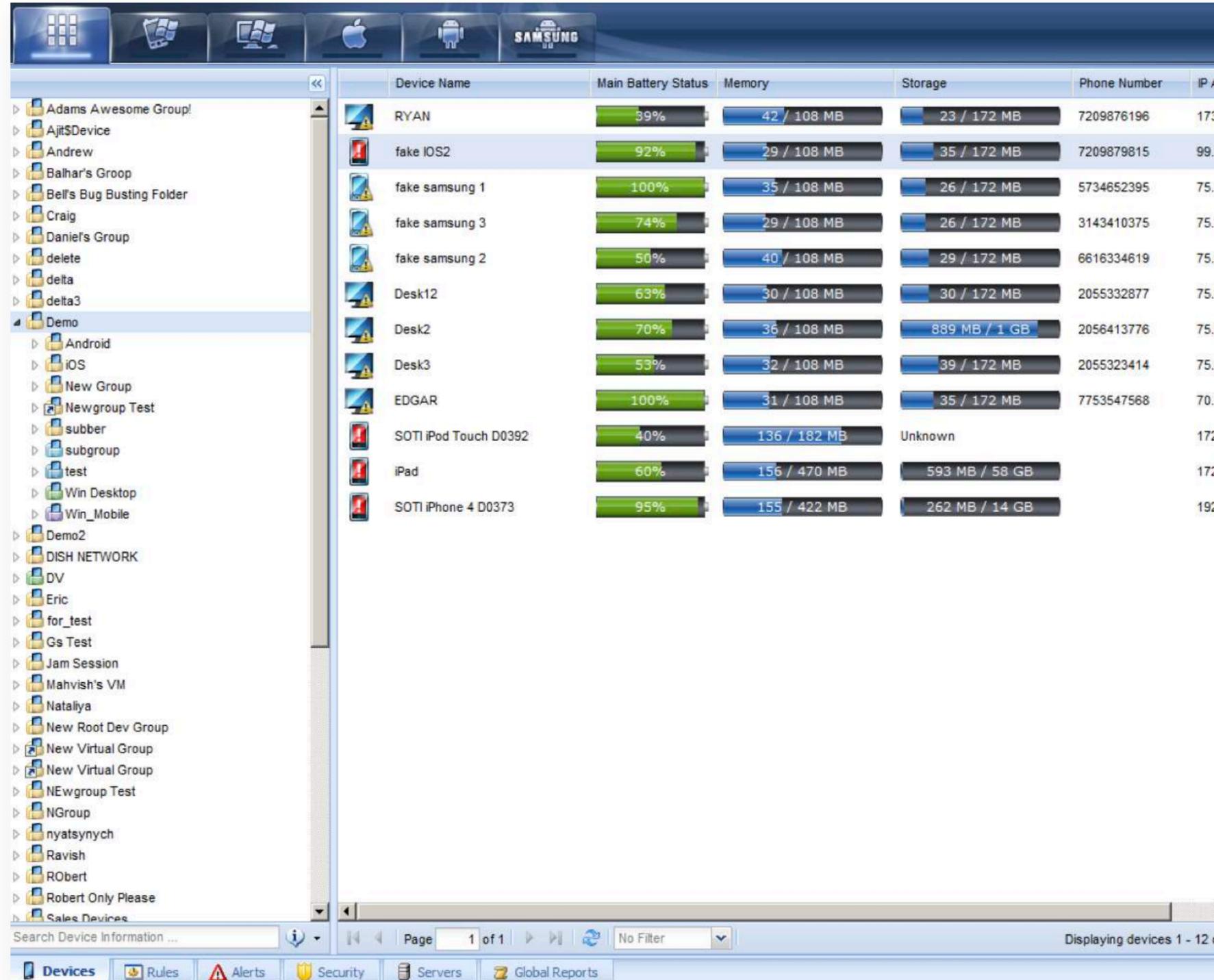


NEW GENERATION USER INTERFACE

Design a new human-centered, scenario/use case driven, simple, yet familiar, MobiControl User Interface (MVP) concept that adopts consumer product design standards and provides a seamless transition from the legacy console.

15 Years In Market **17,000** Enterprise Customers

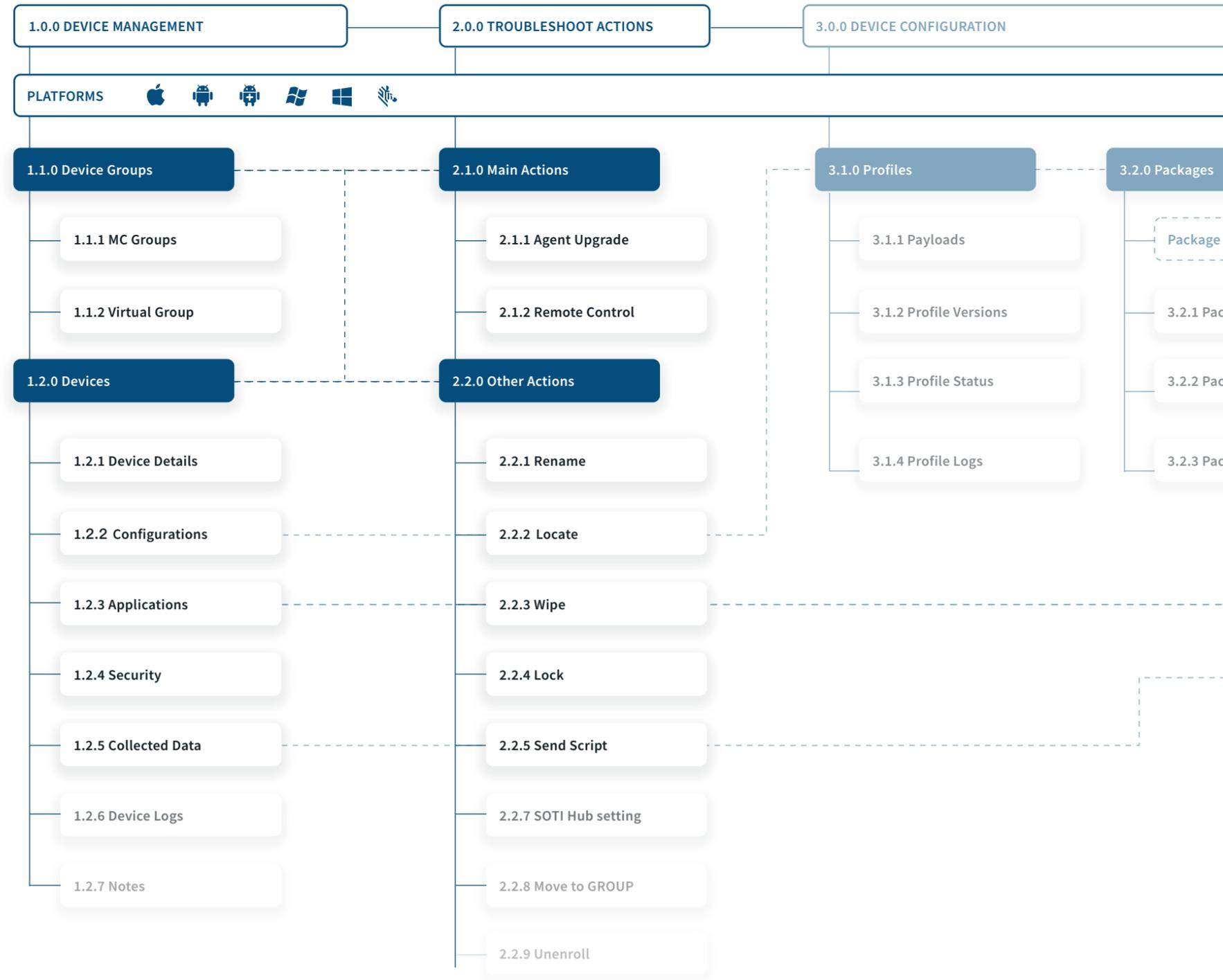


Migration Strategy Phase One Scope

IT TECHNICIAN / HELP DESK

Due to the complexity of the system, the design & migration strategy is established early on to focus on solving key scenarios by various role archetypes. An IT technician is the primary user of the console whose key responsibility is to provide help desk solutions using the Devices tab.

8 Role-based Archetypes



DESIGN PROCESS

Using Human-centered Design approach to discover major problem areas in the legacy console, define design opportunities and provide promising design solutions within the help desk scenario for an IT Technician.

- 1 Discussions & Interviews
- 2 Primary Persona
- 3 Discover
- 4 Define Opportunities
- 5 Prototype, Test, Iterate

NGUI CONCEPT AND DEMO

Introducing NGUI design concept and demonstrating major highlights of the key feature/ design details, followed by a demo walkthrough in a typical help desk scenario.

- 6 Visual Language
- 7 Elastic Search
- 8 MobiControl Insight
- 9 Bulk Action
- 10 Scenario Walkthrough



Yasser 26 Years Old | College Diploma | Problem Solver

Yasser is a technical support specialist and the front line for end-user mobility issues at a major logistics company. Yasser is bilingual and has several industry certifications after working in the industry for 5 years. He is very comfortable working with computers and has an appetite for learning about new technologies. He is an empathetic individual and strives to provide the best service he can to his end users, and is frustrated when he is unable to do so.



I need to jump on a problem and fix it fast. I can't do it if I had to spend a lot of time dealing with the software.



Notable Characteristics

- Frequently using mobility products for supporting and managing devices.
- Escalates issues to the regional systems administrator.

Operation Needs

- Ensure timely resolution of issues raised to him to achieve highly rated overall internal customer satisfaction.
- Proactively monitors devices for non-compliance and related issues.

Pains

Long Uptime

Over-complexity means inefficiency

Non-standard Operation

Accuracy

Discover Design Methodologies

Scenarios
Yasser works at work at a bank. He logs in to the mobile control system to monitor the devices that he manages. The company's devices are grouped by different managers and departments. He also has an access to the device management system. There are also some global filters that are created by the manager. He has to help the devices that are the device's manager. He doesn't have a permission to create devices in a group. He doesn't have a permission to delete devices in a group. He has to help the devices that are the device's manager. He doesn't have a permission to create devices in a group. He doesn't have a permission to delete devices in a group.

Considerations

Pain Points
"I wish I could investigate the problems, but I don't have time. I just need it fixed."

Use Cases
VIEW MANAGED DEVICES AND RELATED INFORMATION

Sub-tasks	View Managed Devices	View another Device	View device's troubleshoot actions
Click on the view all devices	Navigation to the device group	Using the top platform filter to search and view devices from a specific platform	Using the top platform filter to search and view devices from a specific platform
Using the top platform filter to search and view devices from a specific platform	Using the top platform filter to search and view devices from a specific platform	Navigation to the device group	Navigation to the device group
View details of the device in a table	Search Device by name in a search field	Using device details to find specific device information	Using device details to find specific device information
Search device by properties (device ID, name, phone number, etc.)	Search device by properties (device ID, name, phone number, etc.)	Click on device details in the device table to view specific information	Click on device details in the device table to view specific information
Using advanced filters to view specific set of devices	View all device information on the side information panel		

Task Analysis Grid is used at first for feature audit of the legacy console based on known scenarios and use cases. This is served as the base framework to develop **Mental Models** which details the activities and map the pain points to the corresponding steps for the given tasks.

Monitor and Manage Devices

- View and Filter Devices:** Navigation to the device group, Using the top platform filter to search and view devices from a specific platform, Using device details to find specific device information.
- Search Managed Devices:** Search device by name in a search field, Search device by properties (device ID, name, phone number, etc.), Using advanced filters to view specific set of devices.

Device Troubleshoot Actions

- Device Troubleshoot Actions:** Select device from the device group, Using the top platform filter to search and view devices from a specific platform, Using device details to find specific device information.
- Device Troubleshoot Actions:** Select device from the device group, Using the top platform filter to search and view devices from a specific platform, Using device details to find specific device information.

Generate Report

- Schedule a Periodic Report:** Using the top platform filter to search and view devices from a specific platform, Using device details to find specific device information.

Co-Design Workshops are hosted by designers. Major POs and PMs are invited, together to generate possible considerations and **Ideate** on that could be transformed into impactful and feasible design solutions.

Define Design Opportunities



Search Data

How Might We provide an advanced, flexible, yet simple to use search experience that drives data navigation in the system?

Search is difficult to find

- Spread around different places
- Tiny search bar

Search is limited

- Only able to search name/id
- Exact match is required

Filters are difficult to build

- Over complicated UI
- Force user to create virtual groups

Search Device Name ...



Visualize Data

How Might We allows a user to easily visualize data in the system to monitor and instantly drill down into problem devices and perform actions?

Limited Charts & Reports

- Charts are hard coded
- Have to call PS for new reports

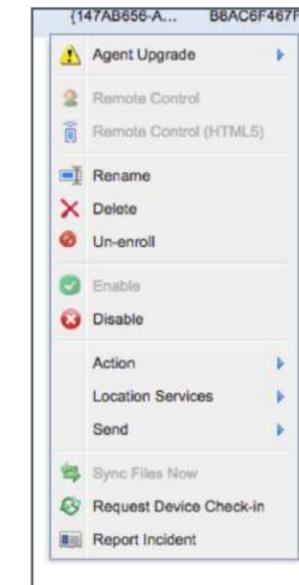
Can't action after drill-down

- No direct link to device list
- Results are not reliable



Troubleshoot Actions

How Might We allow a user to take action on devices across different groups together and ensure the impact?



Limited group actions

- Restrictive to group type
- Force to use virtual group.

No visibility into impact

- Don't know which devices are receiving/not receiving the action.

Prototype Test, Iterate

Whiteboarding Sessions with major PO, PM and designers are conducted to produce low-fi UI wireframes. Ideas are then evaluated and synthesized into a few promising concepts which the designers can each take for crafting interaction details.

TASK COMPLETION STATUS, BY TASK

Task	Success (3-4)	Partial Success (1-2)	Failure (0)
1. Search for devices, differentiate and Wipe	80%	20%	0%
2. Find a quantity of iOS devices in the system	100%	0%	0%
3. Find devices with the last version of iOS in the...	100%	0%	0%
4. Find not-compliant devices (broken/problematic)	100%	0%	0%
5. Complex Search: (Platform=IOS AND OSVersion>=10)...	100%	0%	0%
6. Save Search	100%	0%	0%
7. Search for property with children Application WITH...	100%	0%	0%
8. Use Saved Search	100%	0%	0%
9. Add a column to the device table	100%	0%	0%
10. Bulk action Check-in	100%	0%	0%
11. Bulk action Wipe for not applicable devices	100%	0%	0%
12. Create a new Group	100%	0%	0%
13. Rename Group	100%	0%	0%
14. Change Group colour	100%	0%	0%
15. Drag & Drop any devices to a different group	100%	0%	0%
16. Delete Group	100%	0%	0%

1. 4 out of 7 tested users had difficulties to identify a main Search field; instead they search in the Device Groups Search or click on the SEARCH in the top right corner, without noticing the field itself.

The Search field doesn't feel like an input.

8 Usability Testing Sessions **16 Sub Tasks**

Testings are conducted with IT technicians, QAs, and stakeholders on a design demo which demonstrates an end to end flow. The majority of tasks show high-performance rate, but some critical issues were found on the advanced search. **Design Iterations** is then focused on simplifying the search interaction and detail refinements.

Introducing NGUI

A SINGLE VIEW SOLUTION

Elastic Search helps to build complex search queries for a user to find any set of devices from the system to perform device actions altogether or save search results for future use.

MobiControl Insight helps to create beautiful, real-time visual summaries of device data, analyze device landscape and identify problem devices with just a couple of mouse clicks.

Bulk Action helps to efficiently perform troubleshoot actions and make updates to several devices at once.

The screenshot displays the SOTI MOBICONTROL interface for device management. At the top, the navigation bar includes the SOTI MOBICONTROL logo, the 'Devices' section, a search icon, and a user profile 'YK Yasser K'. Below the navigation bar, there are filter options: 'All Devices', 'Compliance Status = False', and 'Platform = Android, iOS'. A search bar and an 'INSIGHT' button are also present.

Two donut charts are shown: 'COMPLIANCE STATUS' with segments for 'Non-compliant' (red) and 'Compliant' (green); and 'MANUFACTURER MODELS' with segments for 'Samsung', 'Apple', 'Other', 'HTC', and 'LG'. A third chart area prompts to 'ADD A DIMENSION CHART TO FURTHER UNDERSTAND YOUR DATA'.

Below the charts is a 'DEVICES (1-50 of 3130)' section with a '50 Per Page' dropdown and navigation arrows. A table lists device details:

DEVICE NAME	PLATFORM	MANUFACTURER	MODEL	OS VERSION	BATTERY STATUS	STORAGE	PHONE NUMBER	USER
! Ada's phone	Android	LG	G6	4.1.2	30%	6GB / 16GB	1-416-802-3010	Ada Li
Adam's work	Android	Samsung	Galaxy S7	4.1.2	81%	31GB / 32GB	1-647-120-5929	Adam Zhang
! Apple_Sim_3914	iOS	Apple	iPhone 7 +	9.1	100%	60GB / 64GB	1-416-103-2913	n/a
✓ Apple_Sim_3915	iOS	Apple	iPhone 6	9.1	100%	31GB / 32GB	n/a	n/a
✓ Application_demo_1	Windows 10	Microsoft	Lumia 650	10	52%	6GB / 16GB	n/a	Graham W
Application_demo_2	Windows 10	Microsoft	Lumia 650	10	28%	12GB / 16GB	n/a	n/a
Android_Sim1_4584	Android	Samsung	Galaxy S6	4.1.2	90%	28GB / 32GB	1-416-581-3959	n/a
! ✓ Android_Sim1_4585	Android	Samsung	Galaxy S7	4.1.2	10%	4GB / 32GB	1-416-193-6001	Jack Danforth
! Android_Sim1_4586	Android	HTC	GT-N7105	4.1.2	78%	165MB / 16GB	1-416-183-1292	Elsa Sun
! Android_Sim1_4587	Android	HTC	GT-N7105	4.1.2	92%	13GB / 16GB	1-416-959-1391	Mary Cooper
! Android_Sim1_4588	Android	LG	G6	4.1.2	5%	6GB / 16GB	1-647-219-3058	n/a

At the bottom, a '3 Device Selected' indicator is shown next to a row of action icons including 'UPGRADE AGENT', 'Refresh', 'Export', 'Print', 'Lock', 'Erase', and 'More'.



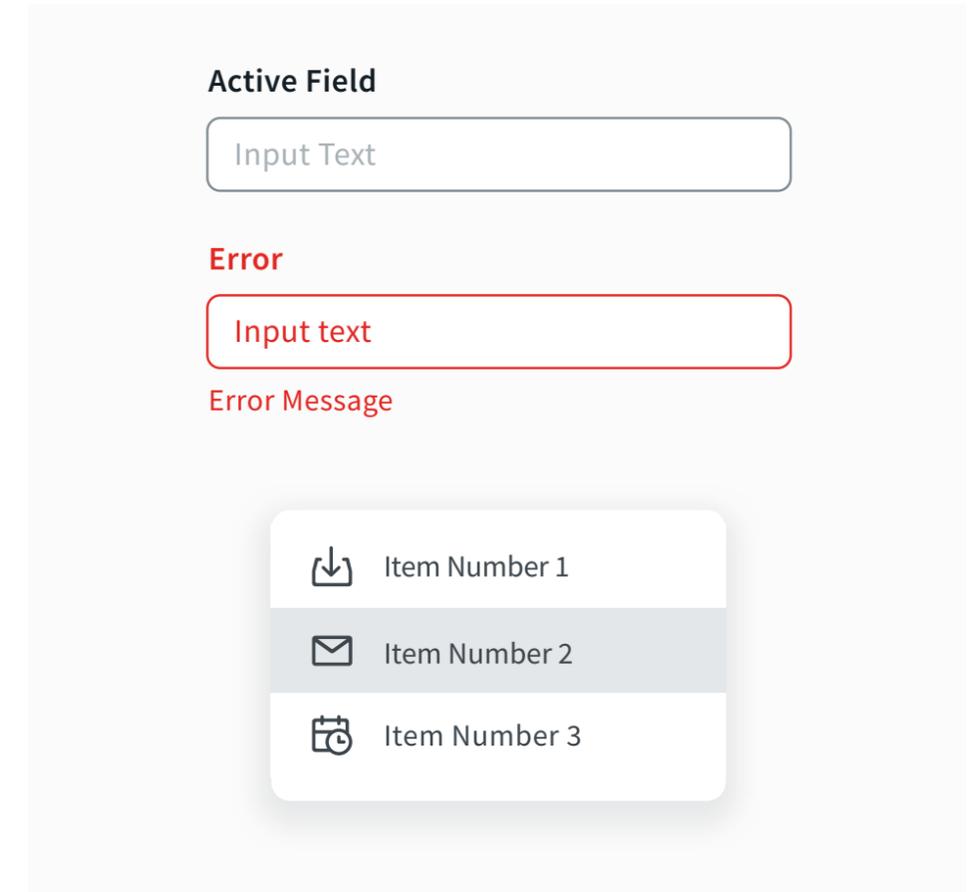
Brand-Driven Color Palettes

- 117 total color choices derived from branding colors.
- Clear definition of primary, secondary colors and usage.
- Easy to follow naming convention.



All New Icons

- More than 250 icons redesigned.
- Organization, consistency, and element continuity.
- Icon font format for easy and flexible implementation.

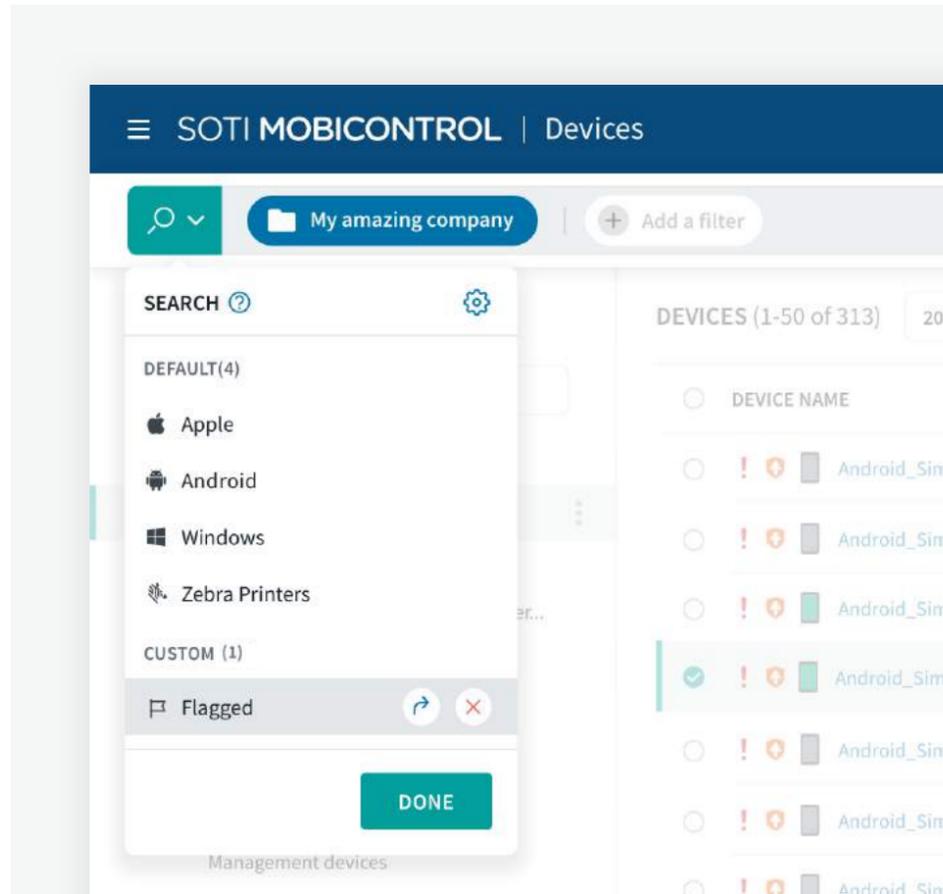


Component Library

- Pattern defined and re-usable components.
- Tablet friendly.
- Accessibility Tested.

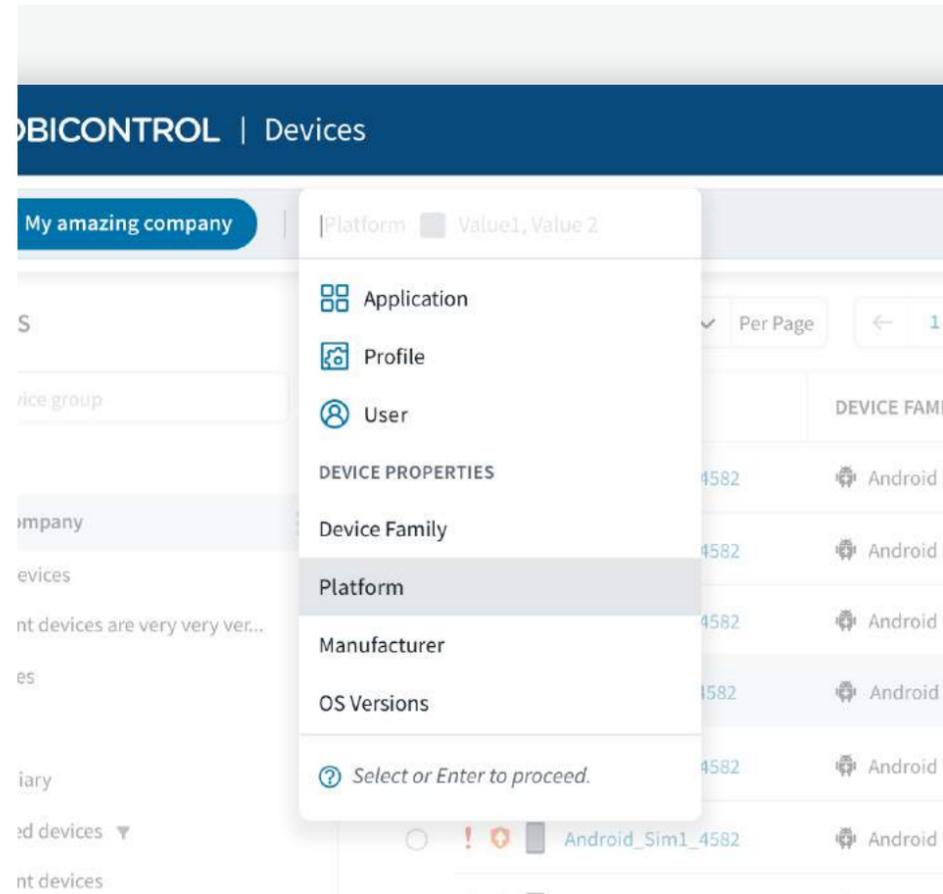
Elastic Search

A Single View Solution



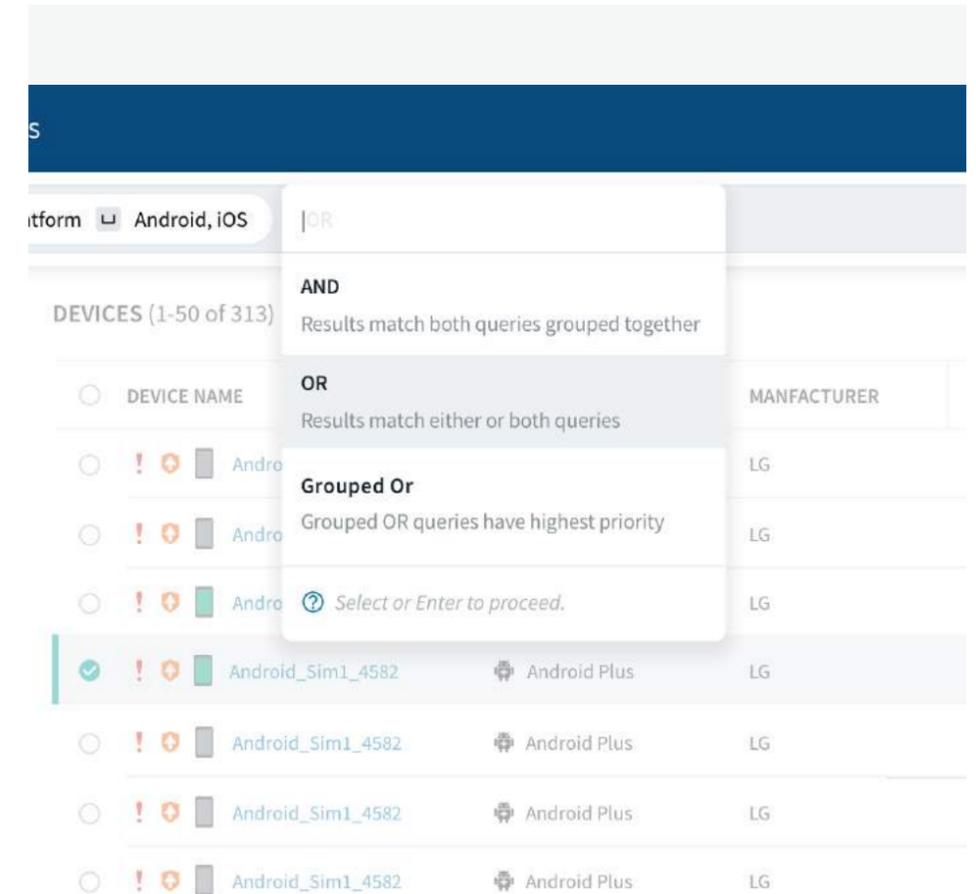
Search-Driven Data Navigation

- One place for data navigation.
- Scalable and shareable Search Expression.
- Actionable search results.



Guided User Interface

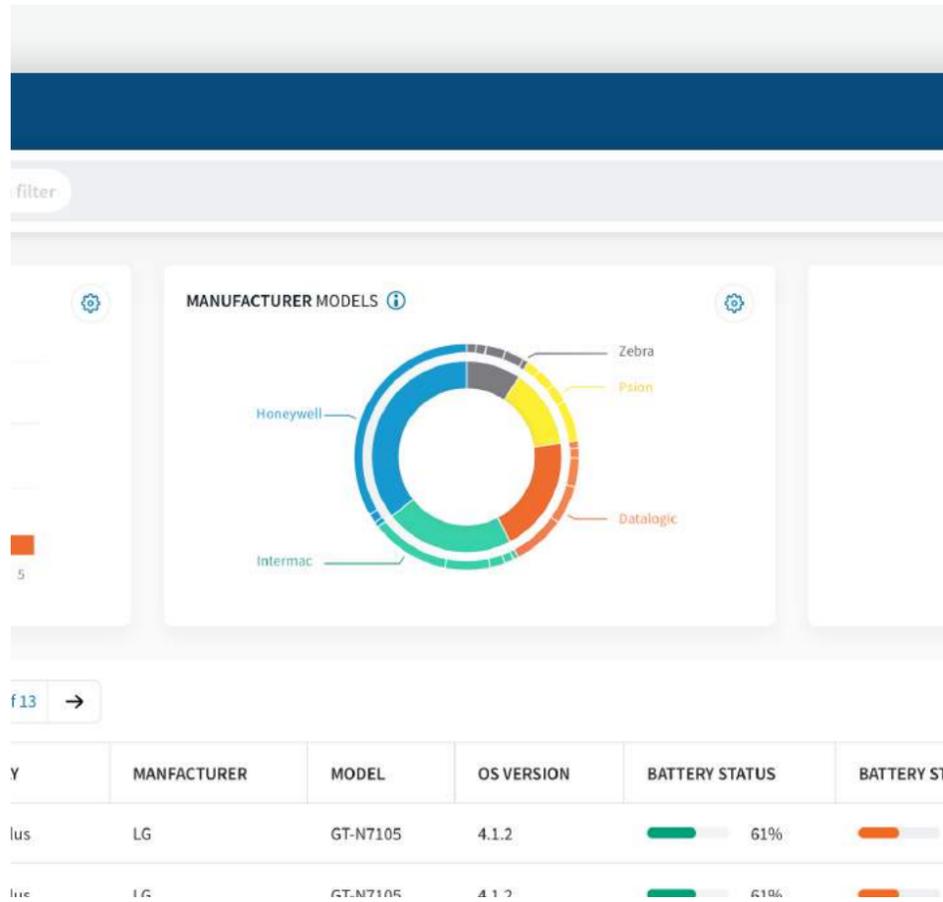
- UI-Driven Expression Builder.
- All metadata are accessible.
- Complete using only mouse interaction.



Advanced Expressions

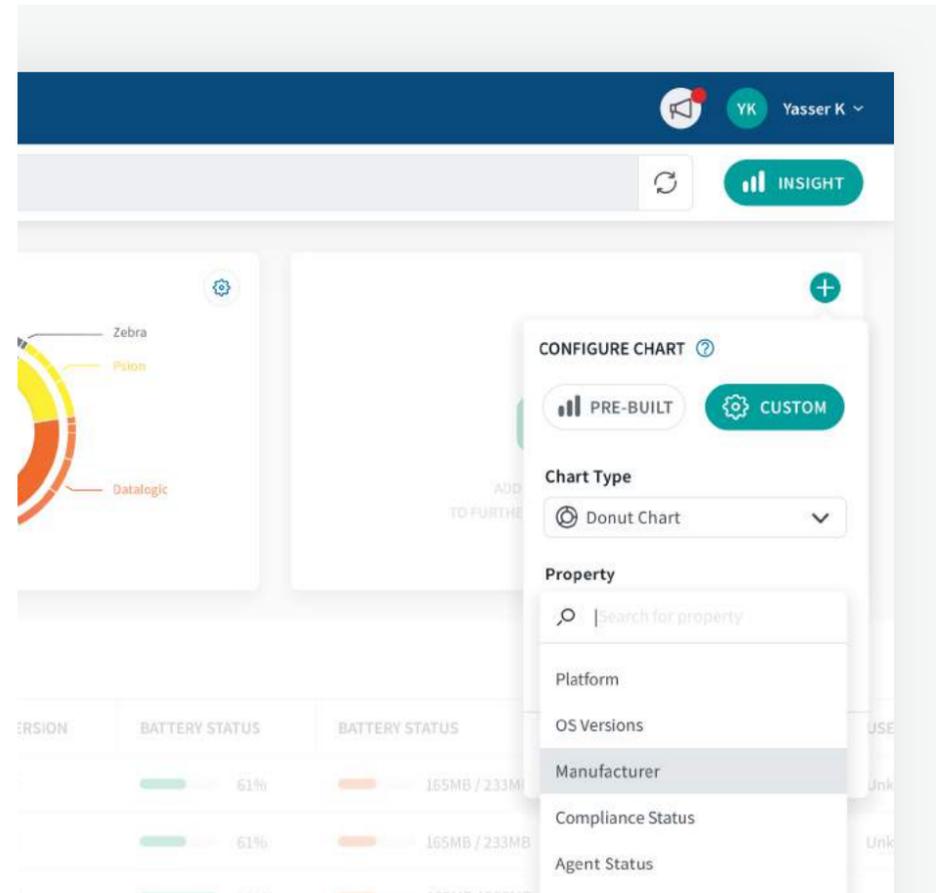
- AND / OR / GROUP OR queries.
- Accurate search results.

Insight Data Landscape At a Glance



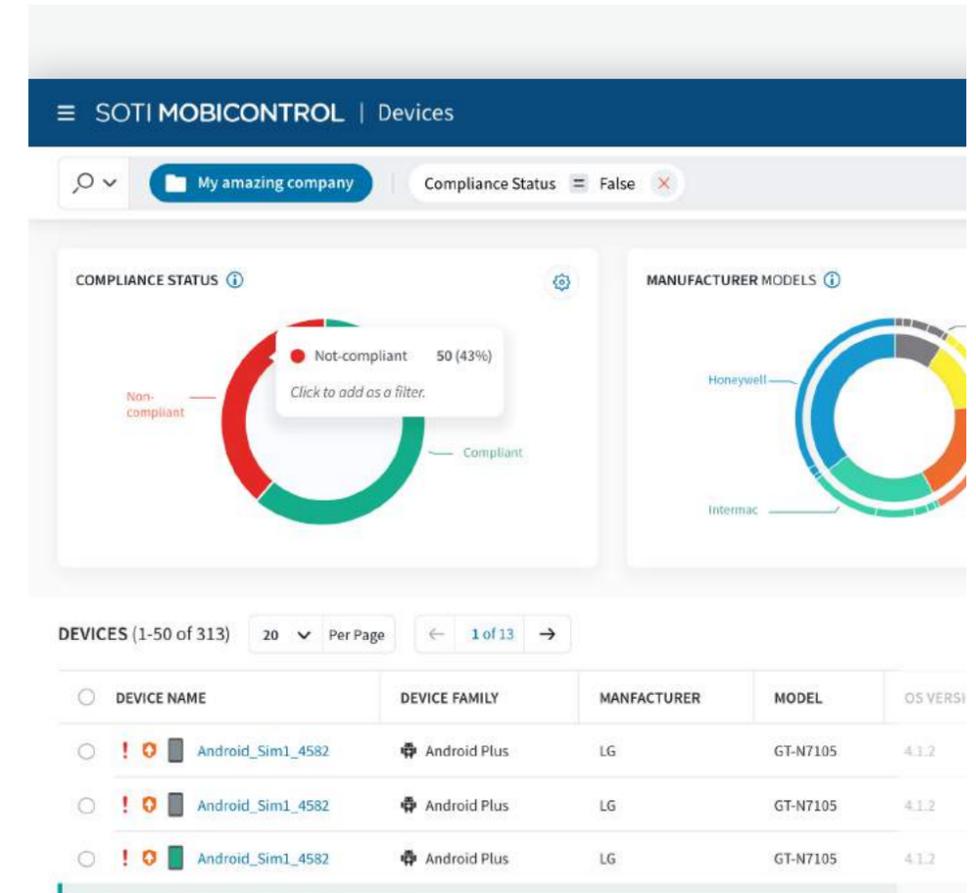
Multidimensional Charts

- 4 new chart types are designed and added.
- Visualize data with a maximum of two device properties.
- 6 pre-built time series charts.



Easy to Build

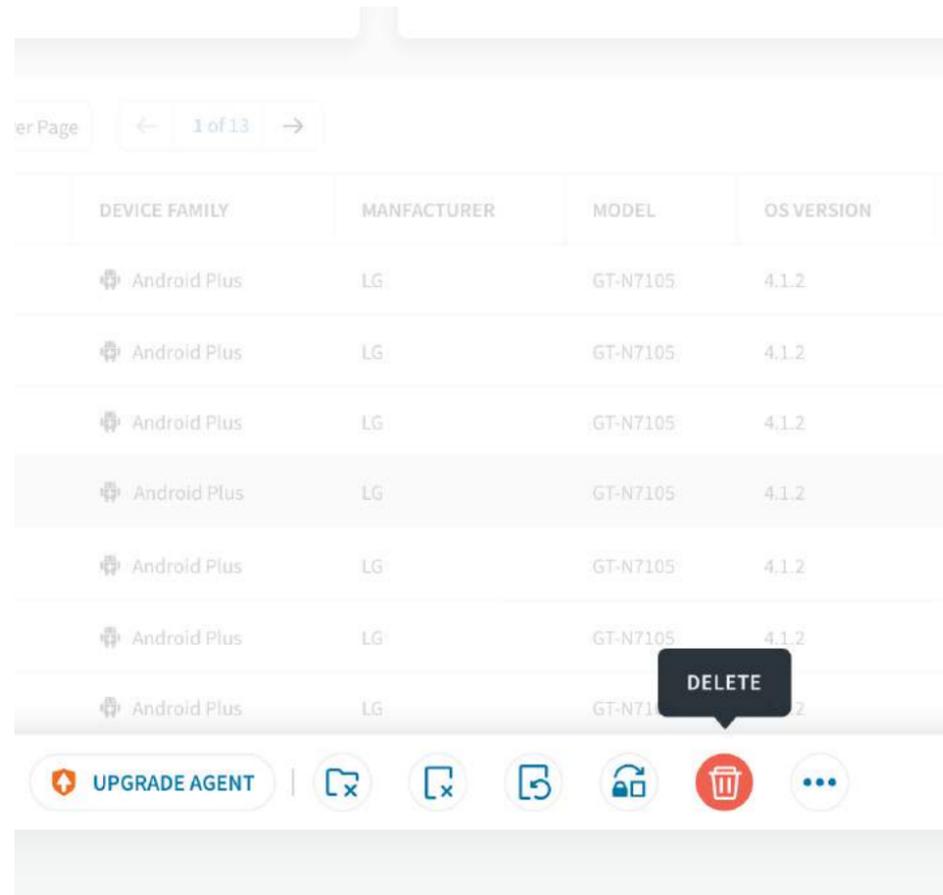
- Just choose a chart type and a property.
- Chart title is auto-generated by property names.
- (Almost) all metadata can be used to draw a chart.



Drill-down

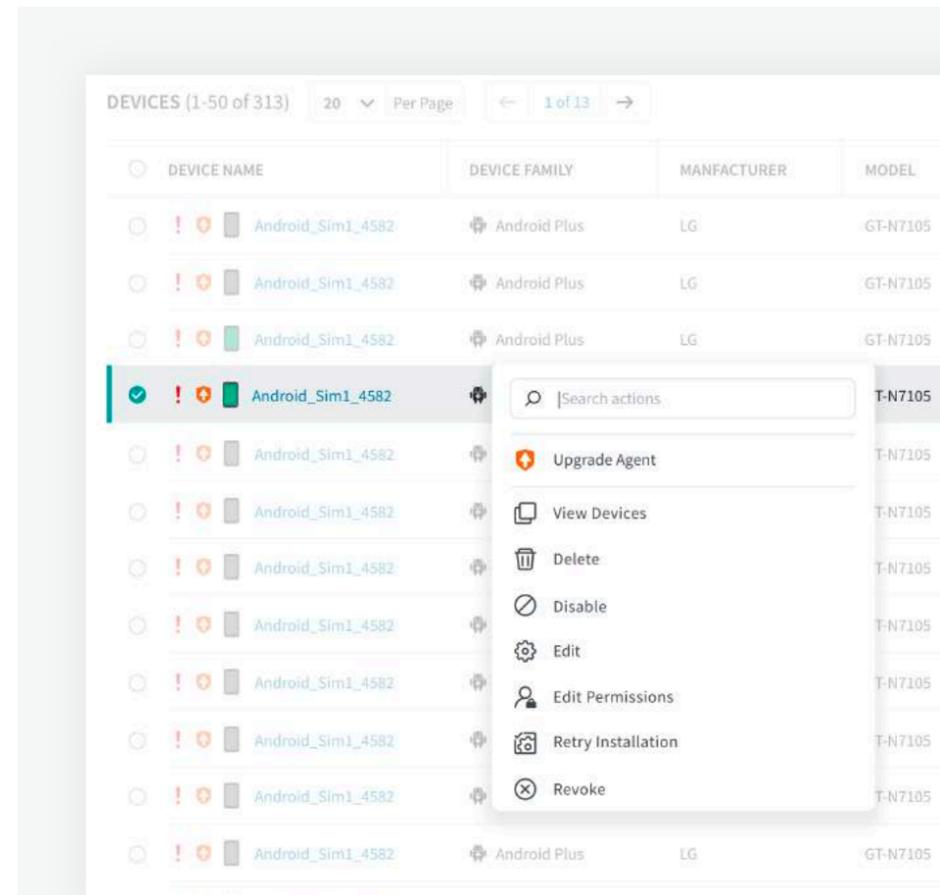
- Drill-down to see details on any section in a chart.
- Working with the elastic search.

Bulk Action Details



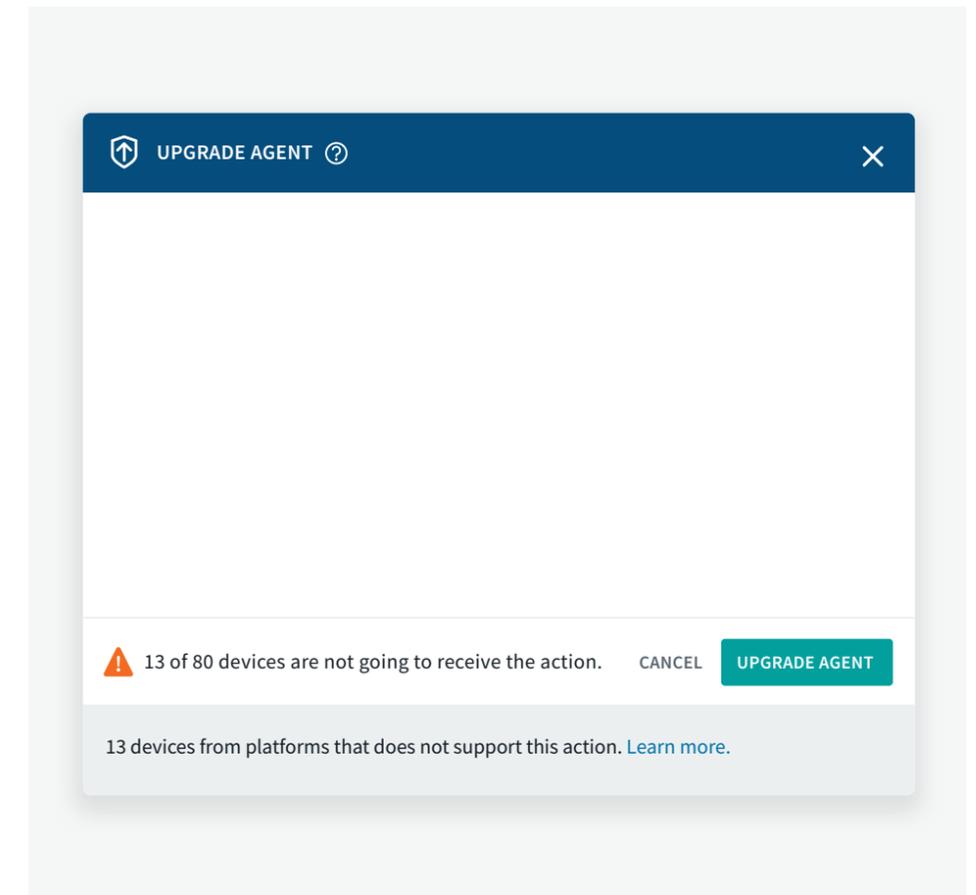
Visual Hierarchy

- Primary actions are emphasized.
- Colors to differentiate action severity.
- Separated by action types.



Quick Access

- Right-click mouse interaction remained (and redesigned).
- Consistency throughout various UI sections.



Compatibility Check

- Action Dialogs standardized.
- Compatibility check to ensure action delivery.



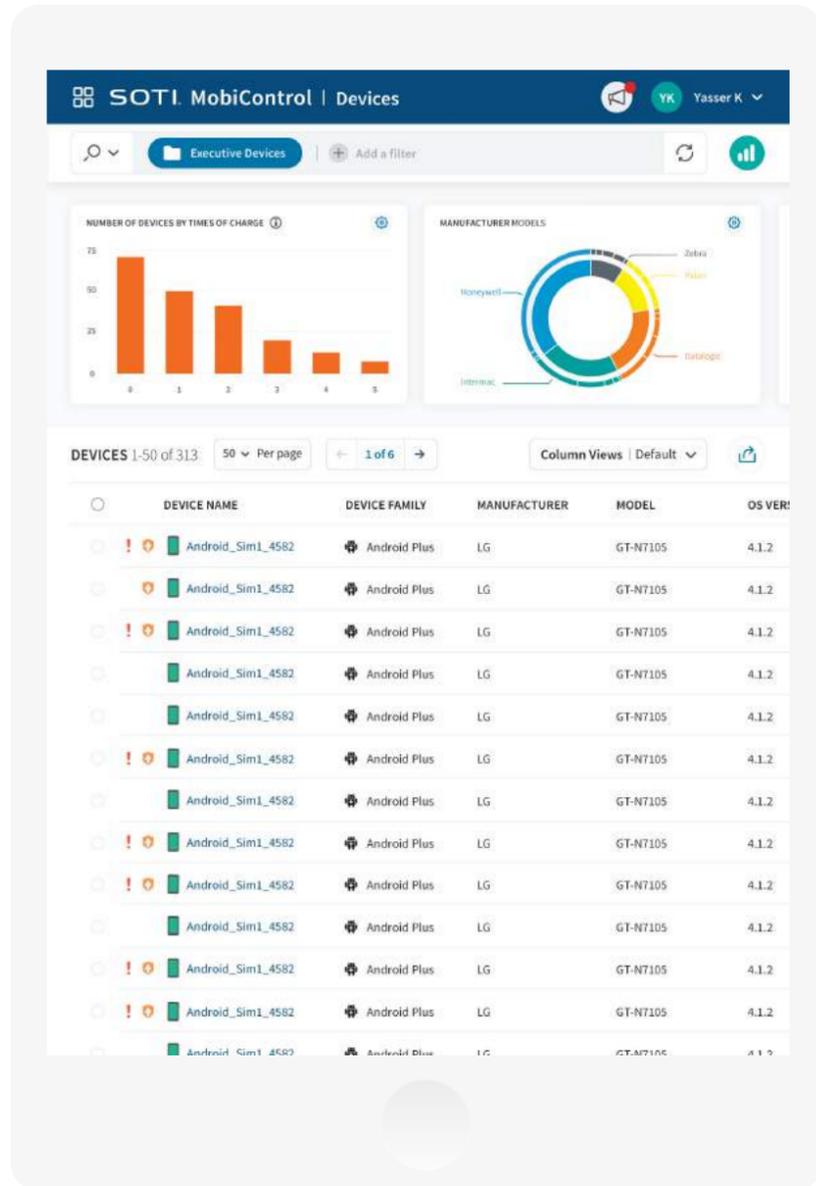
In order for MobiControl to manage devices, an agent (a mobile app) must be installed on the end-user devices and kept up-to-date.

The IT Department where Yasser works relies on MobiControl to push agent updates to all their employees' corporate-issued or BYOD devices once it becomes available. However, the operation procedure isn't standardized so that sometimes a technician might fail to do it on time.



Yasser is informed by his supervisor that a number of devices showed compliance issues in the system. He needs to find out why and get the problem fixed as soon as possible.

Project NGUI Thank You!



ONE MORE THING...

Though none of our users is using MobiControl on a tablet due to the system complexity, we still explored and make sure that the UI is responsive and accessible on a tablet-sized screen resolution for future use case support.

QUESTIONS?