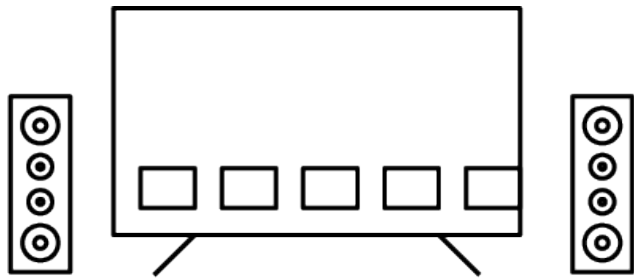
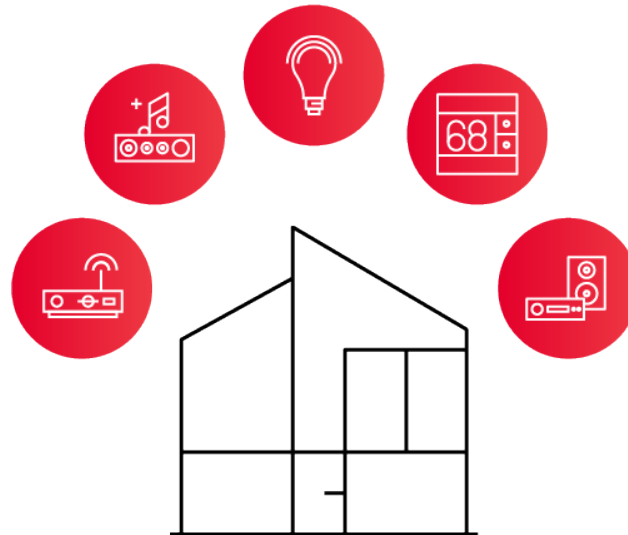
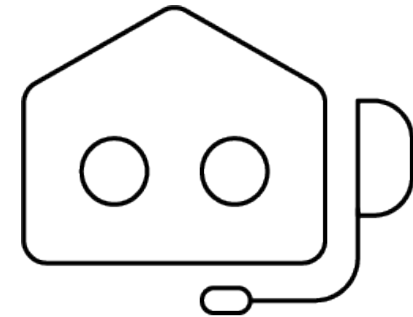

QuickSet for Smart Home



Better Entertainment Experience



Better Smart Home Experience



Better Support Experience

OUR SOLUTIONS



QuickSet Cloud, software and services



Universal Electronics - QuickSet

QuickSet Cloud is the industry standard for home control

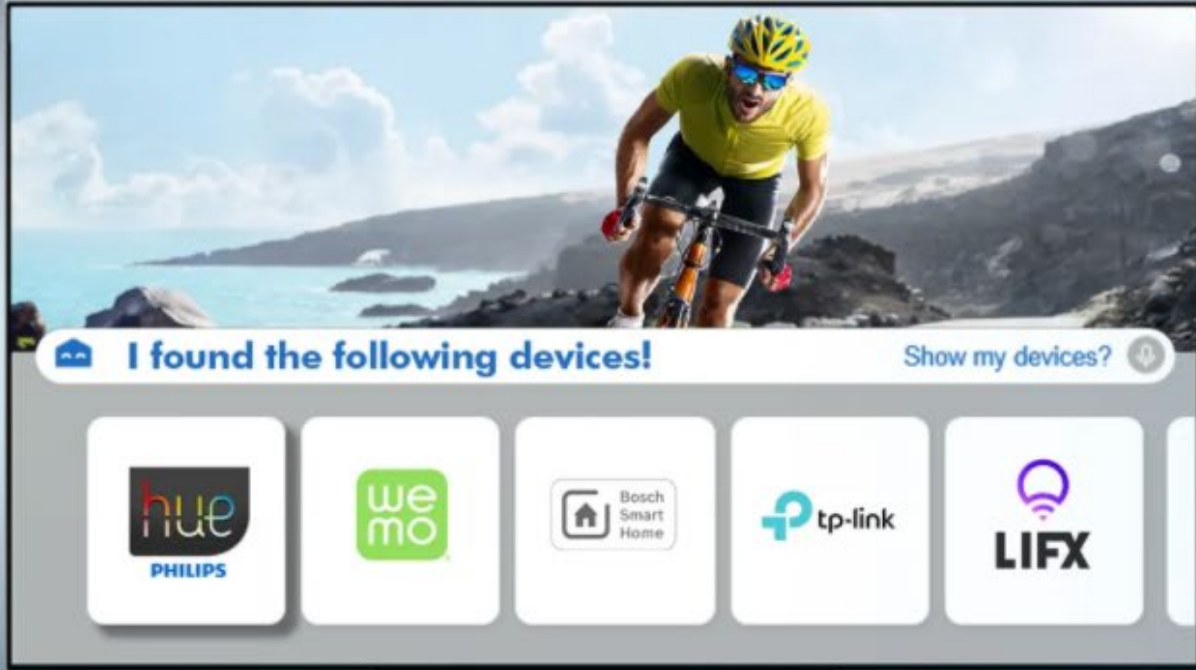
- Launched in 2008, QuickSet has been deployed in over 600M devices with ~225B transactions
- Device and system knowledge base for discovery, control protocols, functions and system behavior
- Control data for over 27.6 million unique fingerprints across nearly 1.2 million devices from 13,000 consumer brands, offering true interoperability between home entertainment and smart home devices and ecosystems
- QuickSet Cloud architecture is built with control engines and discovery, automation and management frameworks with capability for IP, RF4CE, Zigbee, Bluetooth and Infrared



QUICKSET[®]

QuickSet **removes friction** in entertainment experiences in the **600 million devices** it powers worldwide. Make your product part of a **better experience.**

You could be there!



**We can get your brand
on the big screen.**

Working with us enables you to blend
your smart home product into the
entertainment experience.

Blending experiences with QuickSet

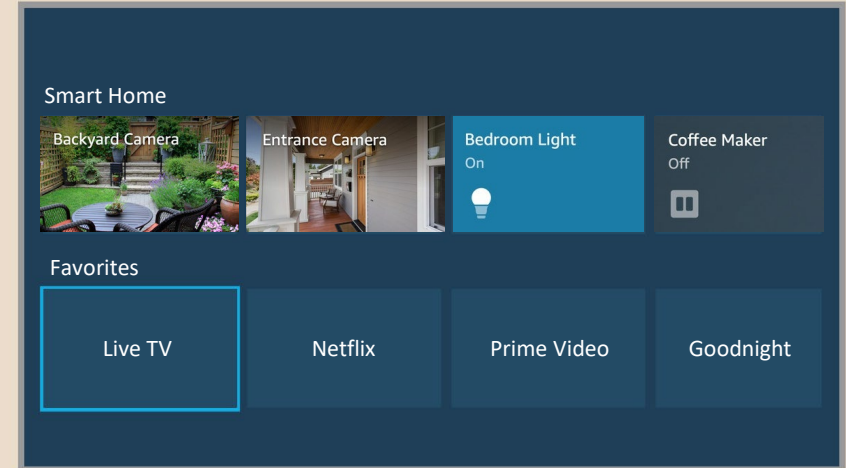
Blending smart home with entertainment experience

BLENDING SMART HOME WITH ENTERTAINMENT EXPERIENCE

QuickSet in the Connected Home

Enhance control capabilities with voice assistants or own Smart Home capabilities

- Add interoperability with 3rd-party voice assistants
 - QuickSet interoperability offers compatibility with third-party assistants offering the “One-Touch View” experience
- Offer own Smart Home capabilities



Extending with Smart capabilities

Interoperability with third-party voice assistants



Alexa,
Watch
ESPN



Ok



PayTV STB



Roku

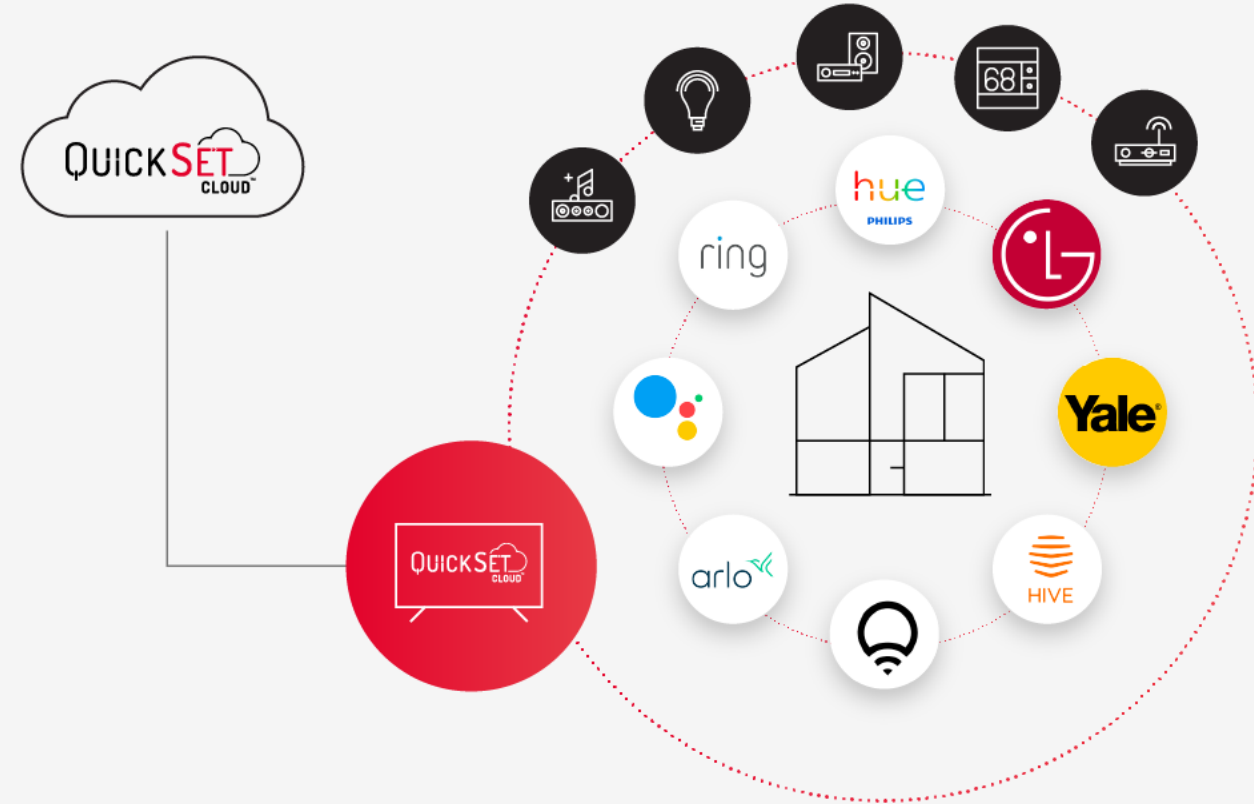


INTEROPERABILITY AS A SERVICE

Interoperability

Reduce friction, improve compatibility and lower operating cost.

- Unifying entertainment control with smart home automation to deliver a complete smart home experience
- Managed and maintained interoperability means a pain-free path
- Ensures compatibility with what consumers already have within their home
- Extends existing retail voice assistant's features (Google Assistant / Amazon Alexa)



Experience seamless interoperability with QuickSet

- Make your device compatible with the **550+ million devices** running QuickSet.
- Make your device compatible with major IoT hubs.
- Make your product work with other assistant devices.

Blend Entertainment and Smart Home experiences





Smart Home – a curated experience

Unifying Entertainment & Smart Home Control

Provide

Provide curated list of devices for easy entry into Smart Home Lifestyle device starting with Lights, Plugs, Thermostats...

Bring

Bring Interoperability and intelligent onboarding to blend Entertainment and IoT devices
Made easy with other UEI Offerings like Virtual Agent

Support

Support for existing and new devices within the home across varied protocols

CURATED LIST OF SUPPORTED DEVICES

Smart Device Expansion (IP)

The Works With QuickSet program is a curated ecosystem blending the entertainment and smart home experiences. Ensuring a product is compatible with what consumers already have in their home including existing entertainment devices, smart speakers and a wide range of IoT Smart devices such as:

Lights	Switches/ Plugs	Thermostats	Hubs	Locks	Cameras/ Doorbells
<ul style="list-style-type: none"> •Philips Hue •LIFX •OSRAM •IKEA •TP-Link •Yeelight •Eufy •Sengled •Nanoleaf •Hive •Wiz •Nexlux •Magic light •Smartthings lighting •... 	<ul style="list-style-type: none"> •Belkin Wemo •TP-Link •Leviton •Etekcitty •D-Link •Hive •IKEA •iHome •Awair •Homematic •Eufy •ConnectSense •Meross •... 	<ul style="list-style-type: none"> •Honeywell •Hive •Radio Thermostat •Tado •Netatmo •... 	<ul style="list-style-type: none"> •SmartThings •Philips Hue •IKEA •Hive •Wink •Insteon •Bosch •Homeatic •Hunter Douglas •OSRAM •August •Sengled •... 	<ul style="list-style-type: none"> •August •Yale Assure •... 	<ul style="list-style-type: none"> •Amcrest •August •D-Link •Doorbird •Garmin •...

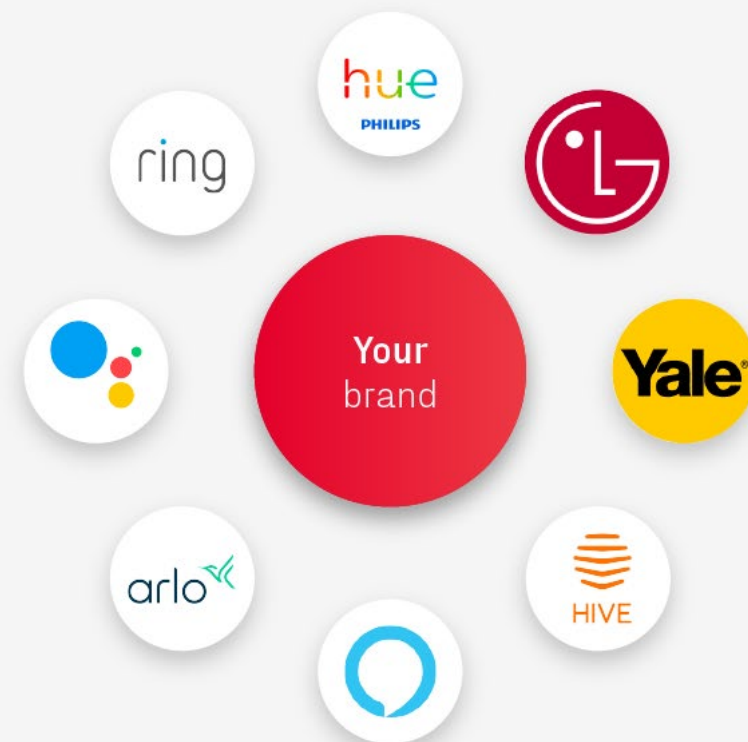


Provide curated list of devices for easy entry into Smart Home lifestyle device starting with Lights, Plugs, Thermostats...

BLENDING SMART HOME & ENTERTAINMENT EXPERIENCES

Seamless control experience

Interoperability with other devices and services in the home is delivered as a service. It ensures the product is compatible with what consumers have in their home whether it be an existing hub, smart speaker or automation platform as well as existing assistants.

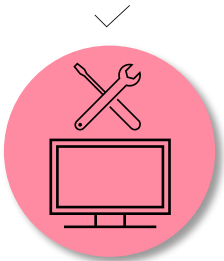


Experience seamless interoperability with QuickSet

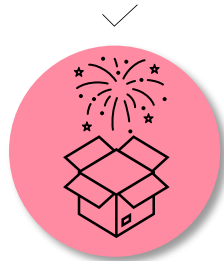
- Make your device compatible with the 600 million devices running QuickSet
- Make your device compatible with major IoT hubs
- Make your product work with other assistant devices



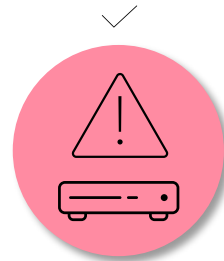
Self support service for



Guided Device Onboarding



Feature Discovery



Troubleshooting

When combined with QuickSet it is enhanced with the knowledge of existing devices at the home including real-time access to secure remote troubleshooting features.



An integrated tier 0 support service for Entertainment and Smart Home devices.



Talk to your product

Nevo Butler, powered by QuickSet, opens a conversational interface between your product and its users.

The Nevo Platform

The Nevo Platform is the white label end-to-end smart home and entertainment control solution from UEI. It consist of our QuickSet Cloud, nevo.ai, services, gateways, widgets and devices that seamlessly work together as one system.



QuickSet Cloud

The brain of our platform is called QuickSet Cloud and it allows the system to discover, interact, and control virtually any electronic device or service in the home.



The brain

Digital Assistant

The user interface of the platform is our digital assistant, nevo.ai. She is an intelligent multimodal interface which interacts with the user over voice, graphical, and tactile interfaces.



nevo.ai

Software Services

Leveraging our cloud and digital assistant, the Nevo Platform offers multiple truly unique discovery, control, and support services



Services

Butler Gateway

The Nevo Platform can run on virtually any internet connected OEM device, but presents itself in its purest form on our highly secured, voice-enabled, white label gateway, Nevo Butler.



Gateway

Widgets

Our solution allows products to interact with many of today's connected and legacy electronic devices in the home, especially if powered by our connected wireless modules called QuickSet® Widgets.



Wireless modules

Devices

To complete our end-to-end system, Universal Electronics develops many white label IoT devices such as Zigbee sensors or thermostats. We also certify third party IoT devices via our Works With QuickSet® program.



End-to-End Solution

Matter

Matter addition to QuickSet

With the Promise of MATTER, Why QuickSet?

The Reality of the Industry

The goal of the standard is to make all smart home devices interoperable **BUT not all devices will be Matter addressable.**



Strategy Alignment

The Matter strategy does not align with some manufacturers' strategy
e.x. certain providers do not wish to participate in the multi-admin nature of Matter.
e.x. Most non-Android TV STB will not support Matter

Technical Feasibility

Majority of deployed devices simply cannot achieve matter compliance due to hardware constraints
e.x. Some deployed smart home devices only have sufficient RAM and Flash to run either zigbee, Thread or Wi-Fi protocol, but insufficient to add Matter stack on top of that which today is ~ 12MB

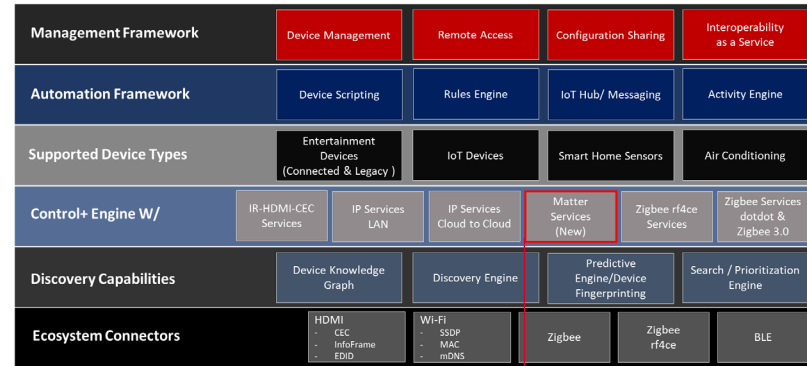
Upgrade Path

Many devices will not be matter upgraded
e.x. Signify has announced that it's updating the bridge for its Philips Hue smart lights to support Matter while Belkin (Wemo) announced that existing Wemo products will not be upgraded to support Matter

WITH THE PROMISE OF MATTER, WHY QUICKSET?

Enhanced Control

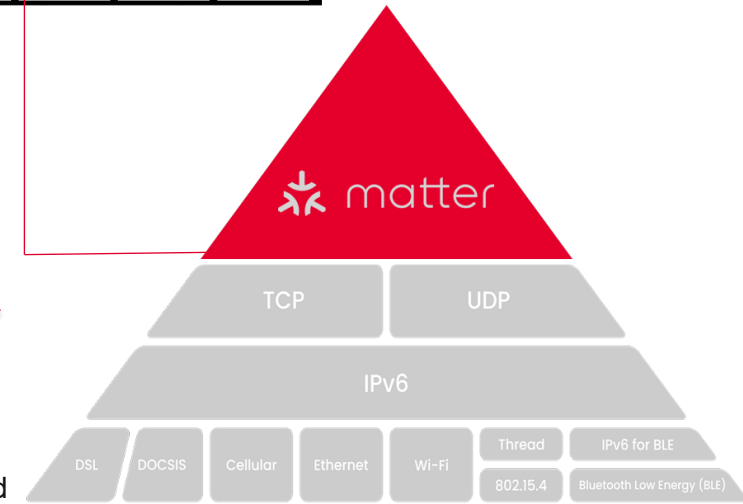
- A powerful and simple **single interface** for customers to merge and **expose** devices with varying **protocols & capabilities**.
- **Matter open stack, made simpler:**
 - Knowledge graph that understands device specific steps and APIs for onboarding of both devices as well as controllers
 - Continuous testing, updating and maintaining device knowledge graph to include new variations, and regions as an on-going dedicated effort
 - Device specific virtual agent to support on and off device troubleshooting and assistance
- Simplifies onboarding of devices through device specific onboarding and other offerings like Virtual Agent
- Simple and Unified API and device model to discover, onboard and control Matter enabled and legacy devices



QuickSet Framework



Matter Standard



Control+ Engine with Matter

Discover, onboard and control for Matter compatible devices.

QuickSet works as both a Controller and an Accessory to provide compatibility and interoperability with other existing or new Matter devices in the home.

Interoperability enhanced

- Connect with legacy & new devices to cover devices that already exist in the household as well as the new ones introduced
- Extend the interoperability to HVAC devices – Which today primarily are controlled through infrared
- Support non Matter enabled IoT devices such as lights, switches, etc. irrespective of the protocol used

QUICKSET®




- M** Matter compatible devices
- Q** Work With QuickSet devices



Reference cases

Using QuickSet

CUSTOMER EXAMPLES

Product Type	Connected STB's	TV Manufactures	Smart Speaker STB's	Voice Assistant
<p>Partner(s)</p> <p>Examples of some Tier 1 Customers with commercially deployed products.</p>				 <p>Samsung Galaxy Home Mini</p>
<p>Key Feature(s)</p>	<p>Universal IR and IP control of TV, soundbar and AVR</p> <p>Quickset Insights</p>	<p>Universal IR and RF control of STB, Audio, BD</p> <p>Smart Home device and service control</p>	<p>Universal IR control for TV</p>	<p>Universal IR Control for: TV, STB, Audio, DVD, Projector, Fan, Air Purifier, Humidifier. Robot Vacuum Cleaner, Lighting and Air Conditioner</p>

GALAXY HOME MINI | QUICKSET + UEI1704 | LAUNCH 2020

QuickSet in Smart Speaker

- UEI has been a key strategic supplier for Samsung since 2011.
- We are offering the unique IR blaster chip module solution and QuickSet technology in Samsung Galaxy Home Mini.
- Benefit from the UEI1704 IR blaster chip and QuickSet technology, end user can take Galaxy Home Mini as a universal remote controller for Smart Home control (legacy home appliance via IR control).
- Hundred to thousand of the legacy and IoT devices supported like TVs, Projectors, STBs, Game Consoles, OTTs, Media Players, Aircons, Air purifiers, Fans, Lights and all IR devices.
- Same solution deployed to other Smart Speakers from Korea MSOs



KT Giga Genie2
Smart STB



SK A12
Smart STB



Naver Wave
Smart Speaker



Smart home control from Galaxy home mini
Powered by IR Blaster & QuickSet Technology

VODAFONE FAR FIELD VOICE ASSISTANT

QuickSet in Gateway

- Strategic partnership with Vodafone in 13 countries and supplier of most of their video entertainment control solutions including exclusive supplier of all their voice remotes
- Nevo Butler provides white label handsfree control of the Vodafone TV box and TV and audio device
- Capable of blending entertainment and smart home control
- Automated setup of smart TV and connected sound bar



Vodafone | far field voice assistant | launch
2021

LG TV SMART HOME DASHBOARD

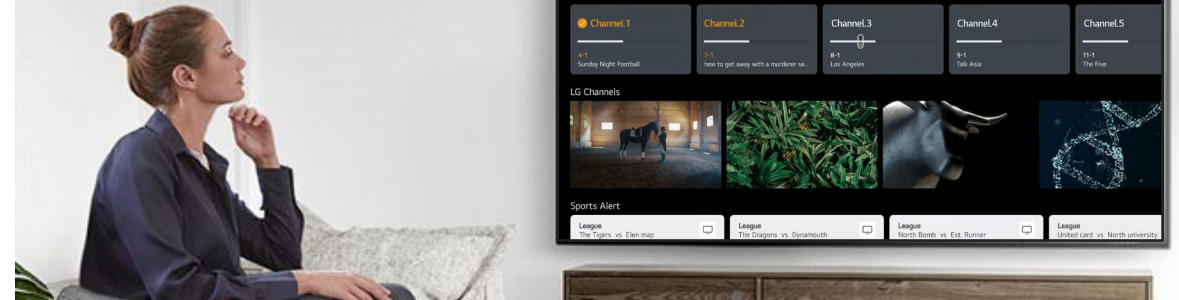
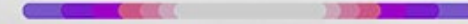
QuickSet in Smart TV

- Key strategic supplier for LG TV since 2019
- Using QuickSet technology, LG TV can auto-detect and control AV devices via the LG remote controller directly
- Utilizing UEI's unique IP discovery enables end users to discover, monitor and control different IoT peripherals from the built-in smart home dashboard interface.
- Powered by Works with QuickSet program for interoperability
- Supported devices included smart switch, plug, lighting, hub, IP camera, dimmer, door lock, video doorbell, sensors, thermostat and home appliances from global brands with ongoing expansion



Convenience and connected home control
are at your command

Just say "Hi, LG"



LG TV | QuickSet Cloud + Smart Home
Dashboard | launch 2020

Thank you!

