QUBERCOMM

How we helped an enterprise access point vendor update its proprietary code base and save 13 man months of development time

Background

The client is a major enterprise access point vendor.

The Problem

- The customer had been using WiFi chipsets from a specific vendor for several years and had, over time, adapted the driver and firmware significantly to meet their specific product needs.

- When the chipset architectures evolved, so did the driver and firmware architecture from the chipset vendor.

- This meant that every time there was a new code drop (software release or update) from the chipset vendor, a significant amount of adaptation and testing was needed to make the new code work together with their own proprietary code.

- Each such instance cost them up to 15 man months of time resulting in both loss of efficiency as well as lost time in launching their product.

The Solution

Through several rounds of their own integration, the software stability of the client's code became quite shaky. We were asked to come in and help fix that and also define a path forward that will make these integrations easier. We were invited because of our expertise in that chipset vendor's driver and firmware code base.

We had to create a two pronged plan:

1. Enable integration and bug fixing of current releases so that customer shipments aren't affected and go in with better quality.

2. Create a new architecture that will enable easy integration of client's code into the chipset vendor's driver and firmware.

Both tasks would go in parallel until the new architecture is completed, tested, and ready for prime time. Doing this required the team to use their knowledge of the chipset vendor's drive and firmware. We also had to develop a strong understanding of the years of modifications made by the client, much of which did not have any documentation, history, and perspective. This meant that the team had to do a significant amount of due diligence for each change to make sure the reasons are well understood and to remove specific changes when we deemed they were not needed because of evolution in the chipset vendor's code base.

Business Benefits

- Faster time to market for new products and solutions, since their internal engineering team could now completely focus on new product and feature development.

- Increased customer satisfaction, since their product solutions are now much more stable and previous issues have been resolved.

- Significant reduction in software integration cycle for every new release from the chipset vendor. What used to be a 15 man month cycle became barely 2 man months.