West Cheshire College
Integrated Building Technology

John Hamilton
Honeywell Critical Infrastructure Protection
13th July 2011
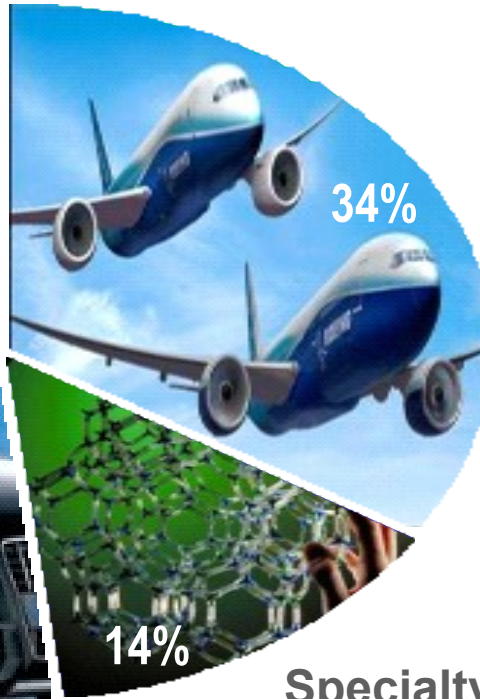
Honeywell Today

Automation and Control Solutions

38%

34% **Aerospace**

14% **14%**

Transportation Systems

Specialty Materials

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

Diverse Businesses, Technologies and Products

ACS Overview

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

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

INDUSTRIAL

BUILDINGS

HOMES

Positioned To Capitalize On Key Trends

ACS Portfolio

SOLUTIONS

PRODUCTS

ACS Sales
$12.6B

Building Solutions — $2.5B

Environmental and Combustion Controls — $2.4B

Security Group — $2.3B

Process Solutions — $2.5B

Scanning and Mobility — $.4B

Life Safety — $1.9B

Sensing and Control — $.6B
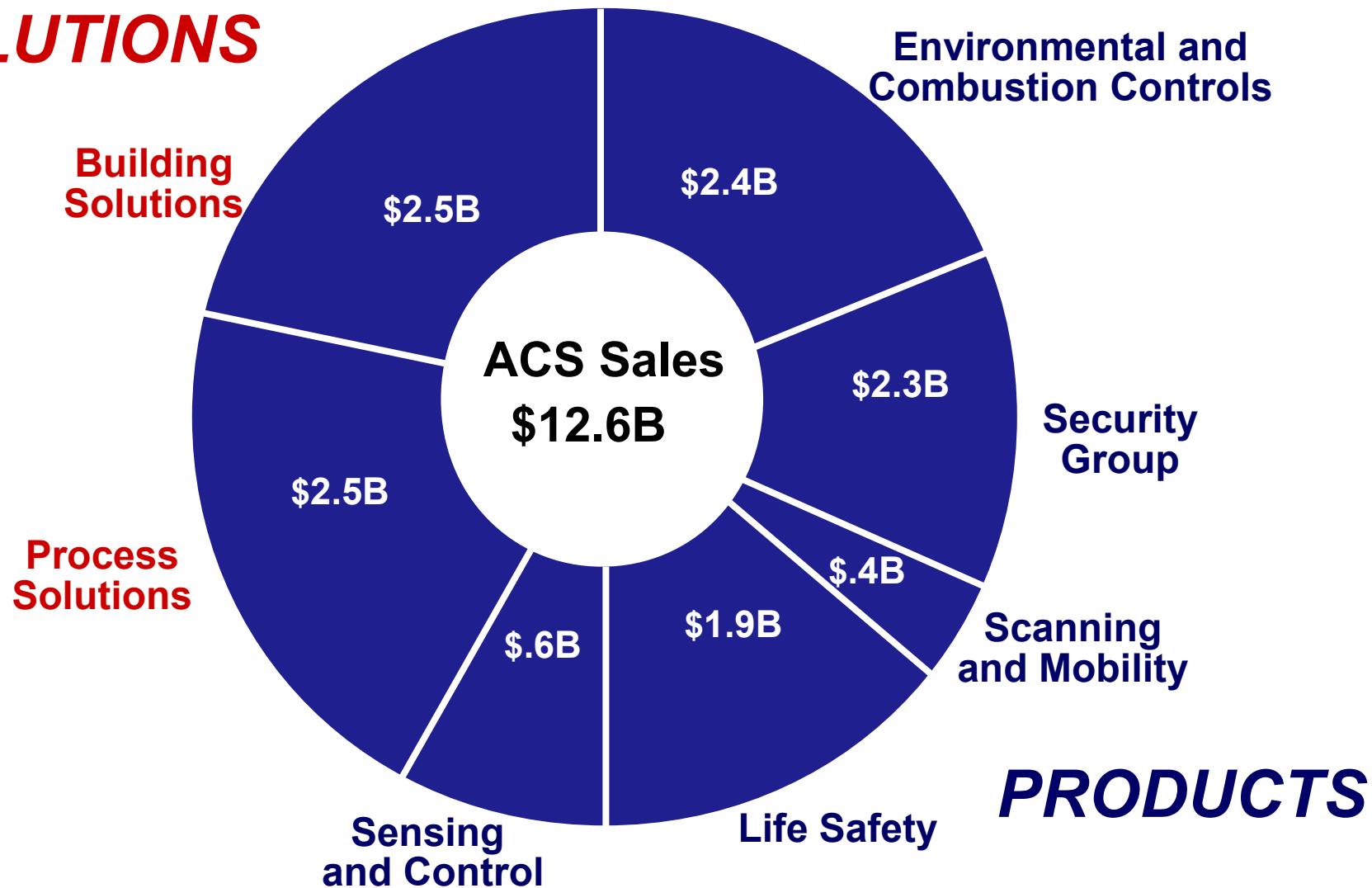
Who is Honeywell Building Solutions ?

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

Honeywell → Honeywell.com

Maximising profitability

- **Revenue generation**
- **Operational efficiency**

Honeywell → Honeywell.com

Rapid response to incidents

- Safety
- Security
- Crowd control

Honeywell → Honeywell.com

Enhancing the experience
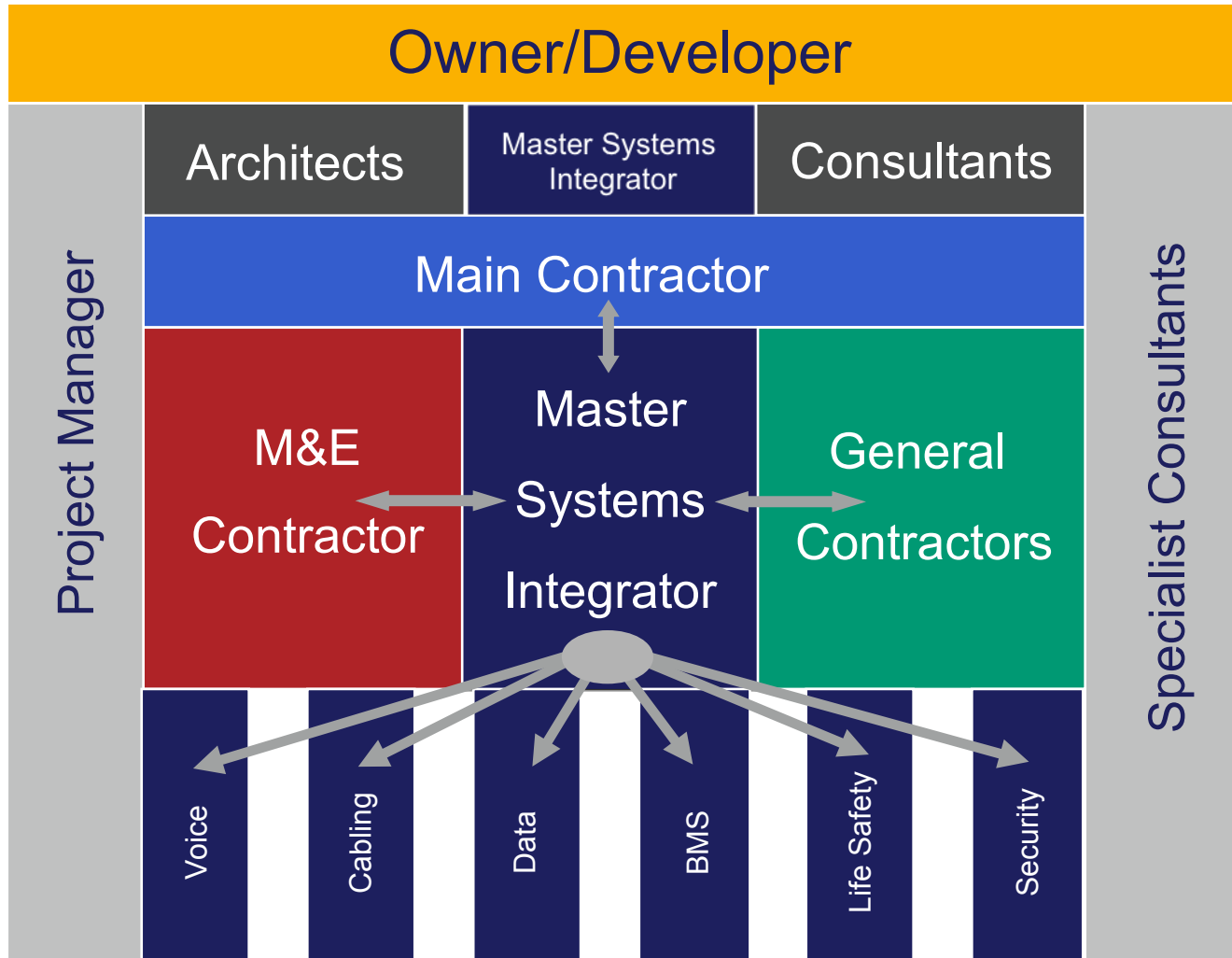
- Spectators
- Visitors
- Participants

Honeywell → Honeywell.com
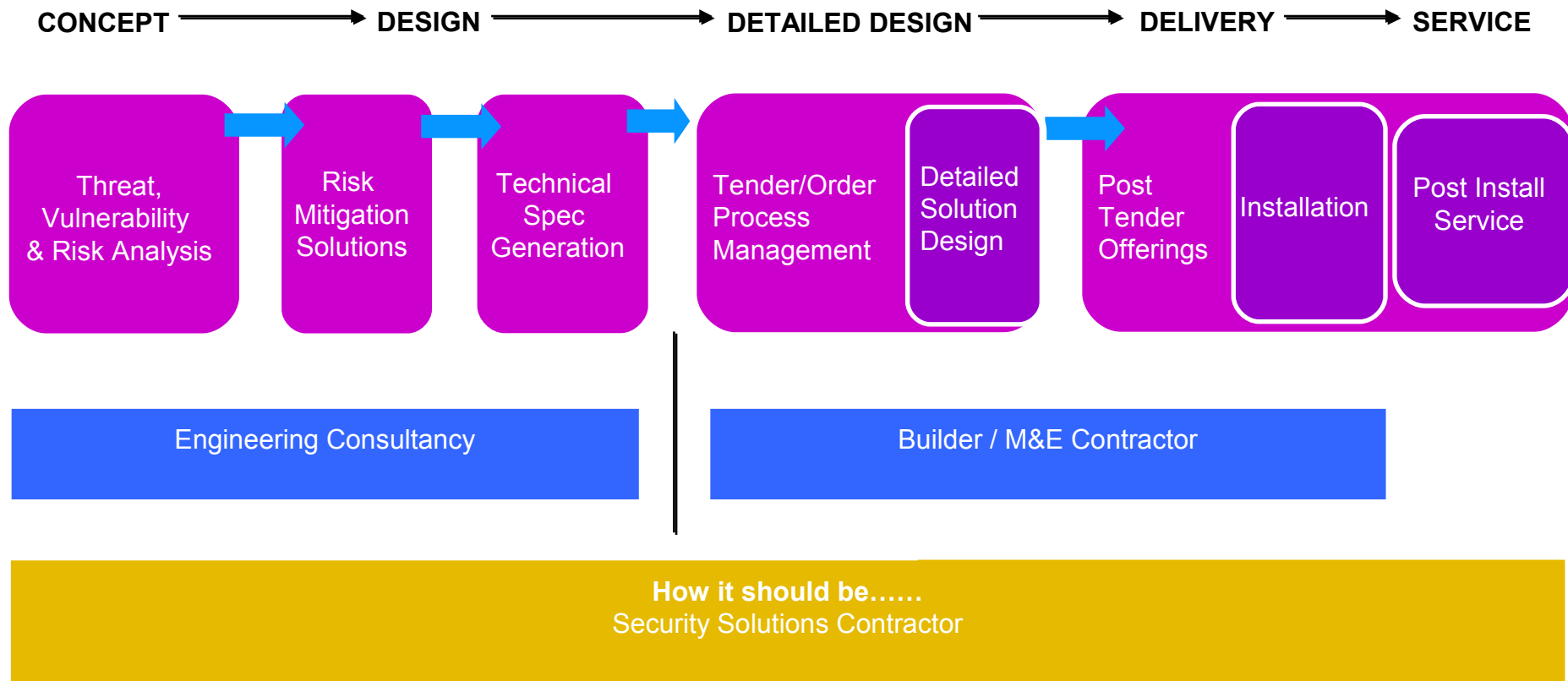
Complying with legislation

- Public Safety
- Environment
- Sports Governing Bodies
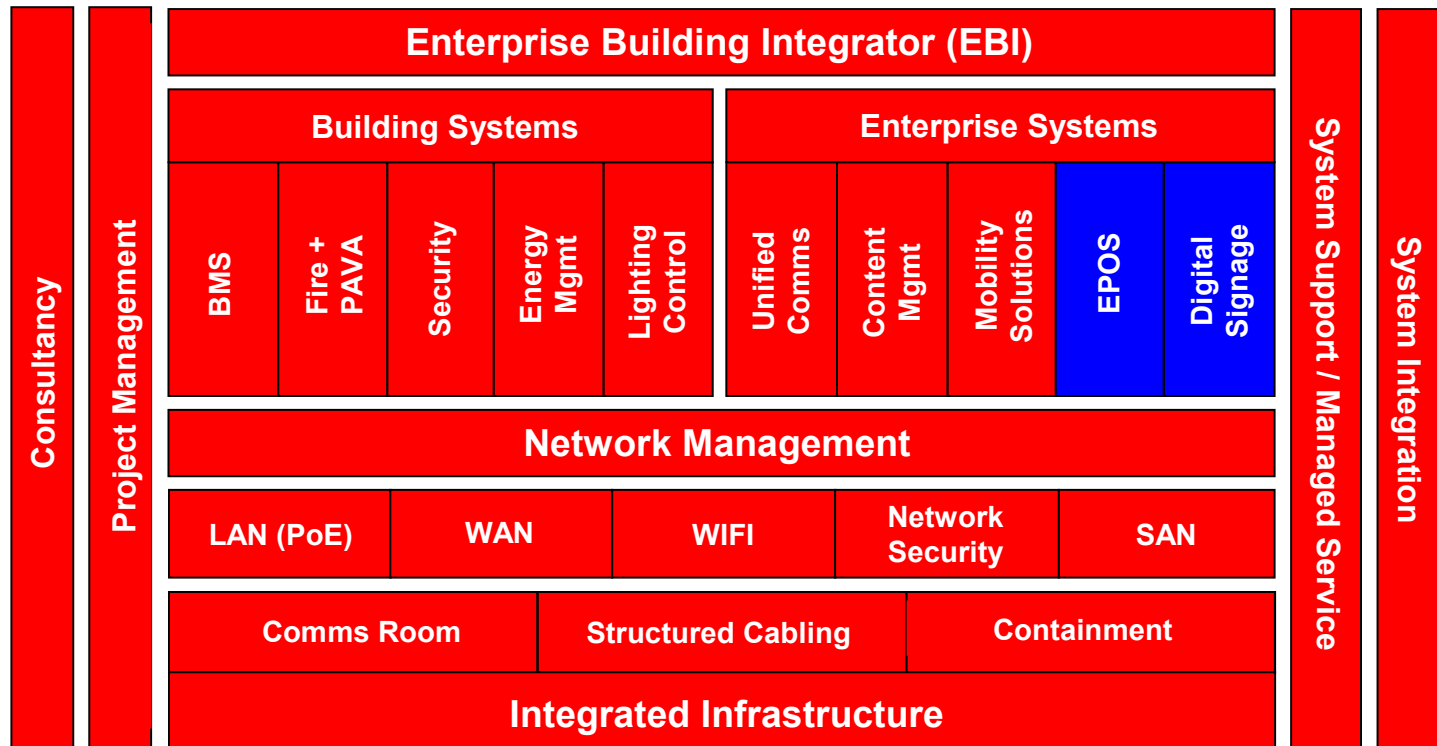
Stakeholder Relationships

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

Integrated Delivery

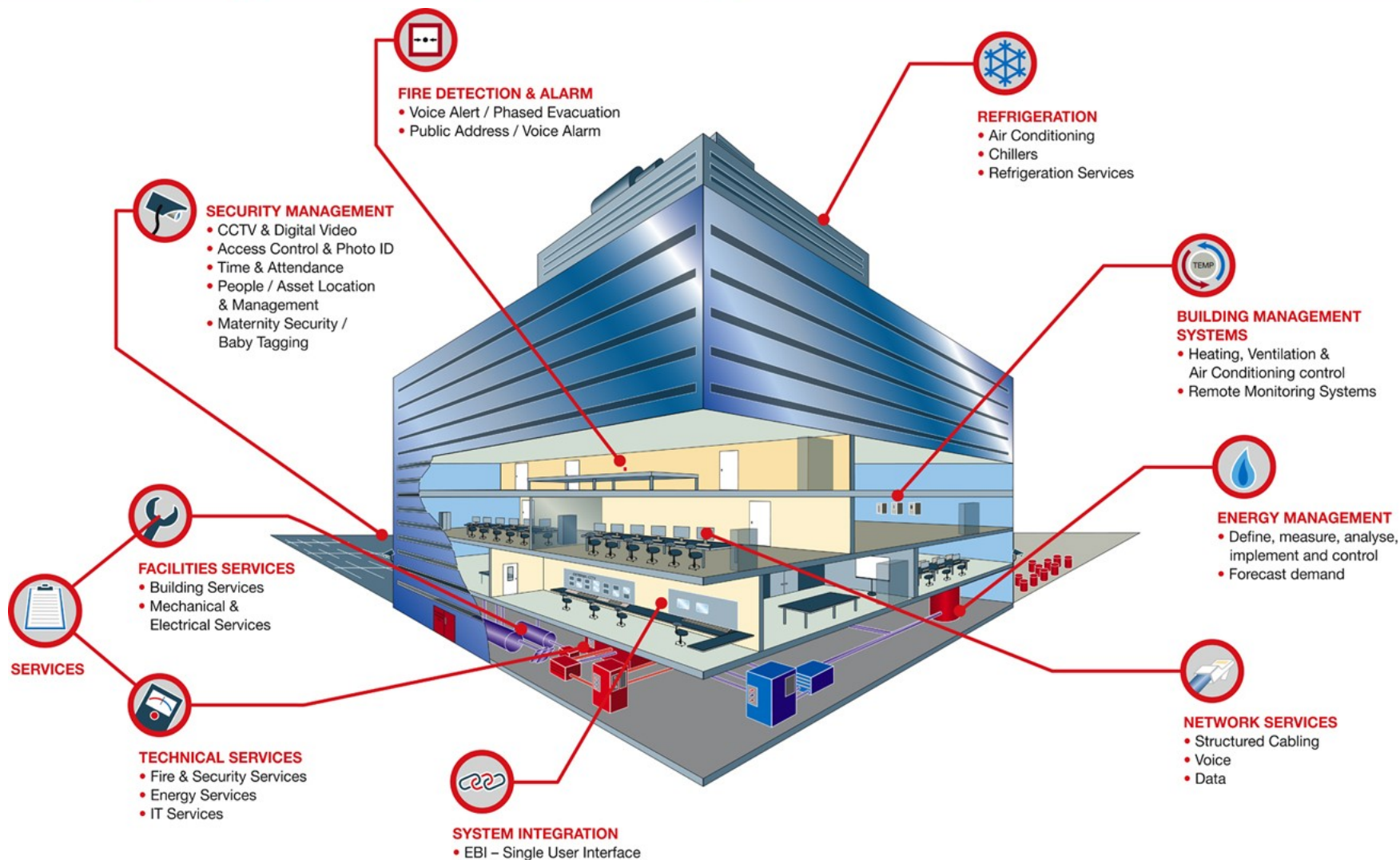**Honeywell Assumes Role of Master Integrator at West Cheshire**

Global Functional Specification

Honeywell Proprietary

THE TECHNOLOGY SOLUTION

Delivering technology solutions from design to commission through to service

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

REFRIGERATION
- Air Conditioning
- Chillers
- Refrigeration Services

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

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

FACILITIES SERVICES
- Building Services
- Mechanical & Electrical Services

SERVICES

TECHNICAL SERVICES
- Fire & Security Services
- Energy Services
- IT Services

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

NETWORK SERVICES
- Structured Cabling
- Voice
- Data

SYSTEM INTEGRATION
- EBI – Single User Interface

Honeywell

Honeywell

Part of the offerings

Honeywell

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

FIRE ALARM!

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
- TEMAline devices connect to the server on a LONworks bus
- Each TEMA server has its own PSU and battery backup

Access Control
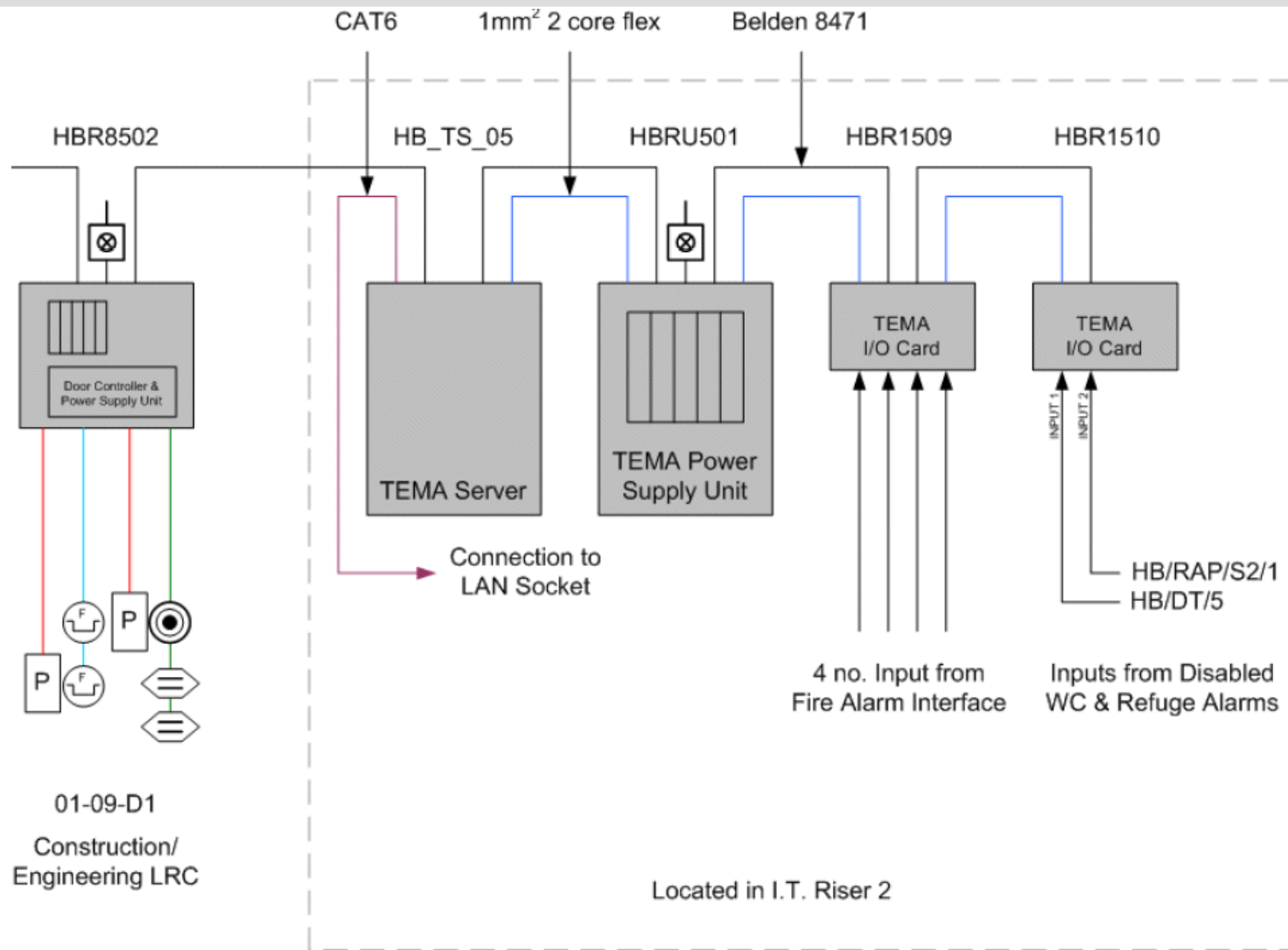
Access Control

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
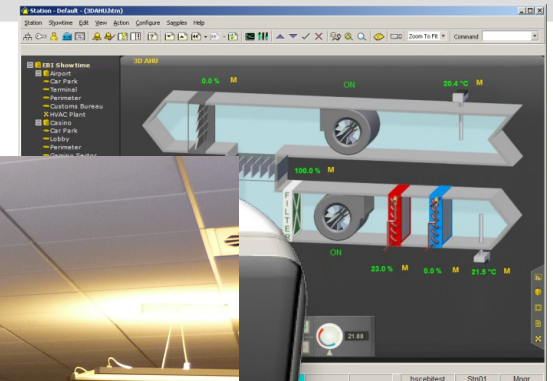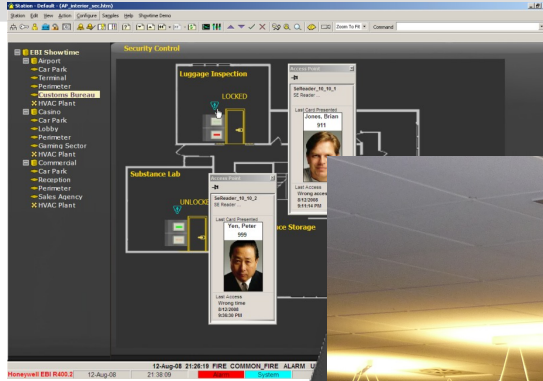
Incident Management

- 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.

Honeywell

Graphical User Interface
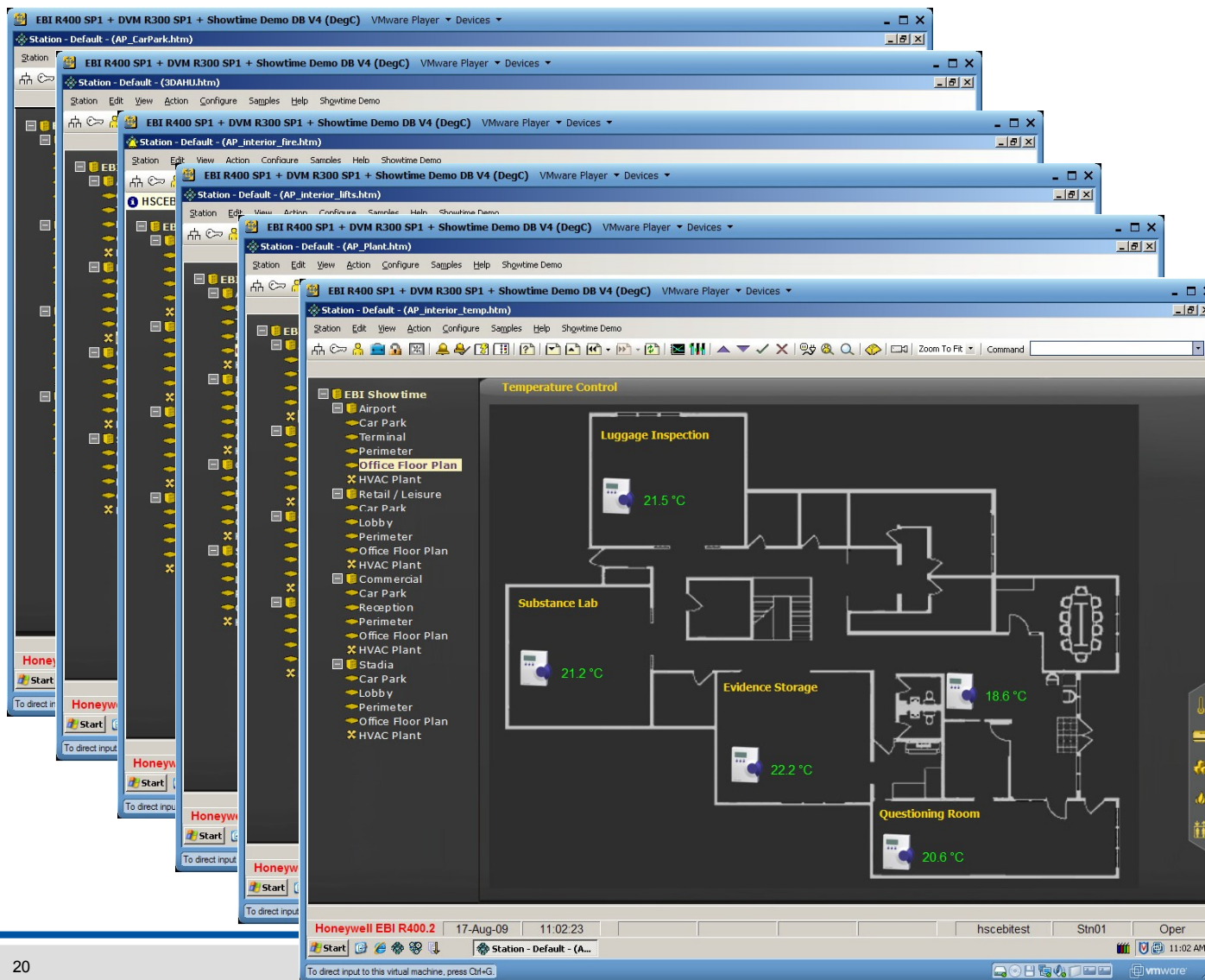
Monitoring Functionality

- 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

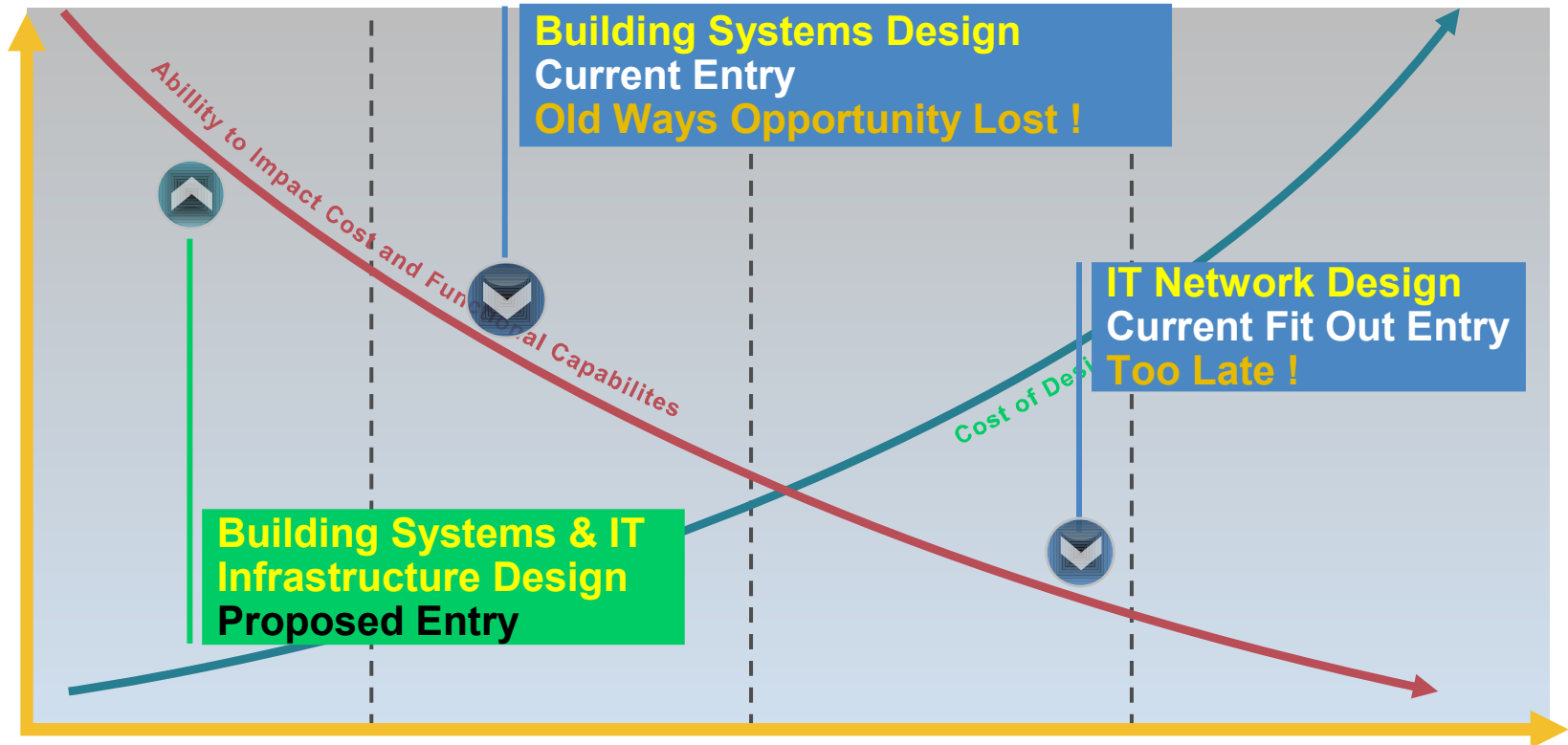Technology as a fundamental part of an Education College business strategy:

- 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

Abillity to Impact Cost and Functional Capabilites

Cost of Desi

Lifecycle cost

25% | **75%**

Strategy | Design | Construction | Operation

Questions

Questions

Or for any requests for information please contact;

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