

Case Study: Intel

Simulating Data Centre Environment Changes



Key Information

Client

Intel provides global solutions for cloud computing, Internet of Things, and PC applications

Quick Facts

Client since: 1999

Geography: EMEA, APAC, North America

Services

Predictive Analytics, Transaction Management

“CBRE | Romonet enables us to rapidly address our clients’ real issues and concerns using facts not assumptions. In a couple of hours we can now run a multitude of scenarios to determine the lowest risk and the highest reward.”

Charles Rego
Chief Data Centre Architect, Intel



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Background

As a major technology innovator and trusted adviser to some of the world’s most successful corporations, Intel is familiar with the tough challenges faced by today’s data centre owners. At the heart of these challenges, the ability to optimise a facility across its lifetime without compromising IT service provision, is critical.

Traditionally, there has not been a reliable way to accurately assess the financial and operational impacts of future changes to data centre environments. Without a real understanding of the effects of change on total cost of ownership (TCO) and risk at both an inter-dependent component level and an entire facility level, optimising the data centre against variable workloads and external conditions has been problematic.

“The big issue these days is how to optimise the data centre of the future. How do you model for capacity and predict the technology inflexion points? How do you know when to implement the right technologies to deliver the greatest return on investment? What happens to cost and risk if you challenge the accepted operational parameters and push the boundaries? These are the kind of insights we need to help our clients design and operate world-class data centres.”

Charles Rego
Chief Data Centre Architect, Intel

Challenge

Intel challenged CBRE | Romonet to demonstrate that the modern data centre operating environment does not require the level of cooling traditionally thought necessary to guarantee reliable performance. Given the significant energy cost and capital expenses associated with cooling technology, there would be considerable potential for dramatically reducing TCO by designing and building data centre facilities that run at a higher ambient temperature. Intel sought an analysis that would show a detailed assessment of the entire data centre environment under varying workloads and conditions, holistically and at individual component levels.

Solution

By simulating a multitude of 'what if' scenarios, CBRE | Romonet enabled Intel to accurately assess how data centre facilities behave over time when configurations, IT loads and environmental conditions are changed. The team's transparent analysis provided Intel with the facts necessary to make informed decisions about cooling levels, as well as designing, planning and operating more efficient data centres.

CBRE | Romonet is now an essential tool for Intel in advising clients on the most effective, de-risked ways to deploy resources efficiently, and pioneer new and innovative approaches.

“Using CBRE | Romonet, it’s straightforward to take a snapshot of data centre operational efficiency today, and then compare and contrast that picture with a view of the future where configurations and variables have been changed. The outputs allow our clients to clearly understand the consequences of change and help reinforce our position as trusted advisers.

Charles Rego
Chief Data Centre Architect, Intel