



## JOB DESCRIPTION

<b>Job Title:</b>	Senior Systems Administrator
<b>Directorate/Department Unit:</b>	Physics – Centre for Particle Physics and Astronomy (CPPA)
<b>Job type:</b>	Full Time, Fixed Term - Professional Services
<b>Grade:</b>	RHUL 8
<b>Accountable to:</b>	Simon George (responsible for CPPA IT) & Veronique Boisvert (CPPA group leader)
<b>Accountable for:</b>	n/a
<b>Purpose of the Post</b>	
<p>The Senior Systems Administrator (SSA) will be a key member of the Research IT System Administration Team of the Centre for Particle Physics &amp; Astronomy, which provides support for platforms and services that fall within their remit. They will be responsible for ensuring the availability, security and stability of services through monitoring, maintenance, automation, change management, participation in incident management and continued input to constructive thought around how best to improve our services.</p> <p>The SSA will lead development of new and replacement services to meet the research requirements of the Centre for Particle Physics and will contribute to the development of standard documentation and procedures including relevant technical documentation.</p> <p>The SSA will be responsible for services arising from our participation in the GridPP collaboration and ensuring they meet the functionality, availability, reliability, and security requirements of GridPP.</p> <p>The SSA will provide expertise in the field of Linux system administration, ensuring uptime, performance, application support, configuration best practice, and the development of procedures which can be shared with colleagues in the Systems Administration Team.</p> <p>The SSA will be expected to have the technical ability and experience to work largely independently and manage their own time on a day-to-day basis. Guidance on goals and priorities will be provided by the line manager.</p>	
<b>Key Tasks</b>	
<ol style="list-style-type: none"> <li>1. Ensure the efficient operation of the Linux server infrastructure, including but not limited to, the hardware and operating system of all production, test and development environments.</li> <li>2. Support and develop core Research IT infrastructure applications and services.</li> </ol>	

3. Recommend and implement Linux security best practices across our systems.
4. Support users of the Research IT services through induction to the services, general advice, and specific advice on how their use cases may be realised through the available services.
5. Provide WLCG and EGI grid-computing services as agreed with the UK GridPP collaboration and the virtual (user) organisations we support.
6. Contribute to the definition and implementation of strategy for Research IT service delivery.
7. To undertake the routine monitoring of the performance of the server infrastructure components for troubleshooting, pre-emptive problem identification and capacity planning purposes.
8. To liaise with other team members and colleagues on issues relating to the network, server hardware and machine rooms
9. To develop and monitor Key Performance Indicators across system uptime and risk management.
10. To support the development of, and ensure compliance with, applicable policies, procedures and working practices.
11. To take the technical lead on various infrastructure projects (to be defined on an ongoing basis) providing leadership on the design, implementation, service transition and service improvement.
12. Participate in relevant National and International networks.
13. To share knowledge and train other members of the IT team on technologies in the domain.

#### **Other Duties**

The duties listed are not exhaustive and may be varied from time to time as dictated by the changing needs of the University. The post holder will be expected to undertake other duties as appropriate and as requested by their manager.

The post holder may be required to work occasional unsociable hours and be available to support incident response.

The post holder may be required to work at any of the locations at which the business of Royal Holloway is conducted.

#### **Our Values**

Advancing equity and inclusion is central to our identity as a University of Social Purpose, guided by our values of being Respectful, Innovative, Open, and Daring. We strive to build a fair and inclusive environment for all colleagues and students, where we challenge ourselves and others with integrity, and approach difference with understanding and kindness. Every member of our community is expected to treat others with dignity, work

collaboratively across a wide range of backgrounds and perspectives, and contribute to a place where everyone can participate fully and feel valued.



## PERSON SPECIFICATION

Details on the qualifications, experience, skills, knowledge and abilities that are needed to fulfil this role are set out below.

**Job Title:** Senior Systems Administrator

**Department:** Centre for Particle Physics

	Essential	Desirable	Tested by Application Form/ Interview/Test
<b>Knowledge, Education, Qualifications and Training</b>			
Degree level qualification in a Science/Engineering subject or relevant equivalent experience	X		Application form
Knowledge of IT service delivery in support of of large-scale Linux-based computing infrastructure	X		Application form
Knowledge of RedHat Enterprise Linux (or similar), standard Linux system administration tools and network services, virtualisation & containers	X		Application form
Programming in bash/perl/python	X		Application form/Interview
Knowledge of Grid computing services		X	Application form/interview
Knowledge of Linux batch systems and distributed storage services	X		Application form/interview
Experience of working in a university research environment		X	Application form/interview
<b>Skills/Abilities</b>			
Proven ability to work as part of a team and support colleagues as well as a readiness to work on own initiative and be proactive	X		Interview
Excellent organisation skills and proven ability to work under pressure and prioritise conflicting demands	X		Interview
Methodical approach to diagnosing and fixing problems	X		Interview
Ability to explain complex technical concepts to both experts and non-experts	X		Interview
Effective verbal and written communication skills	X		Application form/interview
<b>Experience</b>			
Aptitude and interest to self-learn new skills and work with new services and products	X		Application form/interview

Experience working with a variety of Linux distributions		X	Application form
Experience of automating deployment, updating and monitoring of large clusters	X		Application form/interview
Experience with virtualisation and containers	X		Application form/interview
Experience configuring and troubleshooting network interfaces and switches; working with firewalls, VLANs, public and private IPV4 networks, IPV6.		X	Application form/interview
<b>Other requirements</b>			
An understanding and commitment to the principles of equality, diversity and inclusion.	X		Application form/interview
Ability to perform physical tasks associated with the role within safety regulations	X		Application form/interview
Willingness to work occasionally outside normal working hours to provide urgent support or perform disruptive changes	X		Interview