

Versatile SCADA solution for infrastructure management

LYNX Element Manager models UB equipments manufactured by GILLAM-FEi to perform easy and effective remote supervision operations.

Highly Scalable

Inherited from our LYNX software suite, the LYNX UB Element Manager is tailored to the specific needs of Building Alarms Management.

Multi-platform clients including Windows™, Linux and WEB browsers

Connectivity

LYNX system supports a very large panel of protocols: IEC-101, IEC-104, MODBUS, IEC-61850, IEC 61131 and many others.

OPC drivers for easy extensibility.

SNMP north-bound interface for **OSS** integration.

LYNX Information

LYNX is a complete software solution for the management of devices in **large networks**.

LYNX is the result of the continued development of a general-purpose SCADA system able to address devices in many operational domains.

Modular and evolving architecture

Thanks to its modular client/server architecture and its evolutionary Open-Source SQL database, a LYNX system can be easily upgraded to account for network evolution and manage new generations of equipments.

Key Features

SCADA system issued from GILLAM-FEi **LYNX** software suite.

Management of **UB (alarm collectors)** equipments manufactured by Gillam-FEi.

Collection, synthesis and presentation of **building alarms**.

Transmission of information to **third-party** dedicated management systems.

Complete graphical solution for **database configuration**.

Remote **commissioning** and **maintenance** of UB field equipments

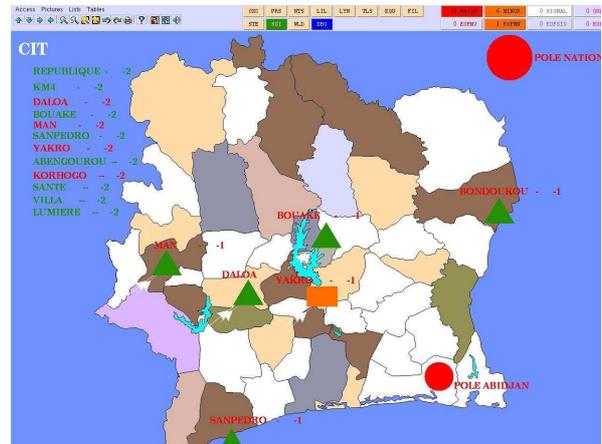
Scalable architecture will grow as needed

As an open and modular system, including **OPC** connectivity, Sync Manager can monitor and remote-control 3rd party network elements with adequate drivers, providing a seamless and integrated fault management. LYNX can be configured in **hot-standby** mode with **redundant servers** and **redundant LAN**.

Integrated Infrastructure management

Large network infrastructure as owned by Telecom operators is composed of numerous network (switching) equipments deployed in several facilities spread on a nation-wide scale. These complex infrastructures must be permanently monitored to ensure the quality of service required by the customers. Alarms are generated by network equipments, as well as by physical environment monitoring sensors (smoke, water, temperature, intrusion into buildings, power supply, ...). Collecting and reporting these alarms is performed by UB. I/Os are in turn collected by LYNX Element Manager, which aggregates and synthesizes data to present a clear and efficient information to the end-user :

- Alert supervisors of failures requiring special attention.
- Give hints on suspect operating conditions to detect problems before they occur.
- Provide graphical tools to observe and control field equipments and notify events.
- Log and archive events for long term analysis.
- Synthesize events and their consequences to simplify effective choices made by system administrators.
- Automate repetitive tasks for maintenance, statistical computations, ...
- Provide high availability: Element Manager relies on Hot-Standby servers to guarantee continuous remote management operations in case of a server hardware failure.

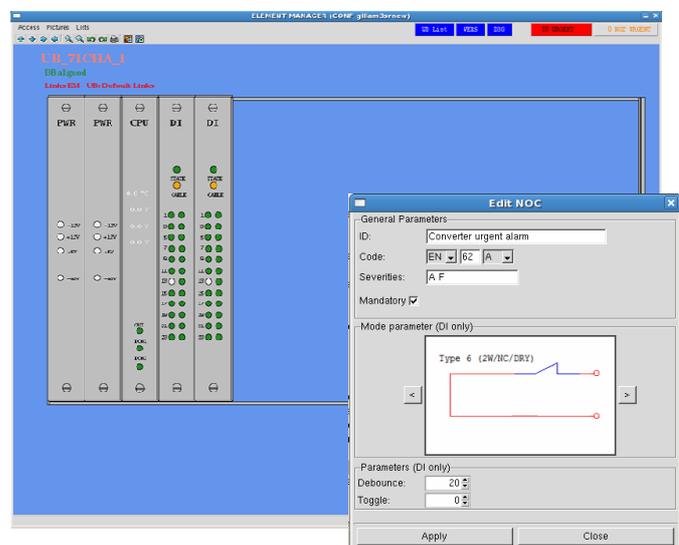


Main view

LYNX main view displays comprehensive information about the network health. Alarms counters with severity provide instant access to network elements in detailed views. A hierarchical and interactive graphical map of the network highlights pending problems. Details of the network appear through easy navigation steps. Any network element can be reached in a few clicks. Shortcuts to key views and alarm synthesis functionalities based on real-time information help navigation in large networks.

Equipments views

LYNX provides detailed graphical “front-panel like” views of managed UB equipments with dynamic information. Such views are automatically built and updated with actual equipments configuration, provisioning and real-time states. Colours and frames highlight faults and help operators focus on problems by severity levels. An equipment view is fully interactive. Graphical elements are mouse sensitive, provide contextual information and allow access to detailed information and remote-control operations with respect to the operator’s profile.

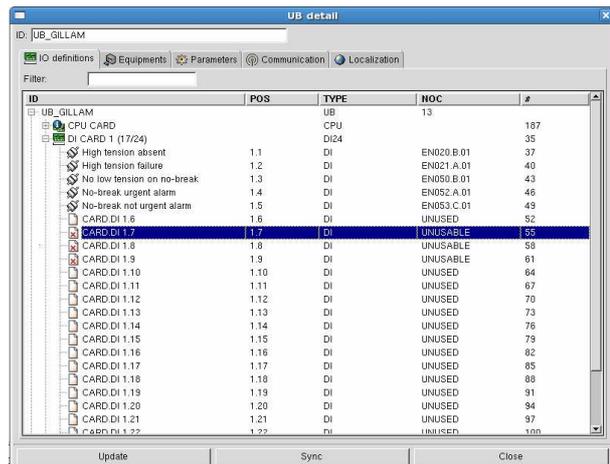
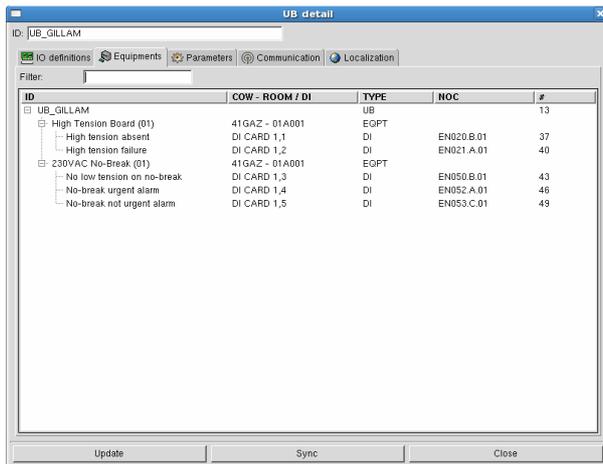


Data Model & Automated provisioning

LYNX Configuration Manager allows administrators to prepare and modify the network database: network elements configuration, topological links, geographical information (GIS). Hierarchical layouts and filtering helpers facilitate data navigation and retrieval. Configuration possibilities are restricted to the operator's profile.

At LYNX level, a library of monitored devices is built with the different equipment being modelled as objects. Physical properties (type of physical contact, debounce time, toggle rejection, ...) and general properties (state definition, alarm level, user instructions, ...) are defined.

For each specific UB, the user selects the monitored devices. LYNX ensure efficient use of hardware resources (DI attribution) and proceeds to inputs integrity checks. LYNX ensures database coherence and provisions the remote UB automatically.



Fault Management

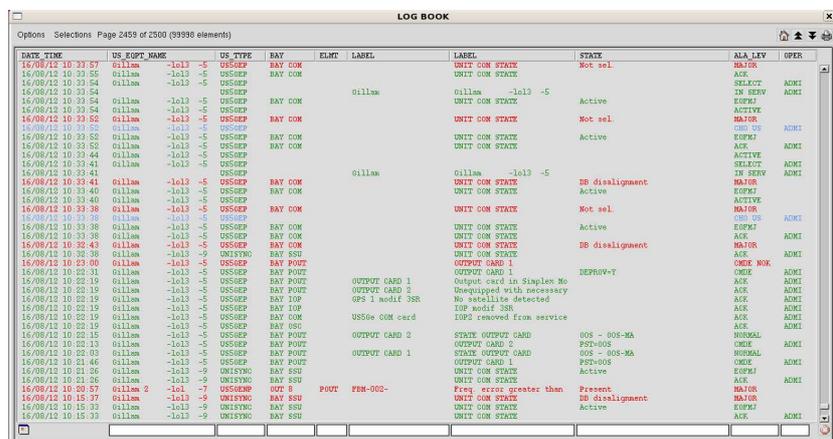
LYNX Alarms Manager handles events, messages and status information from all network elements.

Events and alarms are displayed using a set of predefined colours and formats for rapid intelligibility.

Hints and operational information help operators fixing problems.

Up to 1.000.000 events are logged for long-term analysis and correlation.

Alarms prioritisation and extensive "on-the-fly" filtering functionalities allows for instant and effective problem solving.

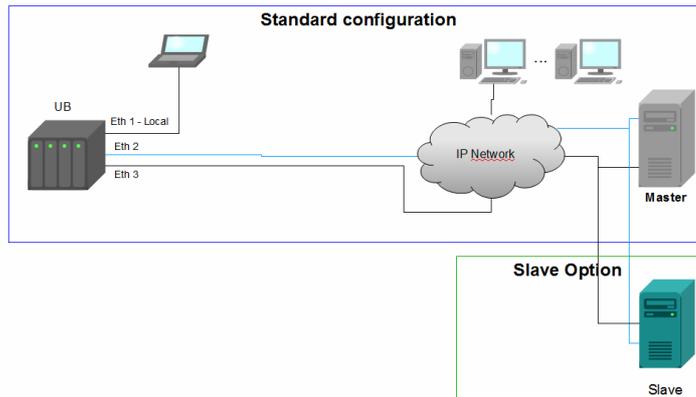


Security Management

LYNX allows system administrators to define user profiles with extended flexibility. Standard configurations include common profiles ranging from View Only to Administrator authority levels. Custom profiles can be prepared if needed.

Inventory Management

LYNX has automatic and dynamic inventory data management with advanced filtering and reporting facilities. Support for remote software upgrades is in the package.



LYNX specifications

Management Capacity

Up to 2000 Network Elements

Management Protocols

IEC 101, IEC 104, MODBUS,
TL1, SNMP (v1, v2, v3), HTTP, TCP/IP, UDP

IEC 61850

OPC connectivity

Operating System Requirement

Linux Redhat 6+ or CentOS 5+
(32 or 64 bit)

User Interface Client

Modern UI built with Qt Framework

Native Windows™ native displays

Linux native displays.

Web-based clients: Internet explorer 6+, Chrome and Firefox

Flexible SQL database and topological information

Flexible SQL database and topological information

LYNX is powered by PostgreSQL, an advanced Open-Source database system.

This means that every network element (or any part of it) is described in this database and can be fetched with a rich query language, including real-time information.

Configuration Management

Creation, modification and deletion of Network Elements

Network Topology and GIS.

System configuration

Inventory Management

Network Elements information retrieval.

Devices identification and description

Data filtering and reporting

Detailed S/N and Hardware/Software versioning information

Security Management

User administration with predefined and custom profiles

Login management

Secured SSH and SSL connections.