Big Ask. Big Win.
A Collaborative Spin

by Amber Pratt

Platform Enablement's Catalog "Wizards" (as we call ourselves) have embodied the true spirit of Ford. We're built tough, a little quirky, and certainly proud of the evolution the API Catalog has gone through over the last 10 months. Our enthusiasm for our product is contagious and unwavering.

Sharing in our excitement, product teams often reach out to get their APIs represented in the Catalog. In our infancy, all we could do is tell them to publish their Mobility production APIs in a gateway, and we would do the rest. Then, in February, we got a big ask. At the time, the Catalog was only exposing APIs published to Azure's API Manager (APIM) and IBM's API Connect (APIC), but Autonomous Vehicles (AV) wanted "in", and they use Amazon Web Services (AWS) as their gateway.

The Catalog team was making strides to enhance the user experience, improve data integrity, and build additional features. We had a backlog of stories and had not planned to incorporate AWS for at least 90 days, but we could tell it was important to AV – it was part of their Q2 goals and objectives. So, after a quick discussion, we decided as a team, to push ourselves further – a cross-team collaboration. One team. One plan. One goal.

Within a week, user stories were written, and two AV software engineers were ready to start working with the API Catalog team. It was a bit of a rocky start. There was a considerable amount of knowledge transfer, different working styles and norms, and varying levels of experience to overcome. Brainstorming and whiteboarding sessions helped the software engineers visualize the path and potential obstacles. Some project requests had to be put on hold due to time restraints, lack of software engineers, and scope of work, but within about a week the vision was clear – Expose APIs published to AWS in the API Catalog.

After six weeks of intense collaboration, challenging work, and plenty of fun, the seven software engineers completed the task. It's both a relief and a reward.

It's been about a month since the cross-team collaboration came to an end, so I asked each of the engineers to reflect on the project and provide feedback on their experience.

Here's what they had to say:

Working styles, team norms, engineer experience

The API Catalog team follows Extreme Programming (XP) practices with a focus on paired programming, continuous process, shared understanding, and programmer's welfare. The AV engineers were not familiar with this practice. Neither of the engineers who joined had experience mobbing or pairing. There was also varying levels of engineering experience among the seven.

To overcome any differences in future collaborations, the engineers shared a few comments:

- Before work commences on the project, all members of both teams, even management, should be involved in a discussion regarding working styles, engineering best practices, team culture, and levels of experience to **ensure the right folks are tagged for the collaboration.** Once participants are selected, they should remain with the collaboration through its completion to avoid lengthy knowledge transfers mid-project.
- The team that owns the application should ensure the parties involved **understand their software engineering practices, and are willing to collaborate in this way.**
- **Set expectations and "build trust, culture, and working agreements"** – these are important to the overall success of the collaboration.

"Given the two teams had contrasting working styles, it took a while for us to get going as a team."

"My biggest pain point was not having enough Java knowledge prior to working on this. The team had to slow down their pace to accommodate me coming on board."

"I felt both teams were very understanding of the other teams' requirements and what it would take to implement them, and duly accepted changes in order to get the work done."

Deadlines, timing, & sacrifice

Because of our loyalty to the XP methodology, we do not practice date-driven development rather, we tend to invest more in small user stories and continuous iterations. We were asked to complete the task by the end of March – just six weeks from ask, this large endeavor meant shifted priorities, delayed deliverables, adjusted team sizes (AV loaned out two software engineers for the task). This sacrificing on a tight deadline caused a great deal of stress for both teams. The software engineers commented that timelines are hard to gauge, especially in the beginning, and the work produced in the first few days should not be used as a measure for final outcomes.

One engineer added, "Discoveries were occasionally made that

complicated certain aspects of our work and caused some stories to take longer than expected", but noted, "one benefit of these discoveries is the quality of our code today. Many improvements came from this (code quality, code flow, ease of understanding, etc…)".

Even though "It was a bit of a challenge balancing our own priorities and deliverables with an unexpected request", the flexibility and determination of the united team shined through. The Catalog / AV collaboration did not simply bring a new gateway to the API Catalog, it will introduce a wide range of APIs to discover and a whole new audience for API consumption. A more complete and unique user experience means easier ways to collaborate and reuse APIs. This is the type of value-add that we constantly strive for even if it wasn't what we had planned. A big win for everyone.

For future cross-team projects, it is suggested that having a **less aggressive deadline** and **making sure the timing works for both teams** is most beneficial.

Team dyamics & learning opportunity

*"The team dynamic, **friendly atmosphere & relaxed attitude** that all the team members had was probably my favorite part of the experience."*

*"The API Catalog Team was very welcoming to the AV team and took the time to **work with each of our skillsets, regardless of the level we were at**; they took the time to explain each application and reviewed all software engineering practices/concepts we were applying in our development."*

*"We have so many great teams and resources developing new products, and these types of opportunities would only **help us gain a better understanding of what we are creating as a company!** I now have a clear understanding of what the API Catalog is and does; I do not believe I would have been able to achieve this level of understanding through collaborative meetings alone."*

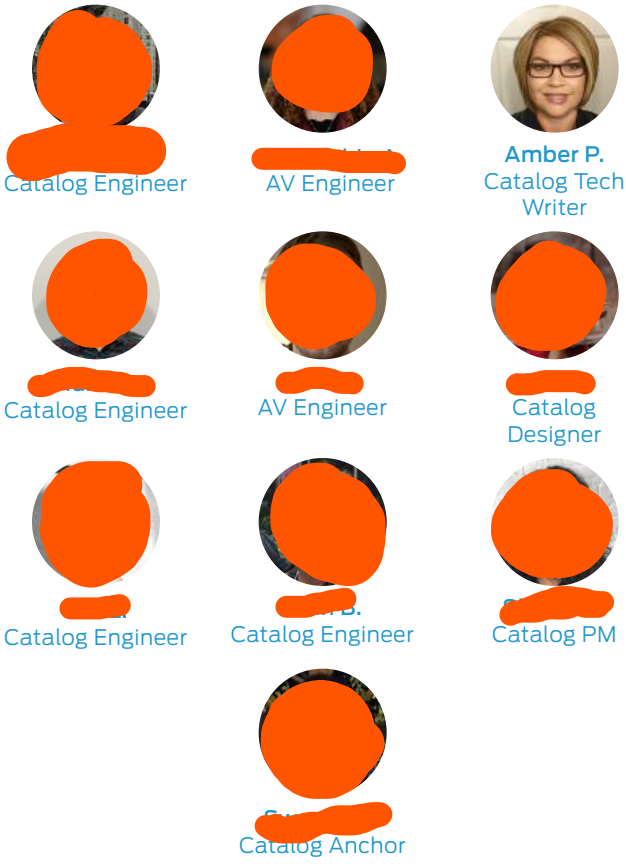
To conclude the engineer's feedback session, I asked, "What was your favorite part of the collaboration?" The resounding answer was the collaboration itself – working with a new group of people who provide a fresh perspective and raise technical questions that have never been asked.

The API Catalog team has strong dynamics. There's just eight of us, but you wouldn't know it. We genuinely like working together. We will stop everything to help a fellow wizard. There is serious work ethic, but we have fun doing it, and we're often loud. This culture is sacred and protected, and I believe a big contributor of the successful acclimation of the AV engineers.

Another contributor, due, in part, to our XP practice, is our open-minds-safe-spaces attitude. We used the occasion as a learning opportunity where every participant had a voice and contribution. We asked questions, engaged in healthy debates, pushed each other further, and made us better as a result – Ford better as a result.

Special thanks to Autonomous Vehicles and all the engineers involved in the collaboration for their hard work and clever insight.

I would be remiss if I didn't thank Shylan Ghoujeghi, the API Catalog Product Manager, for steering this tiny ship like a Carnival cruise line.



Thanks for reading!

For more information on the **API Catalog (apicatalog.ford.com)**, the API Catalog team, the collaboration, or just general API stuff, visit the **#api_lounge** on Slack or **API Lounge** on Webex Teams.