

- ▶ **Broad SDI Router Protocol Support**
- ▶ **Centralized Router Management**
- ▶ **Manual and Automated Switching**
- ▶ **Vendor-Agnostic Architecture**

**Centralized control for professional SDI routing infrastructures**

## Overview

SL NEO SDI Router Controller is a protocol-rich, hardware-agnostic control module designed to manage SDI video and audio routing matrices in broadcast, studio, and production environments.

The controller provides a unified interface for manual and automated routing, supporting a wide range of industry-standard router protocols from leading manufacturers. It enables operators and automation systems to perform precise source-to-destination switching without direct interaction with the routing hardware.

As part of the SL NEO Media Platform, the SDI Router Controller integrates seamlessly with monitoring, failover, ingest, and playout workflows — serving as the control layer for baseband signal routing.

## Highlights

### **Broad SDI Router Protocol Support**

Native control of routing matrix switchers from leading broadcast manufacturers using industry-standard protocols.

### **Centralized Router Management**

Manage and control multiple SDI routing matrix switchers from a single, unified control point.

### **Manual and Automated Switching**

Perform routing changes via operator GUI, external automation systems, or API commands.

### **Vendor-Agnostic Architecture**

Integrates seamlessly into mixed-vendor environments without locking you into specific hardware.

### **Broadcast-grade Reliability**

Designed for 24/7 operation in professional broadcast and IPTV deployments.

### **Remote Control & Monitoring**

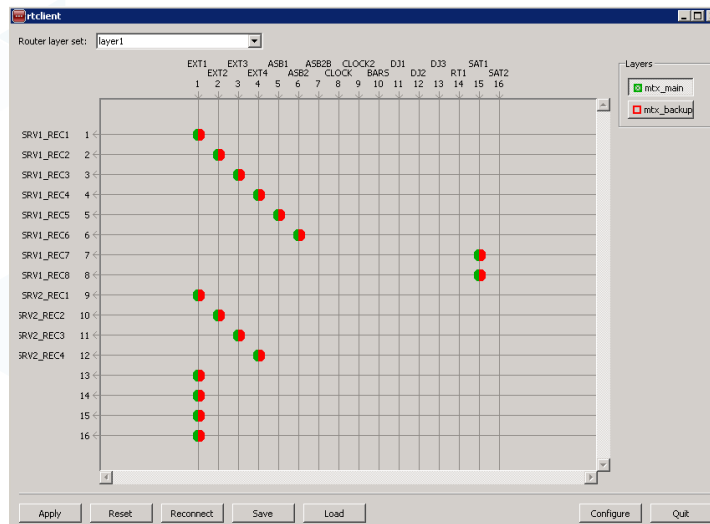
Manage and monitor the system via a web interface, SNMP, and REST API.

### **Flexibility**

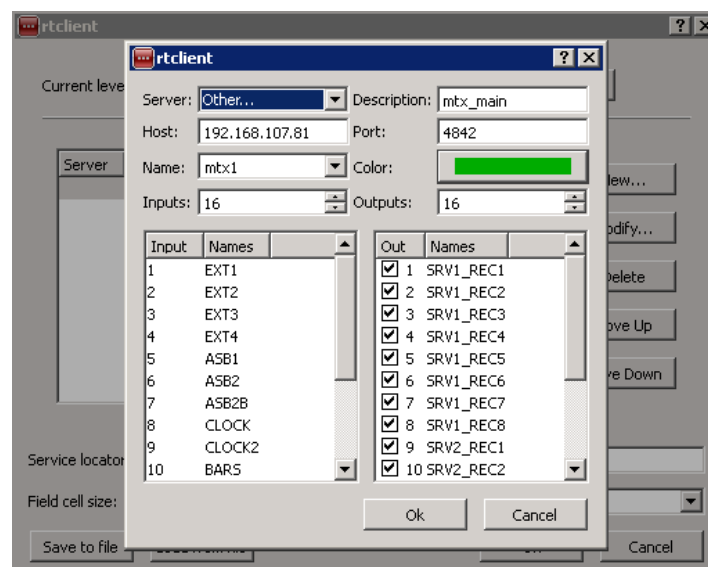
A wide range of settings allows you to define custom routing states and presets.

## Architecture

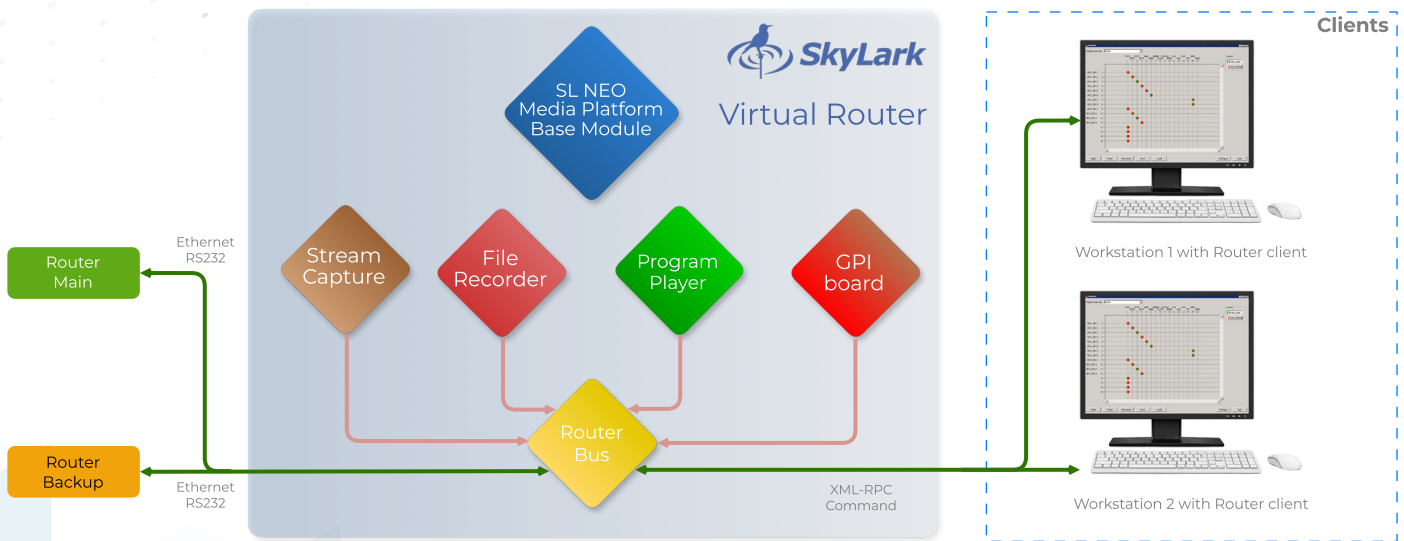
- ▶ **Router Bus (Server Module):**
  - ▶ Directly communicates with routing hardware
  - ▶ Handles protocol translation and hardware control
- ▶ **Routing Client Application:**
  - ▶ Provides remote manual control
  - ▶ Displays routing layers and matrix states
  - ▶ Connects to Router Bus for all switching operations



### ▶ Router layer example



## Ecosystem



The SL NEO SDI Router Controller is fully integrated into the SL NEO media services platform — a modular, software-defined environment where specialized modules operate together in real time across one or more hardware platforms.

Additional modules — including Easy Muxer, QC, and other workflow components — can be integrated to create a fully tailored broadcast solution:

- ▶ **Capture stream and Playout**  
For routing input and output streams manually and automatically.
- ▶ **Media Quality Control**  
For upstream input validation and quality assurance.
- ▶ **Multiscreen**  
For real-time visualization and monitoring.
- ▶ **SL NEO Base Module**  
For coordination, management and control for all the system

## Use Cases

- ▶ **Broadcast Studios**  
Route signals between ingest, studio control, playout, and recording systems without manual patching.
- ▶ **Live Production**  
Quickly switch camera feeds, backup sources, or auxiliary paths during live events.
- ▶ **Redundancy & Failover**  
Use the controller as part of automated failover workflows to reroute signals when faults are detected.
- ▶ **Post-Production & QC**  
Manage SDI routing between review stations, QC tools, and ingest systems.

## Technical Highlights

Router Management	Centralized control of multiple routing matrix switchers
Control Modes	Manual (GUI), Automated, API-driven
Automation Interfaces	REST API, GPI/GPO
Operating Mode	Continuous 24/7 operation

## Supported SDI Router Protocols & Vendors

Vendor	Supported Protocols / Controllers
Grass Valley	Triton BDS/BAS, NVision, Native Protocol, Vega, Vega SW-P-02, M-2100
Nevion	VikinX V129, VikinX THOR
Harris / Imagine	Leitch
Blackmagic Design	Videohub-Ethernet, Videohub-RS422
Snell	Switcher Protocol, Remote Protocol
Evertz	Quartz, QMC-2
Sierra Video	XXvse
Utah Scientific	SC-4, RCP-1
Pro-Bel	Switcher Protocol (SW-P-02), Remote Protocol (SW-P-08)
Venux	VM/SI 3000 ASCII
Ross Video	NK-SCP/A, Presmaster (Miranda™ Presmaster protocol)
ELPRO	SDZHD Series
Roland	MKII
AJA	KUMO
Imagine	LRC
Kramer	Kramer
Other Vendors	Custom and vendor-specific protocols available on request

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