


Met Office HPC and Cloud Convergence

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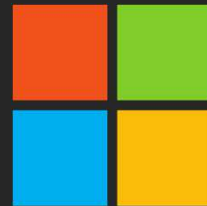
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A new strategic collaboration...



Met Office



Microsoft

CRAY[®]
a Hewlett Packard Enterprise company

Value for Money...

investment

£1.2bn

10 year investment period

return up to

£13.7bn

of socio-economic benefits

+

Social Value of at least

£4.5m per year

focused on local skills & employment and decarbonising &
safeguarding our world
both reported publicly on an annual basis

Approach



Replace Supercomputer every 5 years or so



Archive procured separately



I/O focused HPC cluster procured separately



Host everything on site

Why change?

Challenges



Power requirements to site



Aging M&E infrastructure



Procurement conveyor belt



Desire to move away from running infrastructure

New Approach

Managed Service

- Supercomputer
- Archive
- I/O focused HPC environment
- Hosting
- Connectivity

10 years, 2 generations

- 6x for Generation 1, further 3x for Generation 2
- Refresh at mid-term

Open to variety of delivery modes

Archive and I/O focused HPC

Archive

- Active archive – high performance data storage, query and retrieval
- Built in Azure, implementing the existing CLI
- Will hold ~1.5 EB of data by 2027 ~4EB by 2032
- Existing data will be migrated

I/O focused HPC

- Cloud native solution
- HB-series InfiniBand clusters
- Variety of storage



Met Office supercomputing – cloud is forecast

but quite how cloudy remains unclear...