First in Singapore: Large-Scale Use of Prefabricated MEP (PMEP)

The Global Switch Singapore Woodlands Data Centre is the first project in Singapore to implement prefabricated Mechanical, Electrical and Plumbing (MEP) systems on a large scale. Approximately 350 MEP modules were installed.

Benefits of Prefabricated MEP Systems

All MEP modules were prefabricated offsite, allowing the project to:

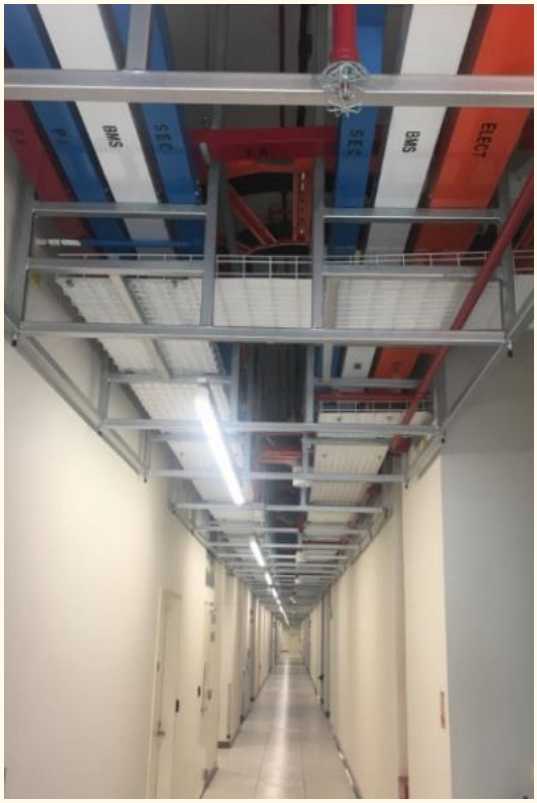
- Improve quality control
- Reduce manpower needs
- Save construction time
- Enhance safety standards

Meeting Tight Deadlines with DfMA

As one of the world's top data centre providers, Global Switch needed its second Singapore facility built quickly without compromising quality. Traditionally, MEP works only start after structural works are completed, often squeezing timelines for MEP tradesmen. With prefabricated MEP, the team overcame this challenge and reduced the construction period by more than 10%.

The following types of MEP modules were adopted:

1	Horizontal modules
2	Raised floor modules
3	Riser modules
4	Pump skid and Header
5	External façade and catwalk modules
6	Roof air-conditioning pipe modules

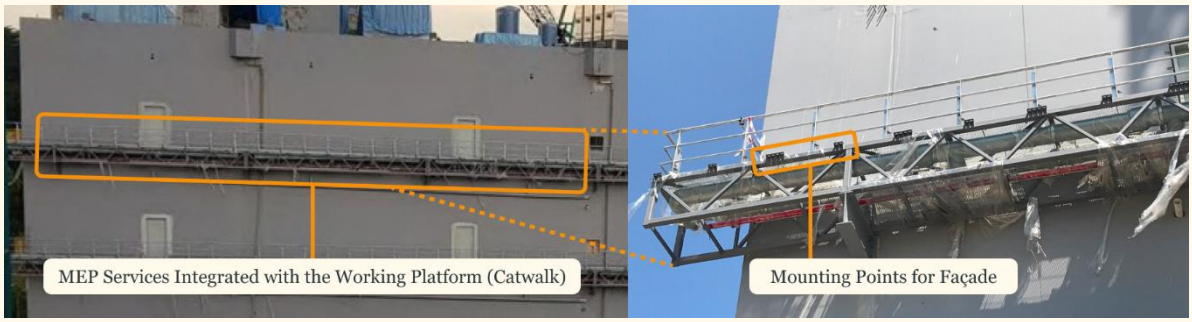


1. Horizontal Modules

2. Raised Floor Modules

3. Installation of Prefabricated Vertical Module in Riser Shaft

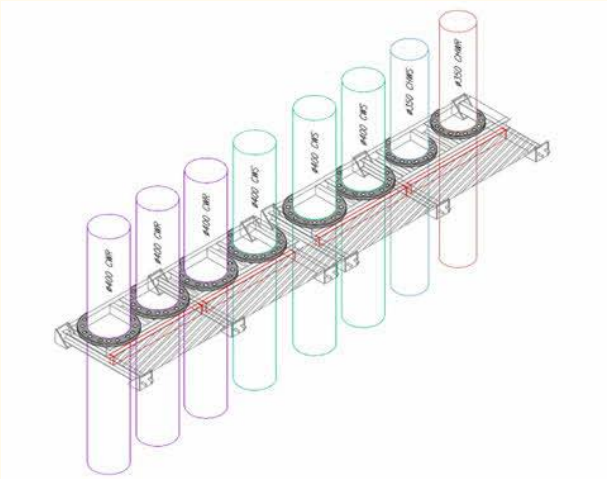
4. Pump and Header Modules



5. External Façade and Catwalk Modules

6. Roof Air-conditioning Pipe Modules

Module Production and Installation Process Example – Riser Modules



1. Engineering

2. Fabrication

3. Hoisting

4. Connection

Project Team

ROLE	ORGANISATION
Owner	Global Switch (Property) Singapore Pte Ltd
Architect	AWP Pte Ltd
Structural Engineer	Meinhardt (Singapore) Pte Ltd
M&E Engineer	Aurecon Singapore (Pte.) Ltd
Main Contractor and MEP Module Supplier	Gammon Pte Limited