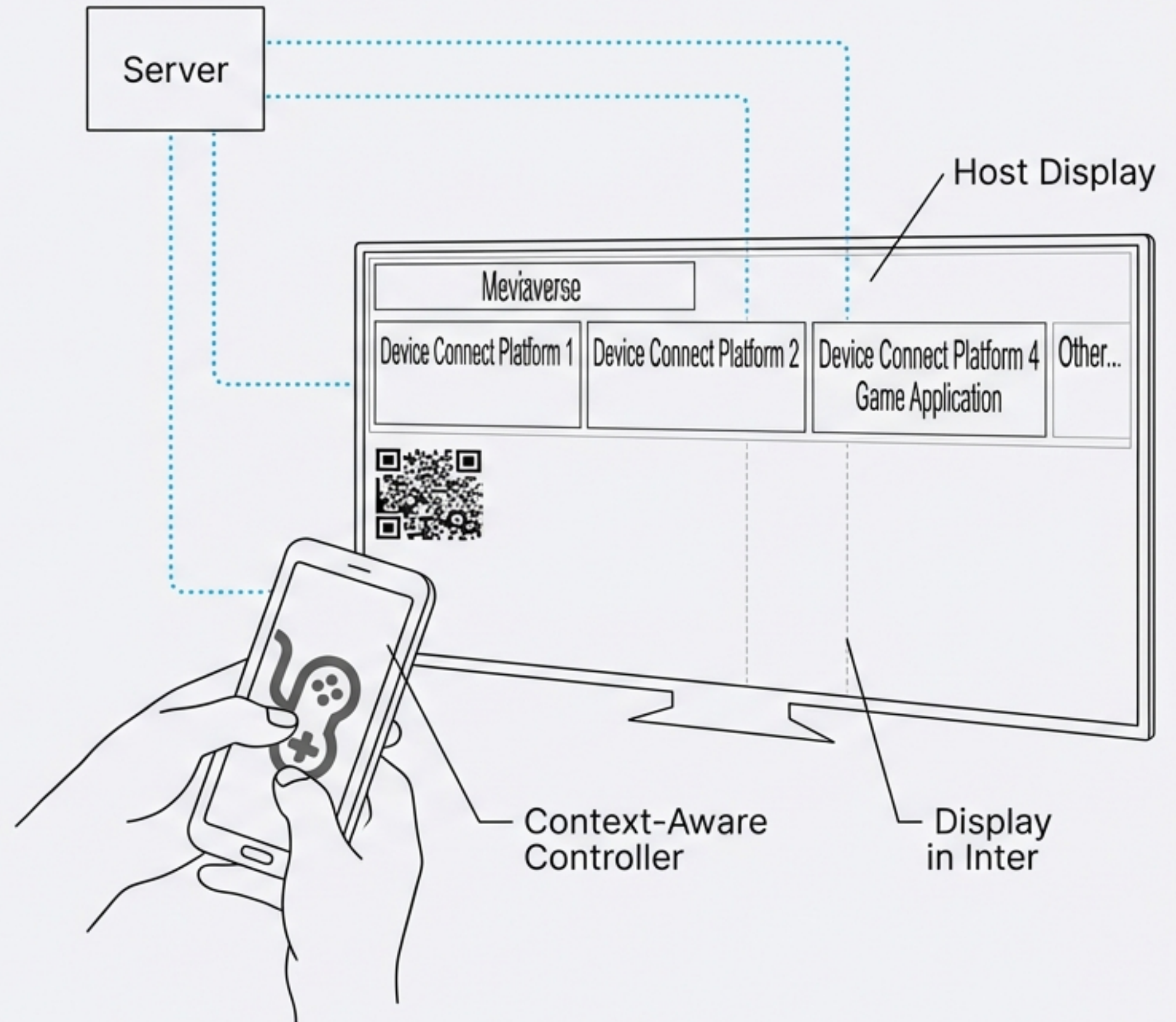


Web-Based Device Interaction & Remote Display Control

Patent US 12,346,399 B2

A Decentralized Architecture
for Ephemeral Input Interfaces.



The Interaction Gap: The 'Dumb' Smart TV

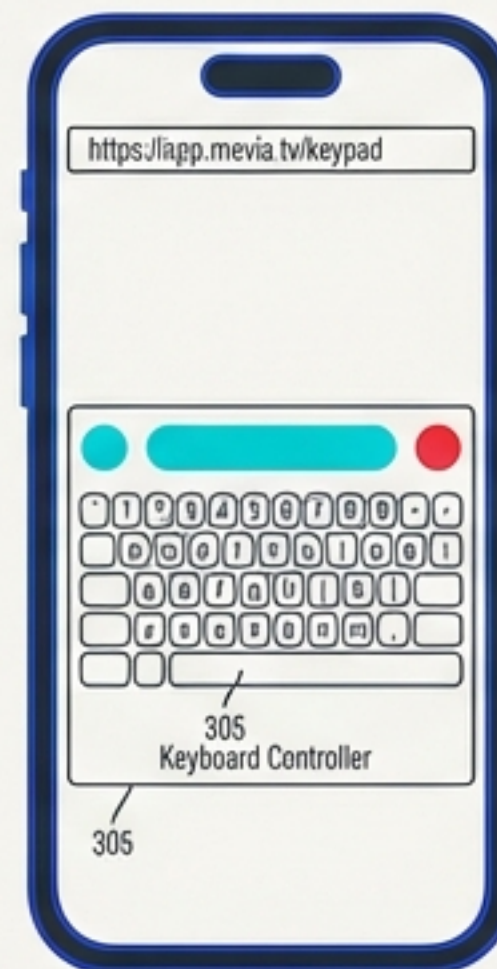
The Legacy Friction



Static
Hardware

- High Input Latency
- Clunky Text Entry
- Hardware-Limited Interface

The Mobile Opportunity



High-Fidelity
Touch Interface

- Dynamic UI (Context Dependent)
- Native Biometrics & Sensors
- Zero-Install / Ephemeral

Zero-Install Interaction: Scan, Load, Control

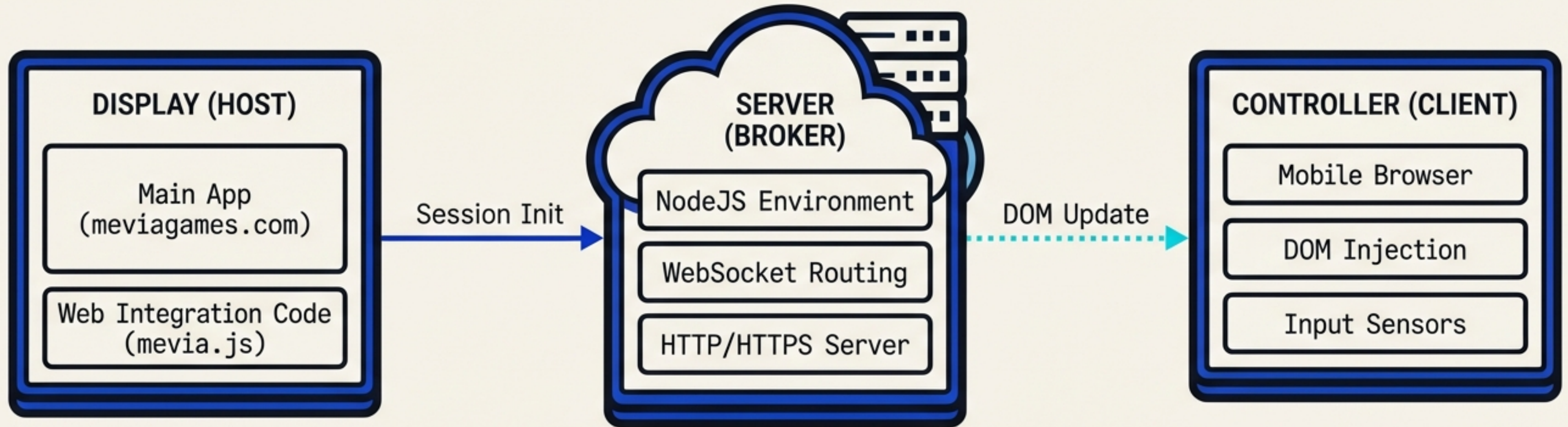
No App Store. No Downloads. Just Web Standards.

1. CONTEXT → 2. HANDSHAKE → 3. TRANSFORMATION



Time to Interaction: < 3 Seconds

System Topography: The Device Connect Platform

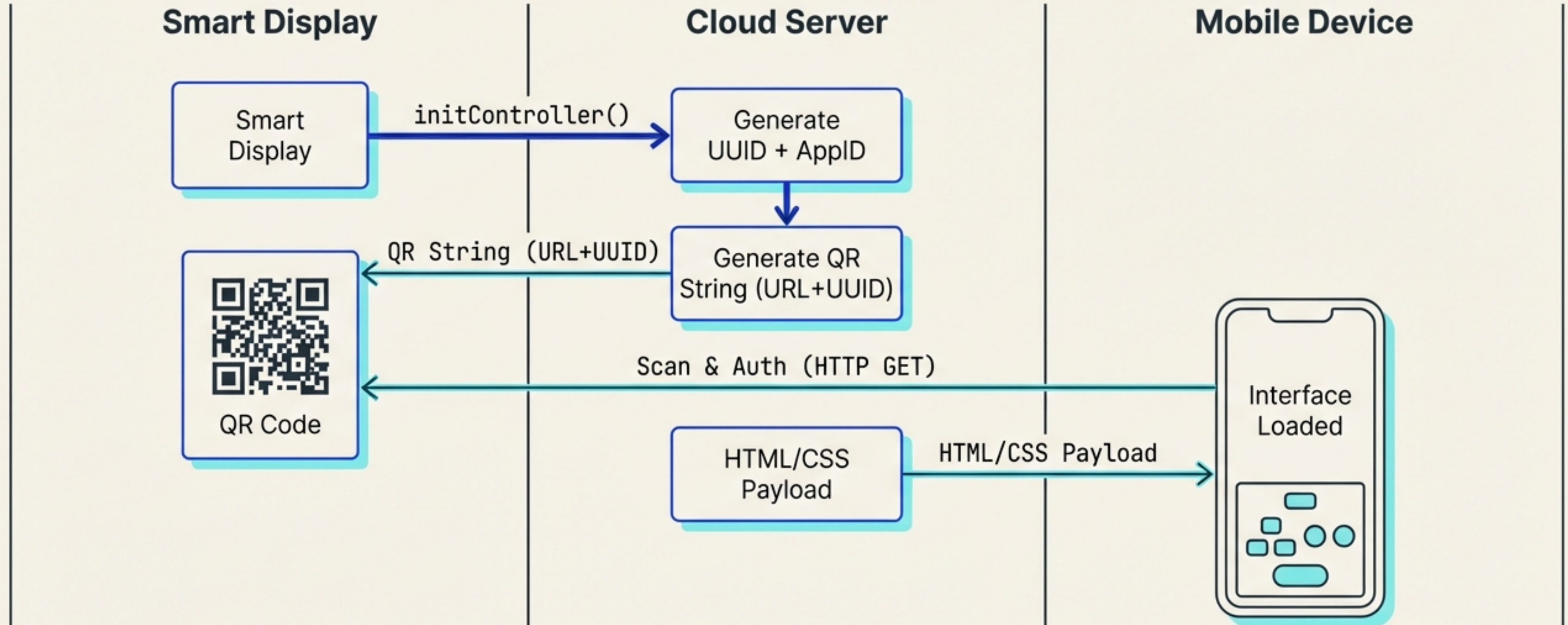


Hosts the application and logic.

Manages handshake and signal routing.

Renders the input interface.

The Initialization Protocol

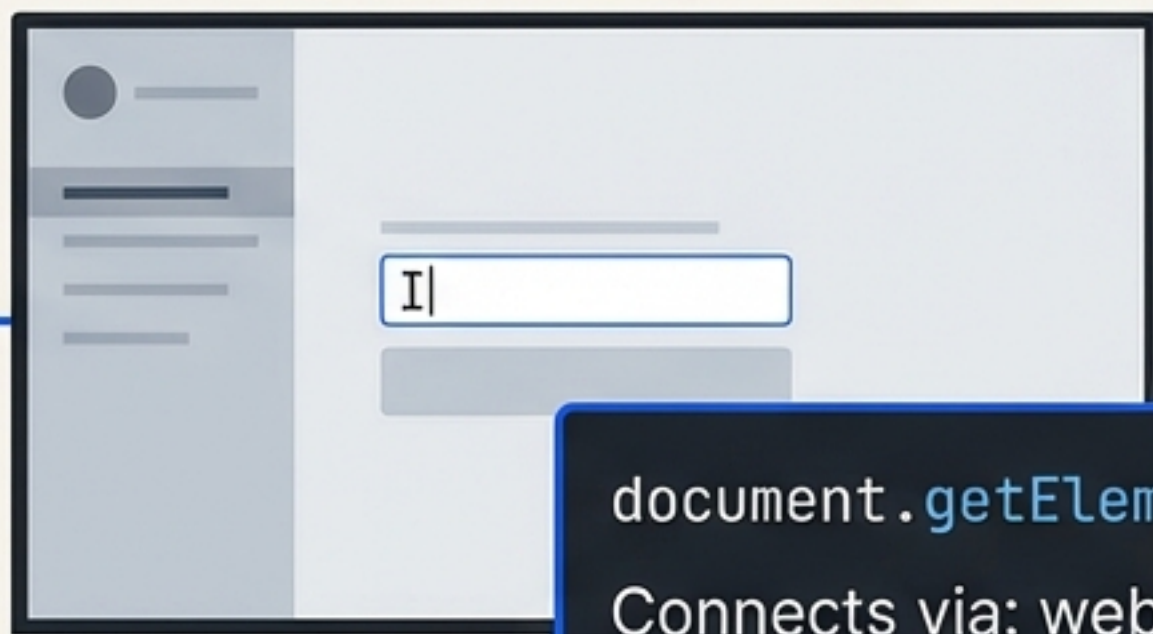


The system modifies DOM href attributes to route commands to the specific session UUID.

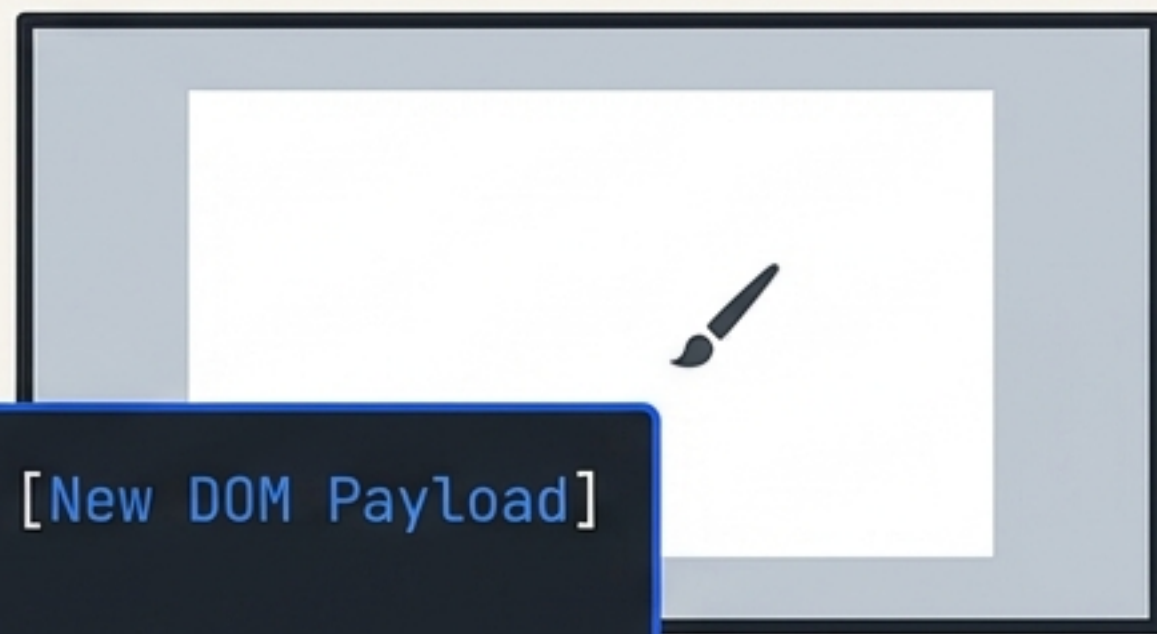
Context-Aware DOM Injection

The Server Dynamically Rewrites the Client Interface

Context: Text Input

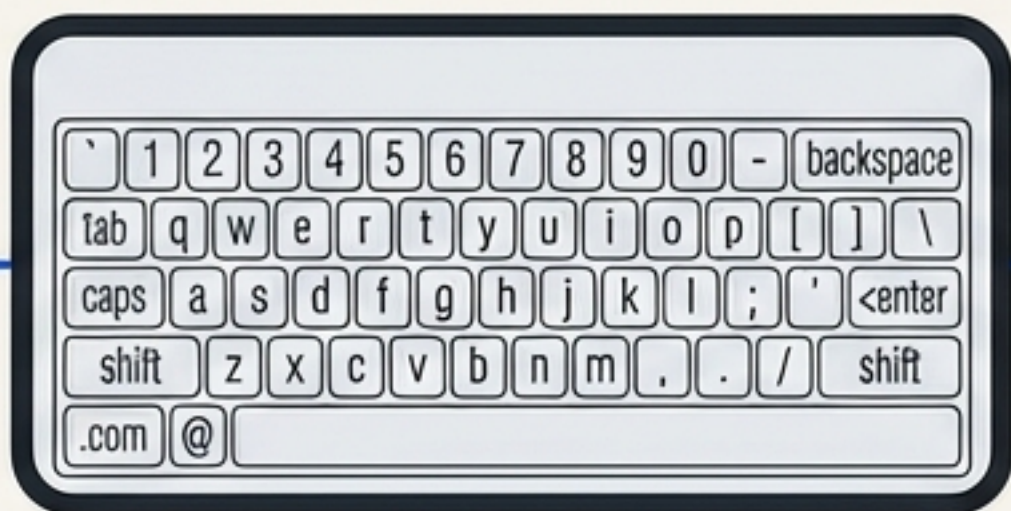


Context: Creative Tool



```
document.getElementById('remote').innerHTML = [New DOM Payload]
```

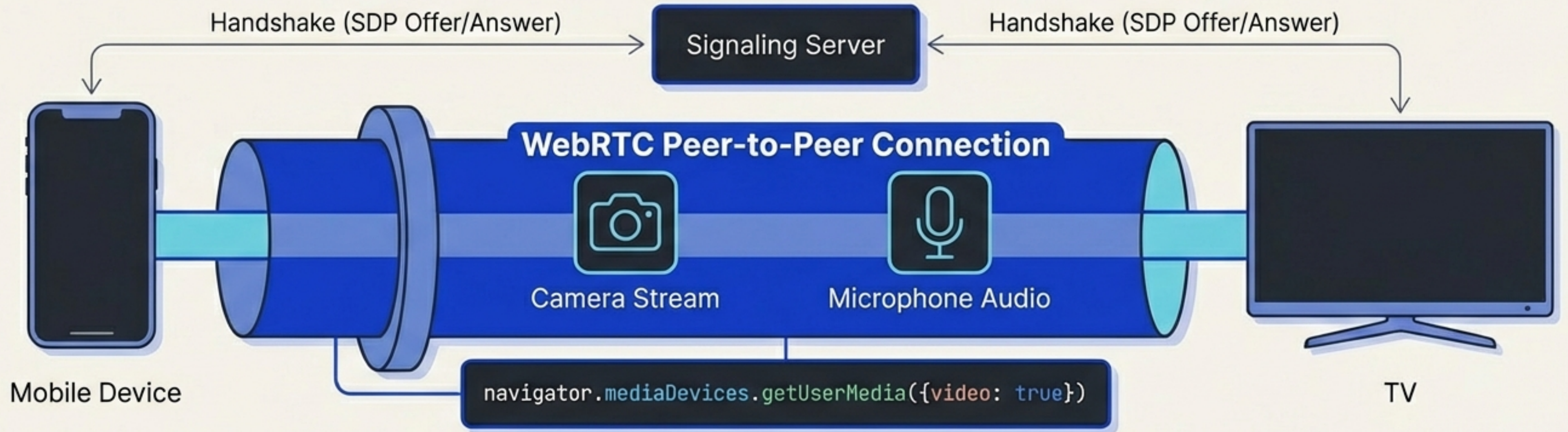
Connects via: web integration code



Real-Time Signaling Pipeline



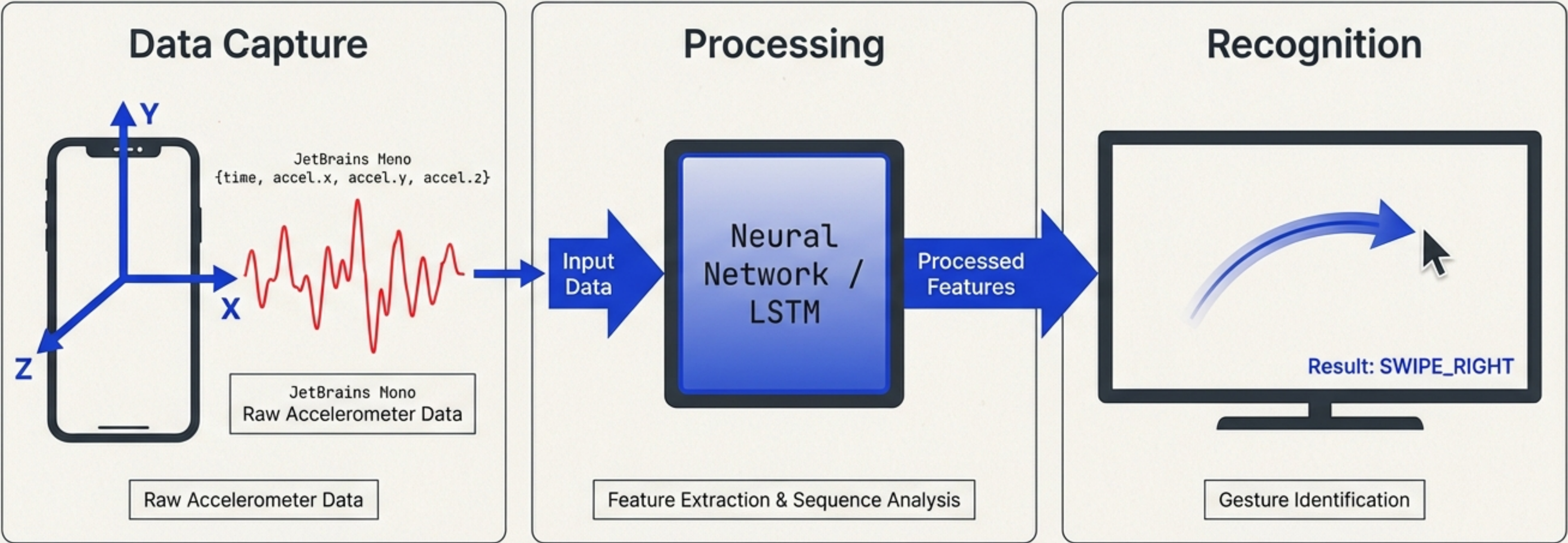
The Media Tunnel: WebRTC Integration



Source: WebRTC Tunnel (FIG. 7C) and WebRTC Stream (FIG. 12A) Components

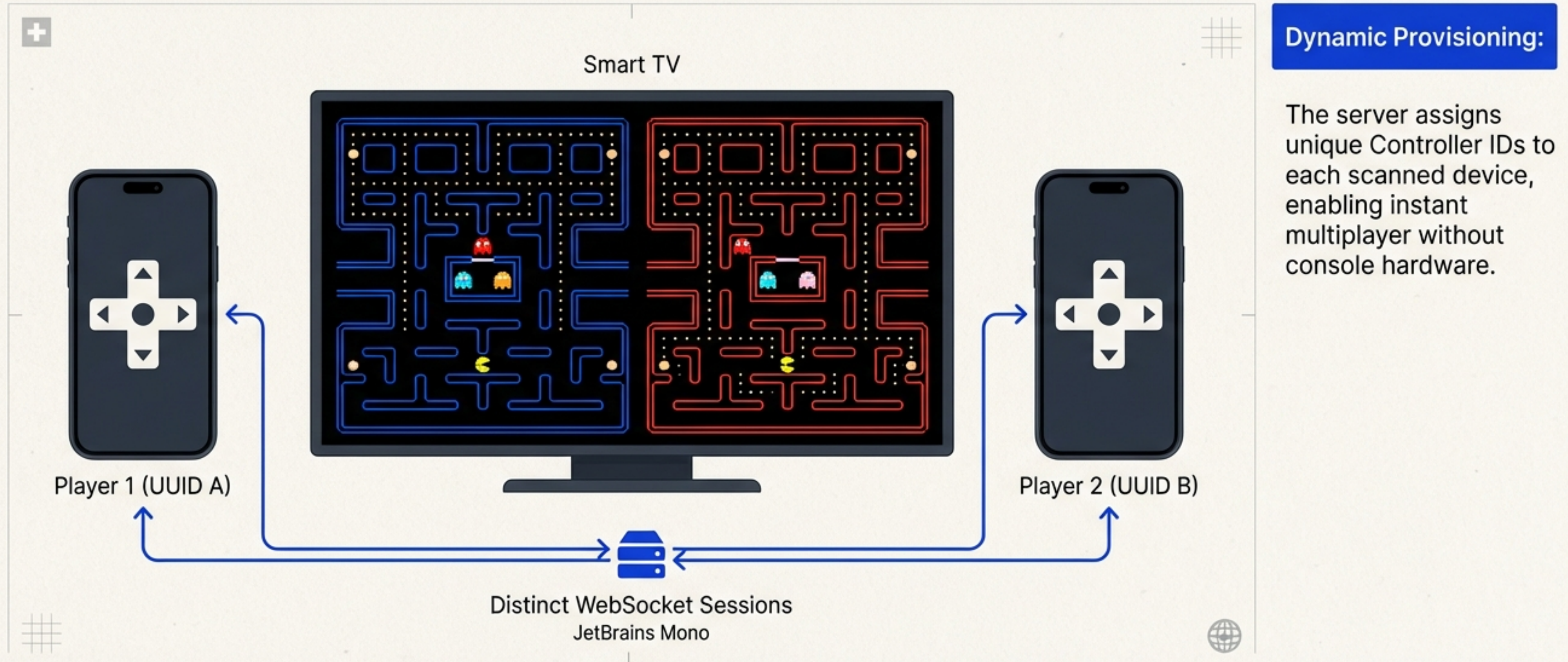
Bypasses the main server for high-bandwidth, low-latency media transfer.

Advanced Input: 3D Gestures & Neural Networks



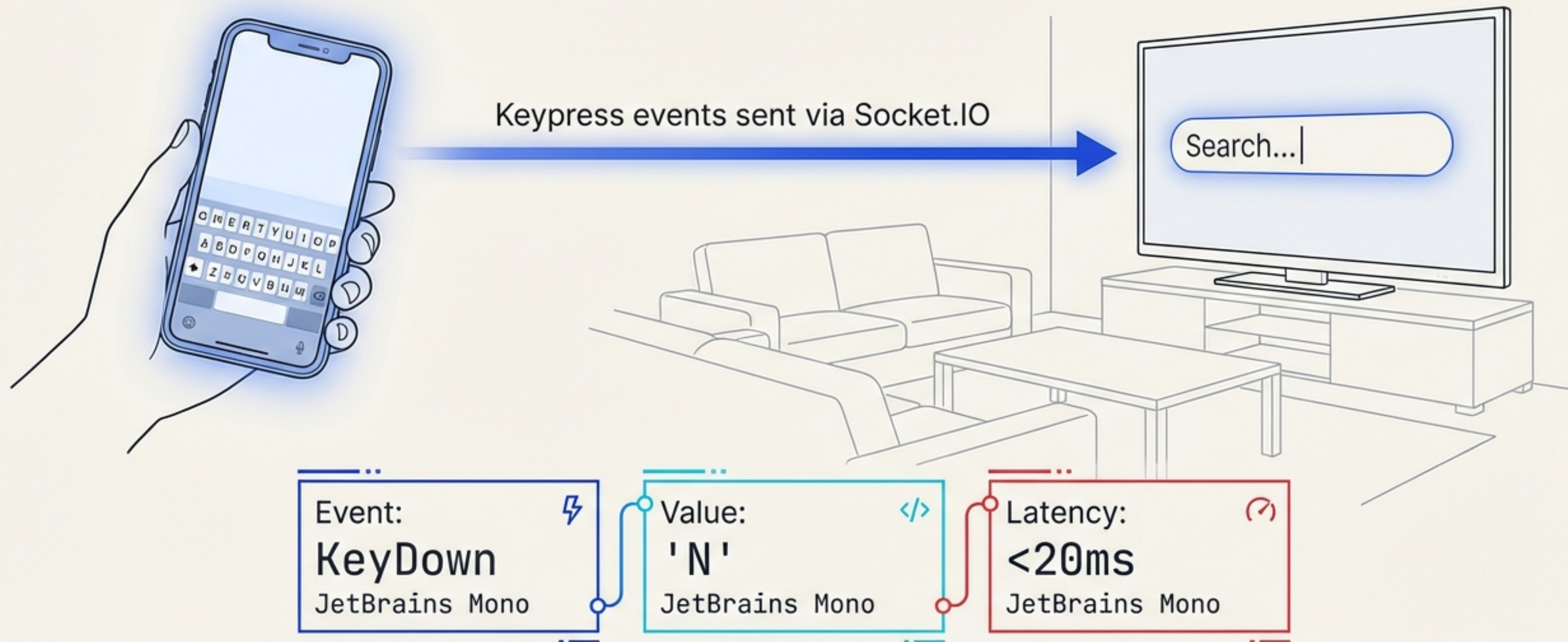
Raw sensor data is processed via Local or Remote NN to interpret complex spatial gestures.

Application: The Instant Multiplayer Console

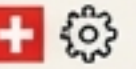


Source: Instant Multiplayer Architecture (FIG. 3B) and Multi-controller Setup (FIG. 4D). Enables spontaneous, hardware-free gaming experiences on any smart display. Inter

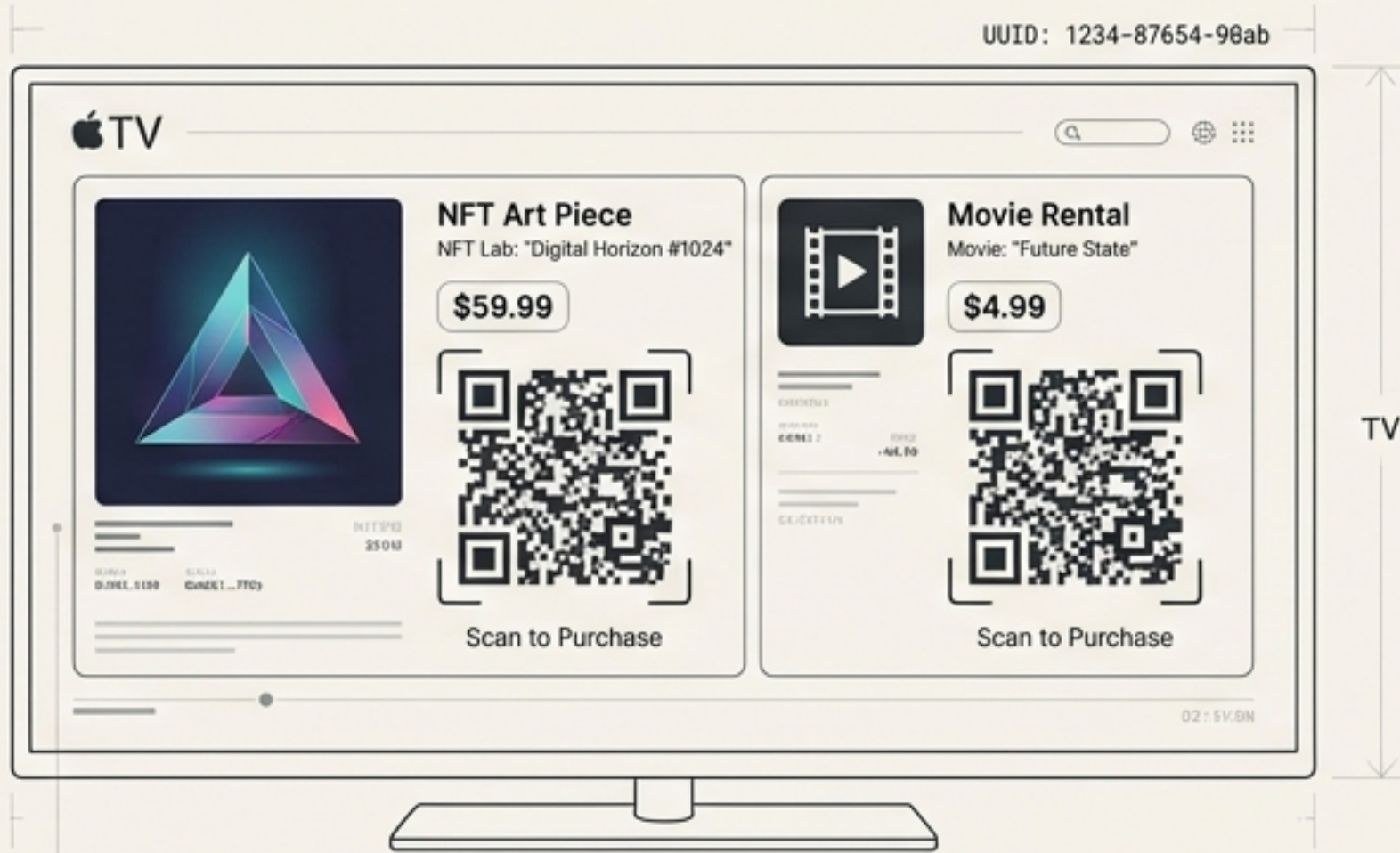
Application: Solving the '10-Foot UI'



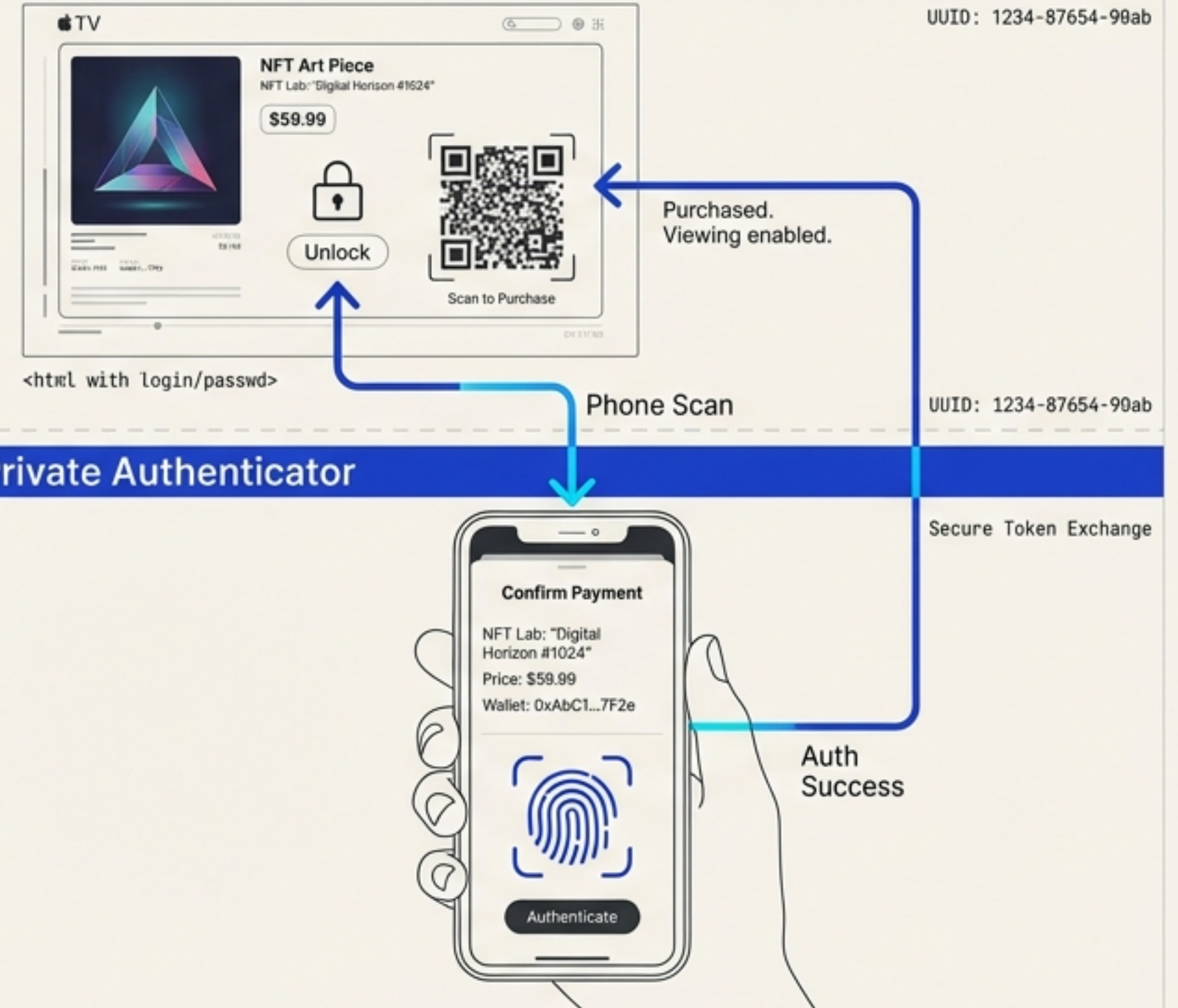
Application: Secure Commerce & Transactions



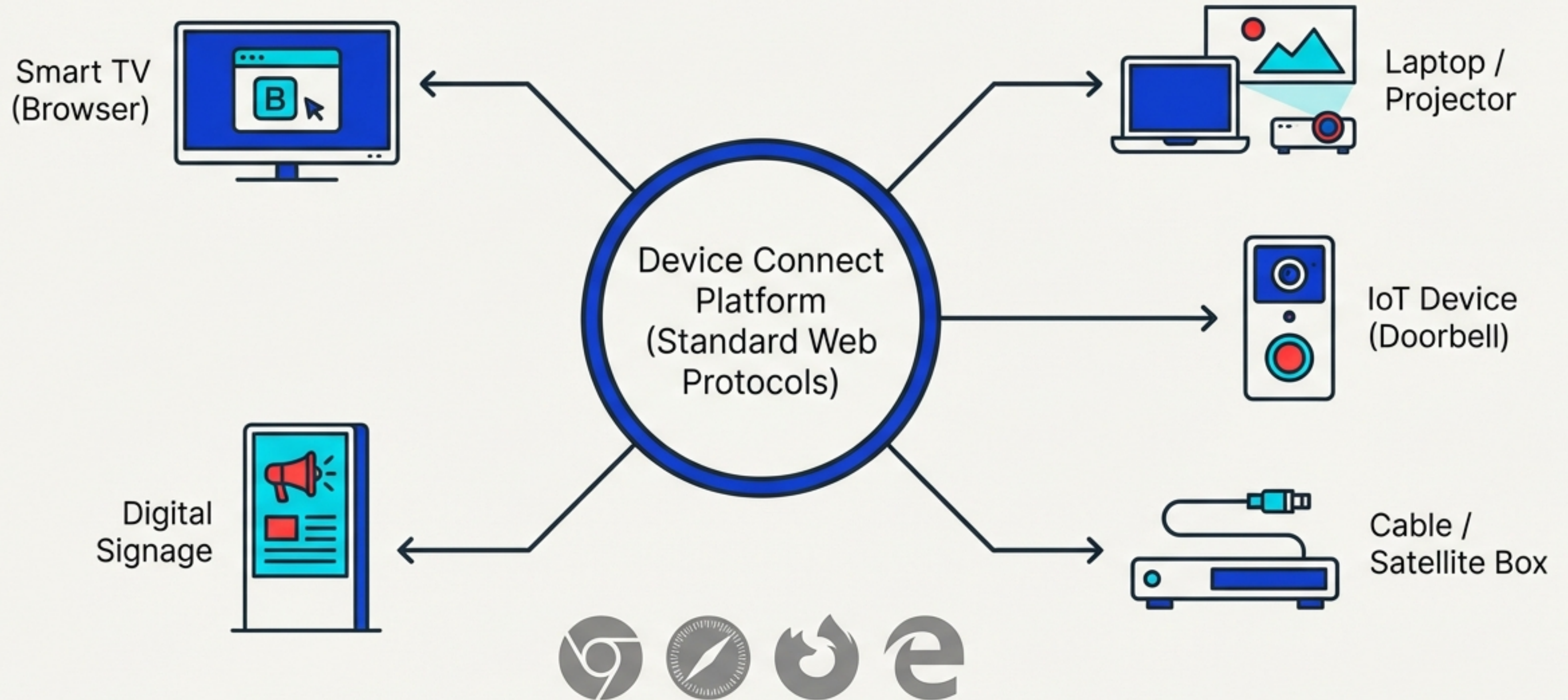
Public Display



Sensitive data (passwords, biometrics, wallet keys) remains on the personal device. Only the authentication token is transmitted to the public display.

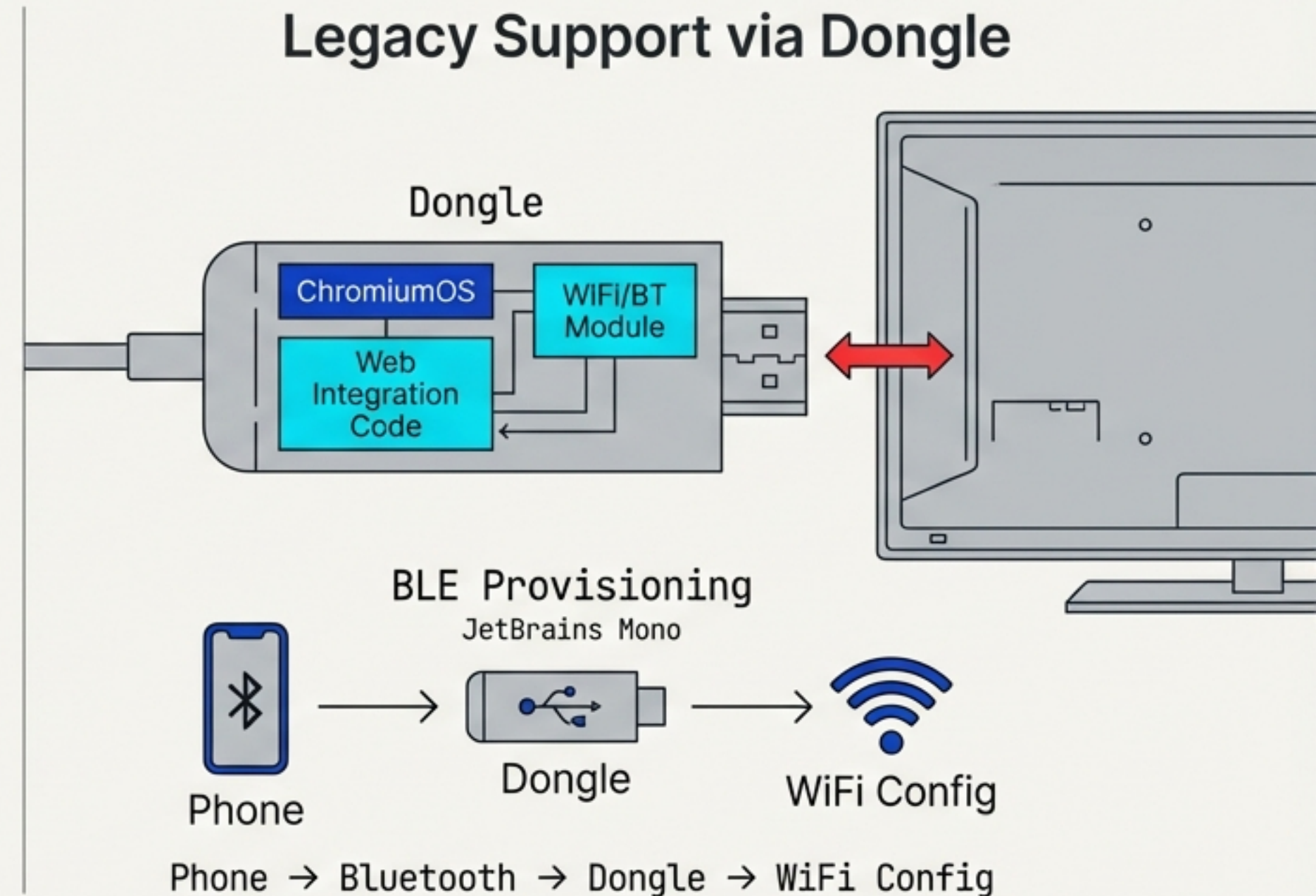
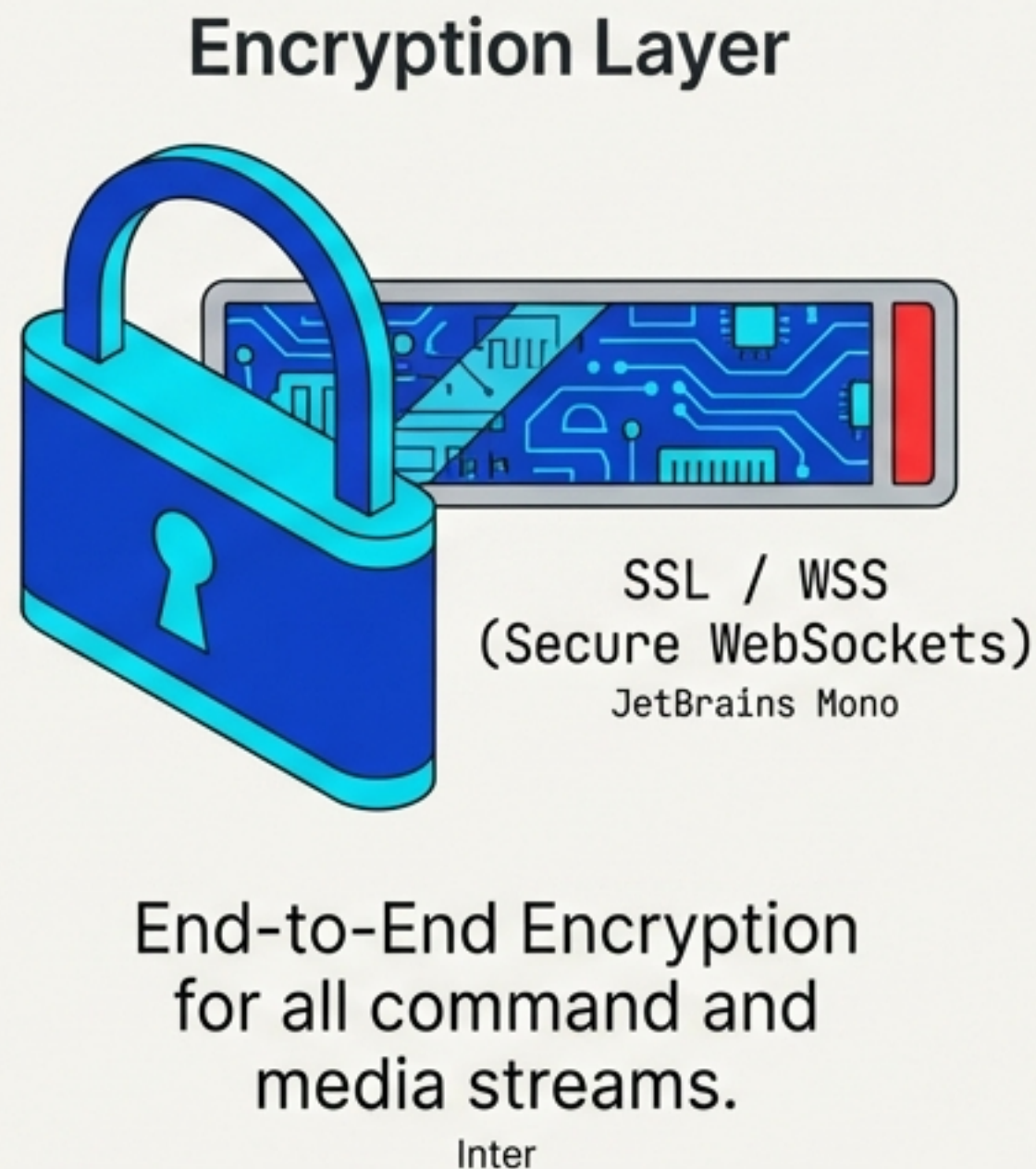


A Universal, Decentralized Ecosystem

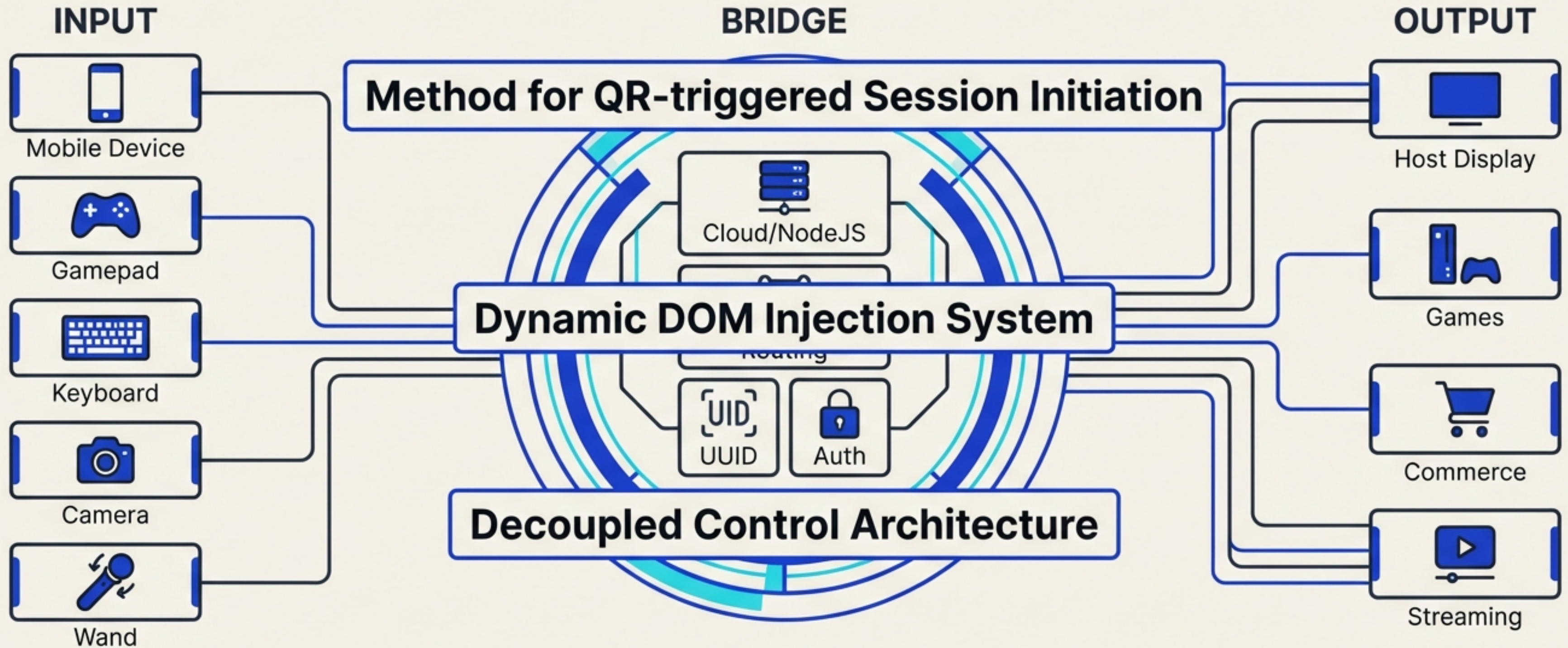


Compatible with any device capable of rendering HTML5.

Security & Hardware Provisioning



Core Intellectual Property Summary



Transforming any display into a context-aware computing environment.