

AirTap™ OTA Update Cloud Service

Built by Tap 'n Tap, the leader in Android software solutions



The AirTap over-the-air software update solution is a comprehensive cloud service that combines advanced Tap 'n Tap software update technology with a world-class global network infrastructure.

As a pioneer in Android software development, Tap 'n Tap designed AirTap to help manufacturers, operators, and retailers, easily and securely deliver OTA updates to their end-users' Android tablets and smartphones.

AirTap enables customers to reduce product support costs, increase customer satisfaction, extend products' lifecycle, and keep up with the pace of Android OS releases.

Leading companies around the world trust AirTap from Tap 'n Tap to keep their end-users' products up-to-date.



Fully hosted end-to-end OTA update solution

Scalable: Global server network with 19 data centres and on-demand capacity to serve a large and geographically dispersed customer base.

Reliable: World-class CDN with multiple redundancies and 11 backbones for routing download traffic, ensuring 100% network uptime.

Customizable: Delta updates, release notes, and post-deployment activation, shipment, and usage reports.

Secure: Multiple layers of security and a strict quality control process with over 50 checkpoints to ensure a successful software update.

Android to the core: Exclusively engineered for Android devices by Tap 'n Tap - experts in Android platform and cloud services.

Trusted: Leading manufacturers, operators, retailers, and end-users around the world rely on AirTap to keep their products updated.

World-class system with intelligent architecture

The **AirTap system was designed** to increase reliability and scalability while reducing risks and complexity. A modular architecture with four sub-systems forms a foundation enabling AirTap to distribute high volume and large bandwidth downloads with 100% network uptime.



AirTap Update Engine



Sophisticated yet lightweight Web service that is used by the device client to determine if an update is available and to connect to the appropriate download server location.

Delivers descriptive metadata about available updates to the device, which is communicated to the end user through the AirTap Device Client.

Powers back-end analytics and support functions and logs all incoming device requests and messages.

AirTap Download Server



A dedicated Download Server on the CDN hosts the update files for each supported device.

Enforces network redundancies and safeguards and facilitates local hosting of the update files in a secure location.

Optimizes download performance and can be run securely on any Web server in the public internet.

AirTap utilizes a route-optimized global Content Delivery Network (CDN) to deliver updates securely around the world.

100% network uptime with <45ms latency, <0.3% packet loss, and >0.5ms jitter

Superior bandwidth supporting up to 10 GBs per second and capacity that scales on-demand thanks to 19 data centers strategically located throughout Asia, Europe, and the Americas.

Silent download technology eliminates end-user distractions and notifies users when the update is ready to install at the user's convenience. Fully customizable front-end to communicate release notes and targeted marketing messages.

Automatically checks over Wi-Fi or mobile data networks for available updates for the device from the AirTap Update Engine.

Utilizes the trusted Android Download Service to retrieve the update from the download server on the CDN and manage the download process.

Content Deliver Network



AirTap Device Client



Multi-level security and rigorous quality assurance

- ✓ Fingerprint ID
- ✓ Checksum
- ✓ System Key

AirTap integrates multiple levels of security and integrity into the update process.

The AirTap Update Engine and AirTap Device Client sync to securely manage and match software builds with device SKUs. If an update is postponed by the end-user, AirTap will run a second MD5 verification check before installation as an extra safeguard.

- ✓ 50 checkpoints
- ✓ File and integration tests
- ✓ Lab and field trials

Tap 'n Tap has developed a strict quality control process with over 50 QA checkpoints.

All components are fully tested at each phase of integration and during the device update process. Tap 'n Tap's platform engineering and QA teams rigorously test the implementation of each customer OTA update both in our engineering lab and via extensive field trials.

Turnkey implementation reduces time-to-market

Tap 'n Tap developed a **turnkey** implementation process empowering Android manufacturers to take advantage of the AirTap solution with efficiency, speed, and low resource demands.

AirTap Device Client Integration



Software Update Development



Go-to-market checklist from project set-up to deployment with clear milestones.

Tap 'n Tap consultative services and project management.

Best practices from years of software update development and deployment.

Annual maintenance plans tailored to match customer's product support strategy.

The AirTap advantage

| | Global Reach | Delta Updates | Business Analytics | Android To The Core | Software Update Preparation | Go-To-Market Checklist | Pre-Update Field Trial Support | Integrated Customer Support |
|--------------------|--------------|---------------|--------------------|---------------------|-----------------------------|------------------------|--------------------------------|-----------------------------|
| AirTap | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Competitors | ✓ | ✓ | ✓ | | | | | |

Android brands around the world trust AirTap

AirTap has been proven again and again to deliver updates to end-users around the world. Every month, AirTap delivers software updates containing over 20 TeraBytes of data. In one customer engagement, Tap 'n Tap updated over 20K devices with a 300 MegaByte device image, in under 12 hours, all in a single market. With a resume of customer achievements like this, and a dedicated team of international product management and support teams, Tap 'n Tap has the talent and resources to help you today.



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