

Case Study - Virtus Data Centres

Romonet® provided financial and engineering analysis to independently verify the TCO performance for Virtus's new LONDON2 Data Centre.

Virtus, London's flexible and efficient data centre specialists, helps customers optimise their IT for today's challenges. Virtus assists clients to empower their 24/7 IT operations with the flexibility to enable IT expansion and consolidation, helping their businesses to run smoothly and grow efficiently. This case study looks at how Virtus leveraged Romonet software and services to create a predictive model for TCO (Total Cost of Ownership) over a 10 year period for their new LONDON2 data centre. This enabled Virtus to independently assess the long-term financial impact of two competitive cooling technologies and validate the vendor claims made during the design stage.

VIRTUS
Data Centres

Challenge

Virtus' new LONDON2 facility presented a variety of challenges for the Virtus design team: develop a competitive CapEx profile compared to London's best in class data centres, while ensuring Virtus' high standards for quality, flexibility and service at minimum operating cost and at a market competitive PUE. To put it in their own words, a "Virtus intelligent data centre- flexible by design" and independently verified. Virtus engaged Romonet based on our credentials for TCO and data centre modelling.

Solution

The Virtus design team had identified that indirect/free air cooling could deliver a low PUE while delivering best-in-class operating and financial performance. To some extent this had been already validated by their own market analysis and vendor references provided. However, they turned to Romonet to independently assess and determine the lifecycle running costs based on the performance of

each vendor solution and compare them against the overall capital and operational cost profiles over a 10 year analysis period.

Romonet's predictive modelling capabilities were used to build a number of models of the Virtus data centre and comparatively predict the TCO of each option for the business.

Why Romonet? "We liked the Romonet technology" said Robbie McGhie, Director of Services and Engineering at Virtus. "It fitted the bill and there was no obvious other choice".

Benefits

The chosen technology for each design option were validated by the Romonet model as to whether they were able to deliver the required performance at the right TCO. Romonet's analysis confirmed that indirect free air was the best choice given the climatic conditions of London. In addition, a comparison was made between two competing vendor products using

Profile: Virtus Data Centres
www.virtusdatacentres.com

Virtus owns, designs, builds and operates a new generation of agile, connected, efficient data centres around the heart of London's cloud and digital content economy. Located within London's metro, Virtus offers the best of traditional retail colocation including limitless connectivity, dedicated support and complementary ecosystems, combined with the low cost, scalability and custom solutions of the wholesale model, in uniquely flexible and customer friendly packages.



The Virtus LONDON2 data centre in Hayes



“We chose Romonet as our preferred partner for this project because they were able to provide a turnkey solution covering a comprehensive assessment of the new ecoefficient design, the construction of the facility and subsequent operation on completion. While we were confident that the design delivered the lowest TCO for our customers, Romonet was able to confirm this for us.”

Neil Cresswell, Virtus CEO

“what if” scenario analysis with the following objectives: low TCO, high agility/ flexibility, class-leading efficiency (e.g. PUE), excellent quality/ durability of the construction and superior resilience (Tier III certification required).

The Romonet model confirmed that the design choices made would meet the business objectives and furthermore was helpful in selecting the final vendor cooling solution.

Outcome

Romonet software not only validated the choices made, but also created a long term forecast with lifecycle TCO and PUE forecasts for the data centre based on a load fill out plan and the actual climatic conditions in London.

Future

Romonet are now performing a similar exercise for the LONDON1 site, which has been in operation for over 3 years. With LONDON2 now being an operational site, Romonet’s SaaS based Portal is being deployed and will determine how site cost performance compares to the original business plan and validate whether critical sub-systems have performed vis-a-vis the original design intent.

Performance models for the two sites will be tracked within Romonet Portal, where actual metered performance will be compared to expected performance on an ongoing basis and any divergences immediately notified to the local ops team to investigate. The Romonet Portal managed service will also allow Virtus to systematically plan for capacity changes, rapidly compare the impact of operational changes, re-investment scenarios,

concurrently providing the business with an adjusted long-term TCO view as well as fully loaded cost per customer analysis over the assets’ remaining life.

Conclusion

Virtus contracted Romonet to assess the financial and energy performance of the design and technology choices made for their new LONDON2 site. The resulting report validated Virtus technology selections and helped inform the selection of the specific vendor cooling device. It also provided Virtus with a TCO forecast and achievable performance for the lifecycle of the site, given expected load fill-out and climatic conditions. The external “audit” enabled by Romonet technology was also instrumental in re-assuring investors and potential customers of the soundness of the Virtus business plan.

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