

What this deck contains

- What Productiv does
- What I do at Productiv and why its unique
- An example case study of work from my time here

To unlock these other thrilling deck-upgrades, lets connect!

- Live explanation in my fantastic voice
- Live demo of the case study
- The 3 critical events that lead to me becoming a designer
- My casual startups, the TEDx talk
- Snippets of my past work experience (Ernst Young, Waymo, MIT etc)
- Some cheesy drone video montages

I currently work at a company called



Here is what you need to know

Productiv x Me

- Series C B2B startup in Palo Alto
- SaaS data analytics: New category
- Joined Feb 2020. Employee #23. Product member #3.
- Today: Sole Product Designer + Backfilling 1 PM



400

SaaS apps at an organization



For each of these 400 apps, an IT team needs to manage

Administration

License distribution

Renewals

True-ups

Data governance

Security

Privacy management

Regulatory management

Compliance

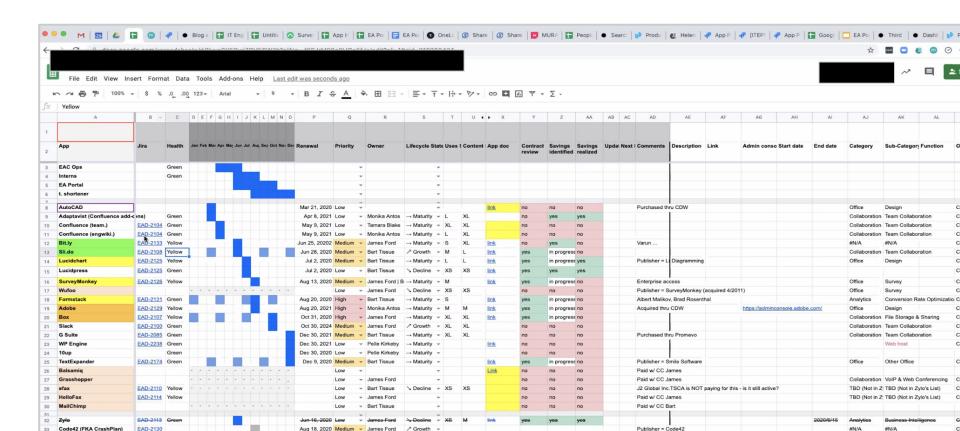
Training

Troubleshooting

Sunnort

97% IT orgs use spreadsheets

To track 100's of millions of \$ in annual recurring spend!





Spreadsheets cannot:

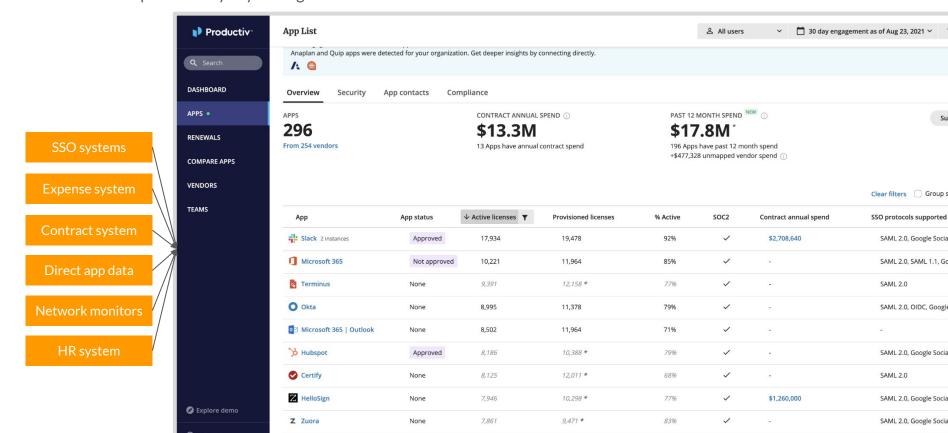
Empower CIOs / IT Orgs to focus on boosting productivity

Other things spreadsheets cannot do

- Stay up to date: someone has to update them. Almost every week
- Give visibility into actual usage / ROI
- Be used to track of enforce Security, Privacy Regulatory Compliance
- Automate workflows
- Prevent surprise SaaS bills

The Solution

A SaaS Management platform. Aggregate and correlate data from multiple sources to provide visibility, insight and automated action to unlock productivity in your organization



Early stage, ambiguous Discovery Strategy, Thought leadership Pixel craft, Handoff Execution Data complexity

Case Study A

Understanding the SaaS governance landscape

Exploring the unexplored frontier of SaaS management to define the future of the product

Case Study B

Securing an org's privileged info

Empowering users with more time to solve new problems by eliminating manual labor around access management and cost optimization Case Study C

Enabling dynamic product packaging

Creating a system to allow BizOps + GTM teams to create tailored product pricing packages

- Deep user + landscape research
- Converted industry needs into roadmap
- Spun off an add-on product
- Identified + executed multiple big-rock projects
- Delivered a marquee feature with highly complex data scenarios
- Created a system to ensure future extensibility

- Revamped the entire navigation architecture
- Created flexible systems to block and upsell features

Case Study B



Securing an org's access surface

Timeline: 4 months

Role: Lead designer

My scope

- Contextual user inquiry
- Concept creation + validation
- Project costing + sign off
- Pixel execution
- Handoff
- Rollout





An **IT portfolio owner** at a **Large Enterprise**

Responsible for 1-20 SaaS apps Reports to the CIO/CISO

- Deployment
- Uptime
- Administration
- Renewals
- Troubleshooting
- Vendor relations
- Access management
- Compliance
- True-ups
- Privacy compliance

1:00:000 00000000000

- Data governance
- Cost Efficiency

Administration
Renewals
Troubleshooting
Vendor relations
Access management
Compliance
True-ups
Privacy compliance

Data governance

License management

- Cost Efficiency

Example to indicate gravity of privilege information



- Customer list

- Legal documents
- Customer contact info
- Customer histories
- Strategy notes

Across

- Current customers
- Secured wins
- Prospects
- Pipeline

at

Uber

45,000 licenses

Public company

\$11Bn revenue, 2020



An **IT portfolio owner** at a **Large Enterprise**

"Nobody should have unnecessary access to privileged info. That is a security risk, a compliance hazard and also inflates our cost unnecessarily"

→ Goal: Security and compliance

→ Secondary goal: Cost optimization

Impacted user identifiedUser need identified

Understanding the current process

zoom

sumologic

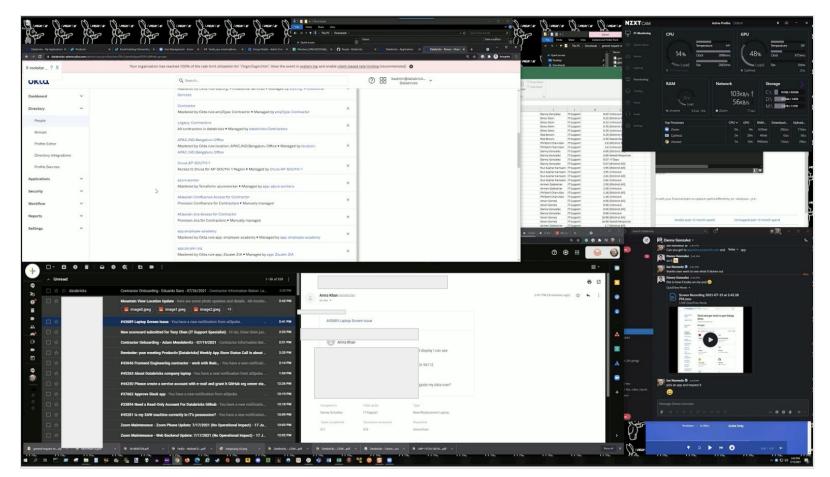
We spoke to our large enterprise customers

databricks

okta

RingCentral®

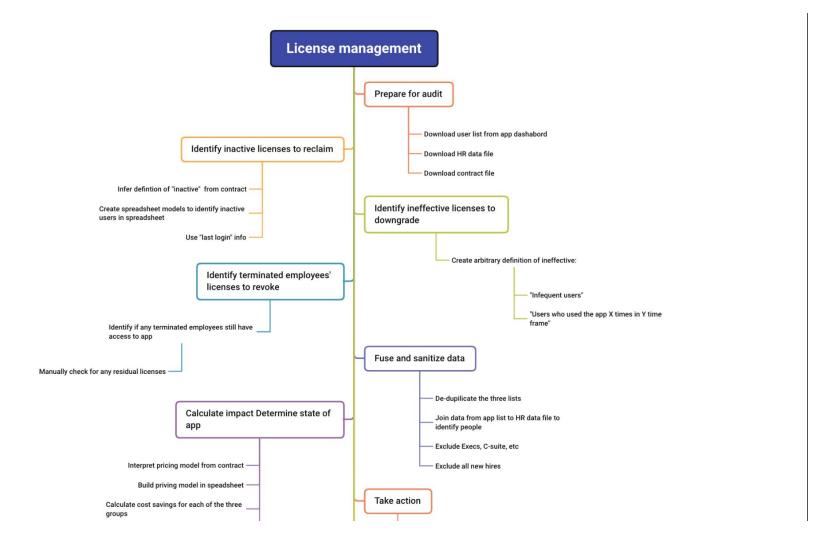
Uber

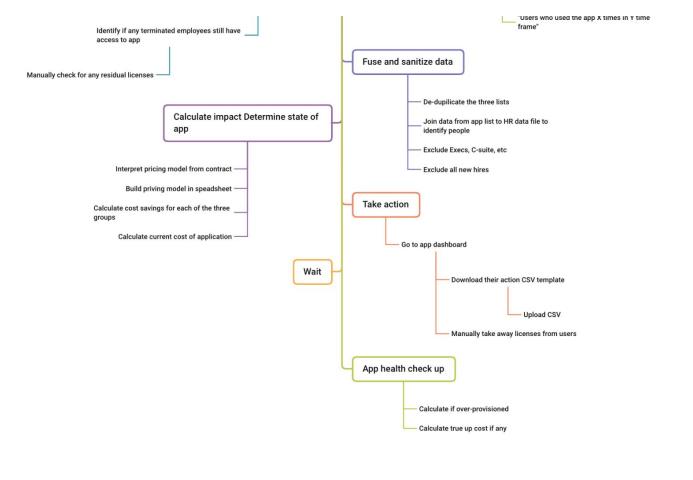


Current process

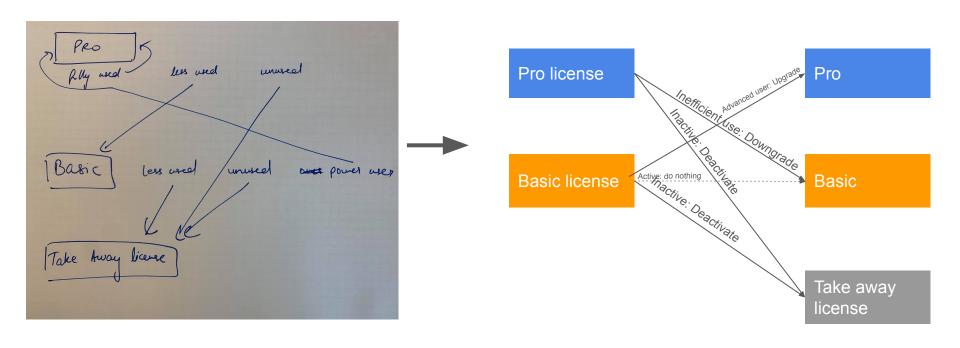
User steps

- Identify inactive employees
- Identify inefficient employees (arbitrary)
- Inventory any employees who have left the org since last audit
- → Take away employee's license or downgrade access level

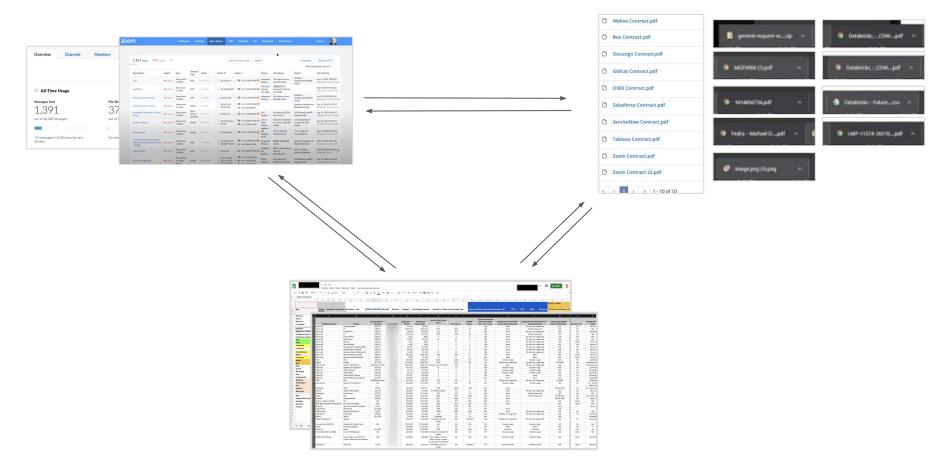




The process flow



It's a mess ...



Say that takes 7 hours...

Imagine doing this for the 20 apps you own, every month!

7 hrs x 20 apps = 140 hours

Month has 160 working hours

When will you do all the other things?

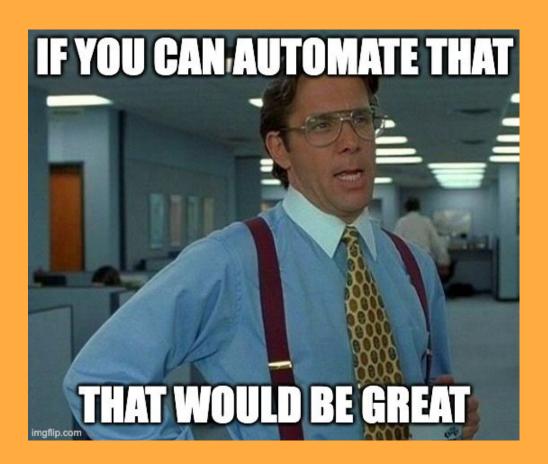
- Deployment
- Uptime
- Administration
- Renewals
- Troubleshooting
- Vendor relations
- Access management
- Compliance
- True-ups
- Privacy compliance

The end result?

Portfolio owners feel like a hamster:

ightarrow Running in place going nowhere

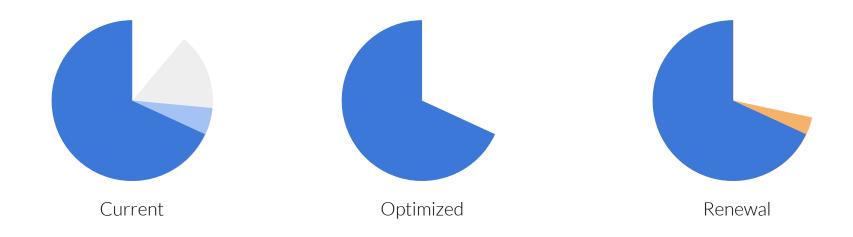




- ✓ Impacted user identified
- ✓ User need identified
- Current process understood

Insights + Synthesis

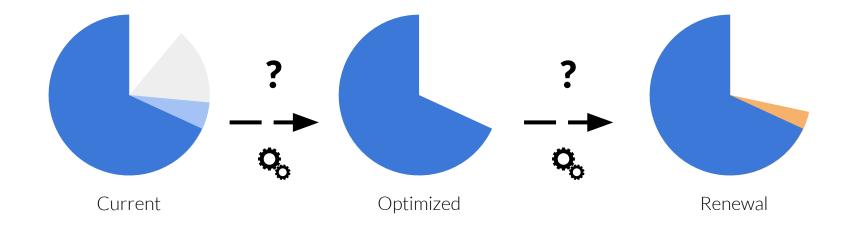
User were trying to compute 3 states for each app



And how to transition between them ...



And finally automate these steps



- ✓ Impacted user identified
- ✓ User need identified
- Current process understood
- Concept modelled

Next: Ideation + exploration + concepting

Q1/many: How do users think about their contracts?

We learnt that contracts are negotiated at the tier level and that's how customer wanted their insights represented

\$5M Salesforce license \$2M License type A \$1M License type B \$1M License type C \$1M License type D

Or as a whole?

By license tier?



Reflect contract structure Reflect current distribution of licenses Reflect current engagement status Suggested actions

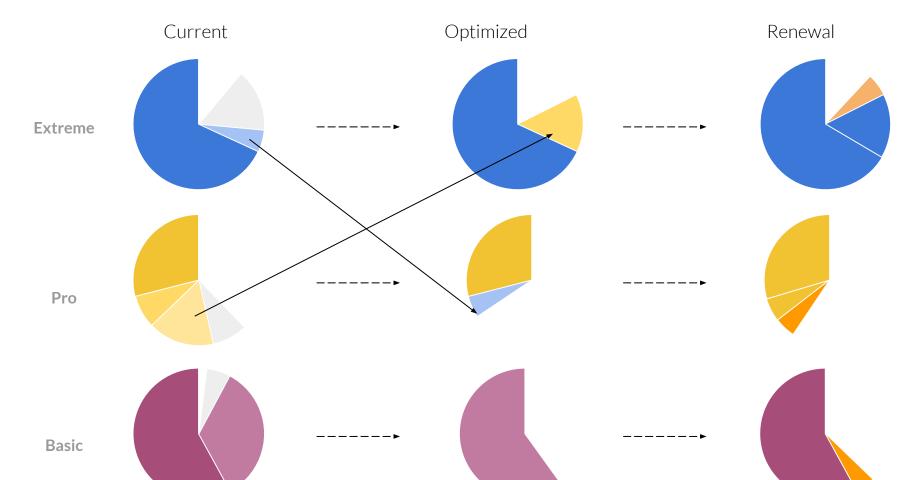
Rationale/justification Impact/consequence

Traceability of individual parts Explain suggested number Tweak projection method

The ideal landscape



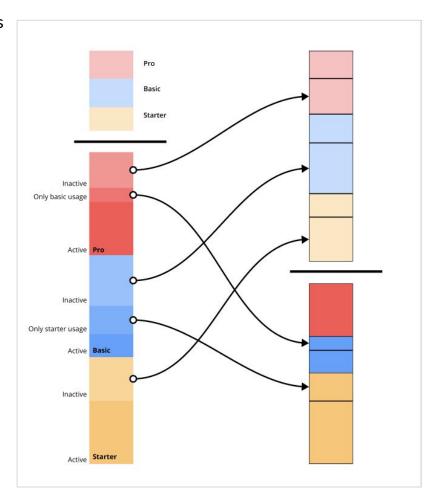
The ideal landscape



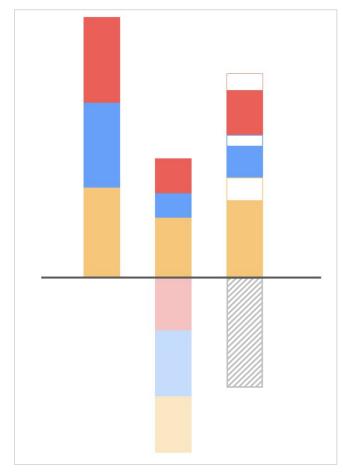
So, we moved to bar charts...

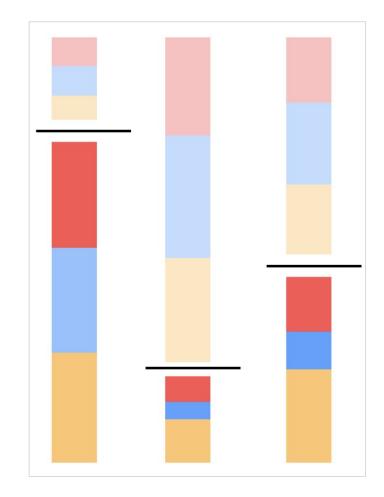


And then we added the arrows

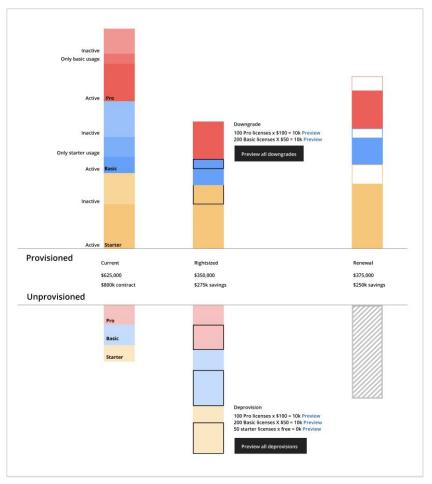


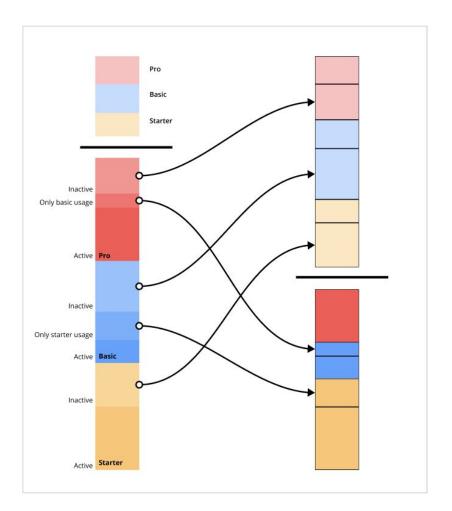
Drawdown vs re-composition



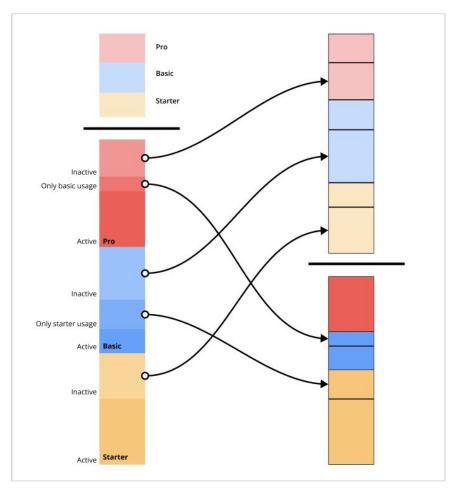


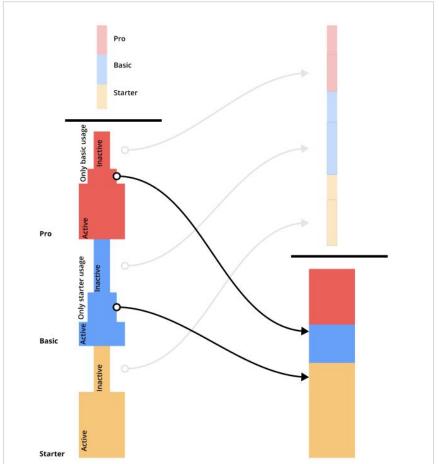
Where do the islands go? Drawdown vs re-composition





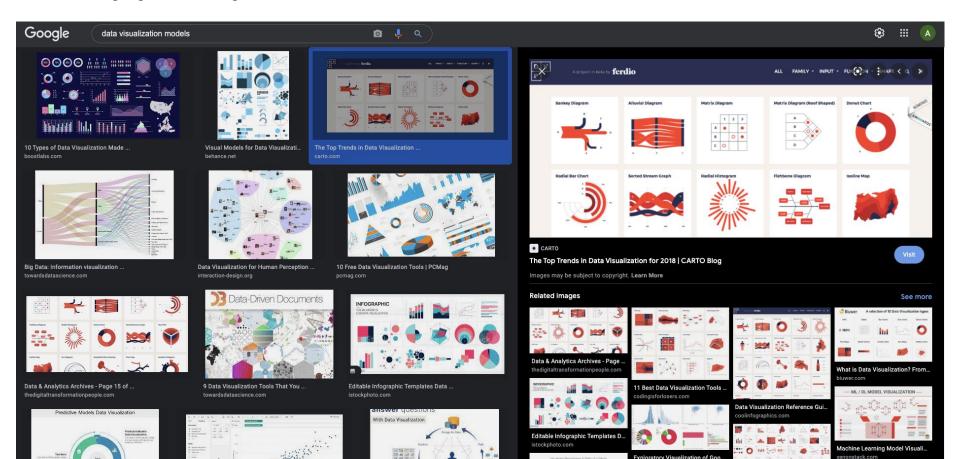
Data modality: Color, Shape, Opacity, Location etc





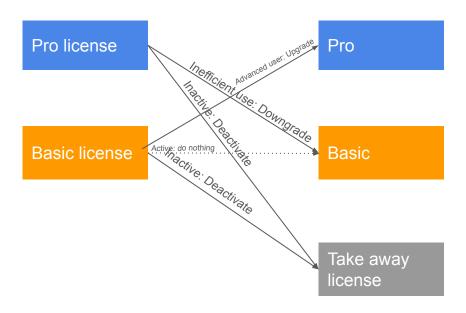
We looked for existing data viz models

Read as: we googled all existing viz models

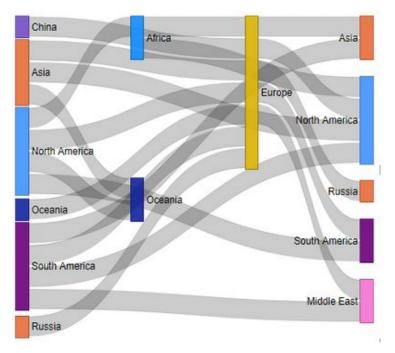


Finding the correct data viz

Previous rough diagram

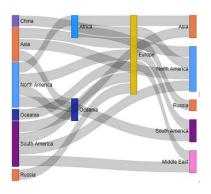


→ Matched Data Visualization: Sankey diagram



Example of shipping route vizualisation from powerbi.com

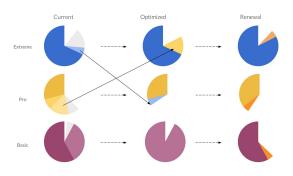
Data viz structure



Users mental model

\$2M License type A
\$1M License type B
\$1M License type C
\$1M License type D

Initial concept





We tested the concept with mockups with users' real data

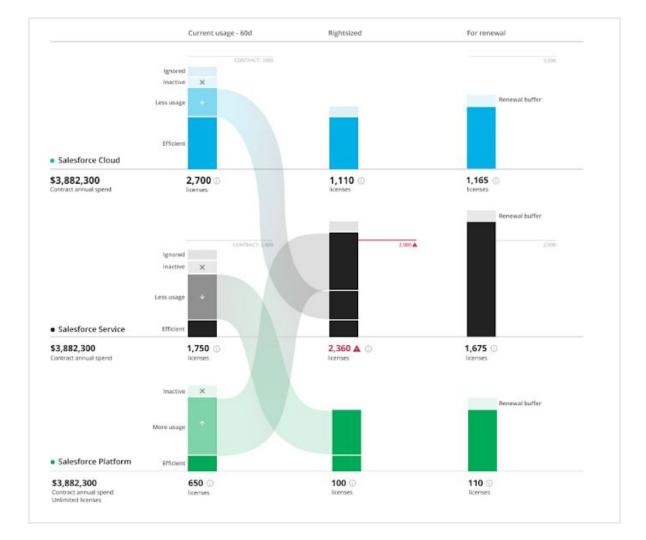
zoom

sumologic









Results

- **(6/6)** Explain contract structure to someone else without needing to read a PDF
- **(5/6)** Validate the visualization of the current license distribution and engagement status with their mental model
- **(3/6)** Follow the past and suggested future of any chunk of licenses
- **(4/6)**Identify, validate and articulate the the provided suggested actions

Feedback

User feedback #1

"I operate between multiple dashboard and tools and paradigms (legal, operational, commercial, technical) and need to **tally a lot of numbers to ensure accuracy**"

 \rightarrow Show me all those numbers so I can feel comfortable and confident

Feedback #2

"Will this work for all my app contracts? Because they're all different and honestly some of them are just weird.

And the weird contract ones are the one that I honestly need help with"

→ Inventory all types of contracts and ensure coverage

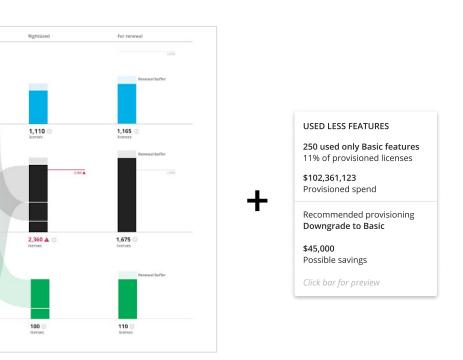
- Impacted user identified
- User need identified
- Current process understood
- ✓ Ideation and exploration
- Concept validated, feedback received

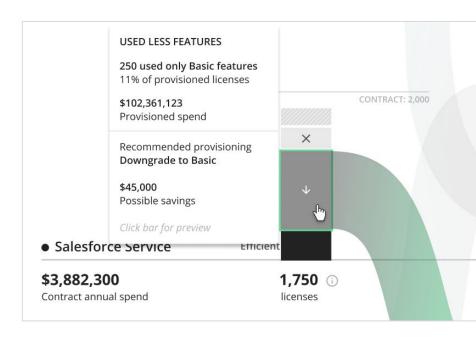
Executing on pixels + addressing feedback



Enabling portfolio owners to tally between different systems-of-truth

Embedding information from all the systems (invoices, expenses, projected expenses, license counts, license distribution etc)





Addressing Feedback #2

Ensuring coverage over contract types

Exhaustively inventorying every single type of contract that exists

We found 17 distinct, mutually exclusive contract types

We broke them down into 4 buckets

activity

Based on definition of "active"

consumption

Usage of units (envelopes, Minutes, GBs etc)

tier

User license-tier based

special

Zoom active hosts, Slack activity etc

- Many of them vendor/tool proprietary
- Each had 4-5 additional variables leading to more possibilities
- Classified into 4 buckets by similarity for scoping, phasing and building in partnership with Engg

Fundamentally different structures...

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	_		_		

Based on definition of "active"

consumption

Usage of units (envelopes, Minutes, GBs etc)

tier

User license-tier based

special

Zoom active hosts, Slack activity etc

Active and billed Inactive but billed Active but not yet billed Inactive and not billed Actual units used 3 month average overages

Un-assigned Used less features Used more features Not used within last 30 days Eligible billed Ineligible billed Eligible unbilled Ineligible unbilled

Exempt Ignored

Exempt (execs etc)
Ignored (license age <30 days)

Exempt Ignored

Forecasted license #

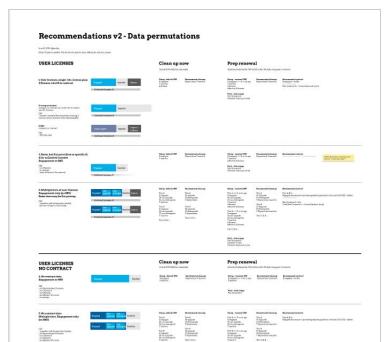
Projected use-to-end-of-term Estimated usage-to-date Forecasted consumption

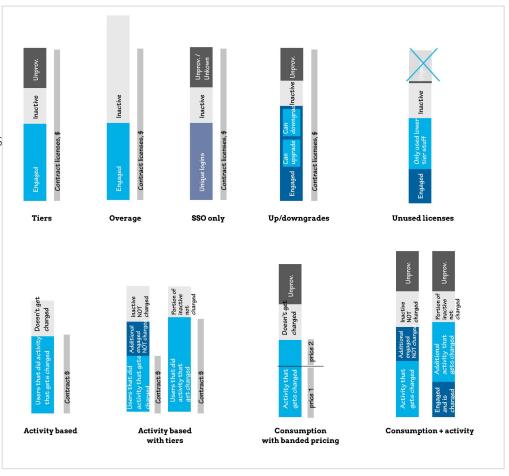
Forecasted license #

Forecasted license #

Extending the data viz to all the new cases/metaphors

- To minimize visualization complexity
- To make visualization consistent for the user
- To pre-empt any future design needs: create guidelines and a sort-of-system





Bars & tooltips License tier based contracts Bars Tooltips Default Hover SSO No Contract Data App rollup Engagement Segmented Ignored IGNORED USERS <ACTIVE/ENGAGED> USERS ACTIVE USERS <ACTIVE/ENGAGED> USERS -<SEGMENT NAME> 250 new 100 in exempt list 250 unique logins 11% of estimated users 250 users App rollup pages have 250 <engaged/active> 11% of provisioned licenses bg - 10% wash of the base color some additional text in \$102,361,123 \$102,361,123 Provisioned spend \$102,361,123 tooltips on asterisks Provisioned spend Provisioned spend Excluded from Whatever that text is, reccomendation actions stick it in the bottom of the tooltip below the divider line in grey text Tooltip with action when asteriskable text Inactive appears in tooltips INACTIVE USERS INACTIVE USERS INACTIVE USERS - <SEGMENT INACTIVE USERS Can only show up in the first column 250 inactive 11% of estimated uers ò 11% of provisioned licenses 250 inactive 11% of provisioned licenses 11% of provisioned licenses \$102,361,123 \$102,361,123 Recommended provisioning \$102,361,123 Provisioned spend Provisioned spend Recommended provisioning Deprovision Recommended provisioning Deprovision Tooltip with action + Extra usage upgrade/downgrade Can only show up in the first column **USED MORE FEATURES** 250 used Pro features 11% of provisioned licenses \$102,361,123 Provisioned spend Recommended provisioning Upgrade to Pro \$45,000 Additional spend Lower usage USED LESS FEATURES Can only show up in the first column \$102,361,123 Extra and lower Provisioned spend usage share same visd Downgrade to Basic \$45,000 Possible savings Engaged EFFICIENT USERS **EFFICIENT USERS EFFICIENT USERS** EFFICIENT USERS - < SEGMENT Current usage

250 unique logins

250 users

250 users

250 engaged

Drum roll...

Demo time

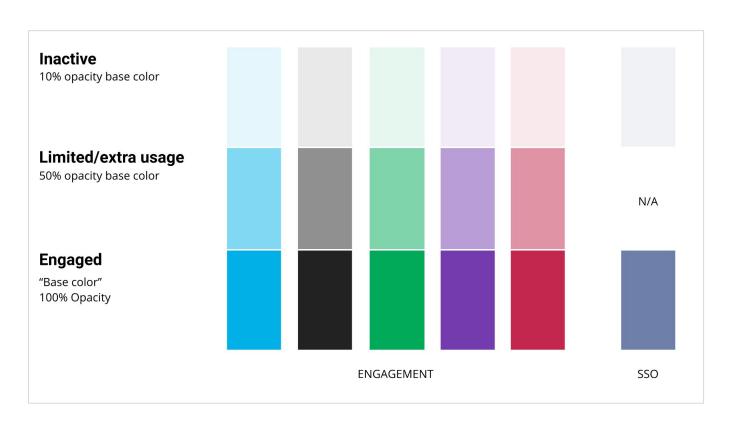
Breakdown to follow

- ✓ Impacted user identified
- User need identified
- Current process understood
- ✓ Ideation and exploration
- Concept validated, feedback received
- Pixels executed
- ✓ Demo

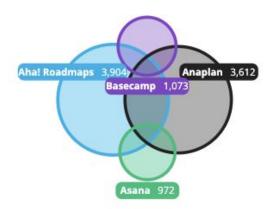
Breaking down the design

Color system

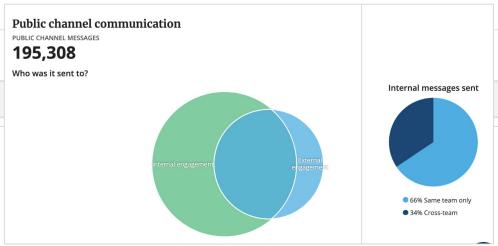
Aligned with brand colors + existing data viz in Product











Any App Engagement

7,421

Portfolio owners should be able to

Dig deeper and reconcile numbers

Enabling reconciliation between different tools. Enabling progressive discovery.

Regular

RENEWAL RECOMMENDATION

1,830 licenses

Includes 5% rounded buffer

N/A *

Provisioned spend

N/A*

Annual savings opportunity

* Current contract is not mapped to specific instances. To get a recommended spend, please update contract mappings.

Segmented

INACTIVE USERS - <SEGMENT NAME>

250 inactive

11% of provisioned licenses

\$102,361,123

Provisioned spend

Recommended provisioning **Deprovision**

Click bar for preview

Unsegmentable

ESTIMATED USAGE - TERM SO FAR

515 envelopes estimated

Some activity was estimated from closest date of data vailable

With suggested action

INACTIVE USERS

250 inactive

11% of provisioned licenses

\$102,361,123 Provisioned spend

Suggested action

Deprovision

Click bar for preview

Portfolio owners should be able to

1,750 ①

licenses

Get reconcilable summaries

Enabling reconciliation between different tools. Enabling progressive discovery.



1,750 provisioned 90% of contract licenses

\$102,361,123Provisioned spend

\$881/License \$1,112 effective spend/license

PRICING TIERS

0 - 1,000: \$45k flat price 1,000 - 2,000: \$10/license 2,000 - 3,000: \$15/license

Optimized

RIGHTSIZED

1,000 ①

1,000 provisioned 80% of provisioned licenses

\$92,361,123 Provisioned spend

<Pricing tier>

Renewal

1,830 (Iicenses

RENEWAL RECOMMENDATION

1,830 licenses
Includes 5% rounded buffer

\$98,361,123 Provisioned spend

\$98,361,123Annual savings opportunity

Engagement

IGNORED USERS

250 new 100 in exempt list

\$102,361,123 Provisioned spend

Excluded from reccomendation actions

INACTIVE USERS

250 inactive 11% of provisioned licenses

\$102,361,123 Provisioned spend

Recommended provisioning **Deprovision**

Click bar for preview

EFFICIENT USERS

250 engaged 11% of provisioned licenses

\$102,361,123 Provisioned spend

ENGAGED

250 engaged Unlimited licenses

\$102,361,123 Provisioned spend

KEEP EFFICIENT USERS

250 engaged 11% of provisioned licenses

SSO

ACTIVE USERS

250 unique logins 11% of estimated users

\$102,361,123 Provisioned spend

INACTIVE USERS

250 inactive 11% of estimated uers

\$102,361,123 Provisioned spend

Recommended provisioning **Deprovision**

Click bar for preview

EFFICIENT USERS

250 unique logins 11% of estimated users

\$102,361,123 Provisioned spend

RENEWAL BUFFER

250 licenses

\$102,361,123 Additional spend

UNUSED LICENSES

1,265 licenses Contract licenses: 3,500

\$102,361,123 Potential savings

Segmented

<ACTIVE/ENGAGED> USERS <SEGMENT NAME>

250 <engaged/active>
11% of provisioned licenses

\$102,361,123 Provisioned spend

INACTIVE USERS - <SEGMENT NAME>

250 inactive 11% of provisioned licenses

\$102,361,123 Provisioned spend

Recommended provisioning **Deprovision**

Click bar for preview

EFFICIENT USERS - <SEGMENT NAME>

250 users 11% of provisioned licenses

\$102,361,123 Provisioned spend

ENGAGED BUT NOT BILLED

Engaged in last 60 days but not billed

250 licenses 11% of provisioned licenses

\$102,361,123 Provisioned spend

BILLED BUT INACTIVE

No Contract Data

<ACTIVE/ENGAGED> USERS

250 users 11% of provisioned licenses

INACTIVE USERS

250 inactive 11% of provisioned licenses

Recommended provisioning **Deprovision**

Click bar for preview

EFFICIENT USERS

250 users 11% of provisioned licenses

ESTIMATED USAGE - TERM SO FAR

515 envelopes estimated

Some activity was estimated from closest date of data vailable

ENVELOPES USED - <SEGMENT NAME>

4,000 envelopes 26% of contract

\$102,361,123 Contract term spend

RENEWAL RECOMMENDATION

1,830 licenses
Includes 5% rounded buffer

Tooltip with action + upgrade/downgrade

USED MORE FEATURES

250 used Pro features 11% of provisioned licenses

\$102,361,123 Provisioned spend

Recommended provisioning Upgrade to Pro

\$45,000 Additional spend

Click bar for previe

USED LESS FEATURES

250 used only Basic features 11% of provisioned licenses

\$102,361,123 Provisioned spend

Recommended provisioning Downgrade to Basic

\$45,000 Possible savings

Click bar for preview

60 DAY ENGAGED

Engaged in last 60 days but not billed

250 licenses 11% of provisioned licenses

\$102,361,123 Provisioned spend

BILLED

For infinite licenses

ESTIMATED USAGE - TERM SO FAR

515 envelopes estimated

Some activity was estimated from closest date of data vailable

ENVELOPES USED

18,000 envelopes 46% of contract

\$102,361,123 Contract term spend

PROJECTED USAGE TILL END OF TERM

2,000 envelopes projected to be used till end of term*

\$102,361,123 Contract term spend

* Usage to end of term projected from avergae monthly usage of most recent 90 days of data

RENEWAL RECOMMENDATION

6,029 envelopes used

\$102,361,123 Contract term spend

RENEWAL RECOMMENDATION

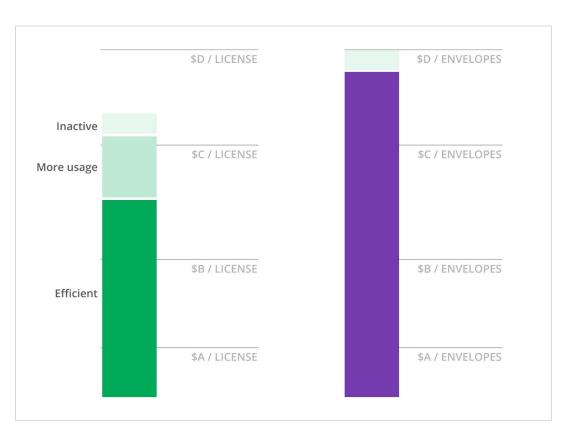
1,830 licenses

N/A *

Portfolio owners should be able to

Visualize different contract structures

Banded Pricing: when you're charged different \$ for different bands of usage



1,750 (i) | CURRENT USAGE | 1,750 provisioned | 90% of contract licenses | \$102,361,123 | Provisioned spend | \$881/License | \$1,112 effective spend/license | PRICING TIERS

0 - 1,000:

1,000 - 2,000:

2,000 - 3,000:

\$45k flat price

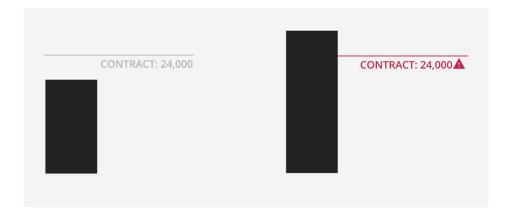
\$10/license

\$15/license

Clearly understand the app's overage state

Paired with email notifications



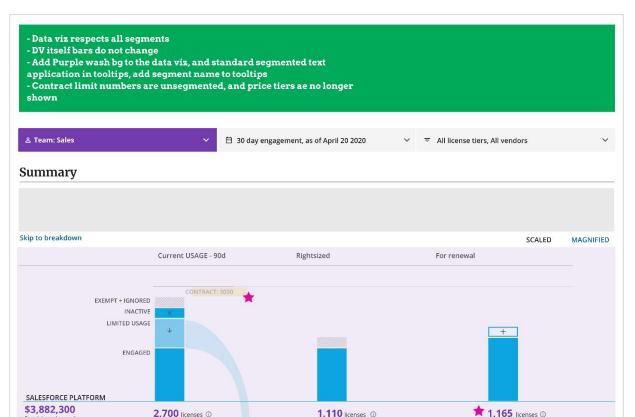


Text starts 20 px from bar and thick line extends till text end. Wraps if too long (though HIGHLY UNLIKELY it will ever need to wrap) Contract indicator aways shows up in case of alert regardless of column

If no alert, does not show up in rightsizing column

Explore different segments of their data

By teams, location, titles etc V2: Anomaly detection



Objective #2

Tackling data complexity

Product challenge: We are as good as the data we get

A mix of factors like Security/Privacy postures, Compliance requirements, Legacy systems or simple unwillingness to provide data can result in lot of data permutations

Best case scenario	HR data	Single-sign-on	Expenses	Contracts	Network monitors	Direct app data
Scenario A	Х	Х	Expenses	Contracts	Х	Direct app data
Scenario B	HR data	Single-sign-on	Expenses	Contracts	Network monitors	X
Scenario C	Х	Single-sign-on	Expenses	X	Network monitors	Direct app data
	HR data	Single-sign-on	Х	Contracts	Х	Direct app data
	HR data	X	X	Contracts	Network monitors	Direct app data
	X	Single-sign-on	X	Contracts	X	X

Product landscape

This needs to deliver value across

3 Pricing tiers

Essentials

Lite

Pro

5 Personas

CIO / Exec

Portfolio owner

IT ops / App owner

Vendor

Ancillary

4 Mkt segments

SMB

Mid Market

Enterprise

Large Enterprise

How do we ...

Power real-time, compelling, and comparable insights and value to our diverse users regardless of how much data they give us?

Data complexities



Product landscape

Get value regardless of data quality

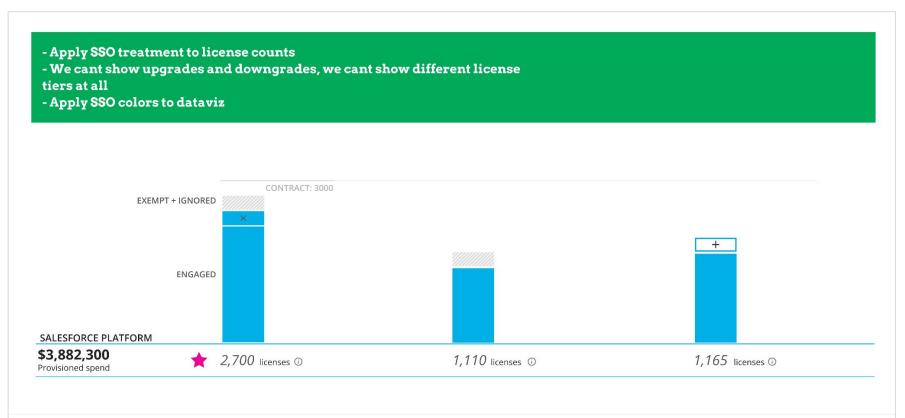
Still powering a comparable level of insight despite missing a required piece of data



Portfolio owners should be able to

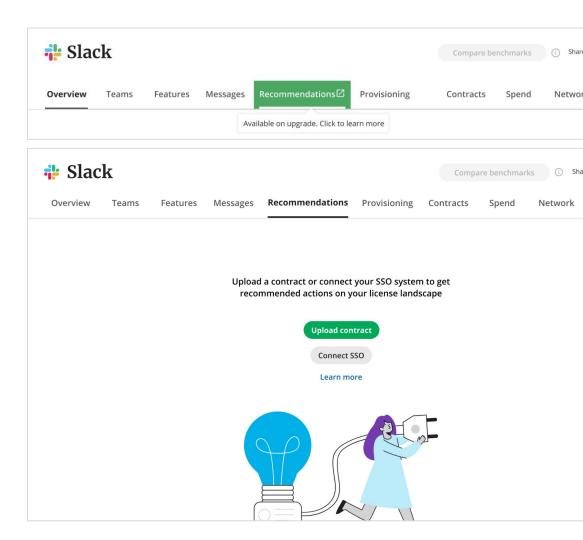
Get value regardless of data quality

Still powering a comparable level of insight despite lowest quality of data Cannot power upgrade/downgrade insights, but can still detect basic activity



Pricing tier + zero states

Designing states for the free + freemium product Designing for the state when all data is missing



- ✓ Impacted user identified
- User need identified
- Current process understood
- Ideation and exploration
- Concept validated, feedback received
- Pixels executed
- ✓ Demo
- ✓ Breaking down the design

Prioritizing, rollout and impact

Based on definition of "active"

consumption

Usage of units (envelopes, Minutes, GBs etc)

tier

User license-tier based

special

Zoom active hosts, Slack activity etc

Based on definition of "active"

65% customers 54% spend

consumption

Usage of units (envelopes, Minutes, GBs etc)

35% customers 26% spend

tier

User license-tier based

87% customers 63% spend

special

Zoom active hosts, Slack activity etc

30% customers 70% spend

Based on definition of "active"

P1

65% customers 54% spend

consumption

Usage of units (envelopes, Minutes, GBs etc)

P3

35% customers 26% spend

tier

User license-tier based

P0

87% customers 63% spend

special

Zoom active hosts, Slack activity etc

P2

30% customers 70% spend

Based on definition of "active"

PO

87% customers 63% spend

plan

Org-wide plan based

P1

65% customers 54% spend

special

Zoom active hosts, Slack activity etc

P2

30% customers 70% spend

consumption

Usage of units (envelopes, Minutes, GBs etc)

P3

35% customers 26% spend

Based on definition of "active"

PO 87% customers

63% spend

plan

Org-wide plan based

P1

65% customers 54% spend

special

Zoom active hosts, Slack activity etc

P2

30% customers 70% spend

consumption

Usage of units (envelopes, Minutes, GBs etc)

P3

35% customers 26% spend

And finally,

Rolling it out

Follow up steps: Collaborated with

- **Customer facing documentation:** Customer education
- **Field enablement:** Customer success + GTM
- **In-product messaging:** Product marketing
- Phased rollout + Alpha/Beta/GA stages: Product manager

Design success



1 of 4 contract type support built so far

10k License actions

Suggestions + Through workflows

85%

Active customer apps w contracts

% of apps with active users with contracts uploaded For paid onboarded customers #1

Used feature by finance owners

By page views + session length within a specific app other than the overview page

5xUnrealised ROI

Potential savings / Productiv cost



Happy to present Case Study A	A and C in persor	n !	

Some more work

In 18 months

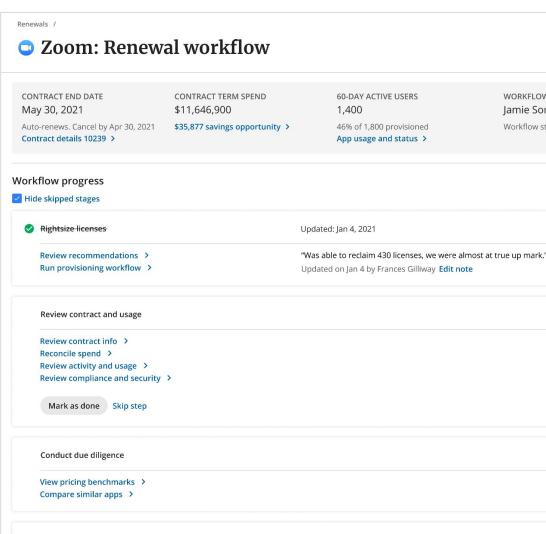


Governance

Renewal workflows

User: App owners

- Standardise renewal process in the org
- Prepare for a renewal: checklist of tasks
- Collaborate on a renewal negotiation
- Maintain single source of truth for all renewals

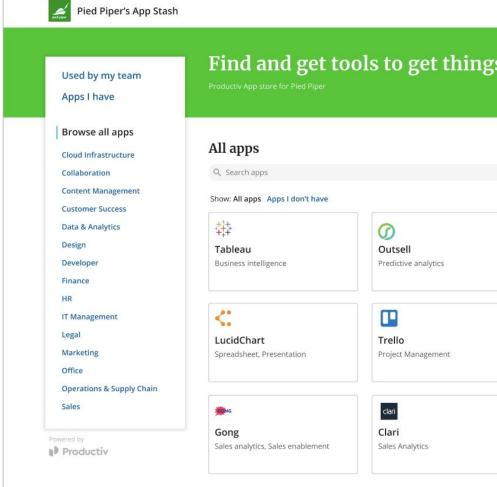


Governance

AppCenter

User: CIO

- Make it easy for employees to discover and request access to existing apps
- Suggest better alternatives to employees



Optimization

App overlap landscape

User: Portfolio owner + CIO

- What duplicate/redundant apps do I have?
- Which one can we get rid off?

12 apps selected. You can compare the overlap of up to 4 apps at once. Aha! Roadmaps × Asana × Anaplan × Basecamp × 8 more v **Edit Apps Overlapping users ACTIVE PROVISIONED** FILL SCREEN ABSOLUTE ① Aha! Roadmaps 3,904) Anaplan 3,612 Basecamp 1,073 Asana 972

Distribution by teams

Team	^	Aha! Roadmaps Engagement	Anaplan Engagement	Asana Engagement	Basecamp Engagement
All		3,904	3,612	972	1,073
Administration		88	69	24	0

isibility Governand

Optimizati

Prod

Optimization

App sentiment surveys

User: Portfolio owners

- Do employees feel this is the best app for their job?
- How does their sentiment trend over time?
- Are employees happy with their current stack of tools?

Overview Teams Features Sentiment Recommendations Provisioning Contracts Network Survey summary EMPLOYEES POLLED **EMPLOYEES RESPONDED** 34,263 28,542 67% response rate Target audience General understanding of the application 7-day engaged users, 90-day inactive users, Operations - See list of users Actions Share results with respondents Data & insights View by: All responses | Team | High satisfaction | Low satisfaction | Usage Highlights: Marketing team Low usage How are you using this app? Breakdown by response Breakdown by team Tracking tasks with my team Marketing Legal Visibility into work for another team Engineering

Product

Executive

43 more teams

Update app justification

"Primarily used to get visibility into another team's wo

Actions

SaaS management lifecycle

sibility Governance

Optimization

Productivity

Documenting decisions

Most common app usage

Visibility into work for another team

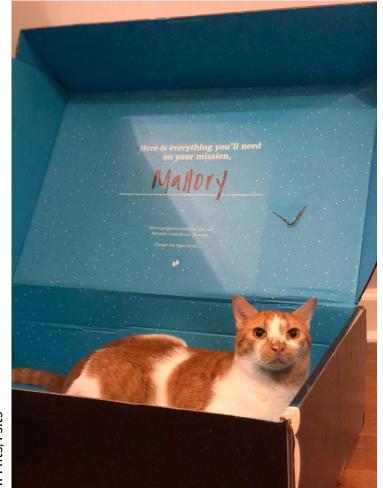
□ Insights

I also used to moonlight as the

Self proclaimed Chief Swag Design Officer

Left: Cat-friendly New-hire schwag box

Next: Anniversary celebration pins for employees



flfits, I sits









1 yr anniversary pin















My overall impact



Cumulative / Overall impact

8x

Customer count

Org wide shared metric

5.3x

Revenue

Org wide shared metric



Org achievement

+55%
Base license price

+29%
New \$/yr from new tier

+34%
Add-on product \$ upsell during beta



Early stage, ambiguous Discovery Strategy, Thought leadership Pixel craft, Handoff Execution Data complexity

Case Study A

SaaS governance landscape

Exploring the unexplored frontier of SaaS management to define the future of the product

- Deep user + landscape research
- Converted industry needs into roadmap
- Spun off an add-on product
- Identified + executed multiple big-rock projects

Case Study B

Recommendations engine

Empowering users with more time to solve new problems by eliminating manual labor around access management and cost optimization

- Delivered a marquee feature with highly complex data scenarios
- Created a system to ensure future extensibility

Case Study C

Enabling dynamic product packaging

Creating a system to allow BizOps + GTM teams to create tailored product pricing packages

- Revamped the entire navigation architecture
- Created flexible systems to block and upsell features

