

# Shared Service Data Centre Salford / Derby / Sheffield Hallam Trial

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# Acknowledgements

- **Martine Carassik**  
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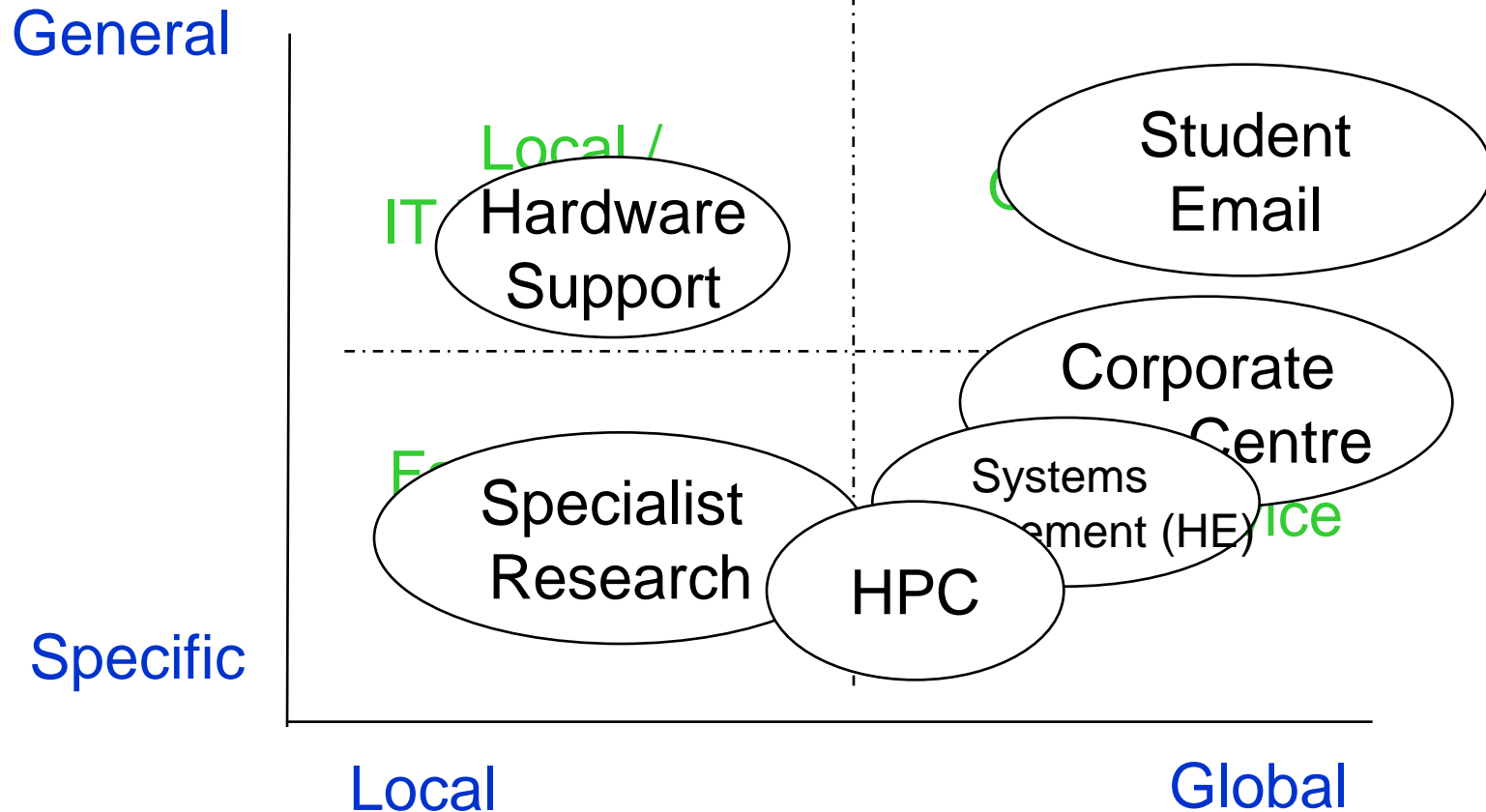
# Agenda

- Introduction, background and predictions
- Scenario workshop
- Review of strategic direction
- Summary: Gaps, Buy-in and Next Steps

# Why the Data Centre?

- Fundamental part of our provision
- Increasing demand – availability, 24x7
- Increasing density of performance
- Increasing cost of operation versus cost of procurement
- Increasing energy costs
- Increasing focus on carbon footprint
- Continuing issues with electricity supply / air-conditioning
- High and increasing standards of provision needed
- A specialist provision: a challenge in terms of skills and resources

# Gartner : why 'shared service' ? Based on model by Jan-Martin Lowendahl



# Our start point and timeline

- August 2006: meeting arose on basis of informal CIO network
- Winter 2006/07: working with SUN (unsuccessfully)
- April-June 2007: submit proposal to HEFCE
- September 2007: Consultants appointed
- March 2008: submission of final reports
- October 2008: submitted to DIUS for funding to progress to detailed proposal (including ITT)

# Feasibility Study - brief

- To establish whether the proposal for a shared service data centre between Salford, Sheffield Hallam and Derby is viable in the following terms:
  - Strategic
  - Technical
  - Operational
  - Financial
- To evaluate how the proposal could be replicated into other regions.
- To look at the range of possible delivery vehicles and ways of organising a shared service.

# Feasibility Study - Activities

- Agreed our objectives / brief of the Feasibility Study
- Engaged Logica as consultants
- High level Requirements analysis of each institution to determine common requirements
- Agreed criteria for Selection of Shared Service Partners
- Considered merits of several Shared Service Options
- Analysed costs, benefits and paybacks (financial & non-financial)
- Considered the scalability of the proposal
- Considered the HR implications
- Defined a suggested implementation plan.

# Feasibility Study – How our thinking developed

- How the datacentre would be used:
  - production or contingency
  - Admin / learning support / research
  - Revenue generation
- Governance
- Partnerships: HE / commercial / others
- Impact of VAT
- Importance of the distance: Latency, costs, people time
- Green IT
- Virtualisation

# Feasibility Study – Models considered

Option A	Bring Existing Facilities to a Baseline Level and meet Expansion Requirements
Option B	(1) - Pursue Individual Solutions - New Build (2) - Pursue Individual Solutions - Co-location
Option C	(1) - Shared Service - 3 Institutions - New Build (2) - Shared Procurement - 3 Institutions - Co-location
Option D	Shared Services – Regional Institutions plus, potentially, other local partners
Option E	Outsource all data centre services

# Feasibility Study Findings - Viability Strategic

- Established that Shared Service Data Centre is strategically viable and that the three institutions have essentially the same strategic objectives:
  - value for money
  - involvement of partners
  - potential for income generation
  - shared burden of governance
  - need for tightly controlled entry and exit arrangements
  - need for scalability
  - light impact on staff relations
  - low commercial risk for the universities.

# Feasibility Study Findings - Viability Technical

- Established that Shared Service Data Centre is technically viable.
  - All universities seeking synchronous replication, and high bandwidth service
  - Siting would be most appropriate in geographically central location to the group (Sheffield in this case) as it minimises length of network connections
  - Use of the SuperJanet infrastructure would significantly reduce the cost of connectivity and offers the best solution. However, funding would need to be made available from HEFCE or JISC support this connection.
  - More local partners would reduce cost of connectivity, but not significantly if SuperJanet connectivity is obtained.

# Feasibility Study Findings - Viability Operational

- Established that Shared Service Data Centre is operationally viable.
  - Majority of staff are likely to be on secondment basis
  - Operational requirements for the 3 institutions are similar – 24/7, hosting, shared monitoring, standards-based, controlled by SLA although Derby may require additional services
  - May be some challenges with geography, each institution is also considering more local partners.

# Feasibility Study – Viability

## Non-financial benefits

- Options C or D
- Development in central geographical location
  - New build rather than refurbished or co-location
    - Energy efficient design and build
    - sustainable power supply
    - Full control over design and operation
- Partnership opportunities
  - Like minded partners
  - Local geography (MAN areas ?)
  - Other HEIs and wider education sector
  - Commercial providers

# Feasibility Study Findings - Viability Financial (Retention current assets)

Option	Adjusted NPV '000s	Original Net Present Value '000s	Risk / Bias	Annual Cost over 10 years '000s	Average Annual Cost Per Institution '000s	Increase in Ave Annual Cost Per Institution '000s	NPV relative to Option A '000s
Option A - Bring Existing Facilities to a Baseline Level and Meet Expansion Requirements	£49,357	£47,801	£1,556	£4,935	£1,645	£0	<b>0</b>
Option B (1) - Pursue Individual Solutions - New Build	£60,555	£58,256	£2,299	£6,055	£2,018	£373	<b>£11,198</b>
Option B (2) - Pursue Individual Solutions - Co-location	£55,471	£52,097	£3,374	£5,547	£1,849	£203	<b>£6,114</b>
Option C (1) - Shared Service - 3 Institutions - New Build	£47,579	£46,055	£1,523	£4,757	£1,585	-£59	<b>-£1,777</b>
Option C (2) - Shared Service - 3 Institutions - Co-location	£50,262	£46,138	£4,124	£5,026	£1,675	£30	<b>£905</b>
Option D - Shared Services - 3 Institutions within Local MAN	£47,441	£46,008	£1,433	£4,744	£1,581	-£63	<b>-£1,915</b>

10 Year Financial Analysis – Based on Retention of Current Facilities and use of SuperJanet Infrastructure

# Feasibility Study Findings - Viability Financial (Disposal current assets)

Option	Adjusted NPV '000s	Original Net Present Value '000s	Risk / Bias	Annual Cost over 10 years '000s	Average Annual Cost Per Institution '000s	Increase in Average Annual Cost Per Institution '000s	NPV relative to Option A '000s
Option A - Bring Existing Facilities to a Baseline Level and Meet Expansion Requirements	£47,291	£45,776	£1,515	£4,729	£1,576	£0	0
Option B (1) - Pursue Individual Solutions - New Build	£48,428	£46,129	£2,299	£4,842	£1,614	£37	£1,137
Option B (2) - Pursue Individual Solutions - Co-location	£65,824	£62,450	£3,374	£6,582	£2,194	£617	£18,532
Option C (1) - Shared Service - 3 Institutions - New Build	£35,452	£33,928	£1,523	£3,545	£1,181	-£394	-£11,839
Option C (2) - Shared Service - 3 Institutions - Co-location	£61,136	£57,012	£4,124	£6,113	£2,037	£461	£13,845
Option D - Shared Services - 3 Institutions within Local MANs	£33,604	£32,171	£1,433	£3,360	£1,120	-£456	-£13,686

10 Year Financial Analysis – Based on Disposal of Current Data Centre Facilities and use of SuperJanet Infrastructure

# Suggested Implementation Plan

Programme Activities	Month																																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24										
Programme Management and Governance	Active																																	
Communications & Consultation Project	Active																																	
Shared Service Delivery Project	Active													Inactive																				
Building Project	Inactive				Active																	Inactive												
Data Centre Design and IT Project	Inactive		Active																			Inactive												
HR Project	Active													Inactive																				
Migration Project	Inactive												Active												Inactive									
Standards Project	Inactive					Active																												

# Reflections on the Output

- We have evidenced the viability of the proposal and confirmed the benefits proposition
- We are using the output of the study to determine our individual strategies
- We have raised the discussion in HE and created a wave of opportunities
  - Diverse initiatives (SHED, YHMAN, UHECSS...)
  - Multiple and varied partnerships

# Reflections on the Process

- Difficult to maintain the focus on the long-term, in the face of current/urgent issues  
... in parallel with short-term “sticking plaster” projects
- Lengthy and laborious:
  - Finding and maintaining a consortium
  - Achieving and maintaining momentum
  - Liaising with HEFCE as sponsor

# Current View / Next Steps

- Salford/Derby consortium continues
- Actively engaged in defining a viable partnership(s)
- Actively engaged in the HE DC Oversight Group (led by Janet UK)
- Working with HEFCE in agreeing an engagement model for the implementation plan; awaiting funding from DIUS (actually DCSF ... but that's another story ...)