

What follows is an example of a single project representing the sequence of events that occur during my process of design.

Note - It's how the sausage is made.

# Consumption Report Redesign

## Existing Consumption Report Implementation

The screenshot shows the CLUMIO Reports dashboard. The left sidebar contains navigation links for Home, Policies, Reports (selected), Tasks, Alerts, AWS (Discover, Protect, Environments), Microsoft 365, VMware, and MS SQL on VMC. The main content area is titled 'Reports' and is divided into 'General Report' and 'Service Report' sections. Under 'General Report', there are four report cards: 'Daily Summary Email' (with an envelope icon), 'Operational Tasks Report' (with a pulse icon), 'Compliance Report' (with a shield icon), and 'Consumption Report' (with a dollar sign icon). Under 'Service Report', there is one card for 'Audit Report' (with a magnifying glass icon).

The screenshot shows the CLUMIO Consumption Report page. The left sidebar is identical to the previous screenshot. The main content area is titled 'Consumption Report' and includes a filter for 'Organizational Unit: Global organizational unit'. A bar chart displays 'Credits Used' on the y-axis (0 to 6000) for dates Dec 1 through Dec 9. The total credits used is 37304. The chart shows two data series: 'Free/prepaid Credits' (light blue) and 'Billed Credits' (dark blue). Below the chart is a 'Monthly Consumption Report' table with the following data:

| Date    | Backup Size | Total Credits used | Free/prepaid Credits Used | Billed Credits used |
|---------|-------------|--------------------|---------------------------|---------------------|
| > Dec 1 | 16.45 TIB   | 4535               | 4535                      | 0                   |
| > Dec 2 | 13.03 TIB   | 4017               | 4017                      | 0                   |
| > Dec 3 | 13.04 TIB   | 4018               | 4018                      | 0                   |
| > Dec 4 | 13.05 TIB   | 4020               | 4020                      | 0                   |
| > Dec 5 | 13.07 TIB   | 4023               | 4023                      | 0                   |
| > Dec 6 | 13.08 TIB   | 4025               | 4025                      | 0                   |
| > Dec 7 | 13.1 TIB    | 4028               | 4028                      | 0                   |
| > Dec 8 | 16.68 TIB   | 4571               | 4571                      | 0                   |
| > Dec 9 | 13.35 TIB   | 4067               | 4067                      | 0                   |

## Solve for these identified issues

- Can't track usage of Clumio across the platform
- Trend and anomalies are not highlighted and buried
- Can't dive into the details of trends or anomalies
- There is no easy way to see how many type of credits I have
- There is no way to easily recharge credits
- I can't compare groups of assets across data sources
- There is very little flexibility in displaying dates and timeframes

## User

- Infrequent use, maybe at the top of the month.
- The user is looking for trending data
- Interested in highlighting anomalies and to act upon.
- Very interested in costs that have changed since last billing
- When will credits will run out or expire?

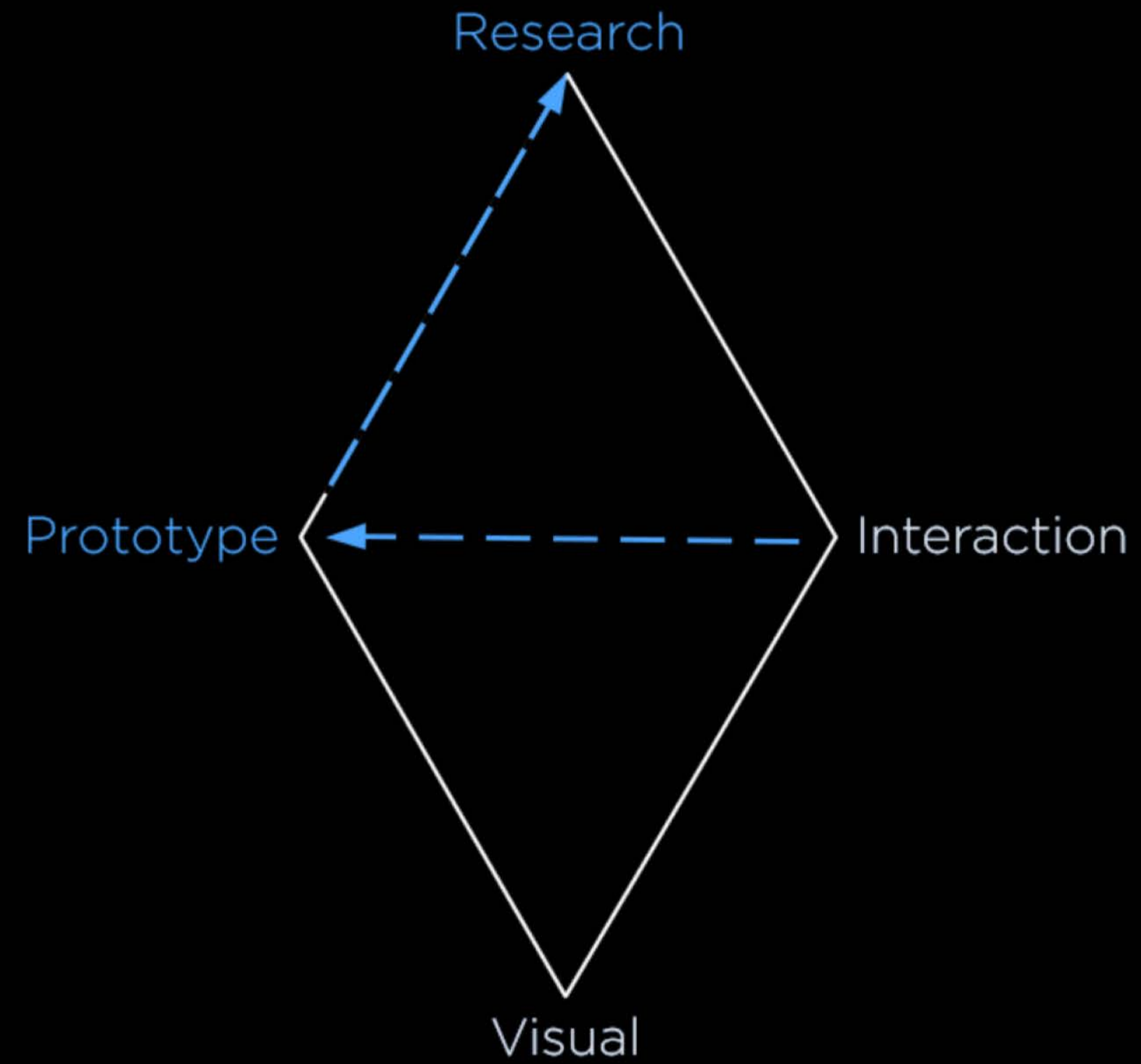
## Top Tasks

- Highlight exceptions, anomalies, alerts
- Data should be actionable
- Show usage trends
- Show credits
- Compare on assets, data sources and credit use
- Show credit burn
- Affordance to refill credits
- At-a-glance view of monthly use

## Support these ancillary flows

- Create Report popup
- Recharge / Refill Credits
- Edit Credit Details
- Report Settings Screen (Daily Summary Email, Show / Hide Data Sources)
- Daily Detail Overview (showing most active assets across data sources)
- Zero State / Default View

# The UX Diamond @ 20,000ft





# Redlines - Impressions after reviewing current implementation

**Dashboard**

CLUMIO Global organizational unit

Good morning, Michael!

Something might need your attention...

1 in-progress backup  
2 active alerts

Surface these details in this space

Better use of this space:  
-Don't show it if you don't have it configured  
-Provide affordance to add / configure a source

How necessary is this on GN?  
Affordance to Consumption report  
-opportunity for more integration?

279 pixel tall graphic?  
-not efficient use of prime real estate

These should be dynamic

Insights

CLUMIO Product Dashboard  
CLUMIO Discover Dashboard  
Footprint Dashboard  
Consumption Report

How often is a link clicked here?  
-combined into documentation in GN?  
-time based (FTUE)

Actions should be accessible on sidenav

Quick Links

- Create policy
- View operational tasks report
- View compliance report
- View AWS environments

Add Data Source

- + AWS environment
- + Microsoft 365 account
- + VMware Cloud vCenter

Nerd Nook

- Calculator: Realize your potential savings with Clumio air gap backups.
- Learn more about Clumio Discover.
- Understanding data protection costs in AWS.
- See Clumio live in action.

**Reports Dashboard**

CLUMIO Global organizational unit

Reports

Think about layout and borrow from Alerts Segment control  
-really nice way to bring in more data early / on this screen

General Report

- Daily Summary Email: As a setting, not report. Email a daily summary of activities with metrics that include protection statistics, backup and restore success rates, and alert issues.
- Operational Tasks Report: Analyze the backup and restore activities of all assets backed up by Clumio.
- Compliance Report: Analyze the compliance metrics of all assets backed up by Clumio.
- Consumption Report: Analyze the credit consumption details of all assets backed up by Clumio.

Service Report

- Audit Report: View a list of administrative actions performed in Clumio.

Data that can be brought forward

- filter type
- timeframe
- usage over time chart
- usage % and any overage
- credits used
- actions (export, generate report, explore, etc.)

**Consumption**

- data in GB over time
- credits / usage over time
- show change from timeframe selected
- filter can change the consumption target

**Consumption Report**

CLUMIO Global organizational unit

Consumption Report

Header should be the name of the report  
Subhead should be type

Organizational Unit: Global organizational unit

Filter needs interaction refinement, cleanup

Better place for these labels

300 Total Credits used

Selection can filter / highlight grid data below

Monthly Detail Sep 5 Detail

| Date  | Backup Size | Total Credits used | Free/prepaid Credits Used | Billed Credits used |
|-------|-------------|--------------------|---------------------------|---------------------|
| Sep 1 | 272.87 GB   | 40                 | 40                        | 0                   |
| Sep 2 | 273.14 GB   | 40                 | 40                        | 0                   |
| Sep 3 | 273.42 GB   | 40                 | 40                        | 0                   |
| Sep 4 | 274.68 GB   | 40                 | 40                        | 0                   |
| Sep 5 | 274.84 GB   | 40                 | 40                        | 0                   |
| Sep 6 | 274.67 GB   | 40                 | 40                        | 0                   |
| Sep 7 | 274.01 GB   | 40                 | 40                        | 0                   |
| Sep 8 | 274.08 GB   | 40                 | 40                        | 0                   |
| Sep 9 | 274.1 GB    | 40                 | 40                        | 0                   |

Consider disclosure arrow treatment

show % increase from change in timeframe  
• 272.87 GB (-2%)

There is a way to combine / cleanup these 3 columns

**Expanded Grid**

CLUMIO Global organizational unit

Consumption Report

Monthly Consumption Report

| Date  | Backup Size | Total Credits used | Free/prepaid Credits Used | Billed Credits used |
|-------|-------------|--------------------|---------------------------|---------------------|
| Sep 1 | 272.87 GB   | 3                  | 0                         | 0                   |
| Sep 2 | 273.14 GB   | 2                  | 0                         | 0                   |
| Sep 3 | 273.42 GB   | 23                 | 0                         | 0                   |
| Sep 4 | 274.68 GB   | 12                 | 0                         | 0                   |
| Sep 5 | 274.84 GB   | 40                 | 40                        | 0                   |
| Sep 6 | 274.67 GB   | 40                 | 40                        | 0                   |
| Sep 7 | 274.01 GB   | 40                 | 40                        | 0                   |
| Sep 8 | 274.08 GB   | 40                 | 40                        | 0                   |
| Sep 9 | 274.1 GB    | 40                 | 40                        | 0                   |

Zero-state is not indicated

indent sub

**Filter Drop**

CLUMIO Global organizational unit

Consumption Report

rethink how we're doing this

Organizational Unit: Global organizational unit

- AWS Dev Team
- Developers
- Empty
- helpdesk
- helpdesk\_email\_guys

Monthly Consumption Report

| Date  | Backup Size | Credits Used |
|-------|-------------|--------------|
| Sep 1 | 243.87 GB   | 36           |
| Sep 2 | 244.14 GB   | 36           |
| Sep 3 | 244.42 GB   | 36           |
| Sep 4 | 245.68 GB   | 36           |
| Sep 5 | 245.84 GB   | 36           |
| Sep 6 | 245.67 GB   | 36           |
| Sep 7 | 245.01 GB   | 36           |
| Sep 8 | 245.08 GB   | 36           |
| Sep 9 | 245.1 GB    | 36           |

Notes - Impressions after reviewing current implementation

UI TOOL KIT 9/9/24 WITH MICHAEL A.

- SOURCE VS LIBRARY
- DESIGN SYSTEM PRESENTATION 2 - IN COMPANION DESIGN SECTION
- REQUIREMENT WILL BE KNOWN THE GUIDELINES WILL LIVE.
- CREATE "DESIGN IN PROGRESS" COVER PAGE
- INTER GOOGLE FONT

DISCUSSION - ADOBE

- WALK ME THROUGH EACH REPORT TYPE
  - DETAIL USAGE
  - FRICTION
  - GREAT FOR IMPROVEMENT
    - SHORT TERM (MIN)
    - LONG TERM (MAX)
  - TIMING?
  - RESOURCES AVAILABLE?
  - EMAIL OF REPORT

MARIL SYML UP 9/10

- GET INTO PRODUCTION
  - CONSUMPTION REPORT
  - COMPLIANCE REPORT
- SCREENSHOT PLAN
- STATUS MARKING UP THE EXISTING DESIGN
  - CAN DETAIL ON MAIN INTERACTION.

OBSERVED FRUSTRATIONS - EXISTING EXPERIENCE:

- EACH SIDEBAR SECTION IS DIFFERENT LOOKING, WHILE SHOWING SIMILAR DATA.
- STATE INSIDE OF A SECTION IS NOT SAVED WHEN CLICKED OUT OF.
- WHY NOT USE SEGMENT CONTROL ON "REPORTS"?
- FILTER IS NON-EFFICIENT IN USAGE, NOT CONSISTENT ACROSS APP
  - DEPENDS EXCEPTS USAGE FOR THAT STYLE OF PATTERN?
  - IS THERE ANOTHER WAY TO FILTER SCREEN W/OVT USING FILTER CTRL?
- CHARTS CHANGING TO DATA GRID
- CREDIT USAGE COULD BE BETTER PROMOTED
- CHARTS COULD BE BEAUTIFIED, MORE GRANULARITY BETWEEN DAYS.
- GRID COULD BE BETTER UTILIZED

Notes from initial Product conversation

TONS OF LOVE

- MULTIPLE PHASES
- OPT OUT DESIRES
- NEED EXPLICIT OPT-OUT FOR THIS (FREQ, TYPE, SENSITIVE)
- DOESN'T NEED TO BE A REPORT
- DISCOVER -> REPORT (MIXED AT SOME POINT)
- VIBES ARE PRIMARILY LOGGING IN BECAUSE OF A NOTIFICATION
- MOST ANXIETY IN DAILY - LOGIN OR EXCEPTION
- OPPORTUNITY FOR CORE LOOP DEFINITION.

AVOID REPORT

- DATA SHOULD BE GOOD SORT FOR NOW
- OPERATIONAL TASKS REPORT
- FIND AS IS
- LEVERAGE PATTERN CHANGES FROM OTHER REVISIONS FOR THIS PHASE

CONSUMPTION

- UNIVERSAL CATEGORIES (ULTIMATELY ACROSS PLATFORMS) FOR COST + DATA
- BREAKDOWN INTO NEEDS TO BE DONE (MAPPING BEHIND THE SCENES)
- 2 INTERPOLICIES FOR CREDITS
  - PAY AT YOU
  - PRE-PAY (BURN RATE)
    - WHAT ARE YOU GOING TO RUN OUT?
  - KNOWN CONSISTENCY (TREND IN CHART WILL HELP)
    - FINANCE WANTS TO KNOW UNINTENTIONAL EXPENSE

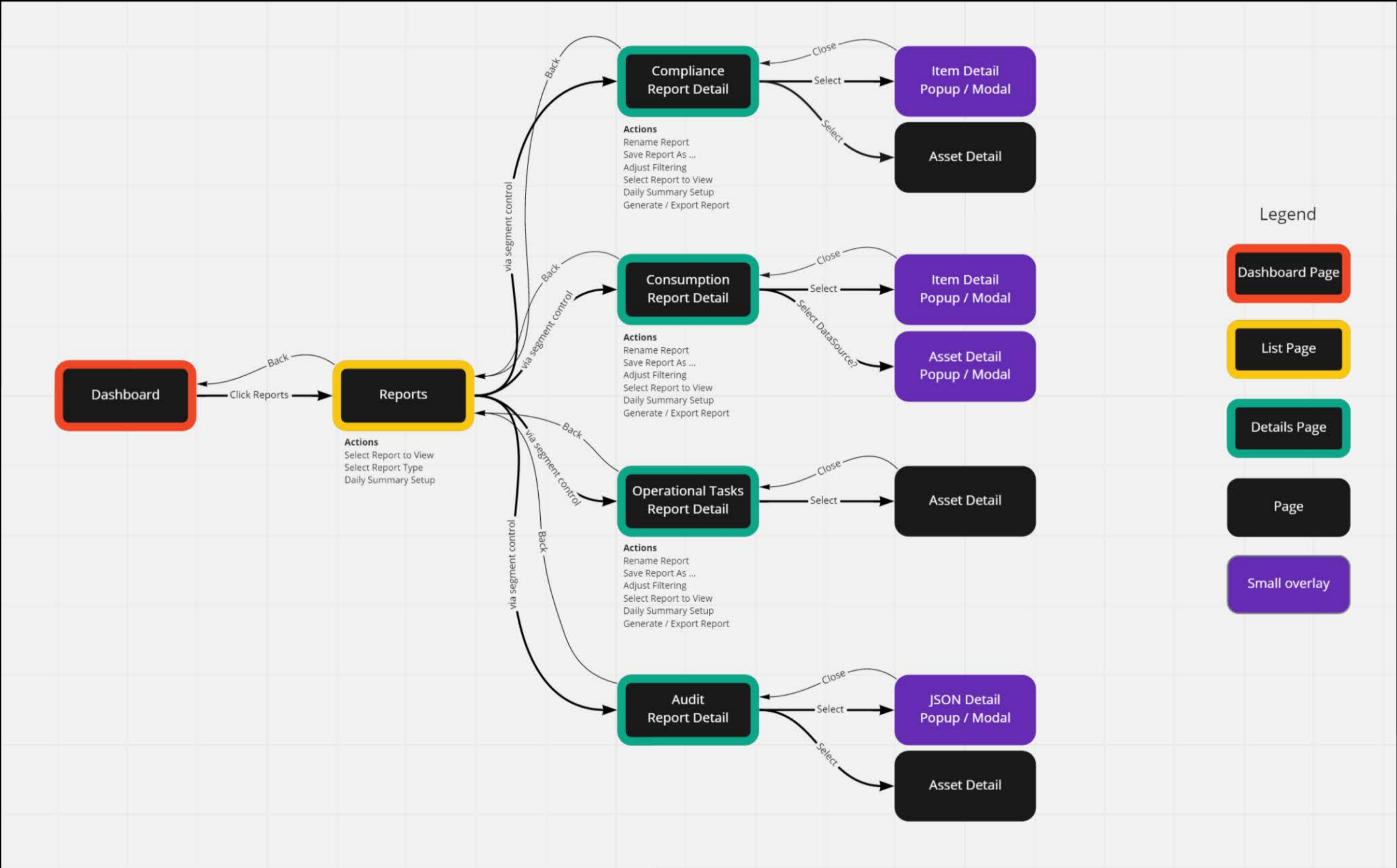
GRID

- ONLY AT LOW
- WHAT E22 INSTANCES DRILL DOWN OF ALL E22 INSTANCES
- NAME/CONVERSION FOR LABORS IS AN OPEN CONVENTION (IT'S OK)
- CREDIT BRACE IN OR GOES AWAY (GLOBAL NAV)
- VM PROD - IN 3 WEEKS
- 365 - OCT 2024

GRID

- TRANS LINE
- GRANULARITY (INTER-DAY)
- \* 20% / 10% / 0%
- CIVA NOTIFICATION WHEN REACHING THRESHOLD
- \* DIFF AMOUNT OPERATIONAL AIDS
- COMPLIANCE?
- WHERE IS THRESHOLD?

# Initial user flow of reporting feature





Notes from initial design review

TIER AFFECTS PRICING ?  
 PAY STRUCTURE FOR CREDITS

|            | PAY AS YOU GO | PREPAY |
|------------|---------------|--------|
| TRIAL      |               |        |
| STANDARD   | ✓             | ✓      |
| PREMIUM    | ✓             | ✓      |
| ENTERPRISE | ✓             | ✓      |

- CREATE A NEW REPORT
- SHARE A REPORT
  - ↳ EMAIL
  - ↳ OS/Windows

AMT RE-FILL?

HOW DOES TIER AFFECT COST? \$/GB

1:1 10/11/21

- SS ON-CALL
- UX TWEAKS
- NEW TICKET - JIRA TICKETS CREATED
- DESIGN QA - CALL WITH PARKS WITH MICHAEL
- REPORTS
  - MESSAGE SEND TAB
  - DESIGN BRIEF FILL
- TADS FILL IN DETAIL ON REPORTS DESIGN

INTRODUCE PIVOT TABLE VIEW?

ASSET DETAIL IN GRID

- ① DATE / ASSET
- ② ASSET
  - ↳ REGION ENVIRONMENT
  - ↳ BACKUP REGION / ~~DATA~~
- ③

- DATA SOURCE
- ENVIRONMENT
- DATE

ERS ↳ VOLUME + QUALITY  
 EUR ↳ INSTANCE ID + POLICY

CREDIT USAGE

- FOR FREE CREDITS HIGHLIGHT PROMO, OFFER, 100 CREDITS FOR ROS USAGE.

CONSUMPTION REPORT FOCUS

- TRACK USAGE OF CUMULATIVE
- FIND TRENDS & ANOMALIES
- FLEXIBILITY OF DIVING INTO THE TRENDS / ANOMALIES
- WHEN ARE THEY GOING TO BE OUT OF CREDITS?
- Grouping / comparison across data sources
  - ↳ Group a OPERATIONAL UNIT (BREAKDOWN BY ACCOUNT, DATA SOURCE)
  - ↳ ROI vs DYNAMIC
  - ↳ ACCOUNT TO ACCOUNT
  - \* ↳ DELTA IN THE SPEND 200K / 2 MILLION COST
  - ↳ SNAPSHOT OF ACTIVITY, AND SCHEDULED REPORT (E.G. MONTHLY)
- ADAM PRO (WE CAN LOOK)
  - RYAN = CUSTOMER (DEPARTURE 5) IMPROVING
- FLEXIBILITY IN DISPLAYING DATES TO SPAN FOR REPORT

USER USER  
 DIRECTION OF FINANCE  
 BIZ OWNER  
 IMPROVING USER FIRST OF THE MONTH  
 CUMULATIVE GIVES REFLECT IN THE UI

## Design values exercise

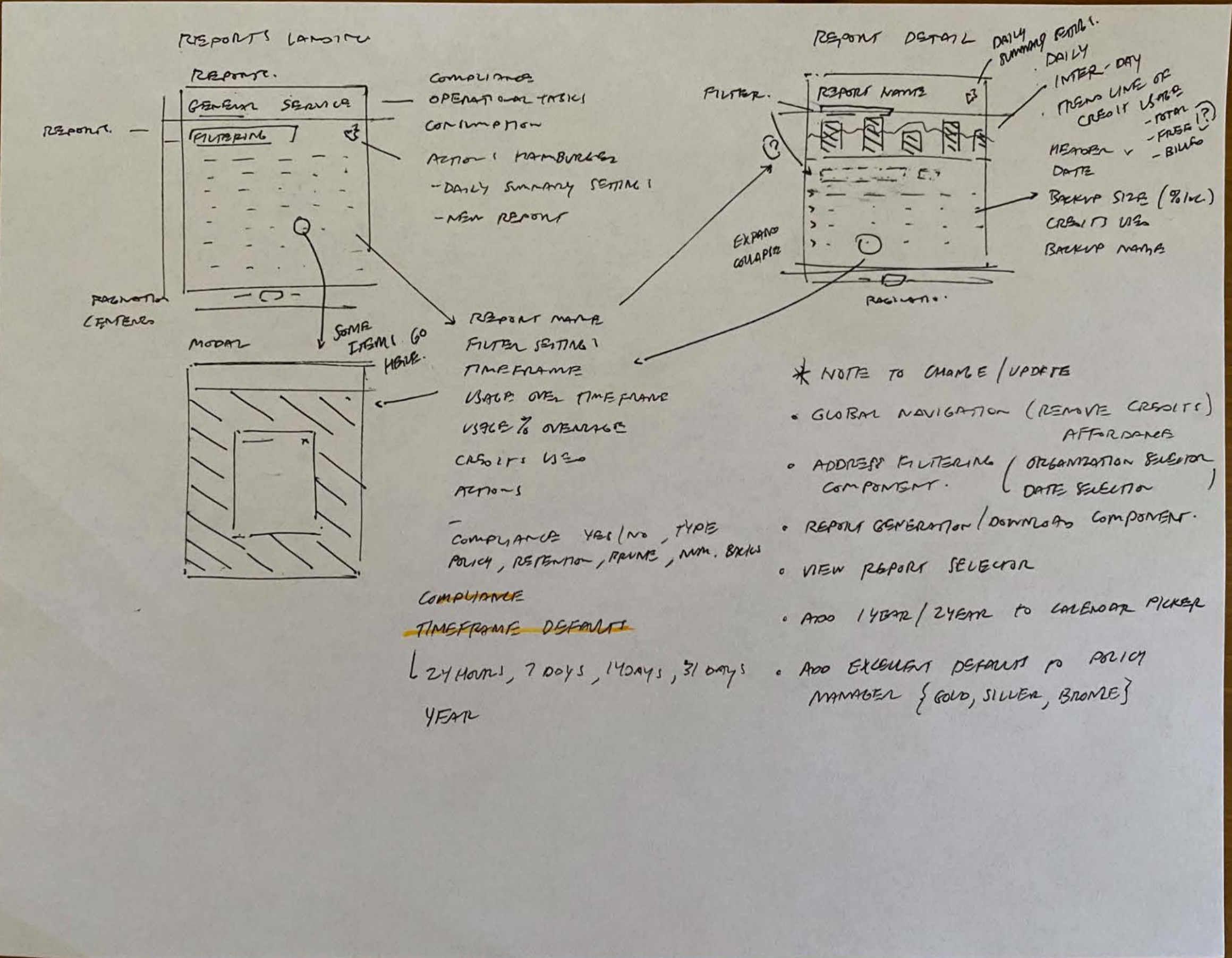
Design Values

# Design Values (consumption)

The most critical UX values to preserve in the design, and what is less important and can be traded off to ensure the critical values are achieved.



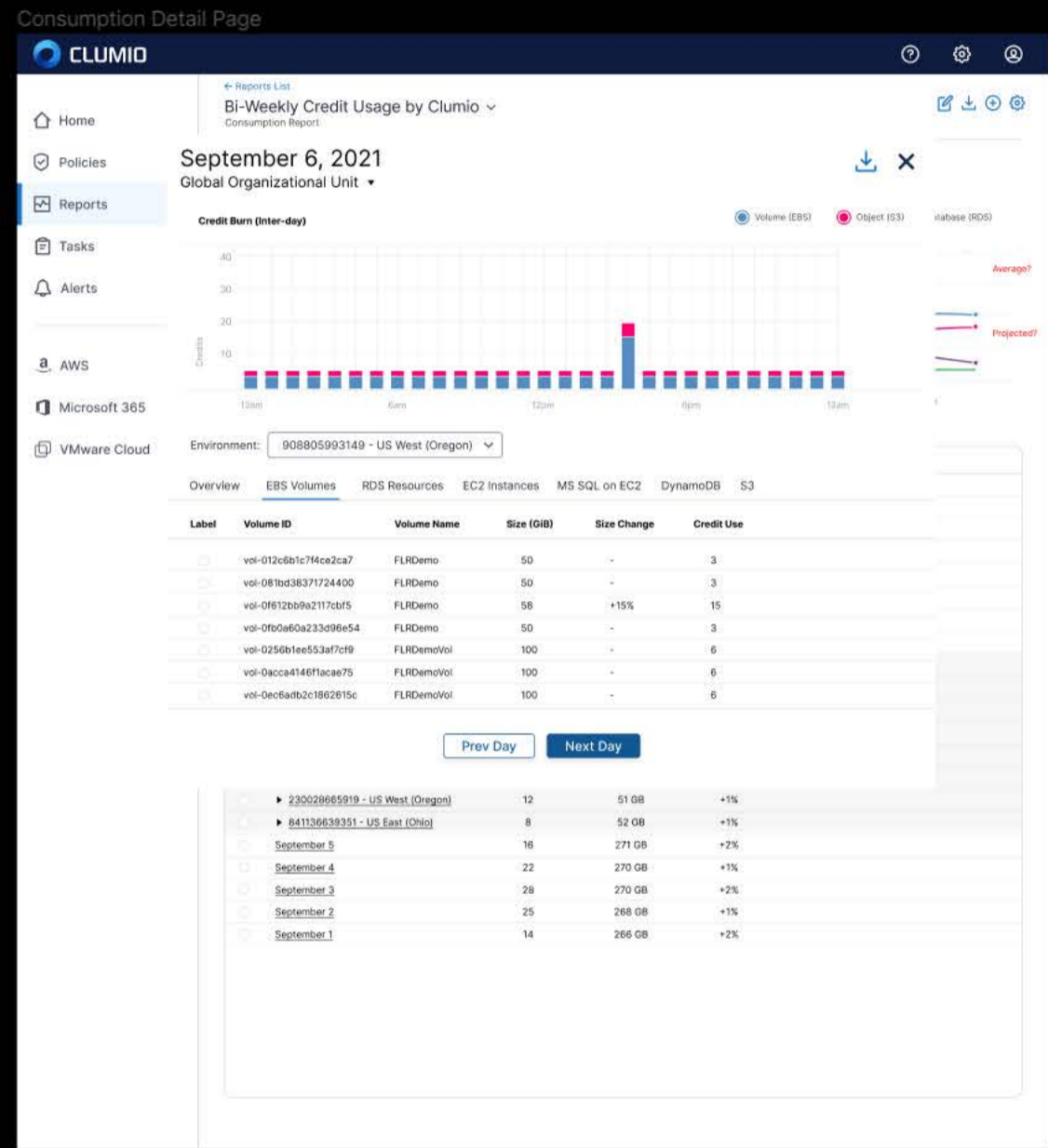
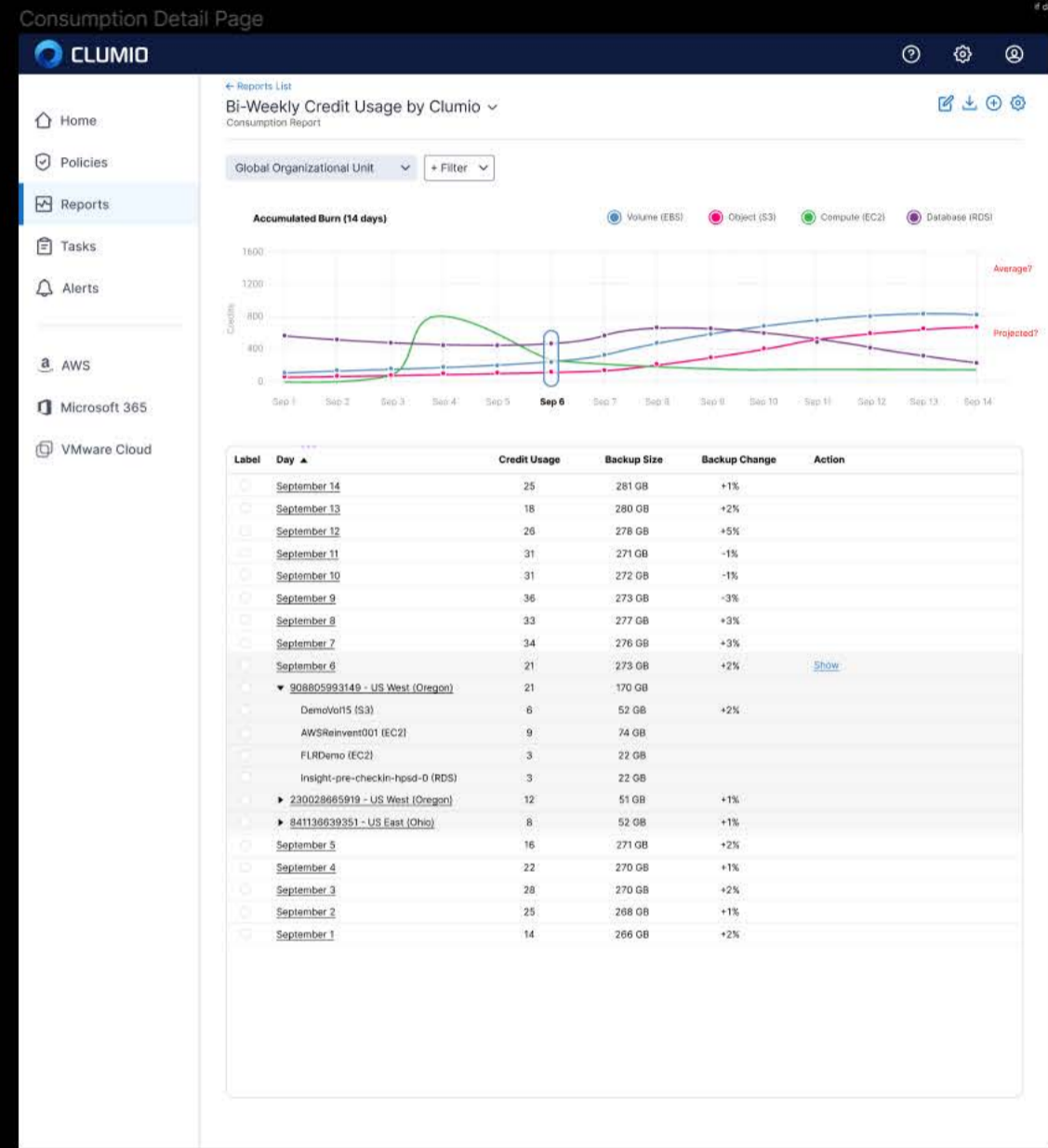
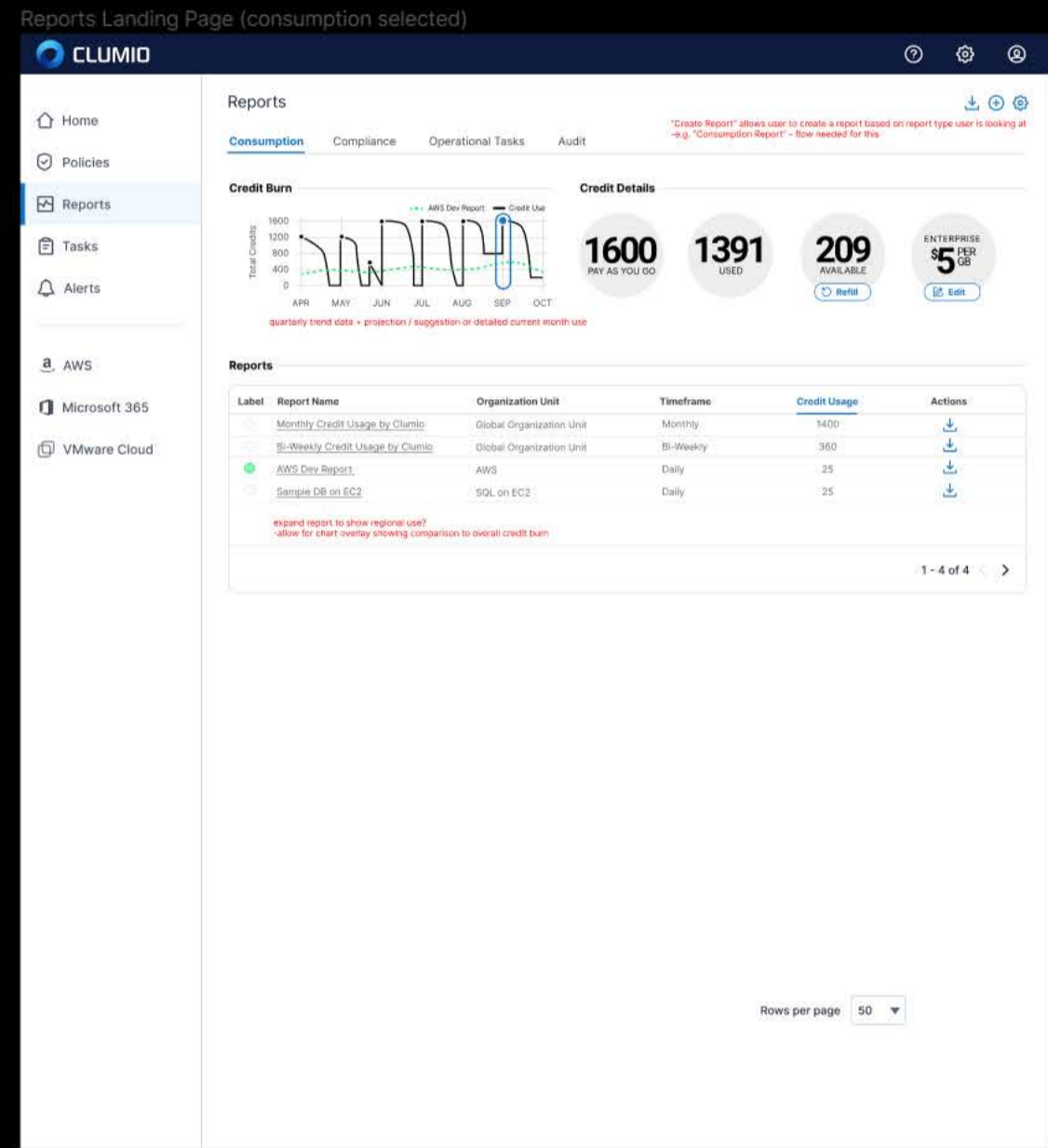
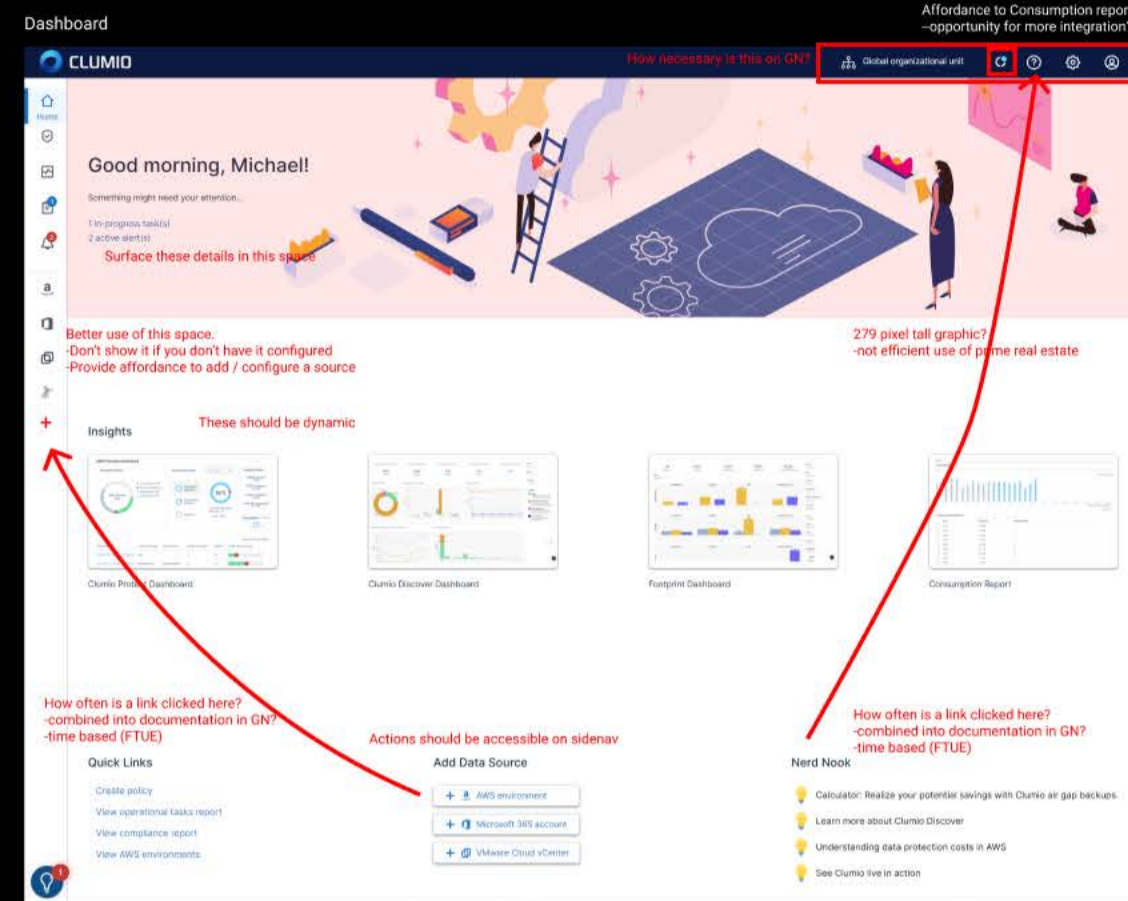
# Initial solution from gathering requirements, conversations, competitive analysis



## Wireframe - Initial user flow

## Consumption Report

How many credits do I have, how are they being spent and how can I refill / purchase more?



- Top Tasks
- Highlight exceptions, anomalies
- Be able to act on data
- Show usage trends
- Show credits
- Compare on assets, data sources and credit use
- Show credit burn
- Affordance to refill credits
- At-a-glance view of monthly use

User  
Infrequent use, maybe at the top of the month. The user is looking for trending data and interested in highlighting anomalies to act upon. Very interested in costs that have changed since last billing and when credits will run out.

Key Problems  
Can't track usage of Clumio across the platform  
Trend and anomalies are not highlighted and buried  
Can't dive into the details of trends or anomalies  
There is no easy way to see how many type of credits I have  
There is no way to easily recharge credits  
I can't compare groups of assets across data sources  
There is very little flexibility in displaying dates and timeframes

Ancillary Flows  
Create Report popup  
Recharge / Refill Credits  
Edit Credit Details  
Report Settings Screen (Daily Summary Email, Show / Hide Data Sources)  
Daily Detail Overview (showing most active assets across data sources)  
Zero State / Default View

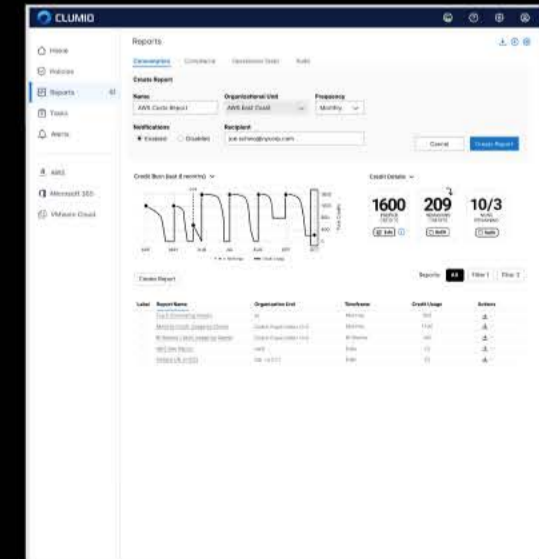
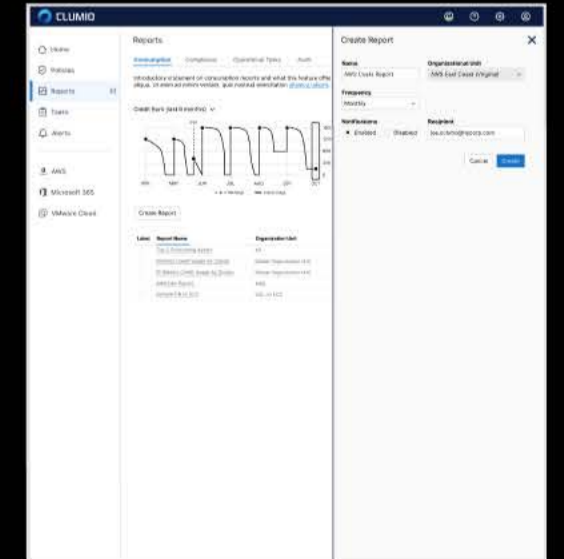
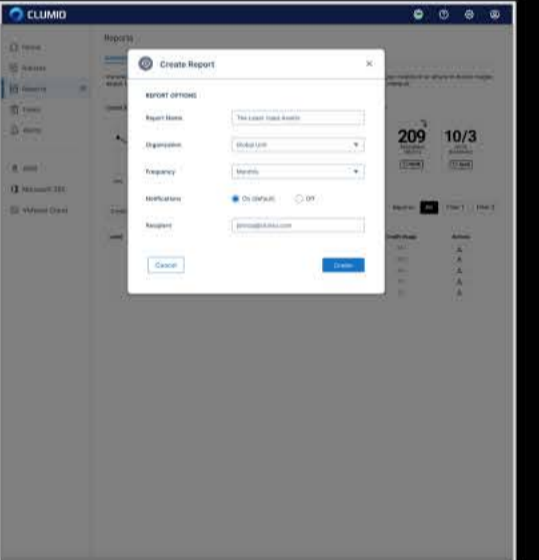
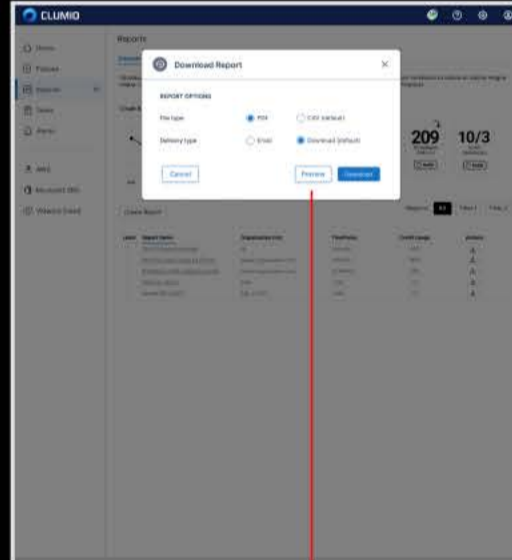
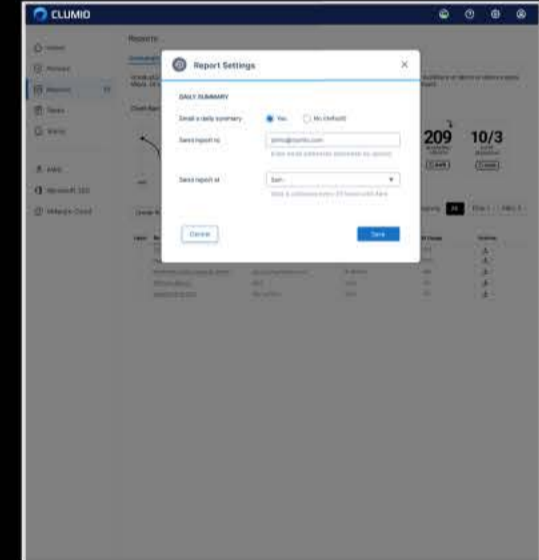
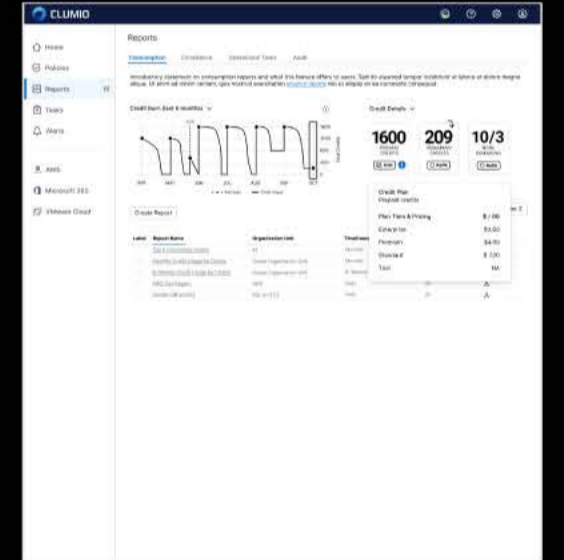
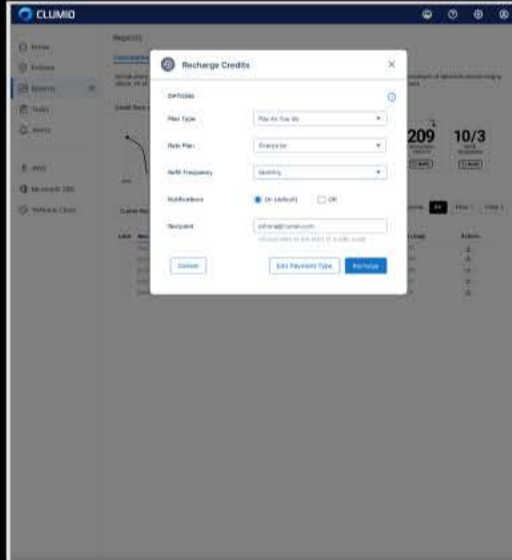
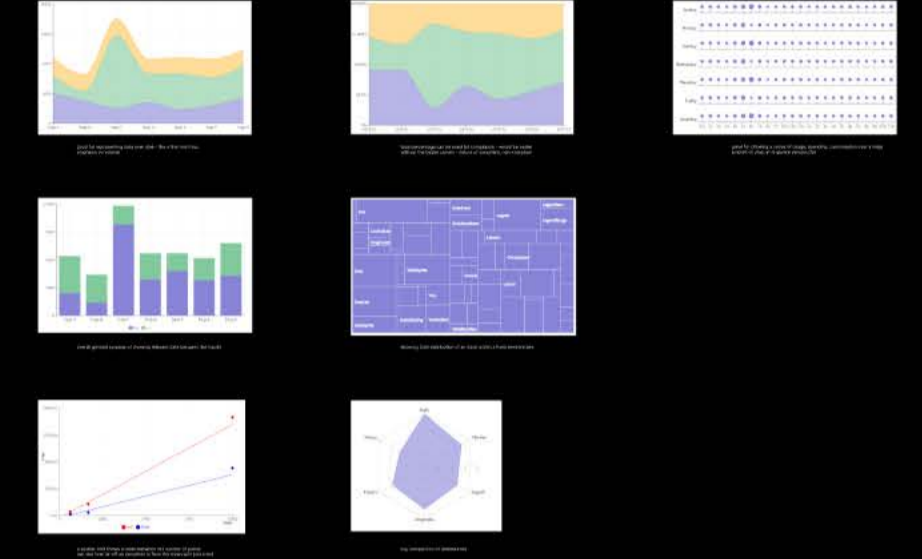
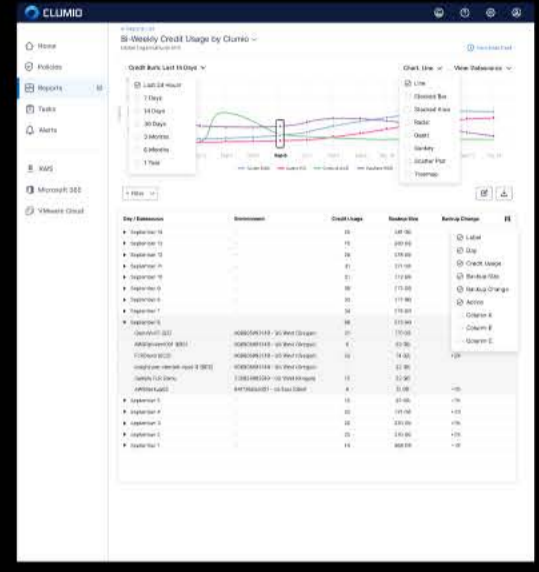
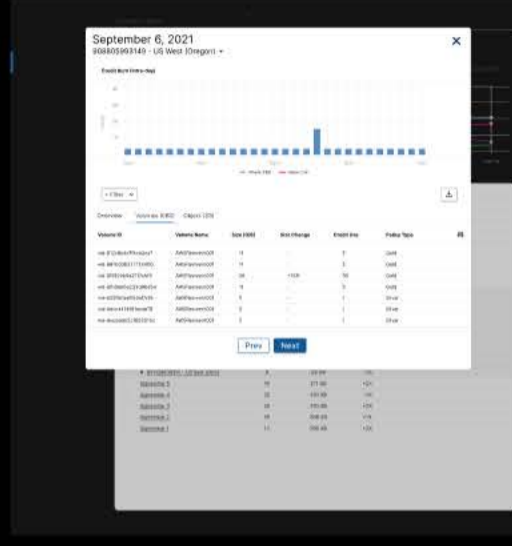
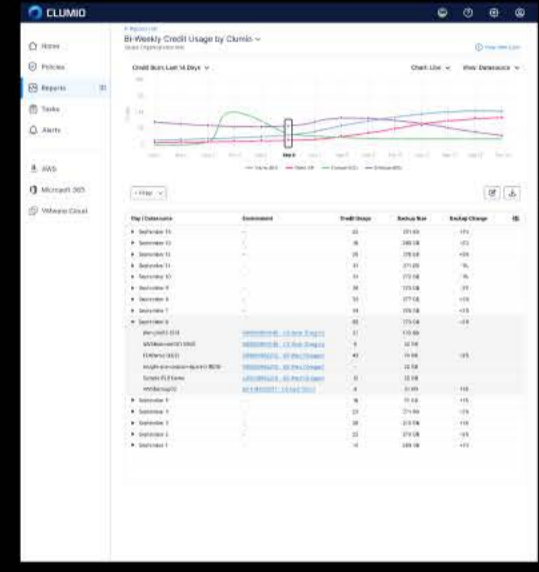
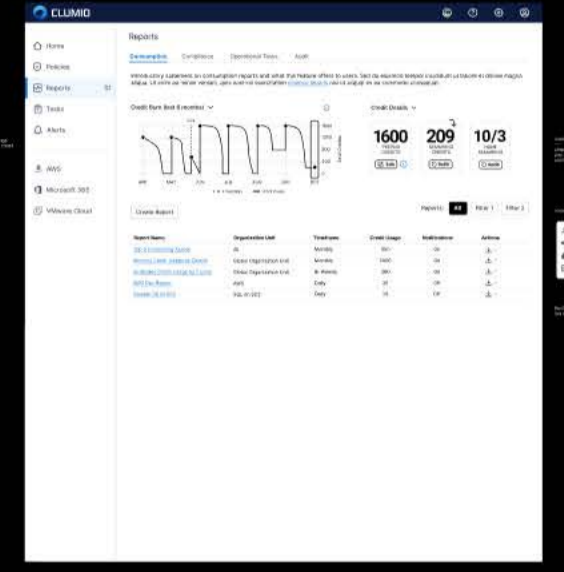
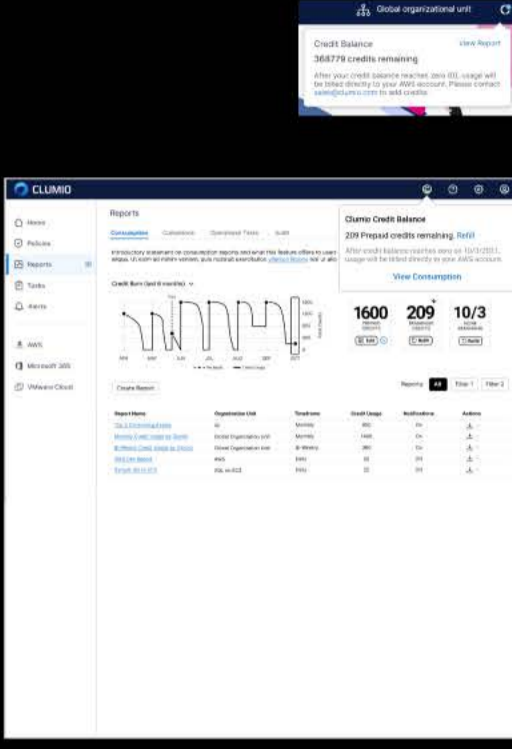
Region List / Datasource Type  
Credit Use  
% Change  
Backup Size  
Backup Diff  
User is dropped into "Overview" where they can see the most consuming assets by type. They can click into each separate datasource type and investigate / track an asset performance size and credit use. The user can output a report of this use representing a single day segment of time.

# Wireframe + User Flow v.4

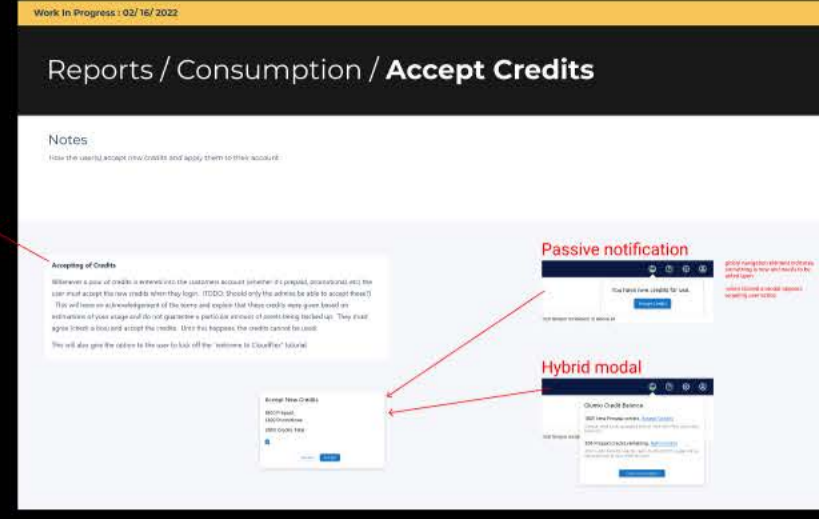
Go to Credit Refill Modal to Edit or Refill

Different data visualizations based on table pivot

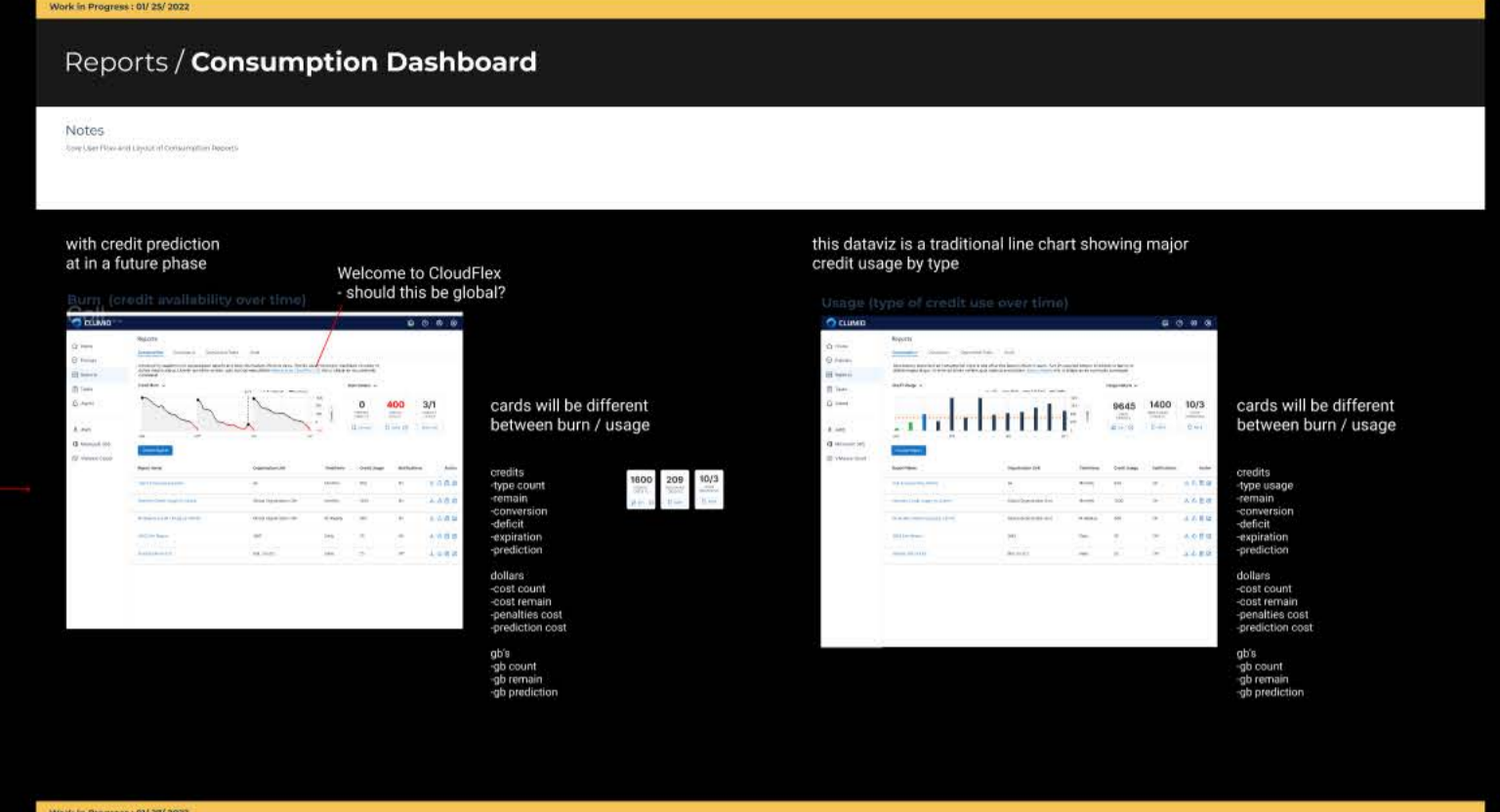
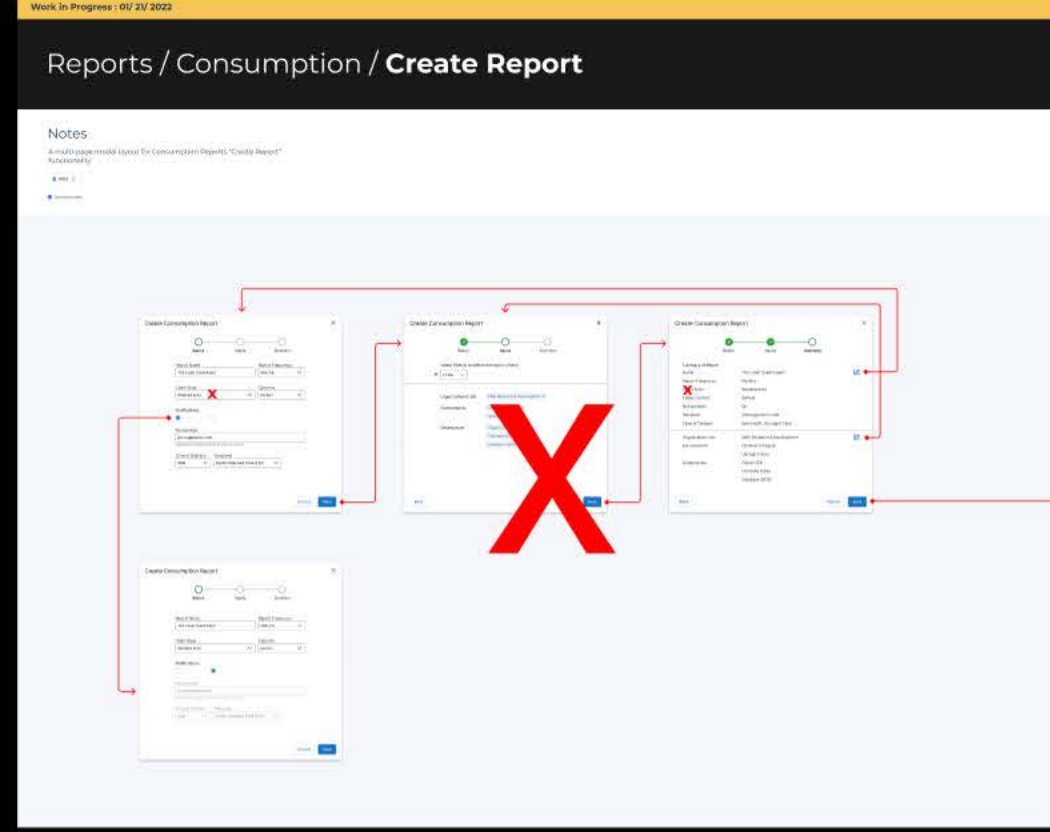
Compare Functionality?



Preview Report Layout



global navigation control and access -does the user always see the link to the CloudFlex tutorial? -what is the cloudflex tutorial? -pendo document?



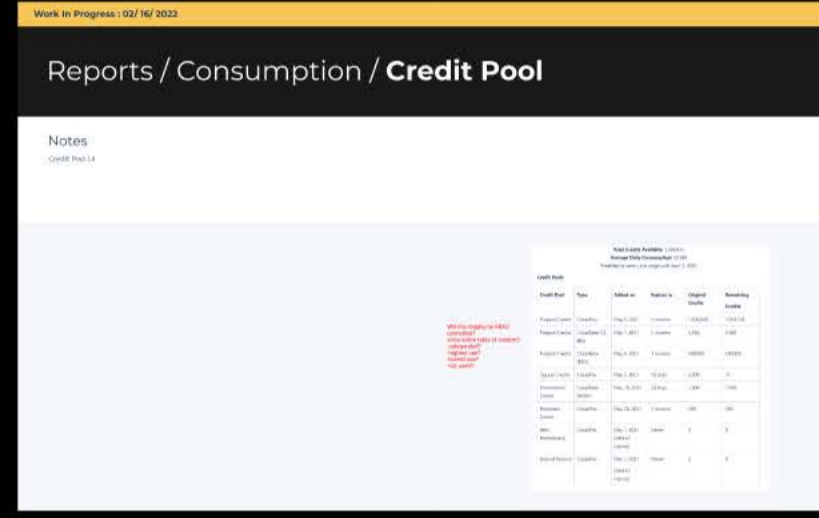
with credit prediction at a future phase

Welcome to CloudFlex - should this be global?

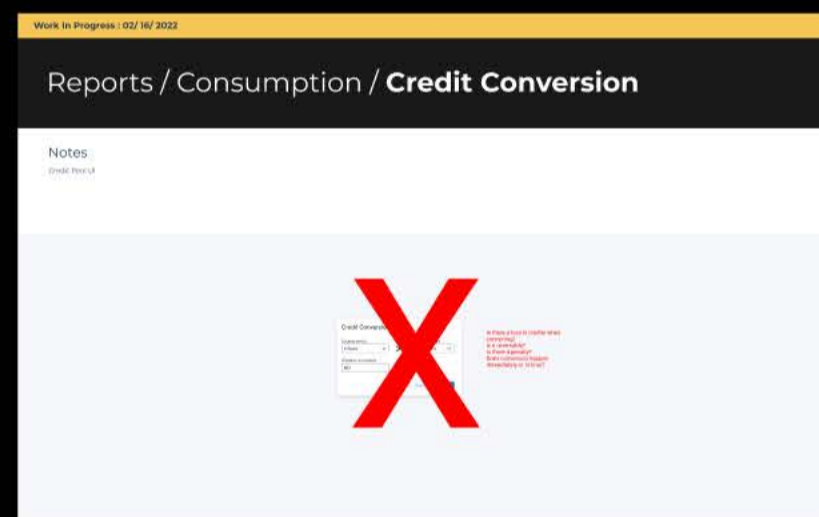
this dataviz is a traditional line chart showing major credit usage by type

cards will be different between burn / usage

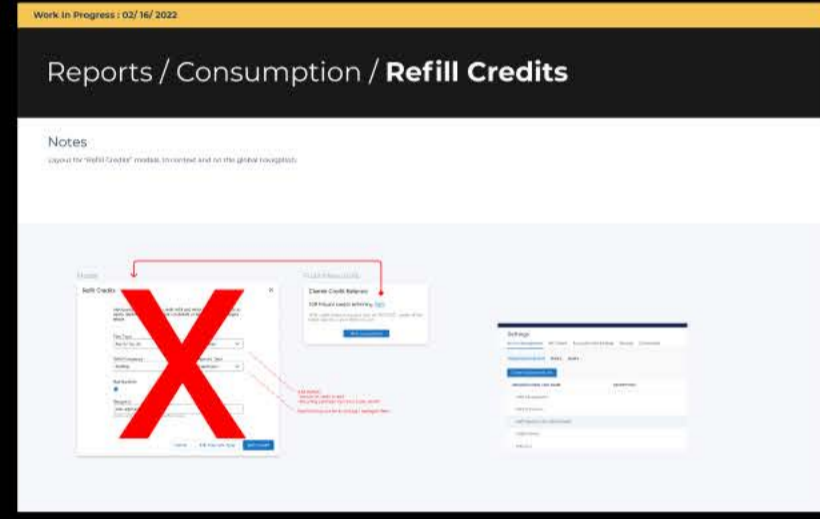
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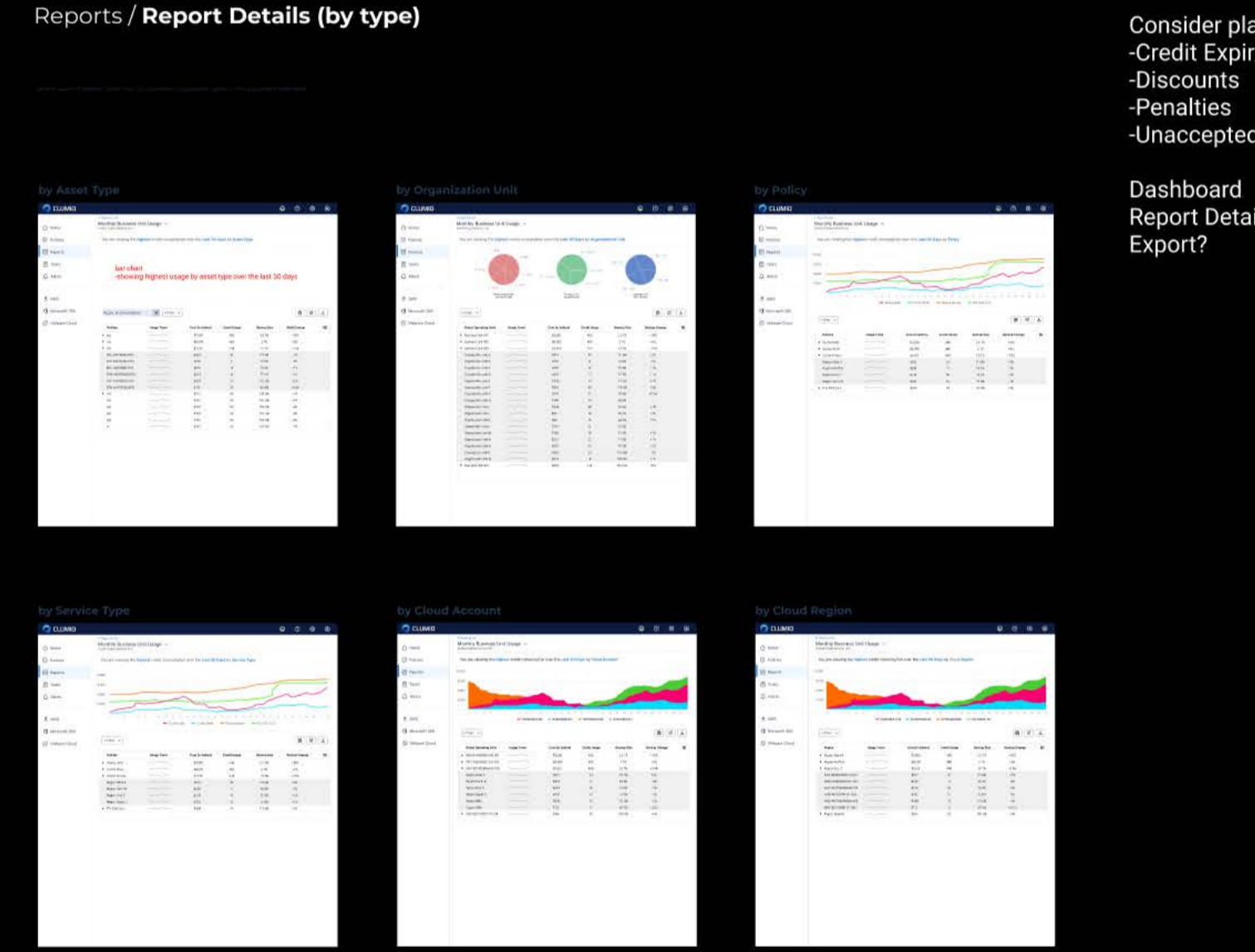
Will need to consider amount to refill -auto or manual -confirmation



We may want to consider combining this within the Credit Pool UI -as a function of

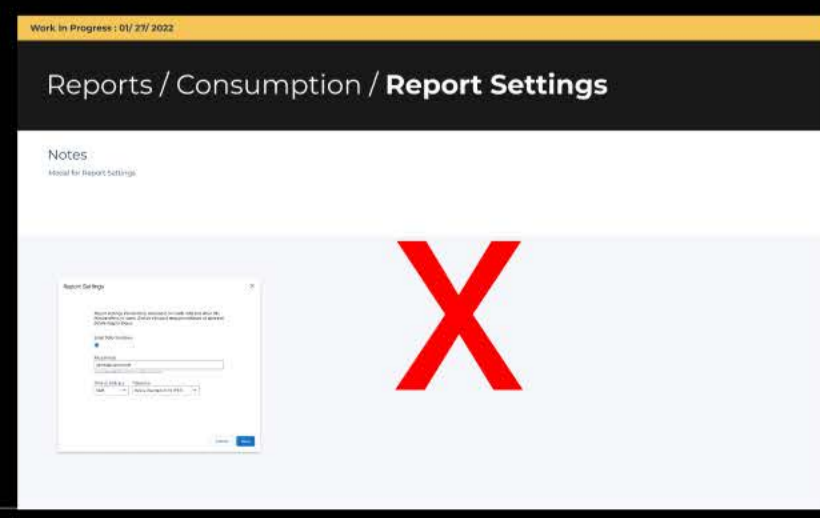
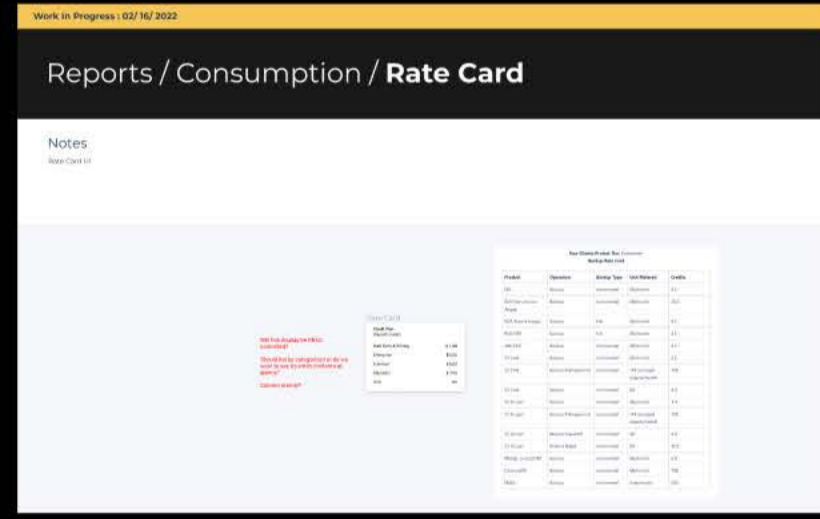
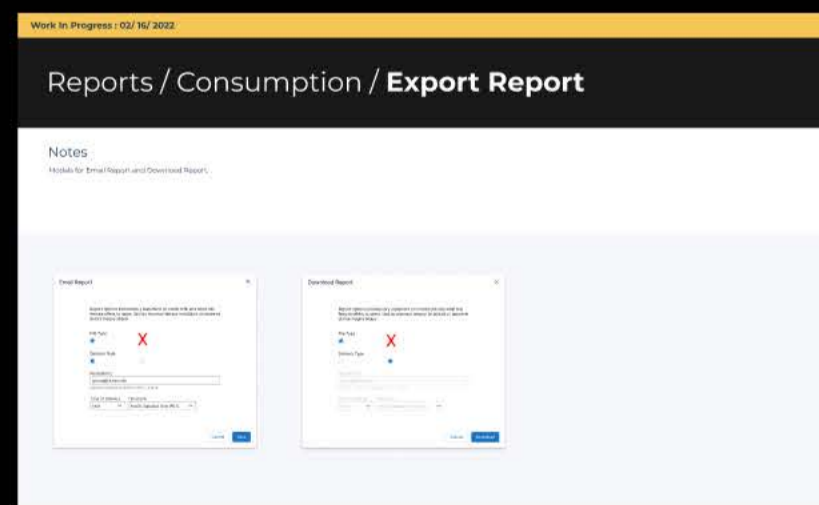


Asset Type



Consider place we will show -Credit Expiration -Discounts -Penalties -Unaccepted Credits

Dashboard Report Details? Export?



2 Chart Styles Locked to its type - not user selectable Line, Bar

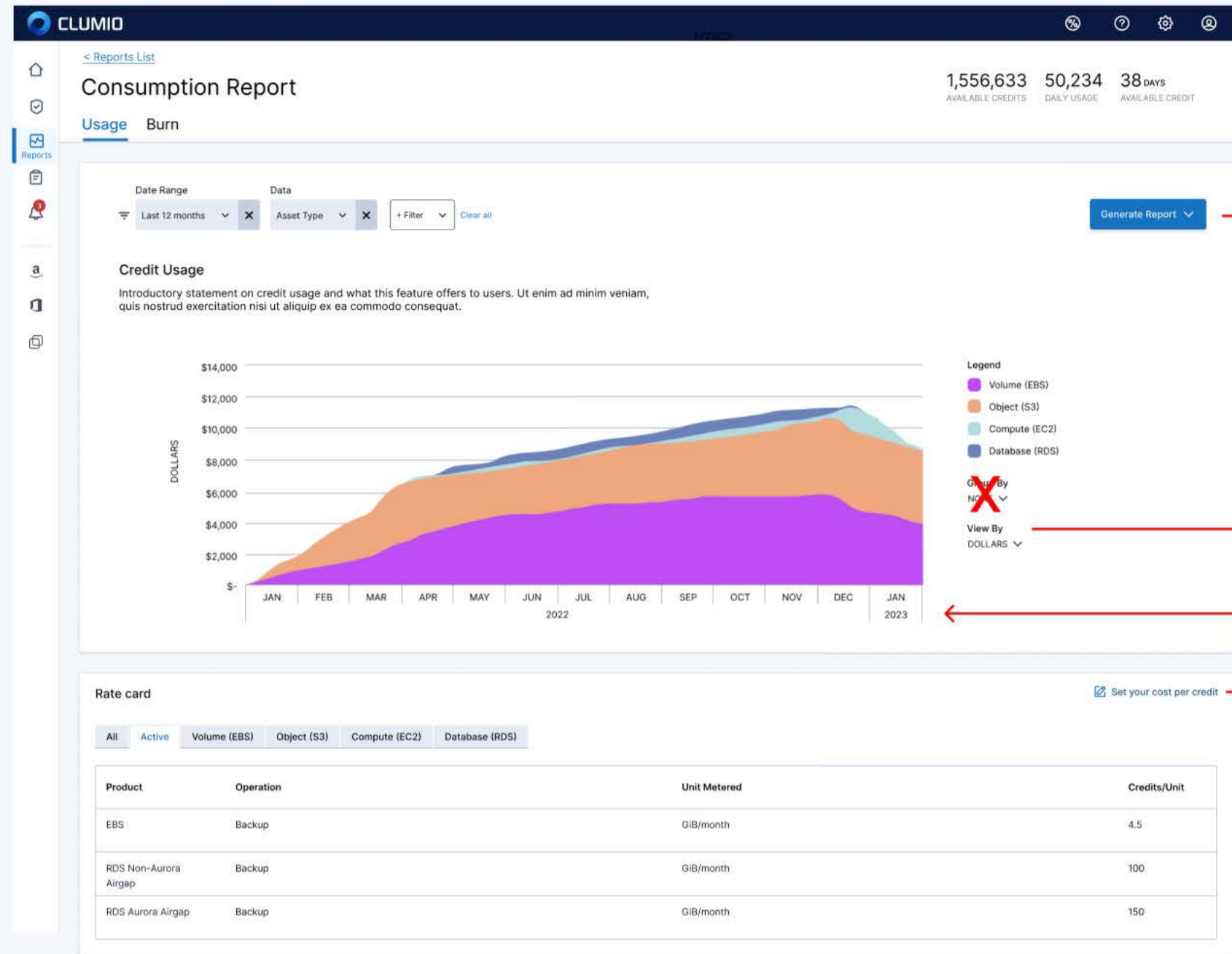
6 Filters Asset Type (e.g., S3, RDS) Org Unit Policy Clumio Service Offering (e.g., S3 Frozen, S3 Cold, RDS GRR, RDS Airgap) Cloud Account Number Cloud Region

Questions -For phase 1 are we doing self-service credit refill? -RBAC and limiting access (to details) based on role -Export Reports -single interface? -contextual to view? -Let's discuss -Accepting Credits -Credit Pool -Rate Card -Credit Conversion

Will need to consider -csv format -PDF format

# Wireframe + Post PRD





Click to open the report listing

Generate Report

When generating a report a spinner is visible on the button.

First-time use

Generate a report

Export all your data with the applied filters and formatting in CSV format.

Generate a report

Click to generate a new report

Generating ...

Generating report state (if beyond time threshold) no cancel

Compliance.Report\_05122022.csv

Consumption.Report\_05132022.csv

Click to download the report auto-naming convention is "report type\_datestamp.csv"

View by drop menu

CREDITS

USAGE

DOLLARS (set cost per credit)

Credits is the default

Default metric is "Backup size". User can still select between the different metrics and render the chart

Dollars selection is inactive (i.e. NOT selectable) until the user sets a rate. CTA is always visible, regardless of rate set or not.

Show the costs you pay in the report per credit in dollars.

Amount Paid

\$ 0.10 per credit

Cancel Update

When opened this UI replaces the drop menu. User clicking outside of component or clicking "Cancel" closes the component.

Once rate is set the chart can be displayed with the "View by" set as dollar

This value is saved across sessions / per user and remains until the user modifies it.

Clicking "Update" will close the component and update the value where it was initiated.



Data Tooltip

09/24/2022

- User: 1,085 credits
- Database: 7 credits
- Compute: 106 credits
- Object: 1 credit
- Volume: 115 credits

We're showing a vertical slice of data on a given day. We show by color, type, count in credits.

This is an additional style not outlined in the tooltip specification.

09/24/2022

- User: 1,085 credits
- EBS
- Database: 7 credits
- VM, EC2
- Compute: 106 credits
- EC2
- Object: 1 credit
- RDS Instance, MS SQL Database (EC2), DynamoDB, RDS Cluster
- Volume: 115 credits
- MS SQL Database (EC2), MS SQL Host (EC2), MS SQL Host

Offload the display of types into the tooltip and remove it from the legend.

ASSET TYPE

ORG UNIT

ASSET TYPE is the default

Changes the Y-axis on the chart

CREDITS

USAGE

DOLLARS

CREDIT is the default

# High Fidelity, Details



# Implemented design

CLUMIO

1,556,633  
AVAILABLE CREDITS
50,234  
DAILY USAGE

Consumption report

Date range: Last 12 months | Data: Asset type | Filter | Clear all

[Generate report](#)

### Credit usage

Introductory statement on credit usage and what this feature offers to users.

Highest Credit Usage Last 12 months in Dollars by Asset Type

**Legend**

- Users (M365)
- Database (RDS)
- Compute (EC2)
- Object (S3)
- Volume (EBS)

**Chart Type**

Line  Bar

**View by**

Dollars \$0.10 cost per credit

▼ Credit pool

[Learn More about Consumption and Credit Pools](#)

| Type    | Usable On       | Date Created                               | Expiration Date                          | Original Credits | Credits Remaining | Yesterday's Usage |
|---------|-----------------|--|--|------------------|-------------------|-------------------|
| Signup  | All Asset Types | Jan 3, 2022<br><small>314 days ago</small> | Jan 2, 2023<br><small>362 days</small>   | 150,000          | 10,233            | 5,000             |
| Prepaid | M365            | Jun 5, 2022<br><small>170 days ago</small> | Jun 4, 2023<br><small>179 days</small>   | 15,321,034       | 10,323,333        | 30,000            |
| POC     | M365 + more     | Jun 5, 2022<br><small>180 days ago</small> | June 30, 2022<br><small>155 days</small> | 3,000            | 3,000             | 0                 |
| Prepaid | All Asset Types | -  | June 4, 2023<br><small>179 days</small>  | 10,000           | 10,000            | 0                 |

▼ Rate card

Backup Region: All regions

\$0.10 cost per credit

| Product               | Operation         | Unit Metered             | Credits/Unit | Dollar/Credit |
|-----------------------|-------------------|--------------------------|--------------|---------------|
| EBS                   | Backup            | GiB/month                | 4.5          | \$0.40        |
| RDS Non-Aurora Airgap | Backup            | GiB/month                | 100          | \$1.00        |
| RDS Aurora Airgap     | Backup            | GiB/month                | 100          | \$1.00        |
| RDS GRR               | Backup            | GiB/month                | 100          | \$1.00        |
| S3 Cold               | Backup            | GiB/month                | 100          | \$1.00        |
| S3 Cold               | Backup Management | 1M managed objects/month | 100          | \$1.00        |
| S3 Cold               | Backup            | GiB/month                | 100          | \$1.00        |
| S3 Frozen             | Backup Management | 1M managed objects/month | 100          | \$1.00        |
| MSSQL on EC2/VM       | Backup            | GiB/month                | 100          | \$1.00        |
| DynamoDB              | Backup            | GiB/month                | 150          | \$1.00        |
| S3 Frozen             | Restore Standard  | GiB                      | 150          | \$1.00        |