STUDER

professional audio equipment

Products and Solutions - an Overview

Vista 5 - RAI, Italy

Vista 8 - BBC, London

OnAir 3000Net system – Radio
Netherlands, Hilversum

Pioneering the future of the audio industry

At Studer, our philosophy is to continually strive for perfection through innovative design, Swiss engineering and in-built quality. The net result of this approach is that we provide our customers in Radio and TV broadcasting, as well as live installed sound industries with new and feature-enriched products and training. We have realised this goal through listening to you, our customers, and implementing your ideas, be they features, software or engineering based – along with a few of our own of course! Through this approach we have been able to provide you with the ultimate tools to reach new levels of excellence when producing programmes and shows.

Studer's long and successful history is founded on customer service. We have never lost sight of this fact and realise that it is an important part of the Studer package when choosing to buy a Studer product. As such we are committed to continuing our traditions of combining excellent Swiss craftsmanship, well-engineered innovation and intuitive ideas, while always keeping the customer benefits as our main objective.

The constant evolution of ergonomic user-interface technologies, combined with leading edge digital signal processing, has resulted in the most efficient and groundbreaking innovation, namely the "Vista" series of digital mixing desks. By focussing on the human aspects of operation, a product has been created that is not only intuitive, efficient and reliable but also a pleasure to use.

As digital audio information technology develops it has enabled a higher degree of system integration. In broadcasting, the digital mixing console is no longer seen as a standalone product but as an ergonomic point of access to digital audio data in a fully integrated digital audio system. Today the OnAir 3000 and "SCore" platforms provide the basis of the most flexible and networkable systems for a fully digital broadcast chain.

OnAir consoles

With the OnAir series, Studer offers one of the widest ranges of digital on-air and production consoles on the market. The experience of thousands of installations throughout the world and Studer's well-known expertise and craftsmanship have led to a complete range of the most flexible and easy to operate on-air desks for small applications up to the most demanding and complex infrastructure systems in Radio and TV broadcast facilities.

OnAir 3000:
Ultimate Flexibility in Specification

The control surface of this third generation Studer digital on-air mixing console, the OnAir 3000, is a logical evolutionary step based on extensive experience gained in hundreds of installations throughout the world. It combines the philosophies of the well-proven OnAir 2000 and OnAir 1000 control surfaces and uses the most modern software and hardware architecture, allowing the greatest possible flexibility to configure the system and fulfil every conceivable user requirement. The Studer OnAir 3000 is ideally suited for medium to large and complex radio and TV broadcast and production applications, and inherently includes a most modern audio networking architecture.

The OnAir 3000Net, an optional variation of the OnAir 3000, migrates the desk from a stand-alone operation to an open and networked component of the overall infrastructure of a broadcast centre.

By interconnecting several Studer SCore (control and audio) the local and decentralised audio resources in each SCore – be they sources or output busses – can be shared by the other SCore in the network.

This means that a user working on, for example, SCore A can access the microphone which may be physically in another location and connected, for instance, to SCore B, route it on a fader on his desk surface and use it as if it was connected virtually to his SCore.

This functionality works with both the sophisticated SCore Live and the cost-effective Compact SCore.

The OnAir 3000 also now includes optional functionality for handling 5.1 input channels on a single fader.

OnAir 3000 Modulo in custom table

The digital Studer OnAir 3000 Modulo is based on a completely modular desk with a wide range of compact and elegant control surface modules. Layout options range from a highly comprehensive engineer-operated continuity console with up to 48 faders, to a single 3-fader panel for DJ and newsroom use, or even a PC-operated system with no physical controls.

Touch'n'Action

The operating concept of the Studer OnAir 3000 incorporates the same patented 'Touch'n'Action' philosophy as the highly successful Studer OnAir 2000, using colour screens. The 'Touch'n'Action' concept offers immediate access to parameter settings, vital in all live situations, and an instant overview of all channel parameters at a glance permitting a clean and uncluttered surface design. Together with the flexible user access this makes an ideal tool for easy and stress-free operation up to complex and demanding applications.

Part of the desk may also be detached and mounted, for example in a news studio, either as a tabletop unit or in the Modulo version as a drop-in module in studio furniture.

The Studer OnAir 3000 is also available in a fixed frame control room version providing an ideal solution for engineer-driven studio operation or a mobile environment. The frame incorporates the same hardware modules and function blocks as the Studer OnAir 3000 Modulo version, allowing users to choose any required combinations according to their individual applications.
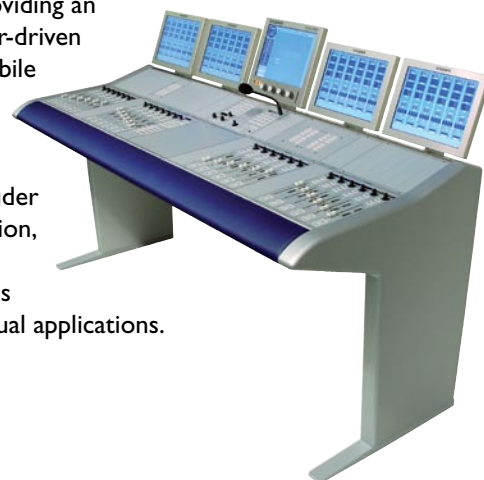
SCore Technology

The Studer OnAir 3000 is based on either the Compact SCore or the SCore Live. Both cores are high-end DSP engines developed by Studer. The SCore uses the same digital audio algorithms as the Studer Vista family, thus guaranteeing renowned Studer sound quality to the highest level. On both core types signal interfacing is performed by the D21m I/O system used also in the Vista large frame console. The D21m system uses the same I/O interfaces independently of the console and core platform.

OnAir 3000 Modulo – Newsbeat Studios, BBC London (UK)

Editor Module

This module comprises an extended three fader option including a subset of the monitoring and talk-back functionality and includes buttons specifically designed to assign the rotary function. The module includes eight freely configurable buttons each for monitoring source selection and talk-back destinations, four configurable buttons for rotary functions like input routing, gain etc, and volume control for headphone and loudspeaker levels. This provides a stand-alone environment particularly useful for an editor or journalist.

Motor Fader Module

Introduced with Studer's new OnAir 2500, the new motor fader module (A943.061000) also extends the great variety of modules for the OnAir 3000. The module contains 6 full motorised 100mm faders, 4 large illuminated and configurable pushbuttons with replaceable label and 12 small illuminated pushbuttons per channel. Two LEDs in each fader strip indicate channel overload (red) and active fader start (blue). Level and gain reduction meter are shown in an OLED display in every channel. Additionally, channel label and parameters of channel processes are indicated in the OLED as well. A touch sensitive rotary encoder below every display allows you to change the indicated channel parameters without losing focus on the fader strip. The OLED display provides outstanding readability of condensed content, even when exposed to bright surroundings.

Fader Screen module

The 12" colour touch screens display an array of information including: input settings, equaliser and dynamics values, AUX send levels, N-X contribution, input, output and insert routings, bus and group assigns, Pan/Bal and channel label, all in real time and all with real values.

The Fader Screen is also available in multi-functional format with additional DVI input and is switchable between standard channel display and any external video source (800x600). This can be used to integrate with the Studer Call Management System (CMS) or, for example, to display news or say a football match for live transmission.

Monitoring Module with Timer Extension

Every fader channel has a separate stop-watch displayed in the label field of the Fader Screen. Timings are presented to the host or producer by the technician via this extended Studio Monitoring Module, adjacent to the stop-watch display is an additional local stop-watch and time of day display.

Compact Module

The OnAir 3000 surface is also available in a Compact version for less demanding applications or where space is at a premium. The fader modules can be housed in a similar table top as the Monitoring and Talk Back Module and can be combined with a Modulo Main Screen forming a complete desk. All modules are connected via Cat 5 cable to the distribution box.

OnAir 2500: Mobile broadcasting has never been this easy

The OnAir 2500 fulfils a clear role in the market. The down-to-earth design of a digital all-in-one console combined with well-established software technology derived from the OnAir 3000 ensures a new standard in ease-of-use for radio Broadcast. Studer's OnAir 2500 is designed as an integrated system – control surface, I/O breakout, DSP and controller boards, as well as power supply, share the same chassis. No additional core is needed to operate the console. The OnAir 2500 is available in 12, 18, and 24-fader frames, with optional motorised faders.

The chassis provides the user with a variety of inputs and outputs in established signal formats. Besides common interfaces on XLR and SUB-D outlets (microphone inputs, headphone outputs, Line and AES I/Os), the internal audio board offers interfaces to multichannel formats like MADI and ADAT as well as an IEEE-1394 Firewire interface.

With the OnAir 2500, you can easily go mobile – wherever and whenever you want. Every signal you need is connected directly to the rear panel. No wasted time setting up links to cores and networks, the intuitive architecture ensures you're on-air fast!

Channel Display

Keeping it easy, you can connect your playout PC via Firewire to the OnAir 2500. Eight channels in and eight out is an attractive channel set even for fixed installations. And, you save using the audio device in your playout PC.

Brochure BD10.265970

OnAir 500:   The small Studer

The Studer OnAir 500 digital mixing console enables even more broadcasters to enjoy Studer's renowned digital audio quality and reliability, elegant styling and intuitive operational features.

The OnAir 500 is perfect for smaller radio stations looking for an easy upgrade route from analog to digital, for new broadcasters setting up an all-digital infrastructure from scratch and for established broadcast centres requiring occasional spare capacity for special programs and outside broadcasts. The compact size and simple control layout of the Studer OnAir 500 are reassuring for first-time users and the logical menu systems provide swift and easy access to all the console's features.

The Studer OnAir 500 is available either in a 6-fader tabletop version or as OnAir 500 Modulo in a 6 or 12-fader modular version for integration into specific studio furniture or an OB-vehicle.

Brochure BD10.265380

OnAir 500 Modulo in custom table
Brochure BD10.265512

OnAir 500 Modulo – RSR Chur, Switzerland

OnAir 500 – Antenne
Niederrhein (Germany)

Broadcast, Production and Live Consoles

Studer is famous for its large-frame broadcast and production consoles delivering the finest audio quality. By introducing the most advanced user-interface architectures and the most modern DSP technology Studer continues to take quantum leaps forward in this sector of the audio industry.

Digital Mixing Consoles

Vista 8: Pushing the Limits of Ergonomic Design

By introducing the revolutionary Vistonics™ user-interface technology, Studer has set new standards in digital mixing console operation. Unparalleled in ergonomics and ease of operation it combines intuitiveness by graphical representation of complex parameters via coloured symbols together with localized control where the parameters are actually displayed. This patented and award winning technology in conjunction with thorough market research has led to a range of unique products – the Vista Series of digital mixing systems. These fantastic tools give sound engineers the absolute freedom to turn their creativity in masterpieces or keep calm in hectic live situations. More than that, getting familiar with and finally mastering the high technology of a modern digital mixing console becomes easy and is also fun.

The Studer Vista 8 is a digital mixing system for live, production and broadcasting applications that reaches out far beyond the limitations of existing designs. The Vista 8 also provides the globally acclaimed Vistonics user-interface in the control section for unmatched output metering and control, plus a host of other groundbreaking features.

The Studer Vista 8 is quite simply easier to operate than any other analog or digital console and a joy to work with. Within minutes, engineers quickly find their way round the numerous exciting features. Operation of the console is unmatched in intuitiveness and simplicity. Operators in live events and production can work with complete confidence since the user-interface reduces the risk of human error to an absolute minimum.

Vista 8 is available in frames with up to 72 motorised faders. Vista 6/7 can be supplied with up to 70 motorised faders

Harman HiQnet™-compatible.
Brochure BD10.265532

The DSP core of the Studer Vista 8 builds on Studer's well-proven digital technology. It boasts an excellent reliability record and inspires a high degree of confidence enjoyed by the numerous and growing worldwide user base operating mission-critical applications. Optional full redundancy of the DSP cards, the I/O cards and the control system in the desk guarantee the highest possible level of reliability throughout the whole system.

Vistonics™

The Vistonics user-interface technology includes rotary controls and switches mounted directly onto a high-resolution flat-screen display to finally bring visualization and operation into the immediate proximity of operation. The colour and shape of the symbols are varied according to the best ergonomic practices. Any given audio function is always associated with the same color and a parameter is always associated with the same icon graphically displaying the values. Extensively researched and well-proven ergonomic practices are blended with the most advanced control technology to increase operator comfort and ensure reliable operation.

Software

Version 4.0 software for the Studer Vista series of digital consoles includes not only 5.1 input source management and channel panning, but also a new alternative Dynamics package, termed 'Vintage', which gives users a more retro style of compressor-gate/expander to give a more pronounced effect than the standard dynamics – acclaimed for their transparency.

Vista Remote Bay

All Vista consoles offer the possibility to connect external Remote Bays (detached fader bays), in standalone housings that can be located in an auditorium or an arena up to 400m from the desk allowing mixing directly "on site".

Brochure BD10.265262

Vista 7: Room for Creativity

Optimized for production and post-production work, the Studer Vista 7 offers extensive static and dynamic automation features. Studer's AutoTouch Plus Dynamic Automation exceeds the most stringent operating requirements. Its functionality permits the most complex automation tasks to be carried out within a clear and logical workflow, whereas for basic automation tasks a straightforward and simple operation mode has been included. In both cases the unique and detailed automation status and read-back of information is displayed on-line on the Vistonics screen.

The Vista 7 supports several third party machine control systems as a standard. Optionally, dedicated transport control buttons and a jog/shuttle wheel for multi-machine control, track arming, etc. are integrated into the surface.

Like all Vista Series consoles, the Studer Vista 7 includes VSP, Studer's unique Virtual Surround Panning audio processing to create realistic 5.1 sound modelling.

Brochure BD10.265102

VSP
VIRTUAL SURROUND PANNING

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Vista 6: Live broadcasting with Vistonics™

When familiarizing yourself with the Studer Vista 6, you will soon discover that you already know how to operate this console. Even freelance engineers who may initially be unfamiliar with the operating techniques will quickly find their way around the extensive functionality. Along with Vistonics technology, the Studer Vista 6 offers all the relevant broadcast features you will need, like comprehensive monitoring and talkback facilities, a large number of external sources inputs, support of two separate studios and an array of customizable buttons.

Common across all Vista consoles, an extensive routing matrix is integrated into the DSP core providing easy-to-patch facilities that eliminate the need for an outboard patch bay or external front-end router.

Brochure BD10.265391

Vista 5: Compact but Powerful

The compact tabletop-mounted Vista 5 desk is ideally suited to broadcast production, live sound and performance venues, and uses the new SCore Live DSP platform. The Vista 5 follows the same operational principles and uses the same Vistonics screens as its larger brothers, the Vista 6, 7 and 8. This makes it easy for an operator to move between different members of the Vista family, which have very similar operational routines.

The 32-fader desk consists of 20 channel strips, optimised for input channel operation, and 12 additional versatile strips for operating output and input channels. DSP power and I/O may be specified by the customer. The total I/O capacity, comprising various cards including Mic/Line, ADAT, TDIF, AES/EBU, SDI and MADI, may exceed 1700 inputs and outputs A 42 fader version is also available.

Typical broadcast facilities are included, such as N-1 outputs, off-air conferencing, GPIO and extensive monitoring including 5.1-to-stereo downmix functions. The console's internal matrix may be controlled from a variety of third-party controllers and video routers, removing the requirement for external audio routers in many installations.

The Vista 5 offers all the surround capabilities a user can dream of. Formats include 2CH stereo, LCR, LCRS and 5.1. The internal 5.1-to-stereo downmix function allows for simultaneous live productions in both formats. The Vista 5 also includes Studer's world-famous 'Virtual Surround Panning' (VSPII™).

The luxurious static automation (snapshot filtering and editing) as well as the cue list functionality, rounded off by mute groups and matrix busses, makes Vista 5 equally well-suited to any kind of live sound application.

Harman HiQnet™-compatible   Brochure BD10.265790

DSP with local I/O and flight case

Vista 5 SR: Ready for the Road

Long famed for it's range of digital consoles in the Broadcast sector, Studer has joined the top end Toursound sector with the Vista 5 SR desk, a road-ready version of the established Vista 5 console already in use in prestigious theatres, studios and performing arts centres around the world.

The Vista 5 SR is a direct response from Studer to suggestions from leading toursound companies and engineers who saw the Vista 5 and realised its potential as a true live sound desk.

This feedback has led to Studer re-engineering the mechanics of the console for touring use, including new frames and racks.

The Vista 5 SR comes with preset configurations for Front-of-House and Monitor use.

The standalone Config Editor tool allows the channel/bus structure to be customised, all of which can be saved for each particular show setup and instantly recalled from memory or a USB stick at a later date.

Also a key feature of the Vista5 SR is it's expandable I/O system – where the whole range of available Studer D21m series I/O cards (including Cobranet and Aviom A-Net) can be added to the system. The MADI standard is used as optical snake link from stagebox to FOH rack – with the possibility to add a redundant snake for increased security.

The Vista 5 SR can also utilise VST plug-ins using a dedicated plug-in engine that enables effects to be used either on channel inserts or on effects sends. Control and storage of the plug-ins is achieved via a dedicated page on the Vista's Graphical Controller screen, and effect configurations are then recalled via the Vista's Cuelist function. The VST host allows the sound engineer to now make use of his/her favourite plug-in collection not only in the studio but also on the road.

Stage Box

Systems / Solutions

Studer offers a wide variety of infrastructure-related products from large and complex routing systems, call management systems, computer-assisted playout systems, and audio interface systems to individual audio function blocks like tone generator modules or master clock generators.

Route 6000:
Maximisation of Studio Resources

The Studer Route 6000 offers all the benefits of a flexible digital routing system as well as the cost advantages of fibre-optic links. Its easy configuration saves studio time and resources and the modular architecture allows upgrading at any time. The Studer Route 6000 is based on the same SCore Live DSP technology as the Studer Vista series of digital mixing consoles, and uses the same flexible and reliable D21m I/O system which is used for OnAir 3000, 2500 and Vista series consoles.

The Route 6000 provides control interfaces for serial (RS-422) and Ethernet (TCP/IP) based control systems. Standardised protocols are implemented allowing most router control systems to access the basic routing functions without major adaptations and system integration.

Besides the basic routing capability, the Route 6000 supports assignable signal processing functions which makes it a very flexible component at the heart of a broadcast system. Due to the compact design of the DSP core and the I/O system, the Route 6000 is not only suitable for fixed installations but is also an excellent choice for OB vans. In conjunction with Studer mixing consoles, the Route 6000 supports I/O sharing.

With the Route 1000 software, Studer offers an easy to use control suite capable of easily setting cross points on the Route 6000 or on the SCore of the Studer OnAir 3000 mixing system. Inputs and outputs may be grouped, making it easy to navigate through hundreds of signals. The Route 1000 application runs on a PC which connects to the Router over a TCP/IP network. Designed for networked systems, many Route 1000 control applications can run simultaneously to control the same router, and each will report the operational state through a feedback system.

Brochure BD10.265830
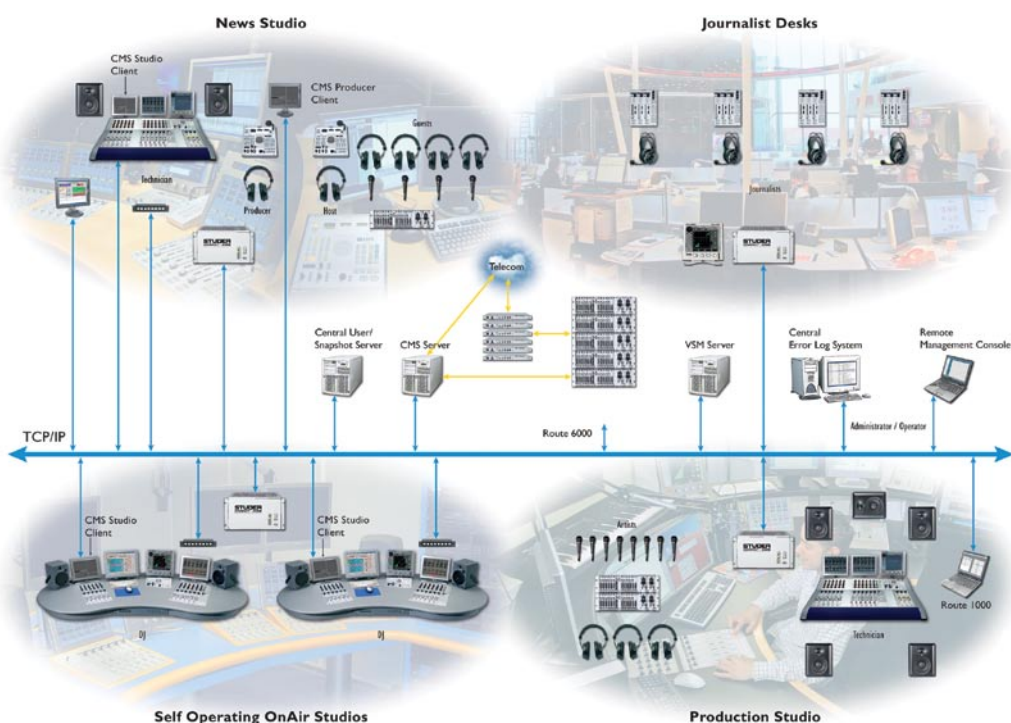
D21m I/O System

The connection of D21m frames located close to the DSP core is provided over CAT5 cables. Such frames may also act as a hub to remote stageboxes. This connection is made using the standard MADI format. It also transmits all necessary control signals for the remote I/O frames (e.g. microphone preamplifier control) without sacrificing any of the 64 audio channels.

Brochure BD10.265750

D21 MultiFeed

The Studer D21 MultiFeed provides digital clock and AES/EBU signal distribution with similar features to the D21 MasterSync but without the clock generation. The 16 AES/EBU outputs can be used individually (in groups of four) for AES/EBU signal distribution.

Brochure BD10.265870

D21 MasterSync

The Studer D21 MasterSync combines precise master clock generation with clock distribution capabilities, an essential part of a larger digital audio installation. The generator can be synchronized by external video, AES/EBU or Wordclock signals, or use its accurate internal reference to generate clock rates at six different frequencies between 44.1 kHz and 96 kHz. The built-in distribution amplifiers supply six Wordclock and up to 16 AES/EBU outputs as reference signals. Two D21 MasterSync generators may be connected together in order to provide full redundancy on maximizing operational security.

Brochure 10.26.5860

Tel Hybrid

Studer provides digital telephone hybrid units providing bi-directional interfaces between the mixing console and the standard telephone line. They handle telephone-to-studio line switching and signal processing to remove line echoes in auto or manual mode, while compensating for level fluctuations.

Brochure BD10.261301

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CMS: Ultimate flexibility for managing your calls

The Studer Call Management System (CMS) is a very powerful system for handling multiple telephone calls in a broadcast environment. The CMS can be easily integrated with an existing PBX or ISDN, VoIP calls are also directly handled on the CMS server. Software codecs such as G711, G722, MPEG1 layer 2 and others are available. The CMS can route calls between studios, producers and the back office, uniquely the codecs are automatically routed together with the call. The 'Waiting Room' concept in conjunction with a very flexible scheduling system for incoming calls allows appropriate management of calls for different times of the day or for special events.

The system can not only handle standard calls, it also provides powerful voting and gaming features and has a built in voice-mail system with email or SMS notification.

The CMS uses standard IT infrastructure (servers, TCP/IP network, client PCs) for handling calls within the broadcast environment. This is a big advantage for the system since no additional wiring is needed. The entire configuration and all caller information, including statistics data, are stored in an SQL database.

The CMS provides web front ends for users and system administrators providing a flexible method of adapting the system to the changing requirements of a modern radio station.

Another unique feature of the CMS is the seamless integration with the Studer OnAir 3000 and 2500 mixing system. Caller name or telephone number will be transferred automatically to the fader display when a caller is routed to a console input channel. Optionally, the TFT touch screen of the OnAir console will change the screen from being a channel screen to being the CMS studio client screen. All control and status information between an OnAir console and the CMS is exchanged over TCP/IP.

Brochure: BD10.265761

Vista 8 – Palace of Arts, Budapest (Hungary)

Vista 7 – Det Norske Teater Norway, Oslo (Norway)

Vista 7 – VCF OB Van, Paris (France)

Studer – Excellence is a habit

For many, the name Studer carries a worldwide reputation for quality and reliability. To others, the name suggests high technology and innovation. The Studer name is synonymous with providing solutions – in Radio, Television, Live applications and Post Production – in the form of dedicated products or complete tailor-made systems.

For over 60 years, Studer's commitment to continuous investment in research and development has maintained our position as a world leader in both analog and digital technology. This has resulted in the award of more than 20 technology patents; but, more importantly, it gives Studer the engineering and design skills to turn these technologies into innovative and often unique products that our customers want to use.

If you are looking for technical solutions, together with our experience in assembling complete systems, we also know about the smaller things that make the products work together as a system, in both the analog and digital domains.

OA 3000 system at R101, Italy

OnAir 3000Net system – Radio Netherlands, Hilversum

System solutions

Studer not only delivers dedicated products and system components but we also support you in designing complete system solutions like a complete broadcast facility. We are happy to offer our experience for entire projects and discuss the best possible solutions for you.

Service and Support

We at Studer know that reliability is of paramount importance to our customers. Therefore Studer offers worldwide service and support for its products. Studer also offers operator training and service courses on-site or at the factory in Switzerland.

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