

DIGITAL HUMAN AVATAR PLATFORM

Dihuava

Intelligent · Immersive · 100% Local AI

- Zero Cloud Dependency
- GDPR Compliant
- Full Offline Operation
- Multilingual

100%
ON-DEVICE AI

5,000
DAILY INTERACTIONS

67+
VOICE PROFILES

3+
LANGUAGES

What is DiHuava?

The AI-Powered Digital Human Avatar Platform by HS Global AI

DiHuava

— OVERVIEW

A New Era of Human–AI Interaction

DiHuava is a fully self-contained, enterprise-grade digital human avatar platform developed by HS Global AI. It powers lifelike AI assistants on interactive display systems — kiosks, holographic screens, and smart panels — enabling businesses to deploy intelligent, conversational digital humans that operate with **zero cloud dependency**, ensuring uncompromised performance, privacy, and reliability.



100% Local AI — Your Data Never Leaves the Device

Unlike cloud-dependent solutions, DiHuava processes every voice input, language query, and AI response entirely on the local device. No audio, text, or personal interaction data is transmitted to any external server — making it the ideal choice for regulated industries and privacy-conscious organizations.



Lifelike Digital Avatars

Photorealistic digital humans powered by advanced AI that can listen, understand context, and respond naturally — with multiple persona options including Retail, Healthcare, and Corporate avatars. Custom avatar uploads are also supported.



Real-Time Voice Interaction

Built-in speech recognition converts spoken language to text on-device in real time. Voice Activity Detection (VAD) intelligently filters ambient noise, ensuring accurate hearing in offices, retail floors, and outdoor public spaces.



On-Device Language Model

A fully local Large Language Model (LLM) understands natural language, processes complex queries, and generates contextually rich responses — entirely offline. No internet required for conversation generation.



RAG Knowledge Base

Upload your business documents (PDF, TXT, CSV, MD) directly into DiHuava's Retrieval-Augmented Generation (RAG) engine. The avatar can answer queries grounded in your own knowledge base — all processed locally.



Core Platform Capabilities at a Glance

- ✓ Fully offline AI speech recognition
- ✓ Multi-environment VAD configuration
- ✓ Product catalog with AI vocabulary
- ✓ 67+ cached voice synthesis profiles
- ✓ Custom persona & avatar support
- ✓ Multilingual: English, Chinese, Spanish

- ✓ Real-time system health monitoring
- ✓ Up to 5,000 daily interactions
- ✓ Offline mode for air-gapped deployments
- ✓ License-based device activation
- ✓ 10 concurrent session support
- ✓ Gender-selectable avatar presentation

Data Privacy & Compliance

Dihuava

100% On-Device Processing · Zero Cloud · GDPR-Ready Architecture

Your Data Never Leaves the Device



Dihuava is built from the ground up with a privacy-first, offline-first architecture. Every AI model — language understanding, speech recognition, voice synthesis, and semantic search — runs entirely on local hardware. No conversation data, voice recordings, or user interactions are transmitted to HS Global AI servers or any third-party cloud platform.

GDPR Compliant

PDPA Ready

HIPAA Friendly

Air-Gap Deployable

Data Residency

Zero Telemetry



GDPR Compliance

All personal voice and interaction data is processed and retained exclusively on the local device. No data transfer to third-party servers — satisfying GDPR's data minimization and storage limitation principles.



Healthcare & HIPAA

Patient interactions remain on-premises. No Protected Health Information (PHI) traverses public networks, making Dihuava suitable for hospital lobbies, clinic receptions, and patient guidance kiosks.

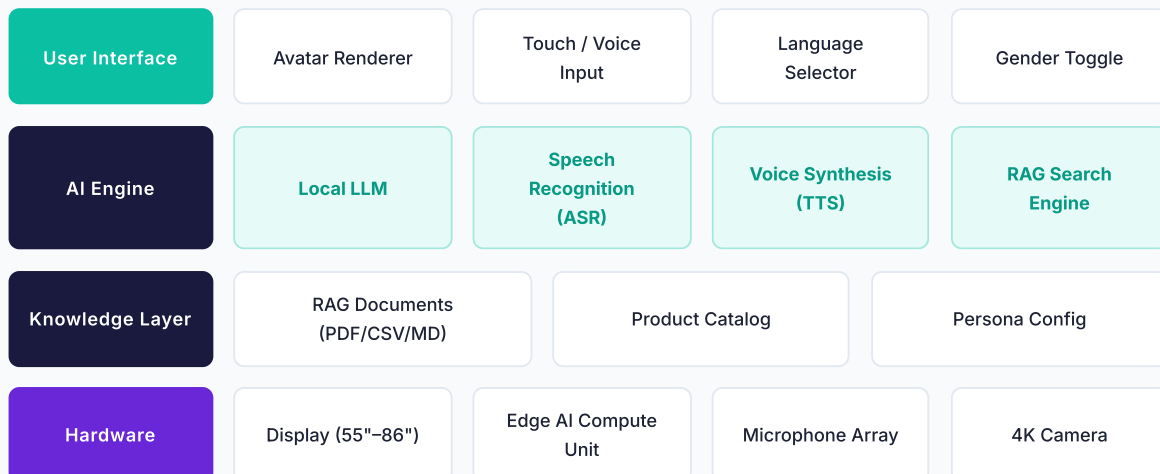


Banking & Finance

Financial institutions can deploy Dihuava with confidence that sensitive customer conversations, account inquiries, and advisory sessions remain within their secure perimeter.

— ARCHITECTURE

Dihuava — On-Device AI Architecture





Air-Gap & Offline Mode

Dihuava supports fully air-gapped deployments — no internet connection is required at any stage of operation. Models are distributed via OneDrive/SharePoint during initial setup, then run autonomously on-device indefinitely. This makes it suitable for government facilities, secure financial offices, and high-security healthcare environments.

— ENVIRONMENT SETTINGS

Adaptive VAD Sensitivity Profiles





Dihuava's Voice Activity Detection (VAD) system dynamically adapts to the deployment environment. Administrators select a profile that matches the acoustic conditions of their location — ensuring consistent, accurate voice capture whether indoors or outdoors.

<p>● Indoor Patient</p> <p>INDOOR ACTIVE</p> <p>Optimized for offices and homes. Designed for natural conversations with longer pauses — ideal for patient and deliberate dialogue styles.</p>	<p>● Indoor Responsive</p> <p>INDOOR</p> <p>Tuned for meeting rooms and quick-service environments. Enables fast back-and-forth exchanges with minimal latency between utterances.</p>	<p>● Outdoor Patient</p> <p>OUTDOOR</p> <p>Built for public spaces and high-noise environments. Tolerates ambient noise and natural interruptions — robust performance in shopping centres and transport hubs.</p>
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— PERSONA MANAGEMENT

Customisable AI Assistant Personalities

Dihuava ships with multiple pre-configured persona profiles, each purpose-built for a different deployment context. Organizations can also upload entirely custom avatar packages — enabling a fully branded digital human presence.

 <p>Retail Sales Assistant</p> <p>A friendly and knowledgeable assistant for retail environments. Greets shoppers, answers product queries, promotes offers, and guides customers through purchase decisions using the active product catalog.</p>	 <p>Healthcare Assistant</p> <p>A professional, calm, and authoritative persona tailored for healthcare settings. Provides patient direction, appointment guidance, and multilingual explanations in clinic and hospital environments.</p>
 <p>Corporate Helpful Assistant</p> <p>A polished assistant designed for corporate office environments. Manages visitor reception, HR</p>	 <p>Upload Custom Avatar</p> <p>Organizations can supply a signed avatar ZIP package to deploy an entirely custom digital human — enabling brand-specific personas, executive</p>

enquiries, executive presence, and internal communications with a professional demeanor.

hologram representations, or industry-specific characters.

AI Engine & Knowledge Management

Dihuava

Offline AI Models · Voice Synthesis · RAG Documents · Product Catalog

AI MODELS

All Intelligence Runs On-Device

Dihuava bundles four distinct AI subsystems, each installed and executed locally. Models are distributed via a secure download mechanism (OneDrive/SharePoint or a custom URL) and cached on the device for fully autonomous offline operation.



Language Model

Local LLM for AI conversation generation. Understands user intent, generates contextually appropriate responses, and maintains conversational state without cloud access.

✓ Installed & Ready



Search Engine

On-device semantic search and document retrieval powering the RAG knowledge base. Enables accurate, citation-grounded answers from uploaded business documents.

✓ Installed & Ready



Voice Synthesis (TTS)

Natural voice generation with 67+ cached voice profiles. Supports multiple languages and gender options. Offline TTS ensures zero latency voice output independent of internet status.

✓ 67 Voices Cached



Speech Recognition (ASR)

High-accuracy voice-to-text conversion processed entirely on-device. Supports continuous listening with VAD filtering to eliminate noise and capture only meaningful utterances.

✓ Installed & Ready

VOICE SYNTHESIS MODES

Offline Mode

Local TTS — zero latency, zero dependency, packaged language models

Online Mode

Cloud TTS — expanded language library when connected

System Mode

OS-level speech engine as a lightweight fallback



Offline Voice Languages

Bundled on-device TTS models — no internet required. Selected during initial setup and cached locally.

🇬🇧 English — 45 MB

🇨🇳 Chinese — 50 MB

🇪🇸 Spanish Español — 32 MB



Online Voice Languages

When internet connectivity is available, Dihuava connects to a cloud TTS service unlocking a significantly broader language and accent library — ideal for multilingual or international deployments.

🌐 Expanded multilingual library via cloud



RAG Document Upload

Upload business documents in PDF, TXT, Markdown, or CSV format (up to 10 MB each). The knowledge base is indexed locally and enables the avatar to answer customer questions grounded in your actual content.



AI Product Catalog

Upload a structured product catalog — DiHuava automatically generates AI vocabulary from your products, features, and assets. Supports versioning with rollback capability for catalog updates without downtime.

System Management

Real-Time Health Monitoring · License Management · Multilingual Support

Dihuava

— SYSTEM HEALTH

Real-Time Service Monitoring




Dihuava's built-in health dashboard provides operators with live visibility into the status and response times of every internal service. Auto-refresh mode continuously monitors system integrity with a single glance.

COMMUNICATION SERVICE ● ONLINE 21ms response time	CONVERSATION ENGINE ● ONLINE 14ms response time	VOICE ENGINE ● ONLINE Ready · 67 voices cached
SPEECH RECOGNITION ● ONLINE Ready for input	API SERVICE ● ONLINE 0ms (local socket)	SEARCH SERVICE ● ONLINE 9ms semantic search

— LICENSE MANAGEMENT

Secure Device Activation & Feature Gating

Each Dihuava deployment is activated via a unique license key tied to the specific device hardware ID. The license controls feature access, session limits, and interaction quotas — ensuring fair use and commercial integrity across deployments.

 Device-Bound Activation Each license is cryptographically bound to a unique device hardware fingerprint. Licenses cannot be transferred or reused across machines.	 Usage Quotas Up to 5,000 daily interactions and 10 concurrent sessions. Clear expiry visibility with days-remaining counter and on-demand refresh.	 Offline Mode Included Licensed devices can operate in full offline mode — voice, AI, and responses all function without network access. No silent license "phone home."
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— MULTILINGUAL INTERFACE

• International-Ready Platform

Dihuava's entire operator interface supports multiple languages, ensuring deployment teams worldwide can configure and manage the system in their native language. The platform ships with English and Chinese (Simplified) UI localizations out of the box.

Internationalization Features

- ✓ English and Chinese UI localizations included
- ✓ Avatar speaks in operator-selected language
- ✓ **Online:** Expanded cloud language library
- ✓ AI Models screen available in
- ✓ Settings menu available in local language
- ✓ **Offline:** EN, ZH (), ES bundled models
- ✓ License screen fully localized ()
- ✓ Language toggle accessible from main screen

Industry Applications

Purpose-Built for Real-World, Privacy-Critical Deployments

Dihuava

— USE CASES

Dihuava's offline-first architecture and customizable persona system make it uniquely suited for industries where data privacy, uptime, and natural human interaction are non-negotiable.



Banking & Financial Services

AI digital advisors that assist clients in a private, compliant manner — entirely on-premises.

- > Account opening & loan guidance
- > Investment advisory in-branch
- > KYC & document explanation
- > 100% local — no client data leaves the branch
- > Real human hologram executive presence



Retail & Commerce

Interactive AI brand ambassadors that work 24/7, even during network outages.

- > Product discovery & recommendations
- > Real-time promotional offers
- > Catalog-driven product queries
- > Multilingual customer engagement
- > Works offline during network downtime



Healthcare & Clinics

Patient guidance and front-desk assistance with full privacy compliance.

- > Patient wayfinding & registration
- > Multilingual health information
- > Appointment check-in assistance
- > HIPAA-compatible — no PHI transmission
- > 24/7 lobby & reception coverage



Corporate & Enterprise

AI receptionists and executive holograms that streamline workplace interactions.

- > Visitor check-in & management
- > HR & policy FAQ assistant
- > Executive hologram presence
- > Internal communications kiosks
- > Secure — no data leaves the office perimeter



Education & Training

Lifelike AI tutors and trainers that deliver engaging learning experiences.

- > Interactive classroom-style tutoring
- > On-demand training delivery
- > Student Q&A from knowledge base
- > Operates in schools without internet
- > Supports multilingual instruction



Tourism & Exhibitions

Immersive holographic guides that enrich visitor experiences in any venue.

- > Museum & gallery interactive guides
- > Trade show & exhibition assistants
- > Tourist information in local language
- > Works in remote areas without connectivity
- > Attracts and engages crowds visually



Trusted Across Asia-Pacific & Middle East

HS Global AI operates as a trusted technology partner in Singapore and the UAE, with Dihuava deployments spanning retail, finance, healthcare, and enterprise verticals across the region. Our offline-first Edge AI architecture ensures Dihuava performs reliably in markets with varying connectivity infrastructure.

Technical Specifications

Software Platform · Hardware Integration · Display Options

Dihuava

SOFTWARE PLATFORM

Specification	Details
Platform Version	Dihuava v2.1.24 (Current Release)
AI Architecture	100% On-Device Edge AI — no cloud dependency
Language Model	Local LLM (Large Language Model) — on-device inference
Speech Recognition	On-device ASR with Voice Activity Detection (VAD)
Voice Synthesis	Local TTS (Offline) · 67+ voice profiles · Offline: EN, ZH, ES bundled (32–50 MB each) · Online: Expanded multilingual cloud library · System: OS fallback
Knowledge Base	RAG (Retrieval-Augmented Generation) · PDF, TXT, CSV, MD · Max 10 MB per file
Product Catalog	AI-generated vocabulary · Version control · Rollback support
Session Capacity	Up to 10 concurrent sessions
Daily Interaction Limit	Up to 5,000 interactions per day (license-controlled)
Supported Languages	English, Chinese (Simplified), Spanish (expandable)
Persona Profiles	Retail, Healthcare, Corporate · Custom avatar upload (signed ZIP)
Environment Profiles	Indoor Patient · Indoor Responsive · Outdoor Patient
License Type	Device-bound license key · Annual renewal · Offline-capable
Health Monitoring	Real-time dashboard · 6 service status indicators · Auto-refresh
Model Distribution	OneDrive / SharePoint URL or custom URL · One-time download
Data Privacy	Zero external data transmission · GDPR-compatible · Air-gap deployable

— HARDWARE INTEGRATION — HOLOGRAPHIC DISPLAY UNITS

Specification	HS550TB (55")	HS650TB (65")	HS750TB (75")	HS860TB (86")
Screen Resolution	4K UHD	4K UHD	4K UHD	4K UHD
Brightness (cd/m ²)	300–500	300–500	300–500	300–500
Contrast Ratio	5000:1	5000:1	5000:1	5000:1
Viewing Angle	178° (H&V)	178° (H&V)	178° (H&V)	178° (H&V)
Touchscreen	Infrared	Infrared	Infrared	Infrared
HDMI Input	2× HDMI 2.0	2× HDMI 2.0	2× HDMI 2.0	2× HDMI 2.0
Audio Output	2× 8W	2× 8W	2× 10W	2× 10W
Camera	4K Ultra HD	4K Ultra HD	4K Ultra HD	4K Ultra HD
Cabinet	Galvanised Steel	Galvanised Steel	Galvanised Steel	Galvanised Steel
Power Consumption	150W	150W	200W	200W
Power Requirement	100–240V AC, 50–60Hz			
Warranty	One Year			

Why DiHuava?

The Competitive Advantage of 100% Local AI

DiHuava

COMPETITIVE DIFFERENTIATION

Built Different — By Design

Most digital human solutions rely on cloud AI services — routing every spoken word and every user query to external servers. DiHuava takes a fundamentally different architectural approach: every AI component runs locally, making privacy, reliability, and compliance inherent to the platform — not optional add-ons.

Feature	DiHuava (Local AI)	Cloud-Based Competitors
Data Transmission	✓ Zero — fully on-device	✗ Voice & text sent to cloud
GDPR Compliance	✓ Compliant by architecture	⚠ Requires additional controls
Internet Dependency	✓ None — fully offline	✗ Required for all AI features
Response Latency	✓ Sub-50ms (local inference)	⚠ 200ms–2s (round-trip cloud)
Network Outage Resilience	✓ Fully operational	✗ Service stops entirely
Data Residency Control	✓ 100% within your premises	✗ Data in provider's data centres
Recurring Cloud Cost	✓ None — one-time license	✗ Per-query API billing
Air-Gap Deployment	✓ Supported	✗ Not possible

PLATFORM STRENGTHS



Enterprise-Grade Reliability

Six monitored internal services with real-time health checks ensure continuous uptime. Auto-restart and fault detection built in.



Easy Administrator Control

Clean settings panel for Environment, Persona, License, Documents, Catalog, Models, and Testing — manageable without IT expertise.



Scalable Deployment

From a single lobby kiosk to a chain-wide retail rollout — DiHuava's license model scales linearly with your deployment footprint.



Proven in Regulated Environments

Dihuava has been purpose-designed for sectors where data compliance is not optional — banking, healthcare, and government. The platform's offline-first architecture means your legal & compliance team can approve it without requiring cloud security assessments, data processing agreements with AI vendors, or complex data governance frameworks.

Dihuava

Digital Human Avatar Platform · By HS Global AI

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GDPR Compliant

100% On-Device AI

Zero Cloud

PDPA Ready

Air-Gap Deployable

Data Residency

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