

JOB DESCRIPTION



Job title	Software Engineer		
Job family	Technology, Systems & Delivery	Proposed band	D

Appendix.

Division	Audience Platform
Reports to (title)	Devops Manager, Audience Platform
Location base	London, Broadcast Centre, W12

Organisation structure

BBC Platform Audience is one of the BBC's biggest and most ambitious online projects. The ultimate aim being to personalise the online content and engage more effectively with our audience. Our services include, BBC account (sign in), recommendations, data storage, insights, notifications, participation services such as comments and voting and data warehouse solutions. You will be part of a team transforming the BBC into a data driven organisation, supporting the delivery of the BBC's services such as iPlayer, News, Sport, Children, Weather, Radio and TV to millions of people. Our tech stack is largely Java, Node.js and Cloud (AWS).

Join us to deliver robust products at scale that in a modern AWS environment as part of a great multi-disciplinary agile team. Help us to deliver the solutions robustly and securely at scale – eg systems with more than 25,000tps, dealing with 2 billion data points in real time daily by the end of the year, delivering tens of millions of alerts in under a minute, and large scale events such as voting on Strictly Come Dancing and Glastonbury on iPlayer.

This role will be embedded in a development team, but will be rotated regularly across all the 5 teams in Audience Platform.

Additional job specific responsibilities and accountabilities

With infrastructure services being central to the BBC Audience Platform strategy, we are looking to hire an enthusiastic and talented Senior DevOps Engineer to join our innovative and fast-paced environment.

On a daily basis you will be involved in:

- Ensuring that the development teams have the correct infrastructure and tooling required for the entire delivery and support cycles of the program.
- Ensuring that products delivered are supportable, cost effective, meet the department's strategic business needs, and align to the departmental infrastructure
- Alignment of architectural solutions with other product groups within Future Media, including collaboration on solution design to ensure fit-for-purpose end-to-end solutions
- Working with the business and technical stakeholders in order to understand functional and technology requirements and constraints, and to reflect this in an infrastructure solution
- Be part of a DevOps support rota covering the scrum supported platforms

What You'll Need:

- We're looking for an experienced DevOps Engineer with in-depth knowledge of cloud based infrastructure design and delivery. You'll be involved in design, development and maintenance of cloud infrastructure projects as part of the overall BBC Audience Platform build out. So you'll need to be familiar with best practice web infrastructure design, performance and scalability considerations, security and privacy constraints and the technologies and tools to support.

Essentials:

- Strong background in Linux/Unix Administration
- Experience with automation/configuration management using Puppet, Ansible or equivalent
- Experience of cloud based technologies and infrastructure design, including AWS technologies
- A working understanding of code and script (PHP, Python, Perl and/or Ruby)
- Experience of service infrastructure design ideally in high volume consumer facing environments. eg CloudFormation, VPC
- Experience with deploying open source software within a Linux platform using continuous integration methodologies, tooling and techniques. eg. Jenkins, Boto]
- Experience of working in multi-disciplinary teams with designers, editorial teams and software developers.
- Extensive proven experience in specifying, developing and deploying architectures and infrastructure for software applications in a new media environment
- Experience in defining and developing high-volume, horizontally scalable architectures for always-up, always-available services

Preferred Experience

- A knowledge of BBC products, output, or infrastructure would be an advantage
- Experience with Microsoft Azure would be very beneficial
- Development: Bash, Puppet, Ansible, Docker
- Microsoft: Core (no-GUI), Powershell, WRM
- Build experience with: Java, Maven2, Artifactory
- Logging: Splunk, Elasticsearch, LogStash, Kibana Monitoring: CloudWatch to Zenoss or Nagios dashboards
- Packaging: RPM
- Knowledge of public sector security and privacy policies

Job purpose

Responsible for the design of software, and for implementation and operation of effective software and tools.

Key responsibilities and accountabilities

- Lead the design and development of effective software that meets complex product and business needs
- Review and give constructive feedback on others' code
- Drive work to successful completion across the immediate team
- Write appropriate tests using automated test driven techniques for ensuring code quality and coverage
- Integrate the software with monitoring and support tools
- Ensure the teams software works in its operating environment
- Write, review and take responsibility for technical documentation
- Lead troubleshooting and resolution of issues throughout the product life cycle, including out of hours support for incident resolution
- Participate in and lead as required, the team's agile planning and delivery process
- Effectively participate in and help improve the teams software development methodologies,

such as pairing, code and documentation reviewing and continuous delivery

- Work with project, product and technical leads to design software and create implementable specifications and tasks at feature and component level
- Work with 3rd Party ("Indies") where necessary offering direction, support and documentation
- Mentor and coach more junior staff. Provide technical leadership and direction to peers and colleagues. Line Management of 1-2 software engineers (if appropriate)
- Learn new technologies and keep abreast of existing technologies and help introduce them where appropriate

Knowledge, skills, training and experience

Essential

- Extensive experience writing and maintaining large scale robust production software in a fast changing environment with rapid release cycles
- Expertise in one or more mainstream development language/frameworks
- Expertise with one or more mainstream development and deployment tool chains (IDE, SCCS, CI)
- Competence in database design and use in software applications
- Expertise in web architecture and key technologies (HTTP, DNS, distributed design)
- Expertise in test driven development and broader testing and QA concerns
- Expertise in developing for operational and non functional concerns (monitoring integration, performance testing, scale, availability and resilience, security considerations)
- Extensive experience of project working and professional software development processes, including agile
- Competence in translating product requirements into technical solutions
- Demonstrable experience in using design patterns
- Effective leadership and collaboration inside and beyond the team. The ability to influence diverse stakeholders effectively
- Takes responsibility for driving work to completion across the team
- Technical Lead on at least 1 Medium/Large sized project (3 months +)

Desirable

- Worked on multiple projects or codebases concurrently
- Software Engineering or computer science degree or equivalent
- Experience of mentoring and supporting less experienced members of the team

Job impact

Decision making

- Write, review and take responsibility for technical documentation
- Collaborating with stakeholders and product managers to understand business requirements and influence product requirements
- Design and communicate the design of software features or components that meet business and product requirements

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- Leads and implements software to meet business and product requirements independently
- Review others' work and give constructive feedback for improvement
- Resolve operational incidents, deciding on immediate and follow up actions and improvement plans

Scope

Finance: Responsible for headcount budget of £125k

Line Management: Mentoring of more junior staff. Line management of 1-2 staff

*Ad-hoc Teams: Participates in ad-hoc teams with up to 30 members
Participation in process or technology strategy working groups as SME or to represent their team/division
Participation in cross divisional forums for improvement of share tools and practices
Occasional participation as temporary member in another unit or department as SME*

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.