

## ORF upgrades TV studios with **Draco tera enterprise** matrix switches



### The Customer

ORF (Österreichischer Rundfunk) is the largest broadcasting organization in Austria. The public service broadcasting provider based in Vienna delivers four TV channels and nine radio programs.

### The Challenge

A recent refurbishment of two studios and galleries in the ORF headquarters in Vienna involved completely replacing the old analog systems with new, state-of-the-art digital KVM technology. The new KVM matrix switches provide controlled access throughout the studios to film and audio editing PCs, TV program scheduling and graphics playback servers and general management computers.

A fundamental requirement affected the matrix switches' size: ORF needs to manage more than 120 ports without cascading technology. The KVM matrix switch must provide access for up to 50 workstations with DVI monitors (1920 x 1200) to 60 computers, with the ability to transfer KVM signals (keyboard, video, mouse) together with the computers' audio signals; all with no latency. Transmission of transparent USB is required on the same data streams without requiring additional data ports. Requirements for the new

KVM system also include remote power on/off switching from the consoles by means of RS232 interfaces and instant switching between computers within a non-blocking matrix.

### The Solution

The search for a suitable KVM system led to the selection of IHSE technology. Siegfried Moser, the studio operations manager, was delighted with the unique broadcast solution: "I quickly realized that IHSE's product range fits our requirements perfectly."

The core studio switching system comprises two 160 port Draco tera enterprise matrices, connected to source computers housed in an environmentally-controlled equipment room and user consoles located throughout the studios. Switching operations are centrally managed by the KVM matrix switch. For maximum flexibility and economy, all ports on the Draco tera enterprise switches have bidirectional capability and can be assigned as inputs or outputs.

A functional OSD allows configuration and modification of matrix settings as well as selection of the desired computer. Transmission of KVM signals is through a mixture of Cat X and fiber cables: the existing Cat X infrastructure provides the basic network. Interconnection between some

consoles and computers in other parts of the building is provided by fiber cables.

KVM system specialist Robert Schmuckerschlag, assigned by ORF to the integration of the new KVM installation, appreciates IHSE's technical ability combined with a professional and personable approach.

*"From the beginning, contact with IHSE was extremely productive. Technical support is always available, practical and competent. This made it easy for us to work with IHSE to find optimum solutions."*

*Robert Schmuckerschlag, system integrator*

Specific requests from ORF (e.g. integrated power supply units in Draco vario extenders) were responded to quickly and efficiently by the IHSE development team.

Studio operations manager Siegfried Moser, who was crucially involved in the planning and integration, welcomed the functionality and convenience of IHSE's KVM architecture.

*"Issuing access rights was very time-consuming on our former analog system. IHSE technology allowed us to adjust console-based access rights for the first time. This change simplifies access rights management allowing any user to access all relevant sources depending on the user's pre-configured individual requirements."*

*Siegfried Moser  
Studio Operations Manager of ORF*

IHSE provided additional features beyond the original specification that delivered useful features that are now regarded as indispensable; in particular, the ability to configure macros for

computer access and switching operations and the external switching of the matrix, both of which Moser regards as essential.

To integrate ORF's existing analog video sources and KVM systems into the new digital Draco tera KVM architecture, special IHSE converters with integrated scalers are used. This allows ORF to save additional costs by enabling a gradual upgrade to DVI.



*ORF control room desks*



*Workstation: front view*



*Workstation: back view (incl. CON Unit)*

## The Benefit

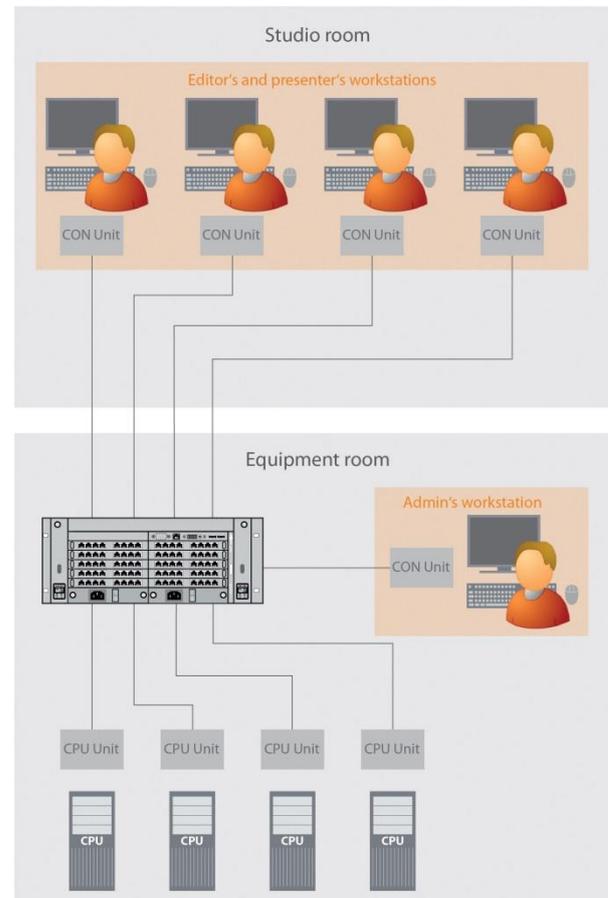
IHSE technology has proven itself at ORF. Following the success of the first control gallery, inaugurated in March 2013, the second studio was upgraded in June 2013. The two studios are producing sports, news and entertainment shows like “Die große Chance”, the Austrian version of “The X Factor” and “Dancing Stars”, corresponding to “Strictly Come Dancing” and “Dancing with the Stars”.

Whether shows are recorded or broadcast live or the production staff consists of three or thirty people – IHSE’s KVM architecture ensures that all workstations are used to their highest potential.

Following their successful experience with IHSE’s KVM technology, ORF started to completely redevelop a third studio in April 2014 that will also be equipped with a Draco tera system.

### KVM products in use:

- **Draco tera enterprise** matrix switches
- **Draco vario** extenders
- **Draco** Video Converters



*Functional Diagram*

### IHSE GmbH

Maybachstrasse 11 | D-88094 Oberteuringen | Germany  
Phone: +49 7546 9248-0 | Fax: +49 7546 9248-48  
Email: info@ihse.de | www.ihse.com

© 2014 IHSE GmbH. All rights reserved. All named products and company names are registered trademarks of the respective company.

Our General Terms and Conditions can be found in the Internet at [www.ihse.com/gtc](http://www.ihse.com/gtc) | Errors and omissions excluded.