



MIDLANDS⁺

Aaron Turner, Loughborough University

Overview



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Overview



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Overview



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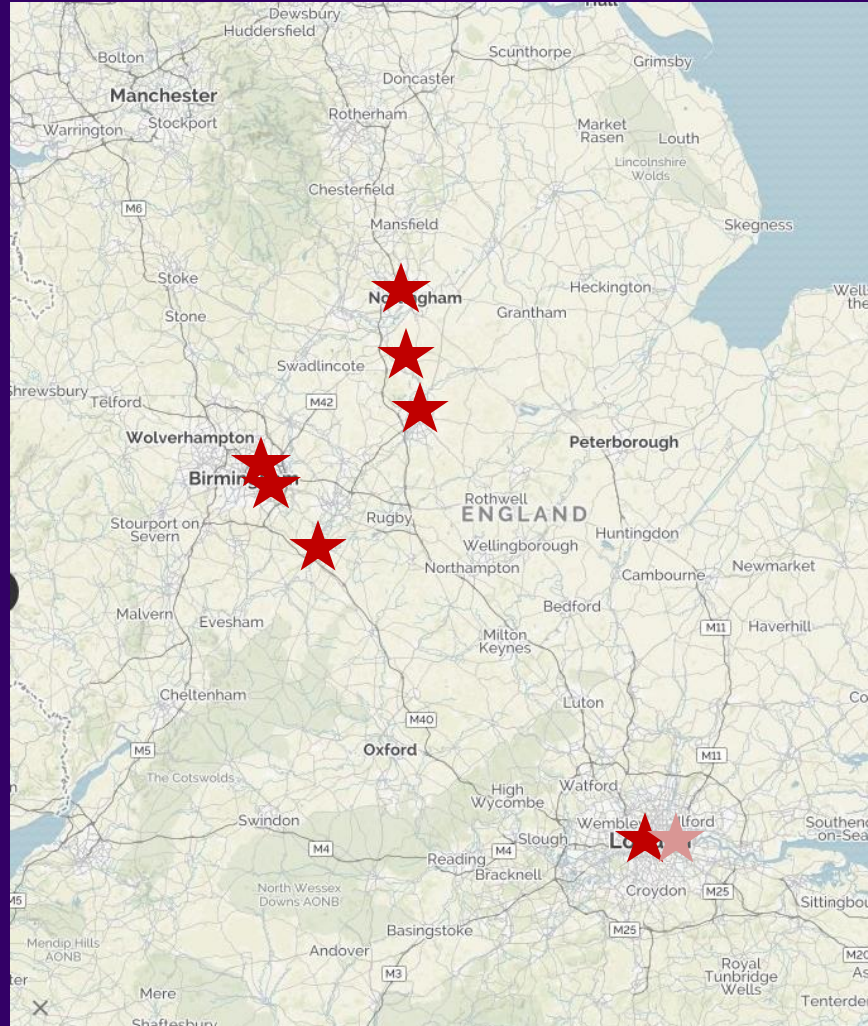
- Huawei + other bits, via ClusterVision
- 14336 cores x86_64 Broadwell, 128GB RAM/node
- 100 cores POWER8, 1TB RAM/node
- 2 Nvidia P100
- 1PB HDD + 10TB SSD, GPFS, JBODs
- 8 racks, plus 1 for UPS
- Physically exists in Loughborough
- Full service: 25th September 2017 – *after THOMAS :(*

Partners

- Aston
- Birmingham
- Leicester
- Loughborough
- Nottingham
- Warwick
- UCL



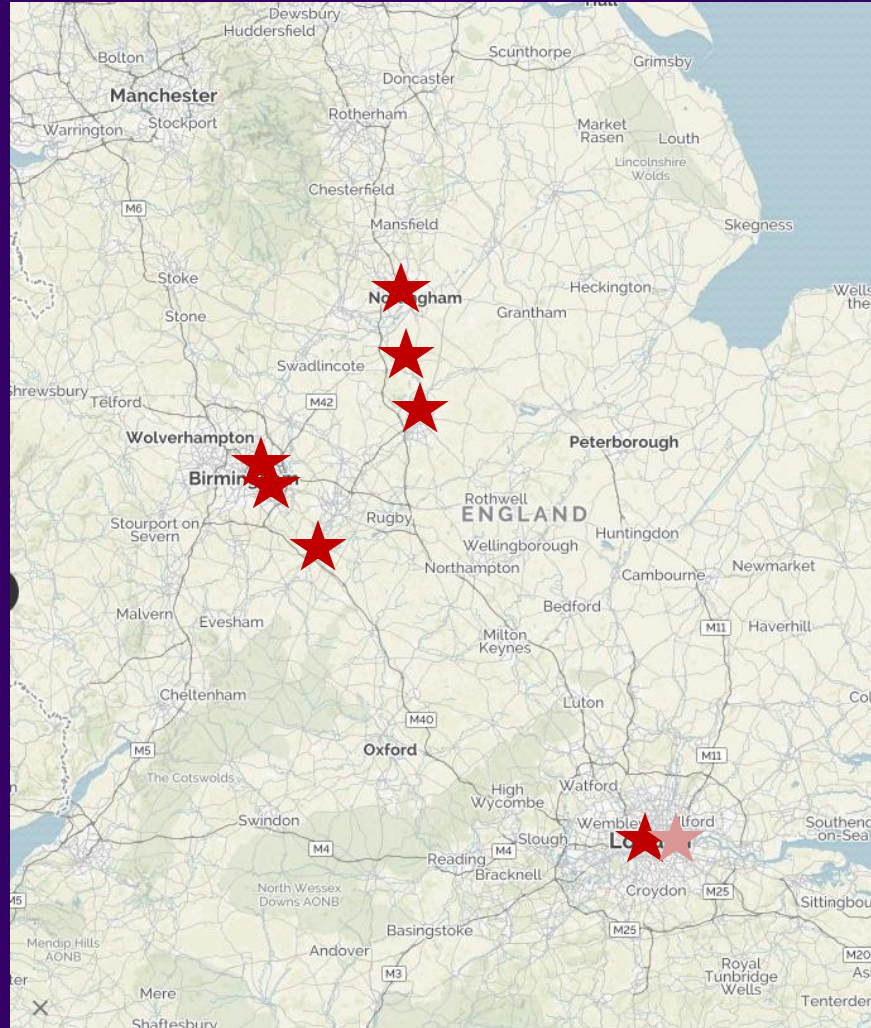
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Partners

- Aston
- Birmingham
- Leicester
- Loughborough
- Nottingham
- Warwick
- QMUL



Niggles



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Item	Status
Storage	
SLURM	
Chillers	
Staffing	
MLNX_OFED/MPI/Intel	
Office 365	

Niggles



Item	Status
Storage	Stable
SLURM	
Chillers	
Staffing	
MLNX_OFED/MPI/Intel	
Office 365	

Niggles



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Item	Status
Storage	Stable
SLURM	Working
Chillers	
Staffing	
MLNX_OFED/MPI/Intel	
Office 365	

Niggles



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Item	Status
Storage	Stable
SLURM	Working
Chillers	Hopefully resolved
Staffing	
MLNX_OFED/MPI/Intel	
Office 365	

Niggles



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Item	Status
Storage	Stable
SLURM	Working
Chillers	Hopefully resolved
Staffing	Resolving
MLNX_OFED/MPI/Intel	
Office 365	

Niggles



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Item	Status
Storage	Stable
SLURM	Working
Chillers	Hopefully resolved
Staffing	Resolving
MLNX_OFED/MPI/Intel	Resolved/nearly resolved
Office 365	

Niggles



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Item	Status
Storage	Stable
SLURM	Working
Chillers	Hopefully resolved
Staffing	Resolving
MLNX_OFED/MPI/Intel	Resolved/nearly resolved
Office 365	Alternative site

"Bread and Butter"

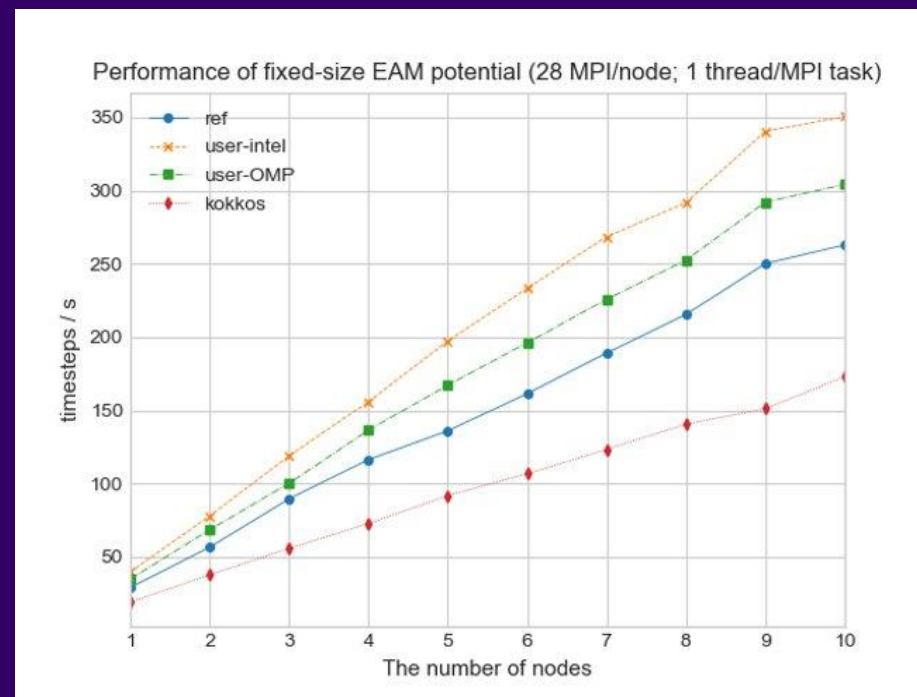
- SAFE – early adopters
- Automation: SAFE bot, builds, docs, etc.
- Applications, benchmarking, testing
- General management
- Collaboration across consortium
- Relationships
- Processes

RSE

- 0.5 FTE/site
- +0.5 FTE for Loughborough for Tier 3 = Feng



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Usage

- 50% to 95%, typical
 - Mainly: Chemistry, Materials, CFD
 - Some: Climate, machine learning
- Average around mid-point
- Smoother would be better. (6 month cycle).
- New: xalt to monitor application invocation
- Lots of data to analyse and understand

Collaboration

- Can we do more between sites?
- Consortium
- Tiers



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Collaboration

- Can we do more between sites?
- Consortium
- Tiers

