



ATAL Data Centre Infrastructure Limited
安樂數據中心基建有限公司

Engineering with passion
用心創造



**RESILIENT, GREEN AND SUSTAINABLE
SOLUTIONS FOR DATA CENTRES**

穩健的綠色數據中心方案



CONTENTS 目錄

WHO WE ARE 公司簡介

- 4** A leading service provider in data centre infrastructure
卓越數據中心基建服務 業界翹楚

WHY WORK WITH US 非凡實力

- 6** A fully integrated one-stop service provider
一站式服務 全方位整合
- 8** Innovative and customised solutions
度身訂制 創新方案
- 10** Timely maintenance services
全天候支援 安心可靠
- 11** Professional Property Management / Management, Operation and Maintenance (MOM)
專業設施管理 / 管理、營運及維修保養 (MOM)

WHY WE DIFFER 獨特優勢

- 12** Full data centre life cycle coverage
服務完善 生命週期全覆蓋
- 14** Advanced technologies, optimised project management
先進技術 優化管理
- 16** Resilient, green and sustainable
穩健的綠色數據中心方案
- 17** World-class standards
世界級標準 信心保證
- 18** Comprehensive Pipe Scanning Services
全面管線檢測服務
- 19** Cutting-edge Direct Liquid Cooling Solutions
先進直接液冷技術方案

PROJECT HIGHLIGHTS 重點項目

- 20** China Unicom (Hong Kong) Global Centre
中國聯通(香港)環球中心
- 22** NTT Financial Data Centre
NTT金融數據中心

WHO WE ARE

公司簡介

A leading service provider in data centre infrastructure

ATAL Data Centre Infrastructure, a subsidiary of ATAL Engineering Group, has over 30 years of experience in providing design, installation, operation and maintenance of integrated electrical and mechanical (E&M) infrastructure systems for data centres. We offer a full range of resilient, green and sustainable solutions for data centre infrastructure, including building and maintenance services, critical equipment for power, precision air conditioning and data connectivity.

ATAL Engineering Group is a leading E&M engineering group of companies in Hong Kong, offering multi-disciplinary and comprehensive engineering and technology services worldwide.

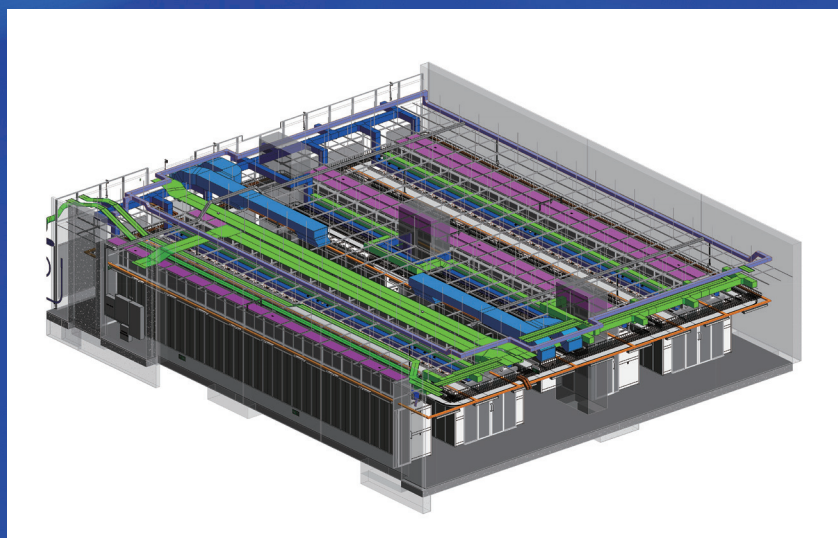
卓越數據中心基建服務 業界翹楚

安樂數據中心基建為安樂工程集團旗下附屬公司，於設計、安裝、營運及維修保養數據中心機電基建系統等方面，擁有逾三十年豐富經驗。我們提供穩健、環保及可持續的全方位數據中心基建方案，涵蓋系統建造與維修支援服務，其中包括主要電力設備、精密空調系統及數據連接設備。

安樂工程集團為香港領先的機電工程集團，提供跨專業、綜合性的機電工程及技術服務，業務遍及世界各地。



WHY WORK WITH US 非凡實力





A fully integrated one-stop service provider

We are a fully integrated one-stop service provider engaged in designing, building, upgrading and expanding data centres. We are here for companies looking for the very best in professional data centre infrastructure services. Our services range seamlessly from project management, testing and commissioning to maintenance and operation.

一站式服務 全方位整合

我們為一站式數據中心服務供應商，服務涵蓋數據中心的設計、建造、系統優化及規模擴充等，為追求頂級專業數據中心基建方案的客戶提供完善服務，由項目管理、測試及調試，以至維修保養及營運，全面滿足客戶需求。

Innovative and customised solutions

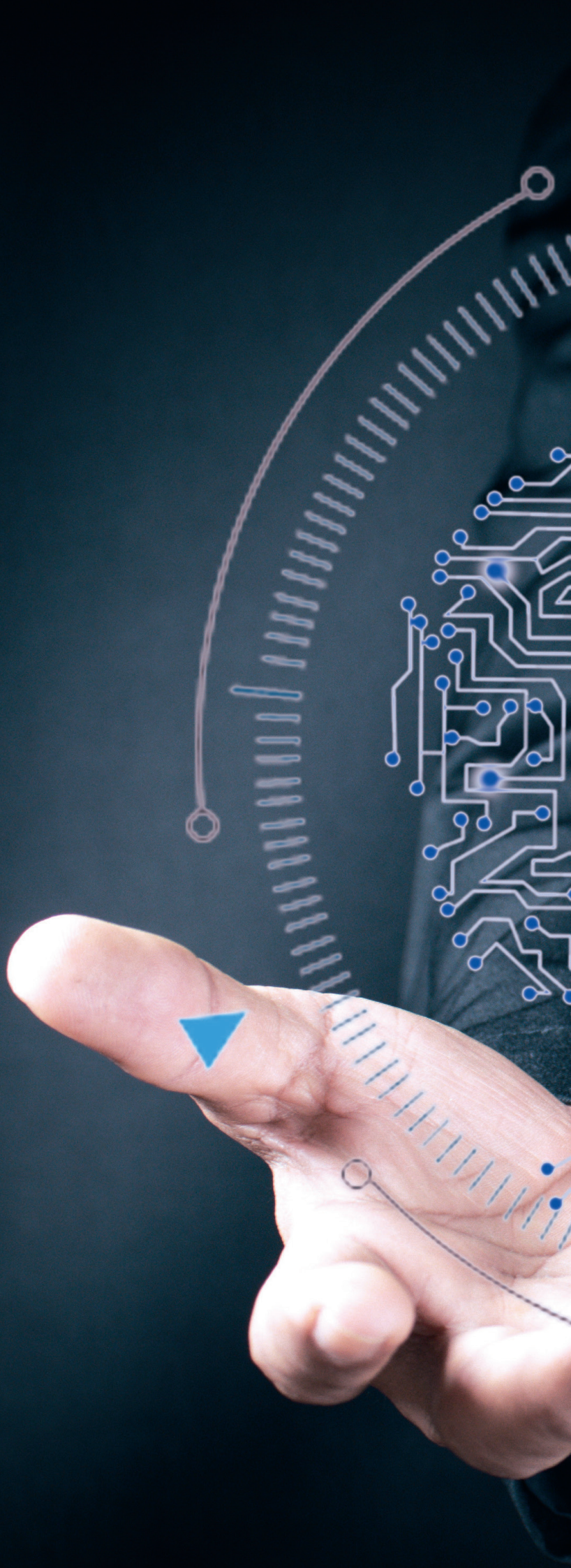
We have developed a wide range of innovative and customised turnkey solutions, including E&M equipment and systems, for data centres and telecommunication exchanges:

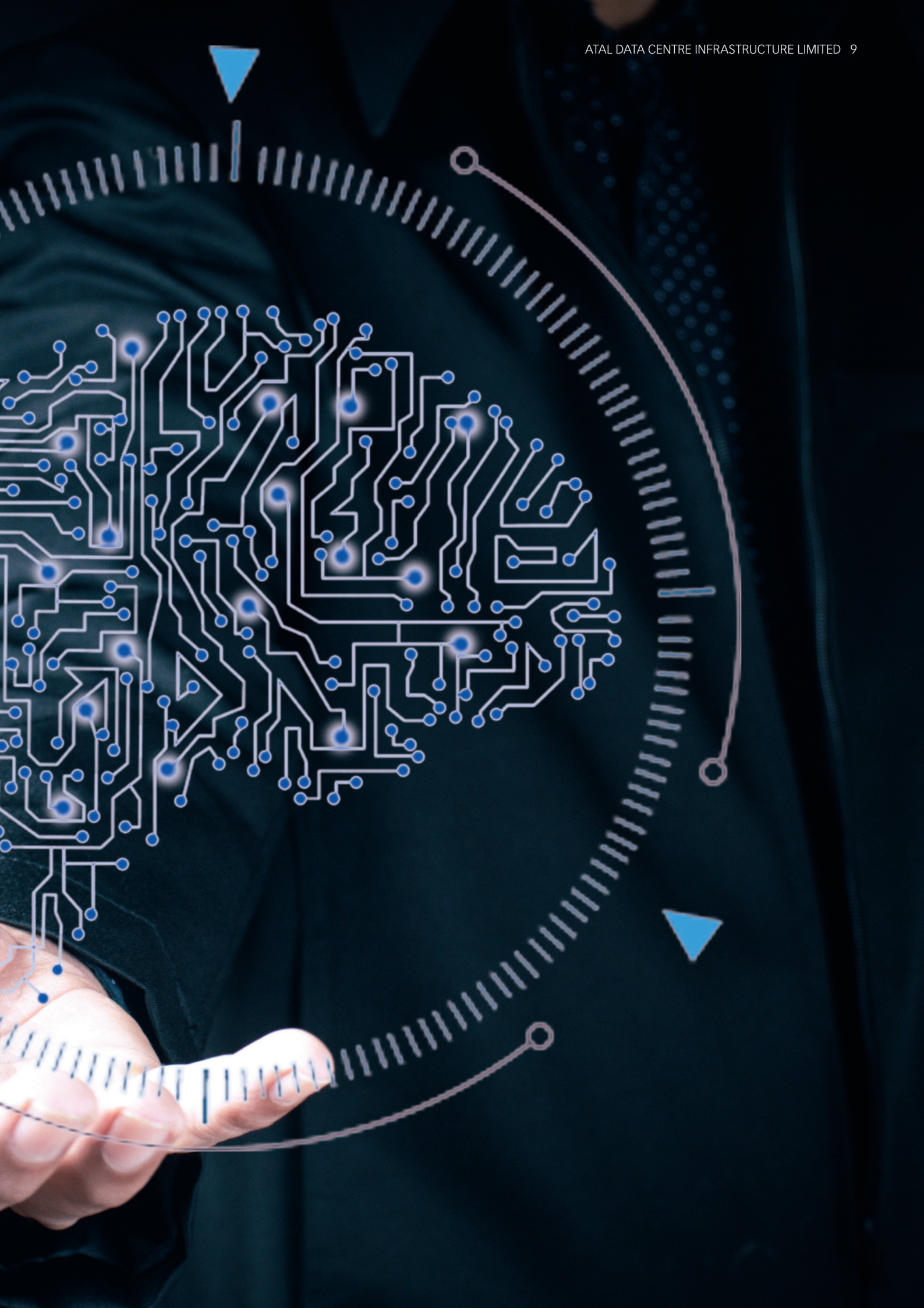
- Air conditioning solutions
- Liquid cooling solutions
- Power solutions (UPS, battery, iPDU, BCM)
- Data centre infrastructure management
- Liquid leak detection system
- Hot and cold aisle containment
- IT racks
- Structured cabling solutions

度身訂制 創新方案

我們為數據中心及通訊交換站開發各種度身訂造的創新整合式解決方案，其中包括多元化機電設備和系統：

- 空調設備方案
- 液冷技術方案
- 電源方案(不間斷電源系統、電池、智能電源配電裝置、分支電路監控裝置)
- 數據中心基建設施管理
- 液體滲漏檢測系統
- 冷熱通道封閉系統
- 電腦設備機架
- 結構化佈線方案





Timely maintenance services

We offer a full spectrum of E&M maintenance services for data centres, with a team of experienced engineers and 24/7 call centre support. We maintain effective communications with clients and keep them informed of real-time repair progress, while ensuring timely replacement of critical equipment to minimise the impact of suspended operations.

全天候支援 安心可靠

我們擁有資深工程師團隊，並設有24小時服務中心，為數據中心提供全面的機電設備維修服務。我們致力確保前線團隊於維修過程中與客戶保持緊密聯繫，讓客戶了解維修工程的實時進度，並確保及時更換主要設備，將相關影響減至最低。





Professional Property Management

We are committed to delivering integrated facilities management services to our critical facility customers. We are professionals to help you achieve your operational efficiency, minimise the downtime, and optimise the performance of your facilities.

專業設施管理

我們致力於為關鍵設施客戶提供全面的設施管理服務。作為專業團隊，我們專注協助客戶提升營運效率、盡量減少停機時間，並優化設施表現。

Management, Operation and Maintenance (MOM)

We have been deploying our experienced team to undertake the scopes of Management, Operation, and Maintenance (MOM) for a critical facility customer in Hong Kong. Our MOM team leverages advanced techniques and cutting-edge technologies to monitor systems and streamline operations, ensuring compliance with industry standards and uplifting overall performance.

管理、營運及維修保養 (MOM)

我們經驗豐富的專業團隊，正為香港一項重要數據中心基礎設施提供全面的管理、營運及維修保養 (MOM) 服務。團隊運用先進科技和創新方案，監控系統運作，優化作業流程，確保符合嚴格的行業標準，持續提升整體營運表現。

WHY WE DIFFER

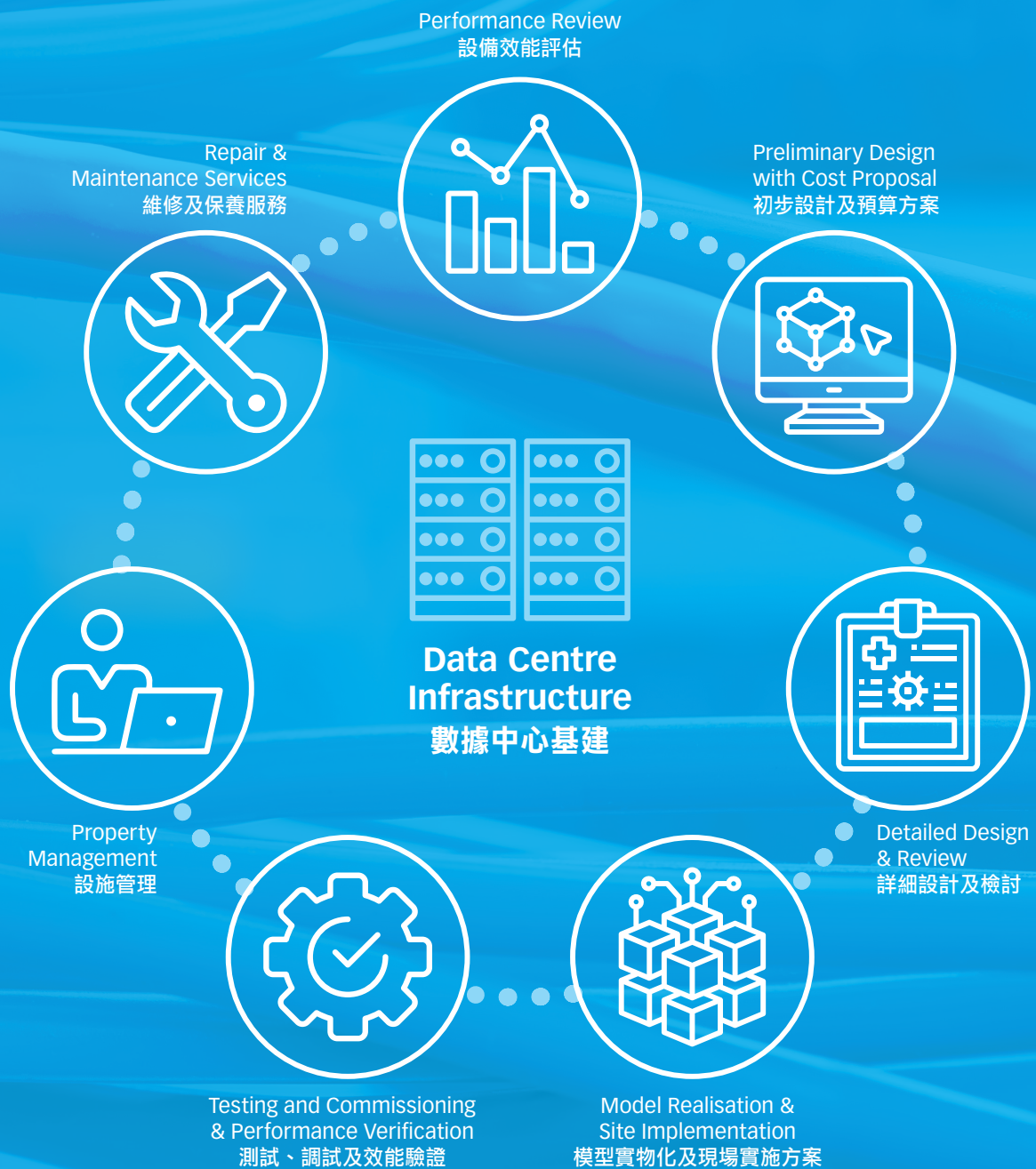
獨特優勢

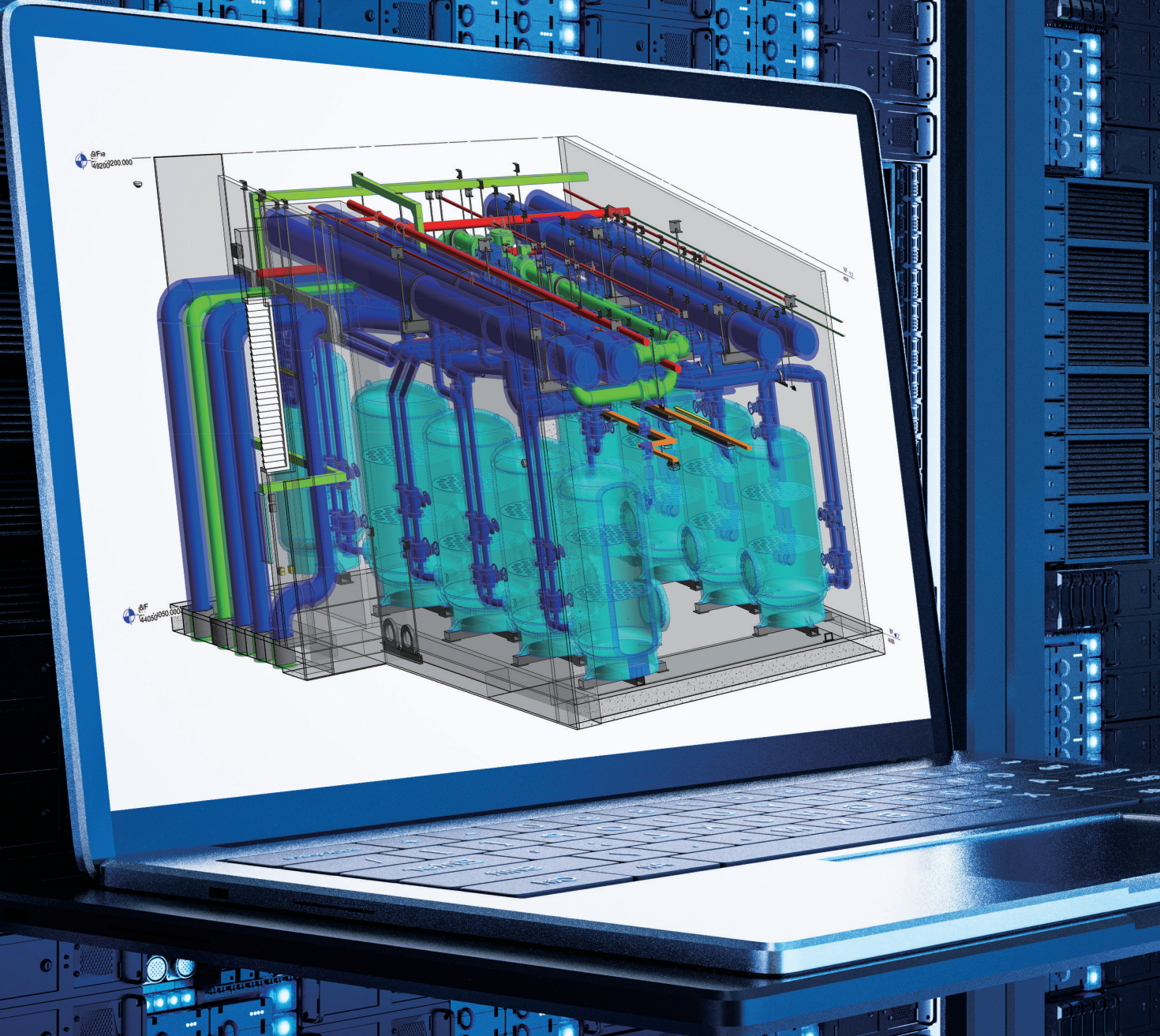
Full data centre life cycle coverage

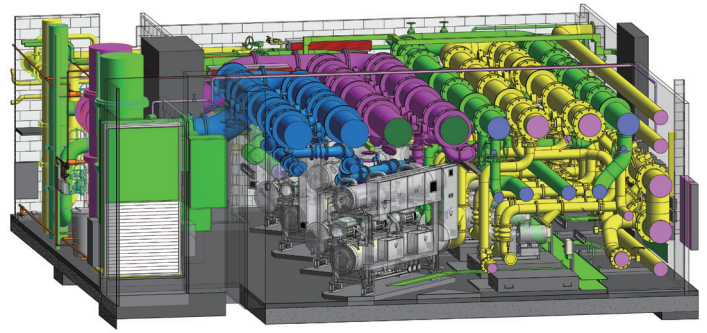
We offer solutions for the entire life cycle of a data centre, including design and review, model realisation and site implementation, testing and commissioning, performance verification, maintenance and performance review. With full data centre life cycle coverage, we create peace of mind for clients.

服務完善 生命週期全覆蓋

我們提供數據中心的建造及營運方案，服務範圍覆蓋數據中心的全生命週期，由設計及檢討、模擬至實地施工、測試及調試、效能驗證、以至維修保養及設備效能評估等一應俱全，讓客戶安枕無憂。







Advanced technologies, optimised project management

At ATAL, we envision a world where smart engineering solutions and intelligent building management systems improve lives. We utilise Building Information Modelling (BIM) technology, off-site prefabrication and modularisation to deliver cost-effective services for clients.

This includes effective communications through a centralised database, timely response to installation issues, efficient construction management, faster schedules, accurate installation verified by 3D scanning, and Computational Fluid Dynamic (CFD) simulations incorporated into BIM to fine-tune data centre layouts.

先進技術 優化管理

安樂工程透過採用智能工程方案及智慧屋宇管理系統，為大眾創造更美好生活。我們應用建築信息模擬(BIM)、場外預製組件和模組化技術，為客戶提供具成本效益的優質服務。

我們利用中央資料庫與客戶保持良好溝通，及時應對安裝問題，妥善管理建造工程，加快工程進度，配合三維掃描確保準確安裝，並結合計算流體動力學(CFD)與BIM技術，優化數據中心的裝置佈局。



Resilient, green and sustainable

Ensuring resiliency and uninterrupted operation of data centres is critical, and we provide the necessary services, such as reliable and secure uninterrupted power and energy-saving air conditioning that enable our clients' data centres and financial services facilities to operate in a sustainable way without interruption, while enjoying energy efficiency and most importantly, securing all the data.

穩健的綠色數據中心方案

就數據中心而言，可迅速復常及無間斷運作至關重要。我們提供安全可靠的不停電系統及節能空調系統等關鍵服務，確保客戶的數據中心和金融服務設施持續暢順運作，提升能源效率，更重要是保障數據安全。

World-class standards

Our experienced engineers can manage different types of projects, from server rooms to mega data centres. Our services ensure uninterrupted operation of data centres and financial services facilities.

We have successfully completed numerous data centre projects with E&M infrastructure designed to Tier-3 and Tier-4 standards. Our associate partner, Nanjing Canatal Data Centre Environmental Tech Company Limited, designs and manufactures air conditioning equipment and precision controls for temperature and humidity monitoring, serving the unique needs of data centres and the telecommunications industry.

世界級標準 信心保證

我們的資深工程師團隊具備管理各類數據中心基建工程項目的實力，無論是小型伺服器室以至超級數據中心，均擁有豐富經驗，確保數據中心和金融服務設施無間斷運作。

我們為不同客戶建造符合 Tier-3 和 Tier-4 機電基礎設施標準的數據中心。我們的聯營夥伴南京佳力圖機房環境技術股份有限公司專門設計和生產空調設備和精密控制儀器，監察調控室內溫度及濕度，迎合數據中心和電訊業的獨特需求。



Comprehensive Pipe Scanning Services

Our pipe scanning services utilise patented magnetostrictive sensor technology, enabling comprehensive inspection of pipes across a wide range of industries, including oil, gas, petrochemical, and building services. This advanced technology facilitates rapid and cost-effective assessments of structural integrity, providing full volumetric coverage to accurately identify corrosion defects and cracks.

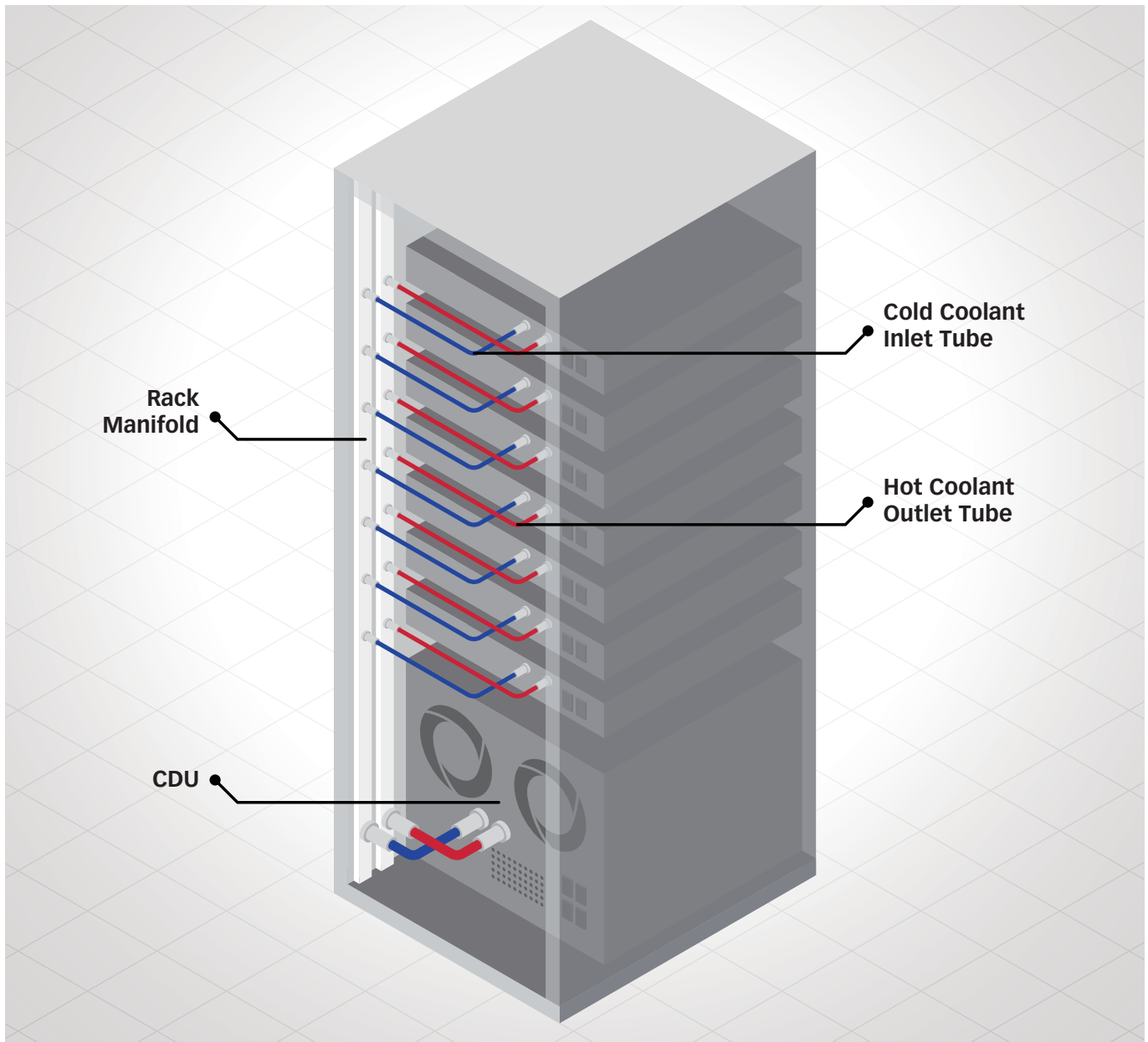
Capable of inspecting up to several hundred feet of piping from a single location, our approach eliminates the need for full insulation or coating removal, significantly enhancing efficiency. With technology deployed globally, our expertise ensures precise data collection and analysis, empowering the customers with insights needed for informed decision-making and effective asset management.

全面管道掃描服務

我們的管線檢測服務採用專利磁致伸縮感測器技術，能夠為石油、氣體、石油化工等基建及屋宇裝備設施提供全面的管線檢查。這項尖端技術能夠快速且經濟地評估管線結構完整性，提供全方位體積掃描，精準識別腐蝕缺陷和裂縫。

憑藉從單一位置即可檢查數百英尺管線的創新方法，我們的技術無需完全剝除絕緣層或塗層，大幅提升檢測效率。憑藉全球部署的技術實力，我們的專業團隊確保數據收集與分析的精確性，協助客戶獲得制定明智決策和進行有效資產管理所需的關鍵洞察。





Cutting-edge Direct Liquid Cooling Solutions

As the demand for artificial intelligence (AI) computing continues to surge, our direct liquid cooling solutions offer a highly efficient approach to thermal management, ensuring optimal performance and efficiency within high-density computing environments.

Having been designed and manufactured in Hong Kong, our own in-rack manifold exemplifies the highest quality. By employing liquid heat exchangers to cool down critical components directly, our liquid cooling delivers the improvements in the energy efficiency of IT and facility systems compared to air cooling. It creates a substantial reduction in total data centre power and significant improvement in Total Usage Effectiveness (TUE).

We are committed to providing a reliable and scalable cooling solution meets with the demands of AI Data Centres and High Performance Computer (HPC) organisations. With a focus on sustainability and performance, we are supporting our customers in achieving their cooling objectives while optimising budget impact.

先進直接液冷技術方案

隨著人工智能 (AI) 運算需求持續激增，我們創新的直接液冷解決方案為高密度運算環境提供卓越的熱管理技術，確保系統達到最佳表現與效率。我們自行設計並在香港生產的機架分配器，展現了最嚴格的品質標準。

透過直接使用液體熱交換器冷卻關鍵元件，我們的液冷系統相較傳統空氣冷卻方案，在資訊技術和設施系統的能源效率上取得顯著突破。這項技術不僅大幅降低數據中心的總耗電量，更顯著提升了總使用效率 (TUE)。

我們致力於提供可靠且具高度擴展性的冷卻方案，專門滿足人工智能數據中心和高效能運算 (HPC) 組織的嚴苛需求。以可持續性和卓越性能為核心，我們協助客戶實現冷卻目標，同時優化預算影響。

PROJECT HIGHLIGHTS 重點項目

China Unicom (Hong Kong) Global Centre

The construction of a new data centre for China Unicom was completed by ATAL in 2016. This data centre is China Unicom's first and largest facility outside mainland China, serving as its global network operations centre.

With a gross floor area exceeding 40,000 square metres, the data centre features Tier-4 ready facilities and more than 4,000 racks of server space and 50 MVA of power. Off-site prefabrication and on-site assembly were utilised to complete the project within 18 months, with ATAL providing a wide range of services including installation, testing and commissioning for heating, ventilation and air conditioning (HVAC), power supply, fire services, building management system and more.

中國聯通（香港）環球中心

由安樂數據中心基建負責建造的中國聯通（香港）環球中心於2016年落成。該數據中心是中國聯通於內地以外首個最大型數據中心設施，並為其全球網絡營運中心。

中國聯通（香港）環球中心的總樓面面積逾40,000平方米，備有符合Tier-4標準設施，可容納逾4,000個伺服器機架，負荷電力高達50兆伏安。該項工程中，我們先在場外預製組件，後於工地進行組裝，確保工程於18個月內順利完成。我們提供多元化服務，包括安裝、測試和調試冷暖空調及通風系統、供電、消防、樓宇管理系統等機電設備。









NTT Financial Data Centre

NTT appointed ATAL as the E&M contractor for its Financial Data Centre Tower 2 (FDC2) following a successful expansion project at its FDC1. ATAL's project team worked closely with NTT on a wide range of work, from supply and installation to testing, commissioning and maintenance of the E&M infrastructure facilities.

FDC2 features Hong Kong's largest stratified thermal energy storage system, with two 25-metre high cooling batteries containing a total of 3.6 million litres of chilled water. The data centre also adopts an integrated management system with automation, offering a comprehensive solution for life-cycle management of critical facilities.

NTT金融數據中心

繼成功為NTT旗下的金融數據中心一期完成擴建工程後，安樂數據中心基建獲委任為其金融數據中心二期的機電工程承辦商。我們的工程團隊與NTT合作無間，為其項目提供多元化服務，包括供應、安裝、測試、調試及維修保養機電基礎設施。

金融數據中心二期工程採用香港目前最大型的分層熱能儲存系統。兩座25米高的冷卻電池共儲存360萬升冷凍水。該數據中心同時採用自動化綜合管理系統，為關鍵設施提供全周期管理方案。



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安樂數據中心基建有限公司

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