

Job title	Senior Systems Engineer		
Job family	Technical Systems and Delivery	Proposed band	D

Job purpose

Responsible for collaborating on, and contributing to the planning, design, implementation, integration, commissioning, test and (in some cases) operation of systems.

Key responsibilities and accountabilities

- Driving improvements in the operating environment and ensuring alignment with the overall BBC enterprise architecture strategy
- Key role within engineering teams in the planning, design, development, integration, commission and test of media systems
- Contribute towards (in some cases lead on) the provision of technical advice and consultancy across a range of projects and products to shape and deliver technical production solutions.
- Work with project, product and technical leads, and contractors and manufacturers to design media systems and create implementable solutions to the business’ technical requirements
- Integrate media systems with existing and new monitoring and support tools
- Where required, responsibilities may also include elements of system operational development and support
- Write, review and take responsibility for technical documentation as part of project and product delivery
- Contribute to test and resolution of issues throughout the project or the product life cycle – including writing and running detailed test scripts and procedures
- Operates effective processes that support the timely delivery of their maintenance, roadmaps and/or project plans
- Oversee acceptance testing of new installations, ensuring test logs/registers are kept up to date
- Work with system vendors and suppliers to ensure successful delivery of solutions
- Maintain knowledge of industry and competitor developments
- Learn new technologies and keep abreast of existing technologies and drive the introduction them where appropriate
- Provide guidance to team members
- Liaise with the project manager and project support staff to enable them to provide effective and informed reporting
- Provide effective communication to interested parties, conveying technical information to non-technical staff, either in verbal or written form

Knowledge, skills, training and experience

Essential

- Experience in assisting with the design, delivery or support of technical systems and infrastructure within a media technology environment
- Experience in assisting with systems test and handover procedures
- Knowledge of systems engineering for key operational criteria (monitoring integration, performance testing, security considerations)
- Demonstrable experience of applying new and emerging technologies within media technology projects and products
- Self-motivated and organised, with the ability to manage multiple active tasks
- Excellent communication (verbal, written, listening) and IT skills
- Able to effectively work in a dispersed and varied team, showing evidence of dealing with complex technical issues
- Able to deliver to deadlines and demonstrate resilience to ensure the correct technical solution is selected
- Experience in translating project, user and product requirements into technical solutions

Desirable

- Ability to write and communicate complex technology solutions in a clear and coherent way
- Experience of operational workflows as they pertain to complex media technology systems
- Knowledge or experience of working with media/technology tools (hardware and software)
- Some knowledge of web architecture and key technologies (HTTP, DNS, distributed design)
- Knowledge of broadcast or datacentre infrastructure installations including power, environmental and space layout considerations
- Knowledge and experience of procurement processes
- Experience working alongside third party service delivery or support in an engineering environment
- Experience of mentoring and supporting less experienced members of the team
- Knowledge of how media technology systems are supported by Operational Engineering teams and what tools and interfaces they rely on
- Knowledge of Cloud Computing disciplines (NaaS, SaaS, PaaS or IaaS) and IP technologies

Job impact

Decision making

- *Reports to Principal Systems Engineer or Systems Engineering Manager or Principal Project Manager*
- *Tasks are allocated to the job holder by a team or project lead. Responsible for ensuring the quality of their work and assures the quality of work from more junior members of the team. Troubleshoots independently.*
- *The role holder will be expected to support design and implementation decisions which have a direct impact on the BBC's technical infrastructure, in*

line with BBC technology strategy and architecture.

- *Key role in engineering teams on the design and development of systems and services, in line with agreed portfolio plans.*
- *Decisions or actions have an impact on the performance, resilience and function of localised technical systems for production and broadcast of our output*

Scope

Finance: Responsible for the design and / or delivery of technical systems and services up to the value £250k
It will be expected that the post holder will have a good understanding and oversight of the finances associated with their deliverables including regular monthly forecasting, actuals and general performance reporting.
The post holder is responsible for maintaining project expenditure to budget and forecast.

Line management: No line management responsibility. Regular supervision of junior members of the team and third parties / contractors.

Ad-hoc teams: May lead ad hoc teams

Other information	
For Reward team use only	
Job Code	
Definition:	Content

This job description is a written statement of the essential characteristics of the job, with its principal accountabilities, incorporating a note of the skills, knowledge and experience required for a satisfactory level of performance. This is not intended to be a complete, detailed account of all aspects of the duties involved.

Appendix

There may be sub-sets of the generic job described above which require additional technical skills. This appendix to the generic job description can be developed to cover such situations.

Division	Design and Engineering
Reports to (title)	Team Lead, Systems Engineering
Location base	Broadcast Centre, White City, London

Organisation structure
<p>BBC Design and Engineering provides the foundations for broadcasting. Engineering has a long history at the BBC and today includes everything from broadcast engineering, programme management, operations and DevOps software engineering. Our challenge is to take advantage of the rapidly changing technology and media landscapes for the benefit of the public.</p> <p>BBC Monitoring is funded by the licence fee and is proud to be part of the BBC World Service Group, providing our customers with 70 years of expertise and sharing the benefits of our extensive partnership network. Our mission is to provide coverage of open source international media in more than 100 languages.</p>

Additional job specific responsibilities and accountabilities
<p>We are looking for an experienced DevOps engineer with a good breadth of knowledge, covering VM infrastructure design to automated deployment of software. This is a fantastic opportunity to develop and demonstrate your DevOps engineering skills working in a cutting edge and challenging field.</p> <p>You will be involved in designing and developing the products and services that form the foundation of the BBC Monitoring (and the wider BBC) technology estate. You'll be part of a highly acclaimed self-organising, cross-functional, agile team. You will be involved in the complete lifecycle from scoping through to testing and maintaining key services across a range of platforms.</p> <p>Essential</p> <ul style="list-style-type: none"> • Proven expertise in Linux Admin, ideally CentOS. • Experience of configuring, troubleshooting and running provisioning tools and continuous Integration tools such as Ansible and Jenkins. • Experience in at least one of the following scripting languages: Python, Groovy, Bash. • Experience of working with databases. E.g. Mysql, PostgreSQL and Elasticsearch. • Experience of working with Virtualisation Stacks such as VMware or equivalent. • Proven experience developing, implementing and troubleshooting a secure, modern IT infrastructure in a corporate environment. <p>Desirable</p> <ul style="list-style-type: none"> • Experience of Automated system installation (e.g. PXEboot), configuration and administration systems. (e.g. Cobbler). • Experience of AWS cloud technologies, e.g. S3, SQS, Lambda and EC2. • Knowledge of public sector security and privacy policies. • Good understanding of key network technologies, including TCP/IP, QoS, VLANs,

MPLS, Multicast.

- Experience of using software control systems e.g. Git.
- Some experience of working with agile (Scrum/Kanban) methodologies.
- Experience of working with system monitoring tools. e.g. Nagios