

FORWARD-THINKING
SOLUTIONS FOR A DYNAMIC
MOBILE WORLD

As consumers grow increasingly knowledgeable and empowered, and smartphone and tablet offerings consequently more abundant and diverse – so does the mobile industry turn exceedingly competitive.

An effective way to stand out in all the commotion is to continuously innovate, and breathe new life into and extend the usefulness of your mobile technology offerings. Build customer faith in your smartphones' and tablets' ability to evolve and adapt, to gain enhanced performance and new, differentiating functionality. This is exactly what HARMAN mobile solutions are set to help you do.

A uniquely comprehensive mobile solution offering

Our end-to-end range of HARMAN mobile solutions can help you:

- Increase and generate new revenue streams with OTA (Over-the-Air) delivered feature and functionality updates
- Ensure 100% failsafe OS upgrades
- Optimize smartphone and tablet performance on the basis of unique device analytics and insights
- Effortlessly gain global operator compliance and certification

FOTA (Firmware Over-the-Air) updating

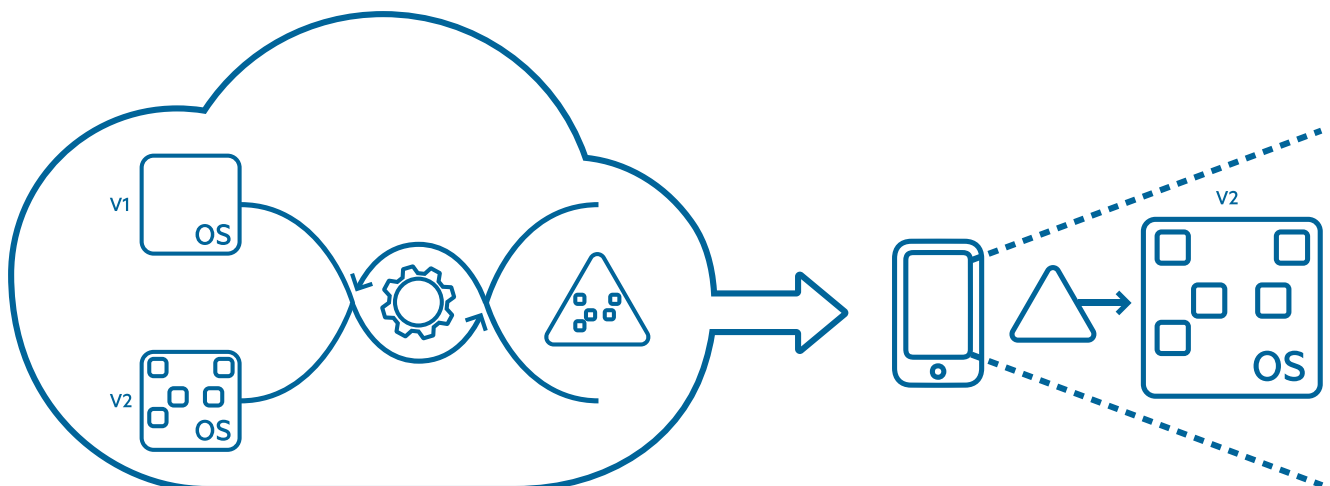
Our renowned, field-proven OTA firmware update solution enables mobile device manufacturers to ensure continuous relevancy by constantly keeping smartphones and tablets fresh and up-to-date. The “magic” behind this highly scalable solution lies in our peerless Smart Delta technology, which delivers the latest firmware, OS, application and setting configuration updates over the air — via the smallest possible, most efficient payloads.

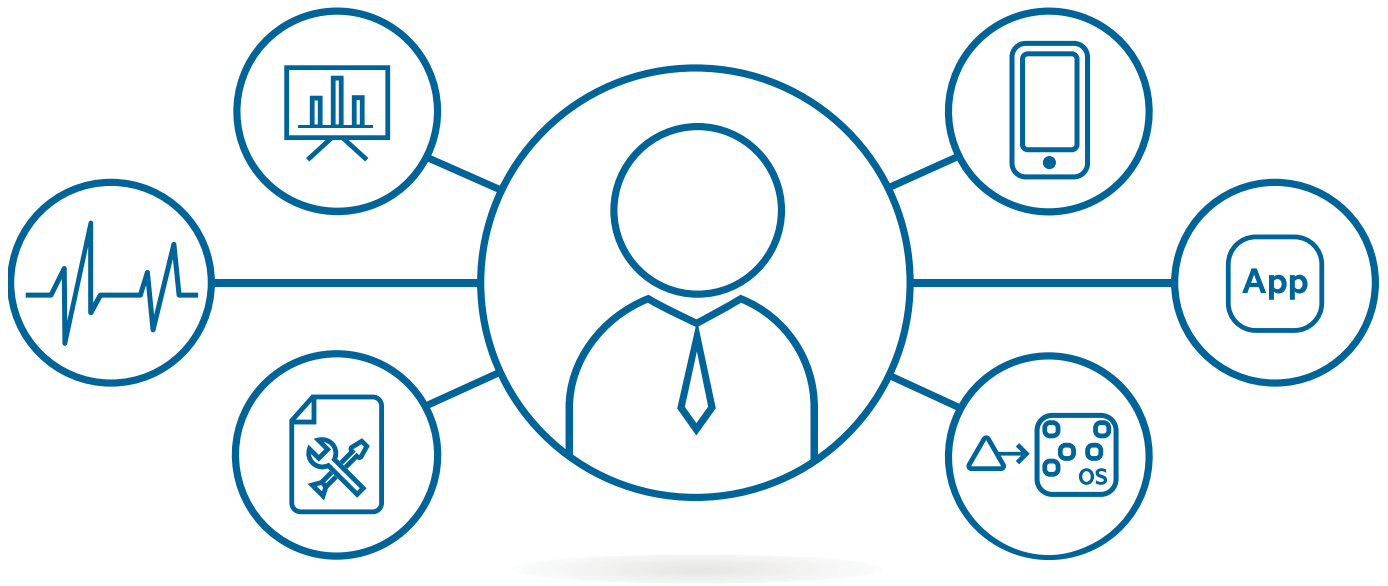
Rather than replace files or software images in their entirety, this OS-, chipset- and network-agnostic technology determines even the slightest changes in code, then applies them “in place”, effectively creating target software images with full bit-for-bit integrity – in the fastest, most cost- and storage-efficient way. Administrators can effortlessly execute the most complex update campaigns, proactively monitor and manage mobile devices, and even apply device update self-checks via a flexible Web interface.

Complete control of mobile device software

HARMAN Mobile Device Software Management enables you to proactively enhance consumer experience, and evolve and adapt mobile device portfolios of any size and diversity to changing needs via extensive backend management, administration and analytics facilities.

Our open, Web-based software management solution offers many differentiating abilities. These include smartphone and tablet health and usage analysis, remote device configuration and settings delivery, modem, kernel, OS and application updates and management, anti-theft, lock and wipe functionality, and many more.





Operator-compliant device management

In the crowded and highly competitive mobile market, compliance with global operator DM (Device Management) requirements, and interoperability with major DM server vendors, are a bare necessity and an ever-increasing challenge. Rather than divert significant R&D resources to achieving these base requirements, smartphone manufacturers can simply turn to our proven HARMAN OMA (Open Mobile Alliance) DM client solution.

Our continuously updated client is deployed on millions of devices worldwide. It is code optimized to keep footprint down, and can provide any Android or iOS smartphone with full ongoing compliance with any operator certification and interoperability requirement. HARMAN Operator-compliant Device Management ultimately allows you to focus on your core competencies, while helping you effortlessly incorporate your devices in any of the world's leading mobile carrier portfolios.

Backed by a strong services foundation

All HARMAN mobile solutions come with a rich array of support services designed to address both current and emerging smartphone and tablet manufacturer needs.

These include turnkey delivery via highly scalable Cloud-based SaaS or hosted service offerings, extensive integration, custom UI and business logic configuration options, customer-tailored consulting and expert professional services, among others.

Target markets

HARMAN technology and solutions are designed to optimally address the specific needs of the following key markets:



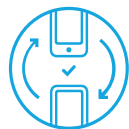
Automotive

Our advanced automotive market-centric capabilities optimize in-vehicle hardware and software, ensuring 100% reliability, and enabling secure, end-to-end remote and OTA software management for any vehicular platform throughout its operational life. HARMAN automotive solutions enable manufacturers to capitalize on the full business potential of connected cars by enhancing driver experience with rapid deployment of value-added in-car services, and minimizing costs through improved efficiency and a reduction in recalls.



IoT (Internet of Things)

Backed by our market-leading Smart Delta update technology, HARMAN IoT software and device management services help deliver uniquely reliable, flexible and scalable solutions. They enable manufacturers of even the most resource-constrained IoT devices to easily monitor, control and continuously add value to wearables, consumer and smart home electronics, automated meters and more – ultimately enhancing user experience and increasing ROI.



Mobile

End-to-end software and device management services backed by powerful update technology. HARMAN mobile solutions allow manufacturers and service providers to continuously increase the usefulness and value of connected devices throughout their entire lifecycle, while ensuring OMA DM protocol-compliant certification as per carrier interoperability requirements. They optimize device performance, deliver unique insights, facilitate rollout of innovative services and contribute to increased ARPU.

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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