

SMART HOME 2.0



Greener, safer, more convenient homes

HARMAN Smart Home 2.0 is a comprehensive, customizable home automation and analytics system that offers greater security, convenience, entertainment, and comfort to connected homes. It uses ultra-fast processing technology to deliver real-time automation and best-in-class user experience for green, safer, easier living.

SMART HOMES SMARTER



New Smart Home customers are emerging everywhere. Around 50% of North American homes would purchase at least one connected home device in 2015. But how can vendors offer a truly smart home that doesn't suffer from inaccurate data and status updates, surveillance problems, false alarms, slow data responses and automatic control systems not compatible for all scenarios?

HARMAN Smart Home 2.0. Self-organizing smart homes

HARMAN offers Smart Home 2.0, a complete managed services infrastructure, including an ecosystem of 50+ partners, a gateway solution with 500+ sensor supports for security, convenience, entertainment, and comfort, next-generation analytics, and full integration support with Google, NEST, BRILLO, and WEAVE ecosystems.



Fast

Smart Home 2.0 uses ultra-fast processing technology to deliver real-time automation and the best end-user experience. Devices and appliances communicate seamlessly and respond instantly.



Reliable

Forget downtime and false alarms. Our failure-proof neural IoT network has cutting-edge sensors and robust contingency protocols that engage automatically, so data is never lost due to connection issues or battery drain.



Intelligent

Deliver complete control with real-time edge analytics. Our proprietary algorithms combine accurate data on occupancy, behavior and environment to maximize comfort and enjoyment.

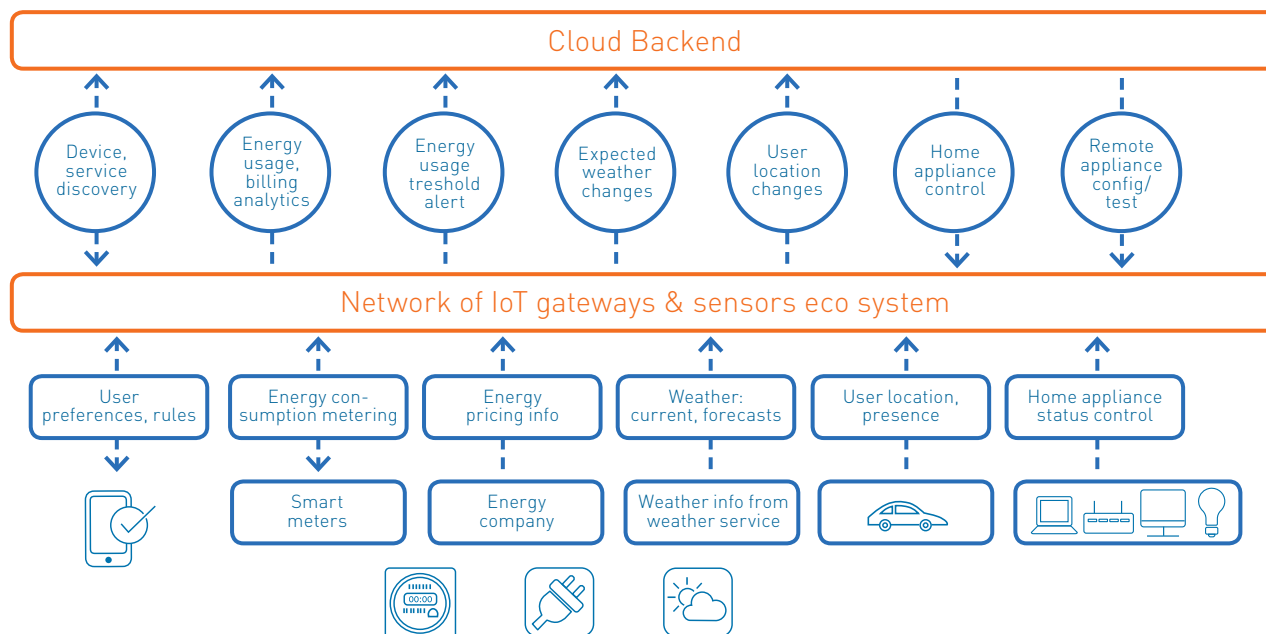
- 500+** Sensors supported
- 1200+** IoT specialists
- 50+** Partners for IoT services
- 10+** IoT middleware IPs
- 50+** Current IoT customers
- #1** IoT solution provider*

* HfS Blueprint Winner's Circle and Microsoft Partner of the Year 2015 for Intelligent Systems & Services (IoT)

OPTIMIZING SMARTER HOMES

Smart Home 2.0 is a comprehensive, customizable home automation and analytics system. A neural network of sensors and gateways brings together and processes data from all devices and relevant external sources. This makes it easy for in-home technology to interact quickly and reliably, so the end user experience is optimized based on real-time insight.

Fig. 1 – Smart Home 2.0 architecture



Energy Management

Smart Home 2.0 integrates data from sensors, meters, energy companies and weather services to provide the ideal balance of comfort and energy efficiency, security and privacy.

- Allows users to control lighting, heating, air conditioning and appliances remotely using a mobile device
- Detects when the house is empty and adjusts temperature and lighting to save energy
- Automatically turns off appliances and devices when they're not needed to reduce consumption during peak periods
- Tracks energy prices and starts appliances at the most cost-effective time
- Learns user routines and behaviors, so it self-calibrates lighting, heat, air conditioning and appliances

Security & Safety

Location tracking, movement and environmental sensors immediately alert users to any issues. This reduces the loss and cost associated with burglary, fire, damage and breakdown.

- Proactive emergency response system uses intelligent motion sensors to detect accidents and discriminate them from false alarms
- Sensor-based surveillance is more secure, more reliable and less intrusive than standard camera and alarm systems
- Smoke sensors communicate with fire services to ensure a fast, appropriate response
- Gas and water sensors monitor at-risk areas and immediately notify users if a problem arises

Entertainment

Smart Home 2.0 uses our engineering expertise and leading entertainment product knowledge to deliver the best entertainment experience.

- Automate entertainment based on behavior and routine – for example televisions that turn on and off when a user leaves the room and switch to the appropriate channel based on occupant and time of day
- Manage and access files, data, music, games and video from a home network with vast storage power
- Set and monitor parental controls from anywhere in the world, at any time



Features and Benefits

Powerful, failure-proof neural network from existing edge devices	<ul style="list-style-type: none">• Creates a highly reliable and resilient mesh network with unmatched processing and storage power• Eliminates problems associated with inaccurate data collection and slow connections.
Interconnected lifestyle platform	<ul style="list-style-type: none">• Provides intelligent integration of home environment, security, entertainment and consumer electronics
Ultra-fast processing	<ul style="list-style-type: none">• Balances the load across distributed computing elements to accommodate both bandwidth-light and heavy data/applications
Real-time insight & analytics	<ul style="list-style-type: none">• Delivers unmatched accuracy and automation• Edge algorithms tune based on accurate occupancy and environmental data
Home automation	<ul style="list-style-type: none">• Machine learning means the solution automatically configures and calibrates itself
Fast, secure data & multimedia management	<ul style="list-style-type: none">• Access files, music, games and video via the home network, easily and securely• Protect data with advanced encryption and network back-up
A managed solution that's easy to productize	<ul style="list-style-type: none">• Best-in-class partner ecosystem, with more than 50 companies working together to give you cutting-edge infrastructure from a single provider• Gateways can support more than 500 sensors

Partner with an industry expert

HARMAN Connected Services, a leader in software design and development, helps global brands dramatically reduce time-to-market while improving quality and productivity. Our end-to-end software engineering, IoT and data analytics services enable the world's top automotive, mobile and communications and software-enabled businesses drive innovation-led growth. Via our over-the-air (OTA) software update, virtualization and device management solutions we keep billions of mobile, automotive and IoT devices of all sizes and complexity continuously and reliably relevant and secure. The mobile devices and intelligent systems that we power are connected, integrated and protected across all platforms and reach every corner of today's digital world. HARMAN Connected Services is a division of HARMAN (NYSE:HAR), the leading global infotainment, audio and software services company.

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