

Job title	Principal Software Engineer – News Web		
Job family	Technical Systems and Delivery	Grade	9

Job purpose

Responsible for the design, implementation and operation of effective software and tools and sharing deep expertise in specific business and technology domains.

Key responsibilities and accountabilities

- Lead the design and development of effective software that meets given complex, strategic business needs for immediate team and broader BBC
- Ensure alignment of the teams products and services with BBC technology and architecture strategy
- Provide knowledge and best practice to the broader BBC in areas of deep expertise
- Ensure the team’s approach to testing is fit for purpose
- Lead integration of the software with monitoring and support tools
- Provide technical knowledge, insight and leadership to peers and colleagues
- Review and give constructive feedback on others’ code
- Support product and departmental managers in communicating strategy and product fit and effectiveness to stakeholders at all levels
- Ensure the team’s software works well in its operating environment
- Be an expert on the BBC’s operating environments whom team members can consult. Play a part in shaping those operating environments
- Ensure that the team’s technical product documentation is always complete, accurate and coherent
- Lead troubleshooting and resolution of issues throughout the product life cycle including out of hours support for incident resolution
- Work with other technical leaders in the broader organisation to define, document and distribute best practice and standards
- Lead and encourage continuous improvement of the teams delivery and development processes
- Effectively participate in 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 product and roadmap level
- Work with 3rd Party ("Indies") where necessary providing direction, support and documentation
- Learn new technologies and keep abreast of existing technologies and help introduce them where appropriate

Knowledge, skills, training and experience

Essential

- Extensive experience designing and writing robust software for large scale applications in a fast changing environment with rapid release cycles
- Expertise in multiple mainstream development frameworks
- Expertise in business domains relevant to the BBC
- Expertise with mainstream development and deployment tool chains. (IDE, SCCS, CI)
- Expertise in database design and use in software applications
- Experience of open source practices
- Expertise in web architecture and key technologies (HTTP, DNS, distributed design)
- Expertise in test driven development and broader testing and QA concerns
- Leadership experience of project working and professional software development processes, including agile
- Expertise in choosing and applying design patterns
- Effective leadership and collaboration inside and beyond the team. The ability to influence diverse and senior stakeholders effectively
- Takes responsibility for driving products and system to success

Desirable

- Computer Science Degree
- Recruitment, management and mentoring experience
- Experience of supporting, modifying and maintaining systems and code developed by others
- Experience of talking in industry forums, interest groups or blogging and other broader industry engagement

Job impact

Decision making

- *Reports to Software Engineering Manager or Executive Product Manager or Head of Software Engineering*
- *Understands and synthesizes BBC technology strategy and other strategic concerns to design appropriate software*
- *Makes independent decisions about the design and development of software systems to meet business and product needs. The systems are often long-lived and critical to success of audience output and supporting BBC business processes. The design has significant impact on capex and ongoing opex*
- *Leads on the test approach, integration of software and provides expert advice to team and management on the software operating environment. Oversee the correct completion of all technical product documentation and leads on troubleshooting*
- *Collaborating with stakeholders at all levels and product managers to understand business requirements and influence product requirements and design*
- *Collaborates on service design and operation*
- *Communicates the design and appropriate fit of the product/system to the business requirements to stakeholders of all levels*

- *Specify and document technical and operational requirements for 3rd party product procurements*
- *Manages design and implementation (via review and specification) of 3rd party software products and systems*
- *Communicates their products and work at appropriate industry forums, presenting the expertise and effectiveness of the BBC*

Scope

Finance: Direct budget (for 3rd party work) £500k

Line Management: Line management of a small (6 to 10) development team

Ad-hoc Teams: Expected to participate in cross D&E technology and product strategy forums (up to 50 participants)

Expected to participate and lead (teams up to 20) in cross organisation project/solution planning and Design

Expected to participate in organisation, talent management and other strategic planning exercises

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

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	News Products & Systems, BBC Design & Engineering
Reports to (title)	Head of Software Engineering or Engineering Manager
Location base	New Broadcasting House, London

Additional job specific responsibilities and accountabilities

BBC News is changing. We've been moving towards public Cloud infrastructure since 2012 and the next, largest phase is about to begin. And we recently announced a major expansion of the World Service, bringing our journalism to more people than ever around the world with 11 new language services.

Our mobile apps are used by millions. Our website often gets 50 million hits in a day. We've seen higher than 1.8 million concurrent users on our site and try to support every device we can, from simpler mobile phones to connected TVs. Our broadcast output is watched and listened to by people across the country and the world.

We make the BBC's high quality journalism possible, and we actively look for new ways to reach people and to tell stories and communicate in new and effective ways.

The BBC News Web team delivers impartial news to readers all over the world, currently in 32 languages. We support a wide range of devices and care deeply about scale, performance, and accessibility. We work in agile, flexible teams, and have an exciting roadmap for future development.

Now is a great time to join us. We're working towards personalised features for our global audience and using the worldwide capabilities of public Cloud providers to help us serve that audience exactly what they want quickly and efficiently. At the same time we're expanding the World Service into 11 new countries and languages and so will be serving an even larger global audience.

We embrace emerging technologies and methods, and are currently building significant systems with Node.JS, Ruby, and PHP.

We're looking for

We're looking for an experienced developer and investor in people. You'll join and lead a small development group that is responsible for it's products from end to end. You'll work with your team and with others on common approaches, because we don't want to reinvent the wheel each time. You'll contribute to our technology strategy, helping us to deliver consistently and iterate quickly.

Your responsibilities

- Technical design for a range of Web projects
- Line management for a group of engineers
- Work across disciplines to build strong and scalable products for our audiences
- Champion best practice within your team and beyond
- Communicating technical needs with others in UX, Product and Project disciplines

Essential experience

- Working as a senior software engineer with experience in the following technologies:
 - Javascript (ideally with Node.js and React.js)
 - At least two of PHP, HTTP, Sass, HTML, Ruby
- Experience with Cloud architecture and the core AWS technologies
- Experience line managing software engineers
- Writing good quality, maintainable code
- Good interpersonal skills and a cooperative approach to problem solving
- Collaborative working in multidisciplinary teams, with a focus on agile delivery
- Defining and developing high-volume, horizontally scalable web architectures

Desirable experience

- HTTP, Caching, CDNs, TLS, core Internet protocols and technologies
- Performance engineering and management techniques
- Engaged in the wider Web engineering community
- A passion for News products
- Dev ops environments, and supporting applications out of hours

We are committed to healthy work-life balance, so flexible hours and remote working are possible. Additionally, you get access to the BBC Pension scheme, BBC Club and other perks.

Approval	
Manager	Steve Wheeler, Head of Software Engineering
HR Business Partner	Kate Horton
Date	22 December 2016