

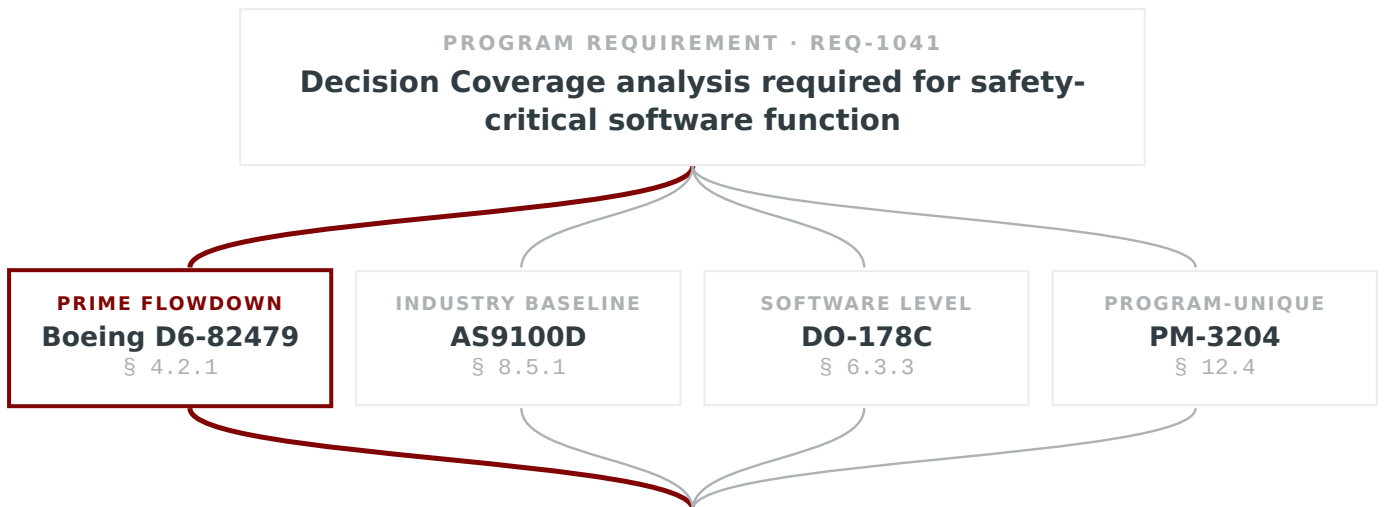
SOLUTION BRIEF

AI Compliance for Aerospace & Defense Programs

Traceability that survives DCMA, FAA, and prime flowdown.

AS9100, MIL-STD, DO-178, and prime-flowdown specs — with traceability mandates that make every citation a deliverable. The Platform produces the audit trail. **Multi-tenant isolation for ITAR and controlled programs.**

— WHAT THE PLATFORM TRACES · REQUIREMENT TO ARTIFACT



Verification artifact · V&V matrix **REVIEWED**
Test report · cited & matched at every level

FINDING · MAJOR Severity: Major · Confidence: 91%
Required verification artifact missing on V&V matrix.
Cited · Boeing D6-82479 § 4.2.1 (prime flowdown supersedes AS9100D)

Every requirement traced. Every clause cited. The platform reads AS9100, MIL-STD, DO-178, and prime flowdown together — and produces audit trails defensible to DCMA, your prime, and the FAA.

● CITED AT EVERY LEVEL

The audit trail isn't an artifact. It's the deliverable.

In aerospace and defense, programs are won and lost on traceability. Every **requirement** → **spec** → **verification** must be cited at every level. AS9100, MIL-STD environmental and EMI, DO-178 software, DO-254 hardware, and prime-flowdown specs — overlaid in ways that change clause-level applicability program by program. **A missed clause in DCMA, a TINA review, or prime surveillance isn't just an engineering finding — it's a contract risk.**

WHERE TRACEABILITY BREAKS ACROSS PROGRAM REVIEWS

SRR

SYSTEM REQ REVIEW

Requirements decomposition begins. Prime flowdown + AS9100 + program-unique clauses must all be captured and traced.

PDR

PRELIMINARY DESIGN

First gate the trace can fail. Clauses → misclassified or applied to the wrong subsystem surface here — or worse, slip through.

CDR

CRITICAL DESIGN

V&V matrix locks in. Every verification → artifact must trace to a clause and a method. Manual matrices break at scale.

DCMA

AUDIT & SURVEILLANCE

The trail goes → external. DCMA, FAA, and prime auditors expect decomposition with citation at every level.

— caught at the trace, contained

caught at audit · contract risk →

Why traceability breaks down.

01

Standards stack runs deep

AS9100 + customer quality docs (Boeing D6-82479, Lockheed APP-153), MIL-STD environment and EMI, DO-178 software, DO-254 hardware, plus program-unique specs.

02

Prime flowdown is brutal

A sub may inherit **hundreds of clauses from the prime's quality manual** — overlaid on AS9100. Tracking what applies to which deliverable is a senior engineer's full-time job.

03

Traceability is non-negotiable

DCMA audits, FAA certifications, and DO-178 reviews demand decomposition from requirement to verification artifact, **cited at every level.**

04

ITAR & classification add complexity

Controlled program work demands tenant isolation, clause-level RBAC, and a verifiable audit trail. Generic AI tools that send data to shared models are non-starters.

05

Spec changes cascade

A revision to MIL-STD-810 or an AS9100 addendum propagates across every program referencing it. Knowing what still holds is manual archaeology.

06

Cost of a missed clause is in the contract

A missed clause surfacing in DCMA, a TINA review, or prime surveillance isn't just an engineering finding — **it's a contract risk.**

WHY THIS MATTERS NOW

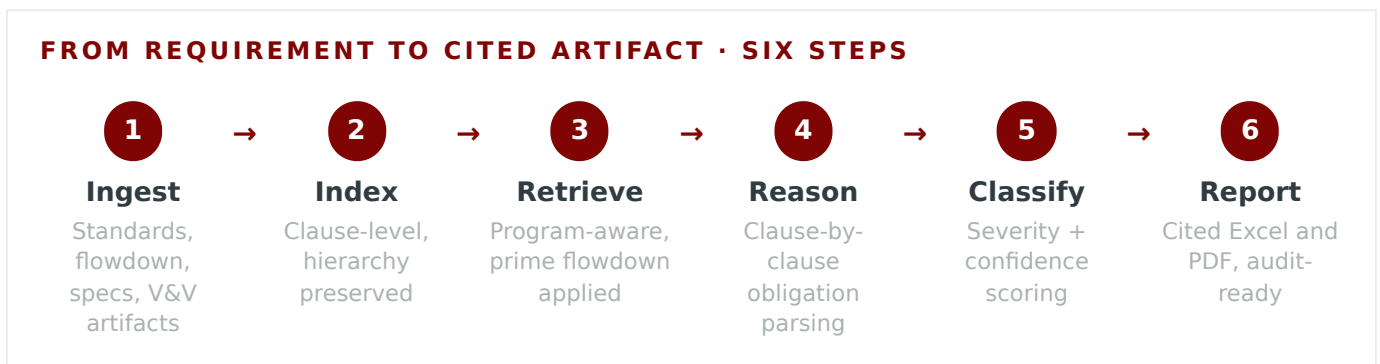
Primes are moving to digital quality systems — flowdown delivered as machine-readable artifacts, audit trails as program data, traceability matrices expected to be queryable. DCMA guidance is following. Reasoning-grade citation now holds up to audit, not just plausible-looking text.

Built for traceability, not just review.

Aerospace and defense compliance lives in the **chain of citation**, not in the finding alone. The platform decomposes program requirements through every layer they touch — prime quality manual, AS9100 clause, MIL-STD reference, DO-178 software level — and matches each one to its verification artifact. Every finding arrives with the full chain attached, **distinguishing program-unique requirements from baseline AS9100, catching when prime flowdown supersedes both**, and ready to defend to DCMA, the FAA, or your prime's surveillance team.

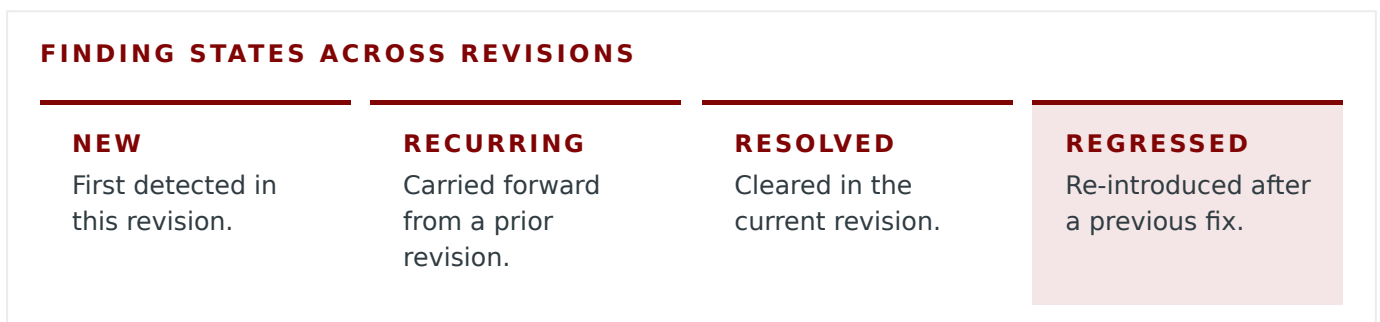
Prime flowdown, applied automatically.

Sub-tier programs may inherit **hundreds of clauses from the prime's quality manual** — overlaid on AS9100, sometimes overriding it, sometimes adding program-unique requirements. Getting the precedence wrong means the trace is wrong. The platform parses the flowdown hierarchy at ingestion and applies it at review time — every reviewer sees which clause version actually governed each finding, and the chain back to the prime is preserved.



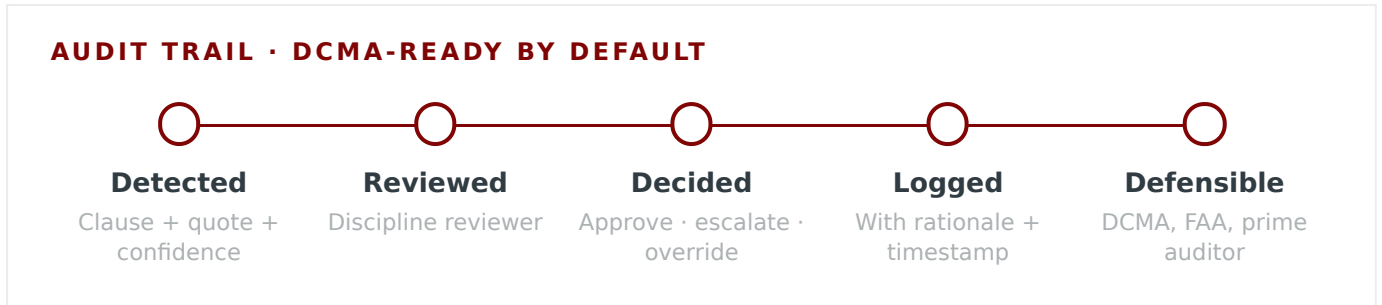
Specs revise. Traceability holds.

A revision to MIL-STD-810, an AS9100 addendum, or a prime quality manual change **cascades across every program referencing it**. The platform tracks each finding across spec revisions — every reviewer sees what's affected, what's been carried forward, what's been cleared, and what's come back. **Diff-aware traceability** shows clause-level changes between spec versions automatically.



Defensible to DCMA. Defensible to your prime.

The platform's output is engineered to survive a **DCMA, FAA, ATO, or prime surveillance review**. Every finding carries a severity classification (Critical / Major / Minor / Observation), the source clause and source quote it references, and a confidence score reported *separately* from the verdict. Reviewers can approve, escalate, or override — every decision is logged, and the audit trail moves with the finding from requirement decomposition through delivery.



Reasoning that holds. Citations that survive.

| | | |
|--|--|---|
| <p>100%</p> <p>Citation coverage on every finding</p> <p>Source clause + quote, on every output.</p> | <p>70–80%</p> <p>Reduction in compliance review cycle time</p> <p>Program engineering teams.</p> | <p>10×</p> <p>Throughput per reviewer</p> <p>Same team, more decomposition.</p> |
|--|--|---|

Built for controlled program work **ITAR · CMMC · CONTROLLED**

- **Multi-tenant isolation.** Full database isolation per workspace.
- **Enterprise SSO.** Azure AD, Okta, or your IdP. SAML 2.0, OIDC.
- **Clause-level RBAC.** Platform Admin → Workspace Admin → Business User.
- **Tamper-proof audit logs.** Exportable for DCMA, ATO, prime surveillance.

Prove it on your program. *A 2-week scoped pilot.*

We configure the platform for one program scope and run a live trace against your real specs and artifacts — no platform commitment.

We bring

The platform configured for one program, a compliance AI lead, and a solution architect.

You bring

One spec or prime flowdown doc, 8–10 program artifacts, and a program engineering lead.

You get

Findings benchmarked against your manual trace, an audit-trail sample, and a production roadmap.

→ ai-compliance@payoda.com