Band 8b Principal Lead *or* Manager

1. JOB IDENTIFICATION
Job Title: Senior Software Engineer (**Principal Lead**) Department(s): NES Digital Service (NDS) Directorate: NES Digital Service (NDS) Job Reference: JD04/H Responsible to (insert job title): Chief Technology Officer

| 2. **JOB PURPOSE** |
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| The purpose of this post is to undertake a portfolio of responsibilities encompassing the provision of business management support, staff management, business planning and management, risk management and support of the strategic development within their area of expertise.
The post holder will have lead responsibility for managing specific workstream(s) within their area, ensuring Corporate Policies and procedures are fully implemented. These workstream(s) will support the key strategic themes of NES, developing educational infrastructure and building workforce capacity for service improvement across NHS Scotland, requiring the post holder to effectively manage change in order to deliver successful outcomes. |

3. DIMENSIONS
The post holder will provide advice and expertise to the Executive team within their specialist work area. They will be responsible for the formulation of long term plans and strategic direction within business areas, liaising with individuals across different public sectors and professional groups, including chief executives and academic leaders. The postholder will be required to link with SGD, HEI's and other key stakeholders. They will be managed by a line manager and will have line management responsibilities. The postholder will be required to assist in any other duties which are deemed reasonable to their role and band.

4. ORGANISATIONAL POSITION
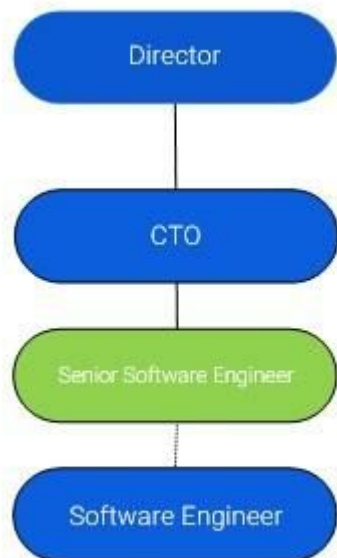
5. ROLE OF DEPARTMENT

NHS Education for Scotland (NES) is a Special Health Board whose mission is to contribute to the highest quality of healthcare throughout NHS Scotland by promoting best practice in the education and life-long learning of all staff

The function of the NES Digital Service Group is to deliver one of the key objectives of the Scottish Government's recent Digital Health and Care Strategy. The Strategy called for a Scottish 'national digital platform' through which relevant real-time data and information from health and care records will be made available to those who need it, when they need it, and wherever they are, in a secure and safe way.

6. KEY RESULT AREAS (Key Result Areas convey **all potential** aspects of a job role. Key result areas will be further developed within the KSF outline with some being more relevant than others dependent on the current requirements for your role.)

- Develop strategies and policies which will have a long term impact internally and/or externally by taking a leading role in the management of national projects to support workforce development and service excellence in defined professional areas.
- Devise and implement effective strategies and local policies as may be required in line with NES corporate policies, taking ownership of problems and contributing to strategies to resolve them.
- Lead the development and oversee the implementation of a culture of continuous learning and development aligned with the requirements of the NES Strategic Plan and multiple Directorate operational plans. Lead the development of integrated systems to support learning, objective setting and development planning maximising the potential of national systems.
- Design and facilitate the implementation of change management programmes to support cultural and organisational change and performance improvement in line with NES values; these plans will be designed for the whole of NES and/or Directorates as required; facilitate the development. Embedding and application of quality improvement skills in support of performance improvement programmes across NES. This involves assessing the analysis of a range of complex situations which require the post holder to decide on the way forward where no precedent exists or options conflict.
- Responsible for ensuring that all NES corporate polices in relation to the operational aspects of business management such as risk management, financial procedures, procurement and contracting procedures, HR procedures and Health and Safety policies are consistently implemented for all activity.
- To ensure that line management arrangements are in place to ensure that the premises and facilities are managed efficiently, in accordance with NES policies and procedures and in the interests of all staff working there. To maintain an overview of any HR, Equalities or Health & Safety matter arising within the office.
- Manage staff in line with NES policy and procedures, responsible for the training, development and appraisal of staff that are directly accountable to the postholder, negotiating, agreeing and reviewing personal and professional development activities annually at performance appraisal.
- Develop and deliver consistent best practice in operational processes. Corporate to national projects as may be required.
- Accurate and regular monitoring and reporting on planned and actual spend against the budget allocation.
- Employ project management tools and identify risks to ensure successful management and development of workstream(s) and future initiatives, establishing project goals, timescales and a work plan which meet the requirements of NES and service delivery.
- Develop and maintain effective links with key stakeholders in order to support wider NES activity, arranging appropriate conferences with relevant speakers and materials.
- Work in partnership through the Partnership Forum to reach agreement on sensitive and potentially contentious strategy developments, building and strengthening the partnerships established with UK national teams and building a network of contacts across NHS Scotland.

- Maintain and develop own professional knowledge and expertise in relation to areas of responsibility, maintain awareness of professional education, good practice and innovation through attendance at seminars, conferences, study days, networking and professional contacts.
- Providing professional advice and consultancy on a range of educational issues including quality assurance and enhancement, methodology, evaluation and curriculum design and development.
- Representing NES at appropriate seminars and conferences and present papers as required.
- Set long-term planning objectives for large scale initiatives with a NES wide or national impact. These long-term objectives are reflected in the NES Strategic Workplan.
- Produce formal reports e.g. tender brief, strategic proposals, etc that reflect the position of NES. Critical evaluation of responses/bids for educational, financial and practical value.
- Liaise and negotiate with a wide range of individuals at a senior level within educational and NHS institutions to ensure the delivery of initiatives at a level of qualities appropriate for NES.
- Chair and coordinate steering group meetings with professionals at all levels to ensure progress and communication to all stakeholders.
- Manage risks on a personal, team and organisational basis and for reporting exceptions within the team and the organisation.
- Plans and organises a broad range of complex activities and programmes, most of which are ongoing and involve the formulation and adjustment of plans or strategies.
- Manages the administration of NES application services and the secure and timely access to these.
- Ensures that all activity complies with current legislation and NHS and NES policies, undertaking or instigating appropriate remedial action where necessary.

7a. EQUIPMENT AND MACHINERY

- A range of office, audio-visual and IT equipment
- PC for design, development and maintenance of IT solutions.
- Multi-function devices : scanners, copiers, printers, fax
- Telephone
- VC facilities
- Portable equipment, including laptop etc

7b. SYSTEMS

- Utilisation of current data and information systems relevant to role currently in use throughout the NES organisation.

- Office suite of programmes.
- Dependency on highly specialised IT software to design and develop new systems.
- Use IT as directed, maintaining confidentiality.

8. ASSIGNMENT AND REVIEW OF WORK

- The postholder has freedom to act within the general policy and operating frameworks in their areas of responsibility. The postholder is also responsible for the interpretation and application of policy within their areas of operation; in carrying out this role, the postholder will be guided by general NES policy but will be expected to act on their own initiative within that guidance, and will be expected to make their own decisions, and be accountable for those decisions, where general policy is not clear.
- The postholder is expected to work autonomously and without supervision, the postholder is expected to plan and organise their work and that of the staff who they line manage. The postholder is also expected to use their influencing skills to ensure that agreed policies, standards and processes are applied consistently across NES, including where such action is the responsibility of staff that are not directly line managed by the postholder.
- The postholder is responsible for planning and organising a broad range of complex activities, with multivariable inputs. Ongoing monitoring and frequent adjustment and renegotiation of plans.
- Project plans, progress records and outcomes are reviewed as appropriate by steering groups, manager and committees.
- There is no direct supervision of work and the postholder is responsible for ensuring that the project is managed and conducted in line with NES principles and work streams. The majority of work in this role will be self-driven, with regular meetings to discuss progress and review objectives being held with relevant professional leads. Progress will be reported formally to the NES Business Group as required.

9. DECISIONS AND JUDGEMENTS

- The postholder anticipates national problems or needs and takes steps to resolve them without being asked.
- The postholder may exercise own judgement in areas where impact upon NES is substantial.
- The postholder must make their own assessment of appropriate courses of action (e.g. in monitoring large budgets or conducting negotiations with Health Boards) and must initiate action to optimise the efficiency of the operations in line with NES corporate objectives/procedures.
- The postholder is required to interpret often specialist data, national policy and advise NES and key stakeholders accordingly.

10. MOST CHALLENGING/DIFFICULT PARTS OF THE JOB

- The scale and complexity of decision making in this role involves in-depth understanding of complex issues. Postholder must use their own judgement to deal with this complexity, often in the face of conflicting pressures, e.g. from Directors in Health Boards.
- The role demands innovation and problem solving skills at the highest level. Many of the problems encountered are unprecedented and therefore will require unique strategies for their management if objectives are to be met.
- Engaging and maintaining effective communication with senior staff within NES, territorial health boards, special health boards, the education and training sector, professional and statutory bodies and other organisations.

- Using management strategies and techniques to affect change across professional groups within NHS Scotland and internally within NES.
- Collating, interpreting and reconciling information and opinions from a range of stakeholders, especially where these may be conflicting, and analysing these to enable a compromise to be brokered or judgement made between the options.
- Considering the feasibility of initiatives in practice and developing flexible approaches that enable goals/implementation to be successfully achieved.
- Forward planning, risk management and the interpretation (and incorporation) of relevant information into proceedings is required to ensure that projects' outcomes meet set deadlines.
- Working on organisational change and development programmes which challenge established ways of working which can be uncomfortable for individual executive members and management teams; a high degree of resilience is required.
- Establishing performance measures and reporting to assess the impact of organisational development and learning activity on the delivery of corporate objectives.
- Ensuring a consistent approach to the implementation of policies and standards across NES where the postholder does not have direct line management authority.

11. COMMUNICATIONS AND RELATIONSHIPS

- Excellent negotiating skills to gain acceptance from those who may hold opposing views, especially in circumstances where communications can involve hostility and antagonism e.g. over organisational change or change in policy concerning funding.
- Advanced skills in communication when dealing with a range of internal and external stakeholders to develop consensus about project aims and outcomes and to execute the implementation plan. The postholder will take a leading role in implementing a communications strategy to develop awareness of project benefits and outcomes and to secure involvement from organisations and individuals from within NHS Scotland, the education sector and other relevant external agencies.
- Communication with outside agencies is essential for the efficient and effective conduct of the post and to ensure that the services available from NES is known and understood.
- Maintain communication and working relationships with all departments, committees, the board and the senior management team of NES to affect the work of the post and NES. This communication is verbal, written and electronic and ranges through direct personal contact to scheduled meetings, all with a view to facilitating the work of NES.
- Specific communication skills required include the ability to: o Facilitate workshop and focus group discussions audiences. o Chair meetings and multi-disciplinary work groups effectively. o Draft information, reports, articles and papers to publication standard. o Present complex/specialist information at internal and external conferences and seminars.
    - o Present to and brief groups of internal and external stakeholders with complex information which may challenge existing practices.
    - o Persuade, influence and negotiate in order to secure funding and contracts, present proposals, obtain support for proposals, and secure involvement of colleagues in initiatives.
- High level of communication, influencing, relationship management and partnership working skills significant internally and externally to NES. The post holder requires to be sensitive to the needs and different perspectives of Executive Directors and other NHSS Boards. The post holder requires to present complex ideas to Executive and Board colleagues
- Development of written proposals to secure funding and contracts, present proposals, obtain support for proposals, and secure involvement of colleagues in initiatives.

12. PHYSICAL, MENTAL, EMOTIONAL & ENVIRONMENTAL DEMANDS OF THE JOB

Physical skills
- Advanced keyboard skills, required to set up and manipulate complex spreadsheets with a high degree of accuracy and often under pressure.

Physical effort
- Required to travel to other Regions/sites, occasional requirement to stay away overnight.
- There is a frequent requirement for sitting in a restricted position (i.e. at a computer) for a substantial proportion of the working time. **Mental effort**
- The post holder experiences frequent periods of concentration when strategically analysing a wide range of complex information and data including undertaking research and synthesizing findings into coherent and comprehensive reports, presentations and learning design. The post holder has to manage across a range of challenging priorities and requires to react quickly to deliver strategic presentations and reports at short notice. The post holder cannot always work to a predictable pattern of activity and needs to respond to requests for information and advice from senior colleagues.
- The postholder will be expected to demonstrate analytical skills and think creatively over sustained periods. It is expected that project strands will run concurrently and the postholder will therefore be required to co-ordinate simultaneous activities.
- The ability to produce reports and other documents to a high standard is essential.

Emotional effort
- Exposure to distressing or emotional circumstances is rare but exposure to critical and challenging opinions may be frequent.
- Acting in discipline and grievance cases. Involvement in inter-staff issues where bullying and harassment are alleged. The postholder has line manager responsibility in respect of directly managed staff.
- The postholder will experience occasional direct exposure to difficult circumstances, for example when delivering difficult, unwelcome, messages to senior colleagues during training or coaching sessions and when challenging organisational culture and behaviour.

Working Conditions
- Occasionally dealing with distressed, disaffected or angry staff.
- Requirement for travel to meetings and conferences has an effect on work patterns.
- The postholder is required to use VDU for long periods of time whilst working on reports/strategies etc.

13. KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB

- Educated to masters degree level with a postgraduate management qualification and equivalent demonstrable senior management experience within a large complex organisation, preferably within the NHS or a University.
- Extensive knowledge of the legal framework governing: Health and Safety, Employment Law, Freedom of Information, Data Protection, etc.
- High levels of specialist expertise in leading and managing a team. The ability to build highly effective relations internally and externally is key as well as excellent facilitation, presentation and strategic thinking and analysis skills
- Critical analysis and decision making, constructive thinking.
- Focus on delivery – effective planning, delivering with impact, focus on learning and improvement, communicating with impact.
- Experience in the development and delivery of a range of training programme elements and developing learning materials.
- Ability to analyse, assess and synthesise information from multiple sources and communicate the results effectively, orally and on paper.
- Strong influencing and leadership skills and experience of bringing together competing demands and requirements and generating consensus around priorities.
- The confidence and presence to operate at a senior level and to engage with the NES Board and senior staff.
- Experience of project management.
- Experience of successful implementation of change.
- Presentation and publication record.
- In depth knowledge of current issues within health and education, in particular knowledge of the various standards specified by regulatory bodies in healthcare.
- Considerable experience in the design and delivery of organisation wide change management programmes.
- Experience of policy development and implementation that reflects both corporate and system wide directives.
- Strategic thinking, planning and analysis skills, with the ability to develop creative solutions to support the management of change.
- Highly organized and able to manage a broad portfolio of activities.

14. JOB DESCRIPTION AGREEMENT

A separate job description will need to be signed off by each jobholder to whom the job description applies.	
Job Holder's Signature:	Date:
Head of Department Signature:	Date:

Job Summary – Senior Software Engineer (Principal Lead)

1. THE NES DIGITAL SERVICE GROUP

NHS Education for Scotland (NES) is a Special Health Board whose mission is to contribute to the highest quality of healthcare throughout NHS Scotland by promoting best practice in the education and life-long learning of all staff

The function of the NES Digital Service Group is to deliver one of the key objectives of the Scottish Government's recent Digital Health and Care Strategy. The Strategy called for a Scottish 'national digital platform' through which relevant real-time data and information from health and care records will be made available to those who need it, when they need it, and wherever they are, in a secure and safe way.

These responsibilities relate to the core functions of NES in the following areas:

- Development of a new, digital by default, technical environment and commensurate digital services to all NHSScotland stakeholders

- Support and development of fit for purpose, digital platform systems and services to allow delivery of strategic outcomes

- Communication, support and leadership in digital and data science disciplines • Research and development as appropriate

2. ORGANISATION CHART
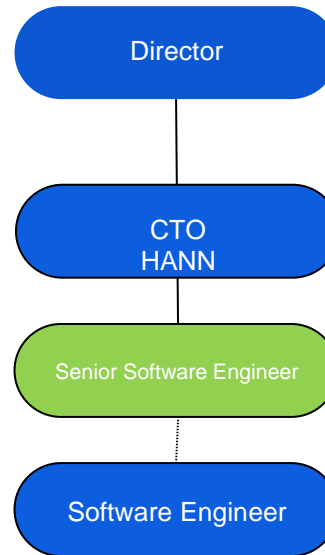
3. JOB ROLE

This post has 3 main roles:

- To play a senior role in delivering valuable solutions to complex problems across health and social care

- To ensure standards of security, reliability, scalability and cost efficiency across your team

- To mentor, support and develop more junior members of the team
- To provide technical expertise to the immediate and wider team in an area such as security, data engineering, or build and deployment

4. KEY TASKS

Will include but not be limited to:

- Applying software engineering best practice and suitable technologies to the design and development of core services and products in the health platform. Instrumenting, operating, and maintaining those services.

- Applying knowledge of designing secure and resilient distributed systems to your daily work.

- Influencing your team's strategy and contribute significantly to prioritisation and planning; applying your expertise to how to deliver value iteratively, learning from every step.

- Participating in hiring to bring the best talent into the team.

- Mentoring junior members of a team, with the option to progress to line manage junior engineers according to your aspirations.

Essential Criteria – these are attributes without which a candidate would not be able to undertake the full remit of the role. Applicants who do not clearly demonstrate in their application that they possess the essential requirements will normally be eliminated at the short listing stage.

BAND 8b Principal Lead or Manager

Desirable Criteria – these are attributes which would be useful for the candidate to hold. When short listing, these criteria will be considered when more than one applicant meets the essential criteria.

Means of Assessment – please note that candidates invited for interview will be notified if there will be a requirement to undertake a test or presentation.   These additional assessments may be used to judge one or more criteria within the factor.

Factors	Essential	Desirable	Means of Assessment
Key Leadership Behaviours	• • Empowering • Adaptive Collaborative		Application & Interview
Education and Professional Qualifications	• Degree level qualification or equivalent • Postgraduate qualification in Computer Sciences/Software Development or equivalent or relevant experience		Application & Pre-Employment checks
Experience/Training	• Experienced in leading and mentoring more junior developers Highly • experienced in directly delivering and operating, and guiding others in the delivery and operation of software solutions in a complex environment Leading and participating • in planning and prioritisation of software delivery Experience in providing • advice and consultancy to other engineers in areas of specific technical expertise (e.g. security, data engineering, build and deployment etc.)	• Working in a safety critical environment • Working in an environment requiring very high levels of availability and resilience	Application, Interview, Design Exercise & Coding Exercise

	• Experience understanding and capturing business problems and producing technical solutions to them • Experience in continuous improvement of development and integration processes		
Specific Skills and Knowledge	• Ability to build highly effective relations internally and externally is key • Strategic thinking, planning and analysis skills, with the ability to develop creative solutions • Excellent communication, and interpersonal skills • SQL and NoSQL databases (e.g. postgres and redis) • Source Control Management systems (e.g. git) • Unit testing • Diagnosing and fixing issues in a production system • Instrumentation of a system for production	• Cloud technologies, such as MS Azure, GCP or AWS • Continuous Integration and Deployment • Data platform engineering • Security	Application, Interview, Design Exercise & Coding Exercise

Leadership Behaviours

NHS Education for Scotland (NES) assesses and selects employees based on our leadership behaviours which are expected at all levels in the organisations. These leadership behaviours support the NES ways of working and NHS Scotland values.

These leadership behaviours describe how we work, and what is expected of everyone who works in NES. A number of methods may be used to assess these behaviours as part of our recruitment and selection processes. Our leadership behaviours are:

Inspiring		Passionate about our strategic mission and about excellence; communicating purpose and vision with enthusiasm; innovative, and learning from success as well as setbacks
Empowering		Giving our teams space and authority to deliver outcomes; investing in learning and development; expecting top performance & dealing with occasions where this is not delivered; being approachable and open to constructive challenge
Adaptive		Respond flexibly to changing requirements and help others to do the same, recognising that required leadership and expertise may not always sit at the top of the hierarchy and actively encouraging good ideas/input from all levels.
Collaborative		Committed to working together, and across professional, clinical and organisational boundaries, internally and externally to achieve our objectives
Engaged & Engaging		Committed to our values, agreed ways of working and our strategic and operational direction; visible to stakeholders and to our teams; straightforward and honest in our communications

CONDITIONS OF SERVICE

TITLE: Principal Lead - NDS (Senior Software Engineer) **LOCATION:** Edinburgh

REPORTING TO: Associate Director – NDS (Chief Technical Officer)

GRADE: Agenda for Change Band 8B **SALARY SCALE:** £59,539 to £64,095 per annum

HOURS AND DAYS OF WORK: Full time, 37.5 hours per week. Based on a normal working week of 37.5 hours. Office opening hours are 0700 to 1900

JOB STATUS: Permanent **NOTICE PERIOD:** 4 weeks

ANNUAL HOLIDAYS: 27 days rising to 29 days after 5 service, rising to 33 days after 10 years service **PUBLIC HOLIDAYS:** 8 local/ Public years Holidays per annum

REHABILITATION OF OFFENDERS CLASSIFICATION: The 'exemption' status of posts within NES may change in the future and all successful candidates should be aware that they may be asked to obtain a further Disclosure from the Criminal Records Bureau at a later date, should a post's status change, or if they are transferred or promoted into a post that is exempt.

SUPERANNUATION:

Please note under changes to workplace pension arrangements introduced by the UK Government, NHS Education for Scotland along with other employers requires to ensure all staff are automatically enrolled in a pension scheme. Consequently, all new starts from 1 October 2013 will be automatically enrolled into the NHS Superannuation Scheme (Scotland). Contributions are based on whole time pensionable earnings as set out in the table below;

Employee contribution rates in 2020/2021		
Tier	Annual Pensionable Pay (Full Time Equivalent)	Contribution
1	Up to £17, 864	5.2%
2	£17,865 to £23,112	5.8 %
3	£23,113 to £28,747	7.3%
4	£28,748 to £53,025	9.5%
5	£53,026 to £75,703	12.7%
6	£75,704 to £116,360	13.7%

7	£116,361 and above	14.7%

Sessional workers who work more than 10 sessions per week under NHS condition may be unable to contribute further to the superannuation scheme.

The conditions above are for information purposes only and may be subject to variation. They do not form the basis of a legal contract.