DC4400 Project Report

Processing of schedule updates/changes

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Contents

List of Figures

List of Tables

1 Executive Summary

2 Introduction

The BBC is now over 100 years old [1] and is well known for it's TV channels and radio stations that are broadcast over the airwaves [2] to peoples homes across the UK. However this old way of broadcasting, sending out airwaves on a certain frequency to an antenna, is becoming less popular in the modern age of the internet. A study done by Ofcom [3] showed that people *'watched on average about 16% less broadcast TV between 2019 ... and 2022'* [4], with viewing *'decreasing by 47%'* [4] between ages 16-24. In addition another study carried out by media analyst firm Ampere found that in 2021 37% of people claimed to watch no linear TV, this increased to 45% by 2023 [5].

This fall correlates with the significant rise in internet enabled TVs in the home, with statista finding that *'In 2014 just 11 percent of households in the UK owned a Smart TV, whereas, in 2023, nearly 74 percent of households reported owning a Smart TV.'* [6].
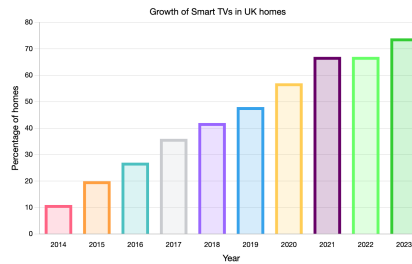

Figure 1: Bar chart showing growth of smart TVs in UK homes [6] *Created with Line Graph Maker* [7]

Some of these devices still support OTA broadcasts, however devices like the Amazon Fire TV stick and Googles Chromecast, are purely internet based; However they do offer a *'guide/epg'* section with Amazon having a development guide [8] on how to integrate with it. Director general of the BBC, Tim Davie, in a 2022 stated *'The vision is simple: from today we are going to move decisively to a digital-first BBC'* [9], putting more organisational focus on these new forms of media.

This report will discuss an upgrade carried out to the BBCs *'off-product'* schedules system, responsible for delivering up to date schedules to partners such as Freeview, Amazon and more. First I will give some background on the project, where I will discuss topics including database management in parallel/multi-threaded systems, cloud computing and the power of microservices and strategies to protect live code systems in a CI/CD environment. I will also give some background on the starting architecture of the system and how the changes align with the BBCs and teams OKRs [10].

Following that, I will discuss the work that was done. This will be broken down into 5 sections that align with our teams ways of working flow.

1. Requirements and epic creation

2. Investigation and Spike

3. Slicing and task/ticket creation

4. Development of software

5. Releasing of software

I will then talk about the outputs of the project. Theses will include burn-up charts for the projects, dashboards created, documentation of the final architecture and a description of the exact final product.

Finally I will discuss potential improvements for future iterations. This will range between small code changes to a complete re-architecture of the system.

3   Background

4 Work Done
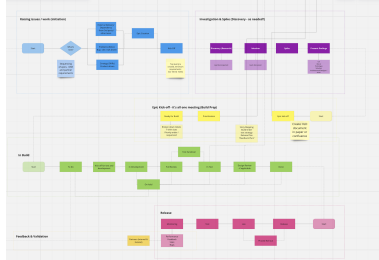
4.1 Investigation and Spike

4.2 Slicing and ticket creation

4.3 Build software

4.4 Release

5   Outputs

6 Future Work

7 Conclusion

8 References

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https://www.atlassian.com/agile/agile-at-scale/okr

9   Appendix