API ENABLEMENT & STANDARDIZATION DISCOVERY REPORT

A CraftWorx driven deep dive exploration into the API Center, how it is used today and identifying opportunities for improvement.

Discover API Research Team



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Users Spend Most Of Their TimeOn Other Sites. This Means That

User Prefer Your Site To Work The

Same Way As All The Other Sites

They Already Know."

Jackob's Law

LAWS OF UX



What is the Internal API Center?

Publishing APIs is the process of preparing your APIs for your internal developer community, and other consumers. By publishing an API, you're marking it as ready-to-use and be called from other applications. Publishing APIs is an important step to enabling adoption and ultimately API monetization

The internal API Center portal allows API owners to control, manage and publish their APIs while enabling consumers to discover what services are available. Operational teams can seamlessly monitor their API performance by integrating with enterprise-grade API monitoring tools.

API Center offers enterprise-wide self-services for global teams across all Discover's business units and value streams.











Log In

Home

My Stuff

My APIs

My Apps

My Teams

API Call Alter

Browse Catalog

Featured APIs

API Catalog

APP Catalog

Provider Docs

Provider Overview

Become a Provider

Develop APIs

Add APIs to Provider Portal

Request Approval

Publish APIs to Consumer Portal

Publish APIs to Production Portal

PCF Migration to OCP

Welcome to the API Center

This portal allows API owners to control, manage and publish their APIs while enabling consumers to discover what services are available. Operational teams can seamlessly monitor their API performance by integrating with enterprise-grade API monitoring tools.

Browse Catalogs

Discover what APIs are available by searching our API catalog, sample apps, and inspecting sample code.





Review Documentation

Jumpstart your development by reviewing our Provider and Consumer documentation including API standards, user guides and how our process works.

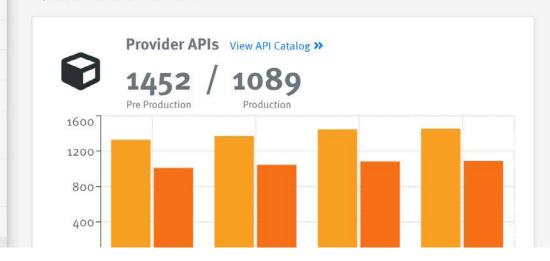






Dashboards

Report Date: Fri, 22 Jul 2022 18:11:18 GMT







Technology Capabilities & Innovation

CraftWorx™ THINK

CraftWorx is our one agile way of working and the methodology through which we continuously evolve our approach to software engineering, enabling you to use the best technology to build world-class products!

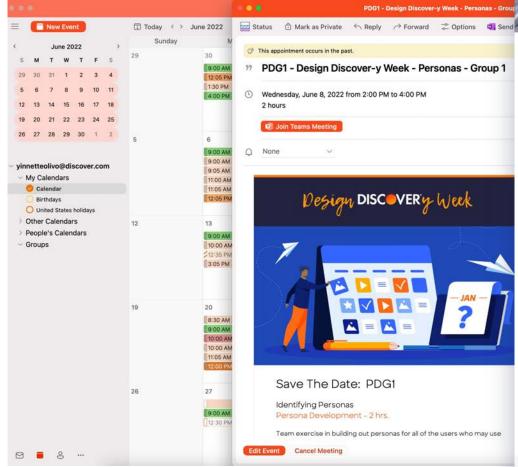
Technologists & thought leaders across the enterprise comprise the CraftWorx community, continuously contributing and refreshing content. This fosters a collaborative exchange of ideas, knowledge, experimentation and support, enabling you to benefit from company and industry best practices to maximize speed-to-value.

API UX Research Outcomes

- Perform comprehensive CraftWorx & Design Thinking guided discovery into the API Center in order to challenge and prove the THINK Theory in a real-world product lifecycle development.
- Schedule and facilitate user sessions with internal API users and non-users who will participate in the discovery sessions and will be the contributing force in the research study.
- Gather qualitative data and compile research in order to better understand the pros and cons of the current solution.
- Leverage research to make informed decisions on what improvements to features and functionality should be included in the next product lifecycle release.
- Guide design and development of future stages of the API center, creating a scalable and comprehensive tool which works for the users who helped create it.

CraftWorx Think Discovery Sessions

The Collateral



Design DISCOVERy Week



A week to explore the Internal Discover API Center



The API Guild (The Center for API Enablement - API C4E) has teamed up with the Design Thinking Workgroup to run a workshop to gain empathy to improve Discover's API Center.

We would like to invite you to participate in this Working Group to conduct discovery sessions for the API Center. During these Design Thinking sessions, you will participate in a series of exercises that will help the internal API product team, determine what improvements and challenges we need to take on in order to provide you with the best API and Microservice experience possible throughout the API lifecycle management.

What is this?

These are community conversations & design thinking activities, like journey mapping and features prioritization, that everyone will participate and contribute to. This is neither a screen design exercise, nor a technology specific implementation discussion, but the workshop will focus on gaining empathy of the journey pertaining to API discoverability, usability, workflows and facilitations between providers and consumers of APIs and microservices, etc.

Why Me?

We are looking for API Guild members/representatives of all areas and personas dealing with APIs and Microservices, including: Application Development, DTA Experience, Cloud, Cybersecurity, etc. If you identify with any of these areas you would be an asset to the cause and whose contribution would be of immense value.

Sign up to Participate

Design DISCOVERy Week



hank you for accepting our invitation.

he future of the API Center is now in your hands.

fe appreciate you signing up for our discovery sessions and are excited for you to in in on the activities. All the valuable feedback you will provide will help us in our urney to improve the API center. It will be leverage in communicating, to our adership, the direction we as employees want our API resource to go.

hese workshops will be community conversations & design thinking activities, like urney mapping and features prioritization, that overyone will participate and ontribute to. Again we reaffirm that these workshops are design exercises, nor nplementation discussions. We will focus on gaining empathy of the journey ertaining to API discoverability, usability, workflows, and facilitation between roviders and consumers of APIs and microservices, etc.

o now that you signed up, whats next?

reat question! Going forward, please expect a series of invitations. The API Guild the Center for API Enablement - API C4E) will be working with the Design Thinking forkgroup to sync all of our Discovery Week workshops with all the participants alendars. The timeline of for completing the workshops will depend on the valiability of all participants. We ask that you RSVP to our invitations as soon as ossible. Please note, if you are unable to attend for any reason, please let us know, nd we can fit you into another workshop session at a later date.

ow, Lets bring your thoughts and ideas to reality! We look forward seeing you there.

Have Questions? Click Here.

bout the API Center

Keyword of the week is "Empathy"

CraftWorx Think Discovery Sessions

Schedule - June 2022

C4E Working Group 1

6

User Interview 8

Persona Development 14

Journey Mapping 16

Task Prioritization 20

Card Sorting

C4E Working Group 2

6

User Interview 8

Persona Development 14

Journey Mapping 16

Task Prioritization 20

Card Sorting



The C4E API Experience & Optimization Working Group had a total sign-up count of 28.

6

Out of 28 invitees, 6 of the invitees boasted a perfected attendance score for all 6 of our sessions.

11

User Experience facilitated 1 introductory session and 5 individual workshops, for 2 groups, a total of 11 sessions.

Discovery Process and Considerations



How To Find The North Star?

User Interview - 1 hr

Group discussions that are aimed at the collection information, understanding their pain points and talking through ideas that may help.



Why Do We Need To Know The Users?

Persona Development - 2 hrs

Team exercise in building out personas for all of the users who may use this product. We will give them a photo, personality and back story.



How Do I Sort The Problem Out?

Card Sorting - 2 hrs

Team exercise aimed at sorting pages, features and functions into groups that make sense to you and your team.

Cont...



What Is Most Important To The User?

Task Priority - 1 hr

Prioritizing features, functions and tasks. We will use existing functions and include new features collected during our day 1 interviews.



Where Do The Users Go From Here?

Journey Mapping - 2 hrs

Describing the "Day in the life of" of all of the personas, logging interactions and making sure they complete their tasks and reach goals.

During these Design Thinking sessions, attendees participated in a series of exercises that help with the drafting of this document. The Internal API product team with the help of attendees were able to determine what improvements and challenges they are facing in order to provide users with the best API and Microservice experience possible.

Participants Representation

The various departments represented in the research



AD - Payments



AD- Card



AD - Bank



Enterprise Architecture



AD - Testing



Infrastructure - Cloud



Infrastructure - API Management



CraftWorx



Discover Technology Academy



Asking the right questions to uncover the pain points.

What are User Interviews?

User interviews are guided interviews where a researcher asks existing or potential users questions to gain an understanding of their preferences, thoughts and feelings. They are a great opportunity to meet your users, understand and start to design for them. As with most things in life, preparation is key!

Why are they important?

User interviews are insightful for the UX team, but quickly become invaluable when other groups in your org are involved. When adding some other folks to the call that may not be familiar with the product, Their feedback helps to balance the perspective and provides the first impressions point of view.



Pain Points: "We think..."

- Lack of personalization
- Information does not offer value
- The experience contains a lot of friction
- API is isolated from other solutions
- There isn't a focus on Publish and Consumption
- There is another engine that is powering the API Center
- Naming of elements don't make sense
- We don't care about metrics
- Lack of meaningful relationships within the experience
- Important actions are nested too deep

- There is a confusing redirect to another system
- There is a lot of manual work
- 🔀 It takes too long to get anything approved
- Important meta data for APIs are not collected
- X There is no Version Control
- X Too many versions of the same thing
- Ownership of API is not transferable
- Low engagement and adoption
- X There is no real way to test quickly

Solutions: "We want..."

- Included Tailored Experience
- Ensure metrics offer value
- Add Most Used APIs, Trending and Upcoming APIs
- Improve navigation and Highlight call-to-actions
- Include API with other tools in integrated experience
- Well separated Provider and Consumer focused journeys
- Make this the single source of truth
- Add a glossary and Improve the nomenclature
- Reduce the amount of clicks and friction overall.
- Comprehensive Swagger Documentation Editing

- Provide users with a seamless experience
- Eliminate/Reduce redirects to other systems
- Streamline access to consume and publish.
- What can be automated, should be automated.
- Improve forms for the the API documentation.
- Implement form validation policy for API Documentation
- Implement Versioning
- Promote a Culture of Knowledge
- Increase Discoverability
- Promote meaningful relationships amongst the users and the information

Pain-points & Recommendations

- 🛿 It is difficult to find the API you need
- 🔀 Lots of Friction and manual processes
- API Information is limited and sometimes missing
- 🔀 Cumbersome to publish an API
- APIs management is lacking, with long wait periods
- Ownership of API is not transferable
- Low discoverability, engagement and adoption
- There is no real way to test

- ✓ Included Tailored Experience with personalized experiences
- Reduce friction by improving search engine
- Improve the API information base and include robust tagging and documentation
- Reduce bureaucratic processes by promoting team work spaces.
- UX improvement will drive adoption and discoverability and develop a DTA strategy
- Create a testing environment for API rapid prototyping
- Promote a culture of Knowledge

Interview Assessment: "They need..."

While the API center serves the purpose for which it was intended, as innovationists, we can't help but notice the details. After participating in discovery user interviews for the API Center, many have expressed frustrations associated with the limited functionality and lack there of. There is an underlying problem with the use of this tool, pain-points associated with discoverability, difficulty navigating, task prioritization, and documentation.

After the interviews we were able to get a clear picture of what the users needed. The asked for overall reduction of friction, integration with other tools they use, facilitate the testing process, cut back on navigation and simplify, and create a collaborative environment where hand-off, versioning and API management is a team effort.

Focusing in on the discoverability challenges. We must work on the discoverability aspect and plan a strategic digital marketing strategy within Discover in order to ensure users find the API center when they need it, and drive adoption ensuring that when they are there, they are engaged. Making it a single source of truth in terms for all our internal API needs.

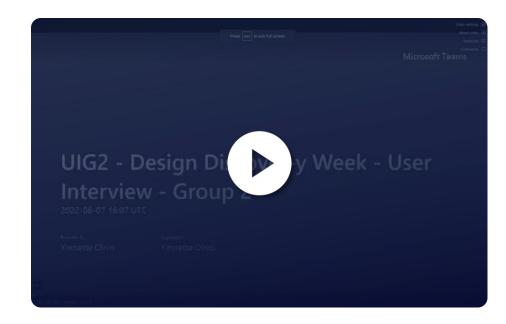
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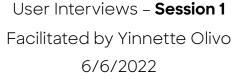
Navigation, Useless Metrics and confusing processes are among the issues that make the current version of the API center difficult to use. Not to mention the complete lack of clear and concise call-to-actions on the homepage that results in users wondering around trying to figure out "where is the button to do what I need to do" - User.

Finally, the pain-point that increases the number of times a user must rework APIs, call providers for clarification, spend more time testing in order to properly understand what specific APIs do, and bogs down storage with multiple versions of the same thing is API documentation. API documentation must be improved to allow transfer of ownership, robust API details, online editing of swagger for consistency, and robust validation coupled with metadata in order to boost our search implementation efficacy will ensure our consumers have the information they need to make informed decisions.

Session Recordings

All of the feedback collected during the user interview sessions can be seen here on Miro. <u>Click here to view</u>. Session recordings can be accessed here. <u>Click Here to Videos</u>



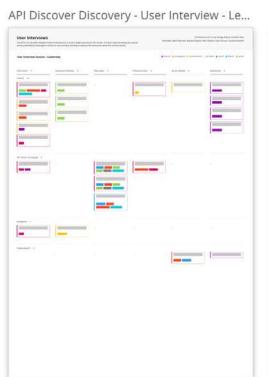


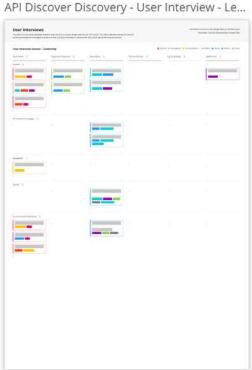


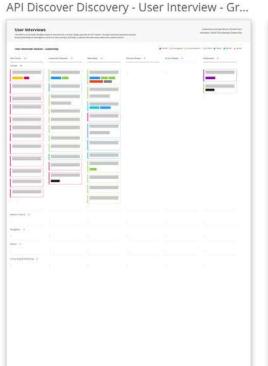
User Interviews - **Session 2**Facilitated by Yinnette Olivo
6/7/2022

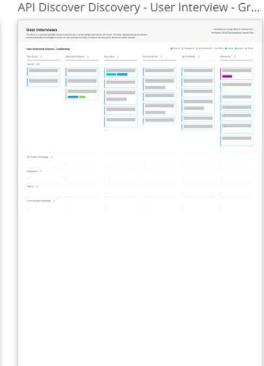
Feedback & Research Whiteboard

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PERSONA DEVELOPMENT

Leveraging the users to tell us who they are.

Personas are fake people. Not really fake but made up characters who are in the situations and scenarios that a typical user would be in. They have the different origins, roles, characteristics and narratives, and like all of the users, are looking to accomplish specific tasks.

Why are they important?

Personas are a valuable tool to help you get to know your customers, as well as how you can meet their needs or solve their problems. With detailed personas in place, everybody has a more consistent overview of your target audience. Plus, you're better equipped to provide empathy and insight when discussing features and product changes. Use this template to outline need-to-know information about your customers and take your marketing to the next level.

Persona Development

The Consumer

Also, known as the seeker, the person whose task requires them to find an secure Discover-approved API. The consumers primary priorities revolve around searching, consuming and maintaining their app.

- Search for possible APIs that are able to fit their needs
- Find the correct API that will serve them correct info
- Test the API to ensure functionality and reliability
- Request permission to use API
- Communicate with the provider of the API for any additional info
- Follow recommended policy and guidelines on the use of the API
- Ensure that his solution is scalable and can be easily updated

Searching



Biography

consume. There are hundreds of APIs and I must spend the bulk of my time finding the

Name	Motivations	Frustrations
Daenerys Targaryen	I want to be able to use an existing API to satisfy a new/existing business requirement I want to be able to call an existing API service using the information from the API specifications	Inaccurate/Out of date API owners Inaccurate API specifications Too many locations for documentation (GitHub Pages, GitHub, SharePoint, DTA) Difficult to find out process to get approval to consume an API
Departments		
Generic Application Development Team		
Common Titles	Goals & Objectives	Thoughts
Application Engineer, Application Developer	I would like to find an API or list of APIs that suits my needs I want to find out more about a specific API without having to contact the API owners I want to have an up to date API specification on the APIs I consume I want to consume an existing API	I want an easier way to see what an API provides (core capability) Centralize/Consolidate documentation for consumers Consider integrating API Center with Okta SSO How to search for a specific data point

Consuming



Biograph

	Have long term experience on API consumption from SOAP to Rest to native while delivering or products and services		
Name	Motivations	Frustrations	
Vijay Kumar			
Deparments	 deliver product capability quickly quick integration 	 not able to find step by step guide for consuming the existing APIs app approval is manual 	
Consumer & B2B Payment products		эрр эрргэгийн нийний	
Common Titles	Goals & Objectives	Thoughts	
Solution Architect Engineering Manager Expert Enterprise Architect	should be able to lookup current version of the Provider APIs on the API developer Portal should be able to board and perform credentials generation as self-services try out and integrated with my Consumer APP	consumer dashboard showing step by step progress from initial onboarding to implementation in production. In stead of user guide driven manual workflow, APP Credentials generation workflow should be part of automated workflow.	

Persona Development

The Provider

Also, known as the giver, the person whose task requires them to produce APIs to a secure Discover-approved environment where others are able to consume. The provider's primary priorities revolve around **creating an API**, **publishing** and **maintaining**.

- Quickly and efficiently publish an API
- Enter all of the API information to ease discoverability
- Attach Swagger doc to ensure correct consummation
- Deliver guidance and policy around use of their API
- Communicate with team or consumer regarding any questions
- Approve access for consumption of API
- Publish updates and maintain API



Biography

I've recently been relocated to the basement. I'm still updating my TPS report API. When i'm not looking for my red swingline stapler, I spend most of my time making updates to the API.

Name	Motivations	Frustrations
Milton Waddams Deparments Mailroom	I have data I want to give people access to. I need to be more efficient. I want to be a good API provider.	Hard to update my API Specs (manually) I need to create docs on how to use or what changes are no alerting mechanism if the API changes inconsistent naming convention & versioning no way to know if my update will break my consumer's app. Same process is followed for all APIs whether private or reusable
Common Titles	Goals & Objectives	Thoughts
Product Engineer, Software Engineer, Application Developer, Digital Solutions Developer, Consultant, Database Developer, Mobile Developer	Keep My specs Up to date for my consumers Be a 'good' provider of API 'I'd like to be able to have my consumers know about my updates I need to approve and be aware of all consumers of my API I need to learn and adopt company versioning strategy Provide a way to solicit consumer feedback on most valuable enhancements	pub/sub model attached to the API? Inform on new version More proactive, less reactive to being a good provider Need an easy channel to provide support for my consumers Versioning strategy to be aligned with industry Would like a way to solicit feedback API knowledgebase?

Testing



Biography

I spend the majority of my time focused on completing planned testing tasks, with roughly 30-40% of time taken by meetings, planning and develop test scripts for the next sorint. I work off of JIRA tickets and have a regular stand-up with my team.

Name	Motivations	Frustrations
Priyanka Chopra	I working on a currently project where i need to test an API My job is to write and execute tests to validate business requirements	Goal of testing unclear not enough sample data missing pre-requisites for deployment ex security related requirements incomplete instructions to enable deployment Insufficient description of API attributes in API specification for example API Scope, API Plan
Deparments		
Tupperware		
Common Titles	Goals & Objectives	Thoughts
QA Engineer, Software	API is ready to be consumed Validate that the API works as expected. Easy to consume Sandbox is configured for testing assuming this is an external API	Improve experience by providing Support Information and updated Contact Information

Persona Assessment

Although there are many reasons for why one might access the API center, one thing became glaringly clear during our persona sessions... Our hero of the story are the providers and consumers.

When it came to consumption, our persona teaches us that any solutions we explore for the redesign of the API, must include an improves workflow for requesting permission to an API that does not include email. We also learned that we were missing a key component of the consumer journey and that was the ability to test and request use of an API. If executed correctly can drastically reduce bureaucratic communication obstacles as well as delivery timelines of the implementation process.

In regards to the provider, we learned that documentation, governance and policy are missing from our current mode of operation. The solution will come in the form of of a comprehensive API detail management workflow with automation included and barriers to publish that make it nearly impossible to deploy a new API until all of the required information is uploaded and readily available for consumers. Team spaces also ensure that our persona is not alone and approvals as well as updates can be handled by anyone on the team completely eliminating API waste and consumer delays.

Session Recordings

All of the feedback collected during the persona development sessions can be seen here on Miro. <u>Click here to view.</u>
Session recordings can be accessed here. <u>Click Here to Videos</u>



Persona – **Session 1 - Part 1**Facilitated by Yinnette Olivo
6/8/2022



Persona – **Session 2- Part 1**Facilitated by Yinnette Olivo
6/9/2022



Persona - **Session 1 - Part 2**Facilitated by Yinnette Olivo
6/8/2022



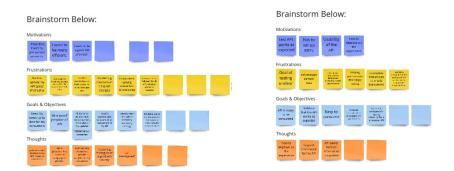
Persona – **Session 2 - Part 1**Facilitated by Yinnette Olivo
6/9/2022

Feedback & Research Whiteboard

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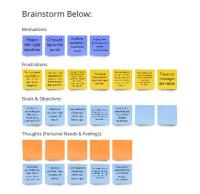
API Discover Discovery - Persona Development - Group 1





API Discover Discovery - Persona Development - Group 2











Walk the walk and talk the talk: A step by step breakdown to help guide ux.

A customer journey map is a very simple idea: a diagram that illustrates the steps your users go through in engaging with an experience. Sometimes journey maps are "cradle to grave," looking at the entire arc of engagement. Sometimes journeys can be end-to-end detailing in extreme detail all of the steps a user takes to perform all of the tasks a digital product is capable of. Other times a user journey is only a portion of an experience where the user is trying to accomplish one thing.

Why are they important?

Either way you choose to explore, user journeys are important in forcing us, the experience collaborators, to look at each and every step involved in a users journey to accomplish. It helps us think about the how cumbersome some experiences can be, what tasks can be improved or automated, highlight features that are either unnecessary and should be removed, or extremely important and should be further explored.

Journey Mapping

The Consumer Journey Scenario

Vijay needs to find an API for a task, he realizes during his search there is vital information missing also, there is a 2.0 coming out soon.

He messages the publisher which is Andrew, to get more info on updates, Andre knows that Milton has been working on the latest update, since they are on the same team.

Andrew and Milton work together to message Vijay on what's coming soon, and Milton adds the missing information about the update on the API, Vijay is then able to figure out it is the API he needs, he tests it and it is a success.

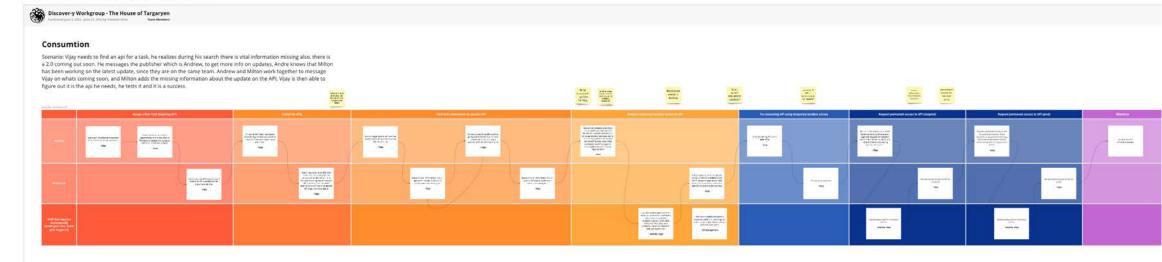


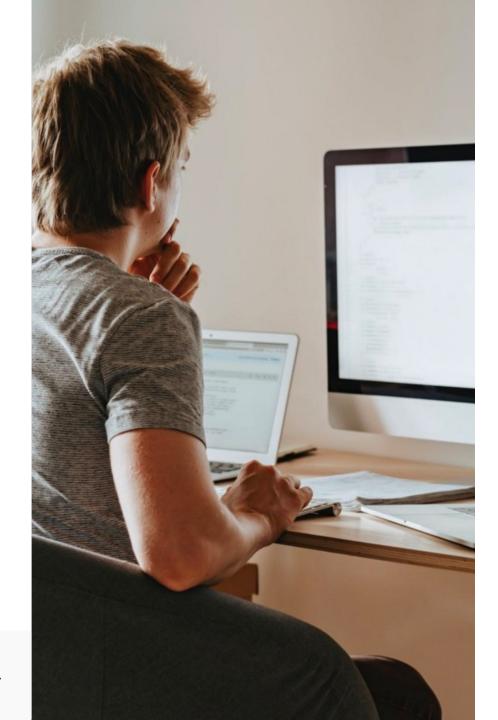
Consumer Milestones

- 1. Assign a New Task Requiring APIs
- 2. Search for APIs
- 3. Find more information on specific API
- 4. Request temporary/sandbox access to API

- 5. Try consuming API using temporary/sandbox access
- 6. Request permanent access to API (Non-prod)
- 7. Request permanent access to API (production)

The House of Targaryen - Workboard





Journey Mapping

The Provider Journey Scenario

Vijay needs to create an API for an app on the Credit team, it is due next week. He is having to test the API very often and needs to rapidly test without having to wait. Because the API is for sensitive data, customer credit checks, he will have to have it peer reviewed multiple times and get it approved for publishing.

He messages the Andrew, a team member, and has him help with testing and peer review the API. Once it is approved, he submits the API, Milton receives a message, reviews the API and notices there is one change he has to make. He messages Vijay back with the change, Vijay makes the modification and then resubmits. Milton Approves it for publishing.

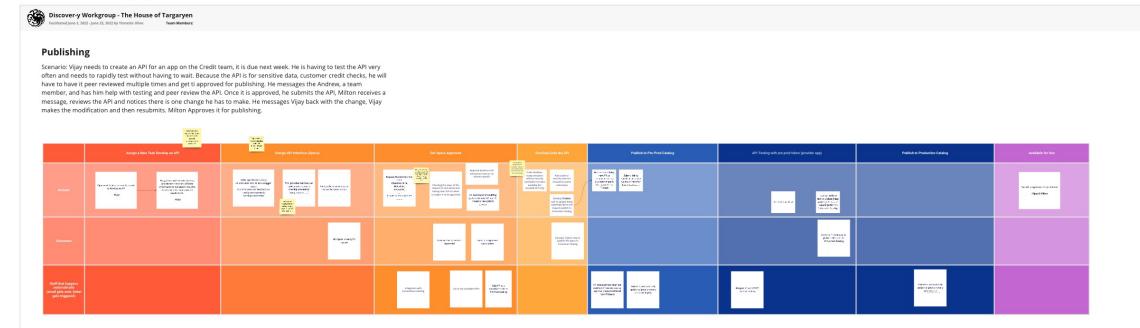
Journey Mapping

Provider Milestones

- 1. Assign a New Task Develop an API
- 2. Design API Interface
- 3. Get Specs Approved
- 4. Develop/Code the API

- 5. Publish to Pre-Prod Catalog
- 6. API Testing with pre prod token
- 7. Publish to Production Catalog
- 8. Available for Use

The House of Targaryen - Workboard



Journey Map Assessment

During our journey development, our collaborators were able to quickly fill gaps in the process of arriving at the API center all through consuming and providing.

Some key observations of the provider journey where made. Our discovery collaborators mentioned opportunities to standardize API requirements, provide contextual learning material in order to train engineers on what a properly documented API and swagger look like. Suggestions for a developer sandbox online were floated, along with automated features which automatically send communications to current consumers and update specs on deployment. Also, as far as security is concerned, users suggested being allowed to grant temporary access to APIs which would be governed by an expiration date, further eliminating the need to approve on time.

With the consumer journey, again, our collaborators arrived at the conclusion that at least 50% of the journey is searching for the right API. Our search features must be robust, include filtering capabilities with a API tag/category ecosystem. The ability to preview the response is important, so that search is not hindered by a clicking in and out of the API details page. Finally, including a feature whose purpose is to provide our consumers with similar API suggestions as well as API sourced from a single team.

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Journey Mapping

Session 1 - Part 1

Facilitated by Yinnette Olivo

6/14/2022



Journey Mapping

Session 2 - Part 1

Facilitated by Yinnette Olivo

6/14/2022



Journey Mapping

Session 1 - Part 2

Facilitated by Yinnette Olivo

6/14/2022



Journey Mapping

Session 2 - Part 2

Facilitated by Yinnette Olivo

6/14/2022

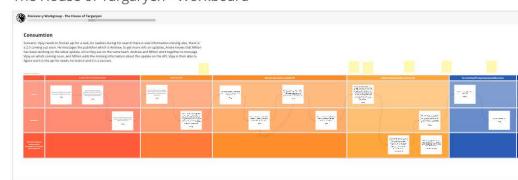
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The House of Targaryen - Workboard



The House of Targaryen - Workboard



The Rebel Alliance - Whiteboard





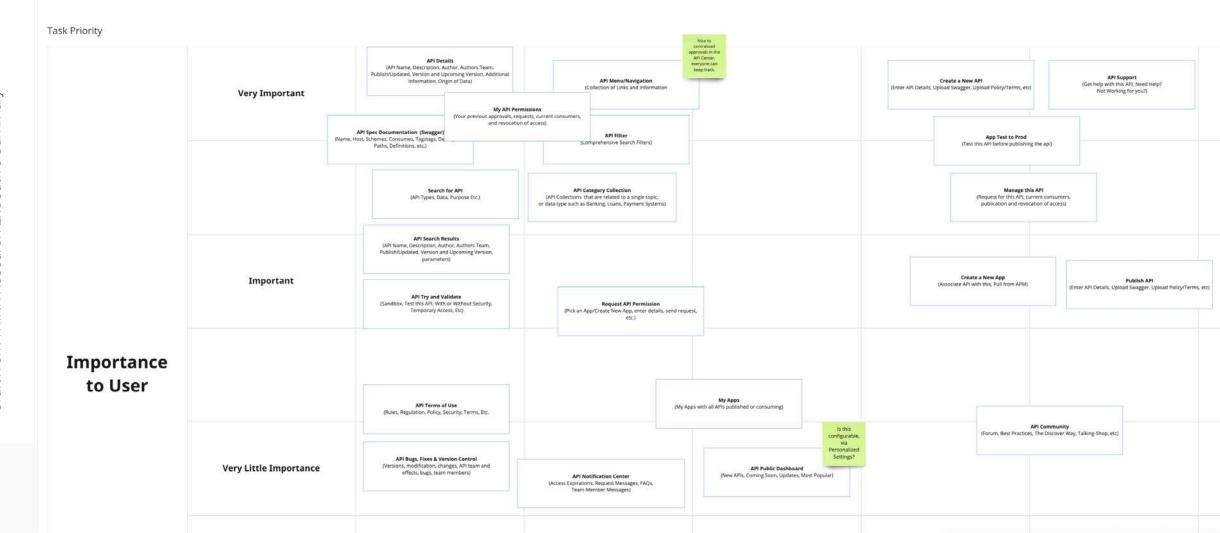
The best way to identify what to build based on use and need.

Task prioritization is a way to leverage features in order to build effective architecture within a UI and provide users with the capabilities they need in order of importance and frequency of use. Prioritizing features communicates to the research team, this is what we should design and build first, and in regards to the size and performance of a features, placing functionality in an area that is quickly and easily accessible as well as ensuring that it behaves in a way that the users want.

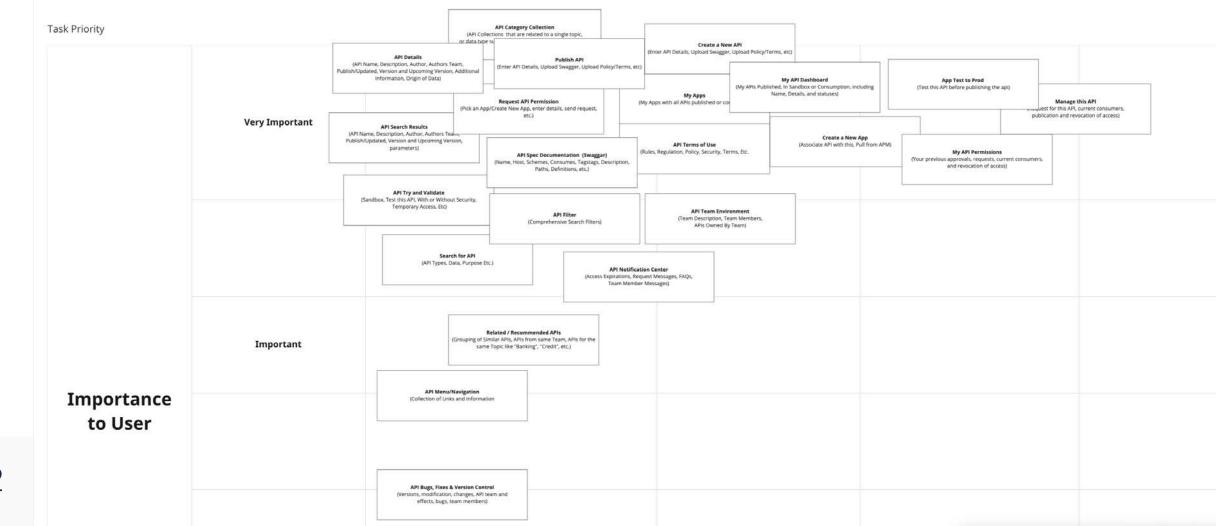
Key Factors for Prioritizing Development and Design

- 1. Frequency of Use: How often does the user, access this feature/function/tool.
- 2. Importance to the User: How important is this task? Is it a large priority in the users day-to-day?
- 3. Level of effort: What is the level of effort on behalf of the design and development team to develop solution?
- 4. Time to implementation: How long will this take to implement?

The First Group's Primary Objectives



The Second Group's Primary Objectives



Our users have spoken.

Our API collaborators have said that what is most important to them are the features listed below. UX recommendations would be to focus MVP on delivering these features.

- Ability to Publish an API
 - Along with all of its important information which includes but is not limited to API Name, Description, Author, Authors Team, Publish/Updated, Version and Upcoming Version, Additional Information, Origin of Data.
 - Enter robust API Details, Upload Swagger, Upload Policy/Terms, etc
 - API Spec Documentation (Swaggar) with Host, Schemes, Consumes, Tagstags, Description, Paths,
 Definitions, etc.
- 2. API Search & Try
 - including API Name, Description, Author, Authors Team, Publish/Updated, Version and Upcoming Version, parameters, etc.
 - API Category Collection (API Collections that are related to a single topic, or data type such as Banking, Loans, Payment Systems)
 - API Try and Validate (Sandbox, Test this API, With or Without Security, Temporary Access, Etc)

Session Recordings

All of the feedback collected during the task priority sessions can be seen here on Miro. <u>Click here to view.</u> Session recordings can be accessed here. <u>Click Here to Videos</u>



Task Priority

Session 1 - Part 1

Facilitated by Yinnette Olivo 6/6/2022



Task Priority

Session 2 - Part 1

Facilitated by Yinnette Olivo 6/7/2022



Task Priority

Session 1 - Part 2

Facilitated by Yinnette Olivo 6/6/2022



Task Priority

Session 2 - Part 2

Facilitated by Yinnette Olivo 6/7/2022



Card Sorting to help sort out navigation, taxonomy, placement and grouping of Information.

Card sorting is a user research technique that can help you discover how people understand and categorize information. In a card sort, our participants sort cards containing different items into groups. You can use the results of a card sort to figure out how to group and label the information on your website in a way that makes the most sense to our audience.

It's best to do a card sort when you want to answer a specific, information-related question. In our example, we need to reduce friction and make processes easier for our API consumers and providers. Reducing the amount of clicks can do that. So how can we group information so to minimize the amount of pages and clicking a users has to make in order to get to where they need to go.

The First Group's Understanding

Search/Discovery of APIs

(Help me Decide)

- Filter Environment
- Filter Search
- Filter Categories
- Filter Publisher
- Filter Purpose
- Search Results
- Search
- View Out Of Commission APIs
- Their upcoming APIs
- Filter Version
- Data element search

Informational

- Most Popular APIs
- Recommended APIs
- Newest APIs
- APIs Coming Soon
- Related APIs
- API's They Have
 Published
- API Bugs
- API Details
- APIs in Testing
- APIs in Production
- API Fixes
- APIs in Development
- API Blog

My personalized view (my stuff)

- APIs I'm consuming
- My API Approvals
- My API permissions
- My Published APIs
- My API Requests
- My Apps
- My Team
- Approved Consumers

Gain Access to API

(Self Service)

- Create a New APP
- Try this API
- Publish New API
- Try this API with Security
- Publish This API
- Select an APP
- Test This API
- Prepare For Consumption
- Request Use of API
- API Swagger
 Documentation
- Integrate with APM (Pull/Push)

Card Sorting

First Group's Cont'd

Manage API Lifecycle

(Provide Self service)

- Delete this APP
- Decommission this API
- Grant Temporary Access
- Revoke Access
- Upload API Policy
- Archive this API
- Publish API Update
- Operational Maturity Contract
- Integrate with APM (Pull/Push)
- Schedule API Update

API Details

- View Team Manager
- View API Revisions
- View API Comments
- View API Versions
- View Deployment Status
- View their Published APIs
- View Release information
- View Member Profile
- Last Updates
- API Ratings

API Support

- Need Help?
- Chat
- API Community
- Message Inbox
- View Team Manager
- FAQs
- View Member Profile
- Not Working?
- Notifications
- Operational
 Status/Maturity
- Following API (subscribe to news/updates)

Simulator/Sandbox Env

Open in Sandbox

The Second Group's Understanding

API Landing Page

- Notifications
- Newest APIs
- APIs Coming Soon
- Most Popular APIs
- APIs latest Updates
- Recommended APIs
- Search

Support

- Need Help?
- Not Working?
- FAQs
- Chat
- API Bugs
- API Community
- API Blog

My Stuff

- Message Inbox
- My Apps
- My API Requests
- Notifications
- Select an APP
- My Team
- My Published APIs
- Create a New APP
- My API Approvals
- Delete this APP
- My API permissions
- View Member Profile

Search and Filters

- Filter Environment
- Search Results
- Filter Purpose
- Filter Version
- Search
- Filter Categories
- Filter Search
- Filter Publisher
- APIs in Testing
- Request API
- APIs in Development
- APIs in Production
- View Out Of Commission APIs

Card Sorting

Second Group's Cont'd

My API

- Publish API Update
- Schedule API Update
- Upload API Policy
- Add Security
- Grant Temporary Access
- Revoke Access
- Decommission this API
- Prepare For Consumption
- Upload API Policy & Terms
- View API Comments
- Delete this APP
- View Deployment Status
- Grant Temporary Access
- Archive this API
- Publish This API
- Publish New API
- Add Additional Information

API Details Page

- Link APIs
- View API Comments

Last Updates

Related APIs

API Bugs

API Fixes

Share API

View Team Manager

API Center Teams

- API Swagger
 Documentation
- View API Versions
- Open in Sandbox
- View Release information
- View API Revisions
- Approved Consumers
- Request Use of API
- API's They Have Published
- API Community
- Try this APi
- Test This API
- API Details
- Try this API with Security
- API Blog

API Owner Details

- API's Their Consuming
- · View their Published APIs
- Their upcoming APIs

The Third Group's Understanding

API Details Page - Producer/Owner

- Try this API with Security
- Grant Request Temporary Access
- API Fixes
- Try this API
- Existing consumers
- API Bugs
- Request API
- Revoke Access
- Related APIs
- API Details
- View API Comments
- Request Use of API
- Select an APP
- Not Working?
- Decommission this API

- View API Versions
- View Team Manager / Contact
- Archive this API
- Last Updates
- View API Revisions

API Details Page - Consumer

- Try this API with Security
- Grant Request Temporary
 Access
- Try this API
- Request API
- API Details
- View API Comments
- Request Use of API
- Select an APP
- Not Working?
- View API Versions
- View Team Manager / Contact
- Last Updates
- View API Revisions

Search Results

- Filter Search
- Filter Environment
- Filter Categories
- Filter Version
- Filter Publisher
- Filter Purpose
- Pull from APM

Card Sorting

Third Group's Cont'd

API Gateway Landing page

- Search
- Not Working?
- FAQs
- Recommended APIs
- Message Inbox
- API Blog
- Notifications
- My Team
- API Center Teams
- API Community
- View Member Profile
- Need Help?
- Chat
- View Out Of Commission APIs

Application Owner

Ready to Consume

- Create a New APP
- Delete this APP
- API's they're Consuming
- My Apps
- Grant Request Temporary Access
- Try this API with Security
- Test This API
- Request API
- Try this API
- My API Requests

API Publish

- My API permissions
- Publish API Update
- Add Security
- Publish This API
- Prepare For Consumption
- Open in Sandbox
- API Swagger
 Documentation
- View Release information
- View Deployment Status
- Add Additional Information
- Schedule API Update
- Upload API Policy & Terms
- Upload API Policy

API Search Results

By Owner, has some differences if YOU are the owner

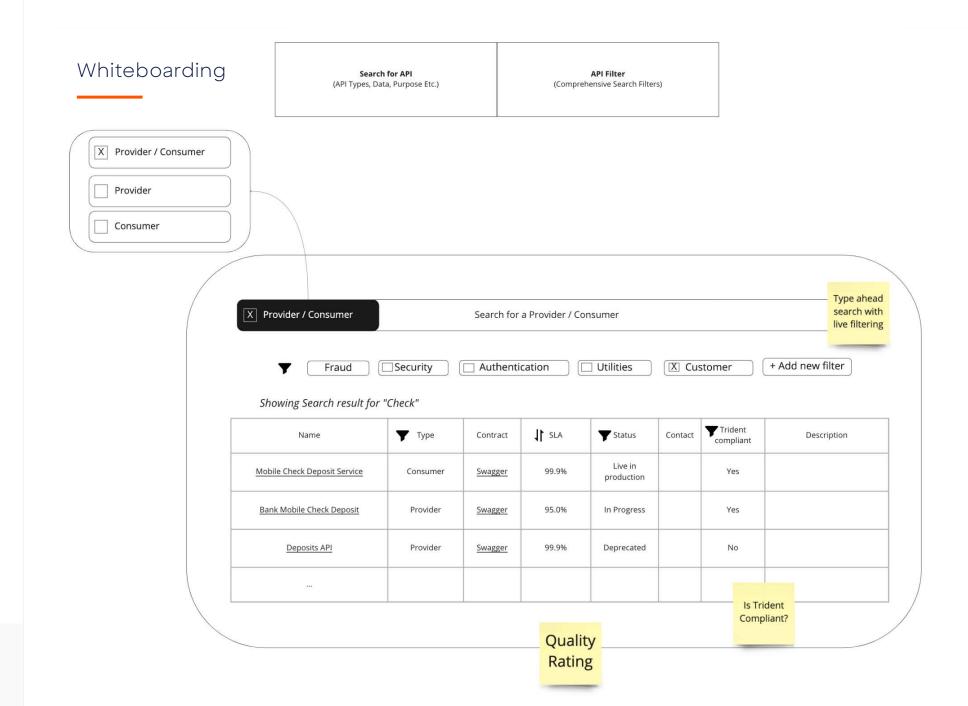
- APIs in Development
- APIs in Testing
- View their Published APIs
- APIs in Production
- API's They Have Published
- Newest APIs
- My API Approvals
- My Published APIs
- APIs Coming Soon
- Their upcoming APIs
- Approved Consumers

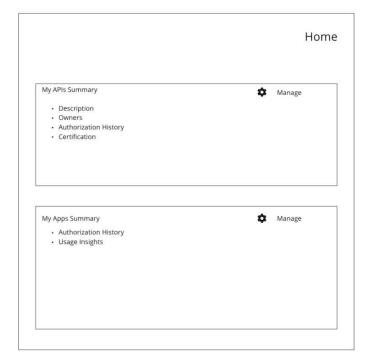
Feedback & Research Whiteboard

All of the feedback collected during the card sorting sessions can be seen here on Miro. <u>Click here to view</u>. Session recordings can be accessed here. <u>Click Here to Videos</u>

Card Sorting















API Try and Validate

(Sandbox, Test this API, With or Without Security, Temporary Access, Etc)

Publish API

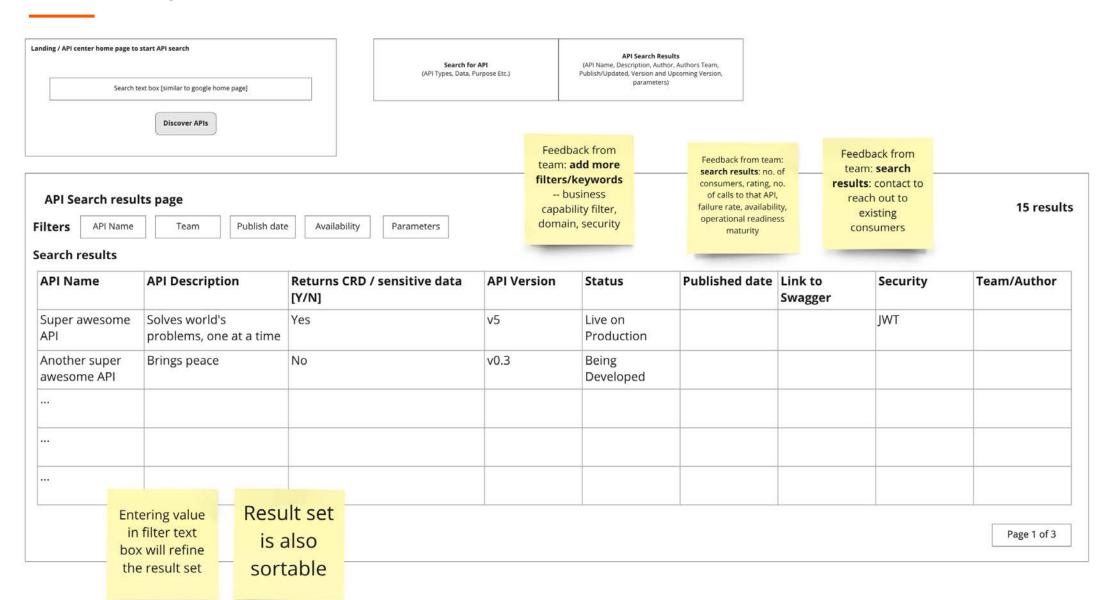
(Enter API Details, Upload Swagger, Upload Policy/Terms, etc)

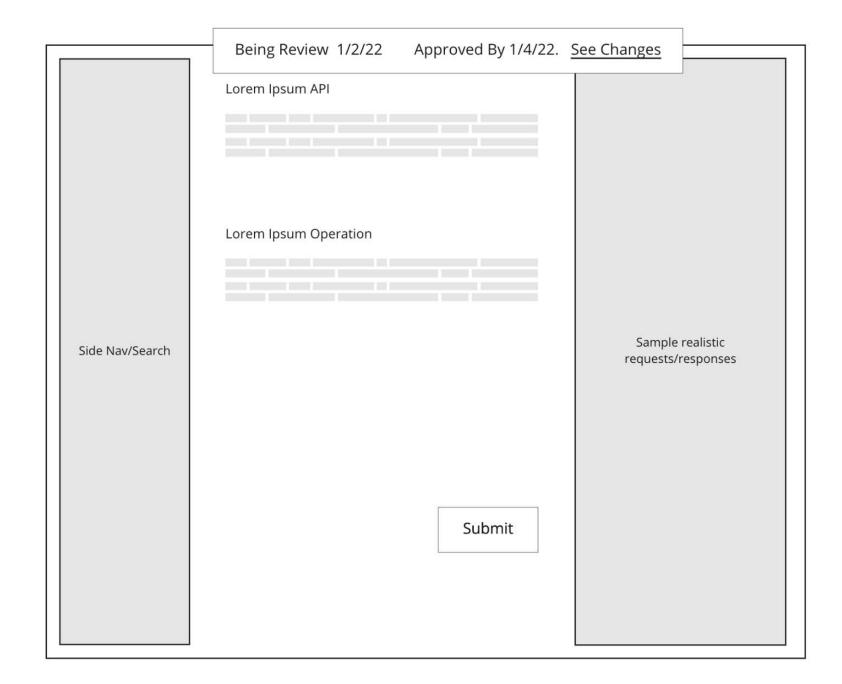
App Test to Prod

(Test this API before publishing the api)

Select API PLAN Sandbox Select API Security Select No Security With security Select Test cases **RUN** Status: Number if test cases executed: Number if test cases passed: Number if test cases Failed: Upload documents

~ Enter API Detail **~** Upload swagger **~** Upload policy documents PUBLISH API





Manage this API

(Request for this API, current consumers, publication and revocation of access)

App Test to Prod

(Test this API before publishing the api)

Publish API

(Enter API Details, Upload Swagger, Upload Policy/Terms, etc)

Manage API - Start with Search Results, derived from "APIs i own"

alpha-api beta-api gamma-api

delta-api

version# last-publish-date version# last-publish-date version# last-publish-date version# last-publish-date

Select

Select

Select

Select

Manage API - beta-api selected

beta-api version# last-publish-date details | updatedetails

Publish to

X

Sandbox

non-PROD

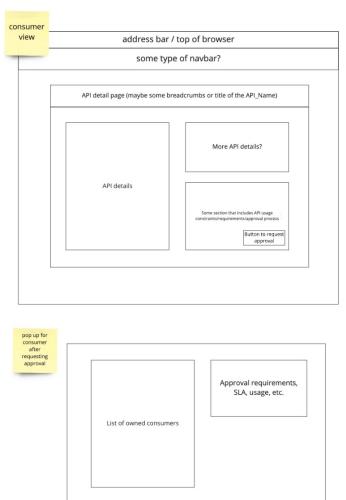
PROD

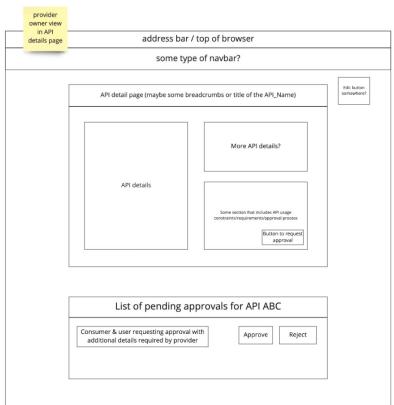
Submit

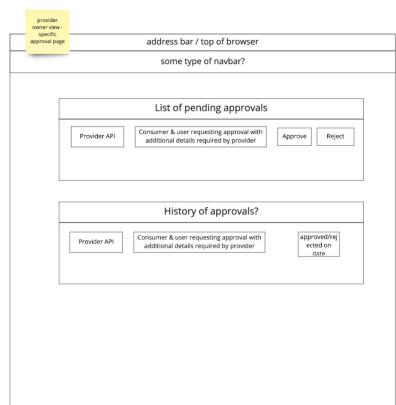
details and update details would link to pages/layers/expanded section with the api detail info: name, githubrepo, viewable swagger link, policy terms

this detail section should be shared with the create API page

use checkboxes to indicate which environments this API can be consumed from







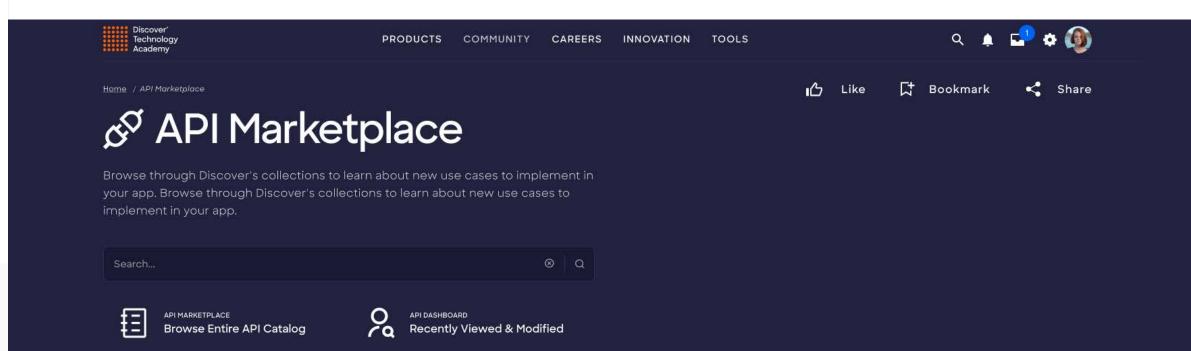


Feature Recommendations

- A new API Workspace: An environment with easy manageable interface with quick access to tasks
- An API Center Adoption Plan: Includes improved experience promotion and DTA integration.
- A New Team Space: Makes working in teams easy and promotes peer driven development
- A New Testing Environment: A sandbox will facilitate testing and validation, cutting down on dev times.
- The New API Information Structure: Robust API Details that will provide consumers with the information they need to make informed decisions on use, policy, changes and security.
- The New API Details Feature: A powerful documentation space for APIs including online editing &try
- The New Provider Experience: A frictionless journey that allows providers quick testing & publishing
- The New Consumer Experience: A frictionless journey with a powerful search feature and automated access granting for APIs.

The New API Workspace

- The new API Workspace is envisioned to be a single tool in a much larger solution. The ability to access all of the Discover tools via the DTA
- The new API center will be in sync with the DTA Design Language making the new experience immediately recognizable to users.
 - The marketplace will be the new space where engineers can access all of the latest and upcoming APIs, as well as access important information on use, security, implementation and much more.



The New Consumer Experience

Discover Credit Card

V2.34 was last updated on 8/24/2022

by John Doe from Loan Services

Discover Credit Card

V8 was retired on 3/4/2020

by John Doe from Loan Services

RETIRED

INVESTMENTS

Learn More

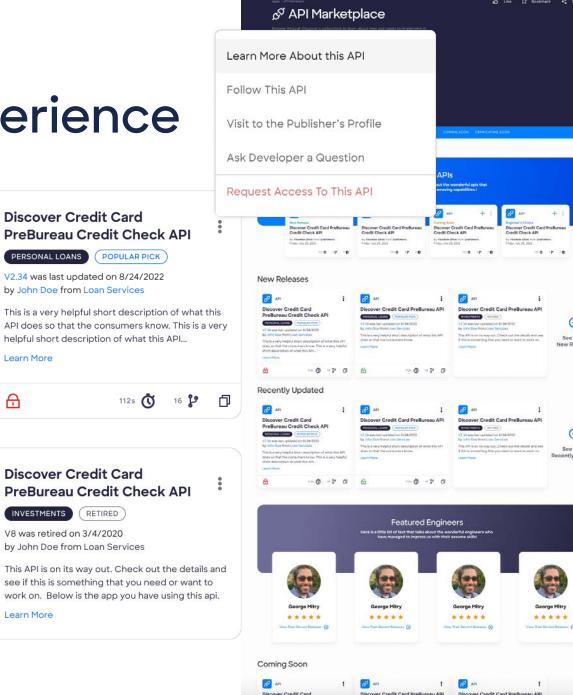
POPULAR PICK

PERSONAL LOANS

Learn More

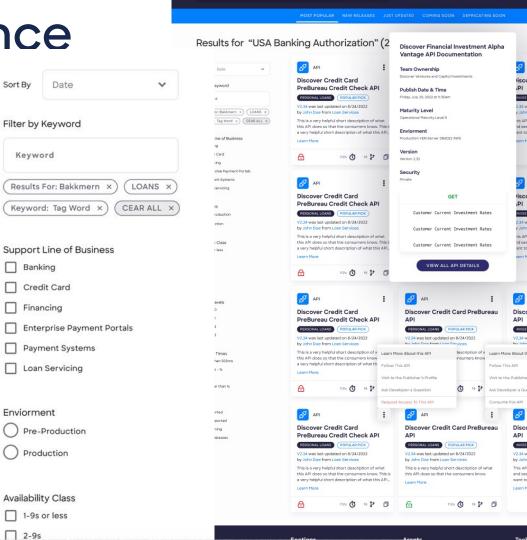
Θ

- API Cards that will support the New, Recently Updated, Coming Soon and Deprecating APIS
- Featured API Section as well as a Featured API Engineer section to uplift and promote those engineers that take extra measures to ensure that their APIs meet all standards
- APIs cards will have a variety of markers that include but are not limited to security, meaning if an API has an extra layer of security that requires permission, Response times, duplications and variations, business line, etc. Depending on the tags attached presentation my be different and vary.
- The APIs will have a menu that will give users actions they can take on the spot without having to go somewhere else.



The New Search Experience

- Search for APIs is now easier within the DTA, Enter any keyword, engineer or specific tag, or filter and you will get an array of results that will allow you to narrow down the results you need.
- API cards withing results will allow you to preview the responses you will receive in return surfing thru the API search results so that if you see that an API does not have the required response, moving on is as easy as skipping to the next card.
- Search driven by a collaborative list of tags and taxonomy that will ensure the APIs will be discoverable and used correctly
- Results include ability to switch to a row view for faster search



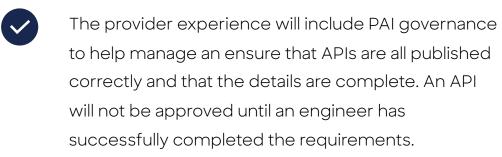
Search Results



FRAUD PREVENTION

The New Provider Experience

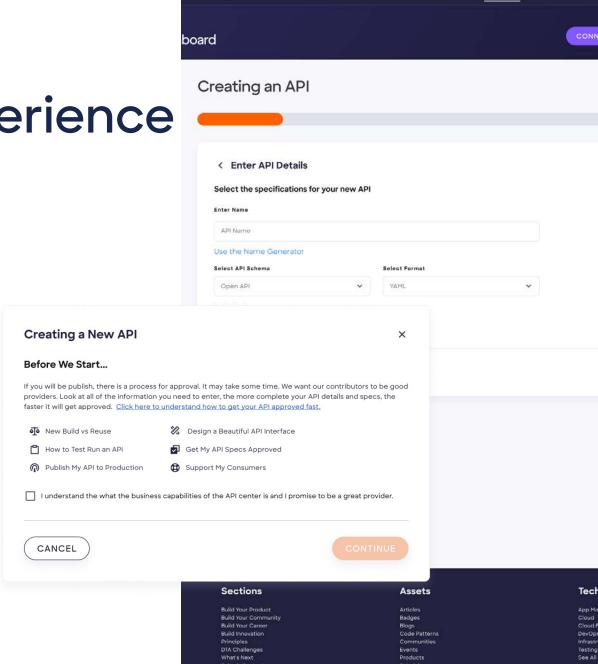




A sandbox will be available for publishing APIs in a way that users are able to simply test the API before they proceed to publishing it.

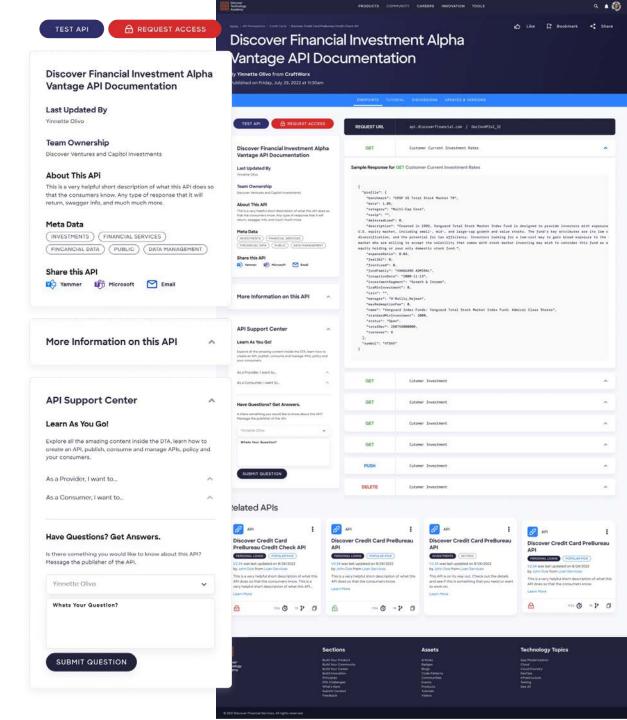
APIs can be secured or non-secured. Again decided by governance there will be APIs that are simple with generic non-secure information like US States.

These APIs will be available for use without prior approval. Secured APIs will require approval for use.



The New API Details

- Lifecycle Status of the API along with the ability to Request access.
- Social media style implementation that allows users to follow teams, providers and consumers so that they may be.
- Related APIs and Versions and other consumers of the API.
- Details of the API including all of the publishing details, including, Endpoints and Sample responses, Related Versions and APIs, Operational Maturity, etc.
- Additional API details will be displayed under a more details tab including Rate the API, Test Drive the API (Run in Postman button)
- Clear Classification and Taxonomy of the API

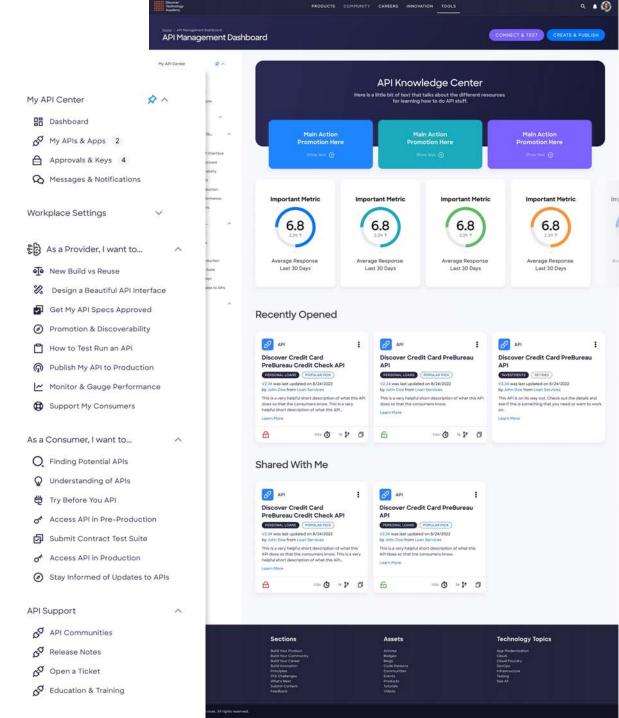


The New Team Space

Perform comprehensive CraftWorx & Design
Thinking guided discovery into the API Center in
order to challenge and prove the THINK Theory in a
real-world product lifecycle development.

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Perform comprehensive CraftWorx & Design
Thinking guided discovery into the API Center in
order to challenge and prove the THINK Theory in a
real-world product lifecycle development.



Design Testing and Validation

Testing and validation for these solutions are ongoing. You can find the progress videos of the API guild members feedback and changes here. <u>Click Here to Videos</u>

Next Steps

1. Review the Report

• The visual designs are ideas. The testing is ongoing and we will continue to build on and validate the layouts.

2. Share with your Peers

• Schedule a review of the feedback, or on your time you can review the recordings and information to get an understanding of the opinions and thoughts of the users.

3. Make Informed Decisions

- Discuss target platform and implementation options
- With the user experience direction defined, the visual designs ideas, iteratively prioritized, and approved for development