Identity Systems Developer
IT Services

Closing date: 14 August 2019
Interview date: 21 August 2019
Vacancy reference: 7880
INTRODUCTION

IT Services provide all of the core IT services to the University: systems administration for hosts running Linux and Windows Server, in-house software development, network and telephony infrastructure, management of end-user devices, project management and business analysis.

We have over 1,200 virtual machines running on VMware vSphere, more than 200 physical hosts providing services, our new 'Viking' HPC facility and ~2.5PB of storage on NetApp and Dell SAN/NAS platforms. This infrastructure supports 8300 managed PCs, our critical business, teaching and research related systems, as well as over 130 bespoke applications and integrations which glue everything together. We have also recently set up an AWS environment with production workloads, which we expect to grow rapidly.

You will join a small team that build and maintain systems to track identities across the University, provision accounts and services and handle authentication and access control. You will use both development and sysadmin skills to design, build, integrate with and maintain a wide variety of systems.

Here are some examples of the things you will be doing:

- writing JavaScript to model University roles and implement business logic
- designing and building an OpenLDAP service from scratch
- writing Ruby spec tests to call REST APIs
- writing Puppet code to configure the servers that run our services

Our Identity Management platform consists of Forgerock IDM, Shibboleth, OpenLDAP, PostgreSQL and Oracle Database, all running on Linux. This is very much a DevOps role and you will regularly work with JavaScript, Java, Groovy, Ruby, SQL and Puppet (and maybe just a bit of bash to join everything together...).

You will have excellent systems administration and programming skills. You will be experienced at integrating systems and diagnosing issues across all layers of the technology stack and will enjoy working with a variety of languages and learning new technologies.

We're a friendly and enthusiastic team and take an open, collaborative approach to our work. We hope you'll join us!
Main purpose of the role
The role holder will provide technical expertise and leadership in the design, development and support of IT systems and services.

Key responsibilities (Role holders will be required to undertake some or all of the duties below)

- To provide high-level technical expertise in the development, support and maintenance of IT systems and services
- To take a lead role in the research, evaluation, development and deployment of new technologies relevant to key systems and services
- To act as a lead contributor and adviser in projects, to lead discussions and share expertise with colleagues and others
- To provide high-level technical expertise and mentoring to service-users
- To evaluate, install, upgrade, document and maintain the hardware and software supporting IT systems and services

Specific departmental responsibilities of this role are to:

- Identify development requirements in collaboration with system owners and IT Services staff to ensure identity services support other systems effectively
- Maintain up to date knowledge of developments and best practice in the areas of Identity Management, Linux systems administration and software development

JOB DESCRIPTION

At a glance

<table>
<thead>
<tr>
<th>Salary</th>
<th>£39,609—£54,677 (Market supplement included)</th>
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<tbody>
<tr>
<td>Hours of work</td>
<td>37 hours a week / Full-time</td>
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<tr>
<td>Contract type</td>
<td>Open</td>
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<tr>
<td>Based at</td>
<td>Heslington, Campus West</td>
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Provide effective 2nd and 3rd line support to colleagues, staff and students when issues arise and develop documentation to enable others to restore normal operation.
# PERSON SPECIFICATION

## Qualifications

<table>
<thead>
<tr>
<th>Essential / Desirable</th>
<th>Qualifications</th>
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<tbody>
<tr>
<td>Essential</td>
<td>Degree level qualification in an IT field or equivalent employment experience (&gt; 3 years)</td>
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## Knowledge

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<th>Essential / Desirable</th>
<th>Knowledge</th>
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<tr>
<td>Essential</td>
<td>Experience of an identity management framework and federated authentication solutions</td>
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<td>Essential</td>
<td>Detailed knowledge of Linux/Unix system administration and security</td>
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<td>Essential</td>
<td>Detailed knowledge of current software development practices, including testing frameworks and methodologies</td>
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<td>Essential</td>
<td>Demonstrable understanding of the operational requirements and challenges of supporting high availability IT systems within a complex organisation</td>
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<td>Desirable</td>
<td>Knowledge of Agile development methods and decision making</td>
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## Skills, abilities and competencies

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<tr>
<th>Essential / Desirable</th>
<th>Skills, abilities and competencies</th>
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<tr>
<td>Essential</td>
<td>Comprehensive programming skills, preferably expertise in Java, JavaScript or similar languages</td>
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<td>Essential</td>
<td>Good analytical &amp; problem-solving skills, and able to work independently, using considerable initiative</td>
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<td>Essential</td>
<td>Excellent communication skills, including ability to liaise with staff at all levels of the organisation</td>
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<td>Essential</td>
<td>Ability to work to tight deadlines, simultaneously handling multiple projects and operational duties</td>
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<td>Essential</td>
<td>Ability to design solutions for complex data integrations between systems</td>
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<td>Essential</td>
<td>Ability to write detailed documentation on complex specialist software and methodologies</td>
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<td>Essential</td>
<td>Ability to tailor communication of technology issues to audiences with different levels of technical knowledge</td>
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<td>Essential</td>
<td>Ability to develop positive working relationships both throughout the organisation and externally</td>
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<table>
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<tr>
<th>Essential / Desirable</th>
<th>Experience</th>
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<tr>
<td>Essential</td>
<td>3 years’ minimum relevant work experience on complex IT projects covering the full project lifecycle</td>
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<td>Desirable</td>
<td>Experience of working both independently and in a team-oriented, collaborative environment</td>
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<td>Desirable</td>
<td>Experience of LDAP and Kerberos systems administration (preferably OpenLDAP and MIT Kerberos)</td>
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<td>Desirable</td>
<td>Experience with a configuration management system (preferably Puppet)</td>
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<td>Desirable</td>
<td>Experience of the design and exploitation of substantial databases</td>
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<tr>
<td>Desirable</td>
<td>Experience of working within a service management framework such as ITIL</td>
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### Personal attributes

| Essential | A team player who enjoys working closely with a diverse range of people |
| Essential | A positive attitude and an open, collaborative approach to work |
| Essential | Committed to continuing development of professional and technical skills |
| Essential | Willing to be flexible in response to the changing needs of the role |
| Essential | Hands-on approach and willingness to be involved and active at all levels |
| Essential | Strong focus on customer service, and proactive in exploring the needs of customers |
THE DEPARTMENT

The Information Services Directorate is organised into three main areas, IT Services, Library Services and The Borthwick Institute for Archives all are designed to support the teaching, learning and research aims of the University and help to deliver the Information Strategy. We have a strong customer service focus and are proud to have held Customer Service Excellence accreditation since 2014. More information about each of the Directorates areas is given below.

IT Services
Information Technology is fundamental to the teaching and research success of the University as well to its day to day operations. IT Services (ITS) provides technology services to the whole University: staff, students and visitors. We strive to develop new services to meet changing needs and to keep pace with technological advances.

ITS at York is structured into two key functions: Digital Services (which includes Enterprise Systems and Desktop and Printing Services) and Infrastructure Services and Faculty IT (including Technical Research). ITS has nearly 130 staff, who work across Campus West and Campus East.

We support over 7,000 centrally managed PCs, installed into classrooms for student use and in offices for staff. We support over 200 applications, including standard office and specialist software to support teaching and research. We also have a managed Linux and Mac desktop service, a Windows based laptop loan service for students and support most other modern platforms. Our centrally managed Print, Copy and Scan service (York Print Plus) is available across the University in all departments and student areas.

For researchers we offer a large super-computer with 7,500 cores and 2.5Pb of storage along with an ISO27001 certified environment for working on sensitive datasets. We combine this with support that covers everything from optimising code to advice on data handling, security or any other IT aspects of a research project.

In addition, we are responsible for providing the technical infrastructure underpinning many of the Universities corporate information systems such as the VLE, web site, Student Record and Finance systems. IT Services take a lead across project management, business analysis and solution/software design supporting change across teaching, research and administrative services.

Our development teams are moving our services to the cloud,
THE DEPARTMENT

we are increasingly integrating with SaaS applications and use Agile methods when working closely with our customers. Our team is expanding as the University invests in a new Digital Strategy that aims to modernise digital services across the entire organisation.

Library Services
The Library offers a wide range of services and extensive collections to support the Teaching, Learning and Research of the University with a strong focus on customer service and continuous service improvement. The University Library complex includes the JB Morrell Library, the Raymond Burton Library for Humanities Research, the Borthwick Institute for Archives and the Harry Fairhurst building on the Heslington West campus and is open 24 hours a day, 7 days a week, 362 days a year. We have a library available at the King’s Manor in the centre of York and we are responsible for running York Minster Library, under a partnership agreement with the Dean and Chapter.

The Borthwick Institute for Archives
The Borthwick is one of the biggest archive repositories outside London. Founded in 1953, we have collected archives from all around the world, from the 12th century to the present day. Its users include academic researchers and a large number of public visitors, and its staff contribute to academic teaching in relevant departments.
THE UNIVERSITY

Founded on principles of excellence, equality and opportunity for all, the University of York opened in 1963 with just 230 students. In 2019 it is the home of more than 18,000 students across more than 30 academic departments and research centres. Since opening over fifty years ago, we have become one of the world's leading universities and a member of the prestigious Russell Group.

We are consistently recognised as one of the leading Higher Education Institutes and one of just six post-war universities to have appeared in the world top 100. We were rated 22nd in the 2019 Times & Sunday Times league table. The University of York has won six Times Higher Education (THE) Awards and five Queen’s Anniversary Prizes.

The University is proud of its association with Athena SWAN, holding multiple awards in support of gender equality, representation and success for all, with gold awards for Chemistry and Biology and a University-wide bronze award.

Of 154 universities that took part in the Research Excellence Framework (REF) in 2014, The University of York ranked 14th overall and 10th for the impact of our research. The University is consistently in the top ten UK research universities and attracts over £60m a year of funding from research alone.

Our vision is to make the University of York a world leader in the creation of knowledge through fundamental and applied research, the sharing of knowledge by teaching students from varied backgrounds and the application of knowledge for the health, prosperity and well-being of people and society.
Attractive workplace

Centred around the picturesque village of Heslington on the edge of the city of York, our colleges are set in an attractive landscaped campus. York enjoys a safe, friendly atmosphere with facilities including bars, shops, theatres and concert halls all within easy walking distance.

The University has undergone an unprecedented period of expansion and renewal since 2000. We have invested in twenty new buildings on the original campus and have completed the first and second phases of a £750m campus expansion. Our investment in new colleges, teaching and learning spaces, laboratories, research facilities and a new sports village mean there has never been a better time to join us.

During this period of change we’ve worked hard to retain our friendly, informal and collegiate atmosphere, which is important to our core values of inclusivity and interdisciplinarity.

We have a thriving international community and are committed to providing staff moving to York with as much support as possible through our Re
colocation Package and Welcome Officers.

The University is committed to promoting a diverse and inclusive community - a place where we can all be ourselves and succeed on merit. We offer a range of family friendly, inclusive employment policies, flexible working arrangements, staff engagement forums, campus facilities and services to support staff from different backgrounds.

For further information please visit our employee benefit pages.
The City of York

Internationally acclaimed for its rich heritage and historic architecture, York’s bustling streets are filled with visitors from all over the world. Within its medieval walls you will find the iconic gothic Minster, Clifford’s Tower and the Shambles - just a few of the many attractions.

But York isn’t just a great place to visit - it’s also a great place to live and work. While nourishing a vibrant cosmopolitan atmosphere, York still maintains the friendly sense of community unique to a small city.

Visit www.visityork.org for more information on the city of York

Shopping, culture and entertainment

York boasts specialist and unique boutiques but also all the high street stores on its busy shopping streets. Alongside them you will find cinemas, theatres, an opera house, art galleries, a vast range of restaurants, live music venues and clubs. York is particularly renowned for its multitude of pubs and bars, from the modern to the medieval.

Housing and schools

Whether you choose to live close to the city, in one of the surrounding villages or further afield, you will find a wide range of housing within comfortable distance of York and the University. For families, the area has a range of excellent schools both in the state and independent sector.

Great location

York is one of Britain’s best-connected cities. Halfway between London and Edinburgh on the East Coast mainline, on intercity trains you can reach London King’s Cross in less than two hours and Edinburgh in two and a half hours. York is also well served by road links, and it is easily accessible from the A1, M1 and the M62.

For those travelling from overseas, Manchester Airport is two hours away and Heathrow Airport just three and a half. Flights from nearby Leeds Bradford Airport provide easy access to mainland Europe. By Eurostar from London St Pancras, Paris is just over six hours away.

Yorkshire

The Lonely Planet guide recently declared Yorkshire the third best region in the world to visit. There is something to cater to every taste, whether it be the rugged landscapes of the Moors or the Dales, the picturesque seaside towns of Scarborough and Robin Hoods Bay, the gothic architecture of Whitby or the vibrancy of cosmopolitan Leeds.
Apply online

- Go to https://jobs.york.ac.uk
- Find this job using reference 7880
- Complete the online application form

You will need to submit your completed application by midnight (local UK time) on 14 August 2019

What will I need?

We will ask you for details of:

- your employment history
- relevant qualifications
- two referees

You need to be ready to show us how you meet the requirements of the job, either in a written statement and / or by answering questions.

Help and assistance

Direct any informal queries to Chris Reeves, Web & Identity Systems Team Leader, 01904 323587, chris.reeves@york.ac.uk

If you have any questions about your application, contact the HR Services team:

recruitment@york.ac.uk
+44 (0)1904 324835