.:PatchAssist

PATCH MANAGEMENT SYSTEM

ALL YOUR SOLUTIONS FROM A SINGLE SOURCE. COMPETENT. RELIABLE.

With this strategy, we have developed long-term and sustainable relationship with our growing number of customers and business partners.

We are specialized in tailor-made innovative solutions for telecom applications and continuously striving to get the best possible understanding for our customers' needs.

WHY USE A PATCH MANAGEMENT SYSTEM?

Passive network infrastructures are becoming increasingly complex, requiring accurate and always up-to-date documentation of the entire network. Additionally, safety-critical applications require a maximum availability of data connections and an alarm and debugging system which reacts immediately to perturbations or breakdown incidents. Whilst a central monitoring and controlling system of the components is widely used in active infrastructures, this component is often missing in layer 1 of the OSI layer structure in the central network management.

An AIM (Automated Infrastructure Management) solution can fully automatically identify, read and document connections in physical network layers. Well known scenarios such as the case where a technician called on site cannot run a job as the actual status differs from the documented one are now a thing of the past. An AIM solution can also put a stop to the unnoticed removal of a switched connection and its ensuing system failures.

The advantages of such a solution are clear: an automated and cost-efficient trouble-free documentation of the physical layer and a reduction of time-consuming failure location and job planning procedures.

PATCH MANAGEMENT SYSTEM

❯ Solution for steadily growing network infrastructure and increasing complexity

❯ Automated documentation and monitoring, optimized infrastructure planning

❯ Increased availability, safety and reliability

❯ Software to support network administrators

❯ Easier respectively optimized operating:
  - reduction of operating costs
  - increased performance

THE PERFECT SOLUTION: PATCHASSIST

PatchAssist is able to identify patchfield allocations in real time. This is essential in order to document network and cable structures comprehensively and failure-free. RFID technology constitutes the core of the system. Each connector is fitted with an RFID tag bearing a unique number which allows to identify each patch cable and its position in a patch field. Each port has its own tag reader which detects plugged connections immediately and signals the unique cable identification number of the identified connector to the system server.

With this information it is possible to retrace any modification in the documentation without delay and without gaps. Also, any unauthorized plugging or unplugging of a connection is detected immediately and an alarm process can be triggered.

Apart from the tag reader, each port is also fitted with an LED unit which can visually display job orders on a patch field. A planned patch order can be defined in the Network-Operations-Center in order to show the technician operating on site which ports are affected by using these LEDs. Patch orders can thus be executed quickly and error-free. Once all connections have been fitted according to the targeted status the work order will be acknowledged as successfully completed and the Network-Operations-Center will be informed about the completion of the job in real time.

ADVANTAGES

- ❯ higher system availability by increased automation, improved diagnostics and less downtime

- ❯ lower operational costs

- ❯ upgrading of existing components without negative operational impacts

- ❯ full integration of layer 1 in an (existing) DCIM software for improved system overview and control of the entire network

- ❯ reduces TCO and OPEX of the entire ICT organization and infrastructure.

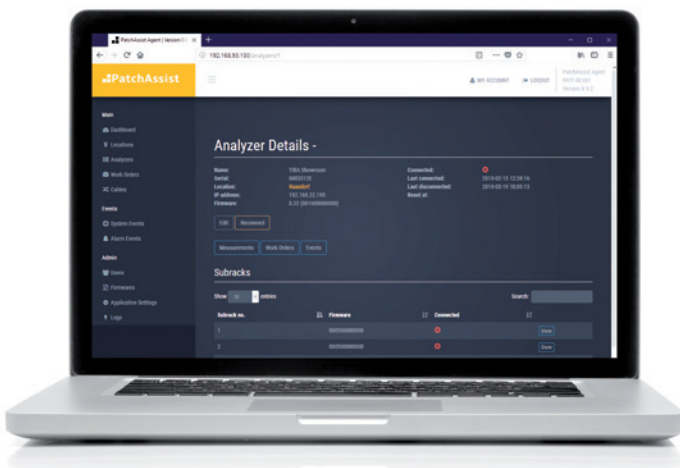- ❯ compliant with standards ISO/IEC 18598 and DIN EN50667

SYSTEM CONFIGURATION

The system consists of both hardware and software. Standardized protocols and well proven bus architecture allow to reliably detect plug connections and to seamlessly integrate application data from third party manufacturers. The flexible hardware design provides the possibility to integrate different types of patch fields - apart from the CommScope FIST solution also 19″ patch panels or external distributors can be fitted with the system.

TYPICAL APPLICATIONS

Automatic documentation and updates

- ❯ monitoring of activities at port level
- ❯ safety at port level
- ❯ port status
- ❯ detail at port level
- ❯ information on cable confection
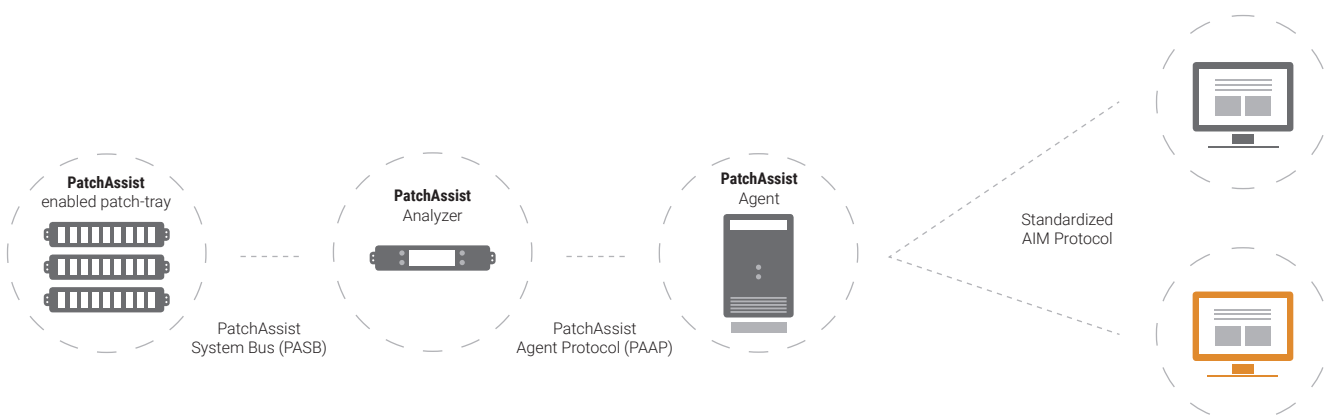- ❯ documentation of identification numbers
- ❯ LED control display

PATCH ASSIST AGENT

Our PatchAssist agent is a platform-independent server application. It has been designed to monitor the connections to the analyzers in the individual racks, to evaluate all status information gathered on the passive network and to save them in a central databank.

Our PatchAssist agent also provides an HTTP/REST interface which enables data exchange with foreign systems, such as separate cable management systems or DCIM applications.

Additionally, it contains a browser-based user interface (UI) with intelligent user control options. Authorized users can manage the hardware subsystem via the user interface. For example, they can register new analyzers to the system or evaluate existing analyzers. Each analyzer, each sub rack, each cassette down to each individual port can be addressed and its status be evaluated. Additionally, system and alarm events are visualized via the user interface if a fault or failure occurs. The setup of the interface complies with ISO/IEC 18598 as well as with DIN EN50667.

PROPERTIES

- ❯ real time monitoring

- ❯ precise and standardized documentation

- ❯ improved system availability through automation

- ❯ central network infrastructure administration

- ❯ physical level visualization

- ❯ minimizing of error detection and system downtime

PatchAssist
enabled patch-tray

PatchAssist
System Bus (PASB)

PatchAssist
Analyzer

PatchAssist
Agent Protocol (PAAP)

PatchAssist
Agent

Standardized
AIM Protocol

PATCHASSIST PLATFORM – HARDWARE AND SOFTWARE

PatchAssist is the solution which provides users with comprehensive network administration and control by documenting and following up all modifications/changes made in the physical layer. Thanks to PatchAssist's visualization of your cable system network administrators can proactively manage their network, swiftly react to unplanned system failures and accurately schedule additional new services.

PATCHASSIST PLATFORM CONSISTS OF 3 CONNECTED COMPONENTS

- ❯ intelligent PatchAssist cassette for port detection and control

- ❯ PatchAssist analyzer for real time monitoring of all changes to layer 1

- ❯ PatchAssist agent to allow data exchange between all connected analyzers with network management applications of various third manufacturers via an HTTP/REST interface

SYSTEM ARCHITECTURE

- ❯ each cabinet fitted with intelligent PatchAssist cassettes is managed via an analyzer

- ❯ all components inside a cabinet are connected with a special bus cable via a „daisy chain" via their component control unit

- ❯ PatchAssist analyzer can manage up to 14 system components and is connected to the network via an Ethernet cable

- ❯ PatchAssist agent offers a web user interface which can be opened with all current web browsers, i.e. Internet Explorer, Mozilla, Firefox etc.

NETWORK CONNECTION

an Ethernet cable is required for each analyzer to connect with the switch

PATCHASSIST ANALYZER

can manage up to 14 fully equipped system components and has a colored display for visualization

PATCH CABLE

RFID tags at both ends for accurate port detection

BUS CABLE SYSTEM

each component unit is connected by a bus cable via a „daisy chain" with the analyzer

INTELLIGENT DUST CAPS

dust caps, equipped with RFID tags are used to identify unconnected ports

FIST

components 100% compatible

PATCHASSIST CASSETTE WITH RFID TECHNOLOGY

TAKE CONTROL OVER YOUR NETWORK

PatchAssist gives you a second to none control over your layer 1 infrastructure. With the newly developed patch cassette which is compatible with CommScope FIST components and fitted with state-of-the-art RFID technology, PatchAssist is able to document your network in real time. The web-based interface and the adapted alert system allow network administrators to monitor and manage their infrastructure via their WEB browser - at any time, in any place - no need for pre-installed software.

PATCHASSIST CASSETTE WITH RFID TECHNOLOGY

The patch cassette is compatible with CommScope FIST components and contains RFID sensor units custom-fitted for each adapter type. The specially designed RFID antennae situated below each port at both ends of the coupling enable the reading out of each unique connector ID and transfer this information to the PatchAssist agent respectively a subsequent network management software. This makes accurate detection at each port of a cabinet possible - in real time and at any point in time. Additionally, LEDs are fitted to each port to visualize connecting requests and to support the technician operating on site.

For example, the network management software is able to define work orders in several steps arranged in chronological order. Each work step is displayed at the analyzer respectively via the LEDs at the patch cassette. Faulty connections can thus be avoided and network documentation is being updated in real time.
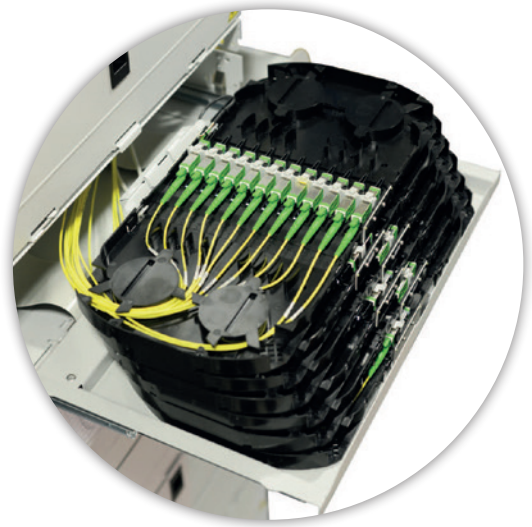
FEATURES

- ❯ retrofittable into existing CommScope FIST components

- ❯ non-proprietary connection to AIM/DCIM software applications thanks to standardized interface

- ❯ RFID tags are compatible with standards E2000 and SC, LC Duplex*) connectors which means existing pigtail/ patch cables can be fitted retroactively

- ❯ dust caps, equipped with RFID tags are used to identify unconnected ports

- ❯ simple construction for disturbance-free con version of existing, preassembled FIST systems. No need to disconnect switched connections during the conversion process, no need for maintenance windows.

*) under development

PRODUCT SURVEY

Description	Item number
PatchAssist software	
PatchAssist Agent (on-premise)	EC03.PAAGENT.01
PatchAssist Analyzer	
PatchAssist Analyzer Professional 48VDC	EC03.5040TF.003-AN48
PatchAssist Analyzer Professional 230VAC	EC03.5040TF.004-AN23
PatchAssist Patchcassette	
PatchAssist Patchcassette based on FIST (pair), for E2000	EC03.1020TF.001-ICAS
PatchAssist Patchcassette based on FIST (pair), for SCsx	EC03.1020TF.002-ICAS
PatchAssist Patchcassette based on FIST (pair), for LCdx	EC03.1020TF.003-ICAS
PatchAssist SubrackKit	
PatchAssist SubrackKit	EC03.1020TF.005-ISRD
PatchAssist connector tags	
PatchAssist RFID tag for E2000 connectors	EC03.5040TF.007I
PatchAssist RFID tag for SC connectors	EC03.5040TF.002I
PatchAssist RFID tag for LC connectors	EC03.5040TF.004I
PatchAssist intelligent dust cap	
PatchAssist dust cap with RFID tag for E2000 adapter	EC03.5040TF.IDC
PatchAssist dust cap with RFID tag for SC adapter	EC03.5040TF.IDC2
PatchAssist dust cap with RFID tag for LC adapter	EC03.5040TF.IDC4

PRODUCT SURVEY

Description	Item number

PatchAssist Installation Kit
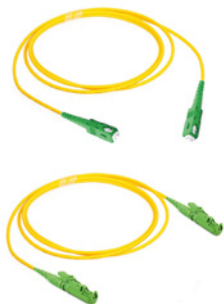PatchAssist Installation Kit for FIST

EC03.1020TF.006-IMD

PatchAssist Bus Cable
PatchAssist Bus Cable 3m

EC03.5040TF.003-DC

FO patch cables

Patchcable E2000/APCsx, grade B,
pre-assembled with RFID tag, length 4.9m

EC35.7F7F16.4P9-YEI

Patchcable E2000/APCsx, grade B,
pre-assembled with RFID tag, length 5.9m

EC35.7F7F16.5P9-YEI

Patchcable SC/APCsx, grade B,
pre-assembled with RFID tag, length 4.9m

EC35.2F2F16.4P9-YEI

Patchcable SC/APCsx, grade B,
pre-assembled with RFID tag, length 5.9m

EC35.2F2F16.5P9-YEI

Patchcable LC/APCsx, grade B,
pre-assembled with RFID tag, length 4.9m

EC35.4F4F16.4P9-YEI

Patchcable LC/APCsx, grade B,
pre-assembled with RFID tag, length 5.9m

EC35.4F4F16.5P9-YEI