

## Arcapita Bank HQ in Bahrain Bay – New Data Center

### THE PROJECT



The Data Centre Project was part of the development of a new headquarters building for Arcapita Bank B.S.C.(c) located in Bahrain Bay, Manama, Kingdom of Bahrain. The footprint area of the site is 48,017m<sup>2</sup>. The development consists of two structures, an Office Tower with basement Parking

Garage and a Mosque. Floors 1 through 5 are office floors. The entire 6th floor is designed to house rooftop mechanical equipment as well as elevator machine rooms and facade maintenance equipment.

### THE IMPLEMENTATION

The design team worked directly with the Arcapita Corporate IT team to review the overall requirements and establish the data center design criteria. This consultative design process involved several technical workshops which were facilitated by the technical team from FOSS. Through this process multiple design scenarios were reviewed. Even though the building was very large, the area preallocated for the new data center was considerably restricted. Due to these space restrictions wall mounted MDFs (Main Distribution Frame) based on 110 technology were proposed.

The overall capacity of the data centre was designed to accommodate 36 server cabinets which were based upon Rittal Liquid Cooling Package (LCP) technology. The LCP solution incorporating intelligent controls provided the prospect of up to 50% saving on energy with a heat dissipation capability of up to 24kW per enclosure.

Commscope Systimax structured cabling solution provided the interconnectivity within the data centre. This was based on Cat6 UTP and OM3 550 LSOH Multimode 50/125 optical fibre. The network infrastructure design complied with TIA 942-Tier II standards.

Colour coded overhead cable raceway trunking system was based on ADC Krone Fibre-Runner system and had 2 separate and non-connecting routes. Yellow for the UTP and Orange for the Fibre.

### RESULTS

The overall programme from design to completion took 5 months. By October 2009 the data centre was handed over.



### OVERVIEW

Arcapita - a leading Bahrain-based international investment bank and the principal shareholder of Bahrain Bay, is developing 18,000 m<sup>2</sup> of premium office space for its new headquarters. Arcapita operates out of four offices in Bahrain, Atlanta, London and Singapore. The Bank has a paid-in capital of \$311 million, of which 70% is held by over 300 prominent individuals and institutions mostly from the Arabian Gulf region.

### REQUIREMENTS

- Direct client consultancy
- Facilitation of design workshops
- Install a high-performance data center infrastructure
- Network infrastructure design to comply with TIA 942-Tier II
- Energy efficiency
- Flexibility and future expansion

### SOLUTION

- Wall mounted Main Distribution Frames – 110 technology. To reduce floor space requirements.
- Commscope Systimax Cat 6 UTP LSOH cabling system.
- Commscope Systimax OM3 550 LSOH Multimode 50/125 fibre system
- Overhead trunking system, based on ADC Krone Fibre-runner system
- 36 Rittal Server Cabinets incorporating Liquid Cooling Package (LCP) technology

### BENEFITS

- New energy efficient data center to support installed network
- Free cooling 72% of the time
- Energy efficiency
- Minimized non-IT costs
- Flexibility for rapid configuration