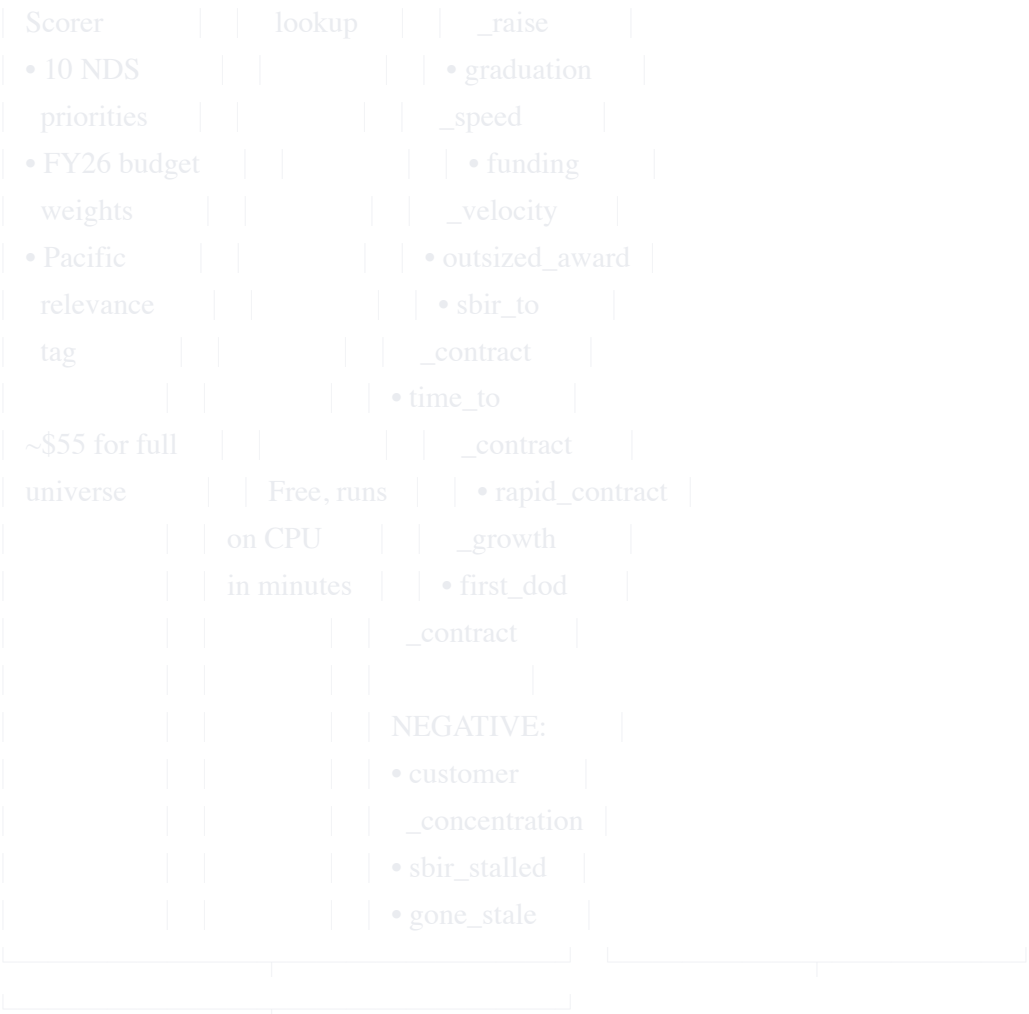


Defense Alpha — Intelligence Engine Architecture





OUTCOME	REPORT	FUTURE:
TRACKING	ENGINE	RAG
	INTEGRATION	
Records what	Generates	
actually happens	ranked PDF	Embeddings find
after signals	reports by	→ Claude reasons
fire	vertical	→ Single-command
	prospect	
Detectors:	Filters by:	discovery
<input checked="" type="checkbox"/> new_contract	• core	
<input checked="" type="checkbox"/> funding_raise	business	
<input type="checkbox"/> sbir_advance	• policy	
<input type="checkbox"/> new_agency	alignment	
<input type="checkbox"/> acquisition	• signals	
<input type="checkbox"/> company	• freshness	
_inactive		
<input type="checkbox"/> sbir_stall	Delivered:	
	RF/Comms v2	
Key finding:	(56 cos)	
80% prediction		
rate, 35mo lead		

PIPELINE ORCHESTRATOR
python scripts/run_pipeline.py --full-refresh
python scripts/run_pipeline.py --process-only
Runs all steps in sequence with error handling:
Scrape → Resolve → Reclassify → Classify → Score → Embed →
Detect Signals → Track Outcomes
Logs to data/pipeline_runs/<timestamp>.log

What's Defensible

COMMODITY (anyone can rebuild)	TIME-LOCKED (can't replicate)
Data ingestion (public APIs)	Outcome tracking dataset

LLM classification (\$55) → 80% prediction accuracy

Rule-based signals → 35-month lead time

Report templates → Gets better every week

EFFORT MOAT (painful to redo) KNOWLEDGE MOAT (domain expertise)

Entity resolution (10K+ entities) Policy priority taxonomy

Cross-source deduplication Budget weight calibration

Historical signal baseline Signal type design + tuning

Tiered decay profiles