Summary

OVERVIEW

Astra Telekom has increased the number of users on the Plum Brand SaaS IPTV platform by 5.5 times in a period of 4 years.

CHALLENGES

IPTV streaming demands high bandwidth and low latency—both weak points of wireless technology

SOLUTION

- transition from H.264 to H.265 protocol
- migration of the Plum platform to new hardware
- MediaPlayer instead of EXO player in Andorid applications
- Implementation of the standby function in user applications

CONCLUSION

IPTV service maintenance implies not only immediate reaction and quick problem solving, but a series of actions aimed at preventing problems from occurring.

ASTRA TELEKOM: Upgraded SaaS Plum Brand

CASE STUDY

Introduction

The quality and lifespan of any product or service depend not just on initial vision and production, but also on continuous maintenance—especially in the ever-changing IT industry. Evolving operating systems, user devices, and customer needs make software upkeep essential.

> After the completed upgrade, the capacity of the network infrastructure was relieved by about 60%.
>
> **-Miroslav Sudar**
> *CTO Astra Telekom*

Overview

Astra Telekom switched to the Plum Brand SaaS platform for IPTV in October 2021, replacing outdated systems that no longer met market demands. Over four years, Astra grew its IPTV user base 5.5 times on this platform. Despite stable performance and no major outages during that time, significant changes in the tech environment made a platform upgrade necessary to keep up with new requirements.

Challenges

Astra Telekom is an ISP that mostly uses Wireless infrastructure to provide services. IPTV streaming is a service that consumes bandwidth and is, at the same time, sensitive to latency, which are precisely the limiting factors of Wireless technology.

The huge and rapid increase in the number of users made management and sales happy, but created a headache for the technical team in charge of the infrastructure.

It was necessary to improve the IPTV platform as soon as possible in order to make significant capacity savings and avoid potential overload of the Wireless infrastructure, which would inevitably have an impact on the IPTV service itself.

Solution

It was necessary to define the key directions for the improvement of the Plum Brand platform in order to achieve a significant relief in wireless infrastructure. In addition, it was necessary to replace the old hardware with newer one and add some necessary features:

TRANSCODING SYSTEM

Transition from H.264 to H.265 protocol, which fulfilled the primary goal of 2.5 times bandwidth reduction per stream.

STANDBY

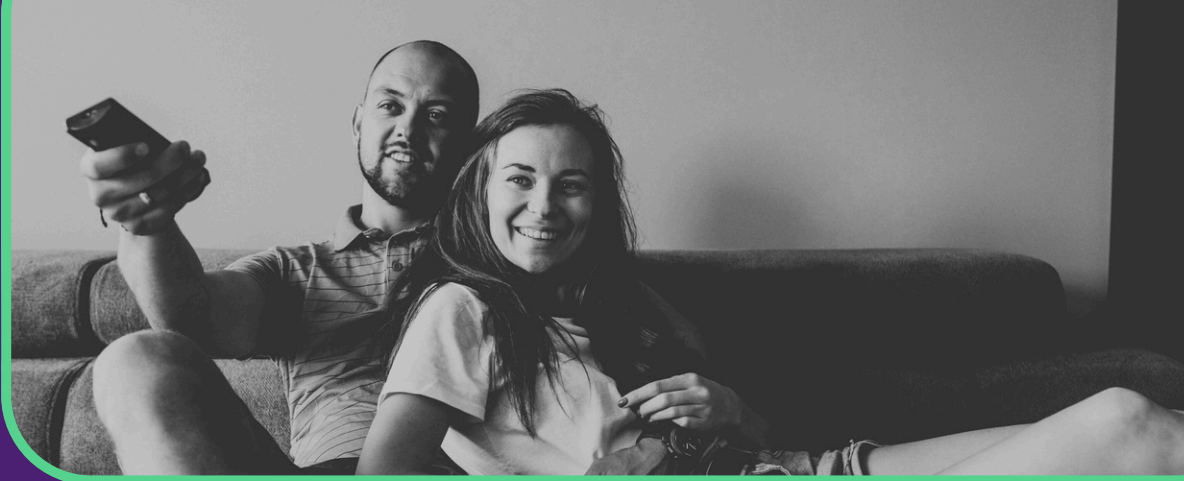
Introduction of standby feature in applications aimed at automatically turning off the stream when there is no activity in a defined time interval

HDMI-CEC

Introducing a feature on the user device to automatically turn off and start streaming when the user turns the TV on or off

MIGRATION & UPDATE

Migration of the Plum Brand platform to new hardware and a selective update of the user app



Unexpected issues during update

After enabling HDMI-CEC, H.265 streams began experiencing interference. Multiple attempts to fix the issue via code changes and ExoPlayer adjustments failed.

The team ultimately decided to replace ExoPlayer with a customized MediaPlayer, tailored specifically for Astra Telekom's needs. This successful switch enabled the final step: upgrading user applications.

Selective Update

Given the wide user distribution across different cities, a selective update feature proved crucial. It allowed remote, zone-based app upgrades—eliminating the need for on-site engineer visits.

Conclusion

Maintaining an IPTV service requires not only quick problem-solving but also ongoing preventive measures. It can't be treated in isolation—its performance is closely tied to the broader ISP system. To truly improve the service, the IPTV system must be aligned across three key areas:

ISP environment
(infrastructure, Internet service, Core network,...)

Global software environment
(PHP, Android, iOS, Linux,...)

Environment and needs of subscribers
(new features and bug fixes)