

Gemini Notebook

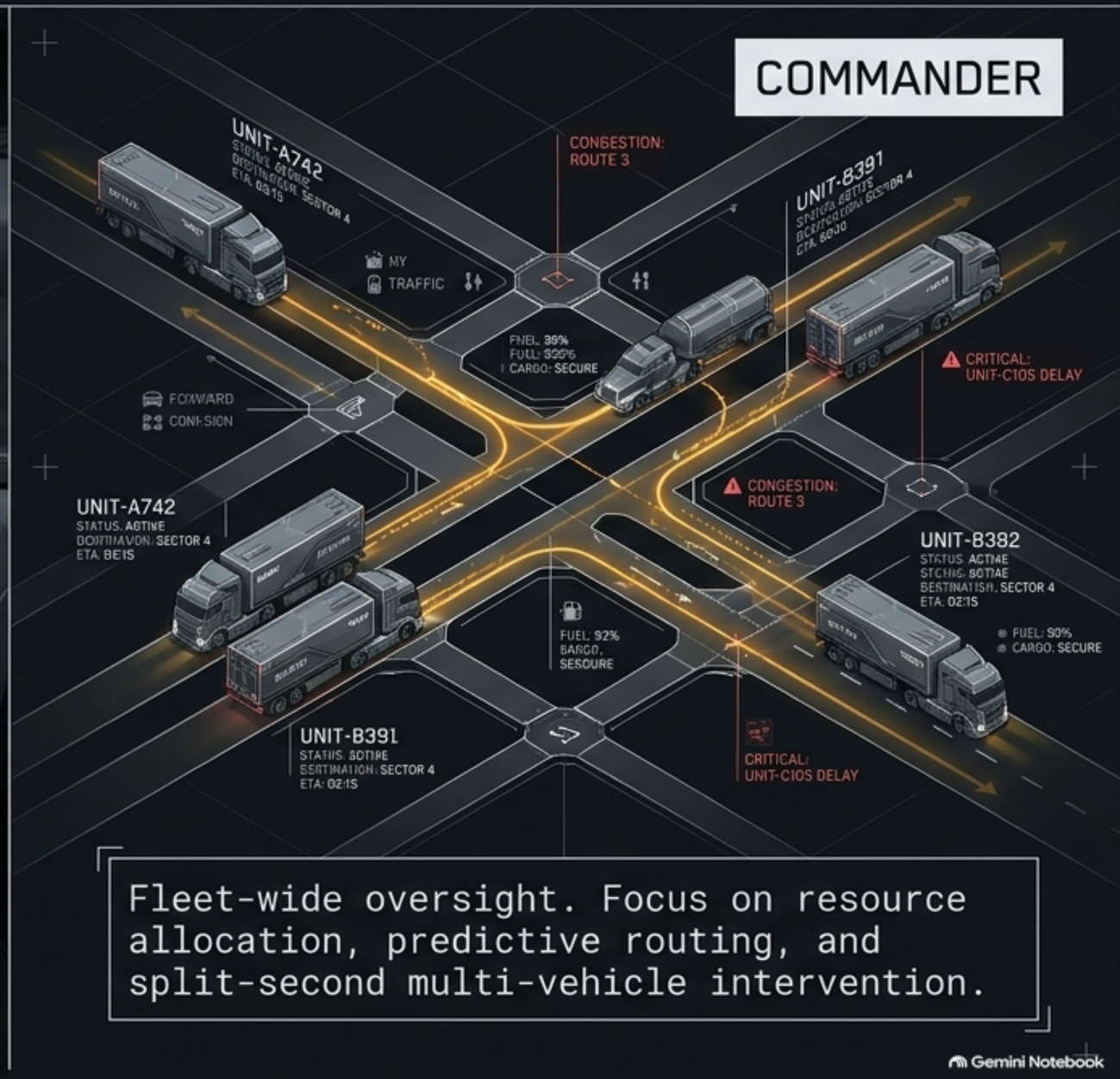
The Paradigm Shift: From Operation to Real-Time Strategy (RTS)

DRIVER



Single-vehicle execution. Focus on steering, shifting, and immediate spatial awareness.

COMMANDER



Fleet-wide oversight. Focus on resource allocation, predictive routing, and split-second multi-vehicle intervention.

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Simulation Architecture



[FLEET SCALE]
Manage up to 5 remote vehicles simultaneously.
Specs: Class 8, 3 motors, 1070hp / 800kW.

[SENSOR ARRAY]
Process 24 multi-angle HW4 camera feeds in real-time.

[ENVIRONMENTAL ENGINE]
Level 2 FSD Supervised environment featuring variable weather, dynamic traffic, and induced signal latency.

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Cognitive Load Redefined

	In-Cab Operator	Command Center RTS Dispatcher
Dimension	Single-Cab Simulation	Multi-Fleet Operations
Input Mechanism	Wheel & Pedals	Mouse, Keyboard & Macro Hotkeys
Visual Focus	6 Physical Mirrors	24 Synchronized HW4 Camera Feeds
Primary Objective	Route Completion	Anomaly Detection & Fleet Efficiency
Failure Condition	Collision	Systemic Inefficiency & Latency Mismanagement

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FMCSA ELDT Alignment

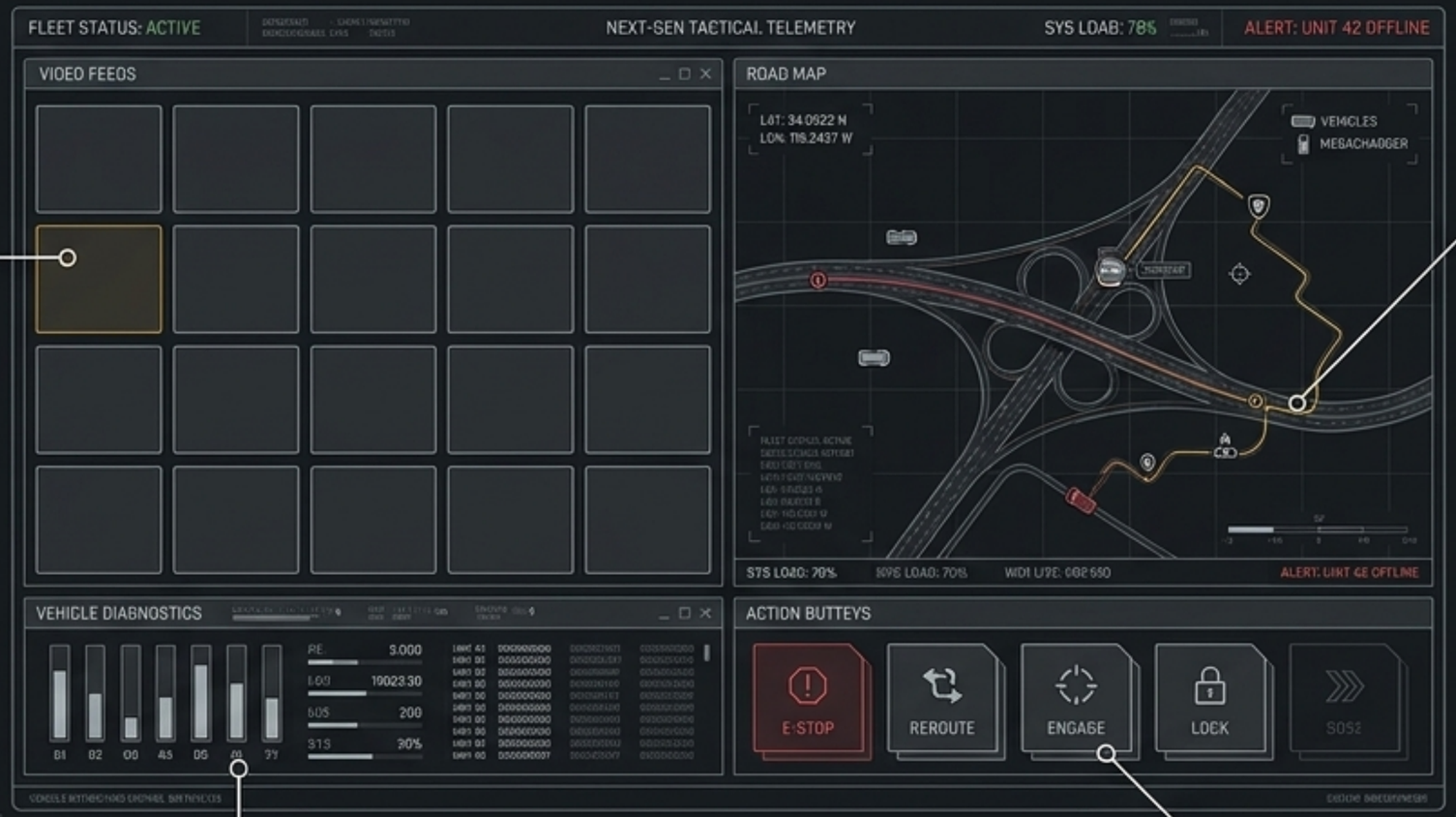
# Topic	Category	Esports Game Drill
1 Orientation	Basic Operation	Game 0 Orientation Sim
2 Control Systems/Dashboard	Basic	Game 1 Dash Master
3 Pre/Post-Trip Inspections	Basic	Game 4 Inspection Hunt
4 Shifting/Operating Transmissions	Basic	Game 0 Aim Lab Wheel
6 Backing and Docking	Basic	Backing Tetris
7 Coupling and Uncoupling	Basic	Coupling Chaos
8 Visual Search	Basic	Mirror Management
9 Communication	Basic	Comms
10 Distracted Driving	Basic	Survival
11 Speed Management	Basic	Time Trial
12 Space Management	Basic	Mirror Management
13 Night Operation	Safe Ops	Night Ops Game
14 Extreme Driving Conditions	Safe Ops	Skid Control
15 Hazard Perception	Advanced	Hazard Highway
16 Skid	Advanced	Skid Recovery
17 Ra...		
Malfunctions		
19 Roadside Inspections	Vehicle Systems	Inspection Hunt
20 Maintenance	Vehicle Systems	Tesla Battery Mgmt

Topic 26: External Communications and Leadership (Non-Driving Activities)

Validates how central dispatch coordination, safety calls, and remote operator protocols fulfill FMCSA Training Provider Registry (TPR) theory requirements without requiring in-cab time.

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The Anatomy of the Fleet Dashboard



24-Camera Omni-Grid
Anomaly detection zones.

Top-Down Route Map
Macro positioning and Megacharger proximity.

Telemetry Ticker
Real-time battery, payload, and latency stats.

Intervention Hotkeys
Split-second E-stop and routing commands.

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Omni-Vision Processing

Core Challenge: Managing 8 HW4 cameras per active vehicle simultaneously.



Tactic 1:
Overcoming simulated packet loss and isolated camera freezes.

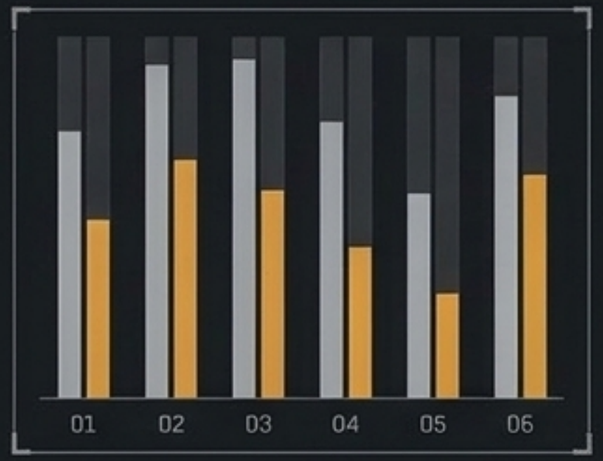
Tactic 2:
Prioritizing attention cycling across 5 separate 80k-lb vehicles.

Tactic 3:
Detecting peripheral hazards before they trigger automated Level 2 FSD responses.

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Telemetry Oversight & Efficiency Targets

Variables Tracked



82k lbs
Gross Combination Weight (GCW)

500-mile
range constraints

Temperature variance & topographic grade



Logistics Challenge

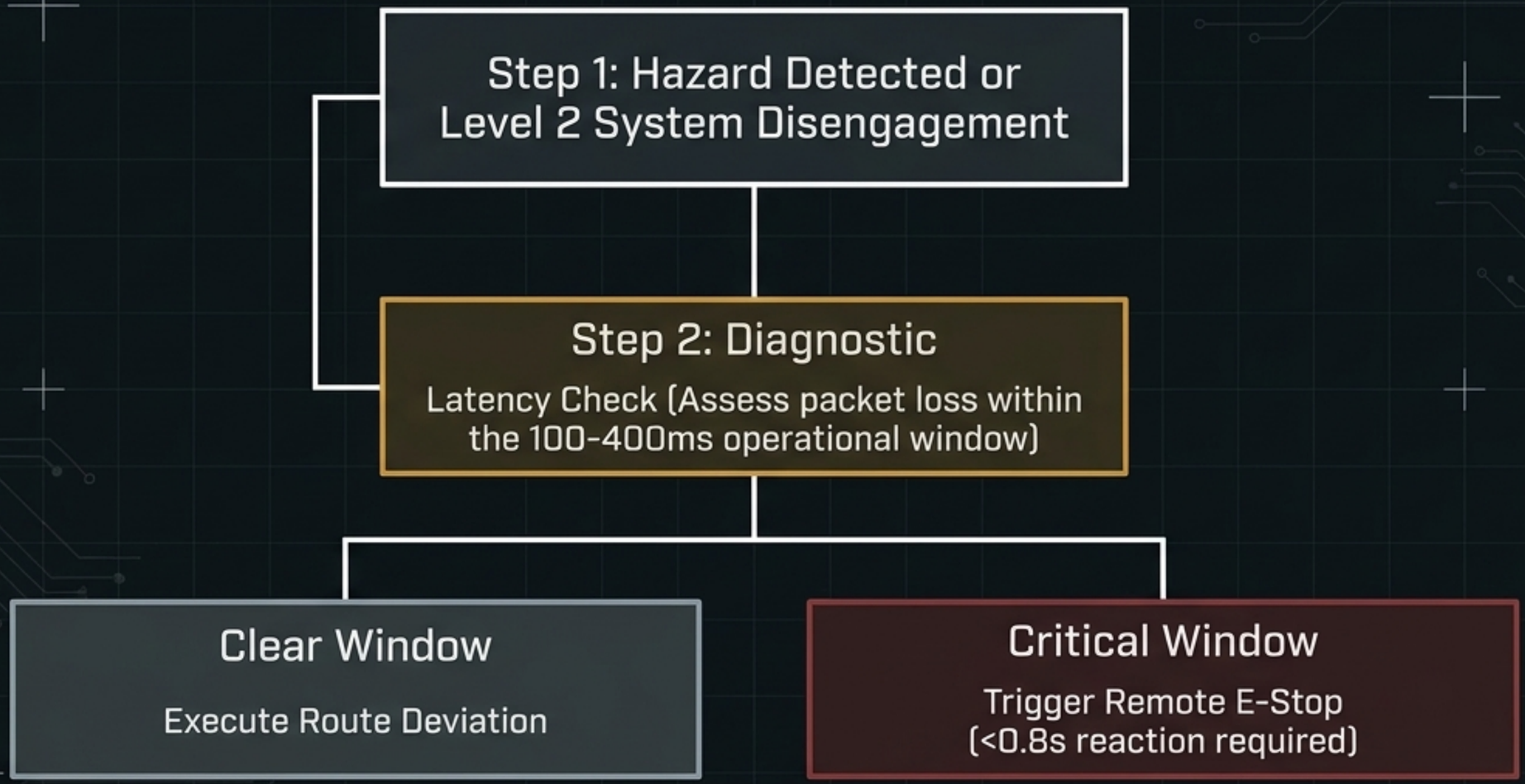


Logistics Challenge

Routing vehicles to 1.2MW Megachargers efficiently to prevent fleet bottlenecks.

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The Intervention Protocol



CORE DIFFERENTIATOR FOR REMOTE OPERATOR JOBS.

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The 40/30/30 Evaluation Formula

Accuracy (40%)



Correctly identifying hazards, managing feeds, and executing route adjustments.

Efficiency (30%)



Megacharger assignment algorithms and maintaining the 1.7 kWh/mi benchmark.

Safety (30%)

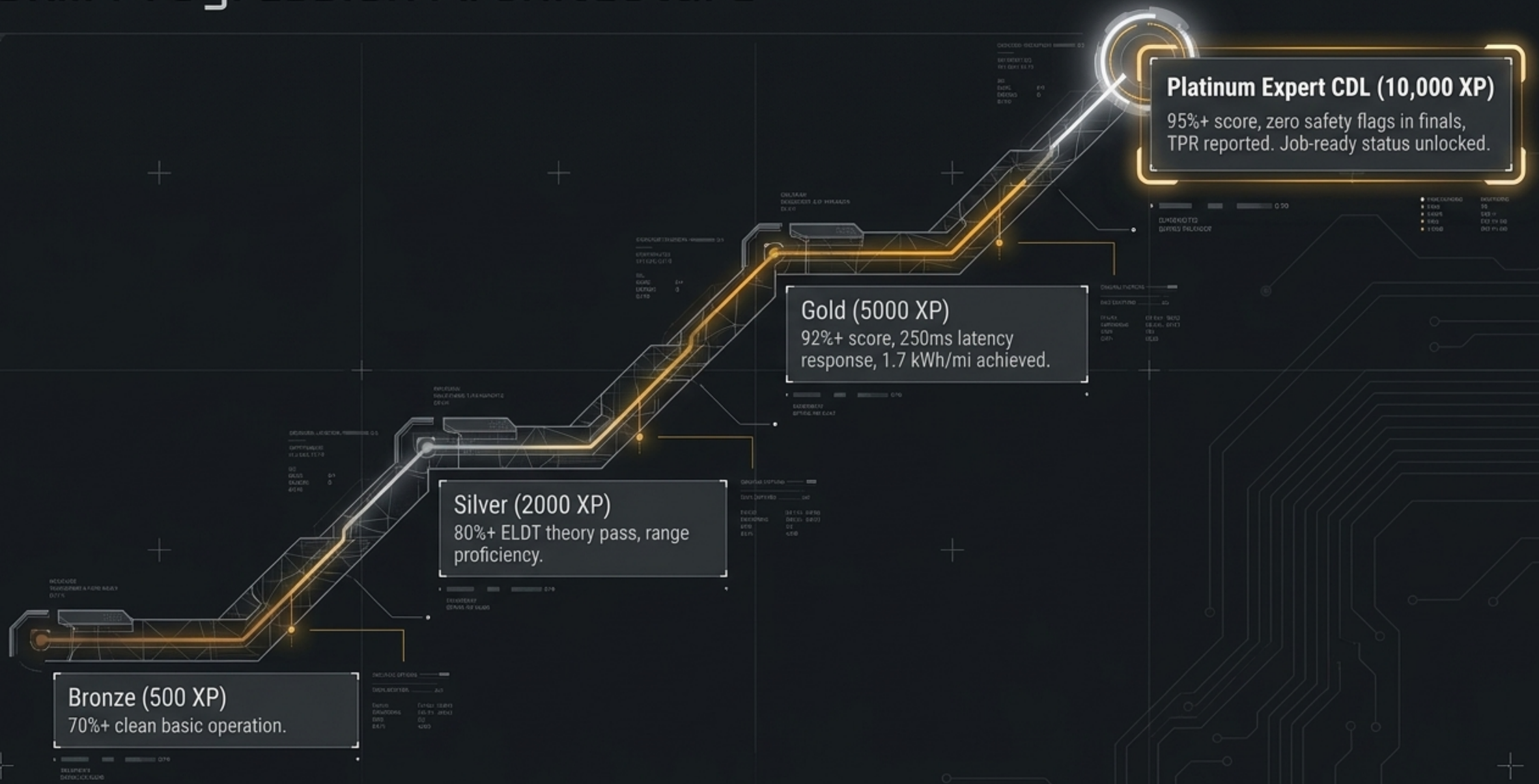


Timely E-stops, latency window management, and zero critical flags.

$$XP = (Accuracy \times 10) + (Efficiency \times 5) - (Flags \times 50)$$

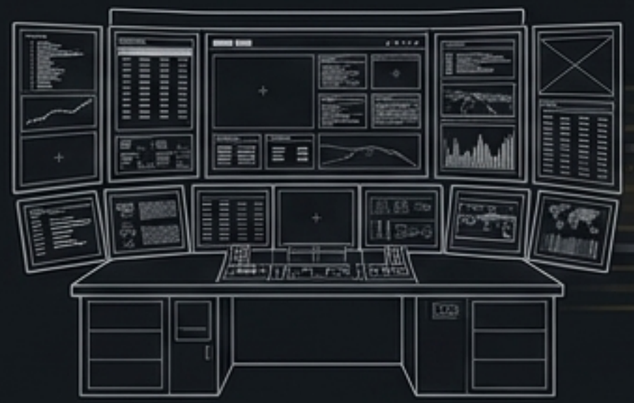
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Skill Progression Architecture



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The Synthesis Arc: Preparation for Capstone



Observation dictates execution.



Game 12
(The Mind)

Trains the operator to monitor 24 feeds, manage cognitive load, and spot the systemic breakdown before it happens.

Game 13 Rescue Relay
(The Body)

Trains the operator to physically deploy, execute the rescue, secure the payload, and complete the 500-mile final.

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OPERATIONAL READINESS ACHIEVED





Output

Producing TPR-reported, FMCSA-compliant, Platinum-certified Remote Tesla Operators.

Deployment

Ready for Level 2 FSD supervised operations at major logistical hubs.

Final Metric

Minimum Latency. Maximum Control. The Future of Logistics Staffing.

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