

Multicon 6

Element Manager

The Multicon product provides fully integrated state-of-the-art element management and system control capabilities for Flashlink and VikinX systems.

Multicon supports a wide range of applications ranging from optical network monitoring and configuration to controlling live media networking.

The Multicon product provides element management and system control capabilities for Flashlink and VikinX systems. The software may be licensed to support different applications and is available in different product packages to support the main applications.

Multicon includes interfaces for web-based monitoring and control, hardware and software control panels, automation systems and SNMP-based network management systems. The software also supports control of third-party devices using industry standard protocols.

The Multicon software is running on a dedicated hardware card that may be installed in Flashlink, Flashcase or N-BOX. Multicon is typically installed in an N-BOX to support Flashlink Compact and Sublime devices.

Applications

- Optical network monitoring and configuration
- Router control for studio and outside broadcast
- Pre-programmed production setups
- Live media networking control
- Automation system support

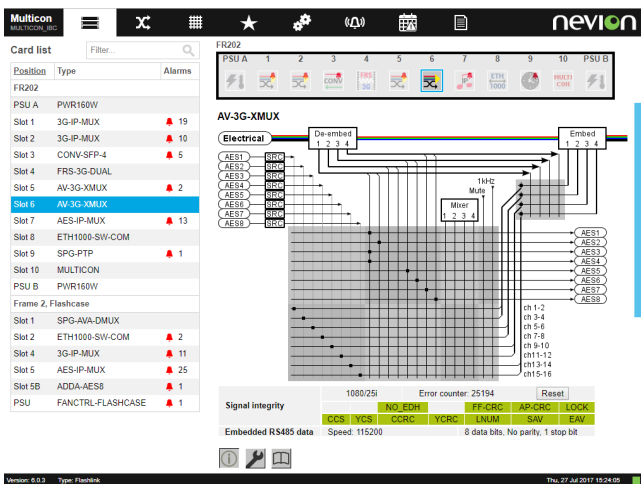
Key features

- User-friendly web GUI for monitoring, configuration and control of Flashlink and VikinX
- Support for up to 8 frames with Flashlink cards
 - Status information and card configuration
 - Hot-swap of cards
 - Remote firmware upgrade
- Support for VikinX Sublime, Compact and Modular
 - Level control, virtual routing and salvos
 - System with multiple controllers
- Integration with hardware and software control panels
- Alarm management and forwarding
- SNMP support for monitoring and configuration
- High-security configuration for firewall, HTTPS, SSH, SFTP and SNMP v3 privacy
- Third-party router integration (Leitch, GVG and Pro-bel)

Element Management

Multicon is an essential part of any Flashlink system that requires monitoring and configuration from a remote location, either via the built-in Web-based interface or the industry standard SNMP protocol. The operator may access status information per card, perform card configuration and manage alarms for the entire Flashlink system. Relevant alarms are configurable for the web and SNMP interfaces.

Most Flashlink cards offer dynamically updated schematics that shows how signals are routed through the card. The configuration pages are organized into functional blocks that are similar for different cards types making it easier to manage different card types and introducing new. Automatic configuration of Flashlink cards are supported during hot-swap and firmware may be upgraded remotely for supported cards.



System Control

Multicon can be used as the system controller for VikinX Sublime and legacy Modular and Compact routers. Multiple controllers may be combined into a system for redundancy purposes and to access resources spread across controllers from common control panels.

Multicon supports level, virtual tables and salvos resources for VikinX router control. These resources are accessible from hardware or software control panels connected to any of the controllers in a system or from external systems like automation.

Virtual Router

The virtual router feature allows the operator to create virtual routing tables that includes multiple level resources. This offers the flexibility to control multiple resources in one operation. A typical example is to control video, audio and data levels simultaneously, but the feature is extremely flexible and may be used for a variety of purposes.

Third-party

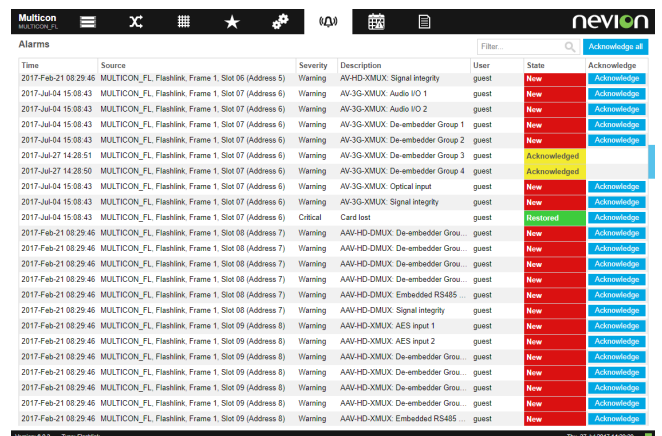
Multicon uses software plug-ins to control third-party equipment and comes with options for Leitch, Pro-bel, GVG/Thomson protocols via IP or serial connectivity. These protocols are also supported for integration with external control systems like automation.

Parameter Control

The system allows parameters that are not directly connected with routing resources to be accessed from control panels. This feature is typically used to control Flashlink signal processing cards from control panels and to add such parameters to pre-defined salvos for different production setups. One example of parameters is aspect ratio settings for a down-converter card.

Alarms

Multicon gives the user full alarm configuration possibilities. Each alarm can be enabled or disabled, and sending traps can be individually configured. Total overview of all alarms in the system is available in the webview with filter and search capabilities.



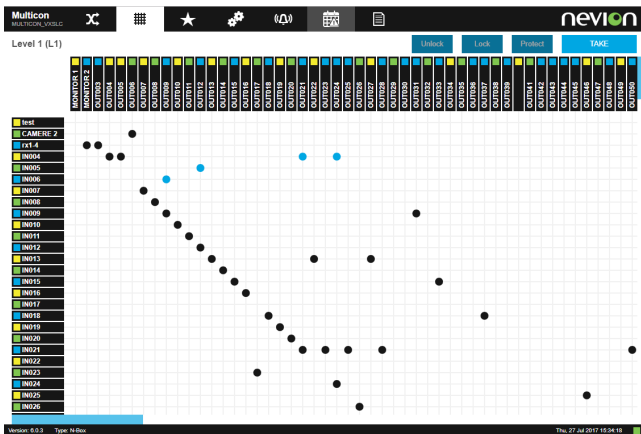
Web Control

Multicon supports web control for levels, virtual routers and salvos. This enables the operator to control these resources directly from the web interface. List and matrix views are provided with the ability to directly edit names and descriptions and lock or protect outputs. The web control feature is well suited as replacement for a master control panel or for post-production environments

List View

#	Name	Description	Presence	#	Name	Description	Input	Presence	Lock state
1	test		Missing	1	MONITOR 1		IN055	Missing	Lock
2	CAMERE 2		Present	2	MONITOR 2		rx1-4	Unknown	Unlock
3	rx1-4		Unknown	3	OUT003		rx1-4	Unknown	Unlock
4	IN004		Missing	4	OUT004		IN004	Missing	Unlock
5	IN005		Present	5	OUT005		IN004	Missing	Unlock
6	IN006		Unknown	6	OUT006		CAMERE 2	Present	Unlock
7	IN007		Missing	7	OUT007		IN007	Missing	Unlock
8	IN008		Present	8	OUT008		IN008	Present	Unlock
9	IN009		Unknown	9	OUT009		IN009	Unknown	Unlock
10	IN010		Missing	10	OUT010		IN010	Missing	Unlock
11	IN011		Present	11	OUT011		IN011	Present	Unlock
12	IN012		Unknown	12	OUT012		IN012	Unknown	Unlock
13	IN013		Missing	13	OUT013		IN013	Missing	Unlock
14	IN014		Present	14	OUT014		IN014	Present	Unlock
15	IN015		Unknown	15	OUT015		IN015	Unknown	Unlock
16	IN016		Missing	16	OUT016		IN016	Missing	Unlock
17	IN017		Present	17	OUT017		IN023	Present	Unlock
18	IN018		Unknown	18	OUT018		IN018	Unknown	Unlock
19	IN019		Missing	19	OUT019		IN019	Missing	Unlock
20	IN020		Present	20	OUT020		IN020	Present	Unlock
21	IN021		Unknown	21	OUT021		IN021	Unknown	Unlock
22	IN022		Missing	22	OUT022		IN013	Missing	Unlock
23	IN023		Present	23	OUT023		IN021	Unknown	Unlock

Matrix View



Web-based Configuration

Multicon supports configuration of Sublime only systems from the web interface. Earlier the Nevion Configurator tool was always required for initial configuration, but this is now only required for more advanced configurations. This possibility allows customers to get started in a matter of minutes.

Specifications

Protocols

Northbound (host)	MRP (IP), NCB Compact (serial), NCB Sublime (serial), SNMP v1/3 (IP), GVG/Thomson Native (IP and serial), Leitch PassThru (IP and serial), Pro-bel SW-P-02 (serial), Triton (serial)
Southbound (client)	MRP (IP), NCB Compact (serial), NCB Sublime (serial), GVG/Thomson Native (IP and serial), Leitch PassThru (IP and serial), Pro-bel SW-P-02 (serial), Triton (serial)

Physical

Ethernet	2x 10/100/1000-BaseTX (RJ-45 connector)
Serial	1x RS-232 or RS-422 (DB-9 connector) 1x RS-232 or RS-422 (RJ-45 connector)
Storage	8GB MicroSD
GPIO	4 Inputs (KK 5-pin connector) 1 Output (KK 5-pin connector) Open collector 30V 0.5A tolerant
Operating temperature	-10°C to +55°C
Relative humidity	< 95% (non condensing)

Performance

Flashlink	Up to 8 frames per controller
VikinX	Up to 32 routers and control panels per controller (8 when used in combination with Flashlink)
Web Clients	Up to 16 per controller (8 when used in combination with Flashlink)
Control panels	Up to 64 in a system
Levels	Up to 200 in a system
Crosspoints	Up to 5000 in a system
Virtual routers	Up to 10 with less than 256 crosspoints in a system
Salvos	Up to 100 with less than 256 settings in a system

Order Options

MCON-SW-FL-10	Multicon license for 10 Flashlink cards
MCON-SW-FL-80	Multicon license for 80 Flashlink cards
MCON-SW-VX-SL	Multicon license for Sublime routers
MCON-SW-WCTRL	Multicon license for web router control
MCON-SW-3PP	Multicon license for third-party protocols
MCON-SW-SECURITY	Multicon license for high-security options

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Nevion offers a range of management systems for broadcasters, telcos, cable, DTT and satellite operators providing an end-to-end service oriented perspective on the operation of the infrastructure.

Our management offering includes element management solutions for broadcast environments to put you in control of your video transport, routing, signal processing and distribution infrastructure. This includes an integrated control system for Flashlink and VikinX installations, providing control panel access to routing and signal processing resources, and Web based access for equipment monitoring and configuration.

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