

COMPANY	<h1>Ensuring Project Success for Data Center Development</h1> 
<b>NTT Com Asia Ltd.</b>	
PROJECT	
<b>NTT Communications Hong Kong Financial Data Center Tower 2 (FDC2)</b>	
LOCATION	
<b>Tseung Kwun O Industrial Estate, Hong Kong</b>	
TYPE	
<b>Data Center Development</b>	
SCHEDULED TIME OF COMPLETION	
<b>September 2015</b>	

## BIM PARTNERS INVOLVED

**Leigh & Orange Ltd.****Ove Arup & Partners (HK) Ltd.****About NTT Com Asia Ltd.**

NTT Communications' wholly owned subsidiary – NTT Com Asia serves as the regional headquarter of East Asia, covering Hong Kong, Macao, Taiwan and Korea.

Backed by the company's worldwide infrastructure, including leading global tier-1 IP network, Arcstar Universal One™ VPN network reaching 196 countries/ regions, and 140 secure data centers worldwide, and in collaboration with its affiliate HKNet, the company provides enterprise-class network, data center, cloud, hosting, e-Commerce solutions, and managed services in the region.

**The Project**

NTT Communications Hong Kong Financial Data Center was launched in 2013 with one data center tower (FDC1) and one Command and Control Tower, featuring sophisticated infrastructure design and the highest level of redundancy, reliability and security.

Built on the robust foundation of FDC1, the campus second data center tower (FDC2), to be launched in December 2015, is designed with the latest technologies to create new values and enhance clients' business performance. To ensure project success, BIM was deployed at all stages from design to construction and development, which has effectively enhanced the overall communications, streamlined workflow and improved facility management of FDC2.

**The Challenges**

The project required communications between multiple consultants, owners and operators, who are involved in making different decisions about the concept and design. When construction began for FDC1 back in 2013, it was found that substantial amount of time and costs were taken to accommodate the design changes required, with an initial lack of tools to track the quality of work. Other challenges included the need to transfer design and performance data to the customised Data Center Facility Management System.

**The Solution**

In response to the challenges, an effective BIM model was developed for FDC2 project. In the BIM workflow, architects, structural engineers and MEP engineers built the 3D model, with a BIM Manager compiling the various files into a signal aggregate model, generating clash detection reports and distributing them to the project team. The designers reviewed clash reports, and addressed the issues that happened.

BIM 360 Glue was leveraged to enable closer collaboration and coordination among the team members. BIM 360 Field thus became the central hub to house all the important information for site activities, including document library, issue tracking, QA/QC inspection, commissioning checklists, and equipment management.

**The Benefits**

Once the BIM model was properly deployed, it helped facilitate communications among various stakeholders, enabling access to critical information needed for important decisions. Designs were effectively improved, with reduced time needed for meetings, and streamlined process for generating a coordinated model with minimal clashes, and ultimately increased the overall quality of the project. The model also helped communicate the design intent to contractors, and derive quantities. Data was seamlessly exported to the facility management system.

**Better with BIM**

BIM solved many problems and issues that NTT Com Asia faced in FDC1 data center development project. The key to project success was the commitment of NTT Com Asia as the project owner, including through collaborating with Autodesk in BIM Management Office, leading communication and collaboration between team members.

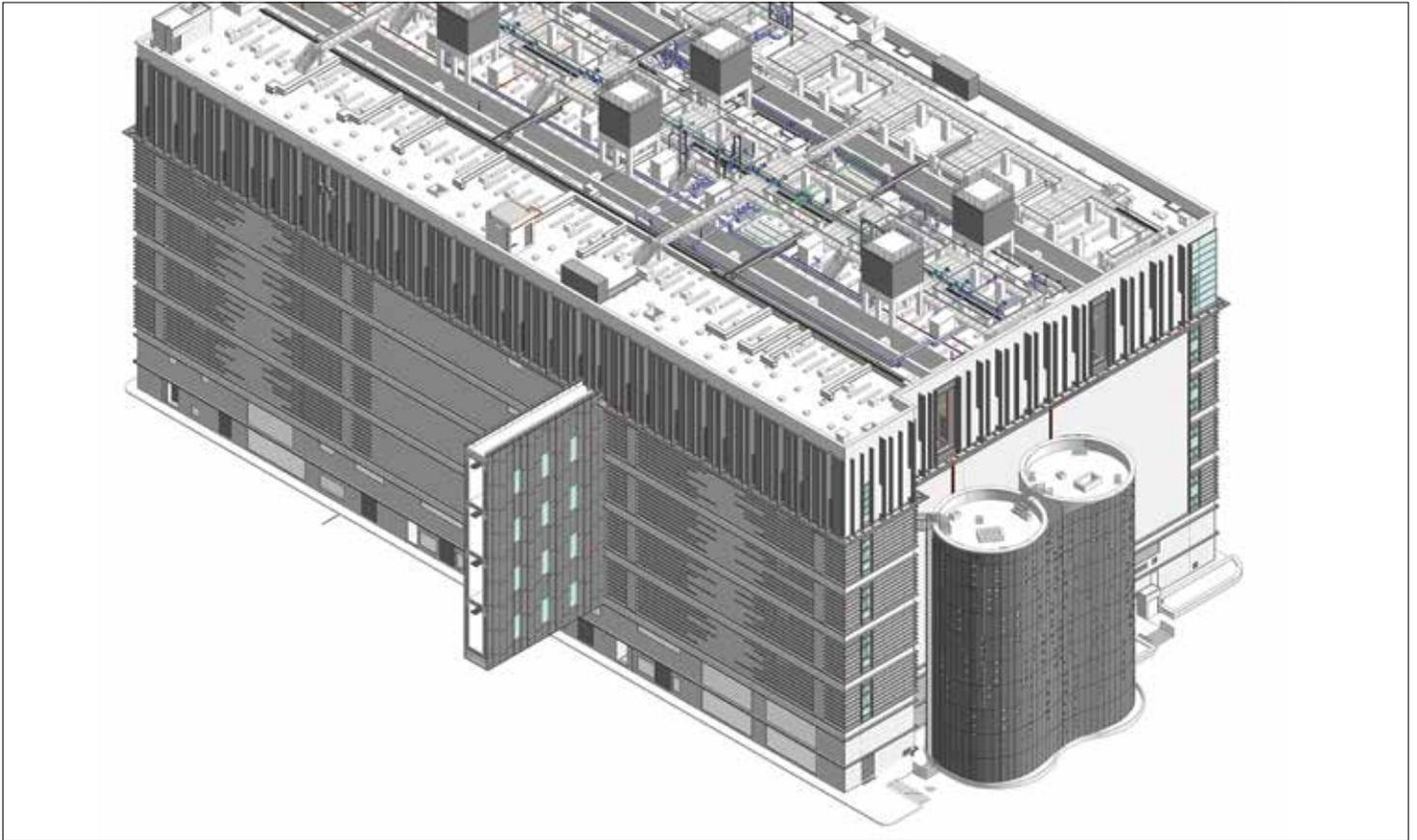


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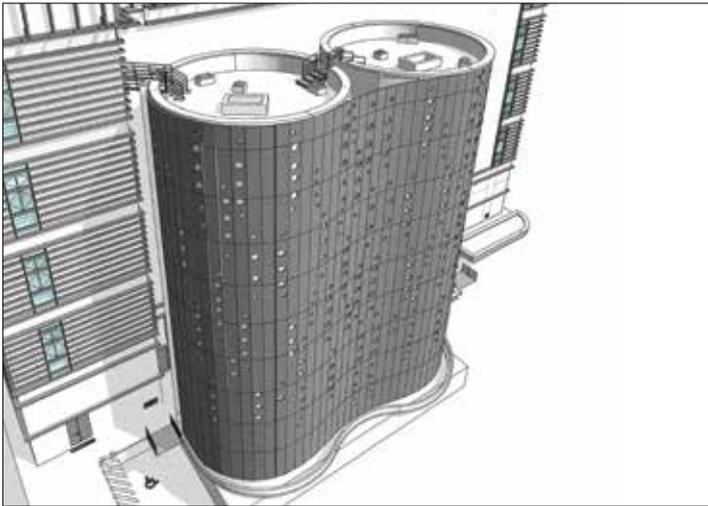


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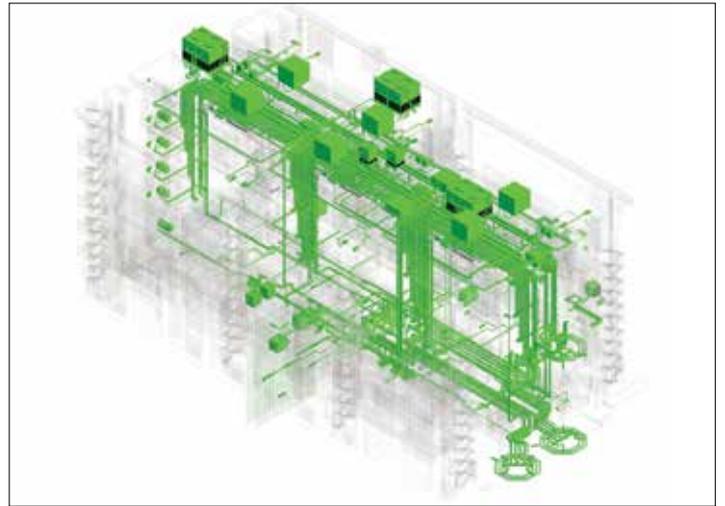


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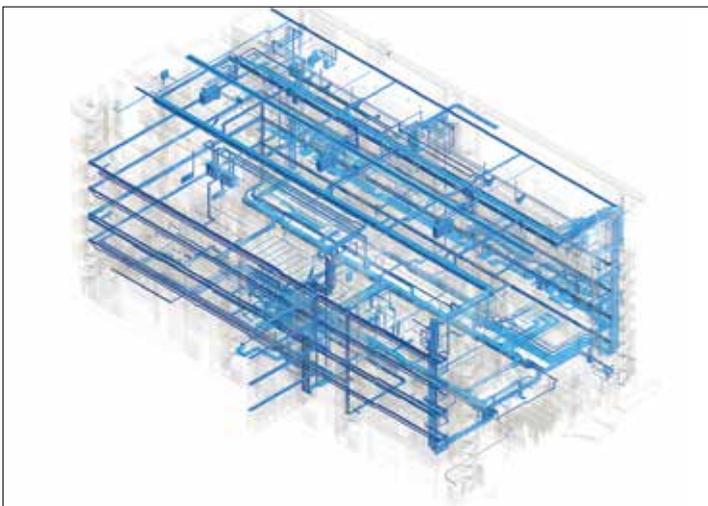


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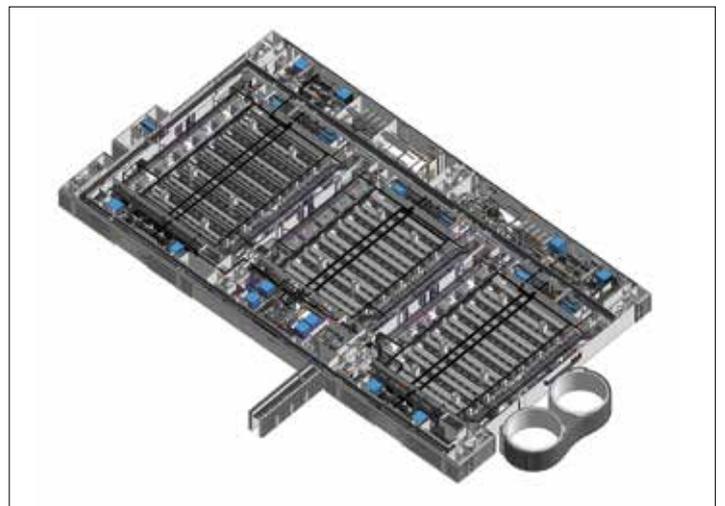


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