

# Job Description and Person Specification

## JOB DESCRIPTION

Post title:	<b>Senior Research Computing Systems Engineer</b>		
Academic Unit/Service:	iSolutions		
Faculty:	Professional Services		
Career Pathway:	Management, Specialist and Administrative (MSA)	Level:	5
*ERE category:	n/a		
Posts responsible to:	Assistant Director: Operations (MSA6)		
Posts responsible for:	N/A		
Post base:	Office Based: Highfield Campus		

Job purpose
<p>To provide specialist professional expertise in the design, planning, implementation, support, promotion, and maintenance of the University's High Performance and Data Intensive Computing (HPDIC) services.</p> <p>To take a lead role in the specification, promotion and delivery of a major HPDIC service.</p>

Key accountabilities/primary responsibilities	% Time
1. To take a leading role as part of a highly specialist team in delivering and maintaining the University's High Performance and Data Intensive Computing facilities.	25 %
2. To proactively, work with a wide range of the University's research community in exploiting and demonstrating the potential of HPDIC.	20 %
3. To lead in the planning of major systems installations and upgrades.	15 %
4. To determine the needs of the users for services in HPDIC in all areas of the University and to determine how best to deploy products in the specialist area to meet the user needs.	10 %
5. To provide innovative solutions to the delivery of new services and facilities advising on the specification and the development of appropriate product evaluation programmes.  To participate in the development of long-term plans and strategies for the continual improvement of HPDIC services. In consultation with the research community taking the lead role in the long-term planning of a major HPDIC service	10 %
6. To participate in the design and delivery of appropriate training to a wide audience.	10 %

Key accountabilities/primary responsibilities		% Time
7.	To advise the Assistant Director: Operations of the products and resources needed to meet the agreed operational plan and service specification. To participate in the provision of risk assessments as appropriate.	5 %
8.	Any other duties as allocated by the line manager following consultation with the post holder.	5%

Internal and external relationships
<p>The post holder will be expected to undertake the duties as part of an integrated team and will be expected to adopt priorities and engage in activities, which promote the effective working of the whole team.</p> <p>The post holder will be expected to liaise with senior members (heads of research groups/divisions and Associate Deans Research) of the University and suppliers as appropriate and with colleagues in other institutions and related organisations.</p> <p>It is expected that the duties will be performed in the light of the relevant activities in Higher Education generally. The post holder will be expected to be aware of the activities and initiatives being formulated nationally and internationally within the relevant specialist area and will be expected to take part in such activities should they be relevant to and of benefit to the work being undertaken locally.</p>

Special Requirements
<p>The post holder must be eligible and willing to undergo HMG security clearance (Security Check (SC) Level)</p> <p>To maintain the relevant level of professional expertise and qualifications to discharge the duties of a professional specialist.</p> <p>There may be a requirement to work varying core hours, and on occasion to work outside normal hours, to ensure that service commitments are met.</p>

## PERSON SPECIFICATION

Criteria	Essential	Desirable	How to be assessed
Qualifications, knowledge and experience	<p>Skill level equivalent to achievement of a professional qualification or postgraduate degree or significant relevant technical experience.</p> <p>Demonstrable experience of the use of high performance and data intensive computing in a significant research area.</p> <p>Experience of working within a large-scale Linux server environment.</p> <p>Experience of parallel programming models (MPI, OpenMP, threads, job farming).</p> <p>Recent and relevant knowledge of high performance and data intensive computing issues and opportunities.</p> <p>Experience of the research process.</p>	<p>Good knowledge of several of;</p> <ul style="list-style-type: none"> <li>• Scripting languages (e.g. Perl, Python).</li> <li>• Analysis/visualisation of large data sets.</li> <li>• High performance file systems and I/O.</li> <li>• GPGPU (General purpose Graphics Processor Unit) programming.</li> <li>• Programming languages and compilers (eg. C/C++, Fortran, Java)</li> </ul> <p>Demonstrable experience of ITIL.</p> <p>RedHat Certified Engineer.</p>	CV, certificates, references, work experience, interview
Planning and organising	Able to plan and manage major new projects or significant new activities, ensuring plans complement broader University strategy.	Demonstrable ability to plan and manage significant activities across organizational boundaries.	CV, references, work experience, interview
Problem solving and initiative	<p>Able to identify broad trends to assess deep-rooted and complex issues in large scale systems.</p> <p>Able to apply originality in modifying existing approaches to solve problems.</p> <p>Ability to clearly identify, articulate and understand customer needs and service implications.</p>	Significant exposure to 3rd Level support issues in large-scale systems environments.	CV, interview
Management and teamwork	<p>Able to provide expert guidance and advice to colleagues to resolve complex problems.</p> <p>Experience of working in a highly technical team.</p> <p>Demonstrable ability to make decisions in a confident manner under pressure.</p>		CV, interview
Communicating and influencing	<p>Able to persuade and influence in order to foster and maintain relationships.</p> <p>Able to resolve tensions and difficulties as they arise.</p> <p>Demonstrable ability to present your ideas and your specialist area,</p>	Demonstrable ability to promote HPDIC solutions to the wider research community	CV, interview

	to a wide and potentially non-technical audience.		
Other skills and behaviours	Methodical, calm and clear-thinking under pressure.		CV, interview
Special requirements	Must be eligible and willing to undergo HMG security clearance.		CV, interview

## JOB HAZARD ANALYSIS

### Is this an office-based post?

<input checked="" type="checkbox"/> Yes	If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below.
<input type="checkbox"/> No	If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below. Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder.

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

ENVIRONMENTAL EXPOSURES	Occasionally (<30% of time)	Frequently (30-60% of time)	Constantly (> 60% of time)
Outside work			
Extremes of temperature (eg: fridge/ furnace)			
## Potential for exposure to body fluids			
## Noise (greater than 80 dba - 8 hrs twa)			
## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below:			
Frequent hand washing			
Ionising radiation			
<b>EQUIPMENT/TOOLS/MACHINES USED</b>			
## Food handling			
## Driving university vehicles(eg: car/van/LGV/PCV)			
## Use of latex gloves (prohibited unless specific clinical necessity)			
## Vibrating tools (eg: strimmers, hammer drill, lawnmowers)			
<b>PHYSICAL ABILITIES</b>			
Load manual handling			
Repetitive crouching/kneeling/stooping			
Repetitive pulling/pushing			
Repetitive lifting			
Standing for prolonged periods			
Repetitive climbing (ie: steps, stools, ladders, stairs)			
Fine motor grips (eg: pipetting)			
Gross motor grips			
Repetitive reaching below shoulder height			
Repetitive reaching at shoulder height			
Repetitive reaching above shoulder height			
<b>PSYCHOSOCIAL ISSUES</b>			
Face to face contact with public			
Lone working			
## Shift work/night work/on call duties			