



LARGE MANAGED SERVICE PROVIDER SETS 5 YEAR STRATEGY WITH INTERACT ANALYSIS

BACKGROUND

A large managed service provider with data centres across the north of England was looking for data driven analysis on IT hardware efficiency and possible energy, monetary and carbon savings. With carbon and energy accounting soon to be included in core financial reports, the organisation needed a view on the energy breakdown of their data centre. The company regularly carries out lift and shift operations, rack level consolidation and rolling refresh on infrastructure. Optimising this from a procurement and operational cost perspective is vital to the profitability of the company and ultimately the quality of associated services it is able to supply. The Operations Manager of one of the 35 rack sites provided information about their estate for analysis.

THE CHALLENGE

The IT estate was a varied mix of different models with various years of manufacture. A small number of the near 800 server estate were 2003 models, with 26.5% of the machines from 2009-2012, 62.5% from 2014-2016 and 10.9% from 2017.

The data centre needed an accurate readout on the costs and energy projections on the existing estate over a three, five and seven-year period. They then needed indicative comparisons from a cost and energy standpoint to ascertain which carbon, energy and cost savings could be made over the same periods with different IT refresh scenarios involving defined hardware solutions.

ANALYSIS

Interact used the information on workload size and type and operating temperature to generate two optimum solutions for energy saving and cost.

The most energy efficient solution for new hardware was replacing the existing estate with under half the number of Lenovo SR655s, a new model. This provided an energy and associated carbon saving of 45% and would save 6.7% costs over a period of five years.

Interestingly, the best cost saving solution was only marginally less energy efficient and saved much more on space and cost. 167 DL360p Gen8s would provide 43% energy and associated carbon savings, a 52% cost reduction over 5 years and a 79% space saving. The company would also save on embedded carbon (Scope 3*) by choosing a refurbished option.

153,974 kg CO₂e scope 3 emissions would be saved by reusing existing hardware against the 145,535kg CO₂e it would require to manufacture the new alternative.

Including Scope 3 emissions in the metrics, the refurbished option would make the DL360p Gen8s 21.6% more carbon efficient over a period of five years.

OPERATIONAL CONSIDERATIONS

"The recommendations generated reduced the number of servers needed by around 80%, with obvious benefits for migrating applications and workload from one premises to another or to the public cloud. More than that, Interact was able to produce recommendations for replacement hardware that would optimise cost, energy efficiency and carbon footprint. Identifying the lowest performing servers, converting this information into energy efficiency and suggesting solutions that guarantee reduction of costs over time and a lower carbon footprint is not possible without Interact. It is a great tool to make operational decisions as well as to demonstrate quantifiable improvements in company reports."

UK Data Centre Operations Manager, AIM listed Cloud Services Provider

THE COLD HARD FACTS

Interact provided the following two indicators for refresh strategic decisions:

A recommended model to reduce Energy Consumption and associated CO2 emissions:

Reduction of server estate by **62%**

4,540,750 kWh reduction in energy draw

1,162,432 kg CO2e saving on scope 2 emissions

269,224 kg CO2e expenditure on scope 3 emissions*

£145,535 saving over 5 years

A recommended model to reduce Total Cost:

Reduction of server estate by **79%**

4,351,525 kWh reduction in energy draw

1,113,990 kg CO2e saving on scope 2 emissions

153,974 kg CO2e expenditure on scope 3 emissions*

£1,141,878 saving over 5 years

*An indicative figure not always included in carbon accounting

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