

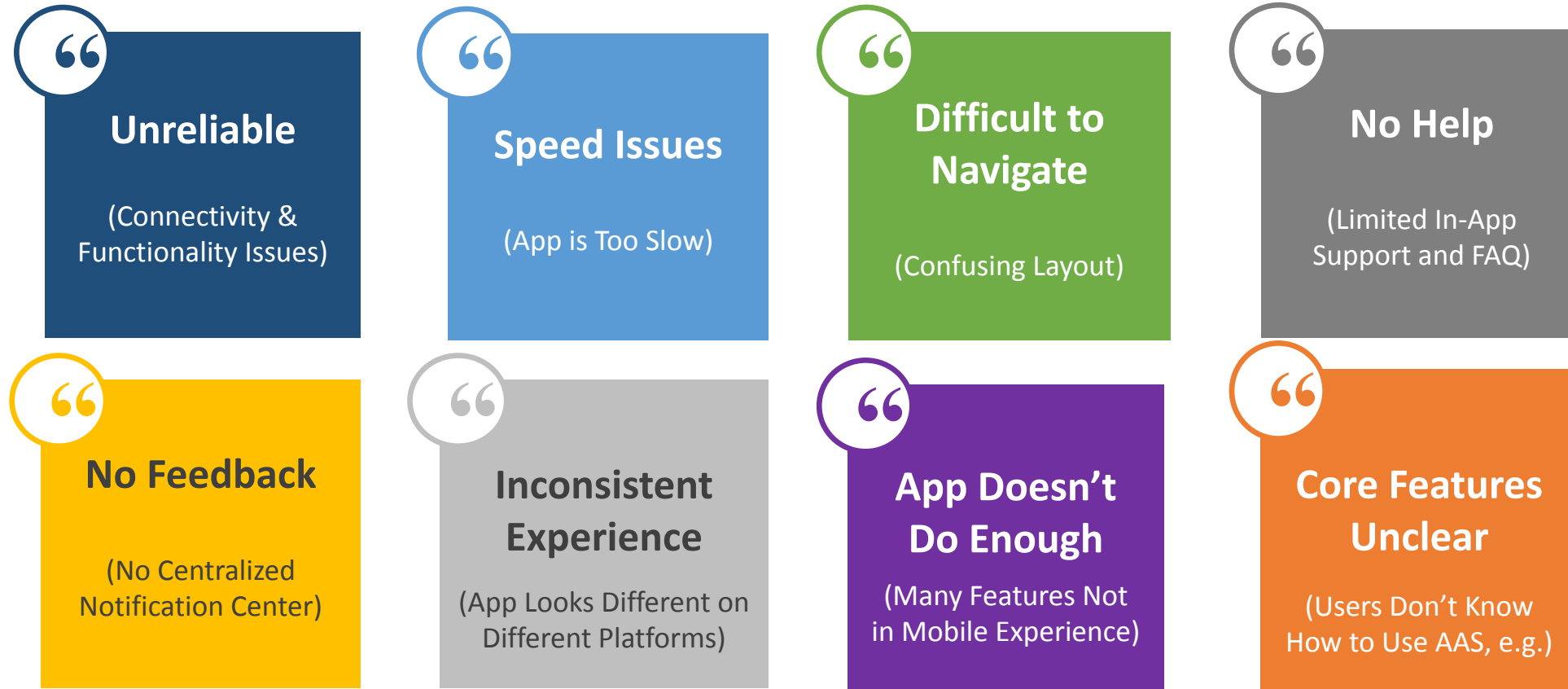


Pulse 8.0 Update

PRESENTED BY THE PRODUCT & INNOVATION
PLATFORMS & SERVICES TEAM

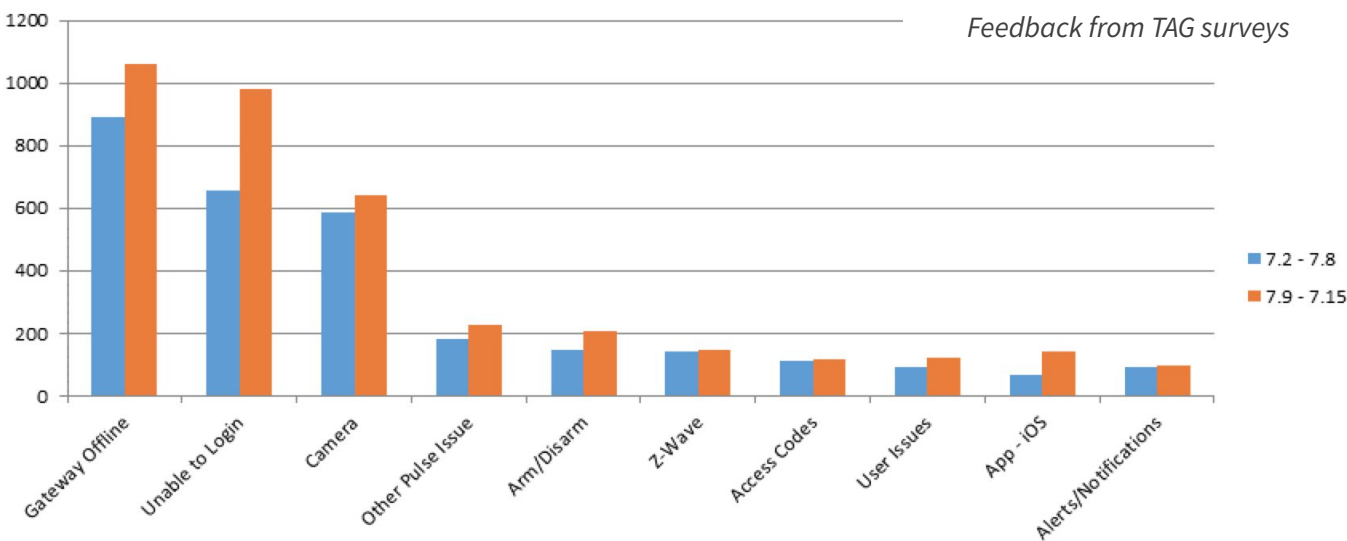
Pulse Today

- ADT Pulse app feedback collected from internal & external sources
- Key pain points that emerged from feedback sources:





Top Pulse Pain Points

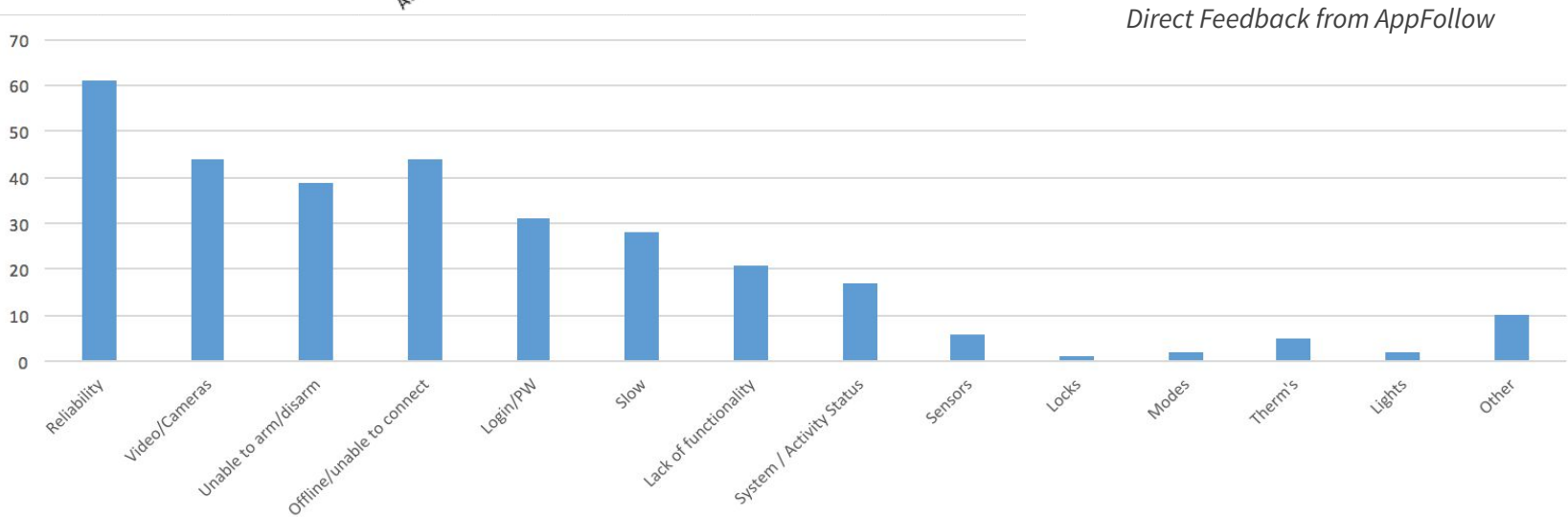


“
Unreliable

(Connectivity & Functionality Issues)

“Unreliable” includes:

- Gateway offline
- Login issues
- Camera issues
- Arm/disarm issues



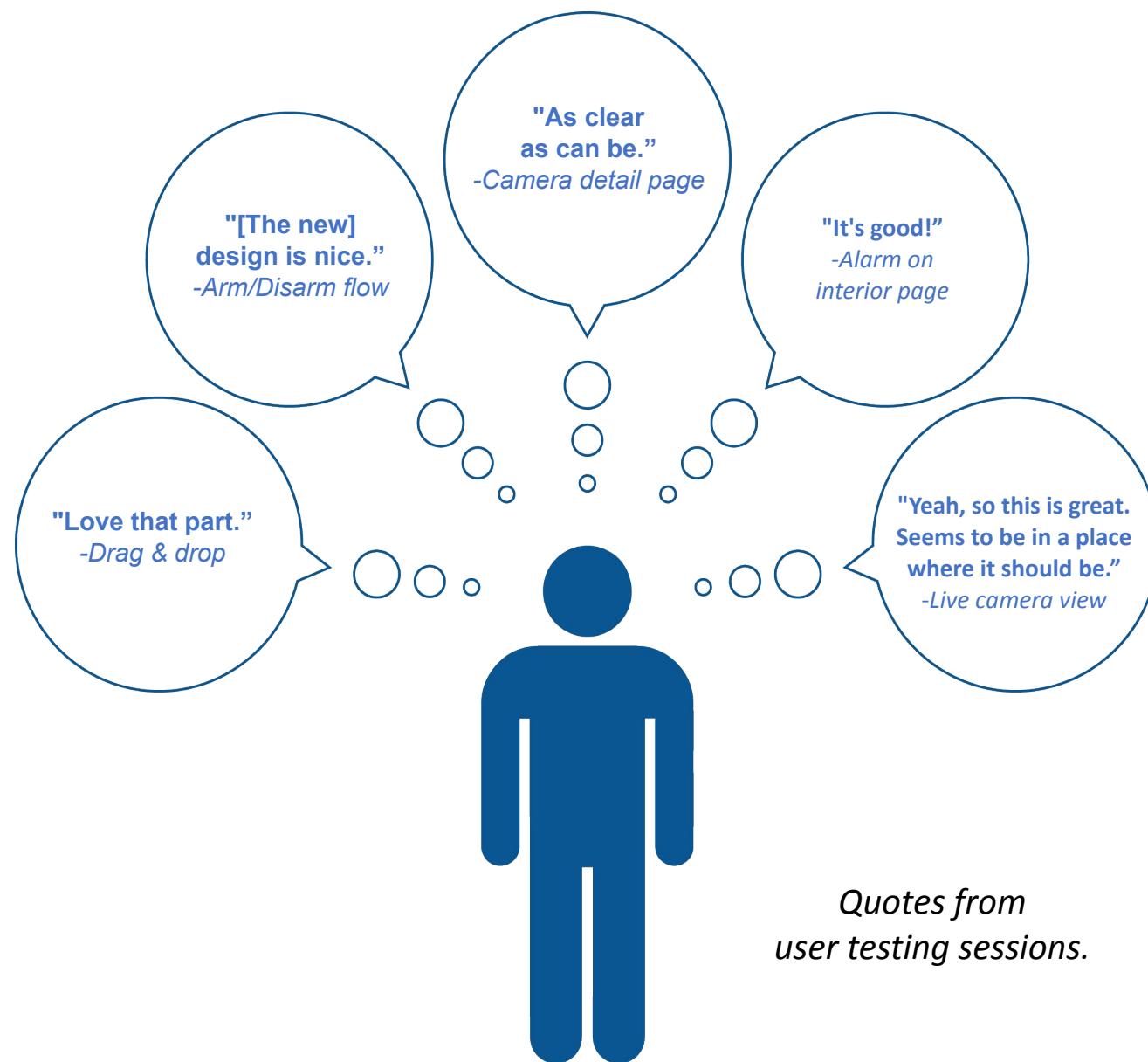
Pulse 8.0 Goals & Objectives

- Mobile enhancements will address key pain points including:
 - Improved login times
 - Application performance
 - Camera loading issues
 - 3D Home View
 - Tier-specific customizable mobile dashboard
 - Reskinned web portal
- New partner integrations (Echo and IF) coupled with a new UI will move the needle for Pulse and generate market excitement.
 - Ability to integrate products that are interoperable can position ADT as a critical piece in the HS&A space as it continues to evolve.
 - Customers want the ability to manage their security and lifestyle needs based on individual preferences.



Design Principles

- We place the customer at the center of every decision.
- Redesign is focused on addressing customer reported pain points.
- Feedback cycles are regularly conducted either formally or informally.
- All to improve the customer experience, customer satisfaction and the bottom line.



THE PROBLEM

- Users are experiencing issues where the app is consistently offline, sometimes after updates.
- Users often can't perform core functionality such as arm/disarm.
- Users report devices going offline frequently and can't make use of "smart home" features they're paying for.

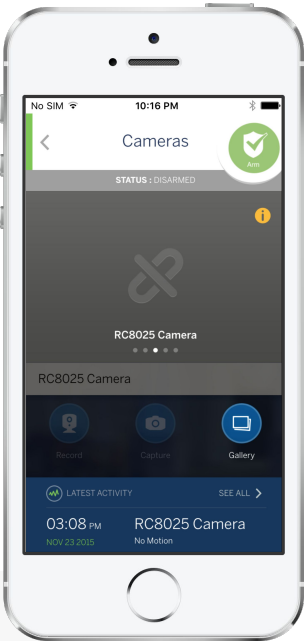
Example:



Offline

Nothing works after update. Says system offline and no activity detected. Please try back shortly. Touch inputs are lagging and some dont work at all. Completely useless now.

-Jason, Google Play



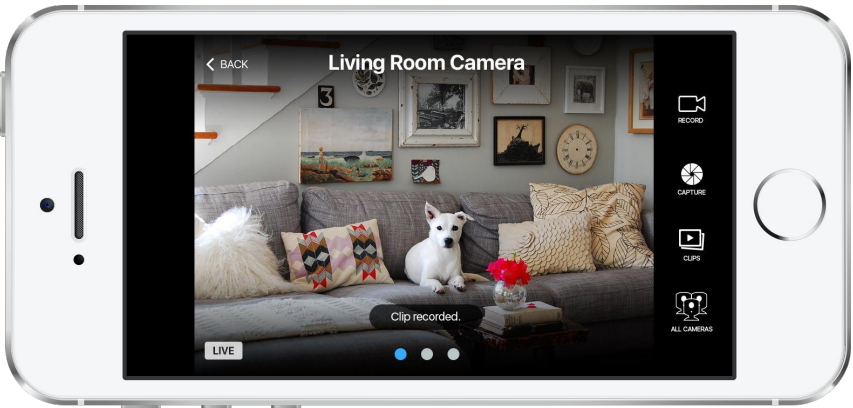
THE SOLUTION

- Redesigning the app natively will help both performance and reliability issues.
- Starting with clean code will help eliminate known bugs that contribute to errors and disconnection problems.
- Using Icontrol's new Render Ready API (RRA) will provide more stability and better use of core functionality.

“

Unreliable

(Connectivity & Functionality Issues)



THE PROBLEM

- Users report that the app is way too slow.
- Areas where speed is an issue include login, camera loading, arm/disarm and communication with life safety devices.

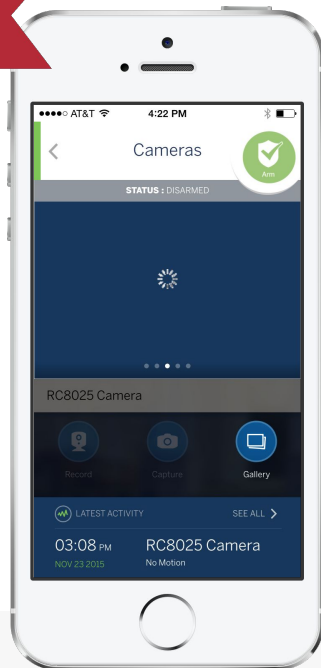
Example:



Slow login process

The worst part is the first part...it takes extremely too long to log in...that's if it logs in. Sometimes it just spins and I have to run to the manual keypad. Even with the passcode set up, it takes 20-30 seconds to load most of the time. Fix the load time and it would be so much better.

-bladehopper82, App Store



THE SOLUTION

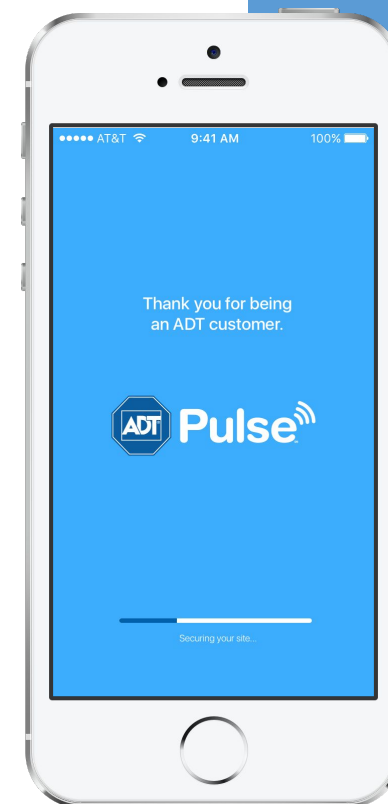
- Using iControl's new Render Ready API (RRA) provides much quicker login and communication to/from devices.
- Login speeds have been observed sub 3 seconds using RRA.
- Native design allows for snappier execution of commands.

iControl
NETWORKS

“

Speed Issues

(App is Too Slow)



THE PROBLEM

- Users complain that the flow of the app is not intuitive and too cumbersome to navigate.
- Core functionality takes too many clicks/taps to accomplish desired tasks.

Example:



Not user friendly

For Android, users have to go through a lot to open a notification. ie . When I get a surveillance notice on my camera I have to go through several [menus] just to get to the actual video clip it needs to be made a lot simpler

-Kevin, Google Play

THE SOLUTION

- Users will be able to do more, with fewer clicks using tiles on a dashboard that allow one-touch control.
- Frequently used functions will live in a persistent bottom navigation.
- Secondary functionality is being stored in a conventional menu drawer, access by the hamburger menu icon.

“
Difficult to
Navigate

(Confusing Layout)



THE PROBLEM

- The current Pulse experience provides very little in the way of customer support.
- Current efforts are limited to sending an email to customersupport@adt.com.

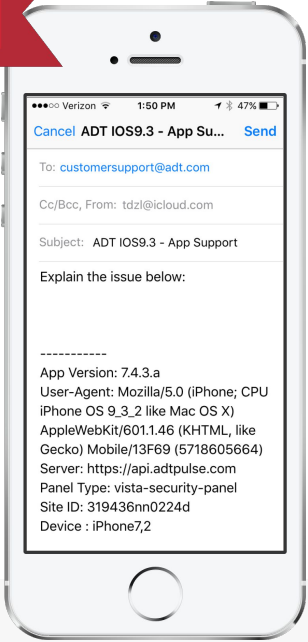
Examples:

★★★★★
No instructions, so be prepared to figure it out yourself.

-Dave, Google Play

★★★★★
Should be a way to contact customer service directly from the app.

-Dominique, Google Play



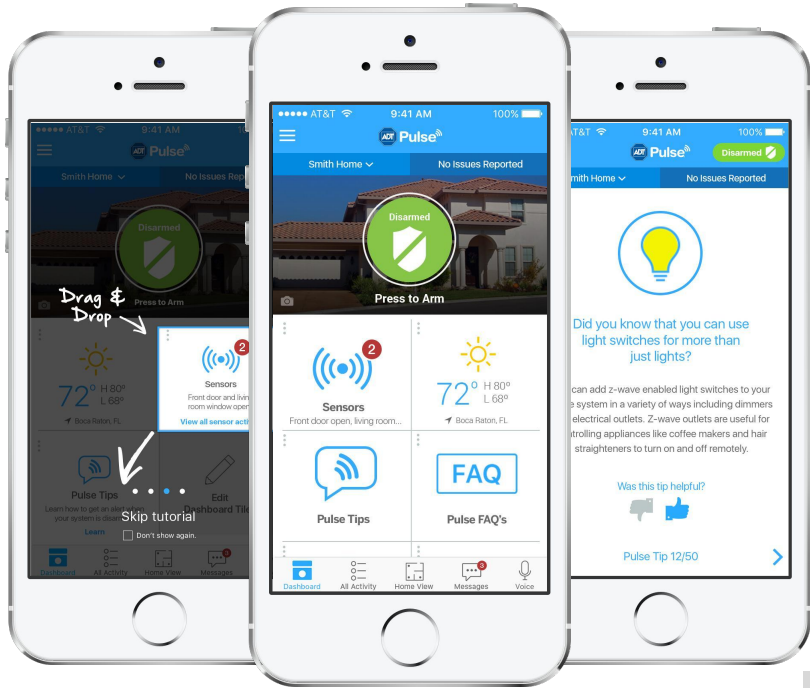
THE SOLUTION

- The new Pulse experience will feature several new ways for customers to get support, request assistance and learn more.
- A guided walkthrough will assist first-time users in using the new experience.
- Pulse will feature an FAQ's section with content pulled from the help sections on MyADT.com, adt.com (Genie) and adtpulse.com.
- Pulse Tips is also a new feature that will allow users to get quick tips on how to use the Pulse app and get more value from Pulse in general.

“

No Help

(Limited In-App Support and FAQ)



THE PROBLEM

- Users have no way to collect and save important messages in Pulse.
- ADT has limited methods to get important messages across to Pulse users in a way that encourages engagement.

Example:



No notifications?! How in the world can a company as big as ADT not have a good app?! No notifications? Is that a joke? Even crappy Monitronics has notifications. Get it together please and thanks.

-Crash1017, App Store

THE SOLUTION

- A new messages feature in the Pulse app will encourage engagement from users to view important messages, allowing them to save or dismiss as desired.
- ADT can send messages to customers through this feature as another method of sharing important information.
- Provides a temporary stopgap until Push notifications are available.

“
No Feedback

(No Centralized Notification Center)



THE PROBLEM

- The current hybrid HTML5 app renders elements differently across the iOS and Android platforms causing more work for development teams to fix.
- Inconsistencies across platforms are bad for the user experience because they create confusion and frustration.



1-50 of 314

T	Key	Summary	Assignee	Reporter	P
	PUL-430	Beta 3 Malfunction status message text is not consistent in android and IOS devices.	Essentel Support (Inactive)	Arya Gaurav	
	PUL-851	Inconsistency in display of time stamp on Android and IOS devices.	Chethan Subba Rao	Chethan Subba Rao	
	PUL-419	Beta 4 GDC's "Sensor trouble" status is displaying as 'Locked Out' on android and IOS devices	Arya Gaurav	Arya Gaurav	
	PUL-258	Beta 4 Current status text of GDC is not displaying on detail screen for IOS and Android phones	Chethan Subba Rao	Arya Gaurav	
	PUL-2515	App v7.4.3.a_Beta1 Session time out inconsistency between Android and IOS	Unassigned	Rajiv Singh	
	PUL-1747	7.4.0.C & D Option for removing NEST thermostat is missing in IOS & android devices.	Priyanka Nandiraju	Chethan Subba Rao	

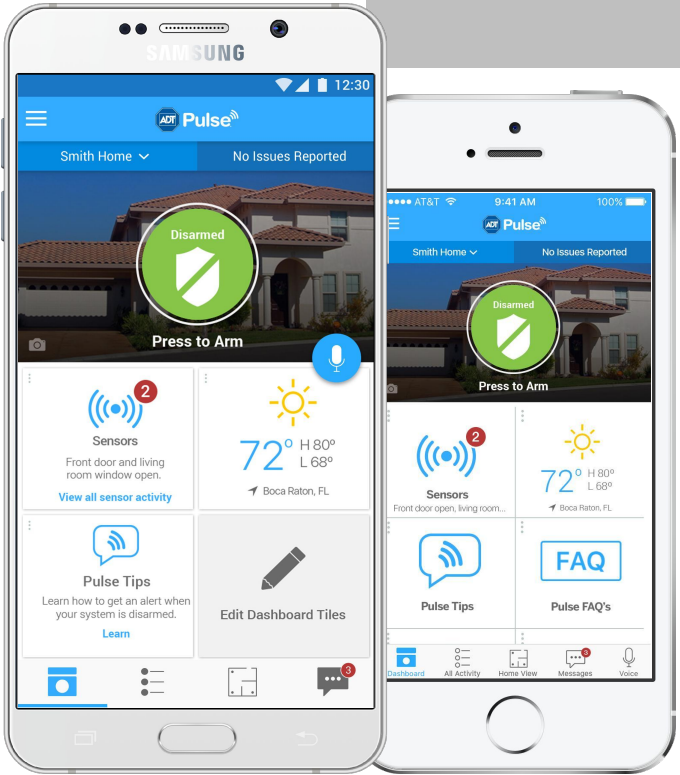
THE SOLUTION

- Redesigning the app natively bypasses platform-related bugs and allow development teams to work more efficiently.
- Making use of the strengths and weakness of each platform, UX can make better use familiar design patterns specific to each platform using Google's Material Design (Android) and Apple's Human Interaction Guidelines (iOS).

“

Inconsistent Experience

(App Looks Different on Different Platforms)





THE PROBLEM

- Users report frustration in not being able to perform many of the functions that exist only in the web portal today.

Examples:



When is the ADT partnership with IFTTT going to produce some results? Automation is what we want! There is no reason why I shouldn't be to activate/deactivate alarm with my voice both on phone and Apple Watch if I have Pulse. Also you need Apple Watch App!!!

-Michael, App Store



Pretty good. Could use a few things Wish I could bypass zones in the app. Id like more functions that I can do on the keypad, on the app

-Tyler, Google Play

THE SOLUTION

- Making use of the new RRA API from Icontrol will provide access to new functionality that doesn't currently exist in the Pulse mobile client.
- Moving from our custom branch to main trunk will provide quicker access to current Icontrol features more quickly.
- Integration with IFTTT and Amazon Echo will extend the functionality of Pulse and provide shortcuts to features not yet developed internally.

“

App Doesn't Do Enough

(Many Features Not in Mobile Experience)



THE PROBLEM

- Low adoption rates of features like Modes, Home View, Alerts, Automations and Schedules show that users don't understand the power of this functionality.
- Collected a great deal of feedback from UX Testing that users never use Modes, and rarely use AAS or Home View due to poor understanding of the features or setup.

Example:

Issue with Home View is most customers are not taught how to use by the techs (not that it's their responsibility) so most customers don't set it up.

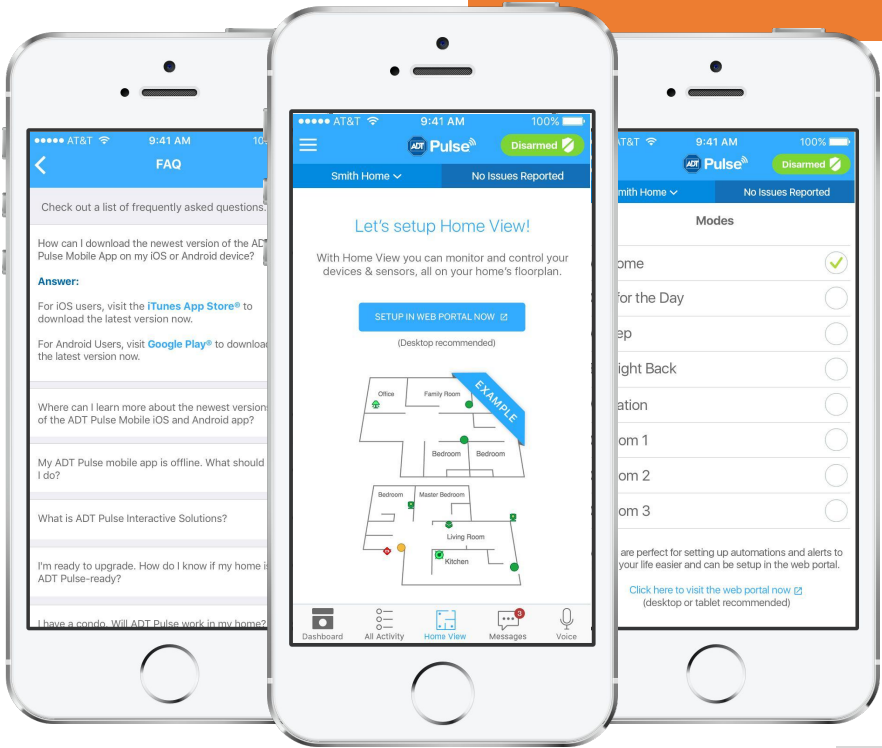
-Jay Codrington, Chatter

THE SOLUTION

- The new UX will include lots more education on how to use and configure core features.
- The Settings area will include FAQ's and a Pulse Tips tile will educate the customers.
- In-app educational elements will instruct users how to configure various features.

“
Core Features Unclear

(Users Don't Know How to Use AAS, e.g.)



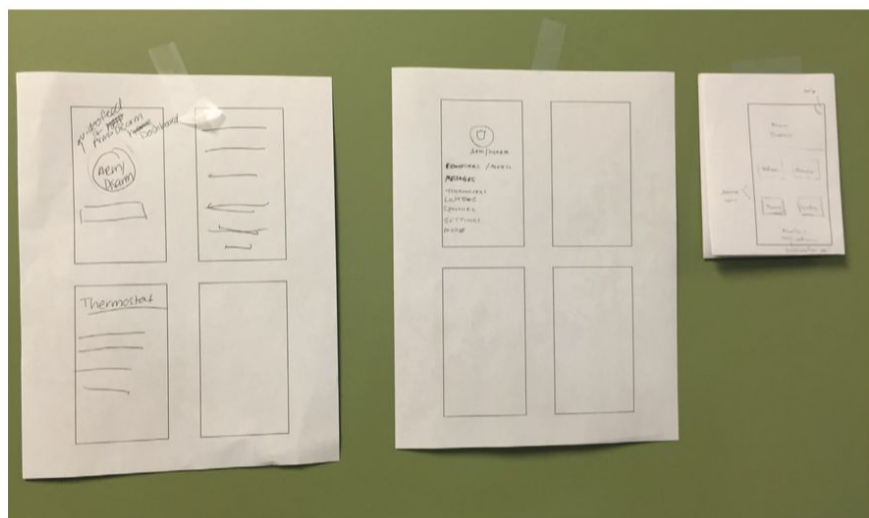
Testing Tools & Resources

- Previous approaches and methodologies have been corrected.
- Historically ADT relied on 3rd party vendors throughout the design process:
 - Under Icontrol the mobile app had a heavy emphasis on automation features not security/safety.
 - Under Sapient and Essentel minimal user testing was conducted prior to the app deployment.
- New internal team is focused on safety and security at the core of the mobile experience.
 - Using familiar interaction patterns and native functionality to create the best customer experience.
 - Industry best practices have been implemented into the mobile design process.
 - New mobile designs have been presented to hundreds of users via a variety of platforms to collect feedback from numerous sources .

Testing Tools & Resources

The following tools have been utilized throughout the design process to deliver the best customer experience:

Pulse User Workshops



Feedback Wall Boca Product and Innovation Area



More information: <https://moonracer.pithoslabs.com:8444/display/Orion/Pulse+Mobile+App>

Testing Tools & Resources

The following tools have been utilized throughout the design process to deliver the best customer experience:

Chatter Surveys, Pulse User Group, Google Forms

Bergen Davell

As we continue to enhance the ADT Pulse mobile experience, we are looking for feedback on what direction we should take with the iPad/Tablet designs.

Check out the link below and VOTE for your favorite tablet design:
<http://j8rcww.axshare.com>

NOTE - there is a design for Tiers 1-3 for each design, scroll to the right to see the design for each Tier.

A

12 (16%)

B

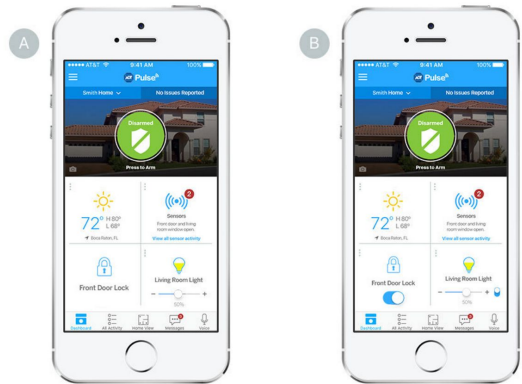
15 (20%)

C

47 (64%)

74 votes · Refresh · Change vote

Dashboard:



4. In the image above, which dashboard design do you prefer? *
Mark only one oval.

☐ Option A

☐ Option B

How often do you use ADT Pulse mobile app to adjust your thermostat?

☐ Every day

☐ A few times a week

☐ A few times a month

☐ Never

How often do you use the History/Schedule for thermostats?

☐ Every day

☐ A few times a week

☐ A few times a month

☐ Never

	ADT Pulse	ADT Pulse	ADT Pulse	ADT Pulse	ADT Pulse
Thermostat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alarm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Door Lock	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lighting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

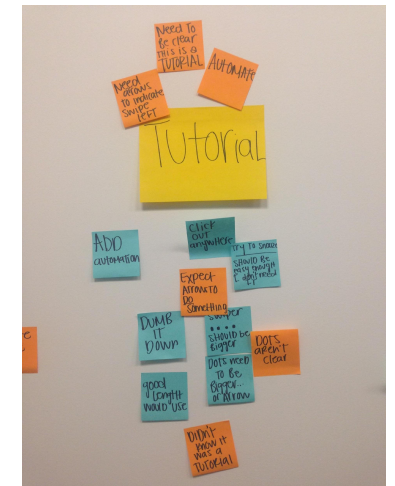
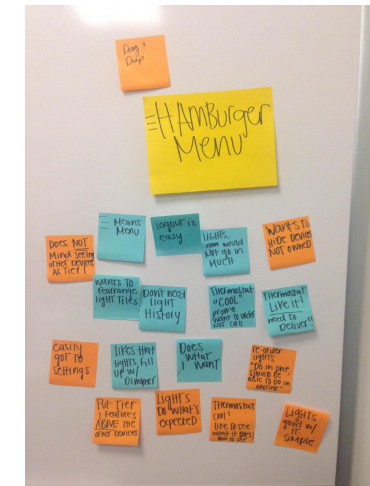
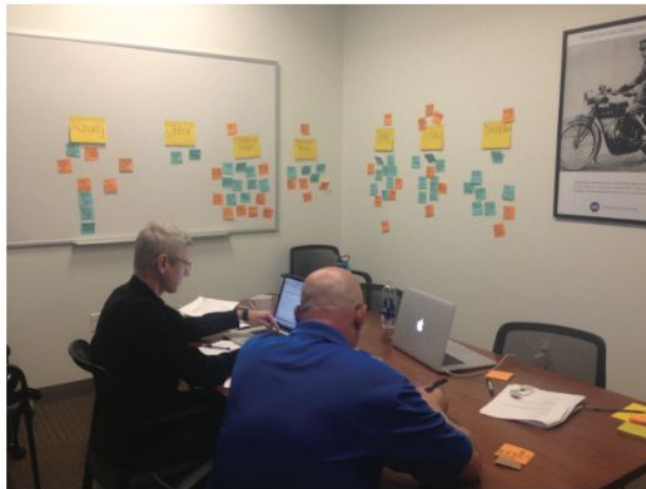
Surveys distributed on the following topics:

- Dashboard layout
- Thermostat designs
- Tablet usage
- Alerts, Automations and Schedules Usage

More information: <https://moonracer.pithoslabs.com:8444/display/Orion/Pulse+Mobile+App>

Testing Tools & Resources

- **Prototype Assisted UX Testing**
 - **Round 1** (4/14/16)
 - Objectives: Gather feedback on the onboarding experience, new tile dashboard design, hamburger menu, arm/disarm and other features
 - **Round 2** (5/12/16)
 - Objective: Gather feedback on pre-email messaging, tutorial walk-through, new tile dashboard design, edit dashboard and video pages, hamburger menu, filters and activity pages and other features
 - **Round 3** (7/17/16)
 - Objectives: Gather feedback on Modes, Sensors, Cameras, Alert Error messaging and Thermostats

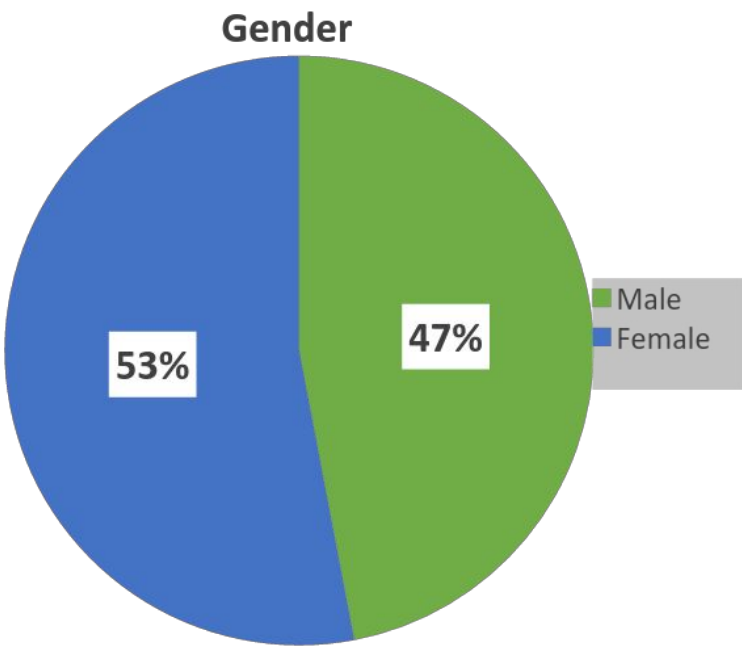


Additional detail can be found at: <https://moonracer.pithoslabs.com:8444/display/Orion/Usability+Testing+Resources>

Testing Tools & Resources By the Numbers

(Formal UX Testing Sessions)

Participants	Avg. Age	Avg. Tenure
17	43.6	1.7



Notable Quotations

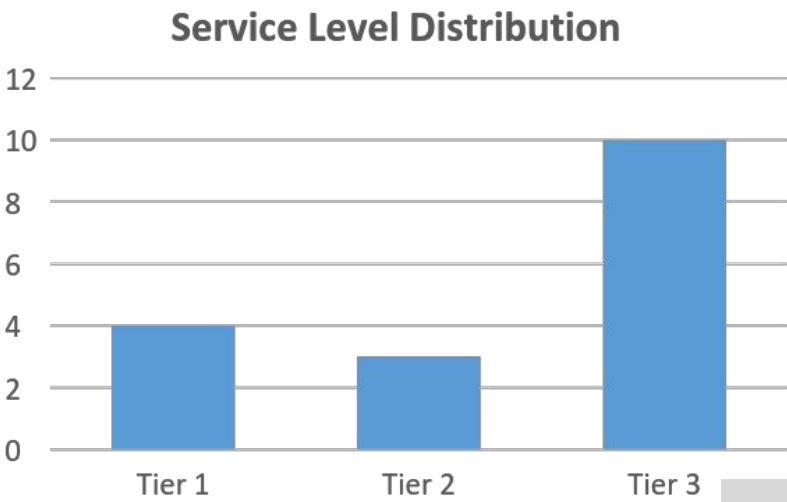
- "If I went into Pulse one day and the interface was different, I would be happy if it was a cleaner, more intuitive design."**
—On overall sentiment

"The flow is great, "Very easy."
—On alarm on interior page

"The process was clear."
—On false alarm flow
- "Aces! Works exactly as expected."**
—On drag & drop

"That's cool. Like that I can see what it does and how I can get it."
—On thermostat marketing page

"A great example of why i hate my pulse app."
—On Cameras not loading in current app





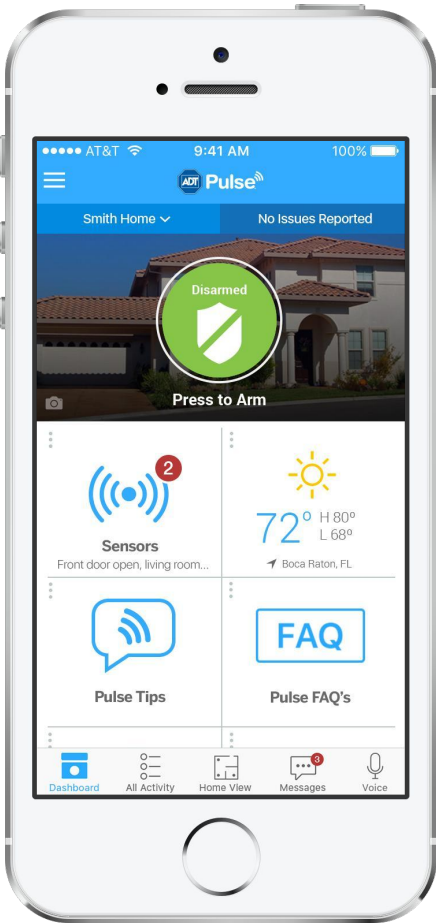
Usability Scoring

System	Score /Theme	Questions
<p>We use:</p> <ul style="list-style-type: none">• System Usability Scale (SUS)• Industry standard that’s reliable and a proven method for measuring usability• Consists of 10 item questionnaire with Likert Scale responses; e.g. Strongly agree etc.• Use to evaluate hardware, software, mobile devices, websites and applications.• 68 would be considered above average and anything below 68 is below average	<p>Round 1 (Apr)</p> <p>65</p> <p>Consolidate Pages</p> <p>Round 2 (May)</p> <p>75</p> <p>Simplify Steps</p> <p>Round 3 (Jul)</p> <p>92</p> <p>Clarify Language</p>	<ol style="list-style-type: none">1. I think that I would like to use this system frequently.2. I found the system unnecessarily complex.3. I thought the system was easy to use.4. I think that I would need the support of a technical person to be able to use this system.5. I found the various functions in this system were well integrated.6. I thought there was too much inconsistency in this system.7. I would imagine that most people would learn to use this system very quickly.8. I found the system very cumbersome to use.9. I felt very confident using the system.10. I needed to learn a lot of things before I could get going with this system.

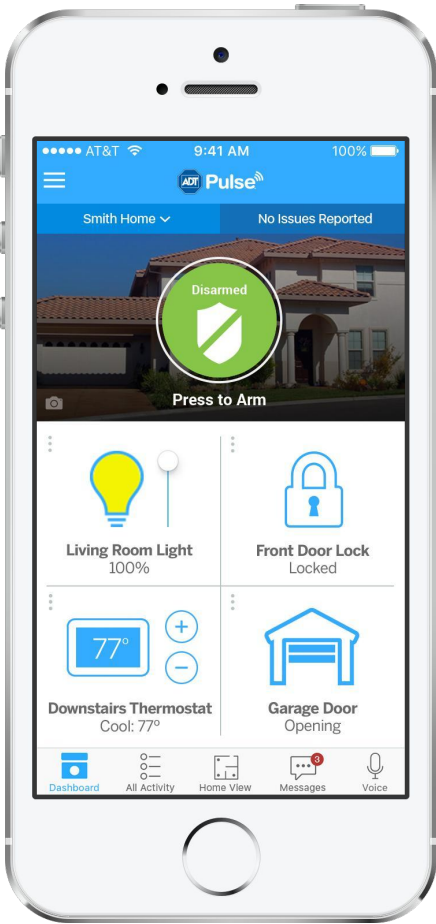
Design Comps



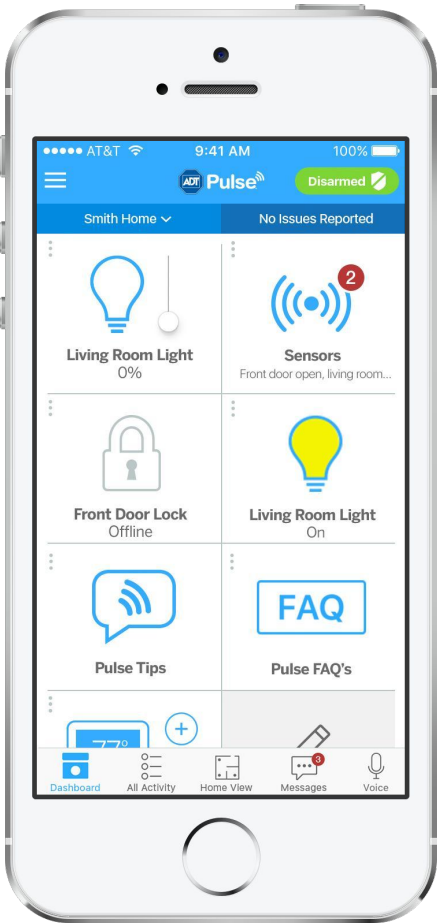
Dashboard



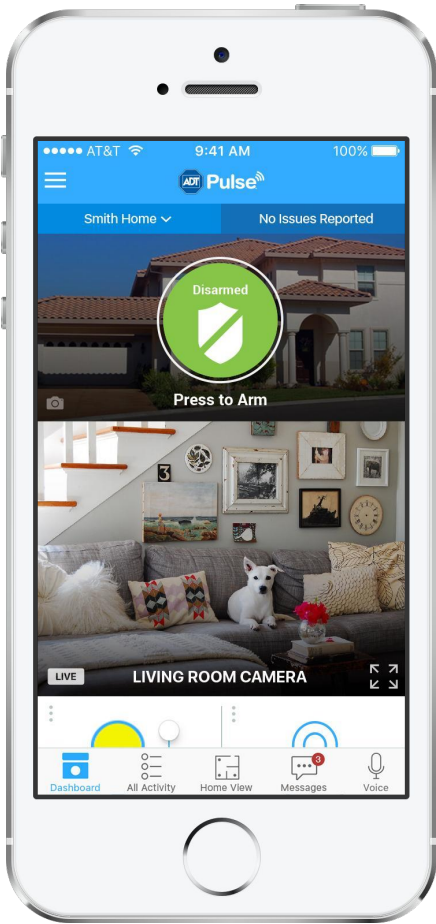
Tier 1



Tier 2

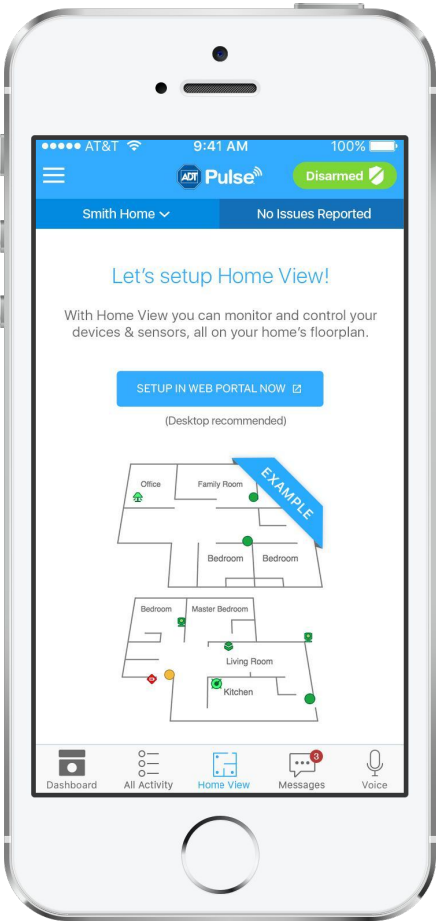


Tier 2 (scrolled view)



Tier 3

Home View

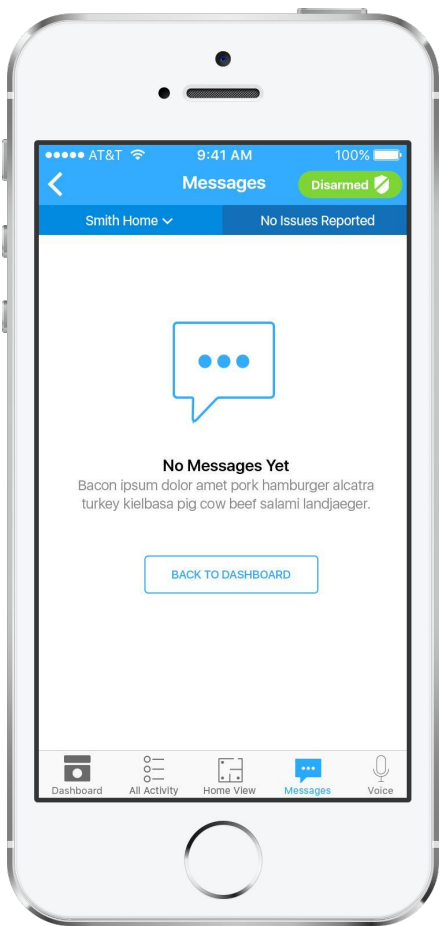


Home View Not Configured

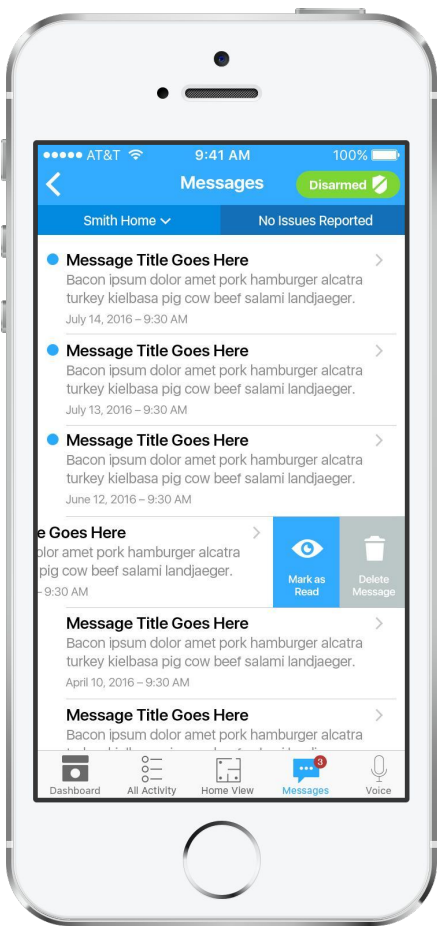


Home View

Messages



No Messages Yet

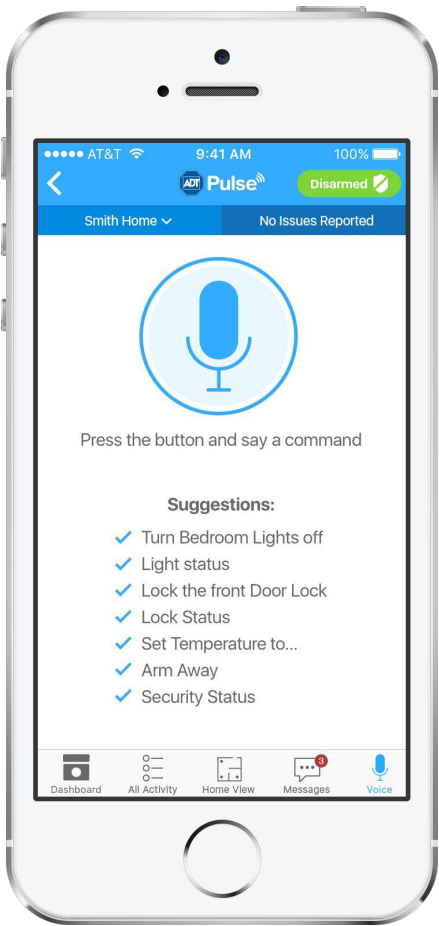


Messages Inbox View

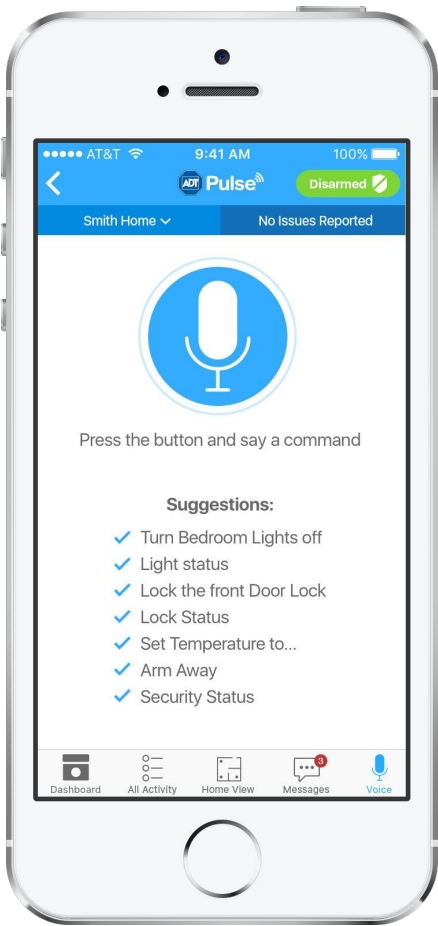


Message Detail View

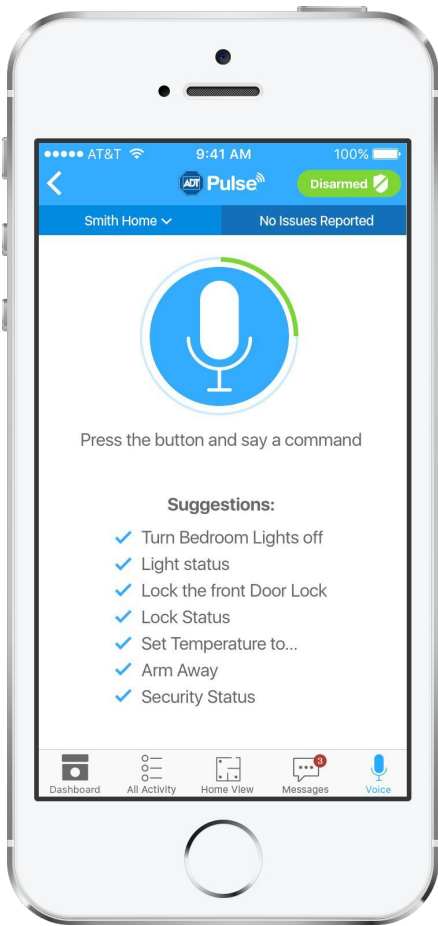
Voice



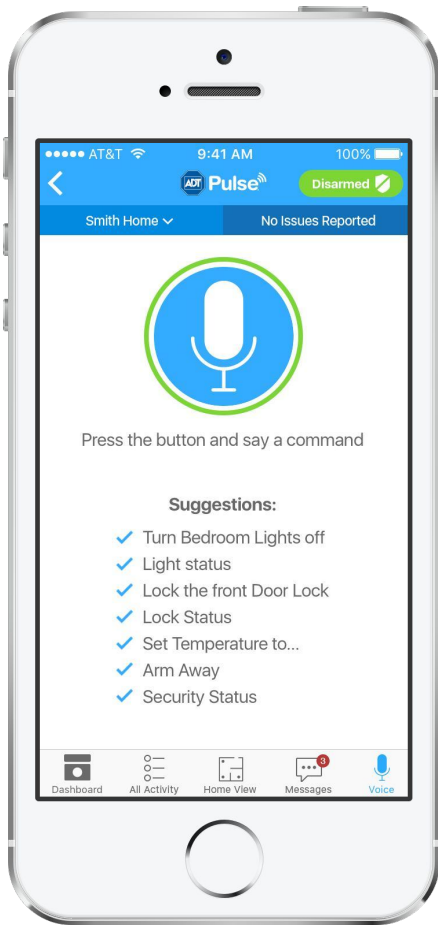
Default State



Pressed State

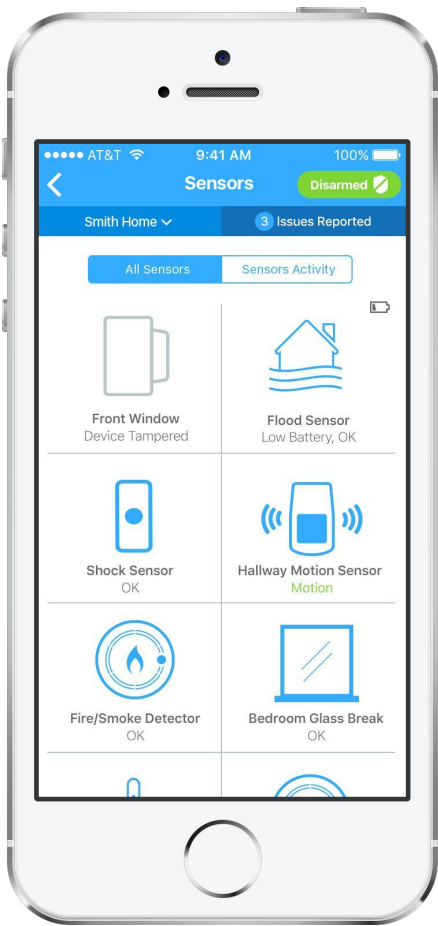


In Progress

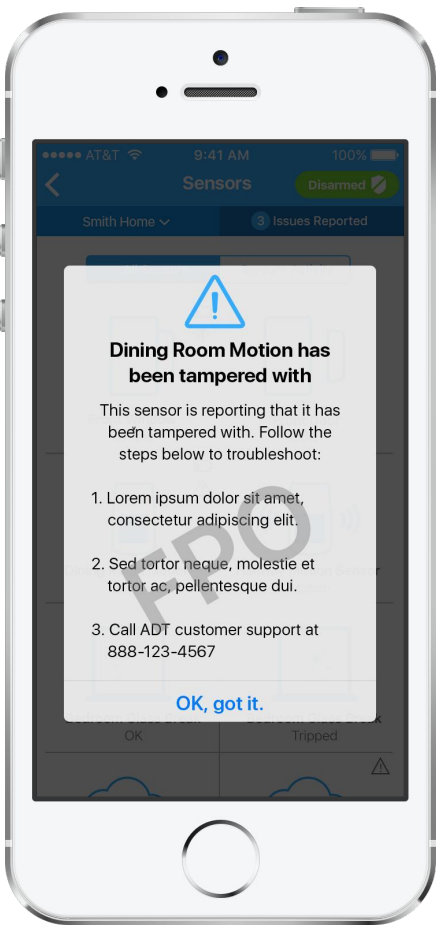


Complete

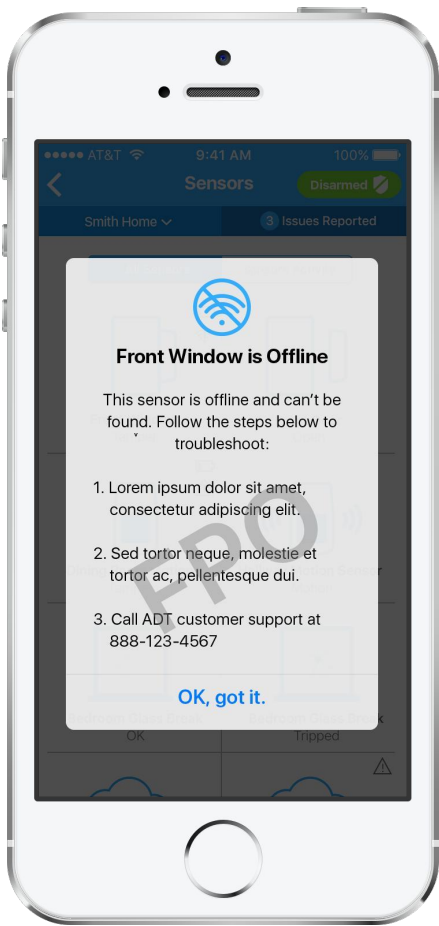
Sensors



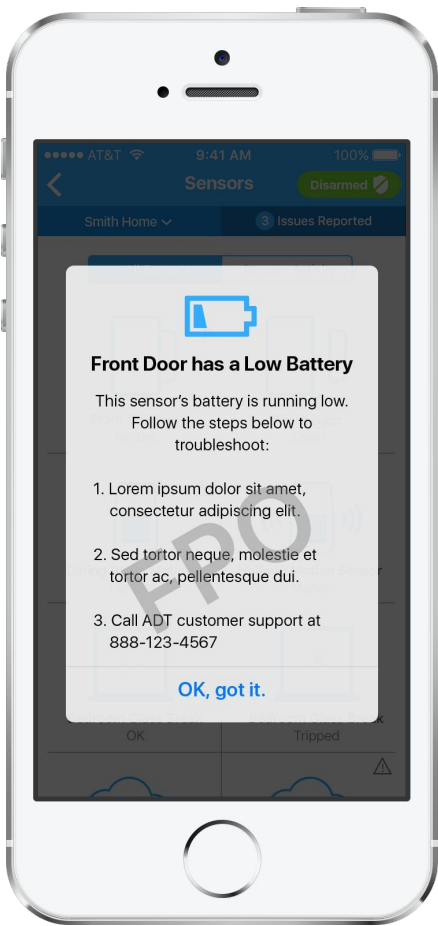
Sensors Detail Page



Tamper Modal

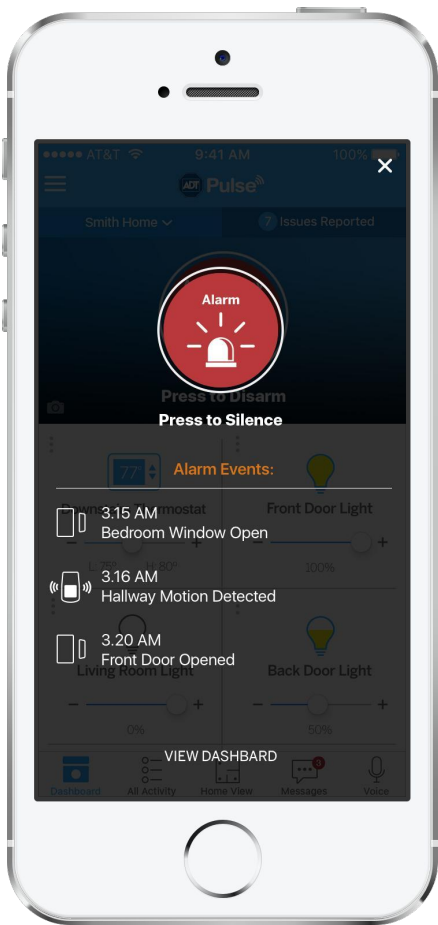


Offline Modal

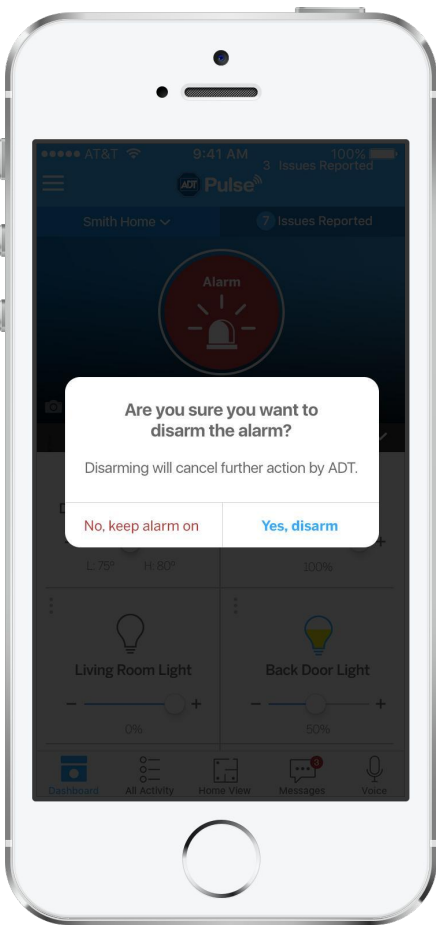


Low Battery Modal

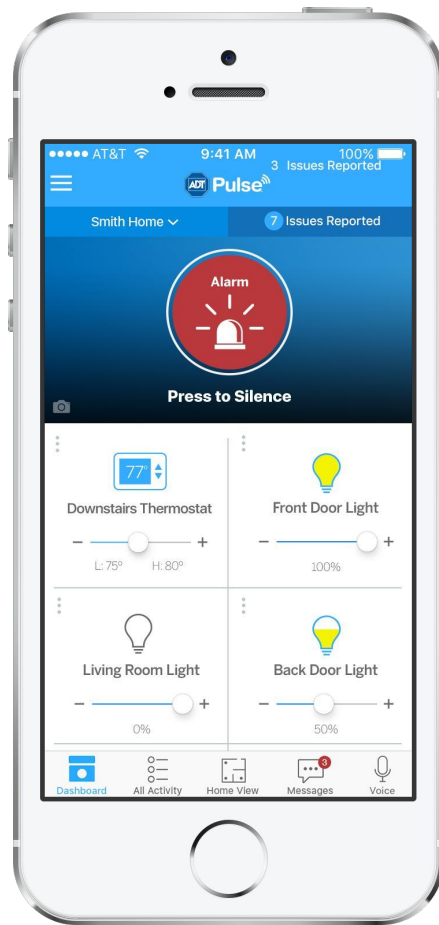
Alarm Flows



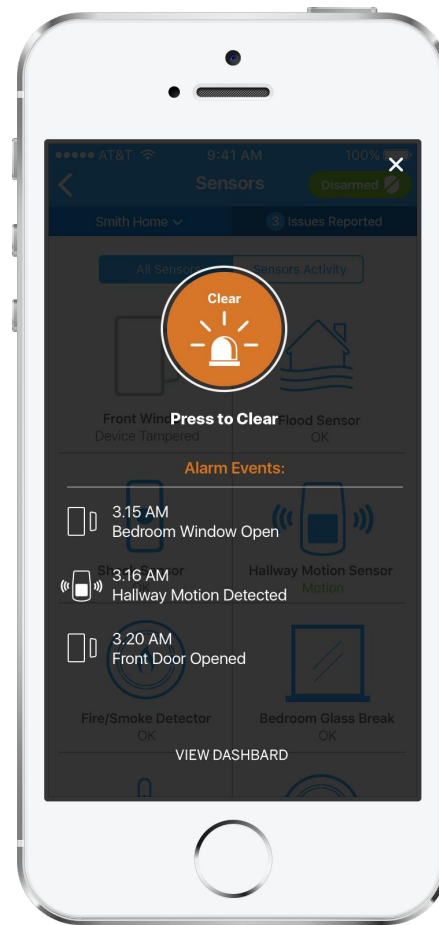
Alarm Takeover



Alarm Disarm Confirmation

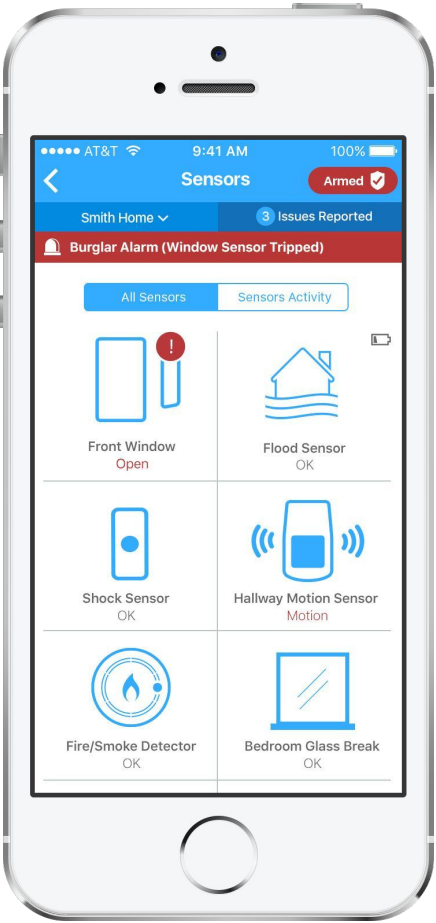


Alarm Orb on Dashboard

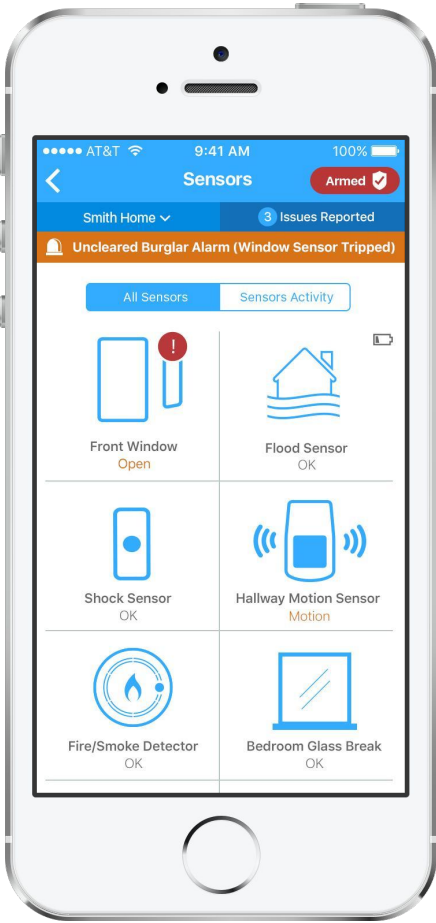


Uncleared Alarm State

Alarm Flows (continued)

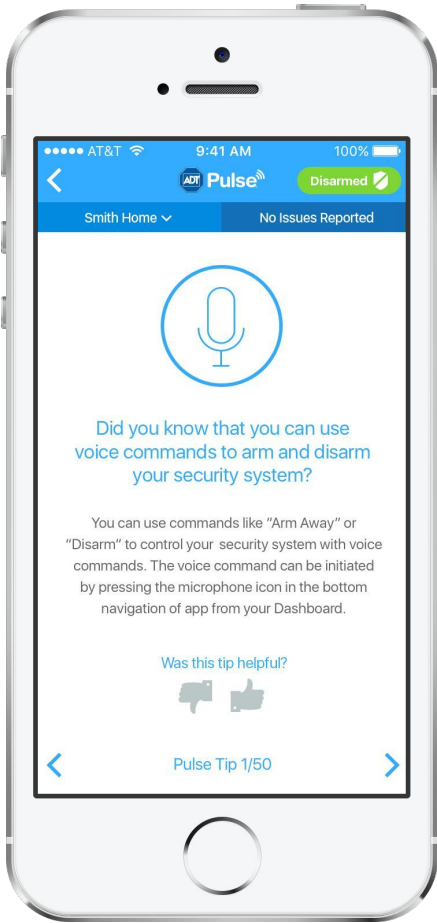


Scrolled / Internal Alarm View

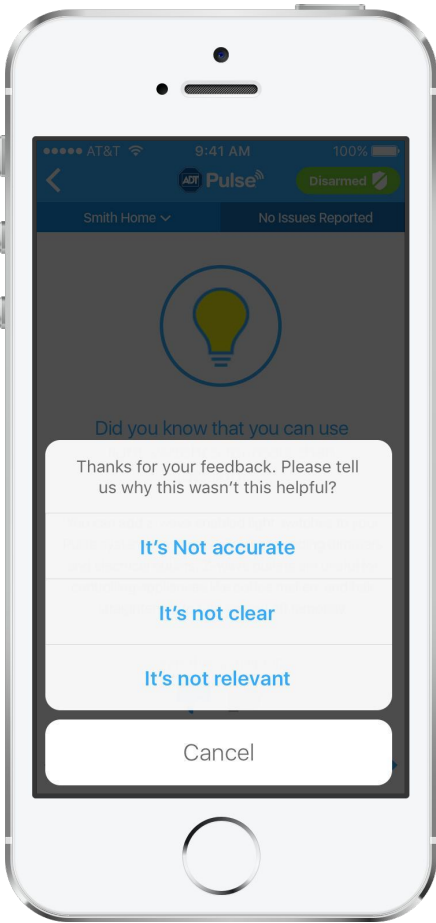


Scrolled / Internal Uncleared Alarm View

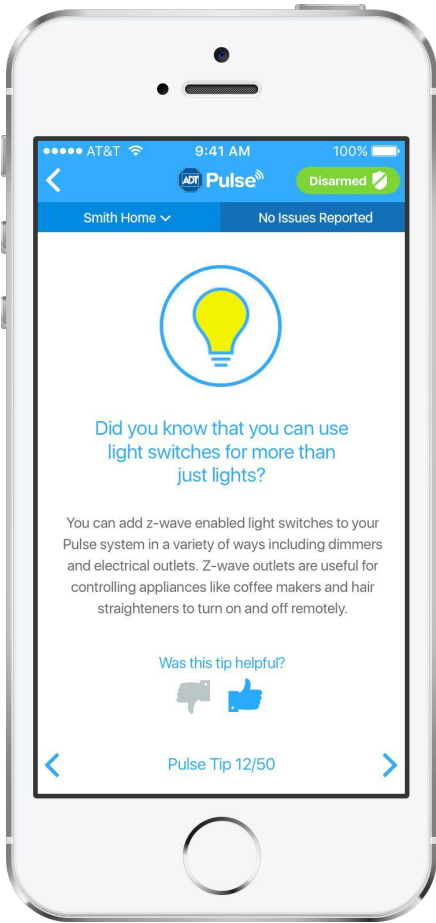
Pulse Tips



Pulse Tips example



"Not helpful" actions



Helpful selected

Amazon Echo Integration

Proposed commands for Pulse / Echo launch

“Alexa, tell ADT to.....”

Turn on my lights.

Lock my front door.

Arm Stay.

Set my AC to 72 degrees.



Dim my lights.

Close my garage door.

Arm Away.

Set my heat to 70 degrees.



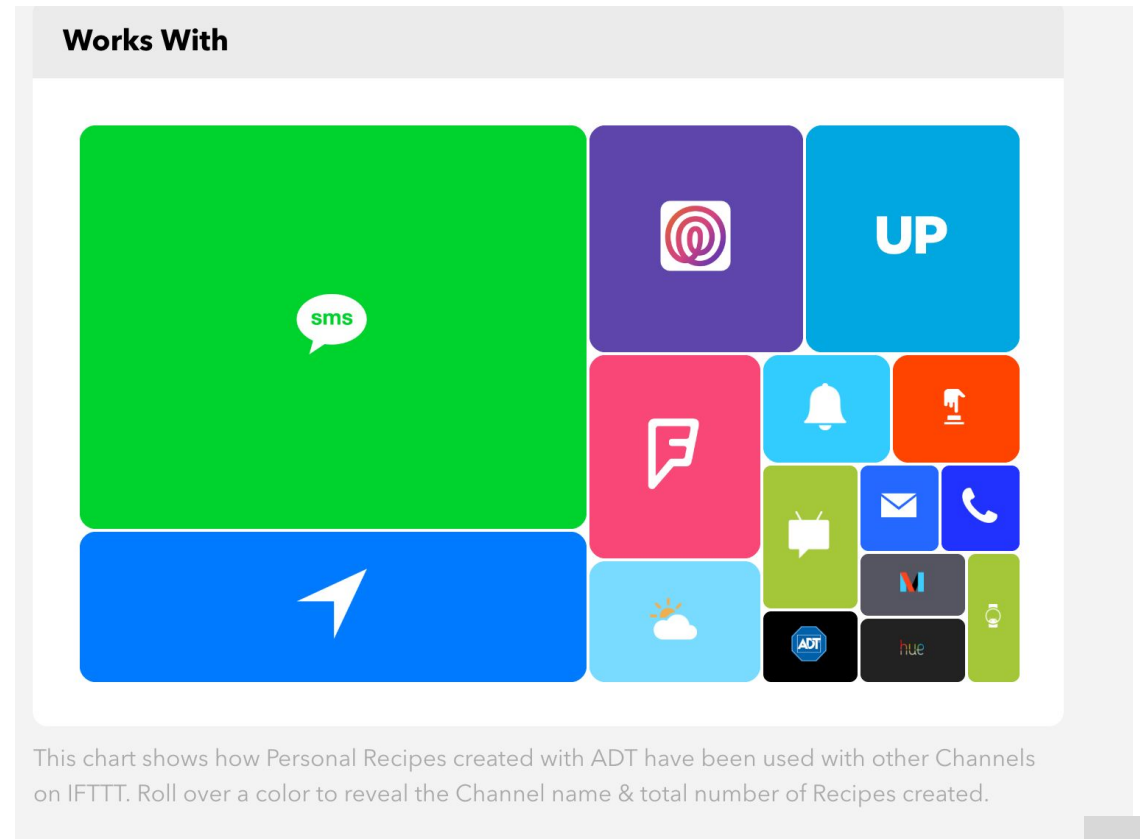
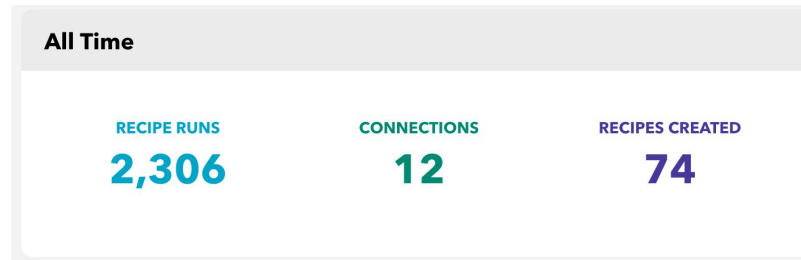
**App Doesn't
Do Enough**

(Many Features Not
in Mobile Experience)

Why IF?

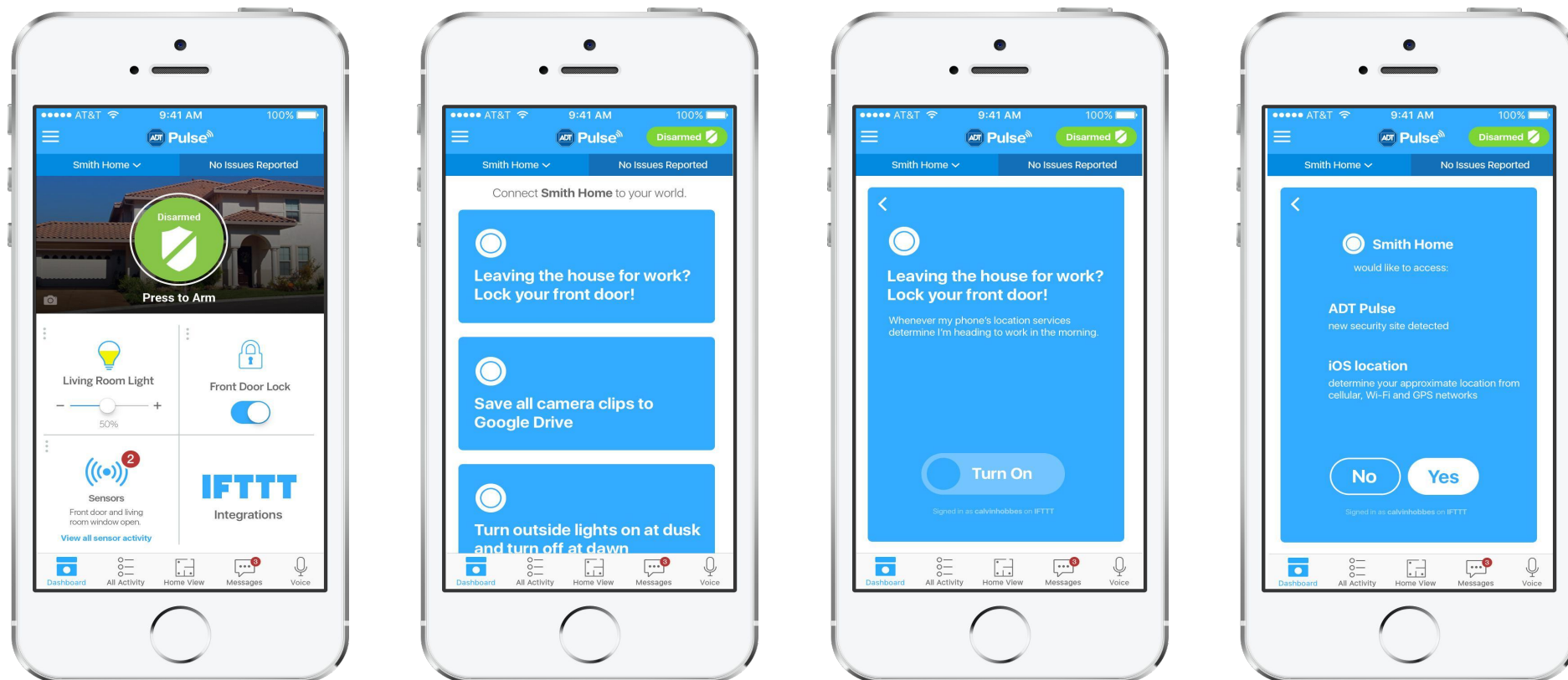
- Integration with IF addresses customer feedback that the Pulse app “Doesn’t do enough.”
- An ADT Pulse Channel allows us to use the IF platform as a sandbox to have a larger scale dialogue with our customers.
- With IF, ADT can more rapidly expand the number of peripheral and automations that can interoperate with Pulse than doing one off integrations.
- Channel usage will drive decisions around future Pulse mobile integrations.

App Doesn’t Do Enough
(Many Features Not in Mobile Experience)



IF Applet Integration

- Applets give ADT the ability to bring IFTTT features into the native Pulse mobile app experience.
- A seamless, in-app sign-up flow will increase usage of the ADT IF Channel.
- Initial recommended recipes will provide value to all Pulse tiers.



Pulse 8.0

Rewriting Pulse natively for iOS and Android will address key areas of negative feedback identified:

“

Speed Issues

- Speedier load times
- Render Ready API
- Better navigation

“

Unreliable

- Eliminate bugs with a fresh start and solid foundation.
- Make use of newer API from Icontrol

“

Difficult to Navigate

- User-centered design
- Quick access to core functionality
- Design patterns
- Better UX
- Simpler UI

“

No Help

- More FAQs
- In-app support
- Tutorials and guides

“

No Feedback

- New message tray
- Better communication to and from users

“

Inconsistent Experience

- Defined design principles
- Adherence to native design standards
- Best practices

“

App Doesn't Do Enough

- Quicker access to features
- Access to more features at-a-glance
- Integration with partners to extend functionality

“

Core Features Unclear

- Guided walk-throughs and tutorials
- In-app education
- Intuitive design

Pulse 8.0 Goals & Objectives

- Partnering with cross-functional teams is critical to the overall success of Pulse.
- The Product team is taking a holistic approach in order to:
 - Increase customer satisfaction
 - Increase Pulse usage



Next Steps

- Review with CMO and Digital leadership
- Round 4 of Usability Testing with non-employee Pulse customers
 - 6 participants total
 - 2 users per tier
 - Diverse age range, income and tech-savviness
- Gather additional external customer input and feedback
 - Probe users in-app for sentiment, segment response and provide conditional courses of action
 - Offer help and support options to frustrated customers
 - Request user feedback to improve customer experience
 - Encourage delighted users to leave feedback on appropriate app store
- Launch Plan (tentative)
 - Phase I: Create ADT Alpha Dogs Group (September)
 - Phase II: Pulse 8.0 App Alpha Test (October)
 - Phase III: Pulse 8.0 App Beta Test (November – December)
 - Phase IV: Launch Day (Early January, in time for CES)
- Continue to add features, functionality and UX improvements post-MVP with regular cadence of user-centered testing

Thank you.



Appendix: What is SUS

The System Usability Scale (SUS) was invented by John Brooke who, in 1986, created this ‘quick and dirty’ usability scale to evaluate practically any kind of system.

The SUS has been tried and tested throughout almost 30 years of use, and has proven itself to be a dependable method of evaluating the usability.

A study conducted by Bangor, Kortum, and Miller (2008) described the results of 2,324 SUS surveys from 206 usability tests collected over a ten year period. In that study, it was found that the SUS was highly reliable ($\alpha = 0.91$) and useful over a wide range of interface types.

The System Usability Scale is not **diagnostic and will not tell you what specific problems you face**, but it will give you a red or green light to know how badly your usability needs work and how difficult it is to learn.

Score Breakdown:

- 80.3 or higher is an A. People love your site and will recommend it to their friends (pseudo-NPS rating)
- 68 or thereabouts gets you a C. You’re doing OK but could improve
- 51 or under gets you a big fat F. Make usability your priority now and fix this fast.

If a project goal is to be quantitative then 20 users is a good representation of the target audience. When you see several people being stumped by the same design element, you don't really need to know *how much* the users are being delayed. If it's hurting users, change it or get rid of it.

You can usually run a qualitative study with 5 users, so quantitative studies are about 4 times as expensive. Furthermore, it's easy to get a quantitative study wrong and end up with misleading data. **When you collect numbers instead of insights**, everything must be exactly right, or you might as well not do the study.

<http://uxpajournal.org/determining-what-individual-sus-scores-mean-adding-an-adjective-rating-scale>

<http://www.measuringu.com/sus.php>

<https://www.usability.gov/how-to-and-tools/methods/system-usability-scale.html>