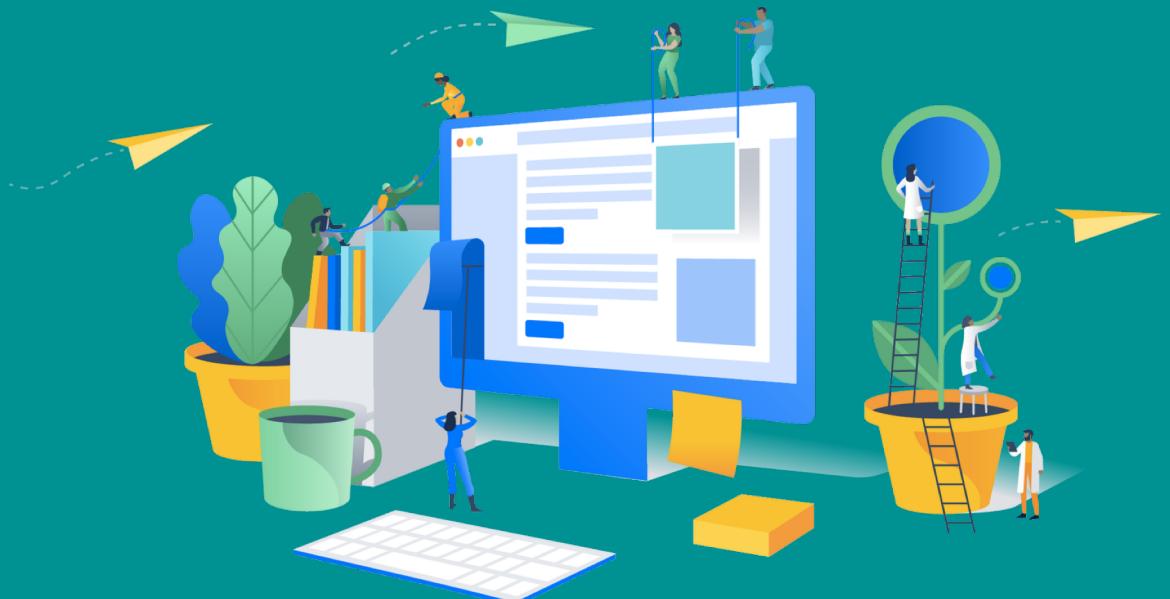


Experience Design System



The UX team at Viasat had launched a beta version of the XDS (Viasat's design system. The system consisted of the 10 patterns (form, wizard, navigation, etc.), digital style guide, and information about various services offered by the UX team.

The team's vision for the design system was to:

- › Create a robust design system based on the Atomic design principles of Brad Frost.
- › Make XDS community driven i.e. allow developers and designers to submit and host unique components and patterns on XDS

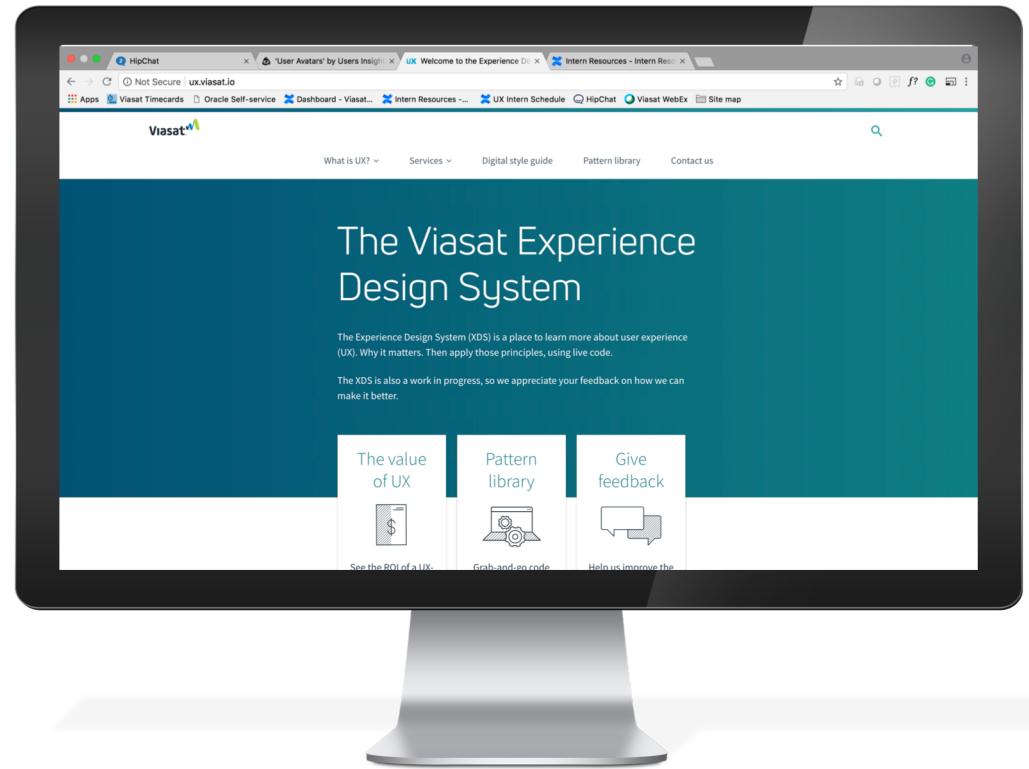
Experience Design System (XDS)

> Goals

- Assess and expand XDS
- Make XDS scalable (community driven)

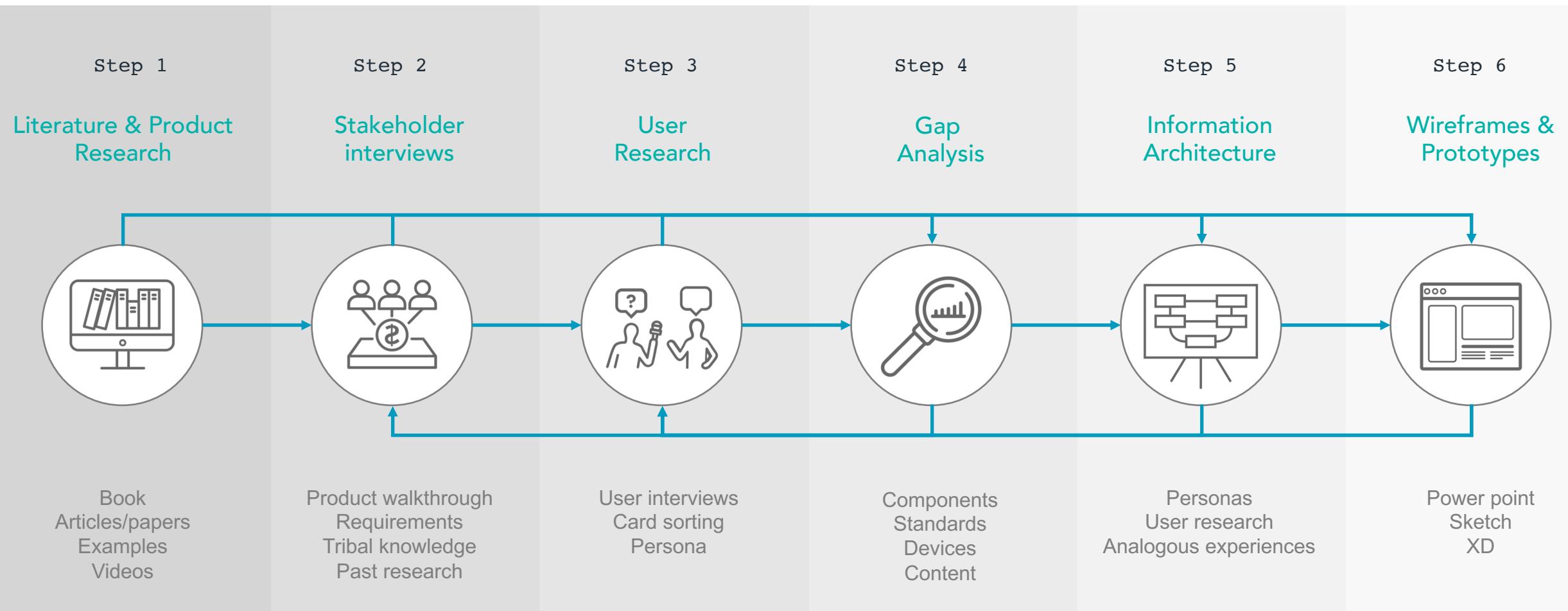
> Objectives

- Understand the users mental model of pattern libraries
- Create a list of components to be included in XDS
- Identify gaps
- Improve the usability of XDS

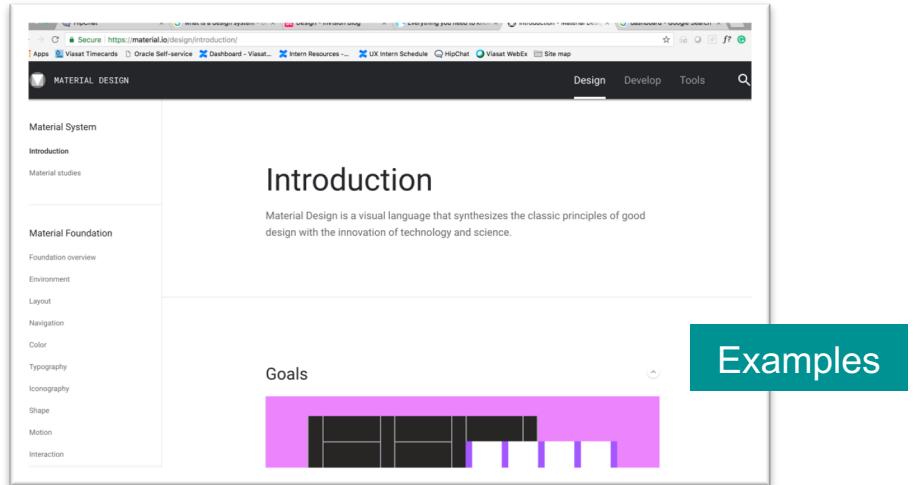
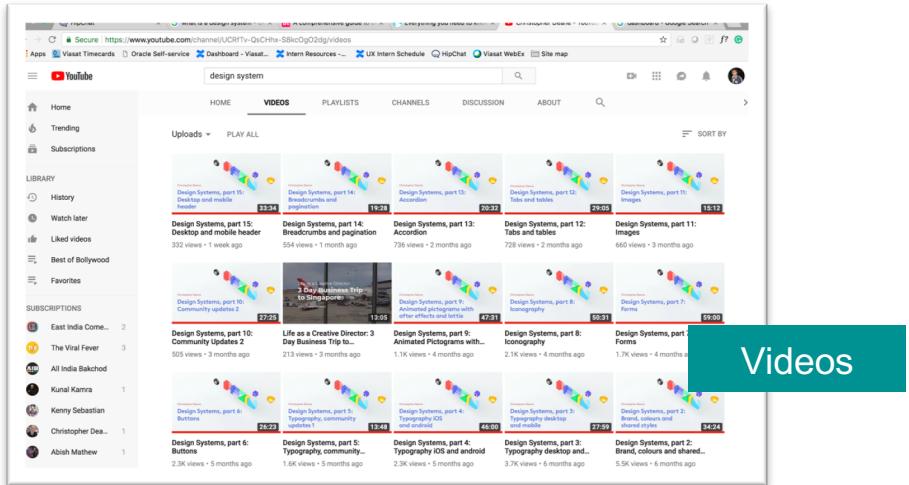
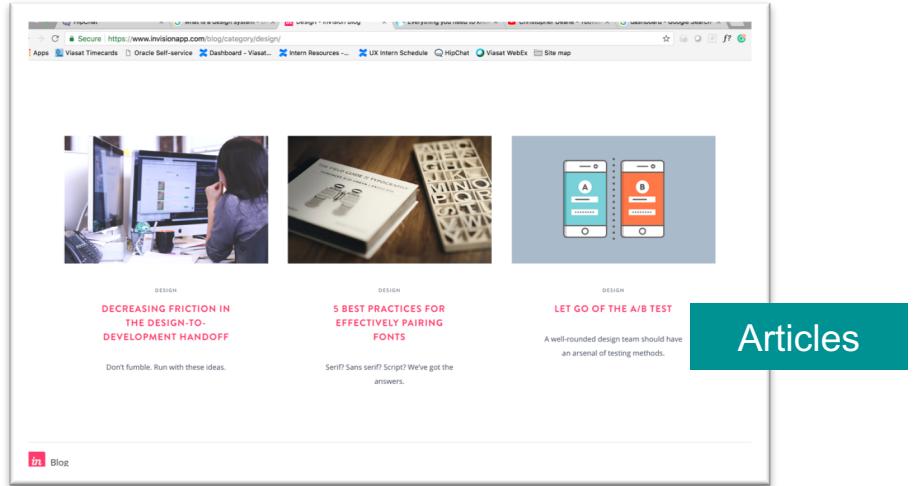
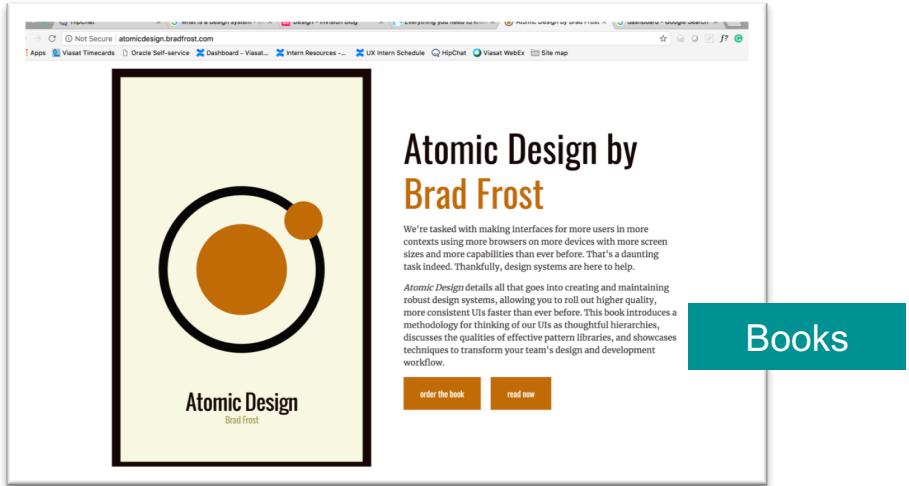


Process

An iterative and collaborative process was followed. User research and stakeholder inputs were involved at every step.



Step 1: Literature & Product Research



Step 2: Stakeholder Interviews

Spent time with each discipline to understand the system from their point of view. Stakeholder interviews were also used as requirement gathering tools.



Kaitlin

UX Research



Jaimie

UX Design



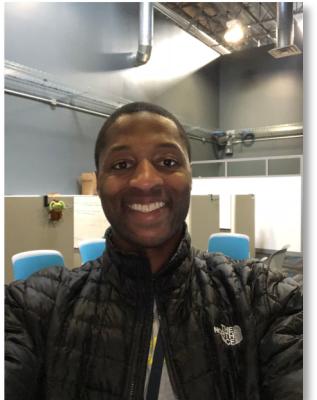
Jaimie

Content Strategy



Tara

Visual Design



Gary

Front-End

Step 3: User Research - Interviews

- > Created a moderator's guide
- > Recruited users with the help of the UX team
- > Conducted user interviews with
 - 1 Software Architect
 - 1 Dev/UX Design
 - 1 Engineering Manager
 - 1 UX Designer
 - 4 Interns
- > Captured results and insights
- > Updated persona and designs of component pages

Beta_Testing_Summary_10_060118

	A	B	C	D
1		Participant 1	Participant 2	Participant 3
2 Role	Was a Developer recently switched to UX design. Learning to apply UX principles from a mentor and looking at XDS a lot for help with wireframes. Just laptop (Mac) Chrome simulators for mobile (part of the chrome developer tools)	Engineering manager - lead the development effort of a network project. Have done front-end development in past.	Software architecture with focus on Front-end development. Worked quite a bit on UI.	
3 Devices and tools				Just laptop (Mac) React, vue, angular Chrome Google developer tools
4 Framework	Chrome Google developer tools			Jquery Bootstrap angular react Material UI Portal component management system (pu by commercial air with the dublin team)
5 Browser	Google material design angular bootstrap jquery	Reused code built by others Flex		
6 Pattern libraries used	Bootstrap: - Works with pretty much any other javascript library - Doesn't add random stuff (elements) in the CSS - Classes are exposed (you can over-ride their styles) - Elements are simple - they just use native elements and don't add their own and make it complicated, thus becomes easy to over-ride their design (convenient to change designs)			Portal component management system a UI: - configurable by non-technical individ - components are composable and ex - Don't force certain flow or state on
7 Which one do you like and why				
8 Which one you didn't like and why				
9 How do you use the libraries	Likes HTML, CSS and javascript as it is much cleaner since its her code use MPM package manager for node module from where one can pullin the code. Likes to work with HTML, CSS and Javascript alone. If she likes a component, she pulls it in her code (e.g. bootstrap 12 col. Grid) developer tools in the browser - for styling			
10 Tools	Pattern summary Matomo Testing feedback (raw) Other feedback (raw)	Pratik	+	

Step 4: Gap Analysis (What's missing?)

Gaps were identified based on literature , online research, user research , stakeholder interviews, and walkthroughs and demonstrations of various Viasat products

Grab and go assets

- › Framework specific (React, angular, etc.) code
- › Wireframes for component and patterns
- › Visual mockups for component and patterns
- › Templates for various research studies
- › Accessibility criteria for all components and patterns

Guidelines

- › Guidelines for white label products
- › Content guidelines
- › Research guidelines
- › Accessibility guidelines
- › Coding guidelines
- › Designing for devices other than Desktop
- › Language translation guide (internalization)

Services

- › Educating and helping through the design process (what we are doing with ATG)
- › Collaborating with other teams (UX partners)
- › Making teams sustainable (XDS)
- › UX Processes

Good to have

- › View ports
- › Educational pieces
 - Case studies
 - Blogs
 - White/grey Paper
 - Fact cards (<https://uxdcards.com/cards>)
 - Statistics repository, Did you know, Infographics

Step 4.1: Component & Pattern Creation

- | | | | | |
|---|---|--|---|---------------------|
| > Buttons <ul style="list-style-type: none">▪ Text button▪ Outlined button▪ Contained button▪ Toggle Buttons | > Tags (Chips) <ul style="list-style-type: none">> Captcha> Sliders<ul style="list-style-type: none">▪ Discrete▪ Continuous | > Bar Chart <ul style="list-style-type: none">▪ Vertical▪ Horizontal▪ Multi-set▪ Stacked Column | > Bubble graph | > Step indicator |
| > Dropdowns <ul style="list-style-type: none">▪ Regular dropdown▪ Multi-select dropdown | > Horizontal global navigation | > Line Chart <ul style="list-style-type: none">▪ Single variable▪ Multiple variable | > Tables <ul style="list-style-type: none">▪ Regular Tables▪ Data Tables▪ Expandable tables | > Tooltip |
| > Radio buttons | > Mega menu | > Pie Chart <ul style="list-style-type: none">▪ Pie▪ Donut | > List <ul style="list-style-type: none">▪ Regular List▪ Expandable List | > Weather |
| > Check boxes | > Navigation list | > Area Chart <ul style="list-style-type: none">▪ Single area▪ Stacked area | > Bookmark tabs | > Errors & Warnings |
| > Input fields <ul style="list-style-type: none">▪ Text box▪ Text Box Auto suggest▪ Text area | > Navigation tree | > Choropleth | > Accordion | > Colors |
| > Numeric stepper | > Links <ul style="list-style-type: none">▪ Regular links▪ Anchor links▪ External links | > Scatterplot | > Carousel | > Fonts |
| > Date & time picker | > Search | | > Pop-up | > Icons |
| > Switch | > Pagination | | > Message box | > Illustrations |
| | > Breadcrumbs | | > Toast/Snack bar | > Images |
| | | | > Notification | > Logo |
| | | | > Progress bar | |

Step 4.2: Icon creation

I had shared my desire to step into visual design before the start of my internship. My team gave me this opportunity and I thoroughly enjoyed it.

I designed social media icons for Viasat website. The process involved finding and understanding the specs and logo usage for each social media giant

It helped me realize how intricate and detailed the job of a visual designer is. This is important because as a UX practitioner, our job is not only to emphasize with our users, but, our co-workers as well.

In the process of learning, I discovered few things (to be more precise 1), that my team was not aware of.

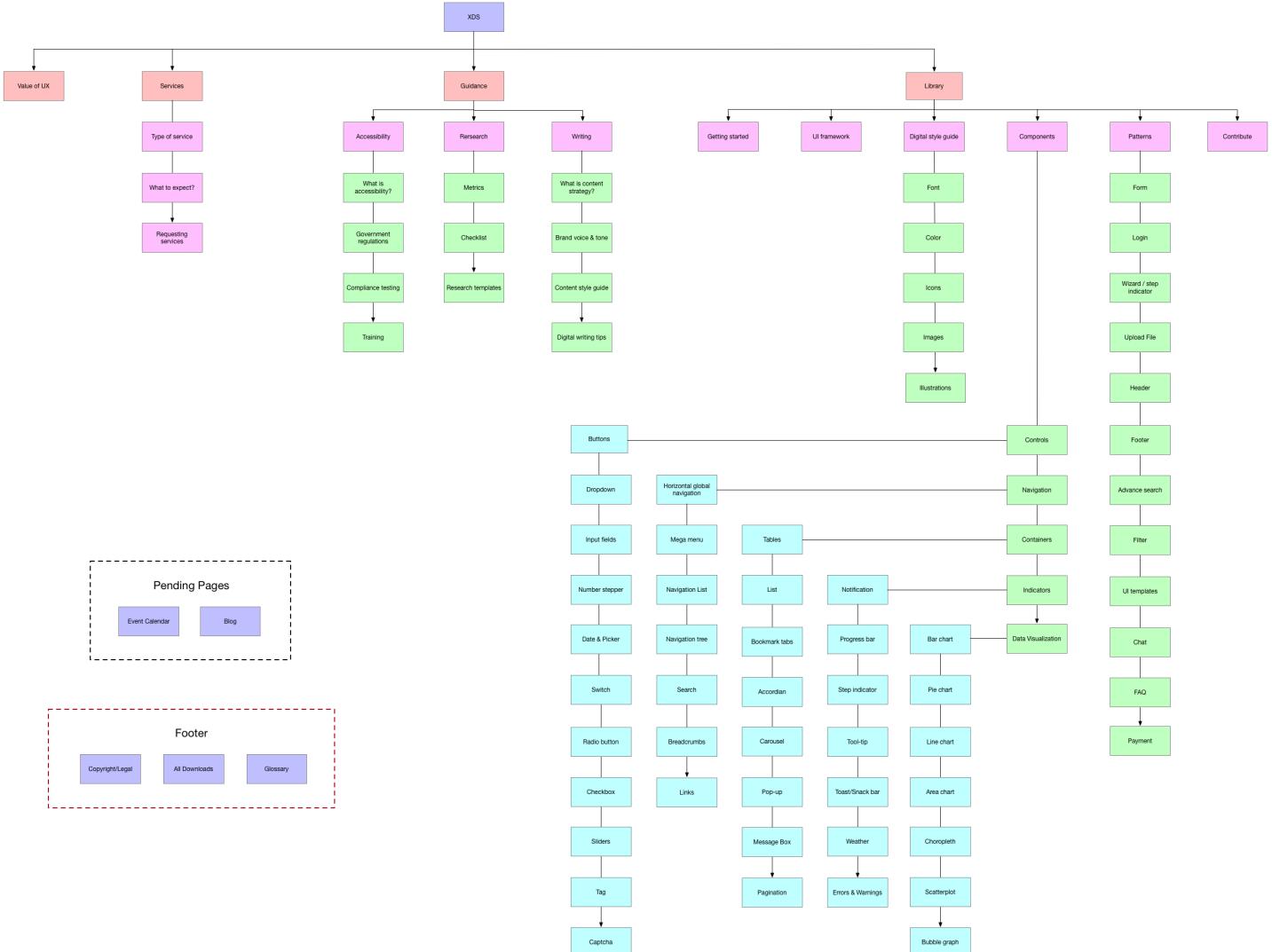


Step 5: Information Architecture

- IA was created based on:

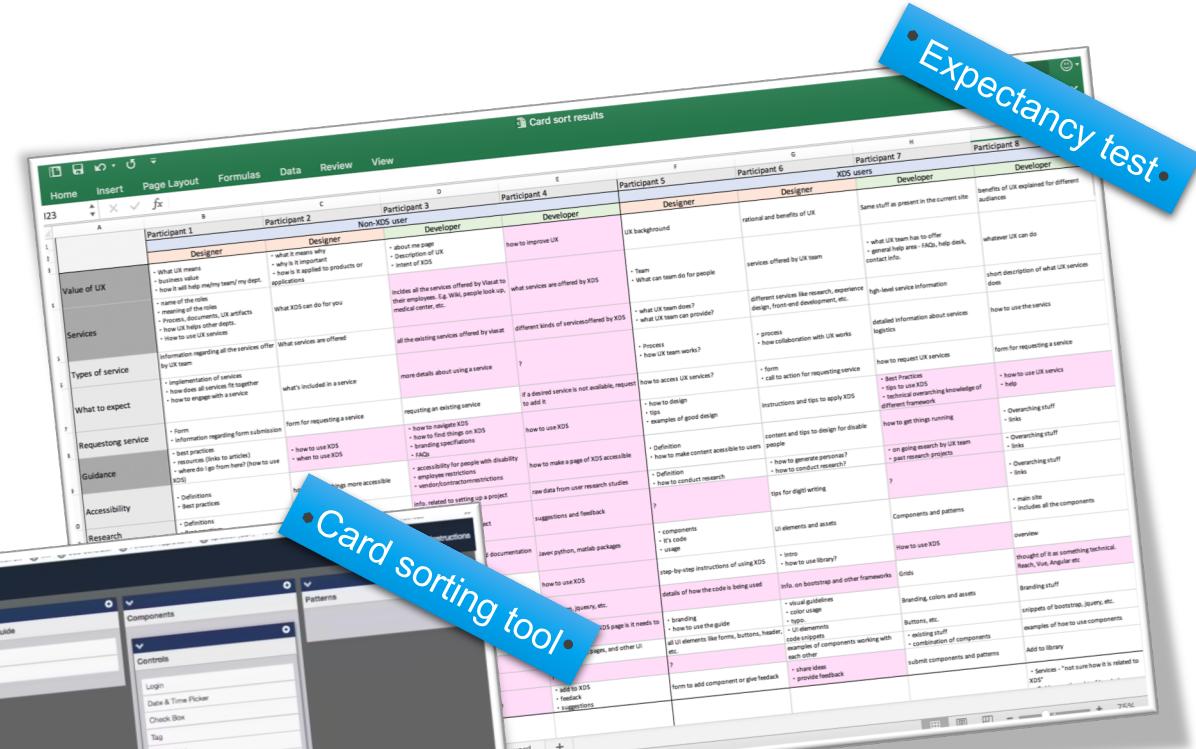
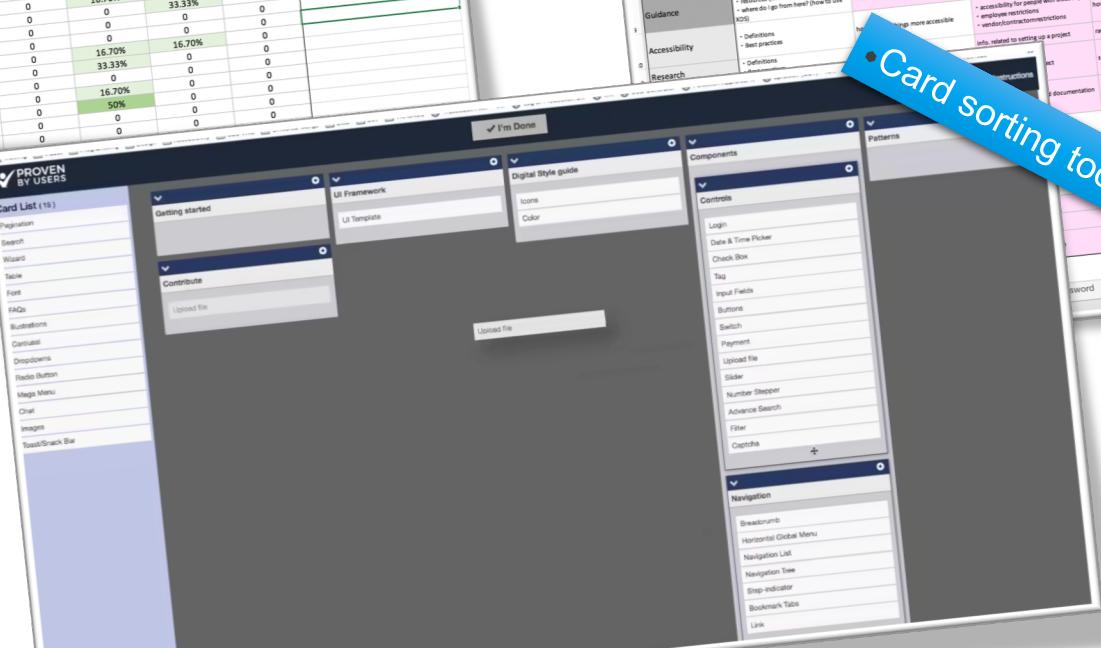
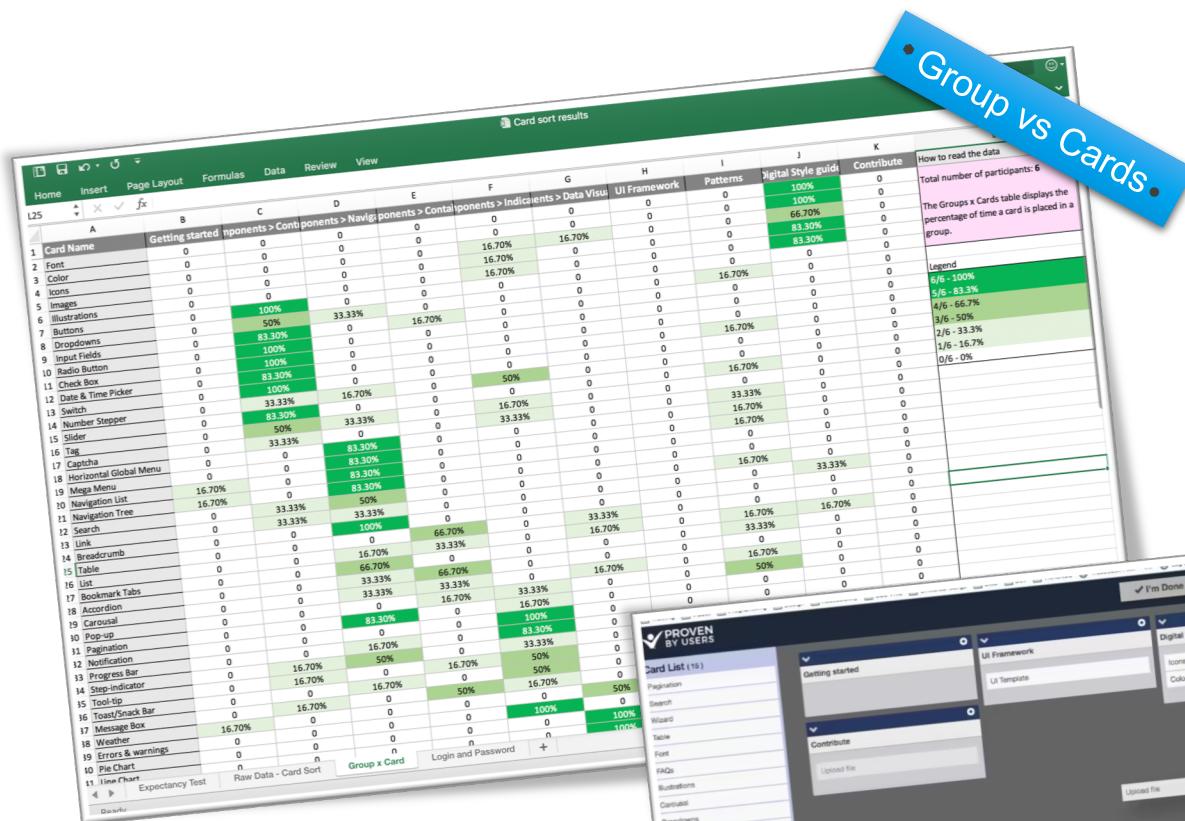
- Existing design systems and pattern libraries like material design, bootstrap, etc.
- User research
- Stake holder interviews
- Walkthroughs and demonstrations of various Viasat products

- Each element of IA was discussed and deliberated upon by the UX team (research, interaction, visual, content, and front-end)



Step 5.1: User Research – Card Sort

Optimized IA was created based on Card sorting results



Step 6: Wireframes

Created wireframes of unique pages based on user interview insights
Documented ideas and strategies for future implementation and release of XDS

Button v1.2

Published: July 12, 2018. | [Release Notes](#)

Allows users to take actions and make choices

Components

- Types
 - Primary - Contained button
 - Secondary - Contained button
 - Tertiary - Text button
 - Button group

When to use?

- Primary - Used primary buttons to communicate call to action. E.g. Sign-in
- Secondary - Used secondary buttons to communicate actions that go to the next step. E.g. Next
- Terinary - Used tertiary buttons for actions other than to act. E.g. Register
- Buttons - Used buttons for actions that happen on the same page. E.g. Save as Draft
- Toggle Buttons - Used toggle buttons for abandoning an ongoing task. E.g. Cancel
- Link Buttons - Used link buttons to indicate actions that go to the previous step. E.g. Back
- Log In Buttons - Used log in buttons to indicate choices. E.g. alignment using Left, Center, or Right buttons
- Log Out Buttons - Used log out buttons as a single icon to allow selection or deselection. E.g. Like/dislike, mark/unmark as favorite.

When to consider something else?

- If you want to lead users between pages of a website. Use links instead. Buttons lead users to actions whereas links lead users to content.

Rules

Avoid using too many buttons on a page.
Buttons should be as short as possible with "trigger words" that your users will recognize to clearly explain what will happen.
Make the first word of the button's label a verb. For example, instead of "Complaint Filing" label the button "File a complaint."
Horizontal Order - Primary buttons are placed on the top; secondary in the middle followed by tertiary.

Accessibility

Acknowledges display a visible focus state when users tab to them.
Avoid using color or image logic to create buttons. Screen readers don't automatically know either is a visible button.
Pressing the Space key triggers a button but pressing the Enter key triggers a link.

Matrices

1. Button	2. Button	3. Button	4. Button
5. Button	6. Button	7. Button	8. Button
9. Button	10. Button	11. Button	12. Button
13. Button	14. Button	15. Button	16. Button

Dropdown v1.2

Published: July 12, 2018. | [Release Notes](#)

It consists of 2 parts - box and list. Allows users to select one or many options from the list.

Components

- Types
 - 1. Single selection dropdown
 - 2. Multiple selection dropdown

When to use?

- Single selection dropdown - When users need to choose one option from a pool of more than 3 options
- Multiple selection dropdown - When users need to choose multiple options from a pool of more than 3 options

When to consider something else?

- If the list of options is very short. Use radio buttons (single selected) or check box (multiple selected) instead.
- If the list of options is very long. Use a search bar with the Auto-complete tool instead. Special situations include lists of states or countries, such as for U.S. mailing addresses.

Behavior (States or interactions)

- Dropdown box opens up the list below or above it depending on its location. The list usually opens downward below the dropdown menu.
- List can be traversed using the keyboard. Tab-down access keys enables traversing in the respective direction item-by-item. Alpha-numeric keys enable jumping directly to the item.
- If all the menu items are not displayed at once, menus can be scrollable. In this state, menus show a persistent scrollbar.
- Can cause using a case animation or animation for when an element goes in state. The animation creates a relationship between the menu and the action that generates the menu.
- Can cause using a case animation or animation for when an item is selected.
- The opening and closing of the list when the chevron icon on the dropdown box is clicked.
- For single selection dropdown display the currently selected item in the dropdown box.

Rules

- The dropdown must mention whether it allows single selection or multiple selection - "Select one" or "Select multiple"
- Drop-down lists must be scrollable if they contain more than 10 items.
- Support keyboard input to navigate within a dropdown. Access keys to navigate the options and alpha-numeric keys to access specific items.
- Group related options together

Accessibility

Don't use JavaScript to automatically submit the form (or do anything else) when an option is selected. Auto-submission disrupts screen readers because they select each option as they read them.

Variations

Dropdown list with text	Dropdown list with grouped text	Dropdown list with text and icon	Dropdown list with text and selected state
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Why submit components?

Save time
Adhere to Standards
Rewards
Get Recognized

The process

- Reach out to us for styling on the Component owner
- Wait until the component owner approves the changes, if any
- Monitors the changes and update the code to GitHub
- We'll then upload the component to GitHub

What to expect?

Before submission

- UX team members will contact you to understand the functionality and/or implementation
- You'll be responsible for the documentation of the components

After submission

- Other users may approach you to seek help for submitting components
- Users may reach out with questions and double regarding components

Documentation template

React	Angular	Bootstrap 3	Bootstrap 4
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Common issues

- Option 1 from the list of common issues
- Option 2 from the list of common issues
- Option 3 from the list of common issues
- Option 4 from the list of common issues
- Option 5 from the list of common issues
- Option 6 from the list of common issues
- Option 7 from the list of common issues
- Option 8 from the list of common issues
- Option 9 from the list of common issues
- Option 10 from the list of common issues
- Option 11 from the list of common issues
- Option 12 from the list of common issues

Preview Design Code

Customize: 1440x761 Auto Size: 1440x761 (Landscape), Ratio: 1440:761 Light theme

Tab one **Tab two** **Tab three** **Tab four**

Lorem ipsum dolor sit amet, ultricies mauris, eu euismod, diam at est nulla nullam interdum amet. In id incidunt duis nullam sit, a orci, nisi nunc mauris consequat wisi enim ac, et eros conubia euismod morbi, auctor pellentesque ante habitaesse pharetra faucibus. Imperdiet nam lorem, est ac eu potenti in tempus porta, tincidunt pharetra semper senectus at eleifend. Explicabo dolor sed nunc nec adipiscing, vel ante.

Preview Design Code

VIEW ON GITHUB

By default most frequently used framework will be displayed
The "by default" option will remain same for all the components

Preview Design Code

VIEW ON GITHUB

Light theme

Preview Design Code

VIEW ON GITHUB

Light theme

Preview Design Code

VIEW ON GITHUB

Light theme

Sketch **Wireframes** Visual mock-ups