SPARTAN CORP

SOLUTION BRIEF

Arbiter

The Trust Layer for Agentic AI

Trust Through Verification | Every Voice. One Conversation.

The Challenge: Multi-Agent AI Without Trust

Defense and intelligence organizations are building ecosystems of agentic AI—specialized agents for threat assessment, weather analysis, mission autonomy, constraint management, and more. But more agents means more complexity: outputs conflict, constraints get misinterpreted, and there's no arbitration mechanism when agents disagree.

Current AI creates three critical gaps:

- Single Points of Failure: One model, one opinion, no verification
- No Arbitration: When agents conflict, operators have no synthesis layer
- Invisible Uncertainty: AI provides answers without confidence levels

Operators need a trust layer—not more models.

The Solution: Trust Layer for Agentic AI

Arbiter sits above your AI systems as the verification and arbitration layer. It orchestrates multiple AI models, validates constraint interpretations, arbitrates between conflicting agents, and maintains complete audit trails for every AI-assisted decision.

COUNCIL MODE

Orchestrate 3-7 AI models simultaneously. Synthesize outputs. Surface disagreements. Confidence scoring based on model agreement.

CONSTRAINT VALIDATION

Upload ROE, ACM, FSCM. Multi-model interpretation catches ambiguities and conflicts before mission execution.

AGENT ARBITRATION

When specialized agents conflict, Arbiter arbitrates. Weighted recommendations with full attribution via MCP.

CONFIDENCE SCORING

Explicit confidence on every output. Degradation-aware—operators know when verification is limited in DDIL.

Platform Architecture

TRUST LAYER	ORCHESTRATION	MEMORY LAYER	MODEL LAYER
Audit, confidence scoring, constraint validation	Council Mode, agent arbitration, synthesis	Constraints, project context, mission templates	Claude, GPT, Gemini, Llama, MCP agents

SOF Mission Applications

Intelligence Analysis

- Multi-model pattern-of-life with consensus
- Target verification before PID/CID
- Cross-INT fusion with confidence scoring

Mission Planning

- COA development with multi-model risk
- Constraint interpretation validation
- Red team analysis via adversary modeling

Decision Support

- Targeting with ROE constraint validation
- Agent arbitration for conflicting inputs
- Full audit trail for accountability

Edge Operations

- DDIL-optimized via tactical edge deployment
- Graceful degradation with confidence flags
- Sync on reconnect with context preserved

SOCOM Technology Area Alignment

Agentic Protocols	MCP server exposes Arbiter as arbitration service; ready for A2A
Agentic Workflows	Council Mode + Agent Arbitration for multi-step task execution
Human-Machine Teaming	Confidence scoring, dissent highlighting, operator override authority
Knowledge Representation	Structured constraint storage, mission templates, semantic context
Low SWaP-C	Edge deployment via TACTICAL EDGE HARDWARE; quantized local models; graceful degradation
Metrics & AI Accuracy	Consensus = accuracy metric; historical calibration; provenance logs
Collaborative Autonomous	Agent Arbitration synthesizes multi-agent outputs for coordination

Deployment Options

Cloud	Hybrid	Edge Hardware
FedRAMP-ready SaaS. Full Council Mode (5-7 models), complete feature set, automatic updates.	On-premise orchestration with cloud model access. Data stays local, API calls for expanded capability.	Fully disconnected operation. Local Llama models with sync-on-reconnect to cloud.

Technology Readiness

TRL 6

- Core platform operational (MVP)
- Council Mode synthesis functional
- Multi-provider integration tested
- Constraint Validation in development
- Agent Arbitration in development
- Ready for operational demonstration

Key Differentiators

- Trust Layer architecture—we make agents trustworthy
- Constraint Validation unique to market
- Agent Arbitration for multi-agent ecosystems
- Degradation-aware confidence scoring
- Cross-model persistent memory
- No vendor lock-in (model agnostic)
- Edge-deployable via tactical edge hardware integration

SPARTAN X CORP | info@spartanxcorp.com | **spartanxcorp.com** | 1-888-536-1348

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