

A technology transformation  
at TalkTalk



In October 2015, UK telecoms company TalkTalk was the victim of a sophisticated cyber attack that targeted the personal data of some of its customers. But from this situation, a reconstructed IT estate soon emerged, one which mixes resilience with effectiveness, state of the art technology with streamlined operations.

## ■ So, how did this transformation happen?

### A breach of defences

Serving the needs of more than four million customers – TalkTalk is one of the UK's biggest telecoms providers and most high-profile companies.

Following a cyber-attack in 2015, TalkTalk teamed up with BAE Systems Applied Intelligence to safeguard and transform their business – in both the short and long term.

### Response, recover and restructure – collaboration in action

#### Response...

In the days and weeks after the attack, we navigated a complex and fast-moving environment to quickly establish what had happened and took steps to prevent it from happening again.

"The BAE team that landed just after the attack were experts in cyber – no question," says Phil Clayson, TalkTalk's Technology Director. "Very quickly, they helped us understand our technical state and what needed to be done – starting with identifying and tracking our business applications."

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TalkTalk's growth by acquisition had resulted in a large number of duplicate and legacy applications, tools and services. As a result, our Incident Response team worked alongside TalkTalk colleagues to identify and list the number of applications – an early estimate of 350 doubled in size just a week later – in order to understand the breadth of their technology portfolio.





### Recover...

We worked with TalkTalk colleagues on a wider review of their IT estate to identify weaknesses and ensure that if a similar attack couldn't succeed elsewhere. As part of this process, we developed a visual dashboard of every application to provide TalkTalk with the necessary intelligence to better understand the shape of their estate and its potential evolution.

Reduced risk tolerance and increased scrutiny from TalkTalk's board meant that technical problems needed to be communicated clearly and simply, and so we also produced dashboards across TalkTalk's data landscape – including one that focused on trading risk within its application portfolio.

### Restructure...

TalkTalk wanted to increase the efficiency, stability and responsiveness of their IT estate and so we identified areas for process improvement and prepared a roadmap of reforms for the company and its wider technology partners. We also drew up and categorised every security risk we uncovered, ranking each by order of magnitude.

The trading risk dashboard was used for scenario analysis that enabled the board to understand the impact of different investment decisions. This led to TalkTalk successfully simplifying its estate – half of its applications were subsequently retired by March 2018, whereas many others transitioned to the cloud.

## The benefits for TalkTalk


"The benefits we've seen from our work with BAE Systems Applied Intelligence have been phenomenal," says Phil Clayson. "There is a lot that has been done which puts us in many cases ahead of our competitors and so in some cases we are the envy of our industry peer group."

By reducing the volume of technology in its business, TalkTalk now has greater agility, reduced risk and increased stability. This has given its leaders greater scope to consider new ways of working, as well as the opportunity to deploy alternative approaches for software development.


"We have also seen a huge improvement in our people engagement," adds Phil Clayson. "Our employees have been empowered to think of their own ideas to improve the software they once were part of creating. And there's also an environmental improvement – if we have less software we need less hardware, and so we have less of an environmental footprint in terms of power and cooling, so this is a great by-product."


## What's next?

Despite the rapid progress made over the past few years, much remains to be done. And certainly, Phil Clayson is in little doubt that ours is a partnership that will endure for the long term. "We use Applied Intelligence because they bring exceptional brainpower and aptitude to delivering practical solutions to real TalkTalk problems – now and in the future."



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