Improving Search
in Admin Console

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Background

Admin Console

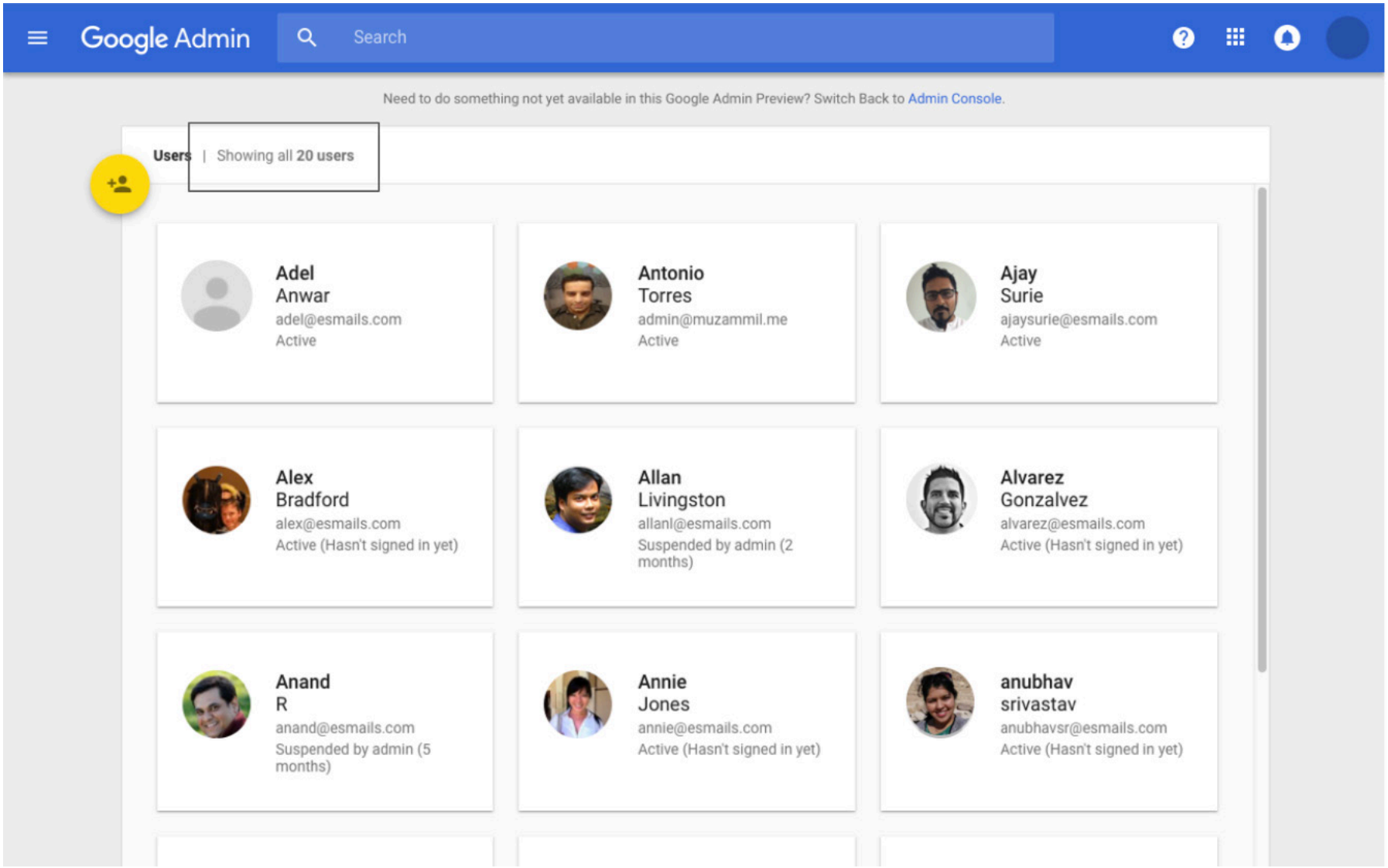
G Suite (formerly Google Apps for Work and Google Apps for Your Domain) is a brand of cloud computing, productivity and collaboration tools, software and products developed by Google, first launched on August 28, 2006 as “Google Apps for Your Domain”. G Suite comprises Gmail, Hangouts, Calendar, and Google+ for communication; Drive for storage; Docs, Sheets, Slides, Forms, and Sites for collaboration; and, depending on the plan, an Admin panel and Vault for managing users and the services.

Admin Console as part of GSuite provides a centralized management interface for enterprise customers to securely manage the people, apps and devices in their company. Launched in 2008, Admin Console is one of Google’s legacy products. Admin Console broadly comprises of several modules within it, these could be entities and settings. Entities include users, groups, devices and apps. Settings are generally performed on these entities.

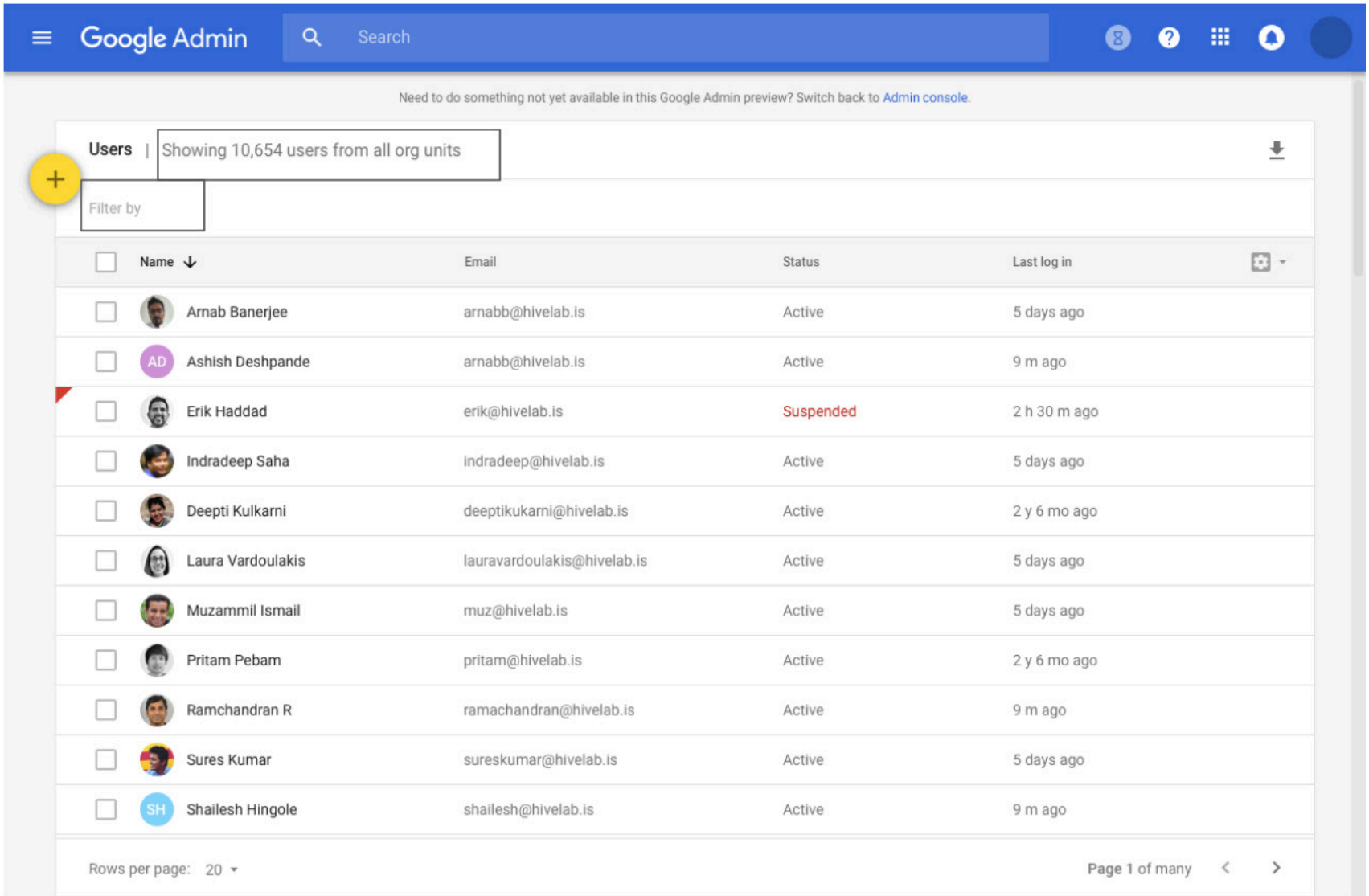
C panel migration

The backend and user experience for Admin Console is presently based on C panel. C panel was designed with a focus on very small scale businesses and medium sized businesses, these organizations have anything between 20 users to 100 users. Admin Console is now being updated with a focus on Large Scale corporations, providing for a tailored experience for every admin that respects their time and abilities, and adapts to an organization's needs.

This is a change that is persistently happening through modules that Admin Console is comprised of. Currently the user management page has been updated to fit in an orangizations need of large number of employees



Users list page in old Admin Console

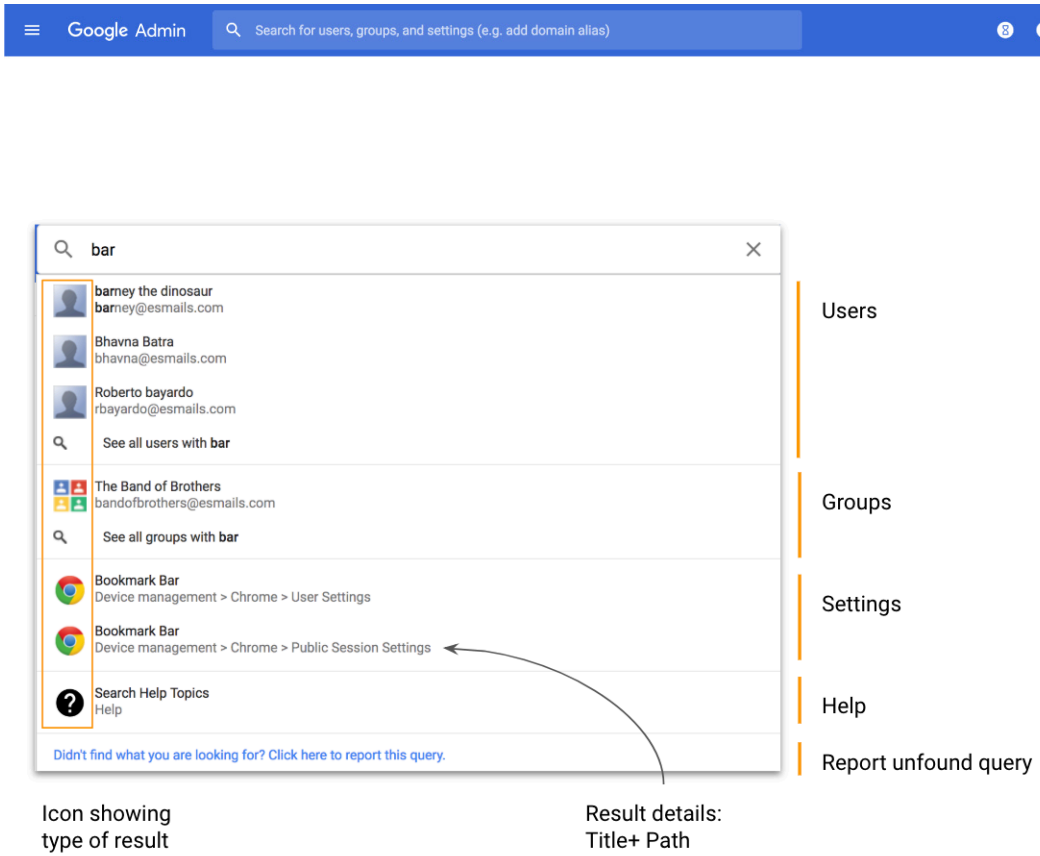


Users list page in new Admin Console

Search in Admin Console

Search is one of the fundamental methods of navigation in today's world. Enterprise admins rely on search as a way to navigate admin console. Search within Admin Console can aid for faster navigation and discoverability across the console.

Being a Google product, users expect Search in Admin Console to be robust but the current scenario leaves a lot to be desired. The goal is to identify what admins typically use search for, what use-cases we can make available and what additional functionality we can add to Search to make it even more powerful and capable to what it is today.



How the search bar works today

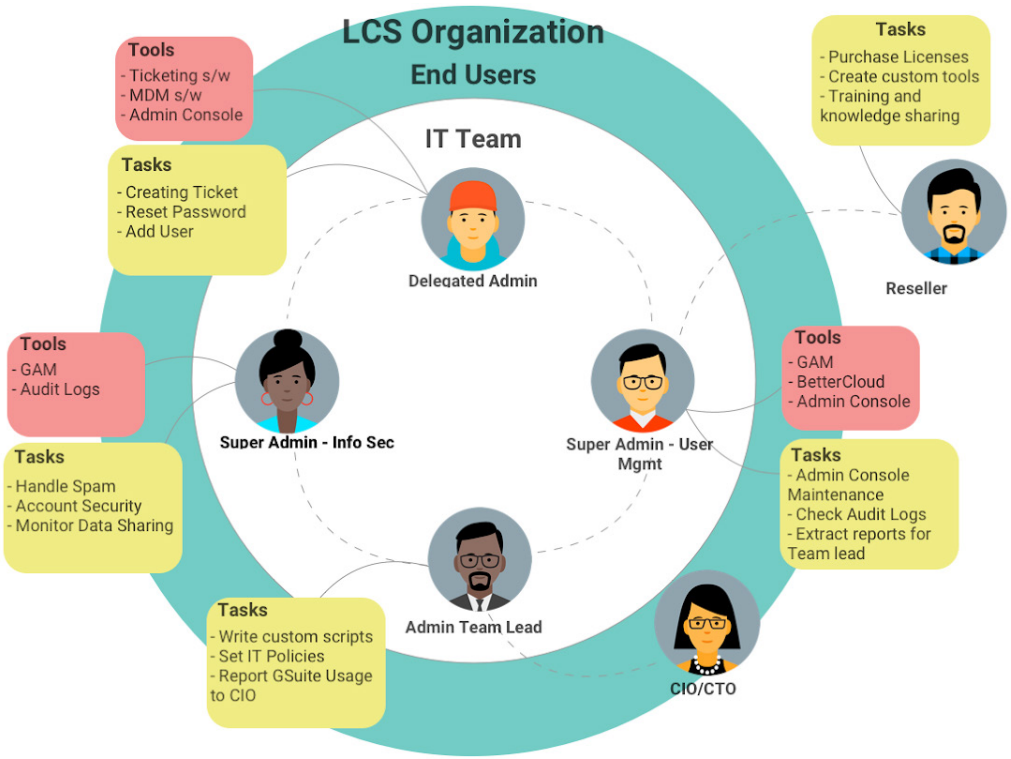
Stakeholders

There are two main stakeholders to design for, for the new Admin Console. IT admins in an organization and partner teams. The idea is to build a pattern library that partner teams can use and build on top of.

The IT Admins in LCS organizations have various roles and responsibilities. There are 3 primary personas for IT Admins -

The delegated admin
These are admins assigned to specific tasks. They would usually perform the same set of tasks repeatedly for multiple users. These tasks may be non-critical tasks such as resetting passwords or changing usernames

Super admin
The super admins perform more critical tasks infrequently. They may user Admin Console for instance, to audit a suspicious activity etc.



The Admin ecosystem

The Admin team lead
These are the admins setting guidelines regarding setting up and using Admin Console

While each persona has different needs, the IT admins generally prefer to get their tasks done in the least number of steps. It has been observed that they heavily make use of APIs to perform bulk actions. Admins hold responsibility for managing several users within their organization and their security, hence the cost of making mistakes is very high. Several actions/ settings are high touch in nature and admins use the platform with a lot of caution.

Research

How users use Search

Method
User related information was gathered through the following means:
Skimming through past researches and filtering out content relevant to search
Adding in some questions wrt search in the user study slot for admin home concept testing
Collected analytics report, used Google plx to synthesize some of the partially typed queries by admins
Finally, affinity mapping was done in sheets for all the data collected then synthesized for insights

Findings
Search is primarily used to find entities and groups. This was deduced by looking at the categorization of user search queries. Admins primarily use search when they know precisely what they're looking for but don't know where it is located. In this case search is used for navigation. Some of the user statements

around the same were “Because there are so many types of settings, it is difficult to remember where they are. That’s why search was the biggest help in admin console”, “Big fan of search bar and type ahead in admin console. That’s my preferred way of getting to something. If it doesn’t come there, I would use click through”.

Some of the pain points around search included having limited ways of quering. For instance, groups can only be searched through emails not by their aliases. Users are also unable to sort and filter the search results on the search landing page. “I would like to be able to sort the users and groups by name. Currently they only sort by email address. This make it very difficult to find users or groups” was of the admin’s reported frustrations. The present search is also not error friendly, as remarked one of the users. “It’s not error friendly. There’s no “Did you mean this”.”

Users expressed a desire to be able to have recent, frequently visited and saved searches. They were also inclined towards having a smarter search. “It would be nicer to do filters on the users and queries to find them, not just based on user name but also on attributes and properties. ...so that could help discover information (see users who’ve logged into azure for the last 30 days, or users who’ve not reset the password)..”

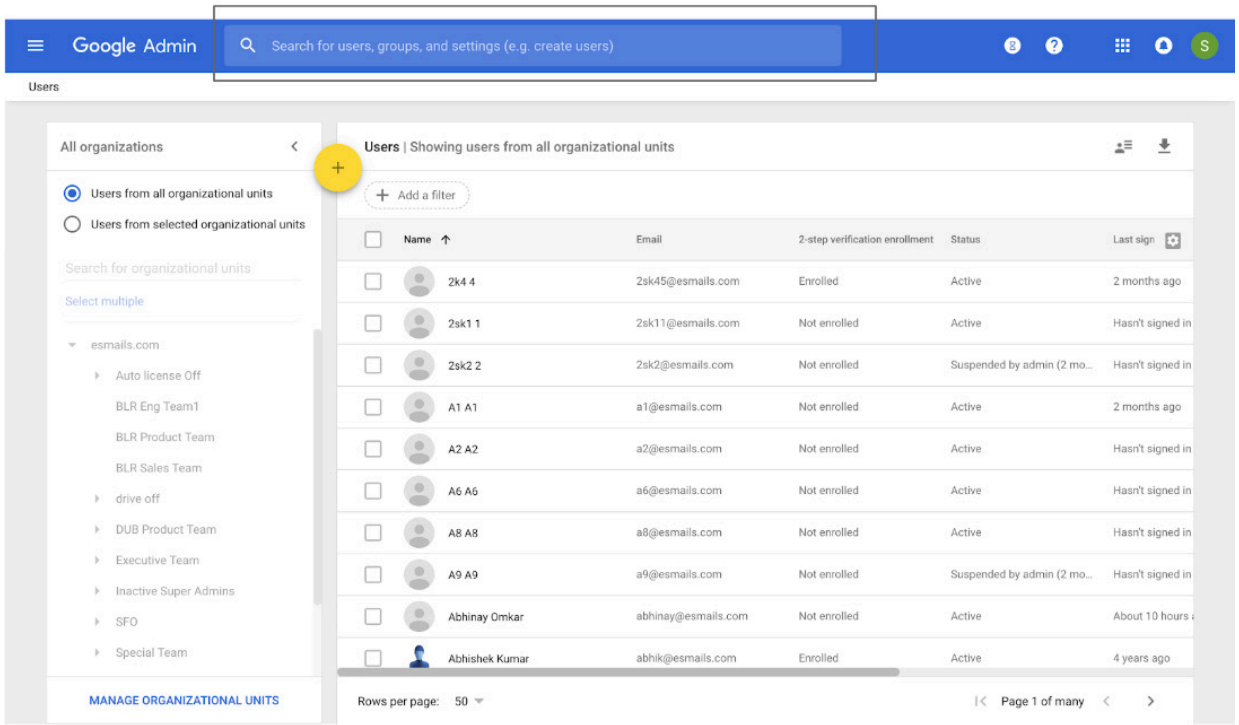
Best Practises for Search

Method
Browsed through internal and online content on EUX
Audited admin console search
Audited various consumer, enterprise and OS based searches
Looked at research papers on HCIR and online blogs to find out best practises for search
Connected with engineering, to understand how search works in the backend

Findings
Search was looked as a journey from the way that it gives as affordance to the user to what they can search for through it's interface, the behaviour on clicking, typing and how the results appear in the search suggestion area and the results page. Several types of searches were audited based on these parameters and some patterns were deduced from them.

Redefined Brief

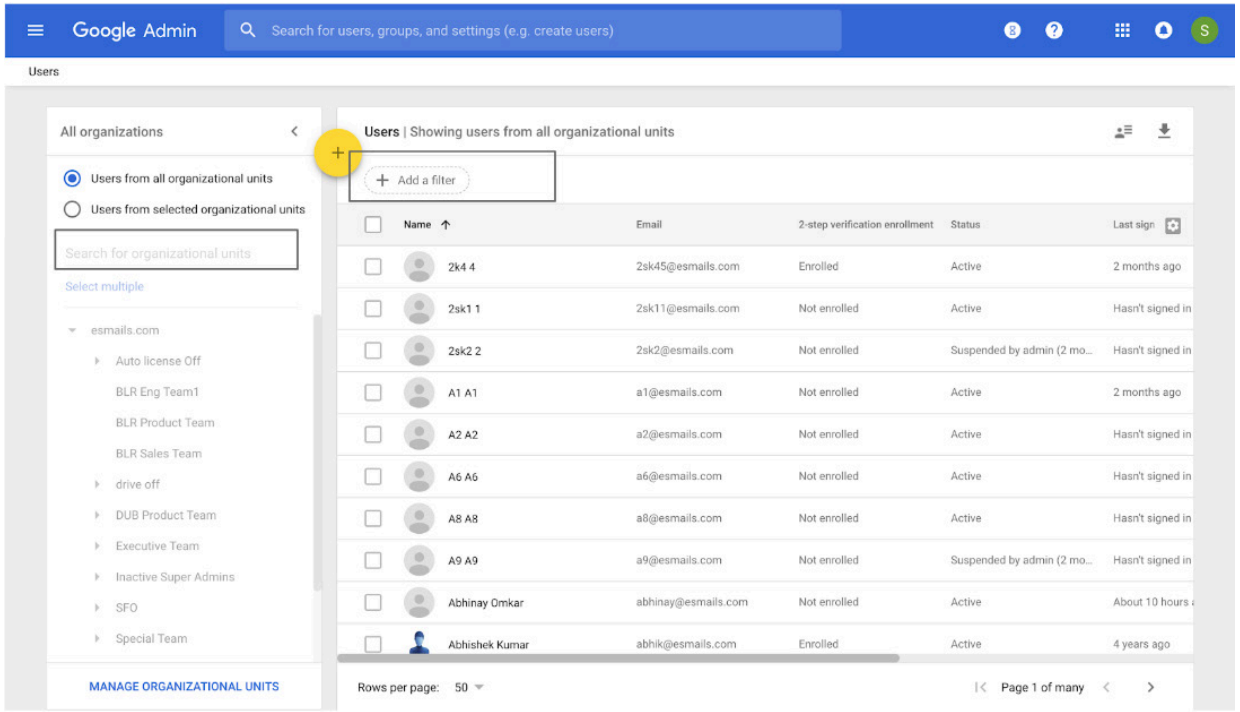
The brief was later redefined based on the findings from research. The redefined brief was around how can both global and local search be performed through one search bar. The focus would be surface the most relevant information quickly and with the least number of clicks.



Global Search

Presently global search allows admins to search across admin console. This search is however limited since it does not drill down deeper into the information architecture and only searches from limited categories. Instances of what can be queried today are as follows:

Search users through name and email
Search groups through email id
Search settings through name



Local Search

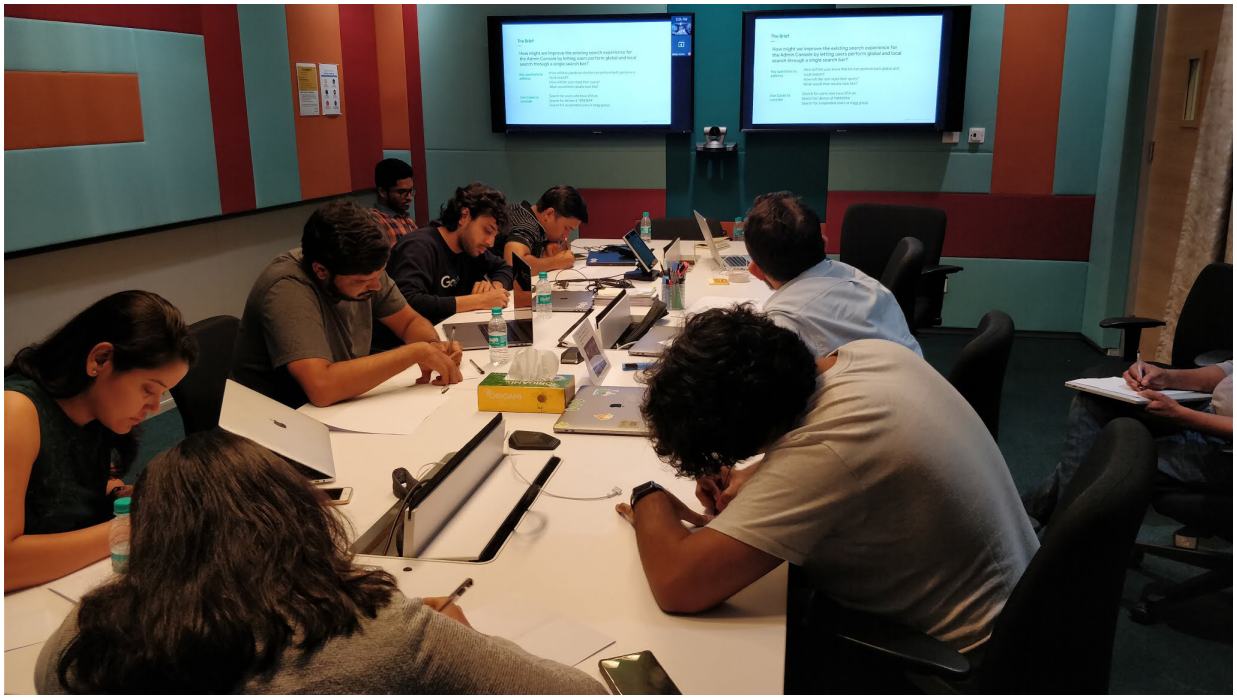
Local search within admin console searches within entities and attributes of that page. Presently only some pages within admin console provide local search. Admin also has to click through several areas in the page to be able to receive the result of the desired query

Brainstorming and Ideation

Brainstorming Session

The goal of brainstorming was to come up with ideations that answer three key questions; how might users know that a single search bar can be used for both local and global search, how will users input query, what will the results look like?

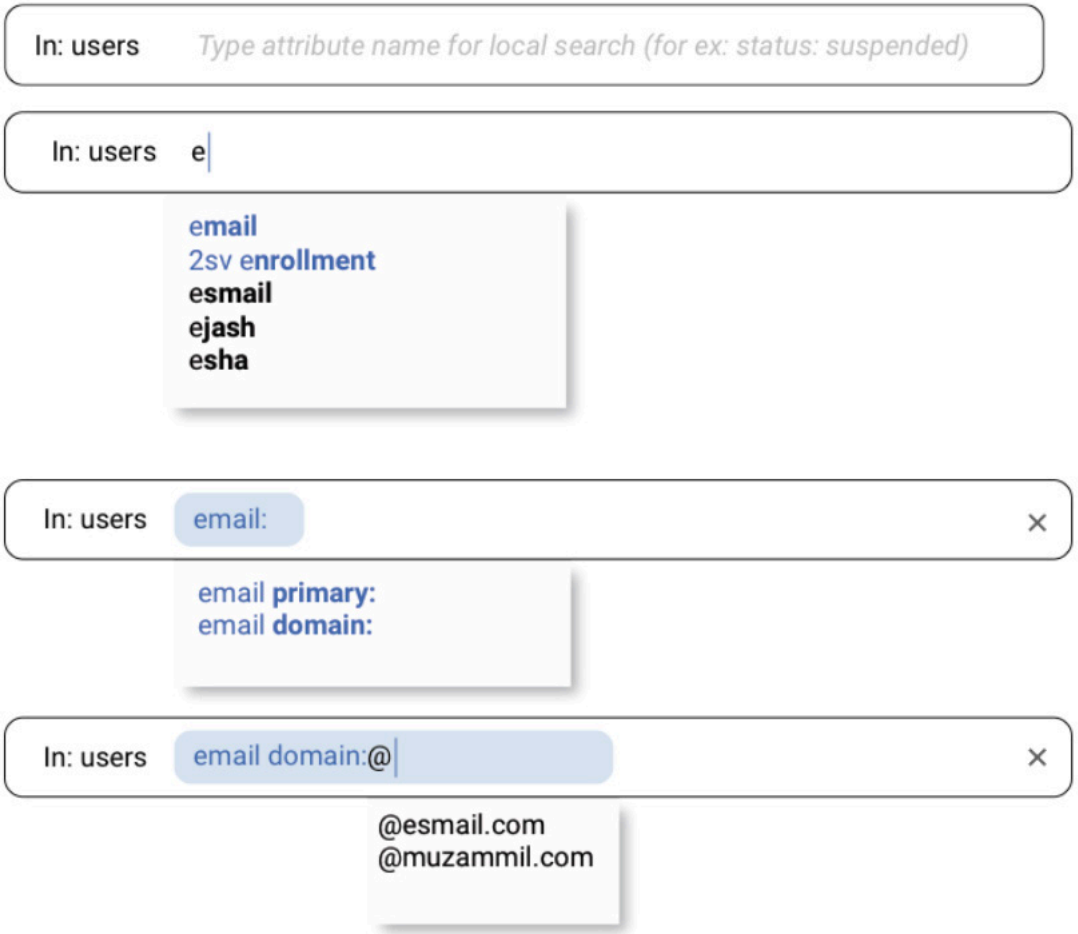
Besides doing some self explorations on the same, I conducted a brainstorming session with members of the team, to be able to gather more insight into the product. The brainstorming session aimed to answer the aforementioned key questions with the team. The participants were prepared by giving them a background about previous research work done, later they were asked to individually come up with 8 ideas that were presented by them at the end of the session. The ideations were to be centered around one of the three questions or multiple. The session was well received and was able to facilitate several interesting themes, some of them are as follows:



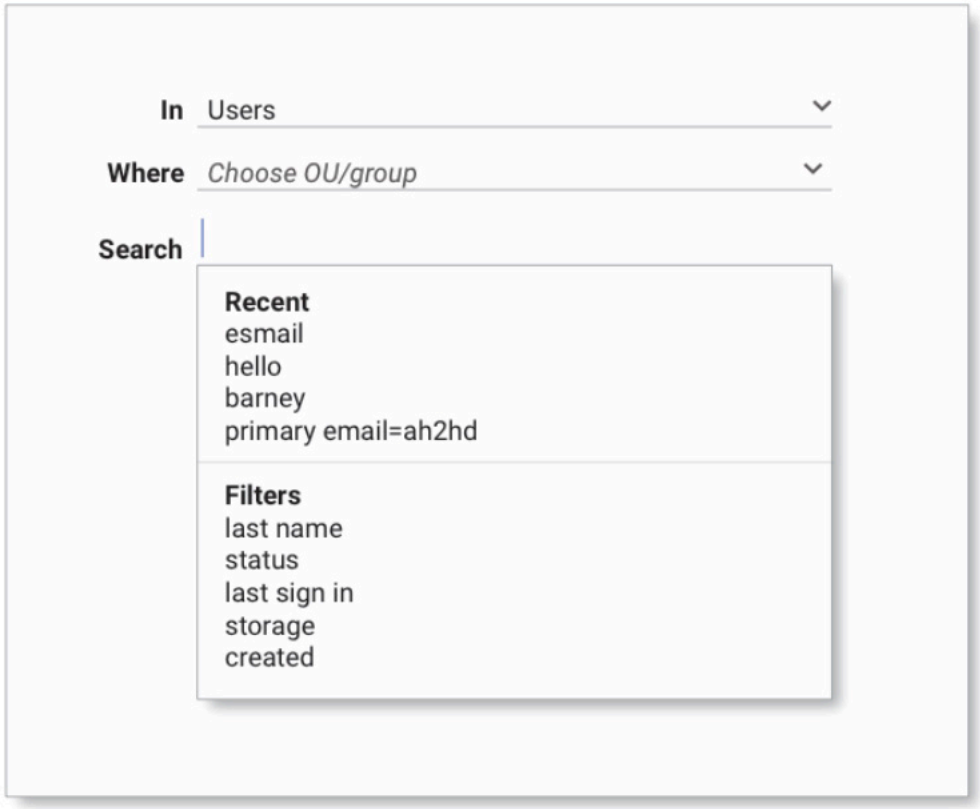
Surfacing frequent and quick actions in the search suggestions area
Overlaying search area on top of the page to perform local search, to make it intuitive that the search is being performed all over Admin Console
Having a single unified search result instead of being segregated by type
Utilizing the space in the left side of the search bar to provide hint text about what can be searched for/keys to press
Use condition builder for more complex searches

Some Early Concepts

During this phase several ideations were generated and timely frequent feedbacks received from several people within the team. Some of the early explorations were around how search can be performed only using keyboard, performing advanced search using entities+filter and settings



Text only search



Overlay on page search

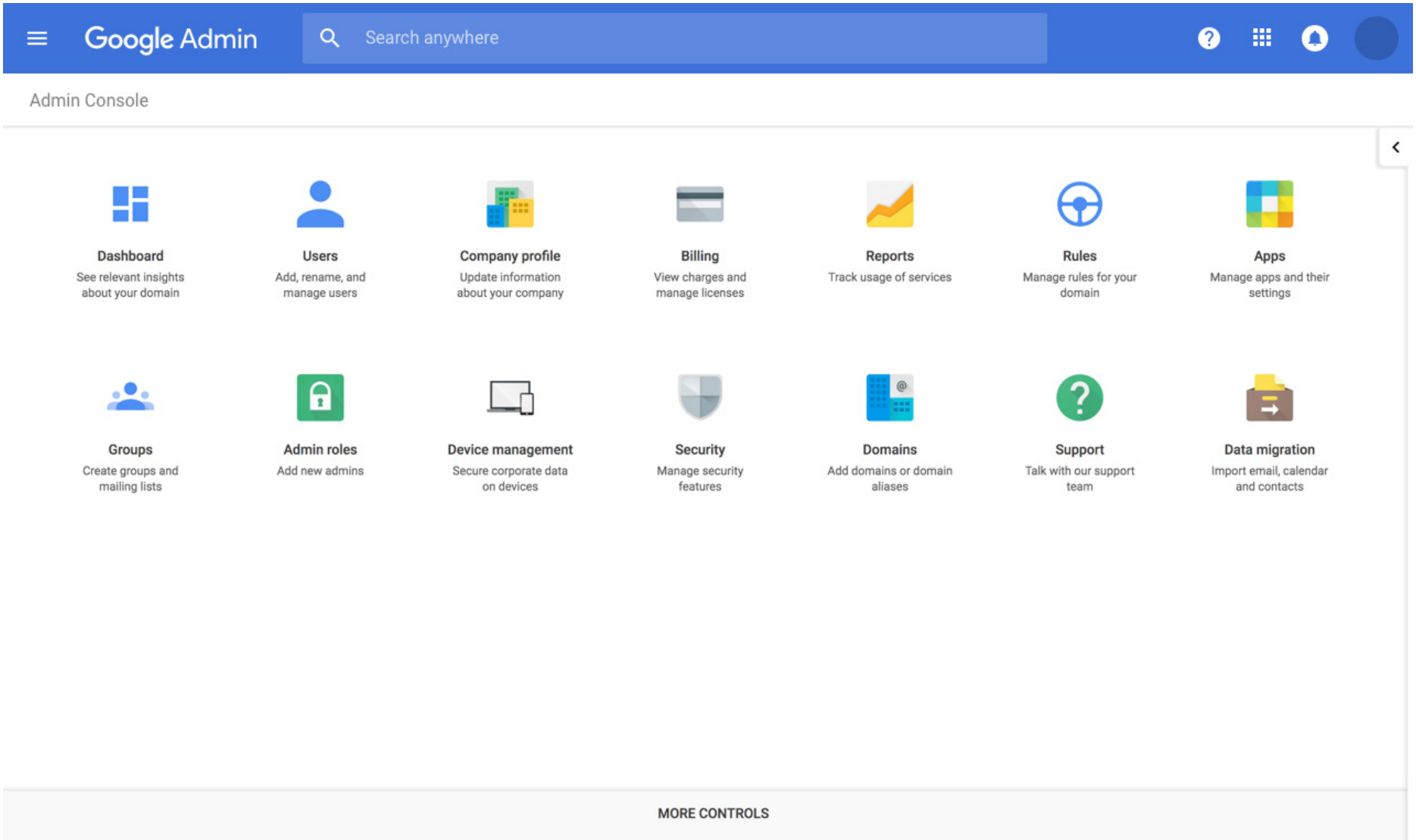
Final Concept

The final concept focussed primarily on surfacing information not at workflows. Workflows can be complicated and is different for each organization. The idea it to have two separate columns within the search that help perform global and local search simultaneously.

Searching for entities
Some of the most frequently used quick actions were surfaced in the search suggestions area itself also with user information. The user information looks similar to the entity card within user details page to maintain a sense of familiarity. The destructive actions are not listed here to avoid any damage.
The user query turns into a chip on pressing the right arrow, which signifies that they can search within that page. The right side displays results from within that page.

Searching for settings
Settings display the broader level information settings within the chosen setting. On querying, the user can find drilled down results too.

Final Concept Mocks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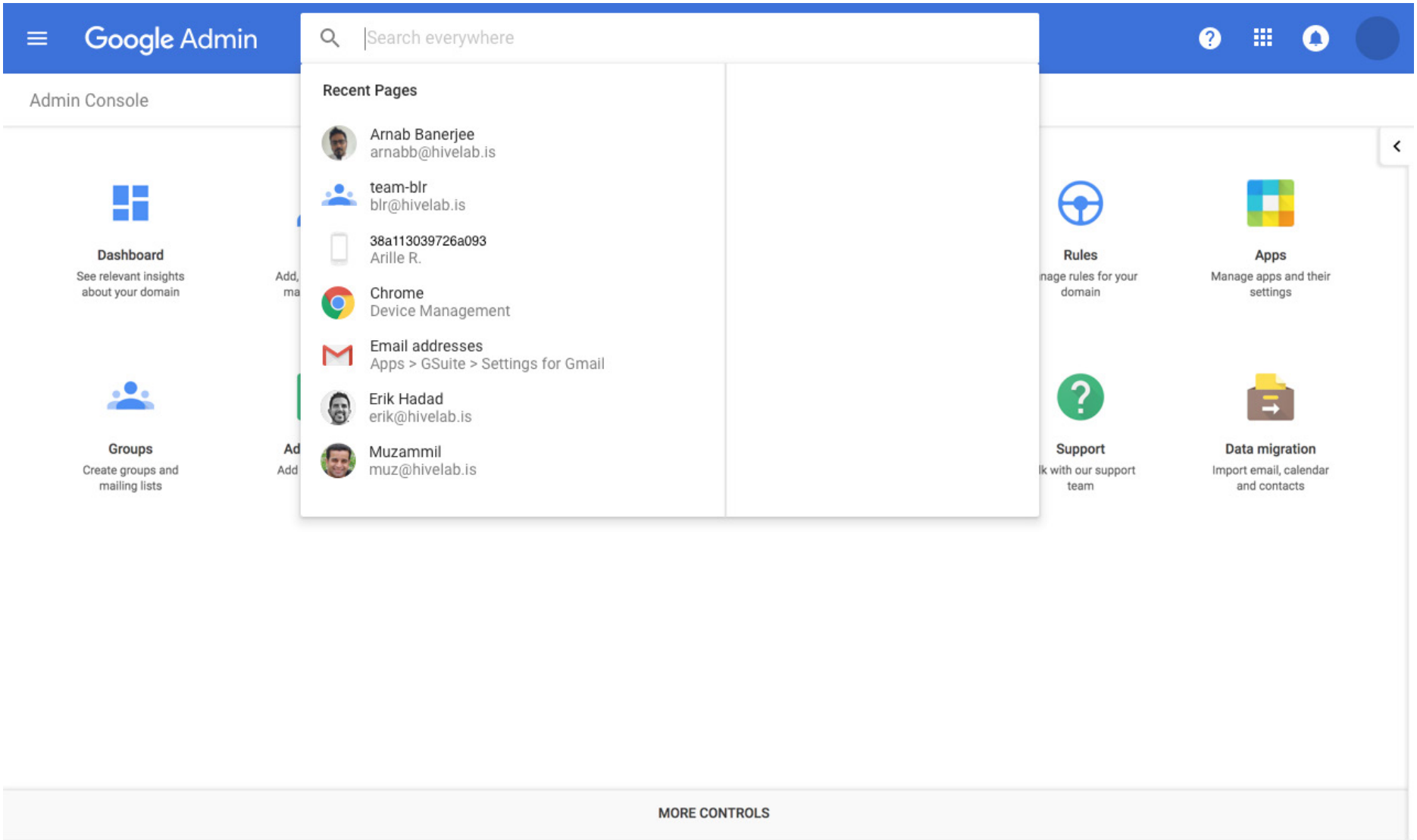
Search anywhere
Admin Console
Dashboard
See relevant insights about your domain
Users
Add, rename, and manage users
Company profile
Update information about your company
Billing
View charges and manage licenses
Reports
Track usage of services
Rules
Manage rules for your domain
Apps
Manage apps and their settings
Groups
Create groups and mailing lists
Admin roles
Add new admins
Device management
Secure corporate data on devices
Security
Manage security features
Domains
Add domains or domain aliases
Support
Talk with our support team
Data migration
Import email, calendar and contacts
MORE CONTROLS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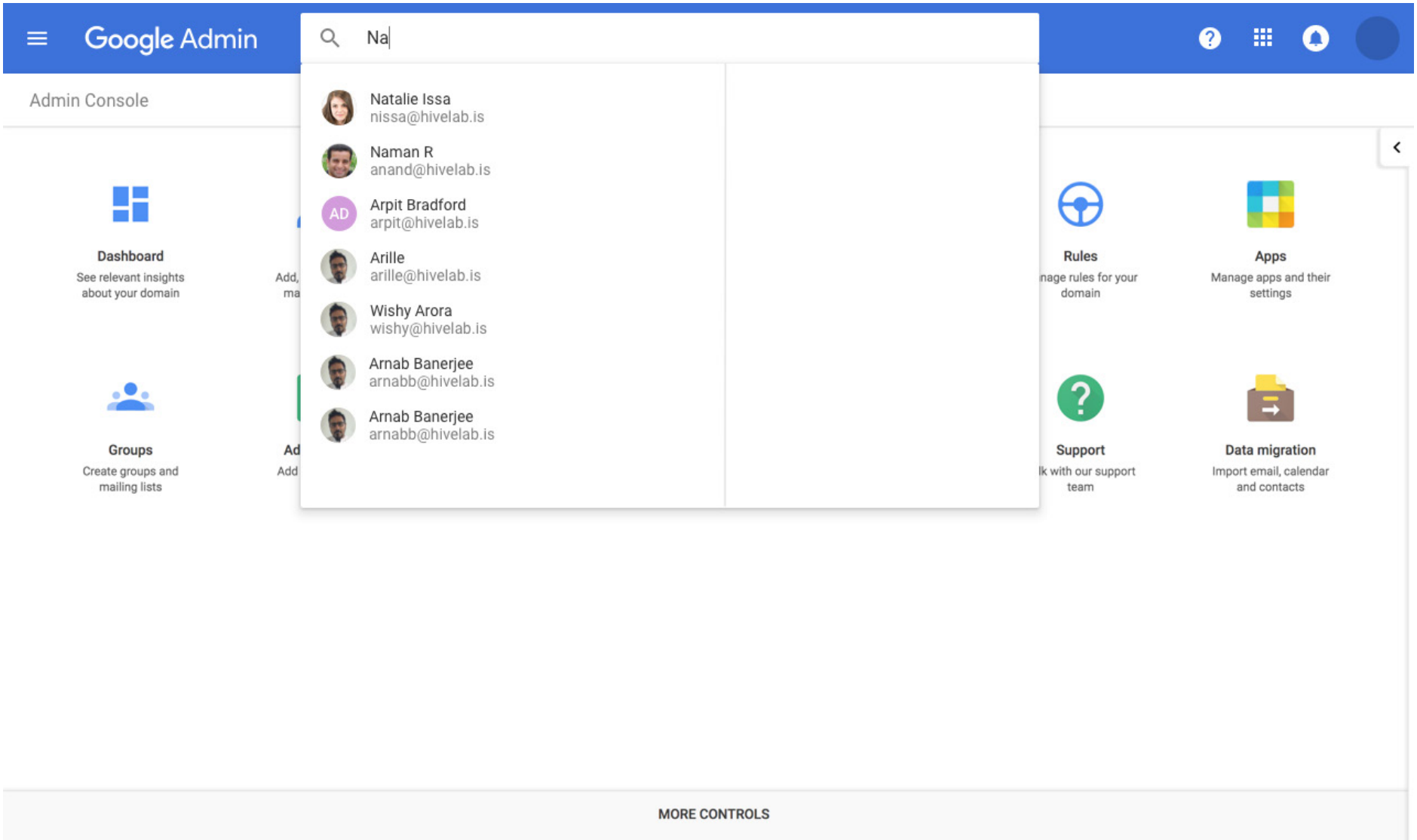
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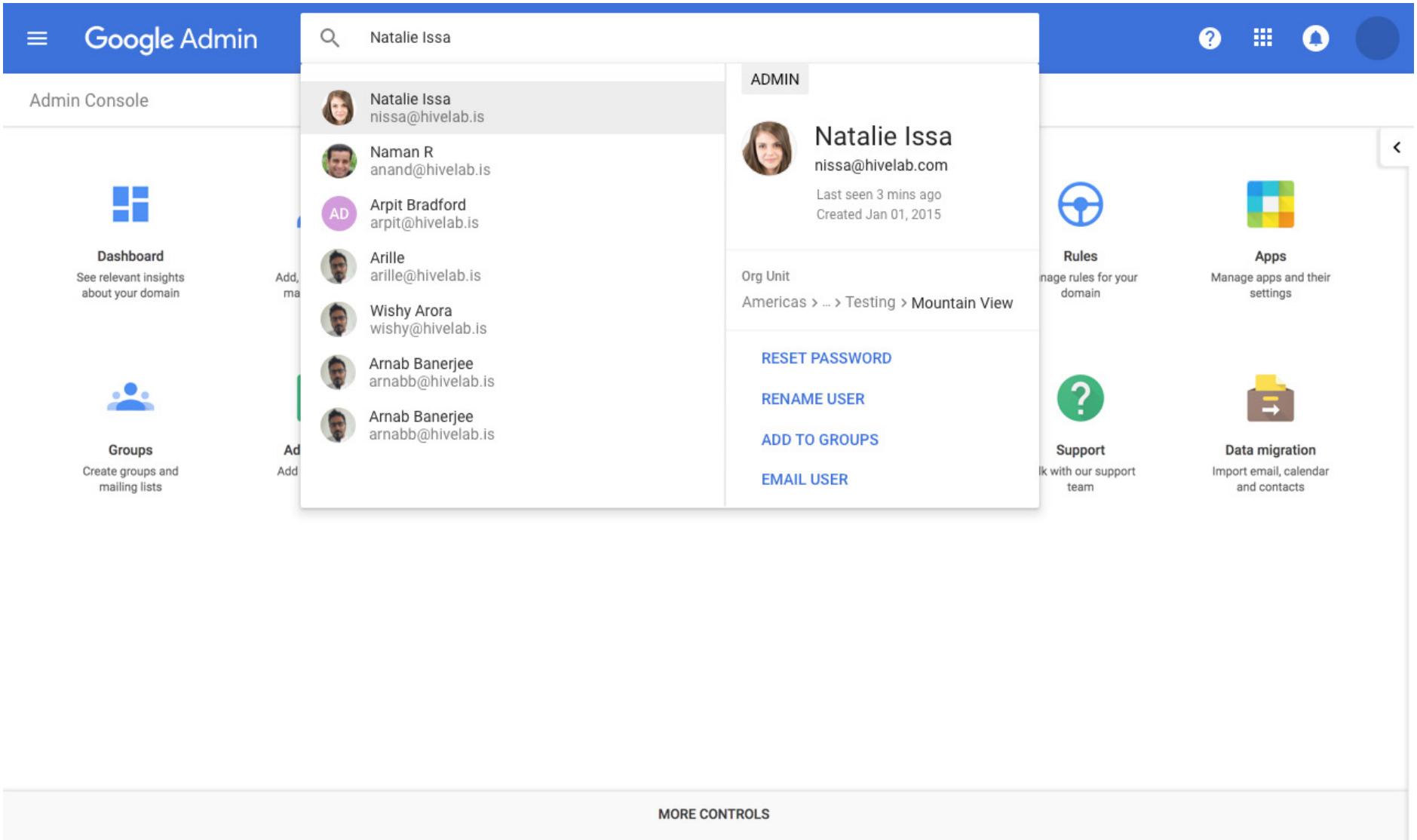
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ADMIN
Natalie Issa
nissa@hivelab.com
Last seen 3 mins ago
Created Jan 01, 2015
Org Unit
Americas > ... > Testing > Mountain View
RESET PASSWORD
RENAME USER
ADD TO GROUPS
EMAIL USER
Dashboard
See relevant insights about your domain
Rules
Manage rules for your domain
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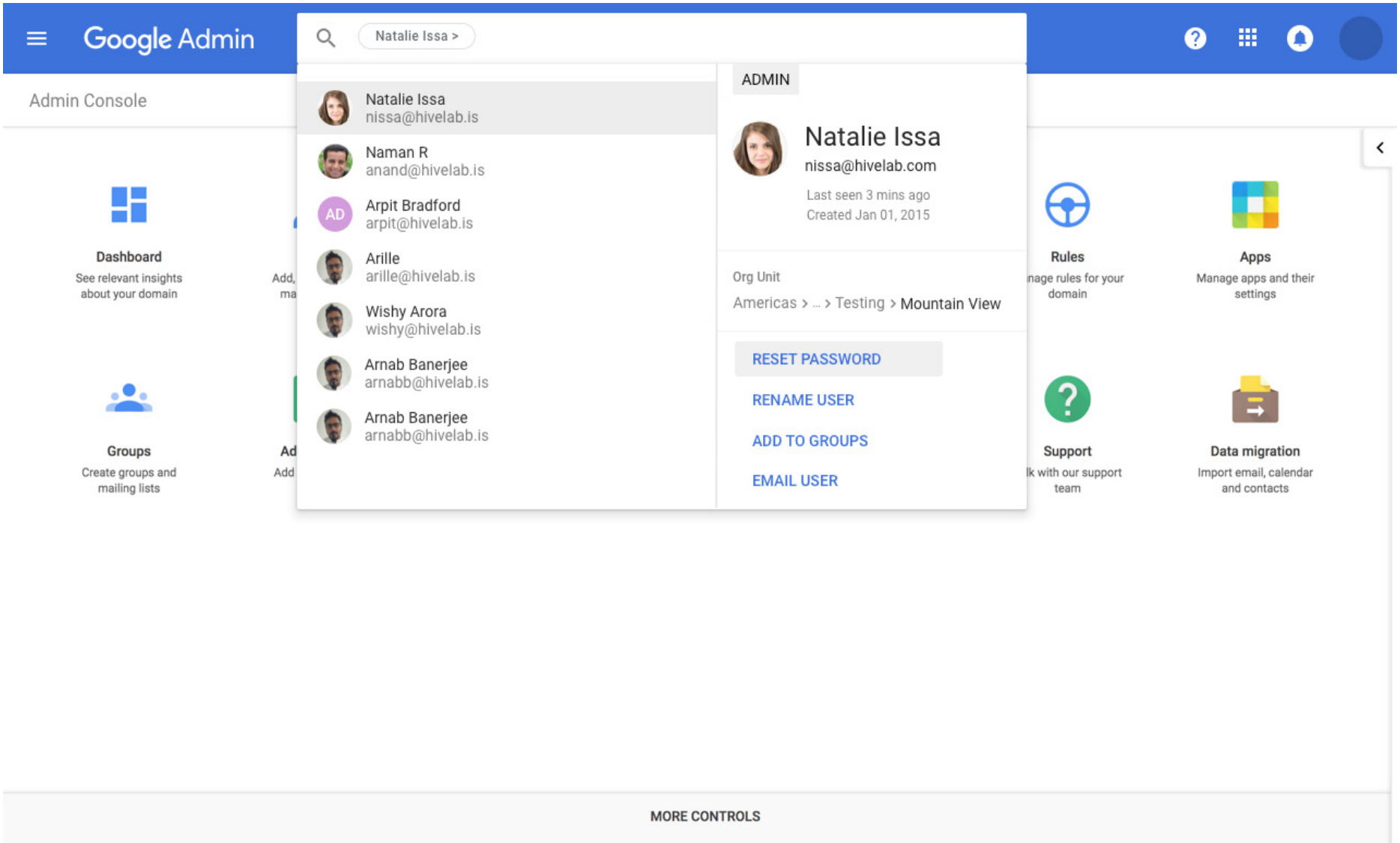
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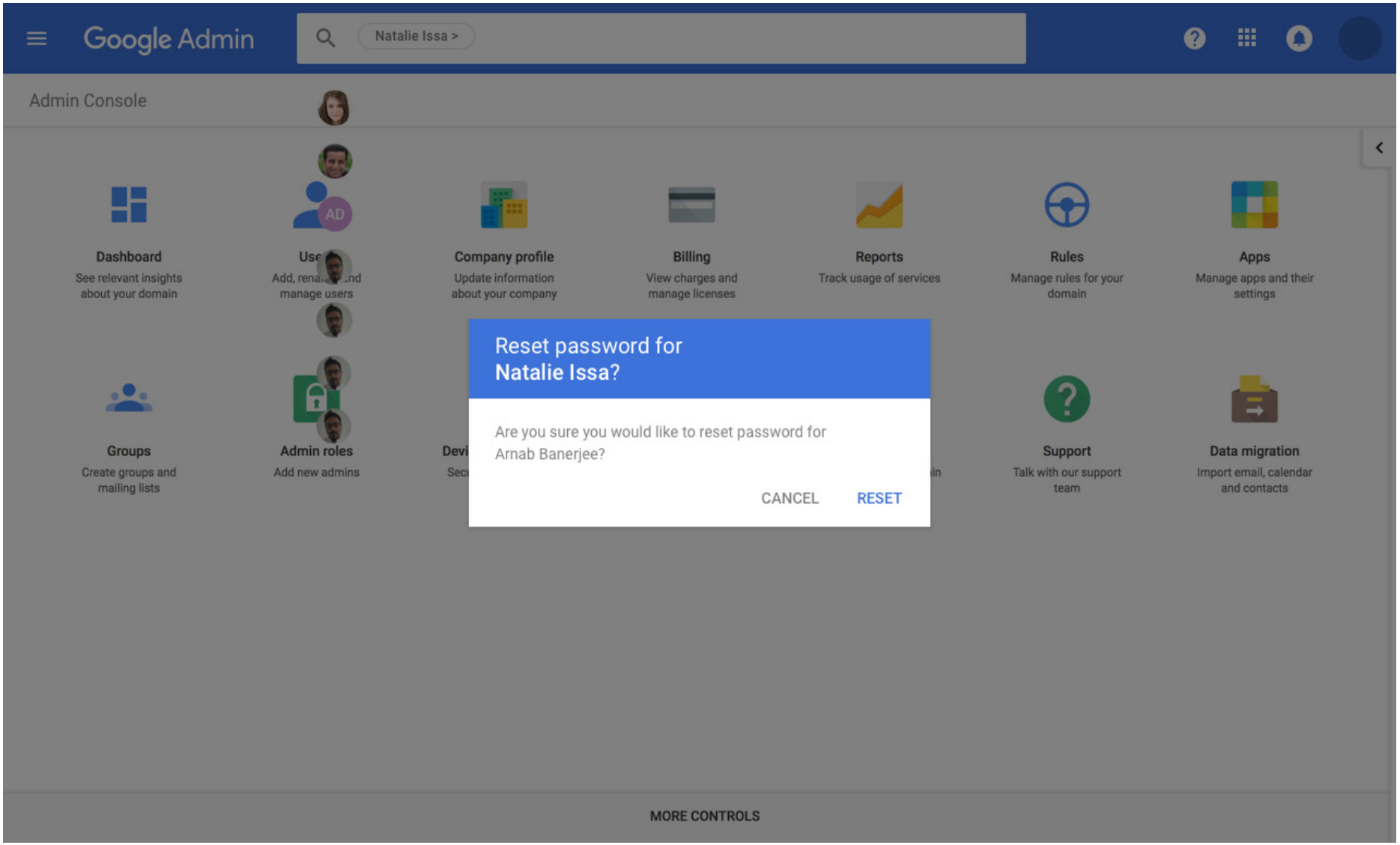
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Apps
Manage apps and their settings
Groups
Create groups and mailing lists
Admin roles
Add new admins
Support
Talk with our support team
Data migration
Import email, calendar and contacts
Reset password for Natalie Issa?
Are you sure you would like to reset password for Arnab Banerjee?
CANCEL
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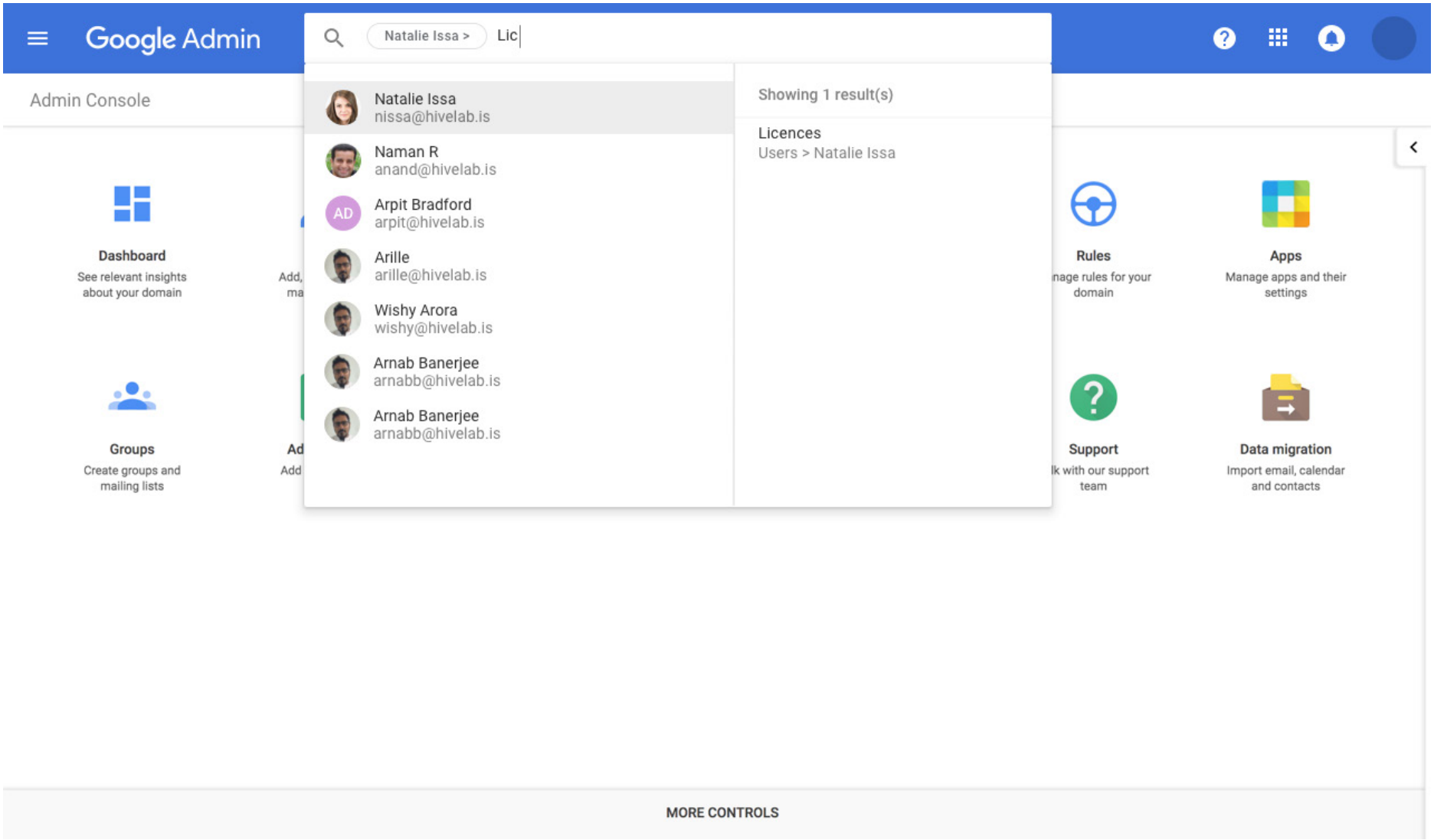
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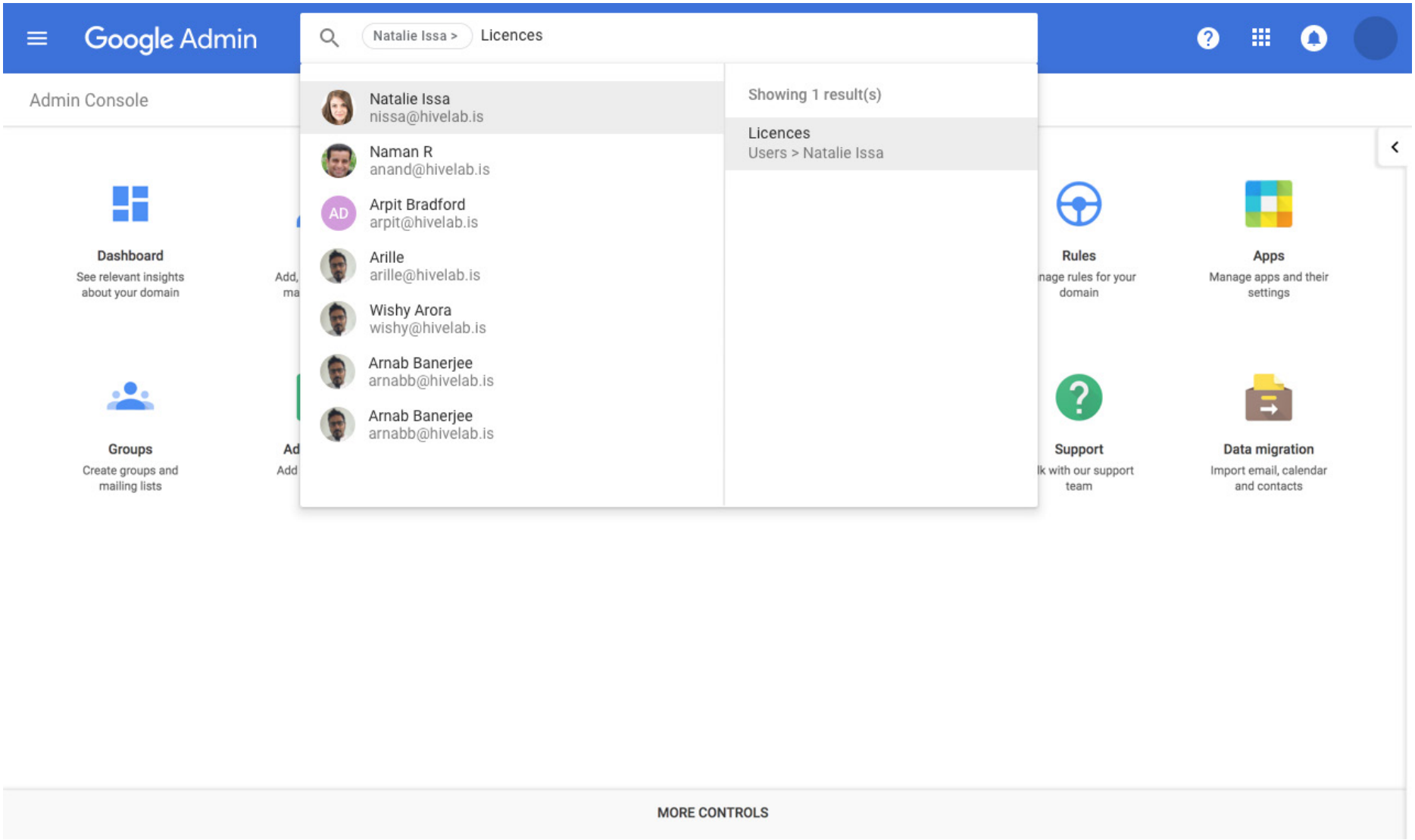
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Natalie Issa

nissa@hivelab.com

Last seen 3 mins ago

Created Jan 01, 2015

Org Unit

Americas > ... > Testing > Mountain View

RESET PASSWORD

RENAME USER

MORE

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Cloud Identity Free	Assigned to all	Free	
Cloud Identity Premium 0 licenses available	Not assigned	-	Click here to know more
Android management	Assigned to all	Free	
		- Estimated monthly cost	