



ADVANCED BUILDING SOLUTIONS
Making the Buildings Perform

■ LONIX IBMS

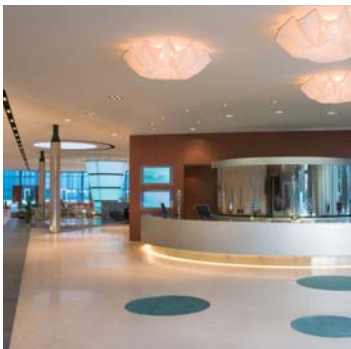
the Intelligently Integrated System

Our comprehensive solution makes your buildings truly perform. Lonix IBMS is the unified solution for quality-conscious buildings - the Integrated Building Management System that more than satisfies even the most stringent comfort requirements and sustainability strategies.

Lonix IBMS has the core elements to realize the full benefits of smart controls, intelligent integration and value-adding services. The cutting-edge Lonix Automation, integrating smoothly with Lonix Security, creates the perfect solution for indoor comfort, energy efficiency and security, optimal for all buildings where excellent quality is a requirement.

LONIX SOLUTIONS

Comfort, Security and
Sustainable Development



■ FLEXIBLE SOLUTIONS

The state-of-the-art Lonix System allows for flexible solutions for a wide range of needs, ranging from offices, business centers, airports, hotels and residential towers to data centers and telecom networks. Whatever your special challenge is, we are ready to use our comprehensive expertise to solve it with our multi-functional technology platform.



■ FOREFRONT SERVICES

Undisturbed conditions, minimized energy consumption and your utmost security are taken care of twenty-four hours a day, seven days a week. The forefront services for maintenance, facility management and security are enabled by the versatile Lonix Software.



EFFICIENT ENVIRONMENT FOR BUSINESS

Productive and safe working environments, efficient yet economical environment for business – high-quality premises require several criteria to be fulfilled. The comprehensive Lonix IBMS is the unified solution for quality-conscious commercial building facilities. The fully integrated building management system more than satisfies your buildings' comfort requirements and sustainability strategies.



COMFORT FOR YOUR VALUABLE GUESTS

Comfortable surroundings, undisturbed conditions and smooth service for your valuable guests, lower life cycle costs for your building. Our ecological solution for hotels combines guest comfort with energy savings and undisturbed operations. Satisfied guests enjoy the premium comfort, while the smoothly integrated, robust Building Management Systems cut down the operating costs.



EXCELLENT ENVIRONMENT FOR PRODUCTION

Safety, optimum indoor conditions and control of energy consumption will ensure efficiency and reliable operations of your data centers and other production facilities. Lonix offers a completely integrated building management system, perfectly fit for mission critical facilities where efficiency and reliable operation of building systems are essential. Our comprehensive system forms a unified solution for production facilities, data centers and other facilities, where excellence is a requirement.

INTEGRATED SYSTEMS

the Complete Solution

Lonix provides the systems and products for intelligent building automation, smart security and integrated building management systems. Our product portfolio includes the key enablers for intelligent integration, sustainable development and Green Buildings.

CUTTING-EDGE LONIX SOFTWARE

The cutting-edge Lonix Software products create the comprehensive foundation for integrated building systems. The generic software platform, COBA Building Operating System, facilitates integration and interoperability of all building systems – thus creating IBMS (Integrated Building Management System) and SMS (Security Management System). With our wide range of sophisticated applications you can take advantage of the real-time control and monitoring, dynamic graphics, and multi-vendor integration capabilities on the hardware of your choice. Multiple user interface types are easily suited for professional users and tenants alike. The essence of integration is brought to you by Lonix Software.



■ FOREFRONT LONIX AUTOMATION

The forefront Lonix Automation ensures robust functionality of building systems. Proven hardware/firmware and world-class software allow for intelligent controls, flexible distribution and advanced integration of all building systems. The multi-functional Lonix Controllers include the intelligence of the automation solution in compact size. Integrating smoothly with security systems, Lonix Automation is the premium choice for any building.



■ STATE-OF-THE-ART LONIX SECURITY

The state-of-the-art Lonix Security provides the integrated solution for outstanding security. The complete and fully featured infrastructure for access control and intruder alarm systems is efficiently combined with the advanced video surveillance system and a wide range of cameras. The solution allows for smooth integration with automation and building management systems – creating the fully unified solution for Intelligent Buildings.

Forefront LONIX AUTOMATION

Outstanding products for intelligent BMS is our core competence. FLEX Series Controllers with all-inclusive control and monitoring features, TOUCH Series for modern yet stunningly easy touch user interfaces, CONNEX Series with intelligence and overarching integration capabilities – all our products stand for excellent quality and versatile features.

The forefront Lonix Automation ensures robust functionality of building systems. Proven hardware/firmware and world-class software are the key enablers for advanced controls and versatile functionality, all included in a robust single-piece design. The multi-functional Lonix Controllers include the intelligence of the automation solution in compact size.

The Lonix FLEX Series Controllers allow for extremely flexible use of I/O with universal inputs and outputs. Having the intelligence for complex controls as embedded in the controllers, FLEX Series Controllers support Distributed Intelligence and centralized system designs alike. Modern, stunningly easy to use Lonix TOUCH Series Panels allow for convenient touch screen access to Lonix IBMS direct from the DDC Panel.

Lonix CONNEX Series Controllers and Interfaces further expand the intelligence, flexibility and integration capabilities of Lonix IBMS. Coming conveniently in a compact design, the CONNEX Series Controllers and Interfaces form the perfect solution for intelligence and connectivity of Lonix IBMS and the powerful platform for existing and future applications.



■ FLEX Series

The FLEX Series comprises flexible selection of Intelligent Controllers. The M10 MultiController is perfectly suited for any type of complex controls, including HVAC systems and other types of process controls. The U10 UnitController is dedicated for lighting controls, room automation and unit controls.

M10 MultiController LX-BMS-M10

The FLEX Series M10 MultiController is all you need for advanced controls. The combination of 10 flexible I/O points together with versatile, configurable software functionality makes the MultiController perfectly suited for any type of sophisticated controls.

- 5 UI (Universal Inputs)
- 5 DI/UO (Digital Inputs/Universal Outputs)

U10 UnitController LX-BMS-U10

The FLEX Series U10 UnitController, comprising 10 flexible I/O points, is especially suited for controls of lighting, office rooms and business spaces as well as fan coil units and split units.

- 5 UI (Universal Inputs)
- 2 UO (Universal Outputs)
- 3 DO (Digital Outputs)

FLEX BASE Series

The FLEX BASE Series is the dedicated selection of controllers designed to provide solid control functionality and efficiency in large scale installations.

- LX-BMS-M10-B (5UI, 5DI/UO)
- LX-BMS-U10-B (5UI, 2UO, 3DO)
- LX-BMS-D10-B (10 DI)



■ TOUCH Series

The TOUCH Series Panels allow for easy touch screen access to Lonix IBMS direct from the DDC Panel. The TSP4 Touch Screen Panel is the versatile 4.3" touch screen user interface. The comprehensive 10" touch screen user interface TSP10 comes with the full embedded WebUI application and TCP/IP connectivity.

TSP4 Touch Screen Panel LX-BMS-TSP4

The TOUCH Series TSP4 Touch Screen Panel is the 4.3" touch screen user interface for Lonix Automation. Connecting direct with TCP/IP and the field bus, TSP4 is the convenient user interface option for DDC panels and for special monitoring applications.

TSP10 Touch Screen Panel LX-BMS-TSP10

The TOUCH Series TSP10 Touch Screen Panel is the convenient 10" touch screen user interface for Lonix Automation. Coming with the embedded WebUI application, the full graphical user interface with process views and system monitoring capabilities, the TSP10 provides easy access to Lonix IBMS direct from the DDC panel.



■ CONNEX Series

Coming conveniently in a compact design, the Lonix CONNEX Series Controllers & Interfaces expand the intelligence and flexible integration capabilities of Lonix IBMS.

NIU Networked Intelligence Unit LX-BMS-NIU

The CONNEX Series NIU, Networked Intelligence Unit, is the Controller for intelligence and connectivity of Lonix IBMS systems. The NIU also serves as the TCP/IP gateway to BMS and contains a 4-port Ethernet switch/router with firewall. The NIU also provides the expandable platform for versatile existing and future applications and the flexible foundation for multi-protocol support and advanced networked services.

BIU Bus Interface Unit LX-BMS-BIU

The CONNEX Series BIU, the Bus Interface Unit, is the compact interface for field bus connectivity directly from the DDC panel. BIU has dedicated versions for RS485/RS232 and M-Bus. The BIU is used in combination with the LX-BMS-NIU, together offering expandable multi-protocol support and TCP/IP connectivity in compact design.



Cutting-edge **LONIX** **SOFTWARE**

The cutting-edge Lonix Software products create the comprehensive foundation for integrated building systems. The generic software platform, Lonix COBA Building Operating System, facilitates integration and interoperability of all building systems.

With our wide range of sophisticated applications you can take advantage of real-time control and monitoring, dynamic graphics, and multi-vendor integration capabilities for all systems on the hardware of your choice. Multiple user interface types are easily suited for professional users and tenants alike. The essence of integration is brought to you by Lonix Software.



BOS SERVER SOFTWARE

The Lonix COBA Server Software, the Building Operating System (BOS) platform, provides all of the capabilities of an open integration platform and modern SCADA in a single software solution. The Building Operating System is the comprehensive software solution for intelligent building automation and integrated building management systems. Using flexible architecture and open industry standards, Lonix COBA BOS integrates full-fledged building automation and security systems into a unified solution to optimize building performance. The always up-to-date platform expands through drivers to a wide range of existing and future systems and protocols.

CLIENT APPLICATION

The Client Application is the professional monitoring application for all BOS connected systems, ranging from building automation and room controls to emergency lighting and demanding security systems. The same client can be used for accessing remotely multiple sites. The Client is the perfect choice for demanding professional users of monitoring applications.



WEBUI APPLICATION

The easiest way of accessing the Lonix System is through a standard Internet browser. The WebUI is the user-friendly application to support connecting with the Lonix system effortlessly with a standard web browser. WebUI provides tremendous advantages in terms of flexibility and ease of use.

State-of-the art **LONIX SECURITY**

The state-of-the-art Lonix Security provides the integrated solution for outstanding security. The complete and fully featured infrastructure for access control and intruder alarm systems is efficiently combined with advanced video surveillance systems and a wide range of cameras. Lonix Security integrates smoothly with automation and building management systems.

The flexible, easily expandable access control and intruder alarm system consists of independent network controllers and a comprehensive range of interface panels. The advanced video surveillance system consists of independent network video recorders and a full range of compatible IP cameras. The system supports a wide variety of peripherals from different manufacturers. The integrated user interface supports easy and effective monitoring of all connected systems.

Security system components – readers, sensors, cameras – are available according to specific needs of each solution type.





■ ACCESS CONTROL AND INTRUDER ALARMS

The core of the access control system consists of network controllers and interface panels. The system supports a wide variety of readers and other peripherals from different manufacturers.

- **Network Controller**
LX-SEC-V1000
TCP/IP interface for server connectivity and access control processing for up to 32 interface panels
- **Door Interface Panel**
LX-SEC-V100
Connects two access control card readers via Wiegand interface controlling one or two doors
- **Input Monitor Interface Panel**
LX-SEC-V200
Alarm input processing for up to 16 supervised input circuits, monitors and reports normal, off-normal and tamper states
- **Output Control Interface Panel**
LX-SEC-V300
Output control processing for up to 12 outputs
- **Network Controller with Door Interface Panel**
LX-SEC-V2000
TCP/IP interface for server connectivity and integrated access control processing for two readers/doors



■ VIDEO SURVEILLANCE AND CAMERAS

Lonix Security integrates a selection of leading Video Surveillance systems with the full-scale solution. User-friendly interfaces and advanced capabilities are available for the solution of your choice.

VIDEO MONITORING

Video surveillance can be implemented with Digital Video Recording (DVR) or a fully IP based Network Video Recording (NVR) system or any combination of these. The video surveillance system is integrated with the BOS platform to enable advanced features provided by the combination of all the connected systems. For example, system can start recording video stream and/or turn PTZ camera to a preset position upon triggering from intruder alarm system, access control, fire alarm or any other system integrated with the BOS platform.

The video monitoring system supports both analog and IP cameras. Cameras and recorders can be operated both via video monitoring system's own user interface (live viewing of cameras) and the integrated user interface of the BOS (viewing cameras from floor plans). Cameras will be used not only by security operators, but also by safety and maintenance operators and all occupants.

Video Content Analysis (VCA) functionalities enable implementing many advanced features, such as left object detection, people counting and crowd monitoring, for example.

CAMERAS

A wide range of high quality cameras are available as part of the Lonix solution. Dome cameras, box cameras, bullet cameras, vandal dome cameras, PTZ cameras - our selection covers all of the most commonly required types and features.



SERVICES

over the Life Cycle

The cornerstone of Lonix Software, Lonix COBA Building Operating System platform, allows for efficient system maintenance and value-adding networked services. Easy access to building systems ensures that everything is in perfect condition and functions in the optimal way at all times. Should anything disturbing happen, immediate response is available. The networked services guarantee undisturbed conditions, first-class security, energy efficiency and sustainable development along with significantly lower life cycle costs.



ALARM MONITORING



- Intruder alarms
- Fire alarms
- Maintenance alarms
- Video monitoring alarms
- Immediate alarm response



REMOTE DIAGNOSTICS



- Preventive maintenance
- Immediate response from all devices
- Quick replacement of malfunctioning field devices



ENERGY OPTIMIZATION AND TRENDING



- Set point adjustment
- Control optimization
- Trending and reporting
- Consumption based billing
- Peak load management



HELP DESK AND SUPPORT

- Remote assistance
- Online troubleshooting
- 24/7 service

SYSTEM ARCHITECTURE

The Lonix Solution is open, integrated and flexible, fit for distributed intelligence and centralized system designs alike. Systems and functionalities use advanced control techniques and standard communication networks and protocols. The solution is completely modular in structure and freely expandable at any stage. Being fully consistent with the latest industry standards, the solution enables secure remote connectivity and advanced value-adding services.

MONITORING

BMS & Security

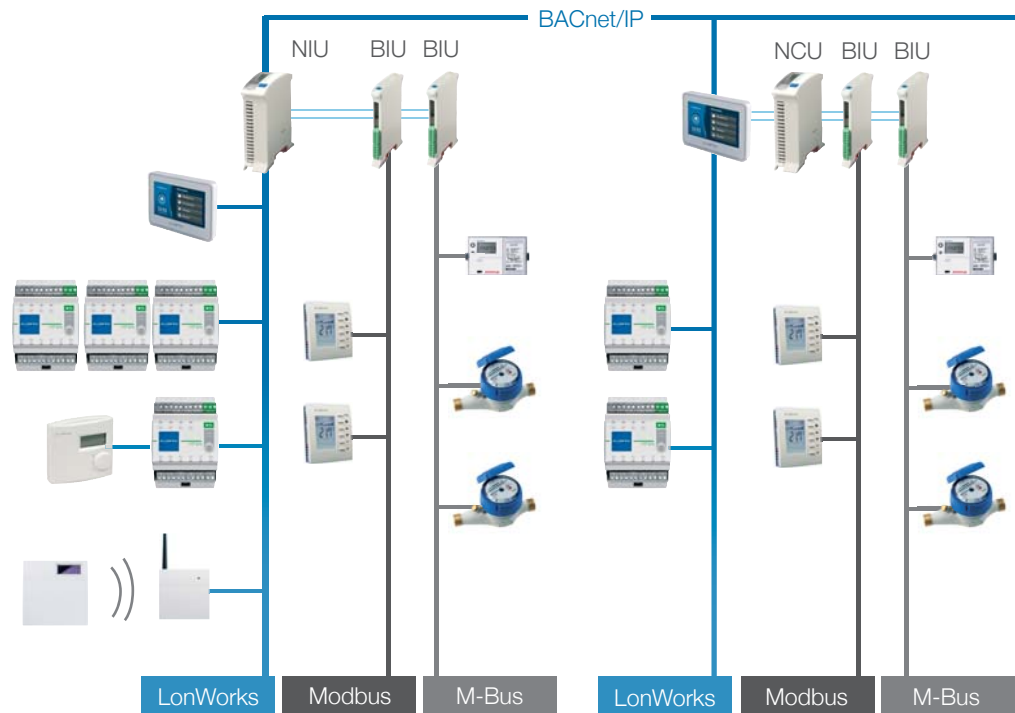
- Alarm Monitoring Station
- Video Surveillance
- Environmental Reports
- Customized Dashboards



MAINTENANCE

User Interfaces

- Integrated System Views Maintenance and Monitoring
- Customized Reporting
- Remote and Local Access



LONIX AUTOMATION

- HVAC Controls
- Room Automation
- Lighting Controls
- Metering & Monitoring

CORE PLATFORM

BOS - Server

- System Integrations
- Graphical User Interfaces
- Profiles and User Rights
- Alarm Handling
- Trends and Event Logs
- Monitoring and Reporting



COBA Server Software

TCP/IP network

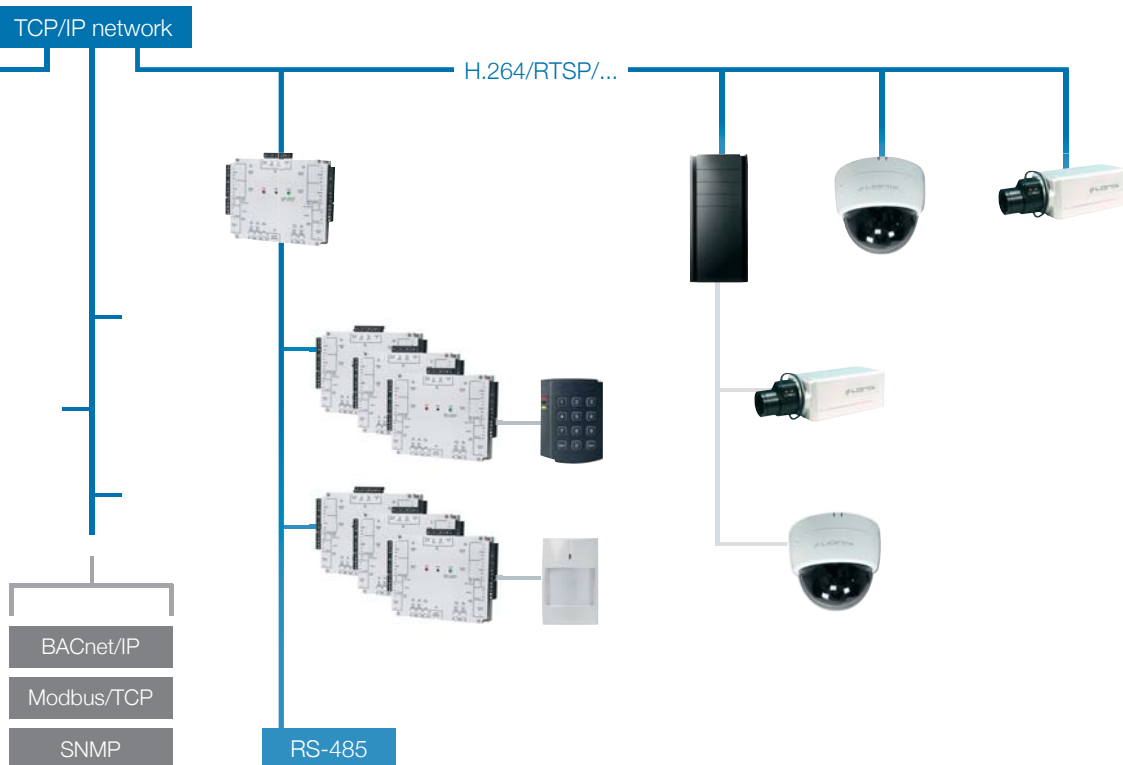
VISUALIZATION

User Interfaces

- Internet Browser
- Controls and Monitoring
- Remote and Local Access
- Personalized Views



H.264/RTSP/...



LONIX SECURITY

- Access Control
- Intruder Alarms
- Video Surveillance
- Cameras



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