Build a More Proactive and Intelligent Smart Home with Alexa

Ben Grossman   Sep 24, 2020   Share:

Smart Home   Connected Devices   News

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Thanks to your efforts, Alexa now works with over 145,000 compatible products and customers have connected more than 100 million smart home devices to Alexa. Customers interact with your smart home devices every couple milliseconds, from controlling their connected homes to simplifying their daily routines. As Alexa's intelligence advances, we're inventing new experiences to make the smart home even more natural, convenient, and automated. Now, you can take advantage of new Alexa features to deliver more complete and proactive experiences for your customers.

Starting later this year, you can enable Alexa to proactively act on Hunches to help your customers automate their smart home and save energy. You can use some of the latest Smart Home Skill API updates to do things like enable customers to view and control your smart cameras from the Alexa app - including pan, tilt, and zoom - and to automatically re-order consumables based on inventory sensors. You can soon take advantage of new ways to connect your devices to Alexa, including using Bluetooth Mesh standard and Amazon Sidewalk. You can use local smart home skills to connect your devices locally to Echo devices and enable customers to control them at low latencies and when devices are offline. You can use the latest advancements in our Frustration Free Setup initiative like Bluetooth simple setup and Wi-Fi Simple Reconnect to make setting up and reconnecting devices even easier for customers. Finally, we continue to make it easier for customers to discover, learn about, and buy the great products you build on Amazon and other channels, and have expanded the Certified for Humans program to the UK, Germany, Italy, Spain, and France, with even more countries coming soon.

Enable More Complete and Proactive Smart Home Control

Customers love controlling smart home devices with their voice, but with Alexa, you can do more than simply enable voice control. You can enable proactive and predictive experiences to help your customers

Starting later this year, customers can choose to have Alexa proactively act on Hunches without needing to ask. For example, Alexa will proactively turn off the lights, adjust the thermostat, turn down the water heater, or start the robotic vacuum when Alexa has a hunch everyone is away or asleep. That means customers have fewer things to think about at home, so they can spend their time on more meaningful things. Alexa can generate these Hunches by learning customers typical usage patterns' from when they speak to Alexa, and when they interact with their smart home devices, enabled by your device's state and change reporting. When you report your device's state and changes to Alexa, you also make Hunches better by keeping Alexa informed when your device is turned on and off, delivering better experiences for customers.

Manufacturers of smart lights, thermostats, and water heaters can enable proactive home automation, control, and personalization for customers through Hunches when it becomes available this year, with support for even more devices like robotic vacuums coming in early 2021. If you are a smart light and robotic vacuum developer, your devices will automatically support this feature using your existing Smart Home Skill API integration and state and change reporting. If you are a thermostat developer, you can start integrating and testing the new Alexa.AutomationManagement capability to enable the feature on your devices.

iRobot, **Eufy**, **Rheem, Aquanta**, and **Resideo's Honeywell Home Solutions** are already integrating these features for their customers. You can learn more about how Hunches work in this blog and sign up here to be notified when more information is available.

Help Your Customers Track, Manage, and Save Energy Usage with Alexa's Energy Dashboard

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As the number of devices in homes continues to increase, customers want to make sure their energy consumption is efficient and sustainable. Amazon has committed to achieving net zero carbon by 2040 as part of The Climate Pledge, and we are innovating new ways with Alexa to make it easier for everyone to participate in making a positive impact on the planet.

We are excited to announce the energy dashboard in the Alexa app, available in the US later this year, which will give your customers a single place to track and manage the energy consumption of their compatible Alexa smart home devices such as lights, plugs, switches, thermostats, TVs, water heaters, and Echo devices. Your customers can see how long their compatible devices have been on (hours) and the energy they consumed (kWh) by day, week, or month. Customers can also see trends and Alexa will also provide recommendations on actions that your customers can take to save energy on their compatible devices. And with Hunches, Alexa can proactively control your customers' devices to help them save energy automatically, such as lowering the thermostat temperature when Alexa has a Hunch your customers are away from home. Customers can also see your device supports the energy dashboard on your Amazon detail page, differentiating your product and building confidence that it can track and automate their energy usage.

You can integrate the energy dashboard in two ways: If your device can track energy it uses or if you can estimate energy used by your devices, you can proactively send Alexa the energy usage information using the new **Alexa.DeviceUsage.Meter API.** Alternatively, you can use the new **Alexa.DeviceUsage.Estimation API** to let Alexa estimate the energy used by your devices on your behalf by providing power metadata such as On-Wattage and Off-Wattage**.** Alexa will combine this power metadata with the state and change reports data that you already share to determine how long the device has been on and estimate the energy usage accordingly. For smart thermostats, you can soon use the new **Alexa.ThermostatController. HVAC.Components API** to send Alexa change reports that include On/Off states and time stamps for each of the heating and cooling elements that your thermostats control. Alexa uses this component level data along with customer inputs, such as approximate square footage of their home, to estimate the energy consumed by the Heating and Cooling system controlled by the thermostat.

Philips, TP-Link, Sengled, Wemo, Emerson, Resideo's Honeywell Home Solutions, **Rheem, Aquanta**, **Hisense**, and **Fire TV Edition TVs** are already integrating the energy dashboard APIs for their customers. You can learn more about Alexa's energy dashboard in this blog and sign up here to be notified when more information is available.

Keep Your Customers Stocked Up on Essentials with Convenient Reordering

Today, millions of devices use Alexa's inventory sensor to enable convenient reordering, letting customers use Alexa to manage their supplies and place orders when they are running low. Last November, we launched the Alexa.InventoryLevelSensor capability in the Smart Home Skill API, letting you report the inventory level of consumables used by your devices, such as batteries and printer ink, and take advantage of built-in integration with Alexa to enable convenient reordering. Today, we are excited to announce you can begin integrating the new **Alexa.InventoryUsageSensor** capability, expanding convenient reordering to more device types such as coffee machines (coffee pods/beans), dishwashers, washing machines (detergent), and more. You simply report the usage updates from your smart home skill. Amazon provides the customer set up experience in the Alexa app, keeps track of the inventory in the cloud, and lets customers know when they are running low. Alexa will send your customers a notification when it is time to reorder – or they can set up smart reordering to allow Alexa to automatically reorder the supplies before they run out. Integrating with inventory sensors also creates new monetization opportunities for your business. You can choose to sell your own genuine consumable products that you design and manufacture specifically for your device, or you can earn recurring revenue for other compatible products sold on Amazon.

GE Appliances, **LG**, **Samsung, and Home Connect** are already integrating with the Alexa.InventoryUsageSensor to enable convenient reordering on their washing machines, dishwashers, and more. You can learn more about inventory usage sensors in this blog and sign up here to be notified when the feature is generally available.

Create a Safer and More Secure Home with Enhanced Security and Camera Features

Customers love using Alexa features that give them greater security and peace of mind when they are home or far away. With Guard Plus, announced today, Alexa can alert you about activity and other potential emergencies in your home when you're away, deter intruders with sirens, dog bark sounds, automate light control, and provide access to hands-free emergency calling. **Ring**, **Abode**, **Scout Alarm**, **Resideo**, **A3 Smart Home**, and **Wyze** will support Guard Plus and we invite you to sign up here if you are interested to participate and learn more.

We're also excited to announce extended camera capabilities that help your customers better manage and view their smart security cameras with Alexa. Starting next month, you can enable your customers to view their camera streams through the Alexa app using your existing smart home skill integrations, and further take advantage of a new integration to enable customers to digitally or physically pan, tilt, and zoom (PTZ) their cameras from the app. Using the new Live View feature, customers can view and manage live streams from all their compatible cameras, doorbells, and Echo devices in a single place on the Alexa app. The feature also enables customers to talk to their cameras from the Alexa app, for cameras that support 2-way communication. If your cameras have the physical PTZ abilities, you can soon integrate with the Alexa.RangeController interface to enable customers to remotely control their cameras from the Alexa app, to cover a larger field of view. With these features, your customers can view and manage the live feeds of all their cameras from a single app, giving them the ability to remotely monitor their homes from anywhere where they can access the Alexa app. Live View and digital PTZ in the Alexa App will be available for all cameras and doorbells that use WebRTC streaming, enabled through integration with Alexa.RTCSessionController Interface.

Ring, **Arlo**, **Wyze**, **Logitech**, **August**, **Abode**, **Tuya**, and **Ecobee** cameras and doorbells are already enabling Live View for their customers. You can learn more about App Live View and PTZ capabilities and requirements in this blog, and sign up here to be notified when more information is available.

More Ways to Connect and Build Devices with Alexa

Connect Your Device to Alexa Using Bluetooth BLE Mesh

You can connect your smart devices to Alexa using a wide variety of the most popular open standards and protocols, including Wi-Fi, Zigbee, Bluetooth and more. These options give you the flexibility to deliver the right experience for your customers on Alexa. We are excited to announce support for lighting products using the Bluetooth Mesh protocol beginning, coming soon. With Bluetooth Mesh support, you can enable your customers to connect their Bluetooth Mesh light bulbs to compatible Echo devices and control them using Alexa. Plus, you can also integrate Bluetooth simple setup for your Bluetooth mesh devices, making setup simple for customers.

Ledvance and **Sengled** are already implementing Bluetooth Mesh support in their light bulbs. You can sign up here to be notified when more information is available.

Faster and Offline Device Control with Local Smart Home Skills

We are excited to announce the local smart home skills (beta), a new capability that makes Alexa-connected devices like lights and plugs faster, more reliable, and enables offline control for customers. Alexa can translate smart home directives to your local APIs messaging specification using a JavaScript-based skill that is hosted on a customer's Echo Family Device. With local smart home skills, your customers can control their smart lights, plugs, and switches using a local path within their home's WiFi network and get the benefits of:

- **Reduced latency.** With a local connection, your customers will experience lower latency.
- **Improved reliability.** Your customers' requests will also have multiple potential routes to reach their smart device, increasing reliability. Alexa will choose the fastest, most reliable route, with a fall back to retry the next available route.
- **Offline control for your devices.** If your customers' internet connectivity is down, they can still use Alexa to control their smart devices for supported actions.

These benefits can translate to lower costs over time. As high-volume actions like Turn On/Off are routed to your local skill, traffic to your cloud skill can decrease, reducing your cloud traffic and operational costs.

Philips and **Wemo** now offer local Wi-Fi support, and **LIFX**, **TP-Link**, and **Yeelight** are integrating this feature in the coming months. You can sign up here to be notified when more information is available.

Connect Any Device to Alexa with Alexa Connect Kit (ACK)

We continue to make it easier and more cost effective to connect devices to Alexa. You can use Alexa Connect Kit (ACK) to connect virtually any device with power to Alexa for as low as about $4 per device; you purchase the Amazon-managed ACK hardware module from one of our partner chipset suppliers and then a pay separate low, upfront fee that covers your ongoing use of the ACK cloud service for the device. As a result, you don't need to worry about unpredictable cloud infrastructure and usage costs. ACK makes it easier to build Alexa-connected products without needing to worry about managing cloud services, Alexa skills, or complex networking and security firmware. When you add the Amazon-managed ACK module to your device, your customers get Alexa control by voice and by touch in the Alexa app, Wi-Fi simple setup, Wi-Fi Simple Reconnect, and automatic reordering of consumables your product needs to keep running at its best. The ACK module stays up to date automatically with silent, over-the-air firmware updates, and ACK's managed cloud service meets the cloud reliability requirements of both Works with Alexa and Certified for Humans certification.

We're excited to see leading brands like **Eaton**, **Hamilton Beach**, **Mr**. **Christmas**, **Procter & Gamble**, **Crock-Pot**, **Sharp**, **Toshiba**, **Vornado** and dozens of other device makers use ACK to build products ranging from air purifiers to smart switches and smart Christmas trees. You can learn more here about how ACK makes it easier, faster, and more economical to make your product an Alexa-connected smart device.

Build and Test with New Tools for the Smart Home Skill API

The Smart Home Skill API provides APIs you can use to build and connect virtually any device to Alexa, and we've added native support for even more device types like air purifiers, Bluetooth speakers, game consoles, water heaters, Christmas trees, trackers (available later this year), and many more. As you build and update your device experiences, we've created new tools and metrics in the smart home skill Developer Console to better help you debug, troubleshoot, and manage the performance of your smart home skills. Now, you can use the JSON schema files available on Github to validate messages before sending them to Alexa. You can use the State Reporting Test Tool to confirm the current values of all properties of Smart Home devices that are associated with your skill and your developer account. With the Smart Home Debugger tool, you can view ChangeReport, AddOrUpdateReport, and DeleteReport events that Alexa receives from your skill along with any processing errors. You can also use the Smart Home Test tool to reduce the time and cost to certify your device with the Works with Alexa program by automatically testing your smart home skill's functionality. Lastly, coming soon you can download message IDs and associated metadata such as latency, errors, and exceptions for skill failures in the Analytic page of the Developer Console to more easily troubleshoot and solve issues that impact your customers.

You can read this blog to learn more about the new tools for the Smart Home Skill API.

Connect Devices Outside the home with Amazon Sidewalk

Earlier this week, we shared new updates on Amazon Sidewalk, a neighborhood network designed to help customers' devices work better both at home and beyond the front door. We've begun working with leading IoT silicon companies including **Nordic Semiconductor**, **Semtech**, **Silicon Labs** and **Texas Instruments** to create chipsets you can use to power new devices and enable new customer experiences. When your device is connected to the Sidewalk network, you can connect to Alexa and offer more experiences for customers like keeping track of the things they care about most, whether it's their puppy, their keys, or their bicycle. Later this year, **Tile** devices will be supported on the Sidewalk network, enabling customers to keep track of their things by asking Alexa questions like "Alexa, where are my keys?". As we continue to build this exciting new network for communities with privacy and security at the foundation, we remain committed to giving developers and device manufacturers the tools they need to help their devices connect to Sidewalk and to expand the capabilities of their devices for customers.

We encourage you to sign up to be notified when more information is available. To learn more, visit amazon.com/sidewalk.

Project Connected Home over IP

We continue to support and invest in broadly adopted standards that give customers more choice and free developer resources for innovation. We are collaborating with companies across the industry, including Apple, Google, Comcast, and Samsung SmartThings to increase the compatibility among smart home products from smart bulbs to smart TVs through the Connected Home over IP (CHIP) working group, within the Zigbee Alliance. While CHIP has not yet published a new standard, the group has a goal to release a draft of the specs later this year. We invite everyone in the industry to get involved by joining the working group, and in the meantime, continue to develop smart home products for customers with existing technologies and tools.

Make Your Devices Easy to Setup and Reconnect Automatically with Frustration-Free Setup

Enable Bluetooth Simple Setup for BLE Mesh Devices

Last fall, we announced the added support of Wi-Fi and Zigbee simple setup as part of the Frustration-Free Setup (FFS) initiative, aimed at making setting up a smart home absolutely simple. Starting today, we're expanding FFS support further. Bluetooth simple setup is now generally available to start integration and will be available for customers with the launch of new Echo devices next month. This new protocol uses Bluetooth Mesh as a standards-based protocol to simplify onboarding for customers, making setup of Bluetooth-enabled devices as easy as plugging them in. With Bluetooth simple setup, there are no SDKs to integrate. Start integrating by reviewing our documentation in the FFS console, and with our new manufacturing tools, you can have your device shipping to customers in just a few weeks.

Make Re-Connecting Easier with Wi-Fi Simple Reconnect

Losing connection can be a painful experience for customers. For example, if a customer has a houseful of devices registered to an old router, switching to a new router's SSID requires them to manually visit each connected device and enter a new password. In some cases, customers have to factory reset devices to update credentials for each device. This hassle can lead customers to put off reconnecting and using their devices. Today, we're announcing a developer preview for Wi-Fi simple reconnect, a new feature under the Frustration-Free Setup initiative. Wi-Fi simple reconnect can simplify reconnecting your device to your customer's router if it disconnects. With Wi-Fi simple reconnect, if your device detects a wrong network password or lost access point from your Wi-Fi chipset, it now sends out a distress beacon. If a customer updates their network credentials on a nearby Amazon device, that device can detect your distress beacon and securely share its new network credentials in the background. Wi-Fi simple reconnect will be available on Echo and Fire TV devices later next month and be generally available for you to integrate next year. We're excited to help your devices get and stay connected so customers can experience less frustration.

You can learn more about Wi-Fi simple reconnect in this blog and request access to the preview here.

Reduce Simple Set up Integration from Months to Just Weeks

Device makers now have more options to speed up their development of smart home features like Wi-Fi simple setup. You can now leverage white-label off-the-shelf products from solution providers like **eWeLink** and **Tuya** that provide built-in support for features like simple setup, decreasing your time-to-market. These solution providers handle manufacturing, certification, badging, and adding your product to the Amazon marketplace. With a qualified solution provider, you can reduce your time-to-market from months to just weeks. If you are building your own simple setup device, we now offer new references and tools to simplify manufacturing, saving up to a month of integration effort. Our Amazon FreeRTOS, Espressif, and RasPi reference designs have sample apps and documents that can be copied into your projects, reducing your time to build. Additionally, new tools on our developer portal will help you scale simple setup across your manufacturing lines and generate on-demand device certificates in under an hour. You can view the documentation in Frustration-Free Setup console to learn more.

You can learn more about all of today's new Frustration-Free Setup initiatives in this blog.

Boost Your Product's Exposure and Sales on Amazon

We strive to make it easier for customers to discover, learn about and buy the great products you build. Amazon offers numerous ways to increase exposure for your Alexa-connected products to the millions of customers who shop on Amazon.com every day. You can use programs like Works with Alexa (WWA) and Certified for Humans (CFH) to not only ensure you provide a great customer experience, but also to raise the visibility of your Alexa-connected products on Amazon.com and other channels. To date, WWA program has helped generate billions of dollars for device makers. Adding Alexa support gives your existing customers the Alexa integration they've wanted, and certifying your devices increases customer awareness and confidence in your product and brand. As an Alexa developer you get access to unique marketing benefits that make it easier to integrate the Alexa brand into your marketing strategy; when your products are certified, they can carry the Works with Alexa badge on your product packaging, on your Amazon detail page, notation in Amazon search, and become eligible for additional placements within the Amazon Smart Home Store. Plus, when you sell your Alexa connected product on Amazon.com, you can take advantage of the range of services and merchandising tools available to vendors and sellers, such as the Amazon Vine Program to submit your product for review by trusted Amazon customer reviewers prior to launch, and Amazon Marketing Services (AMS) to reach customers through targeted, performance-based advertisements on Amazon.com.

Get Your Products Certified for Humans in More Countries

Last year, we introduced the Certified for Humans program, which goes above Works with Alexa to help customers discover best-in-category products that meet our criteria for being surprisingly simple to use. Now, you can apply to get your devices Certified for Humans in the UK, Germany, Italy, Spain, and France, and have them featured on the Certified for Humans store on Amazon. And coming soon, we're bringing the Certified for Humans program to even more countries and on even more smart home devices, like routers, locks, switches, fans, speakers, entertainment devices, and more. To be eligible for the Certified for Humans program, your device must qualify for the Works with Alexa program as well as offering Frustration-Free Setup and a dependable Alexa experience that meets the Certified for Humans bar. If you are certified, you could see increased traffic to your product on Amazon.com through high-visibility placements in search and display the new Certified for Humans badge on your Amazon.com product listings.

Customers can find the Certified for Humans badge on select smart home devices from brands including **Amazon, Philips Hue, Hamilton Beach,** and **TP-Link Kasa**. You can view Certified for Humans products here and learn more about the Certified for Humans program and requirements here.

Learn More and Get Started Today

You can take advantage of the new features announced today to enable more automated smart home experiences, and make your devices easier for customers to setup and use. View the following resources linked below to learn more:

- Hunches
- Alexa Energy Dashboard
- Wi-Fi Simple Reconnect & Bluetooth Simple Setup
- Usage Sensors and Convenient Reordering
- App Live View
- Amazon Sidewalk
- Smart Home Skill API Tools

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