

CRITICAL M&E ENGINEERING



Corporate Presentation

13th Dec 2016

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Our Clients – Approved Vendor List (AVL)

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About Us



About Us

- Established in 2011, in **Penang**, the objective then was to fulfill the needs of our growing buildings and manufacturing industries, especially the **Multinational Corporation (MNC)** in Penang, Malaysia.
- Our core activities are in design, supply, installation, repair, service and maintenance of **Mechanical, Electrical and Process Utilities (MEP)**
- KL office set up in 2014, to extend the service into Data Center, Call Center, TOC, NOC, NMC
- CMEE partners each have over 15 years of experience in supporting clients' critical facility needs.
- The company's staff is comprised of dedicated professionals, encompassing all engineering disciplines, with specialized knowledge in critical facility requirements.
- Our experience allows CMEE to understand clients' needs to optimize and deliver services to meet our clients' specific needs, standards and requirements, by providing the highest level of professionalism and total customer satisfaction.

About Us

- CMEE has extensive experience in consulting, project and construction management and services for critical facilities environments.
- This allows us to extend our expertise and services throughout the region, providing MEP solutions for critical facilities covering the following areas;

Manufacturing Plants & Factories

Data Centers, Call Center, TOC, NOC, NMC

Military

Telecommunication Industries

Hospitals & Medical Centers

Laboratories

Government Buildings & Educational Institutions

Commercial Building & Complex

About Us - Philosophy

The Critical M&E Engineering approach to each project is '**LISTEN, UNDERSTAND, HANDS ON, DELIVER**', where we tailor our efforts to the specific needs of the client.

Vision

To be the leader in the critical facility industry.

Mission

A people oriented organization, team-up and share the common values, to provide unsurpassed solutions and supports, to meet customer needs and expectations, with ZERO compromise to human safety.

About Us – Key Personnel

IR. CHOW CHIN SEANG PEng. MIEM, MASHRAE

Managing Director

Ir, Chow has more than 18 years experience in engineering design, project management and company management. His technical expertise includes detailed mechanical system design and field construction management, as well as all aspects of value engineering, project scheduling and cost containment. He has detailed experience working on Cleanroom construction, Mechanical Plant Room construction, Process Engineering construction, other Industrial and utility projects.

Registration

- Professional Engineer (PE#13513), Board of Engineers, Malaysia (BEM), 2008
- Member (M#25525), The Institution of Engineers, Malaysia (IEM), 2008
- Member (M#8163424), The American Society of Heating, Refrigerating and Air-Conditioning Engineer (ASHRAE), 2010
- Chartered Professional Engineer (CE#13513), ASEAN Board of Engineer, 2016

About Us – Key Personnel

IR. TAN SI LIM PEng. MIEM, ATD

Executive Director

Ir, Tan has 16 years experience in engineering design, project management and company management as an engineer. He has detailed experience working on Mission Critical facilities, including Data Centers, Telecommunications, Military Command Centers, Military Bunkers facilities as well as other Industrial and utility projects.

Registration

- **Accredited Tier Designer (ATD#777), Uptime Institute, 2013**
- **Certified Data Center Professional (CDCP#60011029064548), EPI, 2009**
- Professional Engineer (PE#13229), Board of Engineers, Malaysia (BEM), 2007
- Member (M#24322), The Institution of Engineers, Malaysia (IEM), 2007

About Us – Key Personnel

IR. CHIN KOK YOU CEng, PEng, MIEM, MIET, ATD

Executive Director

Ir Chin having more than 20 years of technical and management experience in engineering design, facilities management & operations within building M&E consultancy & construction for Data Centre, telecommunication industries. Prior to this, he held key technical & management role in network facilities engineering and operations for one of the leading telecommunication companies in Malaysia and as a Technical Consultant of Network Facility for the 3rd telecom operator of Philippines for a total period of 8 years.

Registration

- Member of The Board of Engineer Malaysia (Registration No: 25686A)
- Professional Engineer Of The Board Of Engineer Malaysia (PEng No: 10838)
- Member of The Institution of Electrical Engineers, UK (Registration No: 36106116)
- Chartered Engineer of The Engineering Council, UK (Registration No: 516830)
- **Accredited Tier Designer (ATD) by The Uptime Institute (Foil No: 756)**
- **Certified Data Centre Professional (CDCP)**

About Us – Registration

CMEE key personnel are registered to below international recognized institution, namely



Critical M&E Engineering – A TRULY PROFESSIONAL COMPANY

The key personnel registered to below international recognized institution, namely

- **Uptime Institute**

- Accredited Tier Designer (ATD) – 2 personnel



- **EPI**

- Certified Data Center Professional – 3 personnel



- Board of Engineer, Malaysia (BEM)

- Professional Engineer (PE) – 3 personnel



- **Asean Chartered Professional Engineer (ACPE)**

- Professional Engineer (PE) – 1 personnel



- **The Engineering Council, UK (EC)**

- Chartered Engineer, CE – 1 personnel

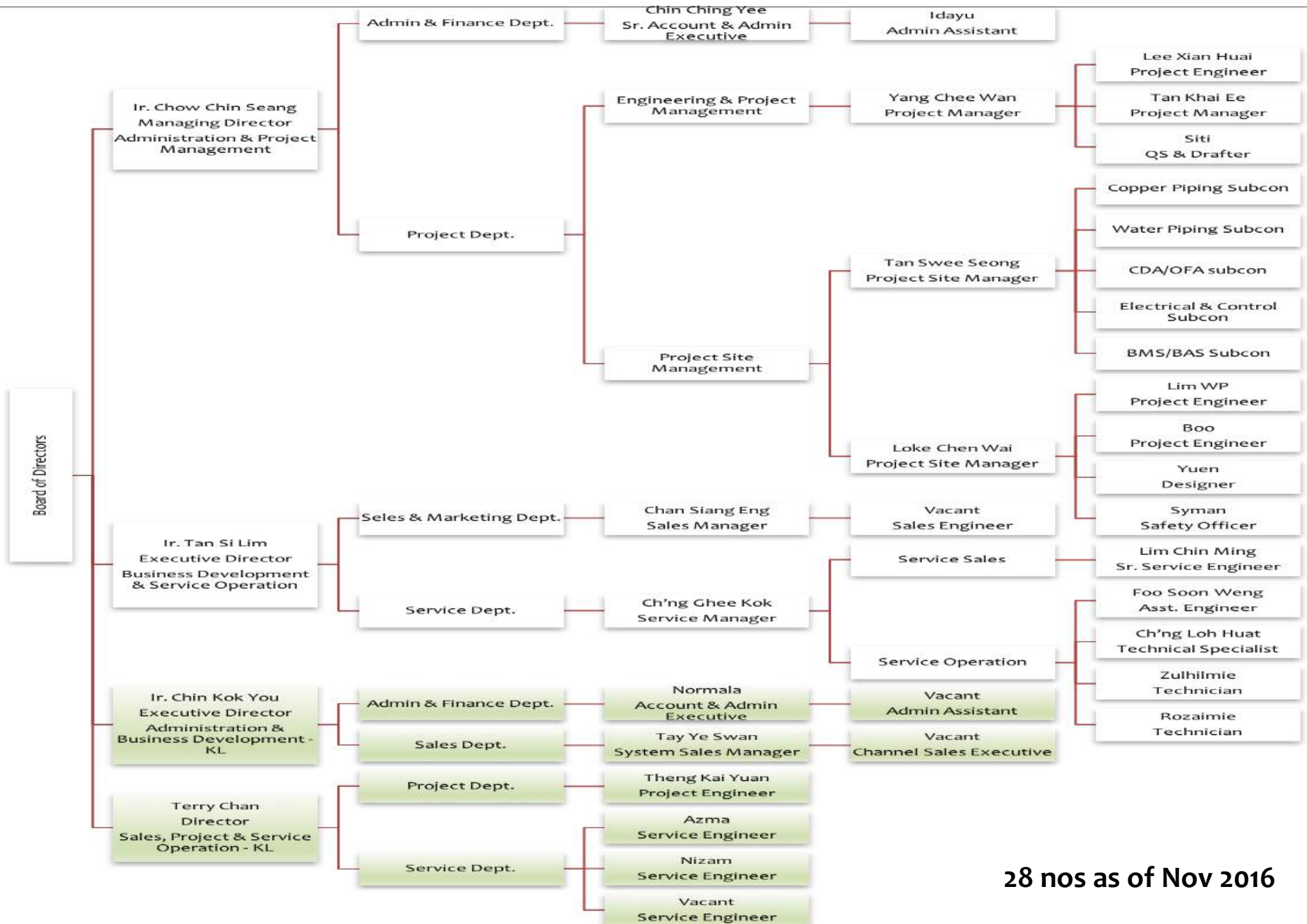


- **The American Society of Heating, Refrigerating and Air-Conditioning Engineer (ASHRAE)**

- Member – 1 personnel



About Us – Organization Chart



28 nos as of Nov 2016

About Us – Group of Companies



- Air Conditioning & Mechanical Ventilation installation
- Cleanroom construction
- Process Utility installation
- Data Center design & build
- Products distribution



- Electrical Installation
- Air Conditioning & Mechanical Ventilation installation
- Data Center design & build
- Call Centre construction
- Channel Sales



- Service & Maintenance
- 24*7*365 manned hotline standby
- Cooling Solution distribution
- Product R&D

About Us – Safety & Health Policy Statement



Safety & Health Policy Statement

Critical M&E Engineering Sdn Bhd is committed to provide a safe and healthy working environment for all the employees and contractors.

Critical M&E Engineering Sdn Bhd understand that, all injuries are preventable and health and safety is the key to the success. Critical M&E Engineering Sdn Bhd is committed to comply with all governmental agencies, regulations, and industry best practices and will use audits to measure and improve safety and health practices.

Critical M&E Engineering Sdn Bhd holds all levels of management accountable to provide a safe work environment and enforcing safe work procedures and practices. Management and supervisors will lead and demonstrate their commitment to health and safety by example, and will ensure that the peer that they are responsible to have the essential knowledge to work safely. Supervisors will put safety and health to the same priority as productivity. They must comply to occupational safety and health requirements.

Critical M&E Engineering Sdn Bhd will hold all employees and contractors responsible for following safe work procedures and reporting unsafe acts and safety incidents.

Workers have general responsibilities for their own health and safety and that of other persons. In addition, they have the responsibility to refuse unsafe work. Discriminatory action will not be taken against them for refusing to do unsafe work.

Employees from every area of the company, regardless of position, will be encouraged to contribute to the company safety and health program. Critical M&E Engineering Sdn Bhd encourages the involvement of all workers in the development of the program. We will provide support and promote the program to ensure that safety has the overriding priority.

Employee cooperation and compliance with the safety and health program at Critical M&E Engineering Sdn Bhd is a requirement of employment.

Services



Consultancy – Mechanical, Electrical & Process Utility (MEP)

- CMEE is licensed to perform professional engineering services. Based in both Penang & KL, Malaysia.
- Our primary experience is providing quality Engineering and Project Management consulting services. Working with our various partners, we are also able to provide a complete Project Design and Management team, including Architectural, Structural and Civil engineering services. Upon completion of a project's design services, we also offer complete Construction Support services to ensure the design intent is carried out.
- Areas of Expertise
 - Data Center Architecture Electrical and mechanical system configurations designed for performance, reliability and maintainability
 - Advanced HVAC systems Consists of chillers, cooling towers, CRAC units, Air Handlers, Package DX Systems and associated building control systems
 - Standby Generators Including control systems and fuel delivery
 - Main Electrical Systems Including utility coordination, service entrances and distribution systems
 - Electrical transfer systems Both closed and open transition
 - UPS Systems and Data Center Distribution
 - Fire Detection and Suppression Systems
 - Data Center Grounding, Security and Communications Systems
 - Commissioning and Failure Mode Testing and Acceptance

Construction - ACMV, Cleanroom, Process Utility

What exactly are your requirements when you decide to build a critical business services?

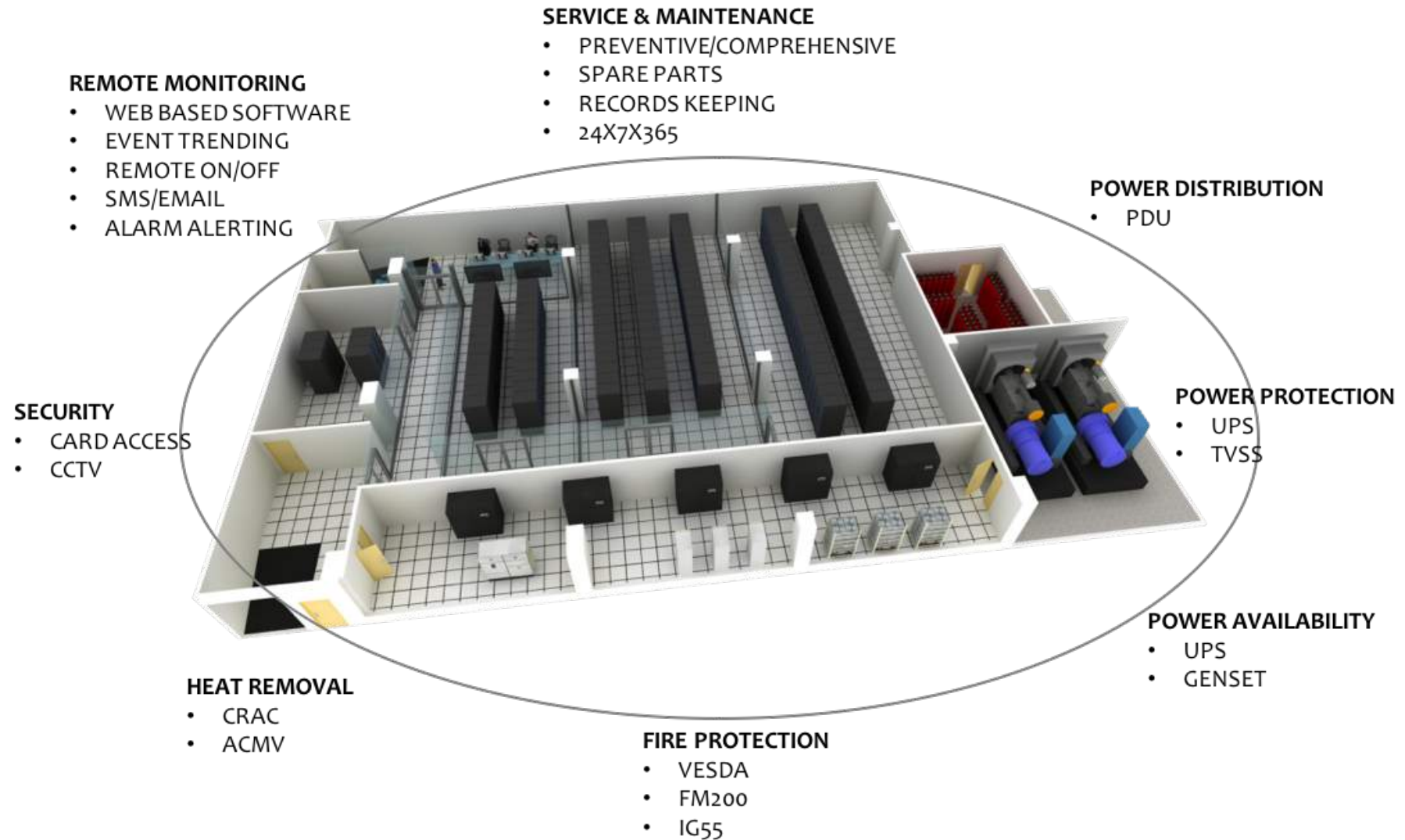
You want to ensure that it functions perfectly, that it can be expanded as necessary (with little to no interruption), and that it is available both as soon as possible; and once it is available, it is available as often as possible: 24 hours a day, 7 days a week, 365 days a year; year, after year, after year.

Many firms today simply don't have the manpower, or the expertise to be able to effectively administer a construction project; especially a construction project as complex and crucial as a cleanroom. Management of a construction project is a full-time job in and of itself. There are a staggering number of details that must be given proper attention if your construction project is going to be successfully completed on-time and on-budget; details that can make-or-break a project.

Critical M&E Engineering can alleviate this shortfall, and can give attention to these details so your already taxed employees don't have more to worry about and can focus more attention on their jobs. Working as an agent-for-owner, Critical M&E Engineering will issue contracts to all the various subcontractors required to implement the clean room design, and will ensure that the clean room you want, is the clean room you get; and that you get it on-time and on-budget.

Design & Build - Data Center, Call Center, TOC, NOC, NMC

Your **Data Center** Partner In Total Facility Solutions ...



Service & Maintenance

Our Value

Quality, reliability, responsiveness, transparency.

The CMEE service contracts has a solution to suit your requirements. Our transparent service products are focused to be adapted to meet your specific needs.

Complete transparency for clients.

As a end user, you need reliable partnerships. CMEE can help you master the challenge of delivering your business on time, on budget and turn-key ready. Our project managers and site supervisors make sure your mobility solution is finished on time and to specification.

Expert partnership

CMEE can really be the difference here. We will team up with you to ensure the transit flow in your business never stops by making sure the equipment operates effectively. Our maintenance teams work in the background, without hindering business activities.

Service - Manned Hotline Standby 24 hours



SERVICE HOTLINE SUPPORT



010 - 404 4133
Critical Control Sdn. Bhd. (1079183-X)
 PG Office:
 303-4-13 (4th Floor), Krystal Point,
 Jalan Sultan Azlan Shah,
 11900 Bayan Lepas, Penang.
 Tel: +604-646 4133
 Web: www.critical-control.com.my

016 - 556 4133
Critical Control Sdn. Bhd. (1079183-X)
 KL Office:
 37-2, Block C, Zenith Corporate Park,
 No.1, Jalan S57/26, 47301 Kelana Jaya, Selangor.
 Tel: +603-7887 8170
 Web: www.critical-control.com.my



Products



Our Partners

Uninterruptible Power Supply (UPS)



Precision Air Conditioning (PAC)



Battery Monitoring System



Cold Aisle Containment & Server Racking



Raised Flooring System



Smoke Detection System



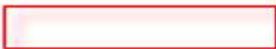
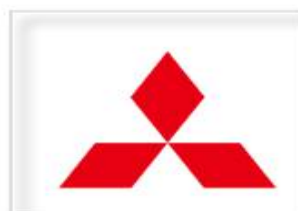
Water Detection System



Fire Suppression System



Cooling Solution - Chiller, AHU, FCU, VRF



Authorized Distributor



Authorized Dealer

Our Clients - Approved Vendor List (AVL)

- A local company with international reach



Our Clients

Semi-conductor industry & MNC companies

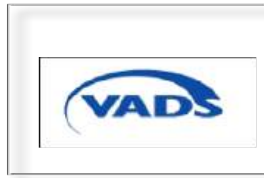


Facility Management Companies



Our Clients

Telco Industry



Bank & Government



Medical & Healthcare



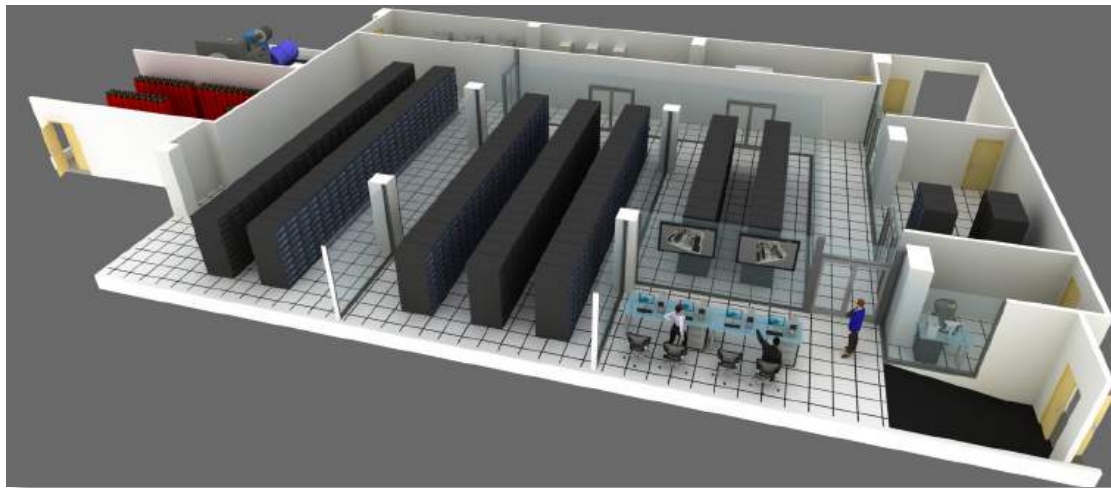
Key Project References



Likas Data Center, Sabah, Malaysia

To construct a 13,000ft², TIER III, N+1 redundancy, Data Center c/w command center, staging room, telco room & network room, consist of following

- 2*200kVA GE UPS
- 3*26RT DB Aire PAC
- 5*HSSD panels system
- 1*Water detection system
- 1*IG55 Fire Suppression System
- 1*ACS & CCTV
- 1*Environmental Monitoring System
- 1*raised flooring system
- 1*fire rated wall c/w door system
- 1*full glass partition system
- 1*gypsum partition system
- 1*command center furnitures



Likas Data Center, Sabah, Malaysia



Likas Data Center, Sabah, Malaysia



VADS, Level 9 Call Center

To awarded Mechanical & Electrical Services in supply, deliver, install, testing & commissioning

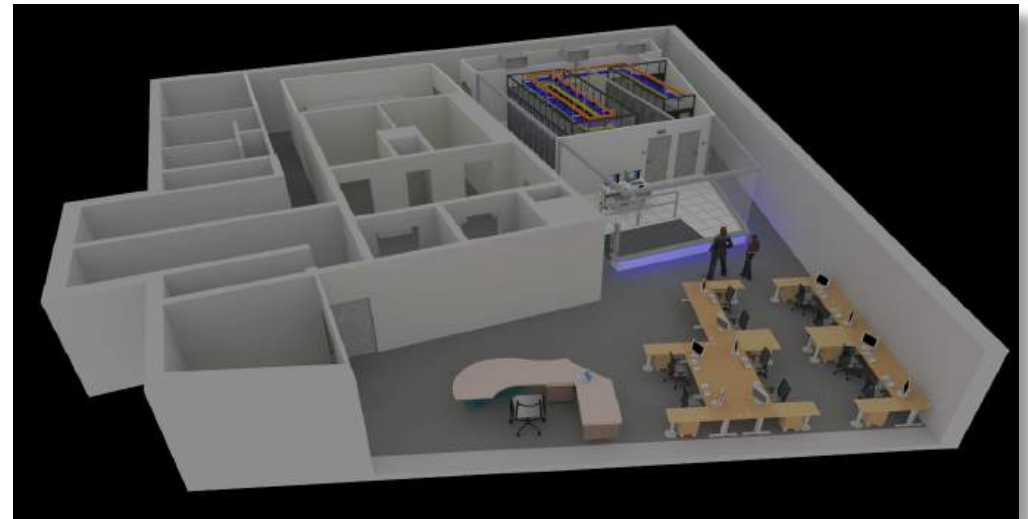
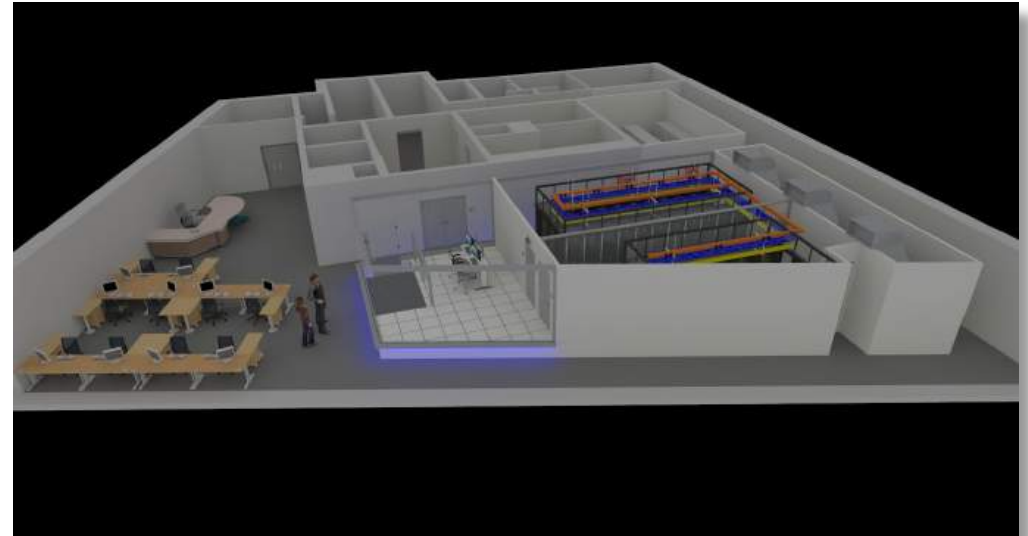
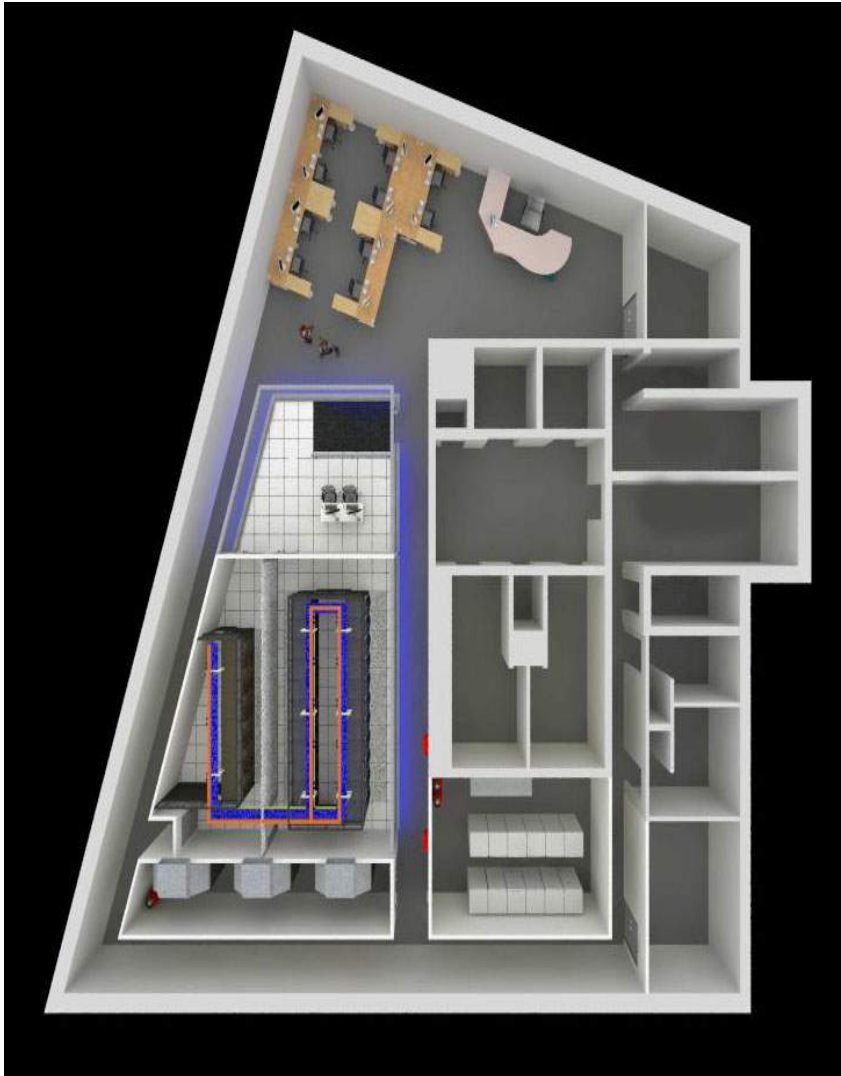


Proposal Projects

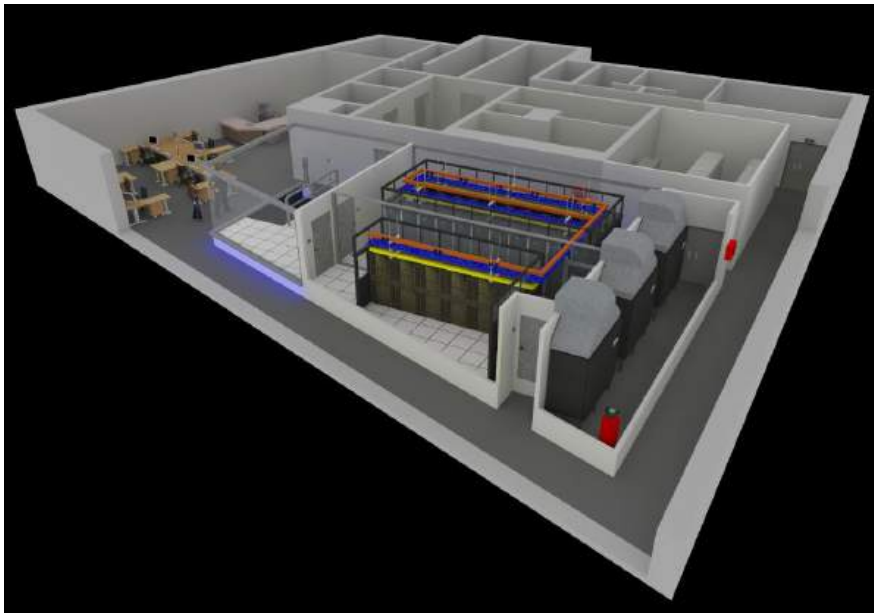
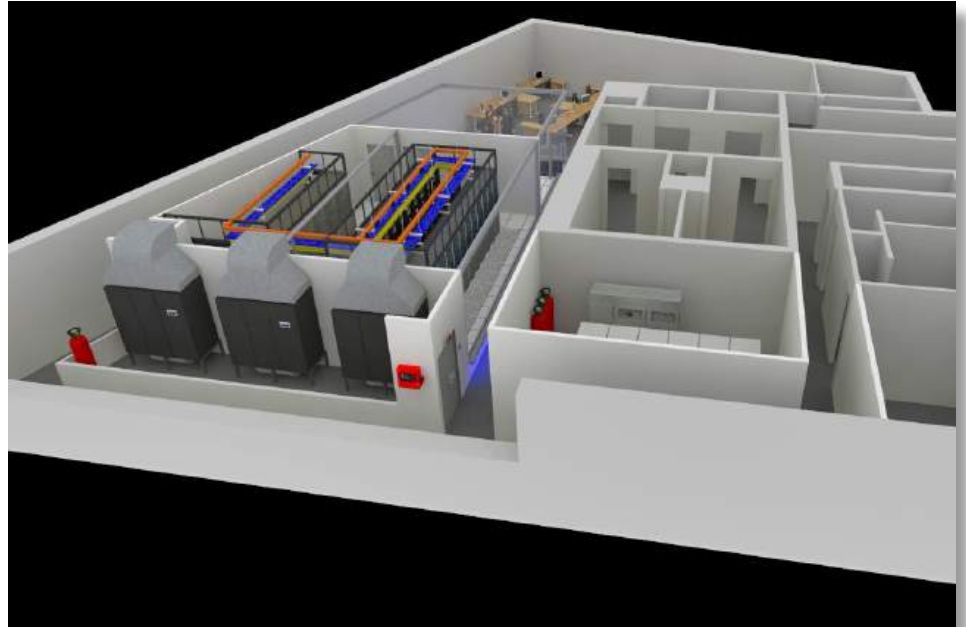


B Braun BMI B8 & B11 Data Center – B8

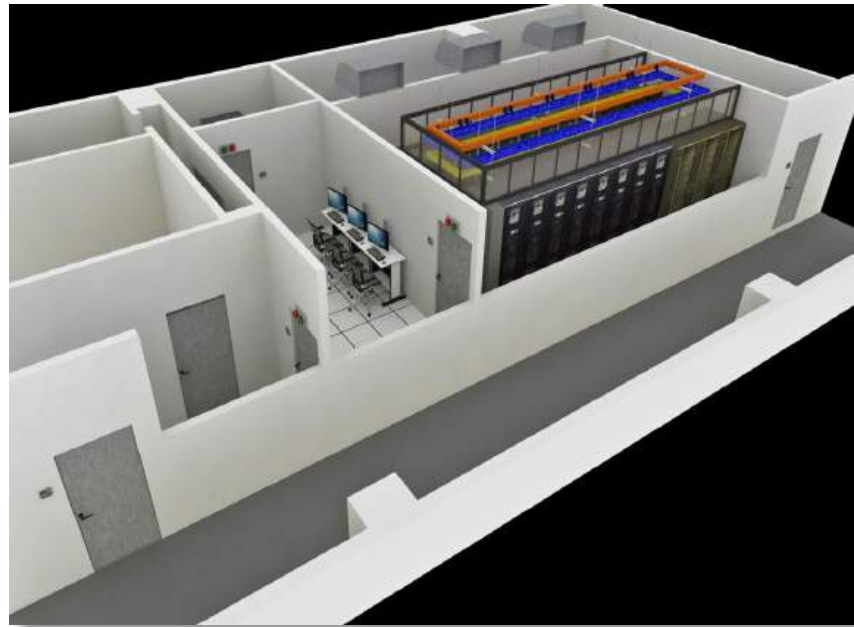
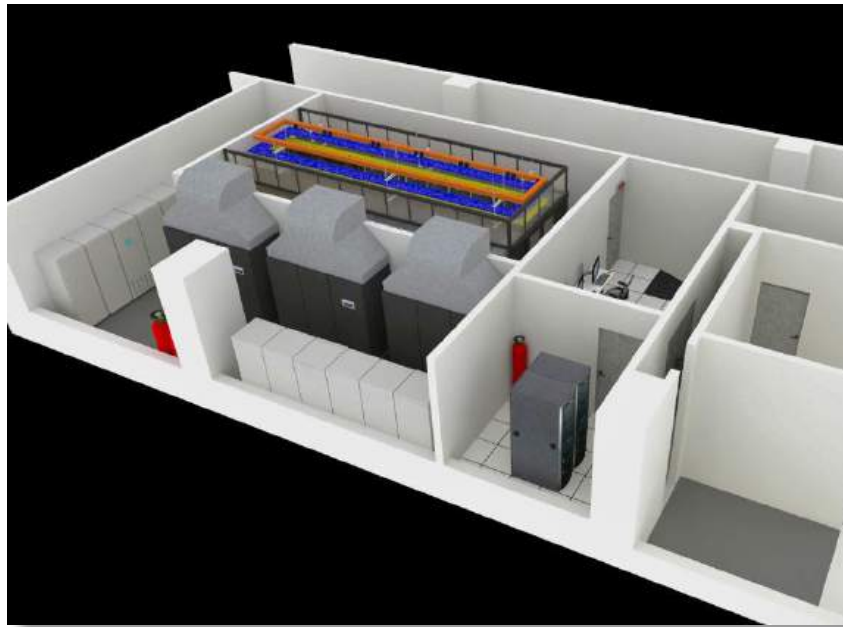
To participate in Design & Build TIER III Data Center for B Braun BMI B8 & B11 Data Center, scope involving 8*160kW UPS, 8*42RT CRAC, raised flooring system, Hot Aisle Containment, Fire Suppression system, VESDA system, EMS system, as well as ID, CSA



B Braun BMI B8 & B11 Data Center – B8



B Braun BMI B8 & B11 Data Center – B11



Telekom Malaysia, TH Level 23 Call Center



Telekom Malaysia, TH Level 23 Call Center



Thank You

