



# Building Automation 2.0 by HGI Ltd. for "THE STING"

the optimal approach to support its expanding retail store chain.

## The Solution

BA 2.0 networks provide essential building services and equipment through an IP-based network. By using a common IP infrastructure as the foundation for each store, HGI establishes a common architecture for all technical and organizational processes in the building.

HGI integrated the most advanced IT technologies with the building equipment services to centralize management of all branch stores at The Sting headquarters. By using standard Internet technologies, essential personnel worldwide are able to adjust set-points, program equipment and evaluate store data from any remote location. Visualization, monitoring and operation of building services are managed through a web server running on a Windows Vista PC.

All elements of the system such as heating, cooling, ventilation, lighting, shading, media, and metering are equipped with 100 LON-based components. Typical suppliers for The Sting stores include TAC, Echelon, Thermokon, SVEA, BTR, NZR, Danfoss, Toshiba, Sensor, Grundfos, Loytec, Sensus, Wilo, Viessmann and Trox.

A LON IP router exposes the LON-based components to the IP network, providing easy and effective access and management of the entire network of building services and associated data.



**T**he Sting is an international chain of 80 clothing stores located in Netherlands, Germany, Belgium and UK. The Sting sells approximately 25 privately owned labels targeting a fashion oriented youth market. The average store ranges from 2,000 to 3,000 square meters with two floors.

In an effort to support growth of The Sting stores throughout Europe, management decided to optimize branch stores for energy efficiency, reduced operating expenses, and maximum customer comfort.

## The Challenge

During the chain's expansion into the German marketplace, The Sting management cultivated attractive environments for customers, while designing store operations for reliability and cost-efficiency.

After intensive planning by HGI (Heger Building Automation Engineering Company Ltd.), the Sting selected the Building Automation 2.0 Concept (BA 2.0) as

## The Result

All stores are connected via a WAN (Wide Area Network) using a DSL router and fixed IP subnet each branch. Each LON device is referenced in The Sting network through a VPN (Virtual Private Network) in order to guarantee security. Alarm conditions are displayed locally in each store and then are forwarded to the main system over the secure VPN connection. Customized

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software is adapted to customer requirements for fault messaging by analyzing the alarm signal to determine whether a service technician is required to address the problem. HGI provides 24/7 service via the alarm network, ensuring that alarm conditions and problems are addressed immediately.

Optimal monitoring of facilities prevents unnecessary disruption for customers or employees. Using automated scheduling for each store provides custom schedules to support flexible opening and closing times, special sale days, etc.

The HGI BA 2.0 solution contains the ideal convergence of technology, functionality and users within a common IP network infrastructure. Information can be displayed and controlled via the centralized system, efficiently deploying resources when needed.

BA 2.0 in the real estate industry creates new opportunities for innovative providers of interactive services, such as energy service portals or demand response benchmarking. Combining BA 2.0 with an intelligent energy management system offers new building service management possibilities, increased efficiency and energy savings

### Project Summary

LON nodes: Average 100 devices per store

Manufacturers: TAC, Echelon, Thermokon, SVEA, BTR, NZR, Danfoss, Toshiba, Sensor, Grundfos, Loytec, Sensus, Wilo, Viessmann and Trox

Topology: LonWorks® FTT10 / Backbone: IP Channel, 100 Base TX

Network Management tool: LonMaker® Turbo Edition

System Integrator: HGI Heger Gebäudeautomation Ingenieurgesellschaft mbH,  
Hörstel, [www.hgi.de](http://www.hgi.de)

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