

2017 CES® Coverage



Consumer
Technology
Association™



**PARKS
ASSOCIATES**

Parks Associates Research Team

Industry Analysts



DINA ABDELRAZIK

Research Analyst
@DinaAtParks



KRISTEN HANICH

Researcher
@KristenAtParks



GLENN HOWER

Senior Analyst
@GlennatParks



CHRISTOPHER JONES

Researcher
@ChrisatParks



JENNIFER KENT

Director, Research Quality & Product Development, @JenniferMKent



TOM KERBER

Director, IoT Strategy
@TomAKerber



ALEXANDRA MARTIN

Research Analyst
@AlexatParks



BRAD RUSSELL

Research Analyst
@bradrusselltech



PATRICE SAMUELS

Senior Analyst
@PatriceatParks



BRETT SAPPINGTON

Sr. Director, Research
@BrettsView



HUNTER SAPPINGTON

Researcher
@ResearchHunter



CHRIS TWEEDT

Research Analyst



HARRY WANG

Sr. Director, Health & Mobile Product Research
@HarryatParks

Consumer Analytics Team



YILAN JIANG

Manager, Consumer Research
@YilanJiang



KATHERINE LI

Researcher



TEJAS MEHTA

Chief Data Scientist
@tejasatparks



DAVID MITCHEL

Research Analyst



TU SKUSE

Research Analyst
@TuSkuseAtParks

Published by Parks Associates

© 2017 Parks Associates | Dallas, Texas 75248

All rights reserved. No part of this report may be reproduced, in any form or by any means, without permission in writing from the publisher. Printed in the United States of America.

Table of Contents

1.0 Entertainment	4
1.1 Major Themes/Key Issues.....	4
1.2 Notable Takeaways.....	4
1.2.1 Video/Digital Media	4
1.2.2 5G	4
1.3 Additional Announcements	5
2.0 Smart Home/Security	8
2.1 Major Themes/Key Issues.....	8
2.2 Notable Takeaways.....	8
2.2.1 Home Network Security	8
2.2.2 Widespread Voice Integrations	9
2.2.3 Insurance and Real Estate Convergence with Smart Home.....	9
2.2.4 Lighting	10
2.2.5 Vivint	10
2.2.6 Smart Kitchen & Bathroom	11
2.3 Announcements/News	12
3.0 Mobile/Health/Connected Cars.....	17
3.1 Major Themes/Key Issues.....	17
3.2 Notable Takeaways.....	17
3.2.1 Health/Wellness and Wearables.....	17
3.2.2 Connected Car.....	17
3.3 Announcements	18

1.0 Entertainment

1.1 Major Themes/Key Issues

- Effective use of data
- Increasing use of artificial Intelligence
- VR/AR
- Network flexibility in video services
- The impact of voice on entertainment (esp. music, messaging, discovery, promotion, branding, etc.)
- Partnering / bundling of entertainment services
- Cross-platform UI / aggregation of video services
- Emergence of new online pay TV services
- Enhancing user experience via voice search, content discovery, and aggregation

1.2 Notable Takeaways

1.2.1 Video/Digital Media

Troubles are looming in the digital advertising space.

- Ongoing commoditization of dynamic ad insertion.
- Ad blocking and accurate ad measurement remain challenges.

The video delivery services / technology space is becoming increasingly blurry, with differences between managed service providers (BAMTech, NeuLion, Quickplay), OVPs (Ooyala, Brightcove), and video player offerings (JW Player, Kaltura) more difficult to discern than ever.

1.2.2 5G

5G will take a long time to get to market.

- 5G strategies will differ by region.
 - *North America – 5G will be an end-user service, providing wireless access to the last mile.*
 - *China and emerging markets – 5G will be used primarily by industry and for communication infrastructure.*
 - *Europe – somewhere in between, though more of an infrastructure play in many (but not all) markets*

- 5G will likely be implemented using standard chips that are enhanced by specialized ASICs that provide competitive differentiation among technology vendors.

1.3 Additional Announcements

- Ericsson predicts that there will be 29 billion connected devices worldwide by 2022.
- Minimizing latency is the new pre-occupation of the communication technology industry for everything from cellular communications to CDNs.
- Several technology firms are concentrating innovation on how video and mobile communications come together.
- Companies are examining ways in which AI can improve personalization, discovery, voice, UI, and other elements of the service/technology experience for consumers.
- Many are seeking AI applications for enterprise as well, including data / file discovery across networks within an organization.

Entertainment News: VR, AR, and AI

Company	Announcements	Description
Audeze	Unveils a set of VR headphones	VR headsets do not come with embedded speakers or earphones, so Audeze made headphones specifically for special sound to help with VR immersion.
Baidu	Releases a Chinese Amazon Echo Competitor	Baidu's "Little Fish" robot is a Chinese version of the Echo that comes with a screen. It will compete against the Echo in China, and possibly the US in the future, depending on its success.
Dagri	Announces new AR smart glasses	The interesting thing about Dagri's AR smart glasses is that they seem to be geared more towards industry and commerce than any form of entertainment; good to help override the perception that AR is for games and entertainment
DISH	Announces integration with Alexa	Alexa being on the Hopper platform will allow users to control their TVs using voice command through their set-top boxes.
Hubble	Hubble Hugo camera integrates with Alexa and can read facial cues	Basically a smart, swiveling camera that uses Alexa and can read facial cues. It can tell when a baby is crying and send alerts.
Lenovo	Announces VR-ready laptop	With PC-based VR headset compatibility being almost entirely restricted to desktop PCs, Lenovo is making a laptop that will make VR available to laptop users.
Lenovo	Unveils a new VR headset	Lenovo is getting more involved in VR. With its VR laptop already announced, the company is also releasing a lower cost VR headset aimed at roughly \$300.
Lenovo	Announces smart speakers	This is literally just an Amazon Echo with better speakers.
Lenovo, Dell, ACER, HP, 3Glasses	New Windows Holographic headsets	Several companies are working on their own PC-based headsets that will run on Microsoft's Windows Holographic platform. Most of the designs for the headsets are very similar to one another. No timelines or pricing were given for any of the headsets except for Lenovo, so they may still be a ways out.
LG	Announces a personal assistant robot	LG is making a personal assistant robot powered by Alexa. It has a camera and can swivel its "head." It will end up competing with Google Home Hub, the Amazon Echo, and all the other smart speakers announced at CES this year.
Mattel	Makes an Echo clone that can read children bedtime stories	So many smart speakers powered by Alexa are being released that they are just being called "Echo clones." This one comes with a connected baby monitor. It can also read stories and play games with children.

Mayfield Robotics (a Bosch-backed startup)	Showcases Kuri, a mobile personal assistant with a Bluetooth camera	Kuri is a rolling, camera-attached personal assistant robot. It doesn't talk back, but it does have Wi-Fi, Bluetooth, and a few other features.
Memoo	Smart speaker for children, special parental control feature	This is a smart speaker built with children in mind. It has special parental controls to keep children from searching for info or playing music that their parents don't want them to hear.
ODG	Announces two versions of AR smart glasses	Using the Qualcomm Snapdragon 835 processors, these small, sleek, high-end AR glasses will be capable of shooting 3D video. The headset will likely also have positional tracking. It will be small, sleek, and lightweight compared to the bulkier headsets that are currently being worked on.
Omaker	Makes wireless smart speaker	Another wireless smart speaker powered by Alexa. It supports voice recognition and plays music, and does all of the other things Alexa does.
Ubtech Robotics	Ubtech Robotics	This is a walking robot powered by Alexa. It's basically just the Echo but it walks around, has worse speakers, and will probably cost more.

© Parks Associates

2.0 Smart Home/Security

2.1 Major Themes/Key Issues

- Interoperability – scalability of integration with partners and prioritizing integrations
- Data analytics – how to leverage new data sources and cognitive computing
- Marketing - selling long tail capabilities effectively within a short time-frame
- Partnerships – the importance of partnerships for product adoption, a low friction partnership process, and how open APIs are key to building ecosystems
- Multi-sensor products creating new hybrid product categories
- Hardware-as-a-service business models
- Proliferation of connectivity in nearly every product category

2.2 Notable Takeaways

2.2.1 Home Network Security

Home network security is getting increasing attention from makers of networking protocols, software applications, new security monitoring gateway hardware, and routers with enhanced network security features.

By end of year, Bitdefender will ship its 2nd generation Bitdefender Box (MSRP \$199 w/1 year of service, \$99 annually afterward). Enhanced features include: vulnerability assessment of all devices on network with action notifications; network intrusion prevention (device authorization security); and anomaly detection (device profiles use machine learning to detect anomalous behavior suggesting compromise). Carriers have been slow to build enhanced security applications into residential gateways, but providers like Bitdefender (Kudelski, Kaspersky Labs, Norton, Symantec) hope to eventually license their technology to carriers and router OEMs with less security experience. Market sizing of security monitoring hardware devices (separate box) may be 300,000–500,000 units in 2017 (similar position as video doorbells at beginning of 2015).

Another device will ship in April from Dojo Labs, which was acquired by EU security software company Bullguard. Like Bitdefender Box, Dojo is designed to apply enterprise class security features with ease-of-use for consumers. The Dojo system consists of a security gateway box plugged into the router, a “pebble”-shaped desktop form factor with BLE to box for display of colored lights indicating security status, and the consumer app. Features include vulnerability assessment, perimeter access control from outside and within network, device behavior monitoring, and a simple color alert system (orange

and red alerts, green all-well) on pebble and in app (Dojo MSRP \$199, with \$99 annual service fee after year one). Both Bitdefender 2 and Dojo claim significantly more sophisticated security applications than earlier “URL proxy technologies” and white/black listing performed by Cujo and Bitdefender 1.

Other similar devices: Cujo (in market, \$99 MSRP), F-Secure Sense (delayed), upcoming device from Kaspersky Labs.

2.2.2 Widespread Voice Integrations

Voice control is quickly becoming the ante for tech relevancy, with widespread Alexa integrations with more major appliances (Whirlpool), smart home devices, connected cars, and entertainment devices and services. A caveat is increasingly heard emphasizing that voice is not a panacea UI but suited to certain contexts. Other UIs will persist when voice is not preferable, such as touch/type, swipe, and gesture. Nortek is developing its own proprietary voice platform after acquiring a voice-related company last year. Vivint introduced its own voice-enabled assistant, in addition to Alexa integration (detailed below). Voice data privacy and ownership influences OEM willingness to build on Alexa or build a proprietary platform.

2.2.3 Insurance and Real Estate Convergence with Smart Home

Core Logic seeks to become the primary property data provider to real estate, insurance, mortgage/finance, and other property-related companies. It has partnered with ROC-Connect to develop a turn-key white label smart home starter kit with platform/data analytics support to help adjacent companies build new customer engagement and revenue services. Core Logic seeks to develop a Carfax-like database for all residential properties that would inform insurance underwriting with historic data on property characteristics, including claims and sensor data. It already has massive databases of property data, credit data, geo-spacial data for flood plain analysis, and valuation forecasts. Core Logic is creating a universal ID# for all properties to tie all its various services together. It will roll out a drone strategy this year targeting roof inspections and other natural disaster assessments. Core Logic believes priority interest of insurers in smart home is for the purpose of deeper customer engagement, followed by risk mitigation and developing new revenue streams. Contributed water monitoring data is the most highly sought-after application. Currently, experts believe that “bulk” policy pricing strategies are anticipated to be disrupted by data-driven customization of policy pricing at the policy level. With auto policy disruption imminent, Allstate has said, “for the future we are a property company.” Core Logic is also working on developing a Home Safety Score Index for each home that uses historic data, context data, real-time sensor data, and behavioral data. The index score can then be used to inform policy underwriting. There are five columns/corners of the home property

service business: real estate, utilities, telcos, financial services, and hardware manufacturers. USAA is expected to be a leading innovator, along with Allstate and Amica.

Coldwell Banker is still rolling out its new smart home seller's staging kit and will be developing a buyer's kit soon. It also offers a new smart home education course for its agents. Agents face an ongoing challenge of knowing how to operate devices or have access to their clients' control applications when showing homes. In August 2016, a smart home definition was jointly developed by Coldwell Banker and CNET:

- "Smart home: A home that is equipped with network-connected products (aka, "smart products," connected via Wi-Fi, Bluetooth, or similar protocols) for controlling, automating, and optimizing functions such as temperature, lighting, security, safety, or entertainment, either remotely by a phone, tablet, computer, or a separate system within the home itself."
- In order to be categorized as a smart home, the property must have a smart security feature that either controls access or monitors the property, or a smart temperature feature, as well as two others from a varied list, in addition to a reliable Internet connection.

2.2.4 Lighting

More Bluetooth lighting devices are coming out from a variety of manufacturers. Switchmate's first retrofit light switch (\$30 MSRP) was updated to a new, slimmer Switchmate Bright (\$40 MSRP). The easily installed magnetic switch fits over a traditional toggle or paddle switch, providing Bluetooth remote control by mechanically controlling the original switch. The new slimmer design can be ganged for multi-gang panels, and includes a motion sensor. The company also previewed integrations with Amazon Echo and Google Home to roll out soon.

2.2.5 Vivint

Vivint announced a new partnership with Airbnb to get rental property owners to adopt its keyless entry, video doorbell camera, and 24/7 monitoring service, as well as a new partnership with Vivint Solar, "to create a single unified experience for monitoring the creation and usage of their home's energy." Vivint also announced Sky, an AI-powered personal assistant. Vivint systems can be controlled by Alexa, but Sky has the ability to control the home's lights, locks, thermostats, and security system. Vivint also announced a new financing program, called Vivint Flex Pay, in partnership with Citizen's Bank. The program breaks hardware costs out from recurring fees, providing financing and even a chance to pay zero-interest for a specified time.

2.2.6 Smart Kitchen & Bathroom

Smart appliance makers seem to be focused on improving convenience and helping to improve the quality of home cooked meals. Patrice Samuels, Senior Analyst at Parks Associates, does not see a big push to use these products for energy savings. Companies in this industry should be working on trying to automate some product features that generate long-term convenience for consumers. For instance, most smart refrigerators require manual entry of products and product expiration dates and will later alert consumers when the product needs to be replaced. Automating this could dramatically improve the perceived value of these products.

2.3 Announcements/News

Security News

Company	Announcements	Description	Why It's Important
ADT	ADT Pulse integrates with Alexa	Expected to arrive this month, the ADT Pulse skill for Amazon's virtual assistant will let owners of an Alexa-enabled device, like the Amazon Echo and Echo Dot smart speakers, control their home security using spoken commands. You'll also be able to control Pulse-compatible connected home devices like smart deadbolts and smart lights. If you don't own an Echo or Dot, ADT will start selling one directly beginning in February.	ADT can extend footprint in the security and home automation space, point of differentiation for ADT systems
Alarm.com	Announces drones for security	Plans to develop autonomous, video-enabled drones for smart home and business security that will use the company's new Insights Engine multi-sensor learning capability together with the Qualcomm Snapdragon Flight drone platform, to investigate unexpected activity.	Providing a new way to provide security to properties
Alarm.com	Announces Insights Engine	Insights Engine learning capability applies machine-learning algorithms to the growing data set generated by devices and sensors in a connected property. By recognizing complex activity patterns and detecting anomalies, the system can proactively respond to events on behalf of the user.	Alarm.com will use this to leverage the insights gathered to intelligently deploy their drones - this will provide a "smart" innovative system for security
August	Announces new mortise smart lock kit	Announced the newest addition to its home security line, called the August Smart Lock Mortise Kit. The company called the new product the first solution in North America that converts mortise-style door locks into smart locks.	Targets the commercial smart lock market, a market that has been underserved for SMBs in smart locks - this may help to alleviate that
August	Announces integration with POP Switch	With the collaboration, users can create home automation recipes through a POP switch without having to interact with any connected smartphone apps after the initial setup process. For example, a switch next to your bedside table can send a signal to an August lock, and lock your house when tapped at night.	Convenience factor and automation value to consumers

BenjiLock	Unveils new smart lock	Traditional padlock equipped with fingerprint technology. The rechargeable, stainless-steel device supports up to four distinct fingerprints and saves them in an encrypted chip, allowing users to easily crack open the 7-pin device with a finger of their own choosing.	Brings connectivity to a "primitive" lock
Blink	Unveils new security services and products	Announced new security products and services: Blink XT, an outdoor cam, announced its monthly service plans. According to Blink, "In addition to the existing Blink video monitoring services, the company will offer value-added service plans that provide a more sophisticated security feature-set at an unmatched price. Blink's service plans support up to ten cameras per system with no extra per-camera monthly charges."	Expansion of line and value-added services
Brink's	Announces new smart lock	The Brink's Home Security ARRAY™ smart lock from Hampton Products International will be available for pre-orders in May 2017. The patent-pending ARRAY™ Smart Lock is a cloud- and app-enabled Internet of Things (IoT) device that homeowners can use without adding separate hubs or accessories. ARRAY connects to the cloud using a home's existing Wi-Fi router, and its advanced rechargeable power system with built-in solar panel eliminates the need to replace and discard batteries. Compatible with iOS, Android, and Amazon Alexa-enabled devices, ARRAY is a "Simply Smart Security" solution.	Smart product portfolio expansion
Cognitive Systems Corp.	Announces new security system	Announced the launch of Aura, a thoughtful security system for the home that uses patented spectrum analytics technology to detect and monitor motion, without using cameras.	Addresses privacy concerns by protecting the home using wireless signals rather than cameras - allows security coverage in the home in rooms people are typically unwilling to place cameras
D-Link	Unveils HomeKit-enabled security cam	Unveiled its first HomeKit-enabled home security camera. The new Omna 180 Cam HD is the first product in D-Link's forthcoming Omna family of HomeKit-enabled devices.	Expansion into connectivity and home automation space with first HomeKit-enabled cam
Honeywell	Unveils new camera, integrates HomeKit with Lyric Security system	Unveiled two indoor security cameras and confirmed plans to add HomeKit to its Lyric Security system.	Improved product selection, voice command capabilities will enable homeowners to control the system using Siri voice commands or Apple's Home app

Netgear	Unveils new baby monitoring camera	Debuts the Arlo Baby, a baby monitoring camera with a 1080p camera, including air sensors, two-way audio for communicating with the little one, a head that doubles as a multicolor nightlight, and a built-in music player for lullabies.	Product line expansion
Nortek	Announces new security system	Announces the new 2GIG Vario Hybrid Security System, comprising a security control panel with on-board hardwire inputs and outputs, which can add wireless capabilities to take advantage of 2GIG's existing wireless solutions.	Addresses need for a more flexible security system in the residential, commercial, and builder markets with ability to integrate with existing systems
Norton	Unveils consumer router	Norton unveiled the Core, a consumer router that monitors for suspicious activity and acts as an additional layer of security for connected IoT devices.	Addresses recent privacy attacks on smart home devices - solution to protect a home's Wi-Fi and every device connected to it against malware and hackers
Polaroid	Unveils new security cam	Introduced Hoop wireless home security camera.	Product portfolio expansion
Ring	Announces outdoor floodlight camera	Has added an outdoor Floodlight Cam to its security camera product lineup. The Floodlight Cam is a motion-activated security camera with built-in 3K lumen LED floodlights, a 270-degree field-of-view, facial recognition, a 110-decibel siren alarm, two-way audio, and infrared for night vision. The hardwired, self-install camera is controlled via Wi-Fi with an iPhone or Android-based smartphone.	Product portfolio expansion, floodlights add an additional element of security
Sabre	Announces new security system	Announced SABRE® Smart Home Security System - contains a wireless camera, touch-control keypad, internal siren, 120° arc motion sensor, two window/door sensors and a key fob controller, along with access to an iOS/Android downloadable app which allows user to remotely monitor and control the entire system. Like all SABRE Home Series systems, the Smart Home Security System is easily expandable and requires no wiring or professional installation.	Expansion of its line of home security products
Samsung	Announces new cam	Announced the Wisenet-SmartCam A1 Home Security System – an indoor and outdoor camera.	Camera-centric kit, to compete with other standalone DIY security cams

Somfy	Announces home security product	Announced an all-in-one device dubbed the Somfy One (includes HD res, motion sensor, 24 hr cloud storage, siren, door and window sensors, optional continuous recording, optional prof monitoring (only avail. in Europe), and night vision). Somfy's inaugural home security product follows the company's 2016 acquisition of security startup Myfox. Product supports professional monitoring unlike Piper or Canary systems and is supposed to work with Amazon Alexa, IFTTT, and Nest at launch.	New and interesting entrant into the smart home security space
Withings	Announces new security cam/baby monitor	Introduced the next-generation version of its "Home" smart security camera and baby monitor, which adds HomeKit compatibility.	Connectivity expansion with HomeKit compatibility
Yale	Announces compatibility with HomeKit	Announced upcoming compatibility with Apple's HomeKit smart home platform. The company's line of Yale Real Living Assure Locks and Yale NexTouch Wireless Locks are expected to work with Siri and Apple's Home app for iPhone starting in March.	Connectivity expansion in smart door locks

© Parks Associates

Smart Home News

Company	Announcements	Description
Belkin	Offers new version of the WeMo light switch	Belkin has updated the WeMo light switch to its second-generation. Just like its predecessor, the new version communicates through Wi-Fi connection. It also comes with some features not in the last version, including the ability to calibrate the device for specific bulbs and setting time-specific brightness levels, as well as an "away mode" that gives that will give the appearance that someone is home by cycling the lights on and off periodically.
Griffin	Releases smart toaster	Griffin is releasing a smart toaster as a part of a three-piece smart home play by the company, including a smart coffee maker and mirror. These simplistic smart home devices can act as an on-ramp for consumers because convenience is added to an otherwise "dumb" object.
iDevices	Unveils Instant Switch on-wall light switch	iDevices' Instant Switch does not use Wi-Fi for communication, but relies on Bluetooth to pair with other devices. The Instant Switch is limited to iDevices' products only, and of those products, only power devices like lights or plugs (not thermostats).
Incipio	Announces smart light switch	Incipio has announced its smart light switch as part of its "CommandKit" products. The device communicates via Wi-Fi and works with Alexa and Siri. Features include a motion sensor for triggering lighting changes as well as dimmer buttons.

Incipio	Announces smart power strip	The second addition to Incipio's "CommandKit" products, the smart power strip is another Wi-Fi device that works with both Alexa and Siri. The power strip has four outlets, which can be controlled and controlled discreetly. The power strip also allows users to monitor electricity use.
Knocki	Releases product to turn any surface in your home into a switch	Knocki is an easy to install device that can turn any surface into an interactive switch. After installing the device in your area of choice, you define all the action you want Knocki to do. For instance, two knocks equals lights on. Knocki works with almost all smartphone devices and a growing list of smart home platforms. Knocki may bring about a new way to interact with the smart home. Judging by the number of pre-orders as well as amounts pledged, people are interested.
Leviton	Announces new line of Decora Wi-Fi switches and plugs	Leviton will be releasing a new product line of plugs and switches including a plug-in outlet, plug-in dimmer, rocker switch, 600W dimmer switch, and 1000W dimmer switch. All devices will be Homekit compatible via voice or smartphone control. By increasing its product offering, Leviton is further solidifying its inclusion in the smart home.
ZigBee Alliance	Launches a new standard for smart devices	ZigBee Alliance announced the dotdot communication platform. The hopes for dotdot is to establish a standardized device communication platform for IoT devices that allows them to communicate no matter the network a device may operate on. Dotdot will expand compatibility to devices that use Wi-Fi and Bluetooth even if those devices are not ZigBee devices. ZigBee Alliance wants to transform dotdot into a universal language, making it available to everyone across their network of choice.

© Parks Associates

3.0 Mobile/Health/Connected Cars

3.1 Major Themes/Key Issues

- User experience and clear value propositions of wearables and health/wellness devices to consumers essential to success
- Data accuracy and claims backed up by science/data critical to consumers
- Health and wellness data standards

3.2 Notable Takeaways

3.2.1 Health/Wellness and Wearables

- Fitbit announced its new partnership with UnitedHealthcare.
- Fossil expanded its lineup of smart watches and plans to ultimately bring to market 300 SKUs. At a time when technology providers take a “wait and see” approach to smart watches, traditional watch manufacturers are expanding their offerings, which bodes well for the overall smart watch industry. Traditional watch manufacturers also tried to recoup market share losses to tech watch makers experienced in 2016.
- More variety of wellness solutions and devices were launched than fitness trackers at this year’s CES. New sensors providing data and information to help consumers make informed wellness decisions will become more prevalent, yet some of them can be built on shaky algorithms and false claims.
- Health monitoring kit becomes smaller and more user friendly. Tyto Care’s home health assessment kit is compact, user friendly, and versatile—supports five accessories and plans to add five more for new condition tracking and monitoring.

3.2.2 Connected Car

- Panasonic is the first tier-one supplier that integrates Android Auto as an embedded solution for automakers. Panasonic told us that this will help drivers access more Android features in a safer and more convenient fashion than using a “mirroring” approach. This is perhaps a trend to watch.
- More after-market, OBD-II plug-in devices unveiled—Harman, Voyo, Carrobot, Hudly
- Voice/gesture control function integrated into car design—Ford integrates Alexa, BMW launches HoloActive, and Nuance showcases its AI solutions for car manufacturers.
- Connected car app aggregator to watch: Vinli

3.3 Announcements

Connected Car News

Announcement Type	Companies	Implication
Voice Assistant Integration		
Alexa integration	Ford: begins rollout this month Hyundai: no announcement Volkswagen: no announcement	Amazon is working with Ford to integrate car-specific functions, like navigation directions en route, by 2017.
Voice Assistant AI	Nuance Cortana, integrated into Nissan cars with Azure Panasonic's partnership with IBM's Watson	These voice assistants use contextual clues to personalize to the driver. Nuance can interact with multiple passengers, can suggest adding something to a calendar.
Google Home Integration	Hyundai, Google	Through BlueLink, which uses Google Maps, users can ask Google to search for a location and send it to their car.
Personalized Features		
Personalized interior	Continental, Bosch	Fingerprint and facial recognition loads personalized information, including seating, music, and lighting.
Emotion-based interior adjustments	Mercedes	Maybach S-Class steering wheels measure driver's pulse and uses massages, ambient lighting, scent, and sound system to refresh or calm down the driver. Coming in 2017.
User Interface Improvements		
Augmented Reality HUD	Continental, Visteon, Harman	Continental boasts a 50% larger projected screen compared to competitors'
Air Touch	HoloActive Touch by BMW, Bosch	Touch controls closer to the driver, uses a speaker to emit a wave that feels like haptic touch.
Lip & Eye Reading	Nvidia	An AI co-pilot can read a driver's lips with 95% accuracy. It can also warn a driver when he or she is looking away from a possible hazard on the road.

OLED screens	Visteon	Super-thin screens can curve in the car, do not require backlight like LCD screens, typically used for displays. Cons: can dim, blue light not great.
--------------	---------	--

In-Car Payments

In-car payments	Visa and Honda	Allows drivers to pay at parking meters and fuel pumps from their Honda consoles. A result of Visa's tokenization service and a partnership with Gilbarco Veeder-Root, a tech gas station developer, and IPS Group, a maker of wireless payment solutions for parking meters.
-----------------	----------------	---

Connectivity Platform Partnerships

Microsoft's connected vehicle platform with Azure (BMW used Azure for its personal mobility companion in Mar. 16) (Toyota announced using Microsoft for data analytics in Sep. 16)	Microsoft Nissan will be the first to bring this platform to market. Toyota, BMW, and Volvo are planning at least partial CVP integration	The platform is a group (suite) of technologies that can be integrated into the vehicle and run in the cloud. Technologies include Azure, Cortana, Office 365, and Skype. Data analysis provides: <ol style="list-style-type: none"> 1. Predictive maintenance 2. Improved productivity 3. Navigation 4. Customer insights 5. Autonomous capabilities
Android N Integration	Panasonic/FCA/Google	This is the first attempted integration of Android N via Chrysler's Uconnect. Panasonic expects we'll see more in the coming years. FCA announced the partnership before Android N is safety certified but will be able to control vehicle functions. Android N is customizable for FCA.

Autonomous Capabilities

Autonomous concept vehicle	FCA	Level 3 Autonomous: radar, LiDAR, ultrasonic Minivan that can go 250 miles between charges, 150 miles of range in 20 minutes Has a battery pack on the floor like a Tesla Uses spherical cameras on the side instead of mirrors Seats 6, with removable seats; both doors slide apart, creating a lot of access space Much smaller than a typical minivan Has charging docks and Wi-Fi; high-mounted OLED cluster, small, streamlined IVI screen Facial recognition, voice, payments
----------------------------	-----	--

Autonomous "production" car	Faraday FF 91 production car (by 2018) Faraday is an EV startup company; it's parent company is LeEco. (Note: Faraday does not yet have factory facilities)	Biggest non-traditional challenger to Tesla 0-60 in 2.39s. 378mi of range. Change of to 500 mi per hour Facial recognition Self-parking, LiDar on nose, 10 HD cameras, 13 radars, 12 ultrasonic sensors Promise of autonomy later Uses different light sensors on the outside to indicate different driving modes
Autonomous concept car	Rinspeed	Autonomous concept vehicle as a delivery car with an interior living condition. Called "Oasis."
Autonomous concept car	Honda	First autonomous Honda features, the NeuV. Partnering with Google's Waymo.
Autonomous production car	Lucid motors	Small luxury electric sports car with autonomous features, available in U.S. beginning in 2019.
Autonomous production car	Ford—Focus	Its autonomous software and sensors are close to production maturity.
Autonomous concept car	Toyota	Concept-I Yui car displays info throughout car, no centralized screen.

© Parks Associates

Health/Mobile News

Announcement Type	Companies	Implication
Smart Watches		
Smart Watch	Garmin	Released its Fenix 5.
Smart Watch	Casio WSD-F20 Smartwatch	Announced its Android Wear 2.0 watch will be released in April. GPS, water resistant 50m. \$500.
Smart Watch	Misfit Vapor	Arriving this summer. \$199.
Smart Watch Health Device	Omron Project Zero 2.0	A smart watch that takes your blood pressure by inflating. Awaiting FDA approval. \$300.
Smart Watch	Withings Steel HR	Heart rate monitor, water resistant 50m. Battery life of 25 days. \$180.
Smart Watch Health Device	Pk vitality's K'Track	Uses "SkinTaste" sensor and tiny needles to check blood glucose levels. Technology addresses a big pain point with glucose testing for diabetics; may prove to be extremely popular with patients.
Smart Watch Health Device	Misfit	New smart watch (Vapor) from Misfit. Misfit's first smart watch - it's more like Fitbit's Blaze or the Pebble than a full smart watch.
Smart Watch	Casio	First Android 2.0 smart watch. Android 2.0 was delayed by quite a bit - this tells us that it's still alive and OEMs still have faith in it.
Accessories to Smart Watches		
Earbuds	Earin, Swedish company	Rival to Apple's AirPods, the M-2.
Earbuds	Nuheara IQbuds	Noise-cancelling, amplifies voice of person you're talking to. Bluetooth. \$299.
Wrist Strap Accessory	Sgnl Smart Strap	A wristband that pairs with a phone over Bluetooth. To take a call, plug your ear with your finger and talk into the band. The strap sends vibrations into your ear. \$149.
Health Chip for Wearables	Valencell	Measures blood pressure with an optical sensor—not approved, tech still in progress.
Fitness Trackers/Wearables		
Fitness Wearable	Mio Slice	Has a PAI score instead of steps to measure fitness.
Fitness Tracker	Motiv	Wearable ring that does everything a Fitbit does.

Fitness Tracker	Withings	Steel HR formally introduced; the Steel HR is a hybrid analogue/digital fitness tracker, which is emerging as a separate (and popular) wearable category.
Wearable Payments		
Rewards Program	Samsung	<p>Samsung's Vice President and General Manager of Services and New Business at Samsung America Nana Murugesan:</p> <p>"with the number of daily users doubling every week since the launch of Samsung Rewards"</p> <p>Also, since the launch of the rewards program, the number of transactions has nearly doubled, and December 2016 saw a new record.</p> <p>"power users"—customers making frequent, "almost once every day," payments using the technology. Those repeating regular customers have doubled every week since the introduction of Samsung Pay.</p>
VR/AR		
VR	VirZOOM	VirZOOM has a partnership with HTC to demo technology at real-world locations called "vSports Centers." VR-enabled fitness equipment has potential to become large, especially in gym settings - worth keeping an eye on.
VR	Sharecare	Showed off its YOU® platform at the HTC VIVE demo. Early example of a health/medical company proactively engaging in VR.
AR	FunkyBots	Announced its "Atomic Bands" wearable, envisioned as a teaching tool for fitness (dance, martial arts, etc.).

© Parks Associates