Stream 800 board used in the Rossini. Wi-Fi? Well, dCS says it will always recommend a wired network connection for the best sound, not to mention its better stability, but the provision of wireless working is a pragmatic acknowledgement

that some users will make use of this facility sometimes for pure convenience.

## HIDDEN FEATURES

The Stream 820 board includes extra features commissioned by dCS, and is connected to a dCS mainboard that adds re-clocking, benefits from better power supplies, and includes a large Field Programmable Gate Array (FPGA) to run dCS's own data processing and control. The latter is required because the Network Bridge does a lot more than just

take in data from the network storage and squirt out digital audio.

To make the unit compatible with as wide a possible range of legacy dCS DACs, not to mention those from other brands, it offers facilities including downsampling of LPCM and DSD data. Anything up to 384kHz audio (and DSD) can be taken in, and then output down to 96kHz if required by the DAC in use.

So it offers everything from a simple S/PDIF output on a standard RCA phono

'Even CD-quality files sound full-bodied and close-detailed'



**RIGHT:** Powered by a substantial linear PSU and based on a modified Stream 820 solution, the core upsampling and format conversion is achieved with custom code running on a Spartan-6 processor [centre]



socket to two AES/EBU outputs, and even channel-separated S/PDIF along with a word clock output on three BNCs. There are also two clock inputs (also on BNCs) to allow it to be slaved to the master clocks on suitable DACs, plus there's a USB input to take local storage and play content from that. For all this capability, the Network Bridge is a simple (if weighty) unit, with nothing on show to the world save a plain front panel with a central blue LED. In fact the casework is a milled-from-solid aluminium construction, and it feels very substantial indeed.

### NO SOUND AT ALL

As with all products of this kind, the firmware is upgradable, so the first step when firing it up may be to run the update process – also controlled from the app – and let the unit download the latest package. Wait until the single LED flashes,

restart the unit and the job's done. After that, the Network Bridge just works, and proved its worth with any number of DACs. It's impossible to suggest it has a 'sound' as such, but when used together with the Marantz SA-10 digital player [HFN Mar '17] it produced a sound very much on a par with that of my usual Naim NDS/555PS network player, which the combination undercuts by a significant margin.

There's nothing at all 'digital' or fragile about the presentation, even when DSD or ultra hi-res content was being downsampled to 192kHz. CD-quality or thereabouts sounds magnificently full-bodied and close-detailed. Playing Angela Hewitt's set of Fauré piano music [Hyperion CDA 67875; 44.1kHz/24-bit], the dCS/Marantz combination delivered a wonderfully fluid and dynamic sound, and this was repeated when combining the Network Bridge with the digital input

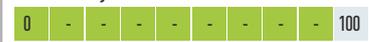
**ABOVE:** Nothing to see here! Network Bridge has no more than a single blue LED on its 'fascia'  
**BELOW:** Outputs extend to two AES/EBU, plus single and two-channel-plus-word-clock S/PDIFs; clock inputs can lock the unit to a suitable DAC

of the NDS, where the add-on box was a match for the Naim's onboard streaming. Jamiroquai's *Automaton* [Virgin EMI CDV 3178; 96kHz/24-bit] was given just the right combination of wall-shaking bass and rhythmic snap, while even orchestral music was both open and powerful. ⬇

### HI-FI NEWS VERDICT

Yes, the dCS Network Bridge has rivals able to do the same for (much) less, but this is a particularly well-sorted device with an excellent app interface, good flexibility and rock-solid sound whether with CD or high res files. Designed to bring older dCS DACs into the streaming age, as well as adding services such as Tidal, it deserves consideration for use in a wider range of applications, working well with non-dCS hardware, too.

Sound Quality: 86%



### ROON RISING

With its roots in the Sooloos multiroom solution acquired by Meridian, and from which it was spun off to go it alone, Roon is becoming one of the go-to networking solutions for audiophile use. In a world of freeware it does require the user to pay – currently \$119 a year, or \$499 for a lifetime membership – but as well as the ability to mix-and-match Roon-friendly products in a multiroom system, this also gets you the extended Roon database. It's this that makes browsing and playing music a joy, from artist information to linking between your own library and Tidal to keep the suggestions coming. The dCS Network Bridge is Roon-ready, meaning a Roon controller can play directly to it at up to DSD resolution, making it a zone in a multiroom set-up or just giving an even more comfortable and informative playback experience. One device in a Roon network is designated as the library – for example a suitable NAS unit or computer – and all your other devices can then access the enhanced content.

