# A New Server Room or a Micro Data Centre?

Oper8
GLOBAL

A leading international tyre manufacturer was relocating its UK head office to accommodate the company's expanded operations and signed a five-year lease for three floors of a newly constructed office block. As part of the move, a new server room was designed by a local architect with Oper8 Global asked to provide a quote to build it. Reinstating the building to its original condition was a key term of the lease.

Oper8 Global identified a smarter alternative to the traditional server room design during on-site assessment. Rather than investing in custom construction – walls, ceilings, raised flooring, standalone cooling and power systems – the client's requirements could be fully met using a compact, integrated Micro Data Centre.

The Micro DC delivers the same IT outcomes but:
- Uses less than half the floor space
- Eliminates the need for costly room infrastructure
- Requires just 10m³ of cooled volume, compared to 135m³
- Reduces reinstatement and lease-end costs to near zero

With the Micro DC approach, performance and redundancy would be maintained, while time, cost, and space dramatically reduced.
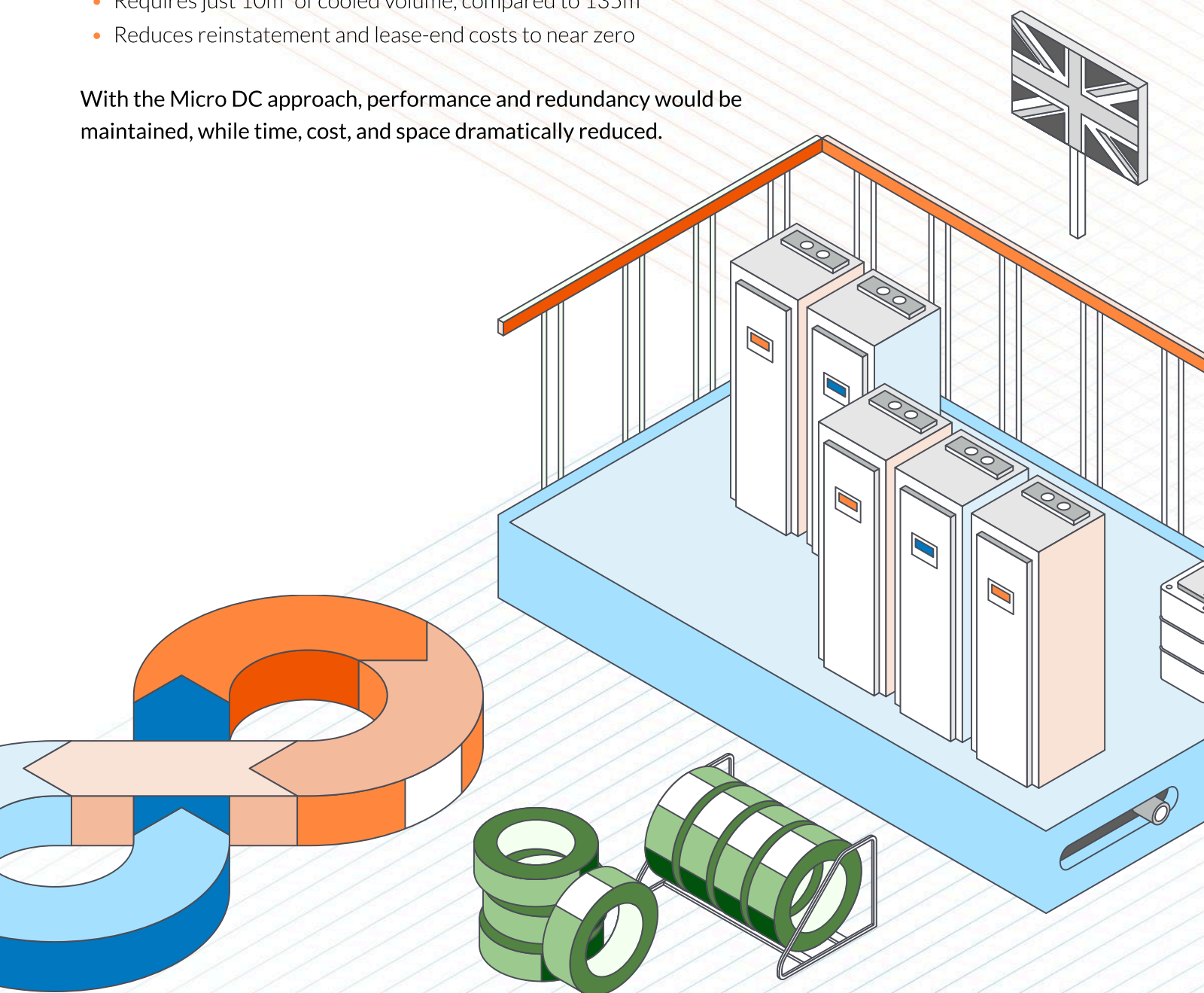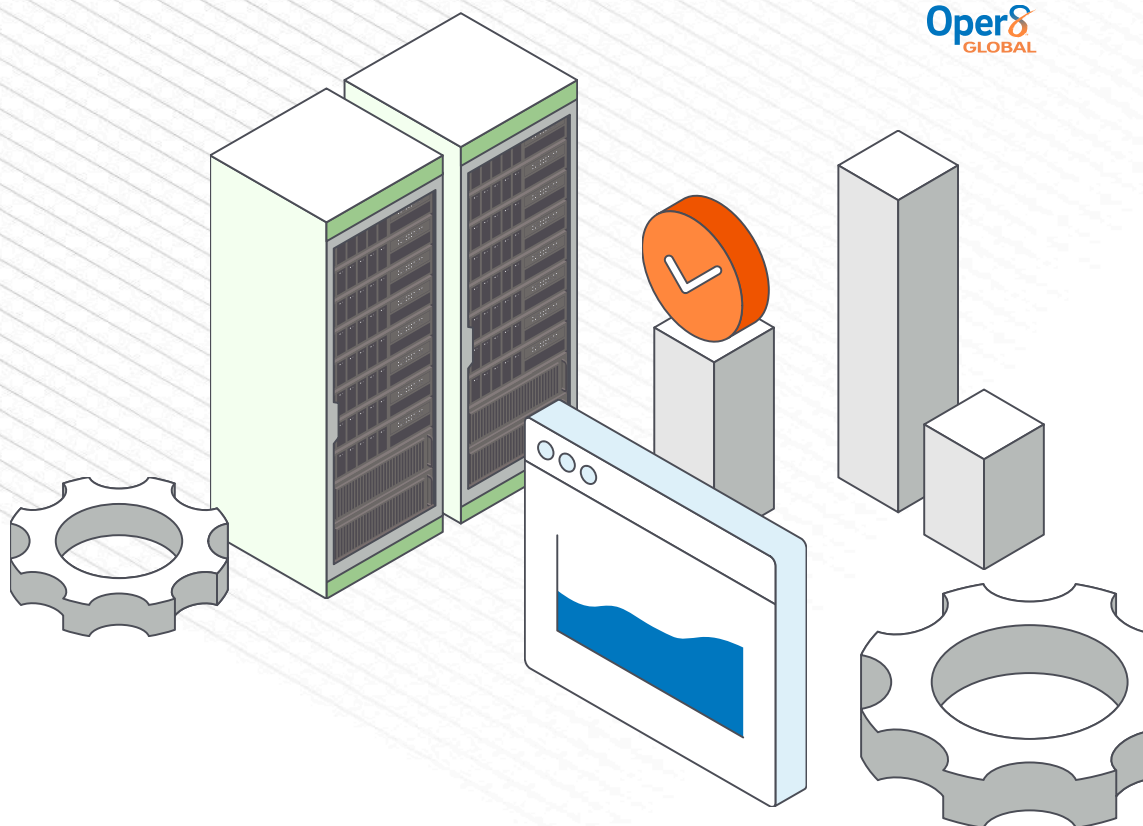
Oper8 provided both options to the client,
the Micro DC approach along with the Server Room
approach based on the architect's design.

| The Oper8 Micro DC Solution	Original Server Room Approach
40kW Edge IT Load with N+1 Redundancy	**40kW Edge IT Load with N+1 Redundancy**
Real Estate • 5.6m x 3.2m x 3m room, no raised floor • 18m² or 192ft² floor space	**Real Estate** • 9m x 5m x 3m room, 400mm raised floor • 45m² or 484ft² floor space
Racks • 6x 48U racks providing 205U of IT useable space	**Racks** • 5x 42U racks providing 210U of space
Cooling • 5x 10kW In-Rack AC (40kW N+1) • 10m³ total space requiring cooling	**Cooling** • 2x 40kW downflow CRAC (40kW N+1) • 135m³ total space requiring cooling
UPS • 50kW UPS with 10min autonomy (N+1)	**UPS** • 2x 40kW UPS with 10min autonomy (N+1)
In-Rack Fire Detection/Suppression	Fire Detection/Suppression for room and floor voids
Biometric access, LED lighting	Biometric access, LED/emergency lighting

Cost Analysis

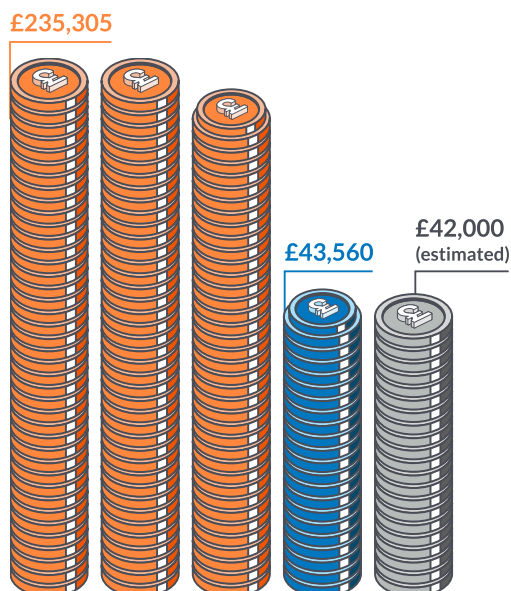= £2,000

Construction

White Space*

Remediation

Micro Data Centre
Total: £155,965
per annum

£138,685
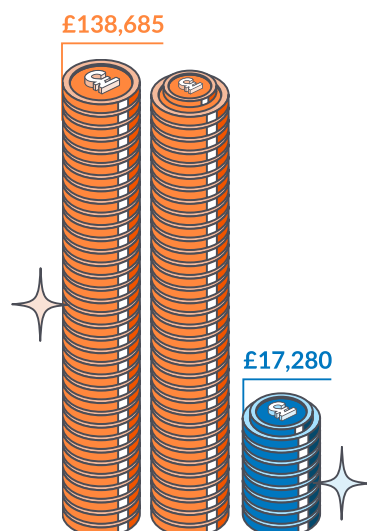
£17,280

Server Room
Total: £320,865
per annum

£235,305

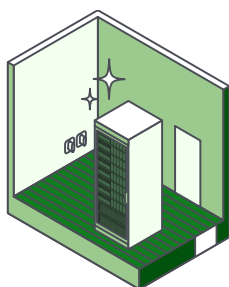£43,560

£42,000
(estimated)

---

*Overall Savings in White Space

Micro Data Centre

5.6m x 3.2m = 17.9m²
which is 192sq/ft

£90 sq/ft =
£17,280
per annum in rent

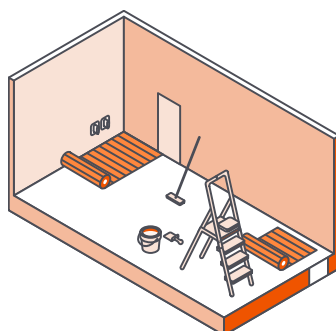### Server Room

9m x 5m = 45m²
which is 484sq/ft

£90 sq/ft =
£43,560
per annum in rent

By installing the Micro Data Centre,
Oper8 is saving the client **£26,280** per annum,
plus freeing up more space for office staff to use.

Time Savings

Micro Data Centre

To supply, install,
commission and
IST test the Micro Data
Centre, Oper8 estimated
1 week at site.

Server Room

To meet the exact
requirements of the
architect design,
Oper8 estimated
12 weeks
at site to supply, install,
commission and IST test.

At just one week compared to three months
for the server room build, the Micro Data Centre option
represented minimal on-site disruption for the client.

In addition to these savings, the Micro Data Centre will on average save over 15% on running costs, as it is only conditioning the volume of the rack, whereas the AC in the server room is having to condition the whole room. There are no reinstatement costs at the end of the lease; the client simply powers it off and moves it to its new location.
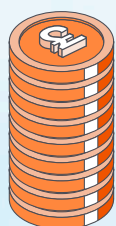
Average save over

15% on running costs

Unsurprisingly, the client chose the Micro Data Centre solution!

Create Space for Greater Innovation

EMEA:
John Eccles House, Oxford Science Park,
Robert Robinson Ave, Oxford OX4 4GP, UK
+44 (0) 1865 950767 | sales.emea@oper8global.uk

APJ:
391B Orchard Road,
Tower B Ngee Ann City, Singapore 238874
+65 68179594 | sales.apac@oper8global.uk

Oper8
GLOBAL

oper8globalgroup.com