













Cloud Mobile

IT Security

Web Development

# About Experis and **Tech Cities Job Watch**

As technology continues to significantly impact all aspects of business, companies in cities across the UK vie for top tech talent in order to build their ability to innovate and cater to demand.

The Experis Tech Cities Job Watch report sets out to provide employers with a barometer of these changing trends within the technology sector. By combining the latest market intelligence with Experis insights and expertise, this report indicates where exciting new job opportunities are across the UK.

A general shortage of skilled IT professionals across the country has resulted in sharp competition across five key technology disciplines in particular: IT Security, Cloud, Mobile, Big Data and Web Development.

For this report, Experis selected 10 UK cities that are rapidly developing reputations as technology cluster hubs: London, Birmingham, Brighton, Bristol, Cambridge, Edinburgh, Glasgow, Manchester, Newcastle upon Tyne and Leeds.

Experis is the largest IT recruitment specialist in Europe and has been at the forefront of the search for the best in IT talent for over 25 years, placing tens of thousands of candidates.

Experis has the deep industry knowledge to understand the challenges organisations face and the access to highly skilled professionals to help companies seize opportunities.

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# Foreword

For better or worse, for richer or poorer – there's no doubt that June's decision to separate from the European Union has altered the future of the United Kingdom. But the ripples of change haven't had a significant impact on our five key tech disciplines just yet. For Q2 2016, overall hiring and salaries continued to increase for Big Data, Cloud, IT Security, Mobile and Web Development roles.

With the global trend towards a 'gig economy' continuing to pick up speed, it comes as no surprise that Q2 saw average contractor day rates increase in all of the five disciplines compared to the same period of 2015. Average permanent salaries across the 10 Tech disciplines also grew year-on-year, but at almost half the rate. With continued uncertainty around the UK's position post-Brexit over the coming years, this may be a trend that will play out at a much faster rate given the increased flexibility a contingent workforce offers employers.

Whilst in previous quarters we have seen a sustained increase in the number of permanent roles advertised for the five key disciplines outside of London, this quarter six of the Tech Cities outside the Capital experienced a year-on-year reduction in hiring demand. However, in many cases, the reduction in permanent roles advertised seems to have been at least partly made up for by a significant uplift in contractor recruitment. Given the time range that this research covers, this may reflect an element of caution being demonstrated prior to the vote, as well as a period of shock following the results. Only time will tell whether this is a temporary shift.

The continued speed of tech developments in the UK means that Cyber Security maintains its position as one of the most valued skills within IT. However, many companies remain worryingly under-resourced in this area – opening themselves up to increasingly sophisticated cyber-attacks and the resulting fines and negative publicity.

As always we are very keen to make sure this report is meeting your needs. Any feedback, positive or negative, is greatly appreciated as we look into improving this report further. Please feel free to get in touch with either myself or a member of the team if you'd like to discuss your own experiences with sourcing IT talent across the UK Tech Cities.

Best wishes.

Geoff Smith

Managing Director, Experis Europe

www.experis.co.uk



## Executive Summary >

Overall, Q2 2016 saw an annual increase in employer demand for both permanent and contractor roles across all five technology disciplines.

Hiring demand for permanent roles dropped in six of the Tech Cities since 2015. The biggest drop was seen in Brighton, which advertised 27.34% fewer roles than the same period last year.

However, some of this decline is balanced by an increased hiring demand for contractor roles. This rose by 2.23% year-on-year, compared to an increase of 1.95% for permanent roles.

Focusing on the five tech disciplines, Big Data continues to offer the highest levels of remuneration for both permanent and contractor roles. This has been boosted by a continuous flow of new technologies helping Big Data experts to harness its potential more effectively – and demand higher pay as a result.

Looking at permanent roles alone, average pay across the Tech Cities increased by 4.61% when compared to the same period of 2015. The largest annual increase in permanent salaries was seen in Mobile, with annual growth of 8.33%. This perhaps comes as a result of the increasing requirement to understand multiple platforms, core languages and development environments. Web Development was the only discipline to see average permanent salaries drop, albeit a marginal fall of 0.55%. This may be a result of roles within this discipline becoming more specialised as the sector matures.

This quarter, every discipline saw average contractor day rates increase when compared to the same period of 2015. The biggest year-on-year growth in contractor pay was seen in the Cloud discipline, which grew by 11.34%.

\*The five technology disciplines chosen for this report are based upon those in highest demand according to Experis' industry experience





**Employer Demands** 



Skille Crunch

This section reveals where the 'Tech Cities' rank in terms of average salaries for the following five disciplines of technology: Big Data, Cloud, IT Security, Mobile and Web Development. The analysis covers the period of Q2 2016.



## Salary Watch



Average permanent salaries

Permanent salaries across the ten
Tech Cities grew
by 4.61% year-onyear. Whilst this is
a robust increase,
the contractor
market has seen
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same period.

					Web	
City	Big Data	Cloud	IT Security	Mobile	Development	City Average
Birmingham	£61,667	£49,661	£50,019	£38,460	£32,841	£38,598
Brighton	£45,625	£57,267	£35,000	£34,058	£40,370	£40,229
Bristol	£46,111	£44,478	£49,712	£43,070	£33,698	£39,823
Cambridge	£53,764	£43,782	£55,874	£41,251	£35,246	£41,191
Edinburgh	£59,433	£43,846	£54,497	£38,896	£36,073	£41,100
Glasgow	£50,529	£50,113	£47,917	£37,730	£37,251	£42,394
Leeds	£51,473	£48,927	£50,733	£42,390	£34,552	£41,174
London	£68,272	£59,900	£60,938	£56,974	£46,302	£55,456
Manchester	£49,280	£58,128	£52,481	£40,397	£35,870	£41,902
Newcastle upon Tyne	£60,000	£63,525	£39,606	£36,184	£33,711	£36,318
Average	£65,587	£57,331	£58,003	£53,037	£41,750	£50,970

<sup>\*</sup> Shading to indicate the top three cities, salary-wise for each discipline

Permanent salaries across the ten Tech Cities grew by 4.61% year-on-year. Whilst this is a robust increase, the contractor market has seen almost double this growth over the same period.

The biggest annual increase in average permanent salaries was seen in Manchester, which has increased by 13.9% since Q2 2015. This was followed by Brighton, with an increase of 8.93%, and Leeds, which saw permanent salaries grow by 8.41%. The Capital also saw an overall annual increase of 4.42%.

On the other hand, average permanent salaries fell year-on-year in two cities. Cambridge saw a small drop of 1.94%, whereas Edinburgh dropped by 5.77%. However, both cities saw contractor day rates increase during the same period.

Out of the five tech disciplines, Big Data once again offered the highest average permanent salary (£65,587), followed by IT Security (£58,003) and Cloud (£57,331). Year-on-Year, Web Development is the only discipline to see average salaries drop – albeit a marginal fall of 0.55%. At 8.33%, Mobile had the largest annual increase in average permanent salaries, followed by IT Security on 7.95% and Big Data on 7.63%.





**Employer Demands** 



Skills Crunch





#### Average contractor day rates

City				Mobile	Web Development	
Birmingham	٨	£465	£511	£307	٨	£387
Brighton	٨	٨	£425	٨	£266	£286
Bristol	£375	£454	£426	£398	£295	£397
Cambridge	٨	£434	£379	£370	£260	£350
Edinburgh	£457	£450	£466	£289	£344	£378
Glasgow	£459	£385	£258	£331	£348	£339
Leeds	£415	£496	£468	£418	£308	£429
London	£545	£497	£455	£429	£359	£450
Manchester	٨	£380	£431	£371	£277	£360
Newcastle upon Tyne	£325	£382	£369	£385	£332	£375
Average	£536	£481	£443	£415	£338	£431

This quarter, every discipline saw an annual increase in average contractor day rates. Overall, this meant the average day rate of £431 was 9.11% higher than the same period of 2015.

The biggest year-on-year growth was seen in the Cloud discipline, which grew by 11.34%. This was followed by IT Security on 4.98% and Mobile on 3.49%. Nonetheless, Big Data continued to offer the highest average day rate of £536 across all the disciplines.

Unsurprisingly, London offered the highest average contractor day rate this quarter at £450. However, the strongest quarter-on-quarter growth was seen outside of the capital. In Bristol, average day rates grew by 10.28% compared to Q1 2016, followed by Glasgow on 6.95% and Newcastle on 6.84%.

In contrast both Brighton and Newcastle have seen contractor day rates fall since Q2 2015 – by 0.69% and 19.01% respectively.

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**Employer Demands** 



Skills Crunch

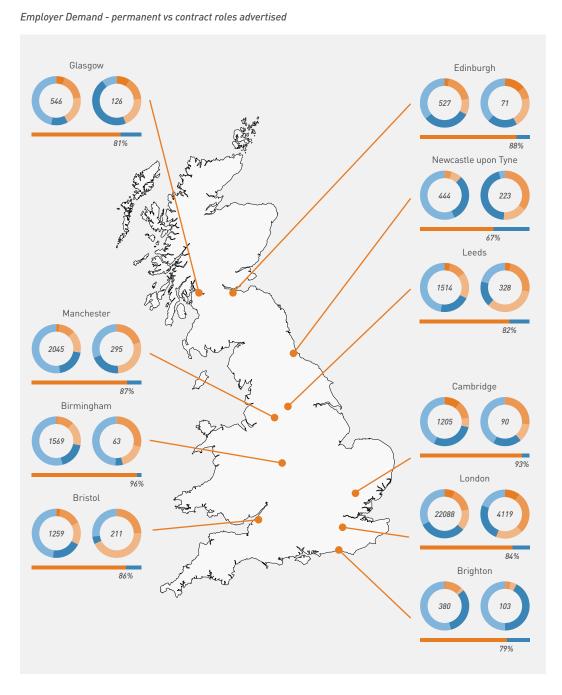
A national comparison of permanent versus contract roles for hiring demand across the five key disciplines of technology: Big Data, Cloud, IT Security, Mobile and Web Development. The analysis covers the period of Q2 2016, in the tech city hubs of London, Birmingham, Brighton, Bristol, Cambridge, Edinburgh, Glasgow, Leeds, Manchester and Newcastle upon Tyne.

## Employer Demand Trends





Number of roles advertised







**Employer Demands** 



Skills Crunch



## **Employer Demand Trends**





#### Perm roles

In this quarter, the overall number of permanent roles advertised across all cities increased by 1.95%, when compared to the same period of 2015, to 31,577.

Over 22,000 permanent roles were advertised across the five tech disciplines in London this quarter. This is more than double the amount of advertisements from all of the other tech cities combined, and represents year-on-year growth of 2.13%.

Outside of the Capital, year-on-year hiring demand for permanent roles dropped in six of the Tech Cities. The biggest drop was seen in Brighton, which advertised 27.34% fewer permanent roles than the same period of 2015 - a total of just 380 roles.

Growth in employer demand in the contractor market outstripped the permanent market this quarter – with an annual growth of 2.23%, compared to an increase of 1.95% for permanent roles.



#### Contract roles

Growth in employer demand in the contractor market outstripped the permanent market this quarter – with an annual growth of 2.23%, compared to an increase of 1.95% for permanent roles.

This time last year, Newcastle had the weakest employer demand for contractors out of all of the tech cities. Its fortune has changed, and this quarter it has the fourth-strongest hiring demand, following London, Leeds and Manchester. In fact, employers in Newcastle placed five times more adverts for contractors than the same period of 2015.

Strong annual increases in hiring demand were also seen in Brighton and Glasgow, which both advertised more than double the amount of contract roles compared to last year.

Birmingham, which had the sixth-strongest employer demand for contract roles in Q2 2015, has now slipped to the bottom of the table. It has the weakest employer demand in the contract market.





Employer Demands



Skills Crunch

This section summarises the top skills in demand for each discipline of technology for the period of this report.



## Skills Crunch



Security experts need to have knowledge across a variety of technologies, as well as an understanding of compliance, processes and analytics.



#### **IT Security**

The use of technology is altering the way in which organisations run their businesses and interact with customers. According to **Gartner**, there will be 25 billion connected devices globally by 2020, each bringing additional security challenges. As a result, many businesses are at a higher risk of cyber attacks as they hold increasing amounts of sensitive information across a variety of different systems.

The need to keep IT Security up-to-date with evolving threats is a constant challenge, particularly with the increasing shortage of the right talent. Having general IT and security skills is simply not enough to tackle complex threats. Security experts need to have knowledge across a variety of technologies, as well as an understanding of compliance, processes and analytics.

Frost & Sullivan predict that there will be 1.5m unfilled security jobs by 2020 worldwide. Whilst organisations can train their permanent staff for the long-term, imminent threats remain. According to a report from Imperva, the UK is the second-most targeted nation for distributed denial of service (DDoS) attacks alone. This leads to organisations turning to contractors to rapidly implement the right defense. As these contractors have in-demand skills, training and qualifications, they can demand higher salaries in return.

This quarter, the most in-demand skills include: **CISS** (Certified Information Systems Security Professional), **SIEM** (Security Information and Event Management) such as **IDAM** (Identity Access Management) and **ArcSight**, as well as **penetration testers** and **biometrics**.





**Employer Demands** 



Skills Crunch



## Skills Crunch





#### **Big Data**

According to the **Tech Partnership employers' network and SAS**, the UK is expected to create an average of 56,000 Big Data job roles between now and 2020. This comes as companies increasingly look for skilled professionals to help them gain a competitive advantage. Companies need to be more agile than ever before, and are looking for a real-time approach to data management. As a result, they are moving from **SQL** to **NoSQL** database technology for more scale, speed and data variability. This is in line with the evolution of **data lakes** [for faster data processing], meaning that data scientists are able to process valuable customer insights and business intelligence for better business decision-making, on a much larger scale.

Despite **Brexit**, many UK businesses will continue to be subject to the upcoming **EU General Data Protection Regulation [GDPR]** in 2018, as much of the data organisations process will be from the EU. And, with the right skills in short supply, companies will need to work hard to attract, retain and develop the right qualified talent.

The most in-demand data skills include MongoDB, Tableau, Splice Machine, Spark (for data processing) and Apache Hadoop. Also in demand are individuals skilled in Big Data analytics and Business Intelligence tools such as SAP Hana.

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Employer Demands



Skills Crunch

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## Skills Crunch



Despite the many benefits of the cloud, some companies remain hesitant to embrace it due to security concerns. Many still face data security and compliance challenges.



#### Cloud

Organisations are increasingly adopting cloud-based solutions to improve their operations; realising the benefits they can yield with regards to costs, flexibility and speed. Cloud solutions enable organisations to invest in managing their processes more efficiently, instead of paying upfront for expensive IT infrastructure and computing costs. In terms of flexibility and speed, companies can easily scale up or down to meet customer demands, with no time or geographical constraints.

Despite the many benefits of the cloud, some companies remain hesitant to embrace it due to security concerns. Many still face data security and compliance challenges. This includes **Microsoft** and **Sony**, which were targeted by hackers because they did not implement the right measures to protect sensitive and confidential customer information. As a result, organisations are competing for top cloud talent to help build their capability to innovate and cater to demand, and prevent potential breaches.

Within the cloud, there is particular demand for IaaS (Infrastructure as a Service) solutions, including Microsoft Azure, Amazon Web Services (AWS) and SaaS (Software as a Service) solutions such as Salesforce.com and Insightly.



## Web Development

With the increasing developments of web technology, it's crucial that organisations are accessible online, through highly functional and visually attractive channels. While previously web development focused on building a website, the roles within this discipline have become more specialised in the recent years due to technological advancements.

Core programming language skills such as **Java** and frameworks like **.NET** remain the most popular for Web Development. Java, in particular, is one of the most in-demand languages and is now the standard platform across the world. However, as cutting edge innovation continues, demand for **Scala** skills is rapidly increasing. This is because Scala enables more flexibility and scalability, helping to enhance development productivity. As Scala still requires knowledge of Java, it's relatively straightforward for professionals with existing Java skills to up-skill and remain in-demand. This makes it unlikely that Java will be replaced anytime soon.

The most in-demand core programming languages for the back-end include: **Scala, CSS Java, .NET** and **C#**; while front-end development skills in demand continue to be **JavaScript, CSS3, NodeJS** and **HTML5**.





**Employer Demands** 



Skills Crunch



## Skills Crunch





#### Mobile

Mobile technology continues to grow across all industries, particularly in relation to the Internet of Things (IoT) and mobile payment applications. Technologies such as smartphones and wearables also continue to evolve and are the ones to watch.

With the modern communications landscape changing significantly, and mobile devices in the workplace increasing in demand, the Unified Communications (UC) market continues to evolve and mature. This is in line with the continued adoption of cloud computing and virtualisation. As a result, organisations are looking to integrate their communications channels from email, instant messaging, audio, video and web. An example of an emerging UC technology is the **Vodafone One Net**.

In addition, organisations are realising that Unified Communications can deliver increased operational and workforce efficiency, and enable staff to remain productive anytime, anywhere. The ability to better connect with customers across a wide range of communication channels is another benefit. Nonetheless, it's challenging organisations to provide a consistent user-experience across multiple devices and media types.

In this quarter, the top skills for Mobile are: Java Script, C++, Objective-C, Android and iOS

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## Methodology



Innovantage, which scans and logs IT job postings across over 180 global job boards and in excess of half a million employer websites.

This information was then put through a normalisation process, where the data was matched to defined regions and types. Where roles were unsortable due to vague or foreign language job titles,

This data was further sorted into disciplines, job types, sectors, and other categories to provide regions where information was unavailable were not included.

Experis drew upon its years of IT talent industry experience to compile the detailed analysis of the









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