# Video & Audio IP ST2110 Gateways

## Starring: VirtU, MuoN and FusioN

Through the transition to IP, there are inherent costs related to adapting your existing SDI equipment to your new IP core network which must be wisely addressed. The VirtU all-IP core infrastructure and processing platform by Riedel provides an extremely dense array of software-defined MuoN SFP HD-up-to-UHD IP gateways in just 1RU. Not only does the platform allow you to grow your I/O in a very linear and atomic manner, but the pluggable SFP can also be replaced by normal transceivers and repurposed into different processing functions as your equipment gradually becomes IP native. All this is achieved without implementing radical hardware changes in your engine room. The Riedel gateway solutions also include the FusioN standalone gateway processor, designed to be used in areas where ventilation noise cannot be tolerated.

## Key Benefits:

- Software-defined hardware can be repurposed into other processing functions
- Designed and adapted to specific installation scenarios Distributed solution
- Highest density
- Savings of cabling
- Fully compliant to ST2110 and ST2022-6
- Easy integration using NMOS, Ember+ or published RESTful API

## VirtU edge gateways used inside your engine room

### VirtU 32:

The 1RU passive media hub frame can house 32 MuoN B SFPs, each one supporting two channels of HD/3G or 12G UHD signals. The passive frame is designed with 8 independent clusters, redundant and hot-swappable power supplies and fans. This mission critical solution is perfect for bulk gateway of UHD signals.

### VirtU 48-S:

The 1RU aggregator frame can house 48 MuoN A SFPs, each one supporting two channels of HD/3G signals. The aggregation process allows for installation of any devices with 1GE, 10GE or 25GE aggregating to eight 100GE uplinks. VirtU 48-S can be used as a top of rack switch to interconect your IP native or SDI signals to the core network.



MuoN Gateways



MuoN Gateways          Native IP devices

## MuoN gateway SFP

The gateway conversion is processed inside the MuoN SFP gateways. This pluggable device solution provides a block of 2 channels per device. MuoN gateways can be repurposed to perform other functions once their gateway utility expires.

By a simple change of the software license, the device can become JPEG-2000 encode or decode, an audio router, or even a 16x1 multiviewer.



**-A:** HD/3G (ST2022-6 & ST2110) Encapsulator
**-B:** HD/3G/12G (ST2110) Encapsulator

**-A:** HD/3G (ST2022-6 & ST2110) De-encapsulator
**-B:** HD/3G/12G (ST2110) De-encapsulator

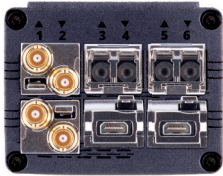**-B:** HD/3G/12G (ST2110) Encapsulator/De-encapsulator

**-A:** HDMI 1.4 (ST2022-6 & ST2110) De-encapsulator

**-A:** MADI to ST2110-30 Bi-directional Gateway

## FusioN remote standalone gateway frames

The FusioN series of standalone miniature and quiet gateways is designed to be used in operation and studio areas. The frame form-factor is perfect for installation behind a monitor or to be installed near a camera. The FusioN frame provides a dual set of fiber transceivers for support of ST2022-7 hitless redundancy.

The versatile FusioN 6B can also be equipped with a 1GE ethernet control interface, allowing to exchange management data between the engine room and the operation area. In addition, a PTP to black burst feature is available to provide genlock to your on-site cameras.



**FusioN 6B**
ST2110 Bulk Gateway (x8)



**FusioN 3B**
ST2110 Dual Gateway (x2)



**FusioN 3A**
ST2022-6 Dual Gateway (x2)

## FusioN MBR 18

The 2RU mounting bracket can house 18 FusioN-3 frames, or 9 double-space FusioN-6 frames. The bracket is designed with a cable management system to bring cables from front to back and is equipped with a redundant set of power supplies.