# maxwellbond CLOUD & DEVOPS 2020

A SENIOR CLOUD LEADERS PANEL

#### Featuring



James Heggs CTO, Tech Returners



Tina Howell Platform Lead, AND Digital



Dave Whyte Operations Lead, Auto Trader



Jason Hughes SRE, Jaguar Land Rovers



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(+5)

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57)

# INTRODUCTION

Maxwell Bond is a recruitment consultancy, specialising in technology and digital recruitment across the UK, helping companies from FTSE 100's to SME's. Since their inception in 2016, Maxwell Bond and its team of experienced and people-oriented consultants have built a strong reputation for providing exceptional recruitment delivery, as well as giving back to the community by hosting training and learning opportunities through events and webinars.

On Thursday 4th June, Maxwell Bond hosted Cloud & DevOps 2020: A Senior Cloud Leaders Panel, featuring James Heggs (CTO, Tech Returners), Tina Howell (Platform Lead, AND Digital), Dave Whyte (Operations Lead, Auto Trader), and Jason Hughes (Lead SRE, Jaguar Land Rovers).

DevOps and Infrastructure Consultant, Lloyd Lowson, facilitated the exploration of prominent topics, including cost management, remote team leadership, and platform improvements. You can now rewatch the full webinar using the YouTube button below, or you can read the highlights in the following whitepaper.





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## IMPROVING PLATFORMS

#### How do you improve Cloud platforms during periods of low usage?

Many of our Cloud leaders primary tasks within work focus on improving the excellency of delivery on cloud platforms, but has remote working disrupted how they approach this?

Dave Whyte, Operations Lead at Auto Trader, suggested that despite reduced traffic, activity is starting to increase and their Product and Operations teams are closer now to business as usual. There have been some slight changes, such as prioritising applications that can help clients overcome pandemic-style issues, but in terms of day to day continuous platform improvements there has been minimal disruption to the steady stream of work. The main changes for Dave was to the working day itself, as fewer people work set 9 - 5 hours, and more people require flexibility, often meaning work is stretched over longer hours, and communication became asynchronous.

This was a general consensus across the panel, with Tina Howell, Platform Lead at AND Digital, adding that the type of work carried out was heavily dependant on the sector. For example, retailers wouldn't allow changes to be made to their platforms during this time just in case it resulted in a disruption to their revenue. Others, however, were keen to speed up platform building, change, and improvement. James Heggs, CTO of Tech Returners, added that he found a statistic suggesting that 73% of Operations Teams said they expected to accelerate digital transformation initiatives\*. He also pointed out that many businesses had started investing in "non-functional elements", such as security and automation, as they were willing to make cuts to their technology, especially in the first few weeks of lockdown, because few people would notice, due to lower usage and visibility.

On the non-customer-facing side, Jason Hughes (Lead SRE at Jaguar Land Rover) expressed that this is the busiest he has ever been, due to planned global initiatives which has encouraged him and his team to work closer with international teams.

\*Survey of 137 Ops teams from businesses with at least 500 employees

## COST MANAGEMENT

#### How are you managing spend and reducing costs?

Efficiency is a priority within the Cloud and DevOps spaces, especially during unprecedented times such as the current COVID-19 pandemic which has caused new financial challenges for many businesses.

Tina started by explaining that most of the work her team have been doing for clients is focused on cost optimisation. For one client, this resulted in a saving of \$25,000 per month, just from going through their estate and stripping down; right sizing the system, only using what they need to use, installing AWS nuke to get rid of sandboxes. They also looked into when they could turn certain systems off all together during times they were not needed to prevent unnecessary charges. Tina has prioritised "making sure everything is being used in the right way and for the right reasons."

Dave also added that it can very easy to build something for the right reasons, but without control thereafter, it's very easy to spiral and incur huge costs. He explained that his team are coming to the end of a huge migration to Cloud (GCP), and certain decisions were made very early on. This included, for example, how long to keep logs for, and ensuring that all applications were rightly resourced (e.g. having one container per application). If applications started to use more memory than set up for, the team received alerts, meaning that they could immediately work with squads to keep everything reduced and controlled. Using quotas is also fundamental to prevent accidental spend. By using quotas, queries are controlled and limited, meaning that excessive expenditure is stopped.

Furthermore, it's important to ensure developers have the ability to make fixes and changes themselves and all costs are made visible to encourage a culture of responsibility and accountability. James also encourages 'developer enablement' with a focus on ensuring security, monitoring and structure, so that products come out efficiently, without consuming too much. Jason mirrored this by suggesting that "it's all about the empowerment of developers", and giving them the tools to be able to take ownership of their work and to see and fix developing issues. For this to work, developers need to be really invested in what they are building, and should want to own their work and be responsible for the results, and managers should never let their teams fail. Management should always step in, help and teach.

There are also budgeting tools, including Cloudability, CloudCheckr, and AWS Budgets.







# REMOTE TEAM MANAGEMENT

#### What has been the impact of managing Cloud teams remotely?

Common across all sectors was the sudden mandatory requirement for remote team leadership and management as everybody began working from home due to Government restrictions surrounding COVID-19. How has this affected the management of Cloud teams?

Coming from a company that already had an element of remote working previously, Jason led the discussion by starting with a confession that since lockdown, his team have been more productive and have pushed out more work than before. There has always been the flexibility to work from home, meaning that this wasn't necessarily a new way of working for everybody, but now the focus is on how to move forwards with remote working after lockdown is eased. In Jason's opinion, as long as there is still ways to conduct stand ups, meetings, and one-to-one's, he is comfortable with his team working remotely, as most tasks can be done from outside of the office.

Alternatively, Dave came from a working culture that valued in-office collaboration, and he enjoyed being able to get up and go speak to someone face to face. They were always technologically prepared for remote working, with the majority of the workforce owning laptops and VPN checks being conducted, but the real difficulty came with disruption to communication. However, structured management played a big part in quickly resolving this and getting to a BAU state. Daily stand ups using video tech so that everybody's faces were visible, having clear goals and agendas so that everyone was on the same page, and being flexible become paramount.

Difficulties have mainly arose around the length of time it can now take to gain a response from employees and also interpreting the tone or meaning of somebody's message within a digital workspace. However, the whole experience has proved that more work **can** be done from home, and Dave expects to see movement towards a middle ground between remote and in-office working, and flexible working will become more important to job seekers.

Zoom fatigue was another obstacle that many people, including James, experienced very early on as people adjusted to asynchronous communication. Within busy digital workspaces and channels, like on Microsoft Teams or Slack, it also became very easy to lose or miss important information. To combat this, James adopted the lightweight Architecture Decision Records (ADR), to help document things efficiently.

Another difficulty that manifested within management teams specifically was the direct / delegate issue. James pointed out that, particularly with new starters, employees were being delegated tasks to complete, that under normal circumstances someone would sit with them and direct them through it. With everybody forced into isolation, this became more difficult and often hard to identify points in an employees career were you could move from directing to delegating tasks all together. This can be addressed by encouraging employees to be transparent and honest about their abilities, and where direction is required, using the 'Share Screen' function on video calling technology to coach, train, and guide.

Tina found that it wasn't working remotely that was a struggle, but the lack of human interaction and inability to have a good chat with an individual away from a screen. Furthermore, providing adequate support to the right people who need it has been more difficult, as it becomes hard to identify who needs supporting more in a crisis. This being said, approximately 60% of staff are not ready to go back to the office, according to an internal company survey, which leads Tina to believe that AND Digital will continue with flexible working and remote working long term.

From a management perspective, it is also fundamental to **trust your team.** If they don't answer a message immediately, it is likely that something has just happened that needed their immediate attention. This could be work, or something as simple as having to answer the door, or help a child out with school work. It is imperative that managers avoid micromanagement, be flexible, and trust employees to do the work.

# CLOUD SPEND OPTIMISATION

#### Do teams have enough data for cloud spend optimisation?

This was a difficult question for all of our panelists as it is depends if companies are using the right tools and training people on those tools properly. There's also the need for employees to learn how to respond when a cost hasn't been assigned and how to work out what it could be. Getting people to fully understand cost is a long learning process, but cost accountability and implementing and managing quotas is key.







# BRINGING DEV & OPS TOGETHER

#### How are you bringing Devs and Ops closer together?

In an environment where Devs had the autonomy to push out releases when they wanted, and as many times as they wanted, Dave encountered early issues. This occurred mainly when Devs would push out a release which had errors, but would then become unavailable so those errors couldn't be addressed. To counter this, he is now working closely with squads to explore how this accountability can be encouraged and facilitated more efficiently. They are piloting a system, whereby automated alerts are sent out to relevant team channels and the app owner when issues arise so they can then go in and fix the issues immediately.

James added that with the encouragement of accountability, it was important to consider psychological safety, with Jason adding the value of a blameless culture. James ensures psychological safety by conducting a pre-mortem which explores and identifies issues in a safe environment, and then by removing leadership figures from the post-mortem. This ensures a safe space to learn, accept responsibility for mistakes and to grow as a team. Creating a blameless culture avoids demoralising team members, and instead allows teams to evolve together and encourages people to be more honest and open, because it creates a transparent and collaborative culture.

# SELF APPLICATION ASSESSMENTS

#### How do you use self- application assessments?

Dave explained that you can use Kubernetes, Liveness, and Redness probes to indicate and alert people to issues. as well as automated scripts that feedback on any of the basics that are missing or incorrect. This means that if there are problems, an app will not go live. This makes identifying and solving problems simple. You can also introduce transaction tracing, frameworks, templating pipelines, and ensure you are using the right tools for the job.





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