RIEDEL

:update

#019

www.riedel.net

MEDIORNET CONTROL APP GIVES RIEDEL'S SMARTPANEL INTERFACE SIMULTANEOUS ROUTING AND COMMUNICATIONS CAPABILITIES

With its introduction today of the MediorNet Control App for the company's innovative RSP-2318 SMARTPANEL multifunctional user interface, RIEDEL Communications has closed the loop between communications and real-time media routing. In addition to linking the SMARTPANEL directly into the RIEDEL MediorNet media network as a dedicated control panel, the new MediorNet Control App in combination with the existing Intercom Apps gives users simultaneous intercom functionality, enabling them to route, control, and communicate all at once using a single 1 RU system.

"With the release of the MediorNet Control App, our groundbreaking SMARTPANEL user interface has grown into much more than an intercom solution; it now facilitates direct communication with the MediorNet network and control of devices within it," said Karsten Konrad, Product Manager at RIEDEL Communications. "Eliminating the need for a separate server, this solution allows users to realize valuable routing and communications functionality while saving both, rack space and money."

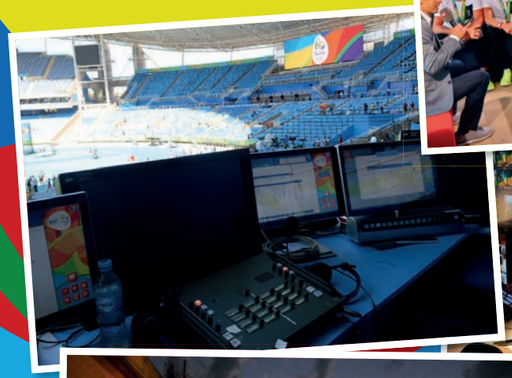
The MediorNet Control App is the second App family developed for RIEDEL's SMARTPANEL interface. By equipping the SMARTPANEL with the new MediorNet Control App, users effectively consolidate two panels into one panel that provides full intercom and control functionality at all times. With the Intercom and MediorNet Control App running in parallel, the SMARTPANEL serves as a robust and highly cost-effective A/V control system. As RIEDEL continues to develop Apps for the SMARTPANEL, users will gain increasing capabilities that help to optimize signal transport and production workflows.

The MediorNet Control App was used extensively by Fox Sports Mexico in Rio this summer and has been adopted by Sky for use in seven new SNG vans.

RIEDEL's SMARTPANEL offers features and capabilities that enrich the user experience and change the way broadcasters and A/V professionals communicate. As the world's first control panel designed to serve as a powerful multifunctional user interface, the RIEDEL device boasts a unique feature set that includes three high-resolution, sunlight-readable, multi-touch color displays; premium quality audio; a multilingual character set; and 18 keys in just 1 RU. It offers AES67 and AVB connectivity as standard and AES3 over cat or coax cable as an option. The SMARTPANEL also features exchangeable headset connectors, an integrated power supply, individual volume controls for each key, two USB ports, two Ethernet connectors, GPIO, audio I/O, an option slot, a removable gooseneck microphone and an SD card slot.

+++ NEW PRODUCTS +++ NEW PRODUCTS +++ NEW PRODUCTS +++ NEW PRODUCTS +++

FRIENDS OF THE GAMES



This summer, as 10,000 athletes from more than 200 countries met in Rio de Janiero to compete for gold, the solution providers, broadcasters, OB companies, media, and other professionals behind the event's state-of-the-art broadcast infrastructure enjoyed a golden opportunity of their own. They gathered at the Friends of the Games Lounge, located at the corner of Rio's iconic Ipanema and Copacabana beaches, to share their knowledge, discuss best practices for large-scale live event production, and talk about the past and future of technology used in the production of high-profile sports events.

RIEDEL partnered with Agora, BWS, Creative Technology (CT), ETC and Hytera to build the Friends of the Games Lounge and provide the men and women working behind the scenes with a platform for exchange. Produced by Hochsitz and XYZ LIVE, The Friends of the Games Lounge was housed on the main floor of a sustainable temporary building constructed of timber, glass, and steel with oak-parquet-flooring and a glass facade up to the ceiling providing a spectacular 270 degree view from the Corcovado to "Christ the Redeemer" to the beaches of Ipanema.

While informal conversations were a primary goal of the lounge, special invitation-only events were hosted by RIEDEL and partner organizations. A "Rhythms of Rio" reception presented by the Sports Video Group (SVG) and RIEDEL made for a casual evening of celebration. SVG and RIEDEL also partnered to present a "Sunset Tech Talk," which featured food, drinks, and a discussion of broadcast content and technology. The beautiful and relaxing setting saw visits from gold medal winners, OB CEO's, Technical Directors from Rio and for the upcoming games in Tokyo, and various presenters.

In supporting the games themselves, RIEDEL shipped tons of material and brought a team of more than 150 engineers and technicians to Rio. In its largest effort yet for the summer or winter games, RIEDEL provided intercom systems across all competition venues, with more than 2,500 users working with RIEDEL gear. On top of this, RIEDEL also supplied trunked radio services supporting approximately 14,000 radios, base stations, and accessories. The company delivered nearly 400,000 meters of fiber and copper cable, which supported more than 300 nodes of the company's MediorNet real-time media network and RockNet audio network. RIEDEL systems were deployed for various third-party services, enabling communications and signal transport for national hospitality houses and other venues.

For the opening and closing ceremonies, RIEDEL equipment supported intercom, radio, signal distribution, closed-circuit television, and a "mass cast" system for event performers. Within the legendary Maracanã Stadium, more than 2,000 simultaneous users relied on RIEDEL systems to make these productions a success.

By the close of the games, RIEDEL had not only facilitated production of a remarkable international sporting event for fans in Rio and watching all around the world, but also created a unique, memorable, and valuable experience for the many people whose technical expertise and dedication made the event possible.

AIMS
Alliance for IP Media Solutions
Member

RIEDEL JOINS AIMS

CHRISTIAN DIEHL

At RIEDEL we always have been dedicated to using open standards in all parts of our product portfolio. As a solutions provider, we strive to help our customers make investments that will last and we support them on their path toward IP-based media infrastructures. At RIEDEL we feel that the open standards promoted by the Alliance for IP Media Solutions (AIMS) will help broadcast and media companies to move quickly and profitably from legacy SDI systems to a virtualized, IP-based future. This is why we have joined AIMS.

Through AIMS we are working with broadcasters, fellow technology vendors, and industry standards organizations to promote and evolve a comprehensive, ubiquitous set of IP broadcast standards that maximize interoperability between devices. As a result, we are able to extend our own products' support of technologies, increase the benefits that our customers gain from standard-based audio, video and communication solutions, and help to shape a path through the jungle of IP standards.

MICRON DEVICES BRING APU BIG BENEFITS IN MANAGING ROUTING AND PROCESSING

Azusa Pacific University (APU) is a comprehensive evangelical Christian university that offers more than 100 associate's, bachelor's, master's, and doctoral programs on campus, online, and at six regional campuses across Southern California. The East and West campuses of the university's Azusa campus occupy more than 100 acres in California's San Gabriel Valley, 26 miles northeast of Los Angeles, and house the classrooms, offices, dining and residence halls, sports facilities, libraries, administrative and academic facilities, worship spaces, and student centers necessary to support a student population of 9,900 students .

RIEDEL Communications' MediorNet real-time media network, Artist digital matrix intercom system, and RockNet digital audio network system have played a central role in supporting the enormous number and variety of productions that occur at different APU venues — sports broadcasts, concerts, broadcast journalism programs, corporate events, galas, and more — since their first installation in 2007.

Earlier this year, APU augmented the deployment of RIEDEL equipment, adding four new MediorNet MicroN 80G media distribution network devices to the network in order to link sites across the Azusa campus in a decentralized routing matrix. By incorporating multiple interconnected MicroN units into its existing MediorNet network — a process that took only four hours — APU created a decentralized routing system that distributes signal load, takes advantage of flexible node placement, and eliminates any single point of failure.

"The Artist, RockNet, and MediorNet systems have allowed us to bring the separate venues together into one cohesive production environment in which all our communications, audio, video, and more can be easily routed and utilized anywhere on campus," said Erik Mahoney, broadcast/production systems engineer at APU. "The flexibility and ease of configuration, not to mention RIEDEL's rock-solid reliability, have allowed us to do more frequent and more complex productions than ever before."

APU installed its four new MediorNet MicroN units in the control room at the Turner Lynch Campus Center on the main campus in Azusa. This control room serves a variety of production spaces throughout the campus that host high-profile corporate events, TEDx Talks, sports broadcasts, special lecture capture/streaming, concerts, the university's commencement ceremonies, and chapel worship services held across multiple sites.

With on-board signal-processing capabilities including frame synchronization, embedding/de-embedding, and delays, the MicroN-based installation can handle SDI signals in a very powerful, versatile, and highly scalable routing way. Built-in processing has not only eliminated APU's need to purchase and support separate processing cards and hardware, but also helps the university to conserve valuable rack space within its technical facilities. In case the requirements change, APU can quickly and easily extend the router in both signal capacity and distributed system locations with the addition of further MicroN nodes to the network.

Since installing MicroN, the small engineering team at APU has seen a significant reduction in workload. Thanks to the combination of signal transport and routing systems into one system, it is much easier to manage day-to-day configuration changes. These new efficiencies allow the team to support a greater number of productions with increased complexity, all with tighter turnaround times.

THE MAGNIFICENT SEVEN

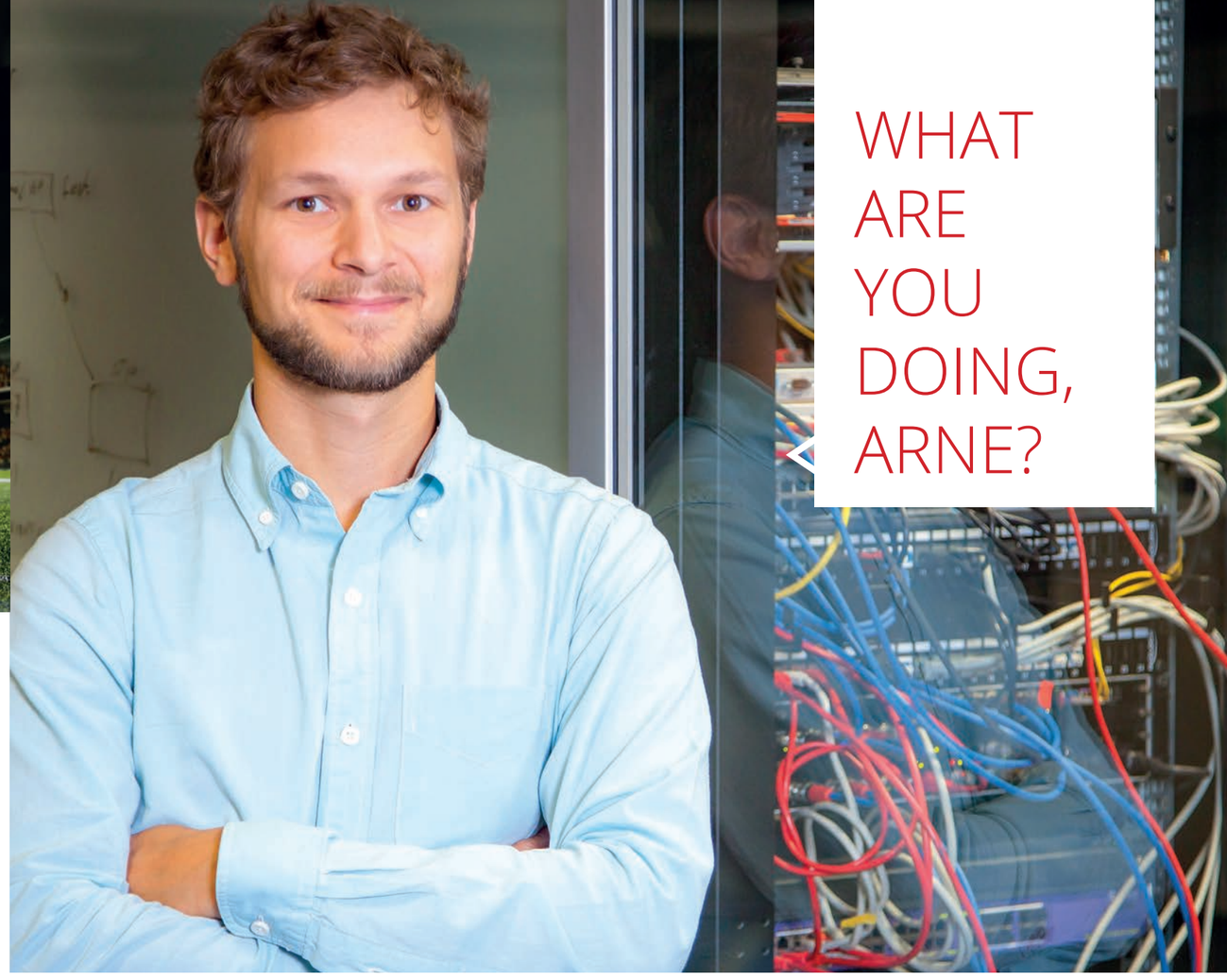
German pay-TV operator Sky Deutschland AG originated in 1991 as the analogue premium channel Premiere and in subsequent years evolved into a digital satellite service known for offering premium movies and sports channels. Though today it is a much different service in many ways, Sky remains a leader in providing popular live sports programming in Germany. To maintain this leadership position, Sky is building a new fleet of satellite newsgathering (SNG) trucks to support its HD sports news and live sports production.

Sky Germany is outfitting seven SNG units and two OB tender vehicles with RIEDEL Communications' MediorNet real-time media network, Rocknet audio network, Artist intercom system, and Smartpanel multifunctional user interface, equipped with the new MediorNet Control App. The relatively new MediorNet Control App is the second application developed for RIEDEL's innovative Smartpanel interface. With the original Intercom application and new MediorNet Control App running in parallel, the Smartpanel effectively consolidates two panels into one robust 1RU panel that provides full intercom and control functionality at all times.

Each of the seven SNG units will feature MediorNet, RockNet, and Artist infrastructure, as well as a MediorNet Compact stagebox that extends available signal routing and communications interfaces. For larger productions, Sky Germany will integrate these trucks with OB tender vehicles providing support and being equipped with RIEDEL systems including Smartpanels, commentary units, and a MediorNet Compact frame.

Linking the Smartpanel directly into the RIEDEL MediorNet media network as a dedicated control panel, the new MediorNet Control App will enable Sky Germany users to route and control signals and maintain simultaneous communications across the fleet using a single 1RU system that reduces both the space requirements and equipment costs associated with live remote production.

Simplifying and accelerating the shift of equipment across the Sky fleet depending on the demands of different productions, this combination of RIEDEL solutions will enable tremendous time and effort savings as equipment is moved between various SNG trucks to address changing production requirements. And, while the Smartpanel will provide a high degree of flexibility that translates to much higher efficiency in Sky's overall operations, the extensibility of the Smartpanel makes RIEDEL's MediorNet media network an even more compelling solution for SNG vehicles and live production applications. As RIEDEL continues to release new applications for its Smartpanel interface, Sky Germany can readily and cost-effectively take advantage of this enhanced functionality.



WHAT ARE YOU DOING, ARNE?

As head of the IP research team at RIEDEL, I am involved not only in product development, but also in our continual search for the latest advances in network technologies. This includes the transport of audio and video (compressed and uncompressed), mechanisms for the intelligent control of IP data streams, and safety aspects such as authentication, authorization, and encryption.

"MediorNet offers valuable functionality for many facilities today, as well as a smooth path into working with IP interfaces. The IP research team is committed to ensuring maximum interoperability with products from industry partners."
Arne Bönninghoff,
Head of IP Research

These priorities are reflected in our MediorNet product line, which offers valuable functionality for many facilities today as well as a smooth path into working with IP interfaces.

In creating concept studies and prototypes and then working with product management to generate ideas for product development, the IP research team is committed to ensuring maximum interoperability with products from industry partners. To this end, we use industry standards from bodies including IEEE, IETF, AES, and SMPTE to give our customers the flexibility to deploy the solutions and applications best for their requirements. Looking toward the future, my team also is involved in the 32NF60 (SVIP) drafting group of the Society of Motion Picture and Television engineering (SMPTE), part of the Joint Task Force on Networked Media (JT-NM) along with the EBU and VSF, that is developing a new specification for use within facilities.

The acquisition and transfer of knowledge are important to my team and myself. For this reason, I take part in interoperability workshops, conference sessions, and technology presentations and demonstrations that offer me the opportunity to learn new things and to share some of the insights I have gained through my work with RIEDEL.

RIEDEL's FRENCH SUMMER

RIEDEL had an unforgettable summer in France, with large-scale deployments across both groundbreaking outside broadcast (OB) vans and state-of-the-art fixed facilities.

TV coverage specialist AMP VISUAL TV, which boasts one of the most extensive European fleets of OB vans for video production, built its groundbreaking Millenium Signature 12 (MS12) HD/4K-capable OB van on a RIEDEL MediorNet real-time media network of unprecedented scale. MS12 is designed to support up to 40 cameras, but at the truck's debut at France's Circuit de la Sarthe for the 2016 24 Hours of Le Mans race, its MediorNet signal transport and distribution infrastructure processed more than 100 camera signals.

Taking a innovative approach to managing large and complex live productions, AMP VISUAL TV deployed a robust MediorNet real-time media network — one of RIEDEL's biggest so far — that replaces the traditional central router used in most OB vans. The resulting RIEDEL infrastructure provides video, audio, data, and intercom transport as well as valuable routing and processing capabilities. Deployed in a fully redundant configuration built on a 10 Gb/s fiber network, 68 MicroN high-density signal interfaces, eight MetroN core routers, three MediorNet Compact Pros, and two MediorNet Modular frames combine to serve as a decentralized matrix that transforms MS12 into a unique OB van concept, with router elements situated in the ideal physical location for any given workflow or production.

This MediorNet network, and the MicroN devices in particular, give AMP VISUAL TV a much greater degree of flexibility in addressing the demands of major events. Following the Le Mans race, the company took advantage of MS12 and its robust video routing functionality and signal processing to facilitate production of EURO 2016 4K coverage in Lyon.

In fact, the EURO 2016 venue in Lyon is also the site of a landmark deployment of RIEDEL Communications equipment in a fixed facility. France's new Parc Olympique Lyonnais Stadium, home of French football club Olympique Lyonnais, uses RIEDEL systems to redefine the live sports and entertainment experience.

Within the stadium, the RIEDEL MediorNet real-time media network, RockNet digital audio network, Artist digital matrix intercom system, Acrobat wireless intercom system, and Performer digital partyline system provide a decentralized fiber-based network for flexible signal transport, routing, and processing, as well as communications. Supporting the entire building, including the technical facilities for Olympique Lyonnais TV, the versatile and scalable RIEDEL infrastructure allows the stadium's audio, video, data, and communications signals to be leveraged with speed and simplicity to meet the requirements of football matches and any other live event.

Eighteen strategically located MediorNet frames are connected over optical fiber to create a decentralized router, which can be expanded as needed with mobile frames integrated into flight cases. RIEDEL's RockNet interfaces have been allocated onto the network to expand audio resources as required. Additional RockNet frames can easily be added for larger or more complex events. Communications throughout the stadium are supported not only by the Artist and Acrobat intercom systems, but also by RIEDEL's new Smartpanel multifunctional user interface and RIEDEL's RiFace universal gateways, which integrate the in-house radio system into the Artist. As a result, all types of signals can be picked up anywhere in the stadium and routed and/or processed to any output(s) elsewhere in the stadium.

Whether in the latest OB van or the newest sports facility, deployments of RIEDEL equipment demonstrate the power of flexible infrastructures in enabling the production of rich, engaging experiences for live event attendees and for fans watching at home.

#RIEDEL faces CFO FRANK EISCHET ABOUT CHANGE

"RIEDEL Communications has seen tremendous growth over the last years, and I am convinced that the key drivers for this growth have not only been customer- oriented innovations and a strong market reputation, but also our strong commitment to maintaining the culture of a family company."
Frank Eischet,
RIEDEL Communications
CFO

Our goal is to create an organizational structure that fosters entrepreneurship and individual responsibility, with the entire team working in concert with one another and for one another.

To ensure that our growth continues to be sustainable, we have to invest in the internal structures, processes, and systems that underpin our business. To this end, we have been investing in people with know-how and in IT systems and infrastructure that reinforce and upgrade our operational capacity and capabilities. We recognize that as a technology-driven company with three decades of history, RIEDEL must be willing to scrutinize its strategic direction and evaluate as objectively as possible the best course forward in reaching our goals, whether leveraging internal resources, acquiring new resources, or some combination of the two.

Our experienced team has brought RIEDEL a long way, and we augmented this valuable group with talent from Delec Audio- und Videotechnik GmbH, a developer and manufacturer of high-quality digital communication systems along with a range of Dante-enabled solutions, and from ASL Intercom BV, a leading provider of economical communications solutions with European quality. With these two acquisitions, we have gained exceptional leadership, innovative engineering minds, renowned service and support staff, and complementary technology that will help drive further success for RIEDEL in markets worldwide. At home in Wuppertal, we have also been preparing for this future through the expansion and modernization of our facilities.

RIEDEL have been experiencing change in many different ways, and I believe that our willingness to adapt and grow gives us a competitive advantage in developing and delivering smart, flexible solutions to a growing global marketplace.

IMPRINT
Published by RIEDEL Communications GmbH & Co. KG
Uellendahler Str. 353 • 42109 Wuppertal • Germany
www.riedel.net
Editorial Director: Serkan Güner
Contact: update@riedel.net

ASL INTERCOM
A RIEDEL COMPANY

EXPANDING OUR REACH AND TALENT THROUGH ACQUISITIONS

RIEDEL recently acquired ASL Intercom BV, a manufacturer of rugged, reliable, and flexible high-quality communications systems for event production, broadcast, and related applications. The company's flagship FLEXUS intercom system is notable for allowing multiple standards — Dante/AES67/AVB and Ravenna — to coexist within a single system.

"ASL Intercom has a strong portfolio in partyline technology, and the company's products adapt readily to a wide variety of applications," said Thomas RIEDEL. "Intercom applications remain a core element of our business, and we are confident that we will quickly be able to leverage the complementary technologies of ASL Intercom to serve an even broader array of customers that can benefit from exceptional communications systems."

Headquartered in Utrecht, ASL Intercom was established in 1985 by current Managing Director Eric de Bruyn. ASL Intercom's impressive slate of technology deployments includes projects with the National Opera Netherlands, Schiller Theater Berlin, and the new Tivoli Vredenburg venue, the Netherlands' largest live music venue.

RIEDEL Communications also acquired DELEC Audio- und Videotechnik GmbH, a developer and manufacturer of high-quality digital intercom and communication systems that feature advanced Dante capabilities. The flexibility, comprehensive functionality, and compact dimensions of DELEC products — most notably the company's oratis intercom systems, unito Dante audio networking interfaces, and digital PA systems — make them ideal for stage-management and intercom systems at many large venues for live entertainment productions.

"Since 1998 DELEC has been known for its visionary ideas and strong technology. And the company's products complement and augment the RIEDEL portfolio in a way that will bring even greater versatility to our customers," said RIEDEL. "The entire DELEC team will become part of the RIEDEL family, and this is exciting news not only in terms of our ongoing development of Dante solutions, but also for our growing customer base. Together, we are better positioned than ever to provide forward-looking solutions that address current and future communications requirements."

Both of these moves provide new engineering resources while strengthening the RIEDEL portfolio of advanced communications solutions and audio networking options.

DELEC
MADE BY EXPERTS

Alessandro Reitano
Vice President Sports Production
Sky Deutschland GmbH & Co KG

I REDUCE THEREFORE I AM

Interview with **Alessandro Reitano**

Sky prides itself on delivering great content that continues to raise the bar both in terms of the technology behind it and the stories that are told. They pioneered things like 4K interactivity and steady-cam so when the opportunity came up to streamline workflows in their new SNG vans, Allessandro Reitano chose RIEDEL's MediorNet, Artist, and Smartpanel to help prepare Sky for the future.

Innovation helps Sky to differentiate their services and their end products. With the introduction of the MediorNet Control app, Sky has a single interface panel that can provide both comms and control of their MediorNet signal transport and processing backbone. This allows them to be more efficient by saving valuable space in the vans, saving money on not having to have separate interfaces, and allowing them to handle larger productions. And, since Smartpanel is app-driven, they will be able to leverage future capabilities to realize even greater efficiencies.

Is one hand enough to count all the technical Challenges ahead until 2020?

In fact, the wealth of technical challenges we are facing is unprecedented and very time-consuming. Therefore, one hand will not be enough to count our ambitious and very exciting challenges.

How did you justify for your latest acquisition of our products?

Reliable, future-oriented, scalable, ambitious, and the right systems for our projects. That was sufficient to convince procurement ☺

A word that you use too often…

Insourcing

Your vision of the future sports production?

High-quality, state of the art, smart and innovative.

Explain your job to your neighbor in one sentence

I travel the world helping to bring sports to the audience at home, but always from BEHIND the camera!

ASIAN TEATIME TECH TALK

In our role as a leading provider of broadcast solutions, RIEDEL Communications gathered industry veterans at Broadcast Asia 2016 to discuss the effect of innovation on industry standards. During the "TEATIME TECH TALK," an informal teatime panel discussion held on May 31, Thomas RIEDEL joined C-level peers to provide insights on today's groundbreaking solutions and how they are altering the broadcast landscape.

"Broadcast Asia again proved an essential event for the exhibition of emerging technologies, and particularly the impact of IP on how broadcasters and other media professionals deliver their products and services," said Thomas RIEDEL. "Building on this rich exhibition, our Tech Talk provided an engaging and valuable look at these technologies and solutions and the role they are playing in shaping the broadcast business."

Held this year at Marina Bay Sands in Singapore, Broadcast Asia is widely recognized as Asia's must-attend international event for the pro audio, film, and broadcasting industries. Offering educational and networking opportunities, the 2016 exhibition drew professionals from broadcast, production, postproduction, digital media, entertainment companies, houses of worship, educational institutions, and system-integration firms, and rental houses.

Moderated by Thomas, the tech talk's panelists included Fintan Mc Kiernan, CEO at Ideal Systems, Southeast Asia; Andrew Yeo, publisher at Asia-Pacific Broadcasting, Singapore; Loh Siu Yin, owner of Beyond Broadcast, Singapore; Gede Mayun, deputy project director at Telkom Vision, Indonesia; and Unmish Parthasarthi, principal at Picture Board. The group not only explored the impact of new technologies and workflow, but also shared its thoughts on the importance of innovation as a means to sustainable value. All agreed that the industry is on its way toward full IP adoption.

"Customers are looking to make sure that their investments aren't made obsolete too quickly and they are looking at pricing on baseband and on IP," stated Ideal Systems' Mc Kiernan. "Currently IP is more expensive, but the last CRT TV sets were much cheaper than the early flat screen TVs — and then they were gone in 18 months. We have already started moving customers to full IP and we believe the tipping point for the industry will come in the next few years."

"IP is great for store-and-forward and for playout, but when it comes to live and OB applications, beware! There can be dragons there," added Siu Yin of Beyond Broadcast. "The killer app of IP broadcasting is software-defined networking. When broadcasters can reconfigure their networks five minutes before going to air, then we'll know we have entered the realm of IP."

RIEDEL project pictures

Your daily update







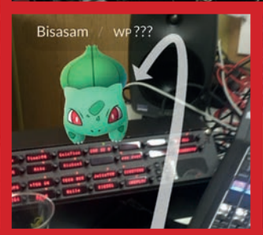








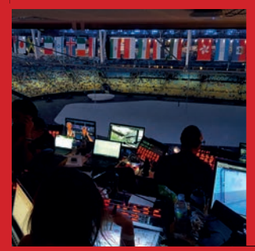


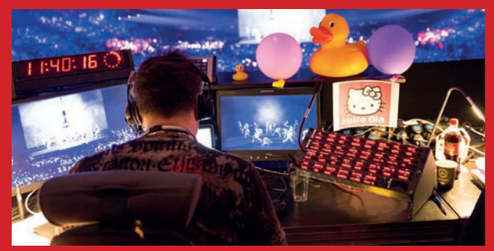









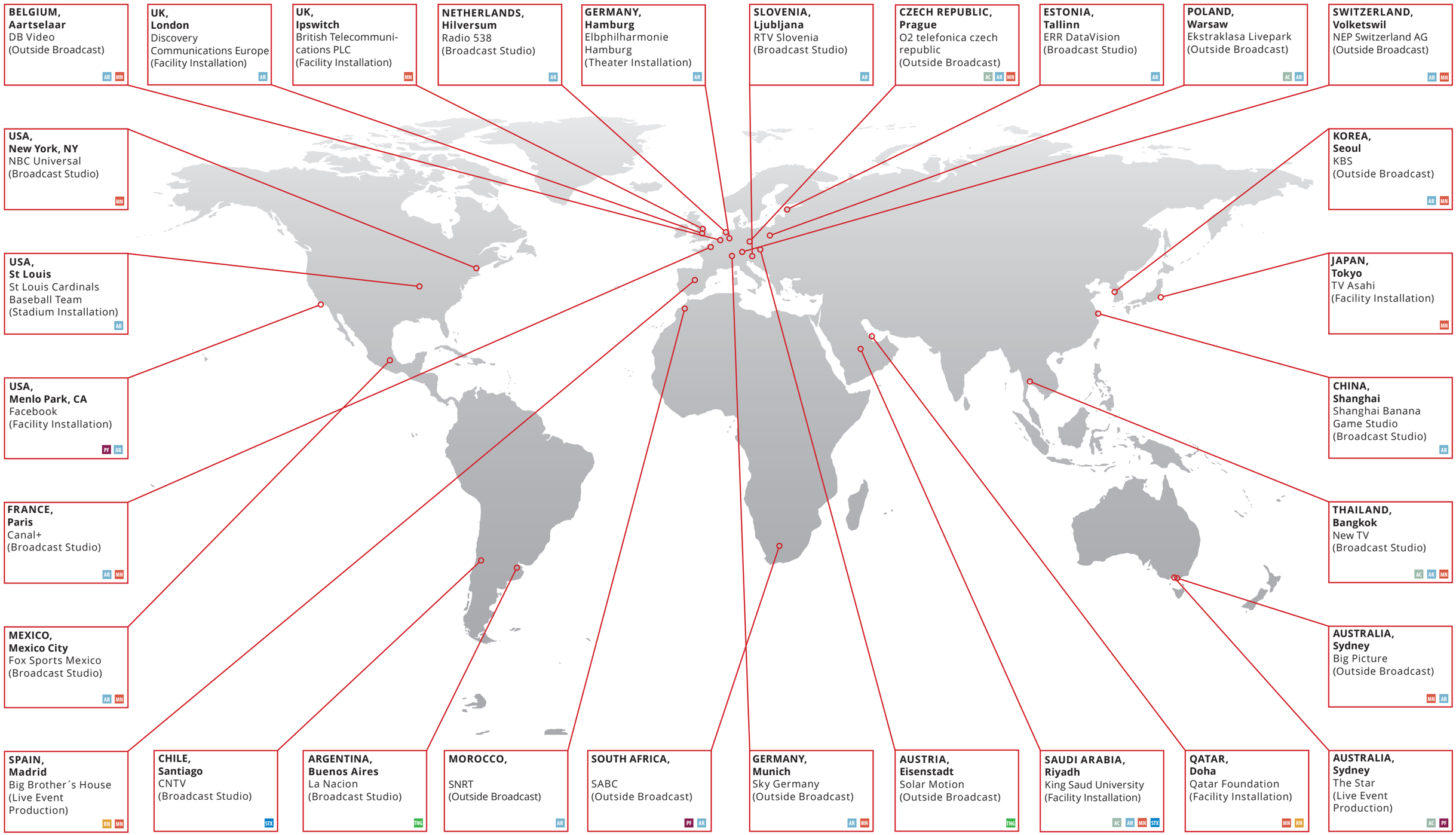


Follow us for more ...

Recent Installations (selected)

Acrobat AC
Performer PF
Artist AR
MediorNet MN
RockNet RN
Skype TX STX
Tango TNG



BELGIUM,
Aartselaar
DB Video
(Outside Broadcast)
AR MN

UK,
London
Discovery
Communications Europe
(Facility Installation)
AR

UK,
Ipswitch
British Telecommuni-
cations PLC
(Facility Installation)
MN

NETHERLANDS,
Hilversum
Radio 538
(Broadcast Studio)
AR

GERMANY,
Hamburg
Elbphilharmonie
Hamburg
(Theater Installation)
AR

SLOVENIA,
Ljubljana
RTV Slovenia
(Broadcast Studio)
AR

CZECH REPUBLIC,
Prague
O2 telefonica czech
republic
(Outside Broadcast)
AC AR MN

ESTONIA,
Tallinn
ERR DataVision
(Broadcast Studio)
AR

POLAND,
Warsaw
Ekstraklasa Livepark
(Outside Broadcast)
AC AR

SWITZERLAND,
Volketswil
NEP Switzerland AG
(Outside Broadcast)
AR MN

USA,
New York, NY
NBC Universal
(Broadcast Studio)
MN

KOREA,
Seoul
KBS
(Outside Broadcast)
AR MN

USA,
St Louis
St Louis Cardinals
Baseball Team
(Stadium Installation)
AR

JAPAN,
Tokyo
TV Asahi
(Facility Installation)
MN

USA,
Menlo Park, CA
Facebook
(Facility Installation)
PF AR

CHINA,
Shanghai
Shanghai Banana
Game Studio
(Broadcast Studio)
AR

FRANCE,
Paris
Canal+
(Broadcast Studio)
AR MN

THAILAND,
Bangkok
New TV
(Broadcast Studio)
AC AR MN

MEXICO,
Mexico City
Fox Sports Mexico
(Broadcast Studio)
AR MN

AUSTRALIA,
Sydney
Big Picture
(Outside Broadcast)
MN AR

SPAIN,
Madrid
Big Brother´s House
(Live Event
Production)
RN MN

CHILE,
Santiago
CNTV
(Broadcast Studio)
STX

ARGENTINA,
Buenos Aires
La Nacion
(Broadcast Studio)
TNG

MOROCCO,

SNRT
(Outside Broadcast)
AR

SOUTH AFRICA,

SABC
(Outside Broadcast)
PF AR

GERMANY,
Munich
Sky Germany
(Outside Broadcast)
AR MN

AUSTRIA,
Eisenstadt
Solar Motion
(Outside Broadcast)
TNG

SAUDI ARABIA,
Riyadh
King Saud University
(Facility Installation)
AC AR MN STX

QATAR,
Doha
Qatar Foundation
(Facility Installation)
MN RN

AUSTRALIA,
Sydney
The Star
(Live Event
Production)
AC PF