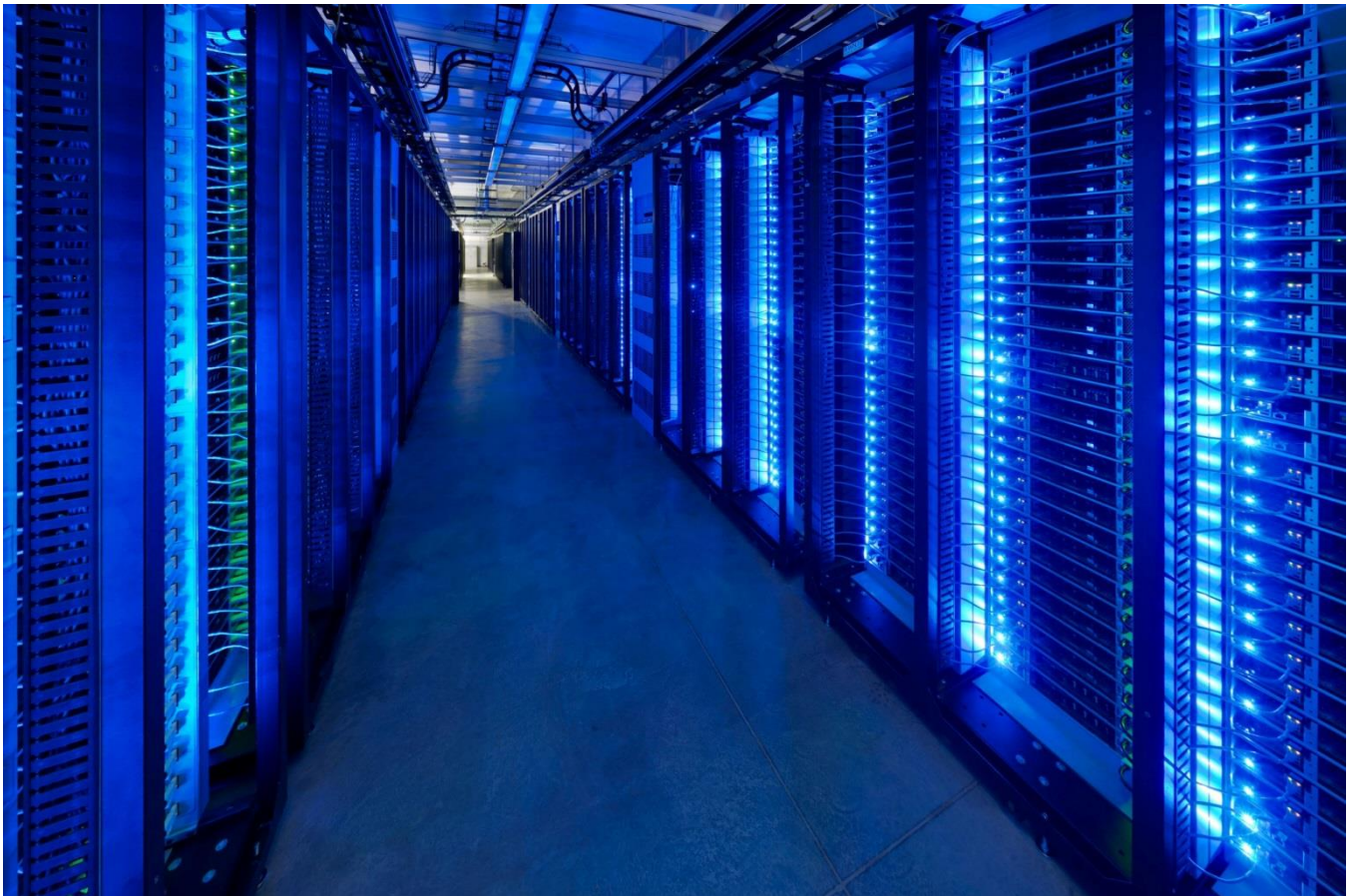
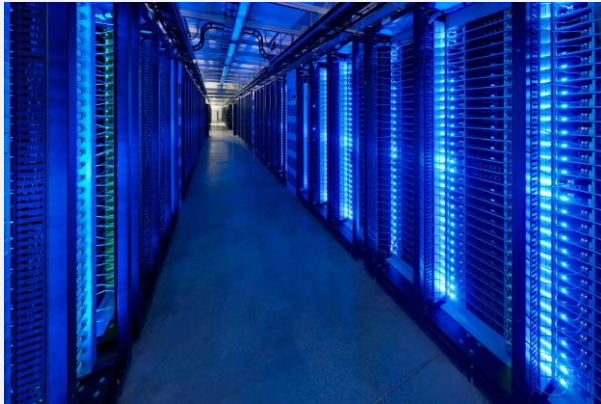


Data centre air-conditioning at a major educational institute in California



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Project Overview

A reputed educational institute placed an order with Thermax for tri-generation systems wherein two exhaust fired absorption chillers would cater to their comfort air-conditioning requirement utilizing gas from a 4.5MW gas turbine installed at their premises.

Project Description

The vapour absorption chiller is triggered by hot Data center air-conditioning is a mission critical application as maintaining temperature in a data center is essential for proper functioning of the servers. In order to safeguard the data centre in the event of a component failure, micro-turbines were procured to take care of the backup in the event of a power failure. The 6,000-square-foot data centre at the educational institute features its own electrical tri-generation system and incorporates IBM's latest energy-efficient computers and computer-cooling technology. Six micro-turbines of 65 kW capacity each are used for generating power at this data centre. The exhaust of these micro-turbines is used as an input to trigger Thermax's exhaust driven absorption chillers. These absorption chillers provide chilled water at 14.4 °C during summers in order to maintain the ambient condition inside the data centre.

Industry: Education

Project Snapshot

Location: California, USA

Total Capacity: 300 TR or 1053 kW (Cooling)

Application: Air Conditioning (Data Center)

Heat Source: Exhaust

Chilled Water: 17.4°C (63°F)/14.4°C (58°F)

(In/Out)

Exhaust : 309°C (588°F) /187°C (369°F)

(In/Out)

Highlights

- The client experienced better uptime as compared to electrical chiller which is a critical requirement for data center
- Thermax helped them make saving 712,000 units of electricity per annum which is equivalent to lighting 60 additional homes in year.
- They also made saving 730 Tons of carbon emissions per annum this is equivalent to taking 144 cars off the road in a year.

