Tech Cities Job Watch

Q4 2017

Experis®
ManpowerGroup

IT Security

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, so they can build their ability to innovate and cater to demand.

Yet, as the technology sector has evolved, so have the skills, expectations, and demands of the talent that powers it. As a result, employers are finding it increasingly challenging to attract and secure the skilled individuals their business needs.

By combining the latest market intelligence with Experis insights and expertise, the Tech Cities Job Watch report provides employers with a barometer of the changing workforce dynamics within the technology sector. Five key disciplines are focused on in particular: Big Data, Cloud, IT Security, Mobile and Web Development.

It also puts a spotlight on the emerging opportunities and challenges businesses face in ten UK cities that are rapidly developing reputations as technology cluster hubs - London, Birmingham, Brighton, Bristol, Cambridge, Edinburgh, Glasgow, Leeds, Manchester and Newcastle.

Experis is the largest IT recruitment specialist in Europe. We have 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.

Contents

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Foreword

Countless organisations have fallen victim to hacks and security breaches in recent years, leaving a trail of financial and reputational damage in their wake. Add to this the impending introduction of the General Data Protection Regulation (GDPR), and it soon becomes clear why IT Security is firmly on the boardroom agenda for 2018 and beyond.

With this in mind, it may come as some surprise that the latest Tech Cities Job Watch report finds that demand for new IT Security skills has dropped 5% year-on-year. The decline in demand is most acute in the permanent market, which has fallen by 10% compared to the same period last year.

Unfortunately, the world has not become a safer place. Breaches remain a real and ever-present risk for those organisations that don't have their security practices in order. For this reason, our findings may seem contrary to expectations. Yet, while some people may interpret this fall in demand as meaning that it's becoming less of a priority, it may actually prove the opposite: that a cultural shift has occurred in how organisations view and manage IT Security.

Increasingly, businesses recognise that IT Security is simply too important to be the responsibility of one set of individuals in the corner of the IT function. It's now a core competency that's woven into a wide range of both technical and non-technical roles. After all, the Internet of Things is transforming the way companies work. It's put security on everyone's radar, not just the IT department. This is encouraging employers to upskill their entire workforce in security matters, rather than just relying on the talents of specialists. While this is a necessary step, as cyber threats become ever more sophisticated, businesses shouldn't rest on their laurels and neglect recruiting the specialists they need to keep pace.

Looking more broadly at the findings, it's also interesting to see that demand for IT Security contractors has increased by 24% year-on-year, despite day rates dropping by 13%. This once again indicates a shift in the way organisations manage IT Security. Instead of looking to contractors to manage large-scale, specialist projects, they're using them to plug short-term skills gaps. By allocating them to lower value, higher volume security tasks, they're able to free up the time of permanent staff members to focus on more complex, strategic transformation initiatives.

Looking further ahead, it's clear that there is more change to come in how organisations govern IT Security. As artificial intelligence and machine learning become more sophisticated, we can expect to see enhanced security management tools, which have the potential to support threat detection and lower the required organisational headcount. For the time being though, it's positive to see that organisations are thinking more long-term about IT Security, and making it a priority for the many, not the few.

Best wishes,

Geoff Smith
Managing Director, Experis Europe

Insights

Cryptic trends in the cyber security market

Introduction

Such is the evolving nature of cyber security that even the associated trends appear to be encrypted. With demand for IT Security professionals falling over the past year, have we reached 'Peak Security'? Has blockchain or some other new development rendered IT Security an antiquated skill more associated with the industrial era, than the digital age?

If we dig into the details a little more, we see that for contractors, demand has risen 24% year-on-year, but remuneration has dropped over the same period. For permanent staff salaries are up 4% year-on-year, but the average salary is £60,004, significantly lower than that of a Big Data specialist, at £70,945.

These results may at first appear surprising. In the last year or so, the security market has been lamenting, not just the lack of good talent, but how long it would take, even if national policies were put in place, to address the shortfall.

Let's explore possible reasons for these unexpected results.

Demand for contractors has **risen 24% year-on-year but remuneration has dropped.** However, for permanent staff salaries are up 4% year-on-year, but **the average salary is £60,004, significantly lower than that of a Big Data specialist, at £70,945.**

The world has become a safer place

According to Matthew Wall, Technology of Business editor at the BBC, "Cyber-attacks are coming thick and fast and the tools at the hackers' disposal seem to be getting more, not less, powerful. Estimated annual losses from cyber crime now top $400bn (£291bn), according to the Center for Strategic and International Studies. And the cost in lost productivity of last year's WannaCry ransomware attack alone was estimated at $4bn."

Apple's recent chip-level security flaw, impacting all Mac computers and iOS devices suggests that the threat is, if anything, on the increase. The world does not appear to be getting any safer, so the 'Peak Security' hypothesis is 'off the table'.

We must keep in mind, that increasingly, information security lies at the heart of creating a safer world.

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Boardroom distraction

2018 has been labelled the 'year of regulation'. UK boardrooms have been hit by a number of high priority regulatory demands. To improve competitiveness in respect of financial products in the European market, an EU law was introduced. The legislation, more commonly known as Markets in Financial Instruments Directive (MiFID), took effect this month. Its focus in part is to avert another financial crisis. In practical terms, as IT systems are updated to be compliant, there is the real (and business threatening) risk of cash flow disruption as the technical details of cross border payments are ironed out.

Another is GDPR, which is focused on data protection. It becomes enforceable this May with fines of up to 4% of annual turnover for non-compliance. This has moved it centre stage in many boardrooms. And of course, GDPR introduces new IT Security challenges and thus further increases the need for IT Security governance.

There is also evidence that the developments in the public sector in 2017 have caused a significant impact on the jobs market. The introduction of IR35 and budget cuts caused the market value of IT Security contractor day rates to be artificially reduced, encouraging contractors to transition into permanent roles and demand premium salaries. Looking further ahead from an employment perspective, there is a possibility that the IR35 tax avoidance legislation will be extended into the private sector in 2018 and thus create further imbalance in the market.

Boardrooms, like individuals, have limited cognitive capacity. There is only so much they can focus on, resulting in some important matters being put on hold. Often the 'quarterly' focus can blind business leaders from high impact but perceived low probability events. In fairness, business leaders need to understand the threat landscape, rather than security implementation specifics. And not all CISOs have the access they need to keep security top of mind in the c-suite.

So, this is a possible explanation. But the data tells us that the demand is still there, it's just that the level of demand is dropping. Possibly the demand will pick up once this year of regulation has passed. We will be in a better position to rule this in or out in subsequent years.

2018 has been labelled the 'year of regulation' with legislation such as GDPR and MiFID coming into place. As a result, IT Security governance and the need for compliance are moving centre stage in many boardrooms.

Businesses are getting smarter

Perhaps the IT Security challenge is such that businesses have taken this to heart and come up with innovative ways of addressing the issue. We may be seeing many IT Security responsibilities being folded into adjacent roles. It might well be that technologists in general are increasingly carrying some of the burden, and through tightened policy, the users too are sharing some of the load.

Artificial intelligence, and machine learning specifically, has the potential to support threat detection and thus lower the required headcount. Third party security providers are creating economies of scale.

Advancement in security tools no doubt is eroding the need for specialists, as is the increasing realisation that IT Security is everybody's responsibility. As a result, organisations are shifting the way they view and manage IT Security and are looking to upskill their entire workforce in security matters, rather than solely relying on the talents of specialists alone.

This is a trend for sure, but is it moving as the data would suggest?

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Conclusion

Cyber security is a boardroom issue and is becoming more important each day. But it appears that security specialists can no longer simply 'surf' the trend and enjoy ever increasing spoils. Possibly the security professional bodies have not created a sufficiently vivid picture of the downsides of cutting corners in respect of security talent management. Possibly the acquirers of security talent are betting that whilst the impact of an attack could be very high, the likelihood is low, thus leading to underinvestment in IT Security talent. This would be a worrying trend, particularly in respect of public sector and other infrastructural services.

If we weave in Brexit, we can see that the number of variables we need to consider makes an accurate interpretation of this data very difficult. What we can say with some confidence is that we all need to watch the market very closely and remember that IT Security has now become everyone's responsibility – not just the IT department's. With cyber threats becoming ever more sophisticated, businesses need to ensure that they are not resting on their laurels when it comes to keeping pace and ensure that IT Security will be factored in all digital projects from the start.

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Salary Watch

Permanent salaries

Average permanent salaries for this quarter were £56,523, when considering all ten Tech Cities and five disciplines. Over the past year, this average grew by 8% since Q4 2016. Each discipline also saw an increase in pay over this period, apart from Mobile, which remained static.

Average permanent salaries for the key five disciplines across the ten Tech Cities

City	Big Data	Cloud	IT Security	Mobile	Web Dev	Average (City)
Birmingham	£60,148	£54,580	£48,806	£41,946	£33,853	£43,623
Brighton	^	£47,457	£58,143	£45,215	£36,865	£43,234
Bristol	£50,737	£49,526	£47,531	£43,461	£84,395	£59,473
Cambridge	£52,667	£52,937	£46,856	£46,125	£38,028	£46,780
Edinburgh	£56,107	£47,709	£52,507	£46,827	£35,145	£45,114
Glasgow	£44,742	£50,183	£43,919	£41,747	£42,546	£44,648
Leeds	£47,043	£49,900	£47,040	£42,103	£35,032	£42,809
London	£75,523	£66,111	£65,179	£59,961	£49,587	£62,762
Manchester	£55,128	£52,035	£51,704	£40,032	£37,363	£43,366
Newcastle upon Tyne	£35,929	£45,576	£52,515	£35,589	£32,224	£38,989
Average (Skill)	£70,945	£61,290	£60,004	£53,240	£46,154	£56,523

* Shading to indicate the top three cities, salary-wise for each discipline ^ indicates no data available

IT Security

Permanent salaries for IT Security professionals have grown over the past two years. The average salary increased by 4% year-on-year and by 9% when compared to Q4 2015, and stands at £60,004 this quarter.

Interestingly, the average salary for IT Security professionals is still much lower than the likes of Big Data specialists (£70,945).

In relation to the cities, London continued to be the highest paying city offering an average salary of £65,179 and also saw a year-on-year and two-year growth of 4% and 11% respectively.

Contract rates

Unlike the permanent market, average day rates across all ten Tech Cities and five disciplines declined both year-on-year and since Q4 2015 of 7% and 1% respectively. As a result, the average day rate offered was £419.

Average contractor day rates

City	Big Data	Cloud	IT Security	Mobile	Web Dev	City Average
Birmingham	£518	£463	£395	£335	£335	£419
Brighton	^	^	^	£195	£212	£201
Bristol	£509	£374	£203	£345	£264	£334
Cambridge	^	£316	^	£311	^	£276
Edinburgh	£371	£501	£360	£351	£309	£404
Glasgow	^	£368	£480	£288	^	£307
Leeds	£379	£412	£387	£344	£247	£368
London	£507	£455	£433	£391	£351	£435
Manchester	£458	£392	£475	£334	£206	£382
Newcastle upon Tyne	^	£500	^	£307	^	£375
Average	£497	£447	£423	£377	£318	£419

* Shading to indicate the top three cities, salary-wise for each discipline   ^ indicates no data available

IT Security

Surprisingly, day rates for IT Security professionals experienced the biggest decline out of the five disciplines, offering £423 this quarter. Both year-on-year and over the last two years, day rates decreased by 13% and 12% respectively. This trend is the result of businesses shifting the way they manage IT Security. Organisations are increasingly hiring contractors to plug short-term skills gaps and allocating them to lower value, higher volume security tasks, instead of managing large-scale, specialist projects.
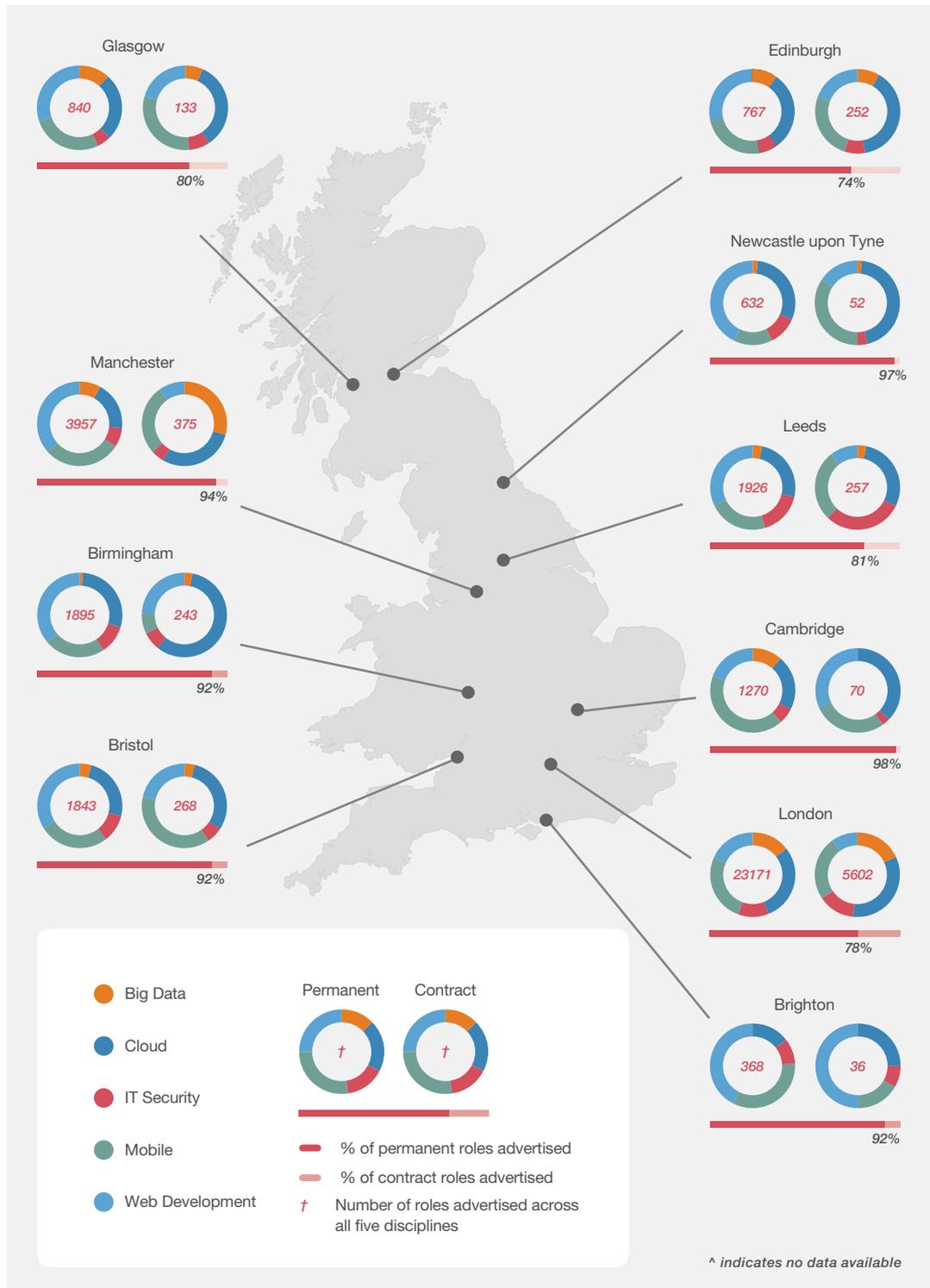
As a result of this significant decline, IT Security became the third highest paying discipline, behind Big Data (£497) and Cloud (£447).

Whilst London was the highest paying city in Q4 2015 with an average day rate of £500, the average day rate in the Capital has since dropped by 13%, now positioning it as the third highest paying city.

Employer Demand

A national comparison of permanent versus contract roles for employer demand
(for the five key technology disciplines, across the UK's ten Tech City hubs).

Glasgow

840   133

80%

Edinburgh

767   252

74%

Newcastle upon Tyne

632   52

97%

Manchester

3957   375

94%

Leeds

1926   257

81%

Birmingham

1895   243

92%

Cambridge

1270   70

98%

Bristol

1843   268

92%

London

23171   5602

78%

Brighton

368   36

92%

Legend:

- 🟠 Big Data
- 🔵 Cloud
- 🔴 IT Security
- 🟢 Mobile
- 🔵 Web Development

Permanent   Contract

†   †

— % of permanent roles advertised

— % of contract roles advertised

†   Number of roles advertised across all five disciplines

^ indicates no data available

Permanent

There were 36,669 permanent roles advertised across all ten Tech Cities and five disciplines in Q4 2017. In the same period in 2016, 27,226 roles were advertised, so there has been growth of 35% over the last year.

IT Security

In contrast to the permanent salaries seeing year-on-year growth, demand for permanent IT Security professionals has decreased by 10% over the same period. As a result, there were a total of 3,991 roles advertised this quarter.

Two thirds of permanent IT Security roles were advertised in London alone (2,702) in Q4 2017. This is more than double the number of roles advertised across the other nine cities combined (1,289).

Outside the Capital, the cities with the highest demand for permanent IT Security professionals were Leeds, Manchester and Birmingham respectively.

> "It's clear that IT Security is now a business-wide issue and no longer solely the IT department's responsibility. As a result, organisations are shifting their focus towards upskilling their existing workforce to ensure they are able to combat security issues effectively. This could be slowing down demand for any new permanent security professionals for the time being. However, for the IT Security roles organisations continue to recruit for, they are willing to offer premium salaries.
>
> It's also interesting to see how the legal developments in the public sector, such as the IR35, are impacting the supply and remuneration of permanent IT Security professionals. We're seeing increased competition due to many contractors transitioning over to the permanent market and demanding premium salaries, creating further imbalance as a result."
>
> **Richard Davies**, *Account Manager, Experis UK & Ireland*

Contract

Employer demand for IT professionals across all ten Tech Cities and five disciplines grew by 34% year-on-year, with a total of 7,288 roles advertised (up from 5,450).

Demand for new permanent and contract IT Security professionals has dropped by **5% in the past 12 months**. The decrease in demand is even more pronounced within the permanent market, where it has **dipped by 10%, falling back after a surge of 53% in the previous year.**

IT Security

Despite a significant decline in the average day rates for IT Security professionals of 13%, hiring demand for these professionals has increased by 24% since Q4 2016, totalling 947 roles advertised.

Unsurprisingly, London was the city with the highest demand this quarter – 82% of contract roles were advertised in the City, compared to the other 9 cities combined.

> **It comes as no surprise that demand for IT Security contractors continues to increase. With the fast pace of developments in technology and increasing sophistication of cyber attacks, organisations will always be on the lookout for IT Security contractors to keep pace with the latest threats they're faced with. As for day rates, 2017 brought some uncertainty to the contractor market due to budget cuts and the introduction of the IR35 regulation. Not only has this pushed day rates down, but some organisations may now consider the risk of investing in the contractor market to be slightly higher.**
>
> *James Cook, Consultant, Experis UK & Ireland*

Methodology

The statistics referenced in this report were obtained via an entity extractor provided by 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, they have been omitted.

This data was further sorted into disciplines, job types, sectors, and other categories to provide a detailed analysis of the current recruitment market. Instances where data was minimal or for 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 recruitment market found in this report.

Special thanks to Ade McCormack, for his contribution to the 'Insights' section of this report.

Ade McCormack is a digital strategist and near futurist. He is a former technologist, FT opinion columnist, and CIO 100 judge, and has lectured at MIT Sloan on digital leadership. More of his strategic insights can be found via his blogs at www.ademccormack.com.

Get in touch

We hope you find this report to be a useful tool. As always, we would really value your perspective on our insights. Please do reach out to us if you'd like to discuss your own experiences in sourcing talent across the UK's Tech Cities.

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