NECxE: BKtel`s New Element Controller Offers Maximum Security for Network Management Interface

The NECxE is the newest generation of BKTEL`s network element controllers. Because of operation in locations with direct connection to critical infrastructure, BKtel has developed the NECxE complying with highest security requirements.

The NECxE product family is used for management and monitoring network elements in HFC and FTTH networks. Based on a Linux software architecture and with the implementation of the newest feature set, the NECxE provides the highest security level required in state-of-the art management networks: The controller allows the complete encryption of any Ethernet transmission data and has a sophisticated user authentication procedure. This prevents successful attacks on the transmitted data and the network.

NECxE embedded in 19" stand-alone xE Platform

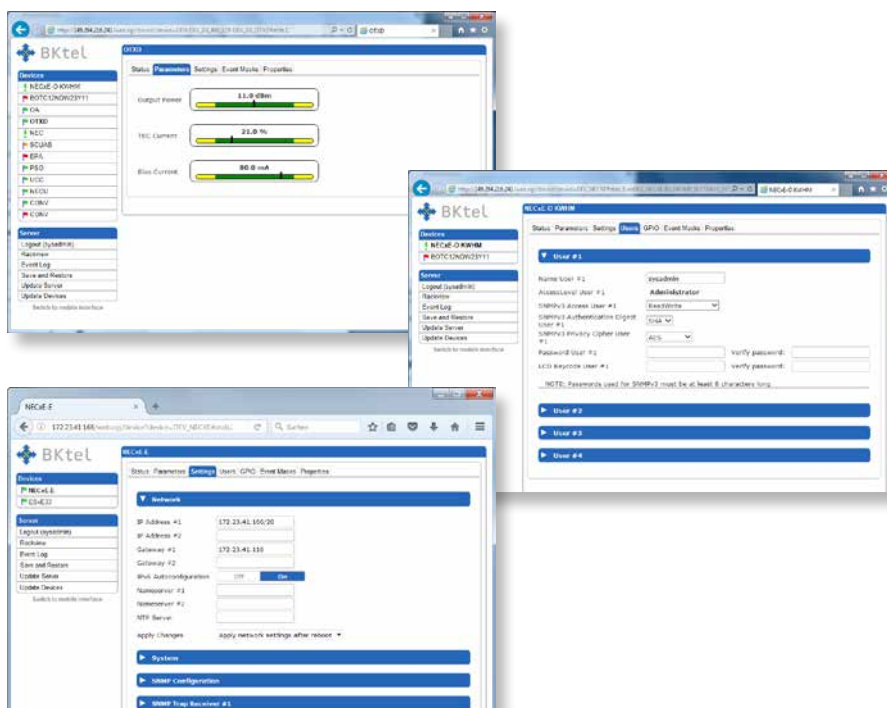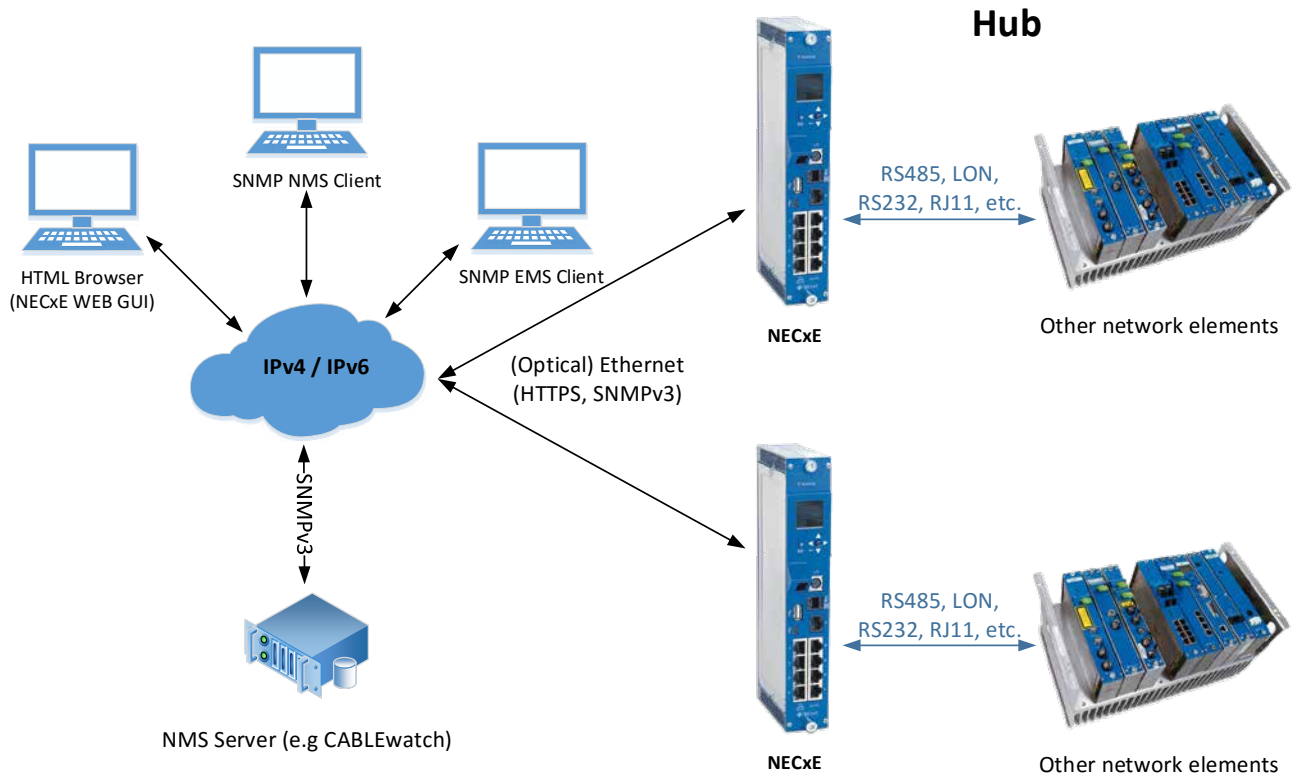NECxE in BK platform housing

Features

- Embedded Linux operating system
- IPv4 and IPv6 support
- Multiple Number of IP addresses
- Webserver accessible via HTTP and HTTPS
- TLS1.2: Web applications with authenticated sessions
- SNMP support v1,v2,v3
- Enhanced Login- menu with unlimited users and authentication levels
- Ethernet RJ-45 connector for access management interface 10/100/1000 Mbps
- USB interface for local access management
- RJ-45 to poll external slave units
- Mini-DIN connector with 5 general purpose input/outputs
- LED module status indicator
- LCD display
- Protection key

Interfaces

- Four RJ-45 ports for Gigabit Ethernet
- Up to two SFP Transceiver for optical Gigabit Ethernet
- USB Host and Client
- RS485
- LON
- RS232
- Monitoring port
- GPIO ports

BKtel

HFC

Network Management

The NECxE is equipped with an extended security engine for HTTPS connections from any web browser . The remote SNMPv3 interface allows controlling and monitoring of all active components and provides the connection to a higher level Umbrella Management System, such as the Bktel CABLEwatch NMS.

Hub

SNMP NMS Client

HTML Browser
(NECxE WEB GUI)

SNMP EMS Client

IPv4 / IPv6

(Optical) Ethernet
(HTTPS, SNMPv3)

SNMPv3

NMS Server (e.g CABLEwatch)

NECxE

RS485, LON,
RS232, RJ11, etc.

Other network elements

NECxE

RS485, LON,
RS232, RJ11, etc.

Other network elements

HFC

BKtel