

HOTEKEY

Smart Screen Ecosystem

BOX480 End-to-End Smart Hotel Solution

Product & Solution Overview · 2026

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Executive Overview

BOX480 is HOTEKEY's end-to-end smart hotel solution. Built around a unified AIoT platform, it integrates the guest mobile app, hotel TV system, room control, robots, voice interaction and digital operations into one managed service.

- Data Integration — connects mainstream PMS systems (except Opera, which requires custom development) and third-party check-in terminals.
- Modular Room Control — BOX480 modular guest-room control with switch and multi-mode dimming, freely combined.
- TV Voice Control — voice commands on the TV control lights, AC, motorized curtains and the TV itself, replacing consumer smart speakers.
- Robot & Locker Integration — built-in third-party robot and smart-locker integration for in-room delivery.
- In-Room Service — guests request services by voice; the hotel SaaS backend receives, processes and feeds back via phone, voice or TV screen.
- Unified Management — one platform spans lobby, meeting rooms, banquet halls, gym and guest rooms: a true IoT hotel.

01

Solution Architecture (1+N)

One center, N convergences (1+N): the BOX480 AIoT platform acts as the hub, converging PMS, voice/TV, video, gateway and IP phone into a single operable system.

- BOX480 smart hotel platform hub (AIoT central system).
- Converged access — PMS, voice/TV, video, tri-in-one gateway, IP phone.
- Eleven integrated functions deliver an industry-leading fully smart hotel.
- Hardware ecosystem products connect in one system, deeply fused into the AIoT hub — manageable, controllable, unified operation.
- One service system, one standardized runtime — truly smart hotel experience with worry-free after-sales.

02

In-Stay Mobile App

A single mobile terminal connects every hotel service the guest uses.

- Self-check-in, smart display, face-pass, delivery robot, elevator control, door lock, mini-program, smart speaker, video call, room control.
- Most-used services: delivery, cleaning (scheduled), DND, checkout, invoice.
- Phone control of room lights, AC, TV and curtains — one-tap whole-room smart control.
- Select room, ID verification, device & lock control, booking/payment, services.
- Mall & F&B; modules extend secondary sales (all-in-one traffic entry).
- Note: integrates with the hotel's existing mobile app if already in place.

03

Hotel TV System — HotelTV OS

A commercial smart-screen OS covering every hotel scenario, pushing brand, service, content and marketing to the guest.

- Connects PMS welcome, branding, service, marketing, membership, content, surrounding info, private-domain ops and TV signal — cloud-to-end automated control.
- Multi-language; core functions: entertainment, video, brand marketing, hotel service, mall.
- Scenarios: lobby, guest room, meeting/banquet, front desk, restaurant, fitness — different functions per scene, reaching the guest throughout the stay.
- Three editions: HotelTV OS Room / Front Desk / Public Area.
- App matrix: cloud, live TV, AuroraTV, big screen, mall, hotel info, rate board, city guide, games, sports, fitness, auto, music, cast.

04

Guest Room Control System

Standard interfaces link room devices to the cloud, enabling TV-remote or voice control and scene-based automation.

- Scene modes: Welcome, Reading, Sleep, Movie, Bright, Meditation.
- Devices: switch panel, light, curtain, AC, air purifier, door indicator, sensor, cat-eye, others.
- TV remote or voice controls the room; multi-device scene linkage.
- Control entry: voice command, remote, mobile app.
- HotelTV OS carries many networked-device integrations and supports AIoT aggregated room control.

05

Robot Integration & Voice Control

One screen ties together all in-hotel smart hardware into a digital service chain.

- Guest orders via TV far-field voice, smart speaker or in-stay mini-program.
- Store receives, assigns and processes orders on PC or mobile.
- Staff or robot delivers items to the room; arrival notified via TV, phone or SMS.
- Main robot vendors: CloudMinds, Jinwu, Keenon, Angbao, New Human, Segway, etc.
- Voice capability list (after TV/IPTV integration): TV on-off & volume, welcome playback, channel switch, content search, room control, service requests, hotel info, launch 3rd-party apps, phone calls.

06

Video / AV System & TV Signal

Diverse, complete signal-access flows deliver stable live TV.

- Android smart TV / STB with OS exchanges data with the cloud SaaS over hotel network & internet.
- DTMB coaxial: operator STB + encoder via coax.
- IPTV live gateway: operator optical modem + live gateway over network, live APK parsing.
- Operator live APK / one-box-per-room: operator STB in room, controlled by one remote.
- Multiple access methods guarantee stable live-TV signal and viewing quality.

07

UI Customization & Hardware Adaptation

Friendly to both legacy and new devices — sharply cutting hardware-upgrade cost.

- 6 UI styles free; paid custom UI interface.
- Adapts all mainstream hotel TV brands and models — the most models supported in the industry.
- Stock-store retrofit: STB plans for various signal sources; meets upgrade needs within quoted price.
- TV + operator box: one remote controls both via dual-code IR-learning 2-in-1 remote.
- Professional custom 2-in-1 remote — saves hardware refresh cost.

08

Data Operations

StoreConnect brings complete commercial film resources and supply-chain advantages, boosting membership operations and non-room revenue.

- Pre-stay: acquisition & easy check-in.
- In-stay: smart experience & data operations.
- Post-stay: private-domain conversion & re-marketing.
- Deep cooperation on media resources raises member operations and non-room revenue.
- Delivers both hotel management and hotel operations capabilities.

09

Full-Scenario Operations & Marketing

A full-scenario operations model with complete functions and architecture.

- Marketing release: material upload, templates, custom layout, QR overlay, timed / instant / unified / targeted publish.
- Scenes: front desk, room, restaurant, meeting, others.
- Membership: labels, scenes, groups; ehotel / ihotel group-store management.
- Community auto-operation, QR generation, member tags, scene building.
- Perfect functions & system architecture solve hotel management and info-release challenges.

10

Info Push & Membership

Multiple push methods display instantly, raising the hotel's information-service level.

- Independent / group / global / timed / personal / emergency popup.
- PMS & Huazhu Hui group systems: guest surname + title, member info display.
- API or SDK integration; member-activity entry.
- Global-leading cloud vendor ensures data security.
- Six functions build a bridge between hotel and guest via the big screen.

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Content Ecosystem

A self-operated / operator-output content value-add team with 10+ years of experience.

- Full support: product, data, curation, scheduling, marketing, pricing.
- MMS ingest / CMS, media packaging, rating, strategy pool, standard A/B tooling.
- Fine-grained operation by audience and data.
- Custom EPG, boot logo & animation, welcome screen, UI, dynamic module add/remove.
- Four functions meet hotel/group needs: standardization, info-release, membership, welcome.

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Digital Management Platform

One integrated platform, four systems — group-wide digital management, device chaining and unified operations.

- Hotel management / ops / data-statistics / AIoT systems.
- Brand operations by org (group, region, store), real-time BI analysis.
- Hardware device mgmt: online status, IP, MAC, app version, memory, DeviceName.
- Software mgmt: UI templates, versions, signatures; remote batch upgrade, Log, screenshot.
- Data analysis: terminal online tracking, boot count/duration, module interaction.

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Implementation Capability

Proven delivery capability built on thousands of hotel projects.

- Scale: 4,000+ hotels, hundreds of thousands of rooms, 10+ years of RCU + hotel-TV experience.
- Full coverage: all provinces, autonomous regions and municipalities; deployment & O&M; nationwide.
- Subsidiaries: Guangzhou HQ; Shanghai, Nanjing, Chengdu offices for regional coverage.
- 300+ signed channel partners with rich hotel engineering / weak-current / smart experience.
- Service partners: Sunshine Yulu, Pingyun Xiaojang, etc.