

# Data and Integration Architect

## IT Services, Directorate of Infrastructure



Contents:

Data and Integration Architect IT Services, Directorate of Infrastructure .....	1
Brief summary of the role.....	3
Main purpose of the role.....	4
Main duties and responsibilities.....	4
Role holder: essential and desirable attributes .....	6
Qualifications.....	6
Experience, skills, and knowledge .....	6
Personal attributes .....	7
Information about the University of Bradford.....	9
Values.....	9
Equality, Diversity, and Inclusion (EDI).....	9
Training .....	10
Health, safety, and wellbeing.....	10
Information governance .....	10
Criminal record disclosures and working with vulnerable groups.....	11
University policies and procedures .....	11

## Brief summary of the role

Role title:	Data and Integration Architect
Grade:	9
Vacancy reference:	Insert vacancy reference
Faculty or Directorate:	Directorate of Infrastructure
Service or Department:	IT Services
Location:	Hybrid
Reports to:	Chief Architect
Responsible for:	No direct reports
Work pattern:	36.25 hours per week, Monday to Friday (core hours)
Specific notable requirements for the role:	None
Possible adjustments:	We are open to any request for adjustments to support your needs around working hours flexibility, training, and mentoring, which would enable you to succeed in this role

## Main purpose of the role

To design and deliver robust solutions to enable the University to make better use of its data; enabling well integrated systems that support efficient business processes and provide rich and accurate management information to inform effective decision making.

## Main duties and responsibilities

**Note:** The list below may vary to include other reasonable requests (as directed by University management) which do not change the general character of the job or the level of responsibility entailed.

1. Manage data analysis and data integration of disparate systems on a daily basis. Acting autonomously where required to protect or restore University Systems
2. Build extensible data acquisition and integration solutions to meet the functional and non-functional requirements of the business.
3. Design and implement processes and logic to extract, transform, and distribute data across one or more data stores from a wide variety of sources.
4. Adapt ETL processes to accommodate changes in source systems and new business user requirements.
5. Optimize data integration platform to provide optimal performance under increasing data volumes.
6. Upload data into appropriate databases in accurate and timely manner.
7. Provide problem-solving expertise and complex analysis of data to develop business intelligence integration designs.
8. Responsible for creating and maintaining formal data structures, data description and data architecture; including data models, data definitions (logical, physical, and conceptual), data flow diagrams, data dictionaries, etc.
9. From an understanding of the business needs, design and develop system functionality and business processes to maintain the integrity of the source data and develop the data design for integration, databases and the means to receive the data.
10. Ensure high quality and optimum performance of data integration systems in order to meet business solutions.

11. Take a lead role in investigating and evaluating new technologies or upgrades to existing technologies to identify and implement solutions that will increase the security of the University's IT systems and data and remain current with available technology to support and deliver modern solutions.
12. Provide expert 3rd line backstop support to colleagues within IT Services as well as across the business on a daily basis.
13. To act as lead contributor and adviser in projects and working groups, to lead discussions and share expertise with colleagues and others. To plan and manage workload and tasks within the team to support the project.
14. Lead the delivery and design of project elements meeting data and integration business requirements.
15. Produce and maintain technical documentation of supported services including standard operating procedures for services.
16. Provision of in-depth advice and support to other members of IT Services on current services and new requirements that are outside the currently defined portfolio of services.
17. Working effectively with others (suppliers, customers and within the IT Services teams) to extract requirements, timescales and developing appropriate technical responses.
18. Involvement in the Change Management process for the introduction of new or modified services into the IT Services Catalogue.
19. Support of the University's product range, taking an advisory role in the development lifecycle.
20. Lead project teams in their field liaising with stakeholders both internal and external to IT and third parties.
21. Maintain personal credibility and authority to consult, influence and negotiate with colleagues and stakeholders at all level.
22. Act as a point of escalation on complex issues, prioritising and implementing appropriate timely solutions.
23. Mentor and train junior team members as required.

## Role holder: essential and desirable attributes

### Qualifications

<b>Essential</b>	<ul style="list-style-type: none"> <li>• Degree and/or professional qualification in IT subject or significant management experience in relevant technical area.</li> <li>• ITIL foundation qualified or demonstrate relevant operational experience using appropriate best practice framework</li> </ul>
<b>Desirable</b>	<ul style="list-style-type: none"> <li>• Project Management qualification e.g. Prince 2, DSDM, MSP, PMP qualified or significant demonstrable experience of project management</li> <li>• TOGAF qualified - (framework for enterprise architecture).</li> </ul>

### Experience, skills, and knowledge

<b>Essential</b>	<ul style="list-style-type: none"> <li>• Experienced integration practitioner who has delivered large scale and complex integration solutions.</li> <li>• Expert in SOA/middleware technologies, for example, ESB, messaging, transaction. XML, JSON and WEB API integration etc.</li> <li>• Expert SQL skills combined with the ability to understand data models, data quality, data profiling and data discovery.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Experience delivering projects with Microsoft data integration and reporting tools, SSIS and SSRS.</li> <li>• In-depth experience of cloud-based integration techniques including workflow and function technologies.</li> <li>• Expertise initiating and delivering operational, technological and process improvement change.</li> <li>• Good understanding of server operating systems, Windows and UNIX/Linux</li> </ul>
<b>Desirable</b>	<ul style="list-style-type: none"> <li>• Experience with deployment and administration of some of the following technologies: Azure Logic Apps, Azure Functions, Azure API management and ARM templates in a DevOps environment.</li> <li>• Experience delivering projects leveraging the Microsoft 365 suite of applications and the Microsoft Power Platform; Power Automate, PowerApps and PowerBI.</li> <li>• Experience working with a student records management system and associated web-based APIs in an HE environment e.g Tribal SITS and StuTalk.</li> </ul>

## Personal attributes

<b>Essential</b>	<ul style="list-style-type: none"> <li>• Significant problem-solving skills.</li> <li>• Able to assess requirements, develop, communicate, and recommend solution options.</li> <li>• Can assess impact of change and estimate effort.</li> </ul>
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|  | <ul style="list-style-type: none"><li>• Works effectively as part of a team and can work independently without supervision.</li><li>• Able to manage multiple priorities and work to deadlines.</li><li>• Persuasive and comfortable dealing with challenge.</li></ul> |
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## Information about the University of Bradford

### Values

We will be an organisation that embodies our values in everything we do. These values are:

- **Excellence** is at the heart of everything we do.
- **Trust** is the foundation of our relationships, underpinned by integrity in everything we do.
- We give invention light and celebrate creativity and **innovation**.
- **Inclusion** - diversity is a source of strength and must be understood, valued, supported, and leveraged.

Embedding these values across the University will shape our culture and drive our performance.

It is the responsibility of every employee to uphold the University values.

### Equality, Diversity, and Inclusion (EDI)

The University of Bradford is widely recognised as an Equality, Diversity, and Inclusion (EDI) leading institution.

Our EDI vision is to bring about, and be recognised as an exemplar of transformational diversity, inclusion, and social mobility and emphasise the critical role of leadership in embedding intersectional EDI in order to make our diversity count and deliver impact.

It is the responsibility of every employee to act in ways that support equality, diversity, and inclusivity and to work within the spirit and detail of the law, including the Equality Act 2010 and the Human Rights Act 1998.

The University provides a range of services and employment opportunities for a diverse population. Employees will treat all students and colleagues with dignity and respect irrespective of their background.

Employees are responsible for ensuring the University develops a culture that promotes equality, values diversity, and supports inclusivity. This responsibility includes services and functions the University provides and commissions, to students, colleagues, partners in other organisations, visitors, and members of the public.

## Training

Employees must complete any training that is identified as mandatory to their role. Training should be accessed locally by agreement with line managers and through the University's People and Organisational Development Service.

Mandatory training must be completed on commencement of the role, without delay.

## Health, safety, and wellbeing

Health and Safety is a partnership between employee and employer each having responsibilities, as such all employees of the University have a statutory duty of care for their own personal safety and that of others who may be affected by their acts or omissions. It is also the responsibility of all employees, that they fulfil a proactive role towards the management of risk in all of their actions. This entails the risk assessment of all situations, the taking of appropriate actions and reporting of all incidents, near misses and hazards.

All employees have a duty to report any practice that you consider compromises standards of health and safety and risk. The Code of Practice on Public Interest Disclosure (Whistleblowing) details the process and advises on the protection from unfair treatment for an individual who raises such concerns.

Employees are required to co-operate with management to enable the University to meet its own legal duties and to report any circumstances that may compromise the health, safety and welfare of those affected by the University's undertakings.

Managers should note they have a duty of care towards any staff they manage; academic staff also have a duty of care towards students. As part of this you will need to ensure you are familiar with any relevant Health and Safety policies and procedures; seeking advice from the Central University Health and Safety team as appropriate.

## Information governance

Employees have a responsibility for the information and records (including student, health, financial and administrative records) that are gathered or used as part of their work undertaken for the University. This may be in paper, electronic, or other formats.

An employee must consult their manager if they have any doubts about the appropriate handling of the information and records with which they work.

This means that employees are required to uphold the confidentiality of all data, information and records and to ensure they are recorded to appropriate data standards and

to the relevant electronic system or manual filing system in order to maintain their accessibility and integrity.

To support these requirements all employees must adhere to data protection legislation and the University's policies and procedures in relation to information governance and information security at all times.

Additionally, employees will be required, when and where appropriate to the role, to comply with the processing of requests under the Freedom of Information Act 2000.

All employees will be given the necessary training to enable them to adhere to these requirements.

## Criminal record disclosures and working with vulnerable groups

Depending on the defined nature of your work and specialist area of expertise, your role may be exempt from the provisions normally afforded to individuals under the Rehabilitation of Offenders Act 1974. In these circumstances, the University may obtain a standard or enhanced disclosure through the Disclosure and Barring Service (DBS) under the Rehabilitation of Offenders Act 1974 (Exceptions) Order 1975 (as amended) and, in certain circumstances, the Police Act 1997.

Suitable applicants will not be refused positions because of criminal record information or other information declared, where it has no bearing on the role (for which you are applying) and no risks have been identified against the duties you would be expected to perform as part of that role.

During the course of your employment, you must notify your line manager if you are charged with a criminal offence (excluding motoring fixed-penalty convictions). Failure to notify the University of a criminal conviction could lead to withdrawal of a job offer where employment has not commenced, or disciplinary action for employees in post. All employees of the University who have contact with children, vulnerable adults, service users and their families must familiarise themselves, be aware of their responsibilities and adhere to the University's policy and procedures and the Safeguarding Vulnerable Groups Act 2006. Where appropriate, employees will be given the necessary training to enable them to adhere to these requirements.

## University policies and procedures

The University operates a range of policies, procedures and formal guidance (available on the University intranet and ServiceNow). All employees must observe and adhere to the provisions outlined in these documents.