

AGENTIC PAYMENTS ASSURANCE

Payments rarely break at major releases. They fail silently after the change nobody validated.

BAU tweaks silently alter payment flows nobody revalidates. PruTan closes this gap.

ISO 8583 & ISO 20022 Native	Agentic AI — 10 Vertical Agents	CI/CD Release Gate	Trusted by NPCI
\$1.4M+	40%	5–10%	95%+
avg cost per payment incident	of customers who fail do not retry	industry failure rate — unquantified	edge cases missed by all QA tools

"Your biggest risk is the small BAU change that breaks payments before anyone notices."

Don't wait for your customers and regulators to find your risk.

THE 6 GREATEST PAIN POINTS IN PAYMENT RELIABILITY

01 Silent BAU Change Risk

Routine changes break payments silently.

02 Coverage Gaps

QA tools miss 95%+ of edge cases. Teams validate the known, not the missing.

03 Financial Impact

\$1.4M+ per incident. 40% customer abandonment. Preventable, unquantified.

04 Certifications & Migrations

Simulation deserts, blind spots. Certification cycles rebuilt from scratch every time.

05 Tool Sprawl & TCO

3–4 disconnected tools. Rare specialists. In-house tooling that becomes technical debt.

06 No Board Visibility

No Reliability Score. No Revenue-at-Risk. Reporting indefensible to regulators.

¹ Based on industry incident analysis. Improvement ranges reflect observed outcomes; actual results vary by transaction volume, scheme footprint and release cadence.

ISO/IEC 42001:2023	ISO/IEC 27001:2022	Trusted by NPCI	prutan.com
AI Management System Certified	Information Security Certified	India National Payments Corporation	Start free today, no credit card

From Uncertainty to Reliability. From Doubt to Trust.

The six pain points · Do you recognise your organisation here?

Every organisation we speak to carries at least three of these. Most carry all six.

01 Unknown Risk from Silent BAU Changes

Payments rarely break at releases — they fail silently after small, routine changes.

- Every BAU tweak creates unmeasurable risk
- "Green pipeline" false confidence
- Downstream field truncation & architectural drift
- Failures surface via customer complaints, not internal systems

► Continuous BAU validation — not just at release.

03 High Cost & Impact of Payment Failures

Even low failure rates create substantial financial and reputational damage.

- 5–10% average failure rates drive leakage, false declines, churn
- One major incident costs ~\$1.4M+ on average
- Customer churn from false declines — 40% never retry
- Slow RCA due to fragmented logs & poor observability

► Trace: minutes-to-RCA. Revenue-at-Risk quantification for board.

05 Fragmented Tools, High TCO & Specialist Dependency

Tool sprawl and manual processes drain resources and effectiveness.

- Multiple disconnected tools — high TCO, context-switching
- Severe dependency on scarce payments-domain specialists
- Synthetic test data that fails to reflect real-world behaviour
- In-house custom tooling becomes technical debt

► One platform replaces 3–4 tools. WISO eliminates specialist dependency.

02 Insufficient Visibility into Coverage Gaps

Teams validate what they know, with no insight into what they're missing.

- QA tools miss 95%+ of edge cases, multi-hop flows & protocol quirks
- "Happy path" validation bias
- Failure simulation paralysis — retries, timeouts, partial declines
- Synthetic test data too shallow to find real failure modes

► WISO surfaces 95%+ more edge cases. PCI-safe data generation.

04 Migrations & Certifications: Too Slow, Too Risky

Migrations, launches and scheme certifications are slow, expensive, high-risk.

- Legacy-to-modern transitions create blind spots only visible post go-live
- Simulation deserts — no downstream host access for validation
- Ecosystem complexity delays go-live and benefits realisation
- Scheme certifications rebuilt from scratch every cycle

► Sandbox simulation. Certifications 60–70% faster.

06 No Deterministic Assurance or Continuous Governance

Management and Board lack a credible, real-time view of payment reliability.

- No unified Payment Reliability Score or control-plane dashboard
- Inability to quantify revenue-at-risk per release or BAU change
- Fragmented reporting — indefensible to board, auditors & regulators
- Point-in-time compliance vs. continuous governance exposure

► CXO Companion: Reliability Score, Revenue-at-Risk, audit trail.

"Your payments are failing silently — and you just don't know it yet."

The Six Pain Points show where risk hides. The next pages detail how each happens and how PruTan eliminates it.

Deep dive · pain points 01 & 02 · The silent BAU failure cycle and the coverage gaps that sustain it

Your payments are being broken by changes you didn't know to validate.

01

Unknown Risk from Silent BAU Changes

Payments rarely break during major releases — they fail silently after small, routine changes.

"The Green Pipeline Illusion": BAU interactions pass unchallenged.

"Every BAU Tweak Creates Unmeasurable Risk"

Routing changes, fraud threshold updates, gateway modifications alter payment behaviour in ways no team tracks.

"Downstream Field Truncation & Architectural Drift"

ISO field handling drifts incrementally as patches accumulate. Truncation persists undetected for months.

CASE STUDY · SILENT DE48 TRUNCATION — 11-DAY INCIDENT

A Southeast Asian bank updated a microservice routing rule. ISO 8583 field DE48 was silently truncated for ATM transactions — undetected for 11 days until a call-centre spike.

Root cause: *Unvalidated interaction between a routine BAU change and a live ISO 8583 field — invisible to every tool in the stack.*

Impact: Seven-figure remediation cost. Reputational damage with card network.

PruTan: Studio + Sandbox

Always-on BAU validation surfaces which changes touch which flows — before they reach production.

02

Insufficient Visibility into Coverage Gaps

Teams validate what they know — but have no insight into what they are missing.

"Happy Path" Validation Bias

Test suites are built around expected successes. Partial auths, concurrent duplicates, schema rejections are structurally absent.

"Failure Simulation Paralysis"

Retry storms, idempotency fractures, timeout cascades — the highest-cost failure modes are almost never tested.

"Synthetic Test Data Too Shallow"

Manually crafted data cannot exercise real failure conditions. Masked production data creates PCI exposure.

CASE STUDY · ISO 20022 MIGRATION — 12% POST-GO-LIVE REJECTION RATE

A European processor migrated MT→MX format. Common structures mapped correctly. Edge cases in address fields and remittance data were not examined.

Root cause: *Protocol migration creates thousands of new field combinations that go unexamined with general tooling.*

Impact: 12% SWIFT rejection rate. Emergency remediation. Certification delay. Partner trust erosion.

PruTan: WISO + Studio + Card Engine

WISO surfaces 95%+ more edge cases. Native ISO 8583/20022 intelligence. PCI-safe synthetic data generation.

Deep dive · pain points 03 & 04 · The financial cost of failures and the certifications nobody can afford to repeat

\$1.4M+ per incident. Every mandate is a hard deadline.

03

High Cost & Impact of Payment Failures

Even low failure rates create substantial financial and reputational damage.

"5–10% Average Failure Rate: Unquantified"
Revenue leakage, false declines, churn accumulate continuously — yet almost no organisation has put a dollar figure on their exposure.

"The False Decline Trap"
40% of customers who fail do not retry. They leave permanently. Silent, preventable, invisible in monitoring dashboards.

"Slow RCA from Fragmented Logs"
Multi-system failure diagnosis is a cross-functional fire drill — hours of log hunting compound the incident cost.

CASE STUDY · RETRY STORM — 4,300 DUPLICATE AUTHORISATIONS

A payments platform updated fraud-scoring logic. Retry behaviour under high concurrency was not validated. Peak Saturday traffic triggered a retry storm: 4,300 duplicate authorisations.

Root cause: *Retry and idempotency edge cases under concurrent load are invisible in sequential validation.*

Impact: Three-week settlement disruption. Regulatory enquiry. Total cost exceeded \$1.4M.

PruTan: StressLab + Trace

StressLab exposes retry storms before peak day. Trace compresses RCA from days to minutes.

04

Migrations & Certifications: Too Slow, Too Costly, Too Risky

Migrations, new launches, and scheme certifications are slow, expensive, high-risk.

"Simulation Deserts"
Issuer simulators, acquirer environments, processor sandboxes — unavailable, unreliable, or not reflecting production. Pre-go-live confidence is structurally impossible.

"Legacy-to-Modern Blind Spots"
ISO 8583→20022 migrations introduce thousands of new field combinations. Post-migration rejection rates of 10–12% are documented.

"The Certification Rebuild Trap"
Visa, Mastercard, RTP, SWIFT certification cycles — manual, rebuilt from zero every time. One failed test case sets launch back weeks.

CASE STUDY · MANDATE DEADLINE: CANADA RTR — Q4 2026

RTR receive capability is mandatory at go-live. Every onboarding wave is a certification deadline. Organisations arriving unprepared face regulatory exposure and missed revenue.

Root cause: *Certification cycles built from scratch with no production-grade simulation of the downstream chain.*

Impact: Certification delays cost weeks of regulatory exposure and revenue from new rails.

PruTan: Sandbox + Studio + RADAR

Production-grade digital twin eliminates simulation deserts. Pre-built scheme libraries. 60–70% faster certification cycles.

Deep dive · pain points 05 & 06 · The tool sprawl draining your organisation and the governance gap exposing it

The CFO never sees the aggregate drag. The board never sees the risk.

05

Fragmented Tools, High Maintenance Cost & Specialist Dependency

Tool sprawl and manual processes drain resources and limit effectiveness.

"The Tool Sprawl Tax"

Generic API tool + simulator + load tester + monitoring + manual certification — five systems that don't communicate. The CFO never sees the aggregate TCO.

"The Specialist Single Point of Failure"

ISO field semantics, EMV cryptograms, DUKPT key management — concentrated in a handful of engineers. A bottleneck, a failure point, a retention risk.

"In-House Tooling Becomes Technical Debt"

Bespoke tools don't evolve with scheme rules, lack scenario breadth, and consume engineering time worth more on roadmap delivery.

CASE STUDY · TOOL SPRAWL: A TYPICAL ENTERPRISE ENVIRONMENT

A mid-tier bank ran five separate tools — none integrated. The CFO had never seen the aggregate TCO. Two engineers held all ISO and EMV knowledge. When one resigned, every certification stalled.

Root cause: Specialist dependency: institutional knowledge concentrated in one engineer.

Impact: Six-month certification backlog. Emergency recruitment. Three months to rebuild knowledge.

PruTan: Studio + WISO + Sandbox + StressLab + RADAR

One platform replaces 3–4 tools. WISO makes specialist knowledge accessible to every engineer.

06

Lack of Deterministic Assurance & Continuous Governance

Management and the Board lack a credible, real-time view of payment reliability and risk exposure.

"No Unified Payment Reliability Score"

Test results, monitoring, incident logs, post-mortems — all in different systems. No authoritative board-ready view of payment stack health.

"Inability to Quantify Revenue-at-Risk"

Without a dollar figure for unvalidated flows, reliability investment always loses the CFO conversation to QA budget framing.

"Point-in-Time vs. Continuous Governance"

Passing a PCI-DSS or MAS TRM audit is a snapshot. BAU changes the following week render that posture obsolete. Regulators expect continuous evidence.

WITHOUT CXO COMPANION

X No reliability score → Board asks the question you cannot answer

X No Revenue-at-Risk → QA budget framing loses every time

X Fragmented reporting → Auditor conversations indefensible

X Point-in-time audit → Obsolete the day after sign-off

CXO COMPANION DELIVERS

✓ Real-time Payment Reliability Score — system-wide

✓ Revenue-at-Risk per release — quantified in dollars

✓ Board-ready audit trail satisfying regulatory requirements

✓ Continuous governance — not periodic snapshots

The structural gap · Why existing tools cannot solve this — structurally

Generic API tools, legacy simulators, and monitoring miss the same class of risk.

Generic API Tools	Legacy Simulators	Monitoring Tools
<i>Built for REST semantics</i> - X No ISO 8583/20022 field intelligence - X No EMV or scheme behaviour model - X Cannot model BAU change interactions - X No multi-hop stateful flow awareness	<i>Static, scripted, brittle</i> - X No agentic intelligence or self-healing - X No real-time message interception - X No idempotency/retry-storm coverage - X Cannot expose downstream field truncation	<i>Retrospective by design</i> - X Detects failures after they cost you - X First signal from customer or regulator - X Cannot prevent — only report post-event - X Never tells you what will break

Pre-release, not post-mortem.

PruTan catches the failure that exists only at the intersection of a BAU change and a payment protocol edge case — before it reaches production.

One integrated platform · Ten payment-native agents. The full assurance lifecycle.

Every module listed with the pain it eliminates and the business outcome it delivers.

WISO · <i>Workflow Intelligence</i> Solves: Happy path bias + failure simulation paralysis. Outcome: 95%+ more edge cases, automatically. Manual authorship eliminated.	Interceptor · <i>Flow Manipulation</i> Solves: Cannot force failure states — timeouts, truncation, retry storms. Outcome: Every failure mode exercised on demand before release.
Studio · <i>API & ISO Validation</i> Solves: Generic tools lack native ISO 8583/20022 intelligence. Outcome: Right-first-time protocol validation across every flow type.	Trace · <i>End-to-End Observability</i> Solves: Slow RCA from fragmented logs across multi-system chains. Outcome: Minutes to pinpoint exact message, field or boundary.
Sandbox · <i>Host Simulation</i> Solves: Simulation deserts — no downstream issuer/acquirer access. Outcome: Production-grade digital twin. Zero production access needed.	Card Engine · <i>EMV Test Cards</i> Solves: EMV cryptography requires rare specialist expertise. Outcome: ARQC/DUKPT complexity accessible to every engineer.
StressLab · <i>Load & Idempotency</i> Solves: Retry storms and idempotency failures invisible in sequential validation. Outcome: Peak-day confidence before peak day arrives.	CXO Companion · <i>Executive Intelligence</i> Solves: No Reliability Score, no Revenue-at-Risk — board conversations indefensible. Outcome: GO/HOLD decisions, Revenue-at-Risk, board audit trail — continuously.
RADAR · <i>Diagnostic Platform</i> Solves: No visibility into what is not being validated — risk invisible until costly. Outcome: Board-presentable risk posture. 30 categories, 10 schemes.	Sentinel · <i>2027–28 · Production Canary</i> Solves: Pre-release assurance ends at go-live; BAU re-opens the risk window. Outcome: Assurance extends from release gate into live environment.

Who we serve · Built for the entire payments ecosystem

Every organisation processing payments carries risk from flows it never validated.

Banks & Digital Banks Core · Open Banking · Digital ⚠ Silent BAU changes break payment flows between releases — discovered from customers, not internal systems. ✓ Continuous assurance across every channel. Up to 40% faster release cycles.	Fintechs Release Certainty · Day One ⚠ Payment failures on day one destroy months of customer trust. ✓ Hidden risk surfaced in under 5 minutes. Desktop on Windows/Mac/Linux — no credit card.	Payment Networks Scheme Rules · BAU Validation ⚠ Every participant on your rails introduces risk invisible until a live incident surfaces. ✓ Protocol-native validation for scheme rules and every BAU change. 60–70% faster certification.	Processors & Switch Vendors Go-Live · ISO 8583 · Throughput ⚠ Every new client go-live introduces flow interactions the validation environment cannot model. ✓ Deterministic assurance before every go-live — not after customers find the failure.	Acquirers & Issuers Multi-Merchant · Certification ⚠ Certification cycles across dozens of merchants — manual, slow, rebuilt from scratch every time. ✓ Continuous assurance across every merchant. Certification cycles cut 60–70%.	Migration & Modernisation ISO 8583 → 20022 · Microservices ⚠ Migrations create thousands of new field combinations. Post-migration rejection rates of 10–12% documented. ✓ Semantic mismatch detection. Parallel-system validation. Continuous assurance throughout.
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Also serving: Payment gateways · aggregators & Merchants of Record · card schemes · wallet & PSP providers · and every team shipping changes into a live payment flow.

Global readiness · Every region is modernising — every mandate is a deadline

CA Canada ISO 20022 RTR — Q4 2026 Phased RTR launch. Receive capability mandatory at go-live. PruTan validates RTR conformance and Interac/Lynx interplay.	AU Australia NPP · PayTo · ISO 20022 NPP, PayTo mandates and RBA ISO 20022 migration. BECS decommissioning adds complexity.	us Americas FedNow · RTP · NACHA FedNow and TCH RTP scaling alongside Nacha rules. One platform covers instant rails, ACH and ISO 8583.	eu Europe & UK SEPA Instant · VoP · NPA EU Instant Payments: 10-second mandate and Verification of Payee. PruTan validates SEPA Instant, VoP and the UK NPA.	IN India UPI · RuPay · NPCI World's highest-volume real-time market. PruTan — trusted by NPCI — assures UPI flows at national scale.	ME & Africa National Switches mada, KNET, NIBSS-class switches and new instant-payment schemes. PruTan validates switch certification.
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One platform, every rail and standard.

ISO 8583, ISO 20022, REST, UPI, SEPA Instant, FedNow, RTP and RTR — validated against each market's mandate from a single platform.

Defensible by design · Why PruTan wins — and stays ahead

Six structural advantages. Each a multi-year investment impossible to replicate quickly.

- 1

Protocol-native engineering
Built on ISO 8583 and ISO 20022 with full field-level awareness across ATM, POS, mobile, gateway and switch. Not a REST wrapper — a protocol-up build.
- 2

Domain-trained agentic AI
Trained on proprietary failure modes, BAU-change breakage patterns, and scheme certification edge cases unavailable publicly. Knows what breaks payment systems.
- 3

Integrated platform breadth
The entire assurance lifecycle — BAU validation, simulation, interception, load testing, observability, executive governance — in one platform.
- 4

Regulatory trust & track record
ISO/IEC 42001:2023 and ISO/IEC 27001:2022 certified — verified by accredited third-party bodies. Trusted by NPCI. Certifications earned, not claimed.
- 5

Embedded infrastructure position
Deploys inside CI/CD as infrastructure — integral to the release process, not alongside it. High natural switching costs and growing data advantage.
- 6

Category leadership
PruTan defines Payment Reliability Assurance. The planned Payment Reliability Index will make PruTan the industry measurement standard — not just a vendor.

Head to head · One platform that does what four categories cannot

Capability	PruTan	Generic API	Legacy Sim.	Monitoring
ISO 8583 & ISO 20022 — native field-level	✓	—	✓	—
NPCI / UPI / RuPay	✓	—	—	—
REST / JSON APIs & Open Banking	✓	✓	Partial	—
Digital twin — issuer / acquirer / processor	✓	—	Partial	—
EMV / 3DS / Tokenized	✓	—	✓	—
Idempotency & retry-storm simulation	✓	—	—	—
Load / stress / regression	✓	✓	✓	—
Payment-native AI scenario generation	✓	—	—	—
Agentic workflows & self-healing	✓	—	—	—
Real-time interception & field modification	✓	—	—	—
End-to-end trace with correlation ID	✓	Partial	Partial	✓
BAU change risk detection (continuous)	✓	—	—	—
Revenue-at-risk scoring & GO/HOLD gating	✓	—	—	—

✓ Full · Partial · — Not supported

The assurance maturity journey · From risk discovery to board-level payment governance

A progressive model. Each stage produces evidence that makes the next stage inevitable.

PruTan is not a price ladder — it's a progressive path from first discovery to board-level governance. Individual practitioner access at prutan.com.

① DISCOVER

Internal Champions Surface Risk

Engineers surface hidden risk in under 5 minutes. Internal findings create the urgency that accelerates the enterprise case.

② QUANTIFY

Paid Diagnostic

2-week L4 Validated Risk Index. Production-correlated findings. Board-ready report. Most diagnostics convert to enterprise platform.

③ GATE

Enterprise Platform

CI/CD release gating. Multi-team RBAC. Continuous BAU assurance. Full scheme certification acceleration. Deployed as infrastructure.

④ GOVERN

CXO Companion

Board-level Reliability Score. Revenue-at-Risk per release. Regulatory audit trail. PruTan becomes unmovable governance infrastructure.

The business case · Money Saved. Time Reclaimed. Risk You Can Finally Price.



Revenue Protected

- One prevented incident of this magnitude can fund a full year of assurance investment
- Preventing false-decline abandonment converts directly into recovered revenue
- Right-first-time certification eliminates scheme penalties
- Technical debt eliminated — engineers return to roadmap delivery

Operational Efficiency Recovered

- One platform replaces 3–4 tools, licences and vendor relationships
- 60–70% faster certification on Visa, Mastercard, RTP, SWIFT cycles
- WISO replaces manual scenario authorship — no specialist bottleneck
- Trace compresses incident RCA from days to minutes

Methodology: Ranges reflect fewer production incidents from pre-release assurance, tool consolidation, AI-generated scenario coverage replacing manual authorship, and right-first-time certification. Actual results depend on transaction volume, scheme footprint and release cadence.

Enterprise engagement · The entry point is always the Paid Diagnostic

A plan for every enterprise — from diagnosis to board governance.

Paid Diagnostic <i>One-time · 2-week engagement</i> ✓ L4 Validated Risk Index — production-correlated findings ✓ Board-ready executive report with disclosed methodology ✓ Revenue-at-Risk quantification per unvalidated flow ✓ CI/CD integration partially in place for deployment ✓ Most diagnostics convert directly to enterprise platform	Enterprise Platform <i>Priced by transaction volume</i> ✓ CI/CD release gating — GO/HOLD decisions ✓ Multi-team RBAC and shared workspace ✓ Continuous BAU assurance — not just at release ✓ RADAR L4 Risk Index ✓ Multi-region: Singapore · UAE · India · France	+ CXO Companion <i>Add to any Enterprise tier</i> ✓ Real-time Payment Reliability Score — system-wide ✓ Revenue-at-Risk per release — quantified in dollars ✓ Board-ready audit trail for regulators and auditors ✓ Continuous governance — not periodic snapshots
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Enterprise comes fully supported: Dedicated Project Manager · Implementation onboarding · Architecture workshops · SLA-backed support · Quarterly business reviews · ISO/IEC 42001:2023 & 27001:2022 certified.

Don't wait for your customers and regulators to find your risk.

Quantify the risk you can't see — today.

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From Uncertainty to Reliability. From Doubt to Trust.