

# Einstein III

Intelligence and technology combine to deliver world class efficiency



Entry hall, Einstein III building, Haidhausen, Munich

The Einstein III building in Haidhausen, Munich, was erected in 2000. Named after Germany's most famous scientist, the building offers 37,000m<sup>2</sup> of office and commercial space and is owned by Hypo-Vereinsbank. The building is perhaps as intelligent as its namesake and impresses not only with its functional architecture but also through its flexible and ultra-modern building automation technology.

Einstein III offers all the conveniences of a modern, working office environment, including a prestigious entrance hall, its own taxi rank, an underground car park with 380 parking bays, as well as a lavish, outdoor recreational area.

## The Challenge

A valued integration partner in Germany, was challenged with providing an integrated building automation solution with an intelligent, scalable architecture using open standards to meet the requirements of the dynamic

enterprise. The solution would also have to supply reliable individual comfort for the multiple tenants, while providing energy and cost savings across the enterprise.

## The Solution

The solution was a complete building automation solution, combining the highly scalable architecture and open standards of CitectFacilities with the European Installation Bus (EIB) and BACnet. The interlacing of these open standards resulted in the networking of the entire building.

CitectFacilities controls all automation aspects of the building, such as external blinds controlled via sun direction and wind sensors; lighting, chillers, air handling units and heating circuits through centralized control stations.



## The Challenge

To install an integrated building automation solution comprising an intelligent, scalable architecture that uses open standards – all while optimizing energy use, providing consistent individual comfort to tenants and reducing costs.

## The Solution

A complete automation solution combining the scalable architecture and open standards of CitectFacilities with the European Installation Bus (EIB) and BACnet.

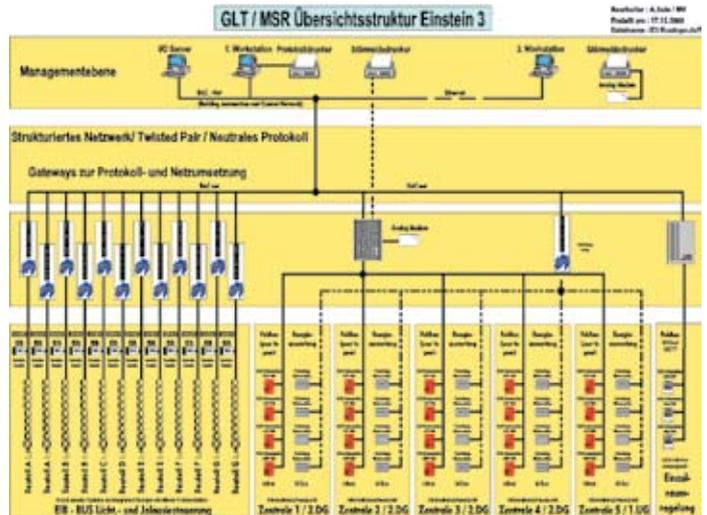
## The Benefits

CitectFacilities, EIB and BACnet together provide an open, scalable, intelligent building automation system that maximizes comfort and energy efficiency throughout the building while significantly lowering life-cycle costs.

# A new benchmark in facilities management



Complete visualization of a conference room



Overview of complete building automation

The interior fittings are also designed to meet the requirements of a dynamic enterprise that is characterized by frequent reorganizations of room layouts. Einstein III was the first building in Germany with the ability to independently control environmental conditions in these changing room configurations, using native BACnet DDC controllers.

The building automation system now provides tenants with consistent individual comfort via centralized monitoring and control of room configuration with unique temperature and lighting settings.

## BACnet - the world language for automation

BACnet is now a powerful tool for the unification of all building-related automation services and can be implemented over standard communication medias, such as Ethernet.

## Leveraging EIB and BACnet for flexible automation

During the last few years, the European Installation Bus (EIB) has become accepted as a prominent standard for building automation in Europe. Offering a large selection of compatible vendors' products, as well as a standardized, easy tool for configuring systems.

Altogether, approximately 6,000 EIB group addresses are used for visualization on the CitectFacilities system across the enterprise. The advanced server/client architecture of the system means only the server requires a bus coupler to BACnet. This saves on system equipment costs, thereby increasing building efficiency and reducing energy and building maintenance costs.

## The Benefits

CitectFacilities, EIB and BACnet combine to provide an open, scalable, intelligent building automation system that optimizes comfort and energy efficiency throughout the building, while significantly lowering the life-cycle costs.

Furthermore, EIB and BACnet give the client the flexibility to purchase additional control equipment from any vendor for further developments. The scalability of the CitectFacilities system also enables the system to grow to meet the future needs of the enterprise.



“The experience of the project, with BACnet implemented to adhere to the BACnet standards and appropriate planning, proves the integration of the different technical plants is simplified tremendously.”

Marc Voss,  
Technical Manager,  
Amann GmbH

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