

WEB SERVICES & MICROSERVICES

Avalon makes the systems you already own able to talk to each other and safe to change — without a big-bang rewrite.

THE PROBLEM WE ADDRESS

Point-to-point interfaces nobody fully documented, a nightly batch job whose failure stops mission work the next morning, and a single person who is the only one who understands an interface.

Every change to a monolithic system requires regression-testing the entire system, so a small change costs months of labor the agency no longer has.

WHAT WE DO

- Interface inventory and contract-first OpenAPI 3.x specifications
- REST, GraphQL, or gRPC development, including legacy SOAP facades
- API gateway implementation (Kong, Apigee, AWS/Azure) as the policy enforcement point
- OAuth 2.0/OIDC tied to agency ICAM, with PIV/CAC-derived credential support
- Domain-driven design sessions mapping bounded contexts
- Incremental strangler-fig extraction, the legacy system keeps running throughout
- Containerized services on Kubernetes/OpenShift with service mesh mutual TLS
- Data flow diagrams and control-implementation evidence for the SSP

HOW WE DO IT

1 DISCOVERY & DESIGN

Interface inventory, data-access confirmation, OpenAPI specifications, and a security design reviewed with the ISSO.

DELIVERABLE

OpenAPI specs + security design

3 HARDENING & ACCEPTANCE

Security testing, load testing against agreed targets, and acceptance against verifiable criteria.

DELIVERABLE

Accepted, hardened services

2 BUILD & INTEGRATE

Sprint-based development, gateway configuration, and integration testing in lower environments.

DELIVERABLE

Working services, integrated

4 TRANSITION

Runbooks, recorded sessions, and warranty-period defect-handling terms.

HANDOVER

Runbooks + warranty terms

VALUE DELIVERED

- › **Doorways your ISSO already expects.** Contract-first OpenAPI specs and ICDs are treated as first-class deliverables, not exhaust.
- › **The legacy system never stops running.** Strangler-fig extraction pulls services out of the monolith piece by piece.
- › **Authorization-ready by design.** Data flow diagrams and control-implementation evidence ship as standard.
- › **Scope ends on purpose.** An increment-by-increment approach shortens engagements instead of extending them.

THE ONE THING TO REMEMBER

The scope ends, on purpose.

COMMONLY PROCURED AS

API development & microservices engineering services

AT A GLANCE

Model	Fixed-price, scoped per task order
Typical	10–24 wks for a standalone integration task order
NAICS	541512, 541511, 541519, 541611, 541690
UEI	Y9MXMMHY3HA1
CAGE	242T0
Standards	NIST SP 800-204 series, NIST SP 800-53, Zero Trust (OMB M-22-09), NIST SP 800-218 SSDF

WHO WE WORK WITH

- Systems integration lead needing agency systems to exchange data automatically
- ISSO needing workload-level identity and segmentation evidence
- Program manager facing regression-test costs on every monolith change

COMMITMENT TO QUALITY

Avalon is led directly by a PMP-certified founder with a decade of enterprise engineering experience where every engagement gets senior-level attention, never a subcontracted bench. Delivery follows NIST SP 800-53, RMF, and FISMA, evidence-backed and control-mapped by design. ISO 9001/27001 is on the roadmap as the pipeline scales.

Status: Small business federal contractor based in Los Angeles, CA

NIST SP 800-204 SERIES

NIST SP 800-53

ZERO TRUST (OMB M-22-09)

NIST SP 800-218 SSDF