⬆ AscendAssist: Smart Entrapment Resolution Dossier

Product Vision & Value Proposition

Vision: AscendAssist envisions a future where elevator failures are managed, not feared. We move beyond the antiquated emergency phone button toward a digital command center embedded within the car, providing **absolute transparency** during critical moments.

Core Value Proposition: We turn a high-stress emergency (the feeling of being trapped and disconnected, as depicted in the sketch) into a managed service interruption, offering certainty when occupants need it most.

Unique Selling Points (USPs):

- **Real-time Precision Diagnostics:** Instant transmission of location and specific fault codes, enabling maintenance teams to arrive prepared with the right tools. **(Time-Saving)**
- **Transparent Communication:** Automated status updates and live estimated rescue countdowns mitigate passenger anxiety and potential panic. **(Delight-Enhancing)**
- **Compliance & Liability Reduction:** Detailed incident logging supports compliance requirements and provides a verifiable record of responsive service delivery.
- **Smart Design Integration:** Sleek, integrated touch interface replaces bulky, easily ignored emergency hardware.

Consumer & Market Impact

AscendAssist targets sectors prioritizing tenant/occupant experience and requiring strict uptime, particularly **Class A commercial real estate**, **large hospital campuses**, and **high-density residential towers**.

Primary User Personas & Pain Points:

- **Persona 1: The Building Owner/Facilities Manager:** Pain Point: High cost and reputation damage associated with extended elevator downtime. AscendAssist provides verifiable data for faster dispatch and reduced service contract costs.
- **Persona 2: The Trapped Commuter:** Pain Point: High anxiety, uncertainty, and feeling of isolation during entrapment. AscendAssist offers real-time status updates and direct video connection to calm and inform.
- **Persona 3 (Non-Obvious): The Elevator Maintenance Technician:** Pain Point: Wasting time diagnosing issues remotely or arriving onsite without necessary parts. AscendAssist delivers precise, pre-emptive fault codes, optimizing toolkits and first-visit repair rates.

Inspirational Quotes:

“The ability to see the exact time until help arrives is a game-changer. It turns panic into patience.”

“This system saves us hours of diagnostic work before we even step foot on the site. **Feels like something from the future** of facilities management.”

“Knowing we have state-of-the-art emergency transparency is a huge selling point for attracting premium tenants.”

Feasibility Assessment

Assessment Context: NASA's TRL (Technology Readiness Level) measures the maturity of the underlying physical or digital technology. KTH Innovation's BRL (Business Readiness Level) measures the maturity of the business model and commercial viability.

Technological Readiness Level (TRL): TRL 6 - System Subsystem Model/ Prototype Demonstrated in a Relevant Environment.

- **Explanation:** The core components (IoT sensors, wireless comms, video streaming) are commercially proven. The custom hardware/software integration needed for elevator systems has been developed and validated in a lab setting, but not yet fully integrated and tested in diverse, active commercial buildings.
- **Next Stage (TRL 7):** System prototype demonstration in an operational environment (e.g., pilot installation in a partner building).

Business Readiness Level (BRL): BRL 4 - Initial Business Model Concept Defined and Validated with Potential Customers.

- **Explanation:** The core value proposition (reduced MTTR, lower distress calls) has been well-received by early facilities management contacts, and preliminary pricing tiers have been sketched. However, crucial factors like integration cost variability across legacy elevator systems have not yet been fully scoped or financially validated.
- **Next Stage (BRL 5):** Validated MVP, initial financial projections confirmed by small-scale customer commitments, and a defined sales and distribution strategy tailored for B2B channels.

Prototyping & Testing Roadmap

Phase I: Minimum Viable Product (MVP) Development (0–6 Months)

- Focus: Diagnostic Data Collection and Basic Passenger Interface.
- Steps: Build dedicated IoT hardware unit (the 'AscendAssist Node'). Develop cloud platform for real-time fault reporting. Create a simple in-car tablet interface displaying static 'Help is on the way' messaging.

Phase II: Targeted Field Trials and Feature Refinement (6–12 Months)

- Focus: Live Deployment and Critical Feature Testing.
- Steps: Install MVP in 5 non-critical, partner commercial buildings (BRL 5 validation). Implement and test the **Live Estimated Rescue Time Counter** algorithm. Gather detailed technical feedback from maintenance teams on fault code accuracy.

Phase III: Commercial Model Validation and Iteration (12–18 Months)

- Focus: Scalability and Financial Viability.
- Steps: Introduce optional **Two-Way Video Communication** feature. Formalize service level agreements (SLAs) with pilot partners. Validate hardware installation costs across 3 different major elevator brands to stabilize pricing model. Prepare for large-scale production.

Strategic Launch & Market Integration

High-Level Go-to-Market Strategy: Targeted **B2B SaaS Model**. Selling the hardware installation plus a recurring monthly subscription fee based on connectivity, data services, and premium features (like video support).

Strategic Partnerships: Establish formal integration partnerships with **elevator maintenance firms** (Industry incumbents). This allows AscendAssist to be offered as a premium upgrade during standard maintenance contracts, expediting market penetration.

Pilot Program Incentive: Offer the first year of subscription service free to the top 10 most valuable high-rise properties in major metro areas in exchange for detailed performance data and high-profile testimonials.

Macrotrend Alignment: AscendAssist fits squarely into the growing **Smart Building/Smart Cities** movement, where IoT integration is mandatory for predictive maintenance and ensuring verifiable tenant wellness. It addresses increasing regulatory pressure for transparent safety standards.

Scalability Signal: Once successful, the platform's diagnostic and communication framework can be applied to other critical building systems (e.g., escalators, HVAC), positioning the company as a leader in comprehensive **Vertical Infrastructure Intelligence**.

Next Step

Secure an initial integration contract with one major elevator maintenance company (e.g., a regional subsidiary of a global brand) to finalize technical API compatibility and define a clear, scalable installation protocol for the MVP.