

Market report

Market update 2019

Overview.

2019 has been a strong year again for the permanent engineering market, including software engineers and automation deployment specialists. We have also seen a nice spread in roles across security and networking as legacy stacks get upgraded in light of vulnerability exposed by multiple high-profile cyber-attacks this year. While we haven't seen big volume project-driven hiring in specific organisations, we have seen strong demand for key skill sets across the market.

As regulatory projects have moved into BAU, contractors have rolled off and this has created excess supply in the change and transformation market, coupled with a lack of new large change initiatives. In this report we will talk about where we have seen demand, what tools and technologies are trending and what factors we see influencing the market in 2020.

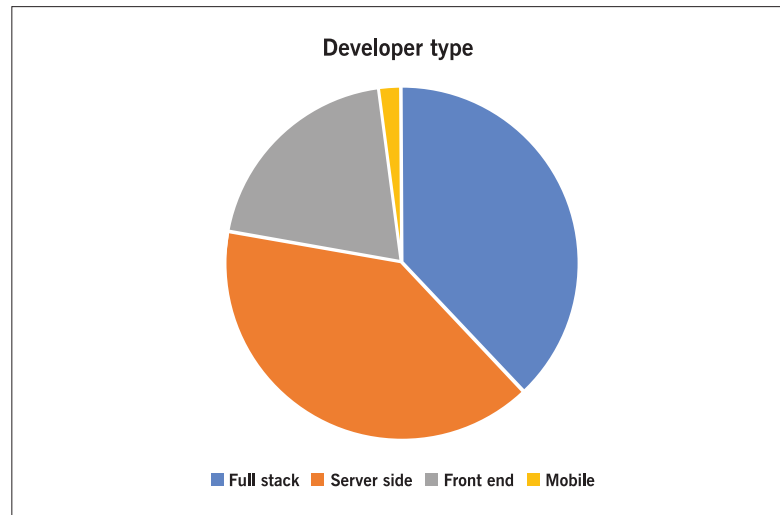
Key skills in demand.

It's been a busy year with engineering hires this year, below is an interesting demonstration of how the development role has seen full stack engineers on a par with server-side developers in terms of role volumes.

Full stack engineers.

JavaScript is now a 'serious' language for all our clients. Genuine enterprise projects are using some very powerful frameworks for cross platform applications and this shows no sign of letting up. If an engineer understands a product's nuances, and can seamlessly weave between presentation, logic and the database

they are incredibly valuable to the business as well as troubleshoot and fire fight where required. We first saw true full stack engineers within start-ups, where tech is incredibly important but capital restrictions resulted in teams comprised of those willing to get stuck in and want to work across the whole product.



Speed read.

- Hiring predominantly permanent throughout 2019
- Change and Transformation market slow
- Strong demand for Cyber Security / DevOps
- Core engineering skills remain hot
- IR35 changes impacting contractor demand in H2

Product owners close to the business logic.

Business logic is now so dispersed throughout a system that when business relevant decisions need to be made, or scaling out challenges arise, it's now more complicated than ever. A few years ago, business logic was solely confined to the business-domain layer. This is now within infrastructure, configuration, integrations and microservices. Stepping back and being able to use patterns to understand behaviour and the flow of logic is a focus for many engineering teams.

API development experience.

Almost all financial services organisations will provide external APIs in the future, allowing significant integration of products across the market. A real understanding of data sources ties in with the above as strategists will need to think about the data model they use and how they aggregate information from other sources. Those who can help to define the technical implications of this new model will be essential for all organisations.

DevOps / agile mindset.

20 years after the original agile manifesto was published, this is still a key mindset that most engineering leads look for and where candidates are misaligned. Everyone has taken their own version and whilst some managers still ask for 'true agile', most are looking for adaptability and appreciation of different approaches within context. Often, it's the emphasis on TDD / agile mindset that makes the difference for decision makers for all candidates from product owners to engineers.

Cyber security.

High-profile cyber security attacks have led to increased focus on internal security teams and the hiring of additional specialists. Demand is now focused on candidates with experience from other sectors, often looking at talent from the large internet-based retailers. While the last few years have seen demand at senior levels, the need is now for hands-on analysts who have specific tool/product experience as end-users look to in-source capabilities.

Microservices architectures.

The commitment to microservices adoption has been a real focus for many clients this year. With a well-structured service management plan this is working well for many teams. Allowing for innovation without affecting the entire application is proving very popular with developers and management! However, the tendency for enterprise organisations to return to a monolithic platform team is the danger. We are certainly seeing technical interviews incorporating more questions and discussions around the subject.

Data.

Data continues to be front and centre on most agendas and it's within the middle office and Risk teams that we've seen the most change in terms of structure. Several of our clients are making strides to make data flow a true front to back domain, where data quality is driven from point one and modelling teams are working on the creation of complex model libraries for reuse across the business. This goes hand in hand with the focus on automation and communication via APIs.

We have already seen a shift in data specialists moving closer to the front office and with many moving into creating the data steward role who act as a guardian from the source data ensures modelling teams spend their time working on building models for business demand and not data cleansing. There is of course a long way to go however, over the short to medium future we are anticipating another rise in data specialist demand, but also those

classic business analyst profiles who can work within teams to understand complex requirements and field questions to ensure the next generation of data solutions are on point.

Cloud.

Virtualisation and building out private clouds are almost the norm now, but in the past year or so we've seen entire businesses launched on the cloud. Marcus by Goldman Sachs was implemented in the UK within 11 months, an unprecedented timeline in this field. However, we really are still only scratching the surface. A study by McKinsey showed that 80% of processes remain onsite, and still heavily reliant on mainframe systems. Most organisations now have a core cloud technology group who are delivering transformation initiatives that were identified early on as prime targets, but the longer-term core systems work may well be years away realistically and not on their radar for change for most.

Many clients have adopted a polycloud approach which is proving to have more benefits than just satisfying the regulators. Across the top three now their core platform is much of a muchness but as the

arms race to release further products and add ons becomes rushed and bugs are becoming fairly regular, a hybrid approach is likely to remain for most cloud users both inside and outside the financial markets.

Only a few years ago, Digital, AI and Cloud were the 'upcoming trends' that the financial services sector was trialling. These are now on their way to being embraced by the core technology teams and central to IT strategies. Those at the forefront are asking much more complex questions of vendors who are having to innovate to remain competitive and offer solutions in this complex and real time industry.

Regulation.

Multiyear regulation driven programmes are now well into BAU mode and this has contributed to large numbers of project candidates re-entering the contract market. Senior SMEs in the derivatives space where timelines extend a little further have been taking advantage of candidates with several regulatory project deliverables under their belt and are likely to be able to avoid paying the premium rates that we saw in 2015-2018.

2020 will see some significant spend on LIBOR/IBOR programmes, although with most players having a strong internal pool of core resources, this may not generate the significant headcount increases that we have seen on previous regulatory projects but there is already some demand for senior specialists.

Flexible working.

The Women in Finance charter has now been signed by 205 companies who have committed to 30% of their senior roles being filled by women by 2021. It's very encouraging to see that the work being put in by banks is starting to show, in that cultures are changing. The latest Working Families report found again, several financial markets organisations considered to be in the top 30 in the UK.

From a candidate perspective we are regularly asked at initial stages what a company's working policies are. This question is being asked earlier on in the process and regularly shows on surveys as an important factor when considering an offer and even applying to a position. Whether a snowball effect or delayed implementation, most organisations are much more structured with their policies and in line with the wider professional industry.

These are some examples of the kind of initiatives that are in place:

- Broader sourcing channels to expand recruitment networks.
- Return to work and networking programmes to attract women back to work from career breaks or extended maternity leave.
- A Values and Diversity Policy (covering flexible working, agile working, dynamic working) is made very clear in their job adverts.

Flexible and part-time working are now intrinsic in most forward-thinking work environments and heavily linked to increased diversity. Family life, work/life balance, agile working, parental coaching, childcare and employee resource groups are examples of proven initiatives that help to create a modern and healthy environment, and a diverse candidate pool. A

number of Fintech and Tech firms have introduced an unlimited holidays policy to allow staff to manage their time and work load, with their output measured rather than time in. Albeit this works better for some roles where that output / outcome is relatively easy to define, and therefore measure. A number of commentators have actually observed the average number of holidays per person hasn't actually increased significantly.

Fintech.

The collaboration between banks and the fintech community continues to grow, with significant institutional funding finding its way into the sector. The Fintech sector continues to mature and this year we have seen the emergence of a number of key firms who are able to monetise their products or propositions.

M&A has also been prolific with both banks and large software companies buying Fintechs to add product into their offerings or leapfrog lengthy product development cycles.

Open banking has seen a number of really interesting entrants to the market, with increasingly slick integration into the established banking players. From better FX transactions to receipt management, we are seeing some really good tools that can sit alongside your traditional Bank Current account. We are working with a number of these firms, and demand has centred

around both the commercial side (Sales people) and front-end developer hires.

IR35 changes.

The impending change (April 2020) to the IR35 tax legislation in the private sector is having a big effect on the contractor market. In summary the responsibility of tax status determination will lie with the end user not the contractor.

Therefore, while most contractors have self-determined themselves outside IR35 and taken on any risk, the risk now falls to the end client.

The risk of fines and outstanding tax is one thing, but there is also the reputational risk which, given recent regulatory fines, is also a major concern for the banks. At the time of writing, most firms are applying blanket bans on PSC (personal service companies/Ltd company contractors). Other firms, that have analysed their contract population through the CEST tool or similar, have also concluded that the majority fall inside IR35. Therefore, the majority of contractors are facing a choice of leaving site, converting to permanent or accepting a PAYE contract. The obvious impact here is

cost both to employers through increased admin, holiday pay, pension etc, and contractors who face a 15-20% reduction in net income and less financial flexibility. In high demand areas we will potentially see some upward pressure on contract rates depending on how end users treat Employers National Insurance, i.e. included or excluded from the charge rate.

Statement of work.

Although the body-shopping SOW route has been all but closed down as a quick fix to keep existing contractors on-site it will be a viable delivery option for particular pieces of work. We are already seeing more outcome-based consultancy arrangements, where it's easier to wrap up a project into a bundled deliverable with the resourcing "headache" falling to the consultancy. The key here will be how Consultancies are able to de-risk the end user from IR35 risk, particularly if they are using PSC contractors for delivering specialist resources downstream.

We see more structured fixed price pieces of delivery being pushed through this route as getting in specialist contractors is going to be more and more difficult, particularly at those firms who will not engage with PSCs directly.

Brexit.

The reality of location strategy as a result of the Brexit vote is very different to that predicted a few years ago – yes there have been some roles shifted to Paris, Frankfurt, Dublin etc but the numbers are very low. We suspect hundreds / low thousands at an absolute maximum. The impact of Brexit is more about the economic consequences of a slowing macroeconomic market, rather than location strategy. Since opening our Dublin office earlier in the year, we've had a positive response from both the existing market in Dublin and those within our network here in London who are interested in relocating. Going up against some of the tech giants already in Dublin is no mean feat but by being able to offer opportunities at Investment Banks outside of the main financial centres and challenging enterprise solutions is proving successful.

Key trends in 2019:

Roles

Data analysts / architects / scientists
Full stack engineers – mainly Java or C# server side with broad JavaScript exp
DevOps and site reliability engineers
Technology risk / governance / cyber security

Dev tools

Java
Python
.Net Core
UI tools: JavaScript / Angular / React / Node / Redux

Vendor tools

Hadoop / MongoDB
Public cloud: AWS / Azure / Google Cloud
Kubernetes

Business functions

Transaction / corporate banking
Lending / accounting
Retail banking / digital products
Settlements

The numbers

Permanent salaries.

The contract to permanent route has been the modus operandi for many of our clients for several years here in London. However, larger organisations with a strong contract population have found more success in light of the IR35 changes. In particular we have seen senior developers in front office business units converting to permanent and those working on high profile change programmes. This has potentially pushed up basic salaries to make these conversions attractive, but will no doubt have an impact on total compensation come bonus time.

Conversations around bonuses have been mixed, with indications that levels will reflect last year with some potential increases in key areas, but the general trend continues away from “total comp” structures to more modest bonuses aligned with stronger basic salaries. We would highlight hands-on development team leads, DevOps and Security roles as those seeing upwards pressure on salaries.

	Base salary range		Total comp range	
	MIN £	MAX £	MIN £	MAX £
Java Developer – Mid	70000	90000	80000	110000
Java Developer – Senior	85000	120000	95000	150000
Tech Lead	100000	140000	110000	170000
Functional Programmer (Scala, Clojure, Kotlin etc)	70000	90000	80000	105000
C# – Mid / Senior	65000	90000	75000	120000
Data Scientist	80000	120000	90000	140000
Head of Data Science	120000	180000	150000	250000
Quant Research	80000	140000	100000	300000+
Data Architect	80000	150000	95000	180000
Dev Ops – Mid	60000	85000	75000	100000
Dev Ops / SRE Lead	95000	150000	110000	175000
Front Office Support	60000	90000	70000	105000
QA Lead	80000	110000	90000	130000
Data Analyst – Mid	70000	90000	75000	100000
Business Analyst – Mid	60000	80000	65000	95000
Business Analyst – Senior	75000	115000	80000	130000
Development Manager / Engineering Lab Lead	130000	170000	160000	220000
Head of Department, Director	150000	180000	190000	350000
Global Head of / MD	180000	250000	280000	500000+
CISO	120000	180000	120000	300000

These rates reflect candidates with financial markets experience.

Predictions for 2020

Further changes to IT operating models.

In the new digital first world, organisations must be able to leverage change. The balance between BAU and large transformation programmes will continue to be essential for the C suite to constantly review and adapt. There are significant changes at the core system level as part of multi-year strategy and we are expecting further senior technology hires next year to continue this transformation.

Simplification of legacy systems, SaaS, beyond cloud and adopting AI/Cognitive analytics

Cognitive analytics is an exciting ability enabling teams to bridge the gap between Big Data and the reality of practical decision making. Machine learning systems, AI and NLP are no longer concepts but business disruptors that can aid real-time decision making. We have seen capabilities arise with many banks looking to personalise engagement/advise to clients. Using real-time insights they can define their customers based on individual values, needs and expectations rather than aggregated demographics that the industry has been so reliant upon. We are yet to see many clients build RPA teams at scale but with several having identified pockets that could benefit with this technology, we anticipate a skillset demand.

While there remains a number of macro headwinds and challenges, as well as the short term uncertainty of an election, we believe next year may well see some strong demand from the larger tier 1 banks who have been relatively quiet this year.

The beginning of 2020 will likely bring the continued contract to permanent conversions as teams look to see what fails out of the IR35 policies. Technology spend for next year looks positive with a number of groups announcing the necessity to hire in talent locally to supplement near shore development activities.

- **Continuing to centre technology capabilities around customer experience**
- **Adaptable, scalable and connected architecture, utilising IaaS**
- **Step up cyber security beyond privacy and security**

Thomson Keene is a specialist recruiter in the Technology, Digital and Change space. We work in partnership with clients across:

Investment banking
Financial services
Fintech
Commercial

Please contact Andrew Keene to discuss how we can work together.

akeene@thomsonkeene.com
020 3434 1212

London

31–41 Worship Street
EC2A 2DX

Paris

33 Rue La Fayette
75009 Paris

Luxembourg

Lancelot
153–155 Rue du Kiem – Entrée B
L-8030 Strassen

Dublin

The Brickhouse
Clanwilliam Court, Block 1
Lower Mount Street
Dublin 2

This Report contains confidential information and is intended only for the named recipient. You should not copy, distribute externally or disseminate any part of this Report.

All contents remain © Thomson Keene 2019.