Quick team intro

**Problem statement**

Laura:

Releasing new code to our customers is a slow process.

We also don’t have an easy way to allow both internal and external users to see different versions of the UI.

**Demo**

Clíona:

[Bring up login page, click on each as we talk through their personas.]

Laura:

Let us introduce you to our users, let’s start with Cherie, she’s a VIP, a Platinum customer who always wants the latest and greatest versions of everything and is happy to give copious feedback! We want to direct her towards the Beta version of our application so we can get her thoughts before rolling it out to all our users.

Clíona:

When Cherie goes to log in she hits a NodeJS server that identifies who she is. Using a simple rules engine we look her up in a key value store where we can see that she should be directed to our beta version (1.1.8). The server then redirects here to that specific version of the app.

Laura:

Next up, we have Philippe, he represents the bulk of our users, he wants a stable application that allows him to spend time working with his students to improve their learning outcomes -- we always want to direct him towards the current Active version which is stable and performant.

Clíona:

In this case the server on not finding a value for Philippe in the key value store redirects him to the version that is tagged active.

Laura:

Julie is a customer who reported a CSI a while ago, teams have been working hard to replicate and finally believe they have the fix for her issue. Because it has been so tricky to figure out, we really want to validate that the fix works for her - we would have our support teams work with her to test and confirm the specific version works before we make it active.

Clíona:

The solution allows you to bypass the rules engine lookup by passing an explicit version.

Laura:

Aidan is teacher in Texas who is reviewing our latest reading program for State Adoption. This is a critical time and we need to ensure that we do not release any new features during the review period that may impact his evaluation. Therefore, we lock Aidan’s account to a specific UI version for the duration of the review while continuing to release new features to our regular customers.

All of the above users are critical to the success of our product and HMH and we are better able to support them by having multiple versions of the UI in Prod.

Clíona:

This also will greatly benefit our engineering teams allowing them to deploy and test in Production quickly and easily. Whether it’s a shiny new feature or the critical fix for Julie’s CSI.

We have done 162 deployments to Production of Ed this year. Builds that go very very smoothly take approximately 3 hours but often longer, so we have spent at least 486 hours on deployments this year. By removing two stages we could save 324 hours.

Releasing a build is now just a matter of changing the active version. Here I run yarn activate, and if I now login as Philippe he sees the very latest version (0.1.10)!

Also, as each build would be done from a PR this promotes and encourages the best practice of a build only containing one change.

Laura:

This change benefits every user group in the company and externally that uses our digital products today. The time we, as engineers, spend getting our ducks in a row to deploy to production can be cut quite dramatically if we have a robust versioning and routing solution in place. And when we have CSIs come in we can easily replicate the frontend which was being used in the customer’s scenario, right there in production.

Questions we might get:

The redirect - we could proxy instead

The folder structure - we could have files pre-pended with the version name instead and a single folder, would negate the need for redirect, might be a more confusing structure.

We could also return a snippet for the content of the index file rather than different files - these would reference the correct JavaScript bundles.

Could be part of a user configuration - the app could be booted with that configuration and also the snippet for the index file that links to the correct JavaScript bundles.

We have an open question as to how we would manage to version with a large team of UI engineers, but we believe this to be solvable.

Considerations would have to be given to usages of the INT and Cert environments by other stakeholders.