Buildings Business

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Buildings Business
Schneider Electric

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We help the best buildings in the world get that way.
Agenda

- Schneider Electric’s Buildings Business
- Our customers’ top challenges
- Our solutions to these challenges
- How we deliver these solutions
- EcoStruXure and the future of the Buildings Business
Schneider Electric is well established in **Buildings** with these well-known brands:

- **SQUARE D**
- **JUNO LIGHTING GROUP**
- **Merlin Gerin**
- **t.a.c.**

**Industrial/Commercial Buildings**
Buildings is integral to the Schneider Electric offer

- **Reliable**
  - IT
  - Critical power & cooling

- **Safe**
  - Power
  - Low & medium voltage power

- **Efficient**
  - Industry
    - Industrial automation & control

- **Productive**
  - Buildings
    - Building automation & security

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**Solutions & Energy Efficiency**

- [Historical presence](#)
- [New businesses](#)
Buildings solutions delivered globally

- Our systems are found in over 150,000 installations, on every continent.
- 120-year history in building automation, access control and security.
- Over 8,000 employees worldwide.
- Offices, branches and partners in:
  - Americas – Dallas, TX, USA
  - Europe – Malmö, Sweden
  - Asia-Pacific – Hong Kong
- Global Manufacturing
The results

*Most profitable, fastest growing building automation company*

- Significantly stronger organic growth than industry average
- Well integrated, strategic acquisitions
  - 2004  Andover Controls
  - 2005  Invensys Europe (Satchwell)
  - 2006  Invensys Americas (Siebe)
  - 2007  Pelco
Our customers’ top challenges

- **Cost of energy in the building**
  as a key operational challenge

- **Connectivity**
  too many disparate systems in the building

- **Total building life-cycle costs**
  due to the increasing complexity of building operations

- **Security**
  as a growing concern
The energy dilemma is here to stay

The facts

Energy demand
By 2050

The need

CO₂ emissions
to avoid dramatic climate changes

Energy management is the key to address the dilemma

Source: IEA 2007
Source: IPCC 2007, figure (vs. 1990 level)
Life-cycle cost of a building

An integrated system can reduce ongoing operational costs by up to 36%
Multiple silo systems in the building

- Multiple networks from multiple vendors
- Too many systems to learn
- Complex troubleshooting

Silo systems add:

- ☑ CapEx
- ☑ OpEx
- ☑ Obstacles to achieving energy efficiency
The integration difference

- Integrated building infrastructure systems enable:
  - Shared Operating Data between Systems via a common Interface
  - More Productive and Responsive Staff
  - Centralized Services that Reduce Costs
  - Lower Cost of Network Ownership
  - What gets Measured gets Managed
You can’t manage what you don’t measure

Intelligent buildings demand a new approach to:
• Design and Construction
• Operation and Maintenance
• Empowerment of Human Action

This Calls for a New Social Order in Buildings
Intelligent buildings are the only way to solve the energy efficiency challenge

- Intelligent buildings successfully converge data, voice and video with security, HVAC, lighting on a single network platform

- This is great opportunity to think and act in new ways
  - That deliver improved results
    - Economically – Save Dollars
    - Technically – Save Time
    - Socially – Save Planet
Customer sound bites

Research Hospital

“We have a lot of projects going on at once... getting it done at the same time effects the Operating Rooms and the ongoing generation of this critical revenue stream. Minimal downtime is extremely important.”

Financial Services Company

“We have a 7 days a week, 365 days a year, 700,000 square foot facility. Maintaining all of our diverse systems is a challenge. One of the guards discovered that the temperature was rising in one of our server rooms. Our server rooms generate more dollars an hour than I can mention. Our TAC system sent an alarm and without any technical knowledge he responded appropriately. This action saved our company millions of dollars.”
Customer sound bites

University

“We have 60 buildings connected to the TAC system. This integration has provided a very consistent interface and we are now able to troubleshoot through a building extremely fast.”

Premier Commercial Asset Storage

“Our TAC solution is a core part of the way we operate and the way we deliver our promise to our customers. Our business model today would be difficult to operate without that level of integration.”

Hotel

“A major value delivered by the TAC system is increased guest satisfaction. This is central to delivering on our mission.”
Customer sound bites

Municipality

“By 2020 we have committed to reduce our energy consumption by 50% from our 2001 benchmark.”

“When we integrate everything in one package we received a 10% CapEx cost reduction. Making the right decision at the beginning it’s much cheaper than having to achieve this in a second phase.”

“From 2001 to 2007 TAC has helped us reduce our energy consumption by approximately 35%”
Convergence in practice

Mixed Use Shopping Mall

- BMS
- Access Control
- CCTV
- Lighting Control
- Power Distribution
- UPS
- Facility Management

Customer Benefit

- 25% reduction in energy costs
- €120 million reduction in investment costs
- 45% less power consumption
- €500k savings in cabling savings
- Easier management due to one service contract for the whole facility
Convergence in practice

Air Force Base

- 470 square miles, larger than LA!
- 19 runways, including the country’s longest
- High security
- Power Monitoring System
- Over 100 Power Meters
- $20 million electricity bill per year

Customer Benefit

- Reduced energy consumption in line with federal mandate
- 18% energy reduction in 2007
- Moment-by-moment analysis enables:
  - Less downtime
  - Fewer wide-spread outages
  - Track influencing factors
Convergence in practice

**Mixed Use Shopping Center**

- BMS
- Access Control
- Intruder Detection
- IP CCTV
- Pedestrian Counting
- Tenant Information
- IT Infrastructure
  - LAN
  - Wireless
  - Cellular

**Customer Benefit**

- CapEx reduced from one common IP network
- Proactive theft prevention via streaming video to shop units
- Tenant billing based on real time energy data
- Shopper analytics
- Increased revenue opportunity through lease/use fees of common IP systems
Summary of value to our customer

- Lower initial capital expenditures of up to 24%
- Reduce ongoing operating expenditures of up to 36%
- Significantly reduced energy usage
- Improved business performance
  - Additional revenue opportunity
  - Increased employee productivity
  - Improved guest experience
  - Ability to meet environmental goals
- Loss reduction
- Revenue protection
How we deliver these solutions

- Measurement
- People
- Strategy and Offer
- Technology
Measurement is fundamental to energy efficiency

1. **Measuring and Data Collection**
2. **Real Time Data Integration**
3. **Optimize through automation & integrated control**
4. **Monitor, maintain, improve**
5. **Feedback to user to change human behavior**
Our people

● Broad and deep knowledge and experience in all building disciplines
  ● Design, Project Management, Operational Efficiency, Security and Environmental

● Our solutions are driven by the business needs of our customers
  ● We listen and deliver measurable value as defined by the customer

● Our approach delivers solutions that help manage buildings simply and effectively throughout the building life cycle:
  ● One design team, one installation team, one service team

● Experts in energy efficiency
  ● Largest group of energy experts in North America
The **Buildings** strategy and offer
Technology – Four cornerstones

**Pushbutton Engineering**
*Easy to use, quick to engineer and maintain*

**Multiple Views**
*Information customized for every level of the organization on your cell phone or your desk computer*

**IT Proficiency**
*Easy to integrate and share data, Fully embraced by IT decision makers*

**Scalability**
*Affordable consistent capability from small to enterprise wide installations*
Technology – Next milestones

- **Web Services** - enables seamless migration of the complete Schneider Electric offer inclusive of strategic partners (eg. Cisco, IBM) in the EcoStuXure/Building solution

- **End-to-end energy management** - extends the concept of energy management up and down the demand chain, from low voltage to web based analysis providing actionable data to achieve Energy Efficiency

- **Scalable platforms** - Neil Rasmussen
  - Sr. VP of Innovation
  - APC by Schneider Electric

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  - that can be deployed in very small or very large enterprises – all with common code base, communications standards and consistent user interface. This creates additional CapEx and OpEx savings

- **Integrated video, video analytics and access control** – providing improved security while at the same time delivering energy savings through occupancy based control

- **Wireless** - We are pioneering the development of wireless capabilities
Delivering value to our customers

A world class team of building experts
We listen first and then we deliver real solutions throughout the building life cycle

Converge building automation and IT systems
Many parts work together

Measure and control power
Drives energy efficiency

Make buildings comfortable and safe
Increases people productivity and maximizes asset value

Business Results
Lower CapEx, Lower OpEX and improved business performance
Making the parts work together for energy efficiency

Simple Integration

Building management
HVAC control
Lighting control
Access control
Security
Electrical distribution
Energy monitoring
Motor control
Critical power
Renewable energies

Interoperability and openness to third party systems