Gap Analysis Automation Platform

Technical Proposal

Veteran Vectors | BVG and Company
Executive Briefing

Gap Analysis Automation Platform

Containerized Survey-to-Insight Pipeline with Classified Deployment Path

Veteran Vectors — 6-Month Milestone-Based Engagement

Unclassified → Secret → TS/SCI via Game Warden

Who You're Working With

Anthony Pinto, Founder- Veteran Vectors

Clearance	Background	Education
Active TS/SCI	9 years as Navy Submarine Officer	U.S. Naval Academy, Class of 2014

Current

Defense contractor + Veteran Vectors founder

Why this matters for your project:

- TS/SCI cleared — can support classified deployment discussions directly
- Submarine nuclear engineering background — complex systems, zero margin for error, rigorous process discipline
- Understands DoD acquisition, classified networks, and the Game Warden pathway from operator experience

Veteran Vectors - Proven Results

Mission: Eliminate time-consuming manual processes through AI workflow automation

150+
Hours saved
hours/month gained back for clients

$100K+
ROI delivered
in revenue or efficiency gains

>90%
Time reduction
average on automated workflows

Client range: Solo-entrepreneur bookkeepers to 8-figure lab equipment supply companies

Relevant experience:

- Workflow automation (n8n, Power Automate replacement)
- Database design and data pipeline engineering
- Containerized deployments for regulated environments
- Defense contractor operations and compliance

Current State - Technical Debt
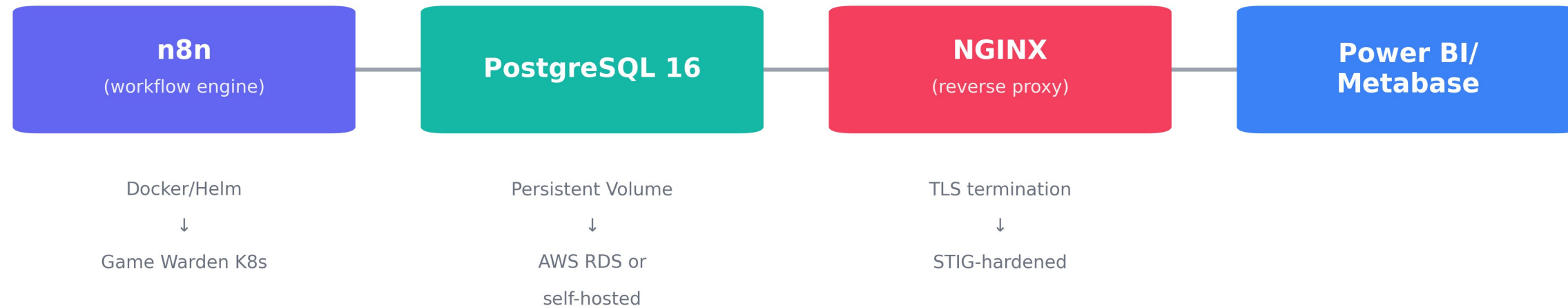
Existing Architecture:

Microsoft Forms → Excel → Power Automate (10+ flows) → Power BI → Manual Reports

Technical Problems:

- Excel-to-Power BI ODBC connections break on schema changes — requires manual re-mapping
- 10+ siloed Power Automate flows with no version control or shared state
- No programmatic report generation — analysts manually compile outputs
- Copilot/AI features require internet egress — blocked on classified networks
- Zero containerization — no path to Game Warden or Iron Bank
- Single-operator knowledge silo — undocumented tribal knowledge

Proposed Architecture

Target Stack:

n8n	PostgreSQL 16	NGINX	Power BI/
(workflow engine)		(reverse proxy)	Metabase

Docker/Helm	Persistent Volume	TLS termination	
↓	↓	↓	
Game Warden K8s	AWS RDS or	STIG-hardened	
	self-hosted		

Key Technical Decisions:

n8n

replaces Power Automate — open-source, self-hosted, visual workflow builder

PostgreSQL

replaces Excel — ACID-compliant, no connection fragility

Docker → Helm/K8s

portable containers, Game Warden compatible

NGINX

TLS 1.2+, HSTS, CSP, rate limiting, reverse proxy

Delivery Model - Container Images, Not SaaS

What you receive:

- Docker Compose files (Black tier)
- Helm charts + values.yaml (Red/Yellow tiers)
- Pre-built container images (n8n, PostgreSQL 16, NGINX)
- All 5 n8n workflow JSON exports
- Infrastructure-as-Code (Terraform/CloudFormation templates)
- Source code for custom integrations

Deployment model:

- **Black:** docker-compose up on any Docker host (AWS GovCloud, on-prem)
- **Red/Yellow:** helm install on Game Warden K8s cluster

Ownership: Client owns all artifacts. No VV-hosted infrastructure. No subscription.

Technology Stack - Component Detail

Component	Tool	Version	License	Iron Bank Status
Workflow Engine	n8n	2.x (latest stable)	Sustainable Use	Requires submission
Database	PostgreSQL	16.x	PostgreSQL License	✓ In Iron Bank
Reverse Proxy	NGINX	1.25.x	BSD 2-Clause	✓ In Iron Bank
Container Runtime	Docker / containerd	—	Apache 2.0	N/A (host-level)
K8s Package Manager	Helm	3.x	Apache 2.0	N/A (tooling)
BI Dashboard	Metabase or Power BI	—	AGPL / Commercial	Metabase requires submission

Dependency note: n8n runs on Node.js 18 LTS. Dependency tree includes ~800 npm packages. CVE remediation scoped in MS2 budget.

Five Core Workflows - Functional Specification

#	Workflow	Trigger	Input	Output	Complexity
1	Survey Distribution	Cron / manual	Roster CSV, survey template	Emails sent, tracking records	Medium
2	Form Submission Handler	Webhook POST	JSON payload	Validated record in PostgreSQL	Low
3	Data Processing & Analytics	On-demand / scheduled	Raw responses	Likert scores, NPS, factor analysis, trends	High
4	Report Generator	On-demand	Processed data	Markdown/PDF report with top-10 gaps	High
5	Lifecycle Manager	Cron	Survey config	Auto open/close, analyst notifications	Medium

Data flow: Webhook → Validation → PostgreSQL → Analytics → Report → Dashboard

Game Warden - Platform Architecture

What Game Warden provides:

- DoD-accredited PaaS on AWS GovCloud (IL2-IL6) and AWS Secret/TS regions
- Managed Kubernetes clusters with inherited ATO
- Automated security scanning pipeline: ClamAV → Anchore → STIG validation
- Cross-domain transfer via AWS Diode (unclass → Secret → TS)

Deployment pipeline:

git push → CI/CD → ClamAV scan → Anchore CVE scan → STIG check → Stage → Promote

ATO inheritance: Applications deployed on Game Warden inherit the platform ATO. No standalone 6-18 month certification process.
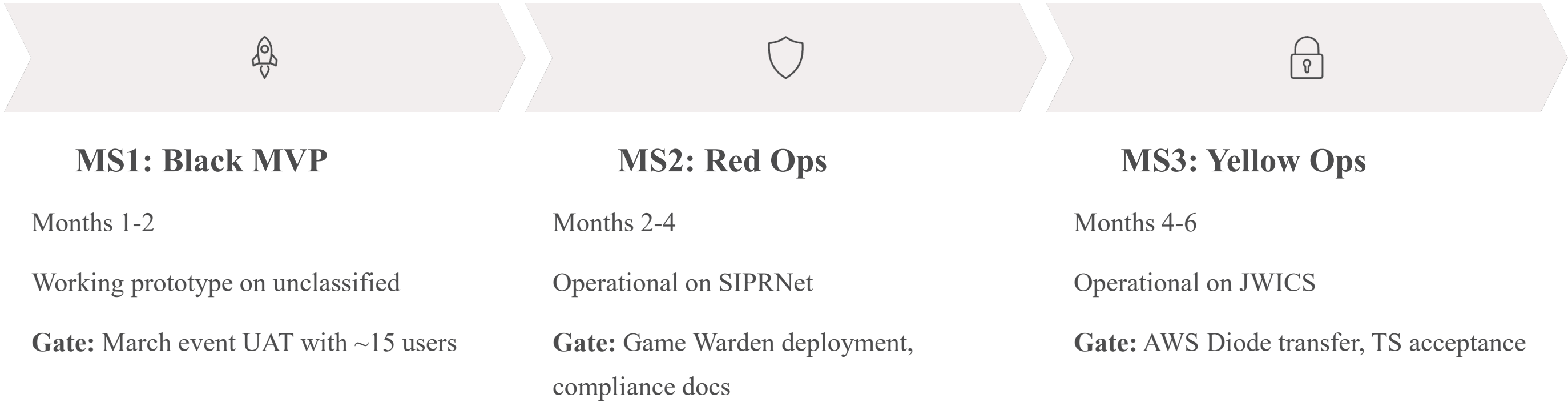
Vendor: Second Front Systems (https://secondfront.com)

Classification Tiers - Impact Levels

Tier	Impact Level	Network	Hosting	ATO Path
Black	IL2-IL4	Commercial / GovCloud	Docker on EC2 or EKS	cATO via Game Warden or self-managed
Red	IL5-IL6	SIPRNet	Game Warden on AWS Secret Region	Inherited ATO
Yellow	TS/SCI	JWICS	Game Warden on AWS Top Secret Region	Inherited ATO

Cross-domain promotion: Container images built once, transferred via AWS Diode, re-scanned at each tier.

Engagement Structure - Milestones

6-Month Timeline:

MS1: Black MVP

Months 1-2

Working prototype on unclassified

Gate: March event UAT with ~15 users

MS2: Red Ops

Months 2-4

Operational on SIPRNet

Gate: Game Warden deployment, compliance docs

MS3: Yellow Ops

Months 4-6

Operational on JWICS

Gate: AWS Diode transfer, TS acceptance

Overlap: MS2 prep begins during MS1 (Game Warden onboarding, Iron Bank submission).

Milestone 1 - Black MVP (Months 1-2)

Technical Deliverables:

- n8n + PostgreSQL 16 + NGINX in Docker Compose
- All 5 workflows operational with sample data
- PostgreSQL schema: surveys, responses, demographics, gaps, reports
- Google Sheets/Excel Online webhook integration (optional, for familiar UX)
- Power BI DirectQuery connector or Metabase dashboards
- TLS configuration, basic auth, rate limiting

Documentation:

Architecture diagram, operator runbook, workflow modification guide

Validation:

End-to-end test at March event (~15 users, live data)

Cost:

$20K-$31K development + **~$200/mo** infrastructure

Milestone 2 - Red / Secret (Months 2-4)

Technical Deliverables:

- Helm chart conversion (Deployment, Service, PVC, ConfigMap, Secret)
- Iron Bank image submission for n8n (Dockerfile hardening, CVE remediation)
- Game Warden CI/CD pipeline configuration
- External API dependencies removed (no Google Sheets, no commercial SMTP)
- Classified email relay integration (org-specific)
- STIG hardening applied to all containers

Compliance Artifacts:

System Security Plan (SSP), Plan of Action & Milestones (POA&M)

Validation:

SIPRNet end-to-end testing with client personnel

Cost:

$23K-$40K development + **$3.5K-$9.5K/mo** infrastructure (Game Warden fee)

Milestone 3 - Yellow/ TS/SCI (Months 4-6)

Technical Deliverables:

- AWS Diode cross-domain transfer configuration
- Container image promotion to AWS Top Secret Region
- SCI compartment access controls (if applicable)
- Enhanced audit logging (all CRUD operations, auth events)
- Air-gapped dependency bundling (no external package fetches)

Compliance Artifacts:

TS-specific SSP addendum, ICD 503 alignment (if required)

Validation:

JWICS operational acceptance testing

Cost:

$30K-$62K development + **$10K-$19K/mo** infrastructure (TS region premium)

Classified Testing Model

Challenge: VV operator holds TS/SCI but is not currently sponsored under client's FCL.

Primary Model — Client-Executed Testing:

1. VV delivers test scripts, deployment runbooks, validation checklists
2. Client's cleared personnel execute on SIPRNet/JWICS
3. VV provides real-time support from unclassified (phone, screen share of unclass replica)
4. Issues resolved on unclass, re-delivered as updated container images

Backup Model — Sponsored Access:

- Client sponsors VV operator's existing clearance onto their program
- VV tests directly on classified networks
- Initiate sponsorship request at contract award as parallel track

Security & Compliance Architecture

Control Family	Implementation
Access Control (AC)	RBAC in n8n, PostgreSQL row-level security, NGINX basic auth
Audit & Accountability (AU)	PostgreSQL audit triggers, n8n execution logs, NGINX access logs
Configuration Management (CM)	IaC (Helm/Terraform), immutable containers, GitOps
Identification & Authentication (IA)	TLS client certs (optional), integration with org IdP
System & Communications Protection (SC)	TLS 1.2+, encrypted volumes, network segmentation
System & Information Integrity (SI)	ClamAV, Anchore CVE scanning, STIG baseline

Frameworks: CMMC Level 2, NIST 800-171, FedRAMP-authorized infrastructure (via Game Warden), DISA STIGs

Pricing - Tool Development

One-Time Development Costs

Milestone	Scope	Cost Range
MS1: Black MVP	Workflows, Docker, testing, training	$20,000 - $31,000
MS2: Red	Helm, Iron Bank, Game Warden, compliance	$23,000 - $40,000
MS3: Yellow	Diode, TS hardening, compliance, pen test support	$30,000 - $62,000
Total		**$73,000 - $133,000**

Veteran Vectors Services

VV Development Fee	VV Monthly Retainer
$60,000 (flat, 6-month engagement)	**Option A or B** (see Slide 22)

Pricing - Infrastructure

Tier	Monthly Cost	Components
Black	$130 - $270/mo	EC2 t3.medium, RDS micro or self-hosted, S3, SES
Red	$3,500 - $9,500/mo	Game Warden platform fee + GovCloud Secret compute
Yellow	$10,000 - $19,000/mo	Game Warden TS fee + AWS Top Secret Region compute

Year 1 Infrastructure (assuming staggered deployment):

Tier	Months Active	Annual Cost
Black (all year)	12	$1,560 - $3,240
Red (Month 3+)	10	$35,000 - $95,000
Yellow (Month 5+)	8	$80,000 - $152,000
Total		**$116,560 - $250,240**

Total Investment - Year 1

Category	Low	High
Tool Development	$73,000	$133,000
Infrastructure	$116,560	$250,240
VV Development Fee	$60,000	$60,000
VV Retainer (10 months)*	$12,000	$43,160
Total Year 1	**$261,560**	**$486,400**

~$374,000

Midpoint estimate

Context: Game Warden fees replace $200K-$500K standalone ATO cost and 6-18 months of calendar time.

*Retainer range reflects Option A (15% of infra) vs Option B (hourly). See Slide 22.

Payment Schedule

Event	Trigger	Tool Dev	VV Fee
Contract Award	Signed	20% ($14.6K-$26.6K)	30% = **$18,000**
MS1 Accepted	March UAT	30% ($21.9K-$39.9K)	25% = **$15,000**
MS2 Operational	SIPRNet live	30% ($21.9K-$39.9K)	20% = **$12,000**
MS3 Operational	JWICS live	20% ($14.6K-$26.6K)	25% = **$15,000**

Retainer: Option A or B, starting Month 3 (see Slide 22)

Infrastructure: Billed monthly by AWS/Game Warden, pass-through to client

VV Retainer Options - Starting Month 3

Option A: Percentage of Infrastructure
(Scales with Deployment)

15% of monthly infrastructure costs

Deployment State	Monthly Infra	VV Retainer (15%)
Black only	$130 - $270	$20 - $41
Black + Red	$3,630 - $9,770	$545 - $1,466
All three tiers	$13,630 - $28,770	$2,045 - $4,316

Year 1 estimate (Months 3-12): ~$17,450 - $37,460

Option B: Hourly with Monthly Minimum

$150/hour with 8-hour monthly minimum

Monthly minimum $1,200/mo	**Hours above minimum** $150/hr
Year 1 estimate (10 months) $12,000 minimum	

What Both Options Cover

- CVE monitoring and container image rebuilds
- Incident response and troubleshooting
- Workflow modifications
- Quarterly architecture reviews
- Compliance posture updates

Government-Ready Product

For downstream sale to government entity:

Requirement	VV Deliverable
Data Rights	Unlimited rights to custom code, configs, Helm charts. OSS licenses documented.
Section 508	WCAG 2.1 AA compliance for forms/dashboards
SBOM	CycloneDX/SPDX software bill of materials at each milestone
CMMC/NIST 800-171	SSP, POA&M delivered at MS2/MS3
ATO	Game Warden inherited — no standalone certification
Transition Plan	Full code, IaC, docs, training delivered at each gate

Contractor handles: SAM.gov, FAR/DFARS, contract vehicle, CDRLs, CO relationship

Risk Matrix

| Risk	Severity	Mitigation
Game Warden onboarding delays	**High**	Begin coordination Month 1. Pre-approved container patterns.
n8n Iron Bank rejection	Medium	Prepare hardened image during Black. Waiver fallback.
CVE count exceeds budget	Medium	Budget upper range ($6K). Pin stable deps.
Classified testing coordination	Medium	Client-executed with VV scripts. Sponsor access as backup.
AWS Diode transfer issues	Medium	Engage AWS SA during Yellow. Validate in staging.
Power BI unavailable on classified	Medium	Metabase built as drop-in fallback.
Scope creep	Medium	Milestone gates with defined acceptance criteria.

Technical Dependencies & Assumptions

Dependencies:

- Client provides AWS GovCloud account access (Black)
- Client has or obtains Game Warden contract (Yellow/Red)
- Client provides classified email relay configuration
- Client personnel available for classified testing windows

Assumptions:

- n8n dependency tree CVE count within normal range (~$3K-$6K remediation)
- No custom SCI compartment logic beyond standard RBAC
- Existing Power BI dashboards can be preserved or Metabase is acceptable
- March event timeline is firm (drives MS1 completion)

Timeline — Gantt View
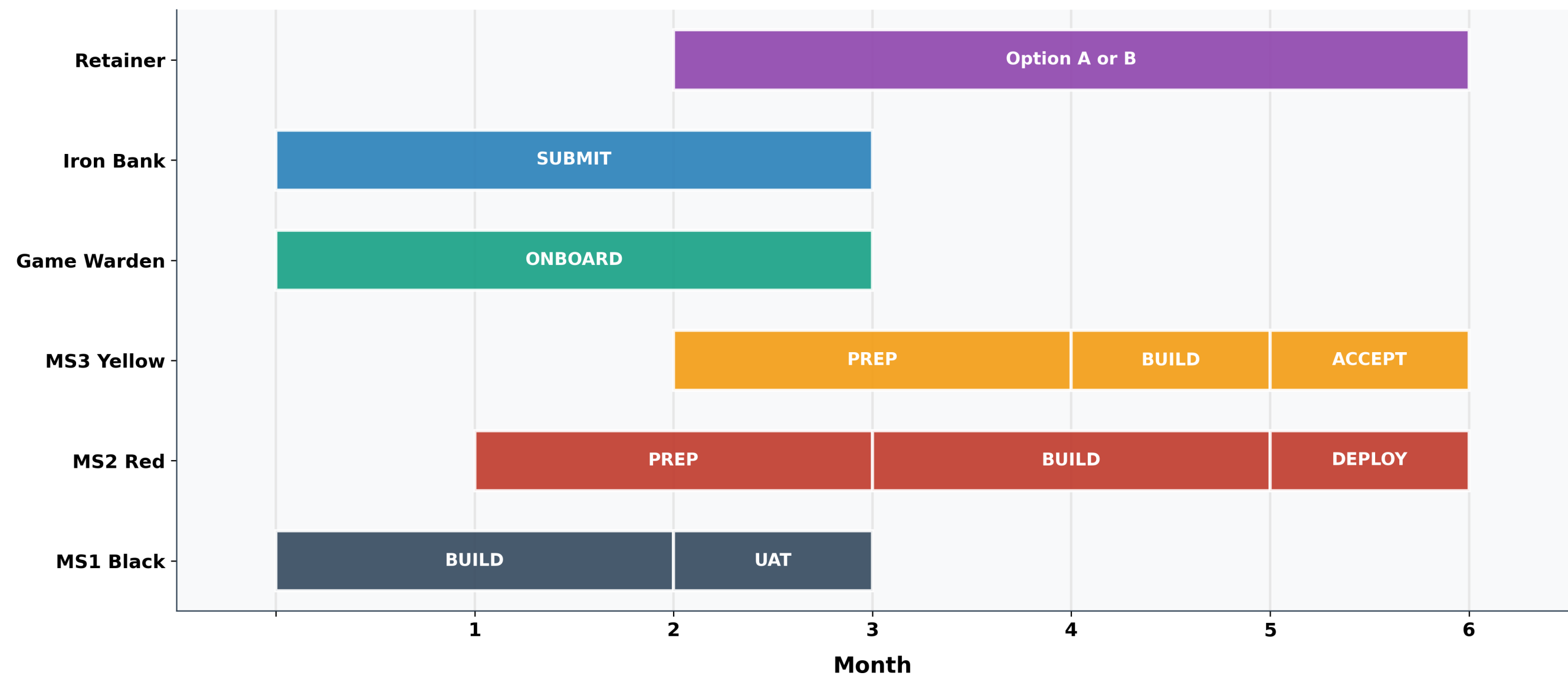
Critical path: Game Warden onboarding and Iron Bank submission run in parallel with MS1 to avoid blocking MS2.

Next Steps

01

Contract execution

Single 6-month engagement, milestone-gated payments

02

Week 1 onboarding

Access to existing Power Automate flows, Excel data, Power BI

03

Week 1 parallel track

Initiate Game Warden onboarding, clearance sponsorship request

04

Months 1-2

MS1 Black MVP build → March event UAT

05

Months 2-4

MS2 Yellow build → SIPRNet deployment

06

Months 4-6

MS3 Red build → JWICS acceptance

07

Month 3+

Retainer active (Option A or B)

Deliverable at each gate: Working system, source code, IaC, documentation, training

Veteran Vectors

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Single contract. Three milestones. Full classified deployment in 6 months.