West Cheshire College
Integrated Building Technology

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Honeywell Critical Infrastructure Protection
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Honeywell Today

- A Fortune 100 company – $38.0B in sales
- 128,000 employees in 120 countries

Diverse Businesses, Technologies and Products

Automation and Control Solutions

Aerospace

Transportation Systems

Specialty Materials
ACS Overview

$14.6 Billion in Sales
60,000 Employees
1,000 Facilities

- Safety
- Security
- Comfort
- Convenience
- Productivity
- Energy Efficiency

 Positioned To Capitalize On Key Trends
ACS Portfolio

SOLUTIONS

- Building Solutions
  - $2.5B

- Process Solutions
  - $2.5B

- Sensing and Control
  - $1.9B

- Life Safety
  - $2.4B

- Security Group
  - $2.3B

- Scanning and Mobility
  - $2.5B

- Environmental and Combustion Controls
  - $2.4B

ACS Sales
$12.6B
Who is Honeywell Building Solutions?

Honeywell Building Solution (HBS) is a leading provider of technical solutions and services.

- Design, Installation, Commissioning and Service:
- Fire and Security
- Building Management
- Energy
- Networks Solutions
- Refrigeration Systems
- Managed Services
- Managed Services Networks

Innovation
- Leading global provider of integrated building solutions.
- Deliver measurable value to our customers.
- Open systems.
- Ground breaking solutions
Using technology to drive operation

Maximising profitability

- Revenue generation
- Operational efficiency

Rapid response to incidents
- Safety
- Security
- Crowd control

Enhancing the experience
- Spectators
- Visitors
- Participants

Complying with legislation
- Public Safety
- Environment
- Sports Governing Bodies
Stakeholder Relationships

Owner/Developer

Architects

Master Systems Integrator

Consultants

Main Contractor

M&E Contract

Master Systems Integrator

General

Contractors

Project Manager

Voice

Cabling

Data

BMS

Life Safety

Security

Specialist Consultants
Security Delivery Chain

CONCEPT → DESIGN → DETAILED DESIGN → DELIVERY → SERVICE

- Threat, Vulnerability & Risk Analysis
- Risk Mitigation Solutions
- Technical Spec Generation
- Tender/Order Process Management
- Detailed Solution Design
- Post Tender Offerings
- Installation
- Post Install Service

Engineering Consultancy → Builder / M&E Contractor

How it should be……
Security Solutions Contractor

Responsibility during project lifecycle
Honeywell Assumes Role of Master Integrator at West Cheshire
Global Functional Specification

2 Purpose of document

3 Scope of Supply and Responsibilities

3.1 Scope of supply

3.1.1 Honeywell

3.2 Responsibilities

3.2.1 Honeywell

3.2.2 Contractor / Customer / Consultant

4 Basis of Design

4.1 Reference Documentation

4.1.1 Consultant/Contractor Documentation

4.1.2 Honeywell Documentation

4.1.3 Project Specific Documentation

4.2 Revision Control

5 System Architecture

5.1 Network Infrastructures

5.1.1 System Overview

5.1.2 System Description

5.1.3 System Settings
THE TECHNOLOGY SOLUTION
Delivering technology solutions from design to commission through to service

FIRE DETECTION & ALARM
- Voice Alert / Phased Evacuation
- Public Address / Voice Alarm

SECURITY MANAGEMENT
- CCTV & Digital Video
- Access Control & Photo ID
- Time & Attendance
- People / Asset Location & Management
- Maternity Security / Baby Tagging

REFRIGERATION
- Air Conditioning
- Chillers
- Refrigeration Services

BUILDING MANAGEMENT SYSTEMS
- Heating, Ventilation & Air Conditioning control
- Remote Monitoring Systems

ENERGY MANAGEMENT
- Define, measure, analyse, implement and control
- Forecast demand

NETWORK SERVICES
- Structured Cabling
- Voice
- Data

SYSTEM INTEGRATION
- EBI – Single User Interface

SERVICES
- Technical Services
  - Fire & Security Services
  - Energy Services
  - IT Services
- Facilities Services
  - Building Services
  - Mechanical & Electrical Services

Honeywell
Part of the offerings
Integrated Systems – Example

Event Control Room

Plant put into fire condition
Access Rights changed for fire situation
Cameras turned to view sensors or exit doors
Disable intruder system, stop lifts, reverse escalators
PA system announcements

No operator intervention
West Cheshire College Integrated Building Technology

1. Structured Cabling
2. Switched Data Network
3. Wireless Data Network
4. HVAC
5. Life Safety systems
6. Access Control
7. CCTV
8. Intruder and Hold-up System
9. Lighting Control
10. Building Systems Integrator
11. Unified Communications
12. IPTV and Video on Demand
13. RFID
Access Control

- Monitor and control exit and entrance doors
- Log all transactions through all controlled doors
- Front end system to add, delete and modify users
- Live geographical layouts show how many persons are present in each learning area
- Read-in : Push button out or Read-in : Read-out can be configured
- Proximity readers using the Wiegand protocol are installed and both HID cards and fobs are being used
- Magnetic locks used that can withstand up to 5kN force
- Emergency links to the Fire Alarm system to unlock doors
- TEMA servers connect to the IP network and to the EBI
- TEMAl ine devices connect to the server on a LONworks bus
- Each TEMA server has its own PSU and battery backup
Access Control

HBR8502

HB_TS_05

HBRU501

HBR1509

HBR1510

CAT6 1mm² 2 core flex Belden 8471

TEMAD Server

TEMAD Power Supply Unit

01-09-D1

Construction/Engineering LRC

Connection to LAN Socket

4 no. Input from Fire Alarm Interface

Inputs from Disabled WC & Refuge Alarms

Located in I.T. Riser 2
Access Control

EBI Graphical information includes:

- Live status of each access control door.
- Modification and addition of card holders.
- Creation and implementation of access rights, groups and time periods.
- Manual control of individual access control doors.
- Event logging with respect to individual card holders with time/date stamp.
- Alarm management.
- CCTV image
- Last transit identification, including picture of card holder
- Area occupancy, including cardholder in area information
Security Management System
Incident Management

- Data is represented in a consistent manner and all can be viewed from a single location: determining a sequence of events is made much easier.
Graphical User Interface
Monitoring Functionality

• Summary of Features
  – Smart trap management and SNMP polling (including SNMP V3) to reduce network bandwidth and resource utilization.
  – Powerful root cause analysis and false positive elimination.
  – Smarter alerts for operators
  – Total flexibility independent of hardware or software vendor.
  – Fault and event storm management.
  – Stateful event correlation.
  – Scalable client-server, multi-threaded architecture.
  – Service Level Agreement (SLA) compliance monitoring.
  – Seamless integration with industry standard software such as HP Openview.
  – Any IP based devices can be monitored dependant on capabilities.
Reduced Capital Costs

Technology as a fundamental part of an Education College business strategy:

• Integrated design approach, allowing efficient design development & faster implementation
• One common infrastructure – more efficient deployment of new systems
• Cost savings on installation incl. leveraging use of cabling infrastructure
• Common upgrade path / centralised management systems
• Building flexibility to suit tomorrow changing requirements
Benefits of a ‘Integrated Solution’

• Cost reduction opportunities
  – CAPEX (Construction) savings
  – OPEX savings

• Revenue enablers
  – Connectivity/mobility
  – Advertising
  – Tenant services

• Customer / employee enhancements (NFP organisations)
  – Enhanced Customer experience
  – KPI management
Change the Way we Design, Build, Operate, and Use Real Estate

Building Systems Design
Current Entry
Old Ways Opportunity Lost!

IT Network Design
Current Fit Out Entry
Too Late!

Building Systems & IT Infrastructure Design
Proposed Entry

25%

75%

Lifecycle Cost

Strategy  Design  Construction  Operation
Questions

Or for any requests for information please contact:

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