

CASE STUDY

How a Tier-1 Brake Manufacturer Reduced Warranty Costs by 15% in 90 Days

A definitive look at how item-level traceability eliminated counterfeit fraud and protected margins in the automotive supply chain.

 INDUSTRY
Automotive Components
Braking Systems

 REGION
India
Nationwide Network

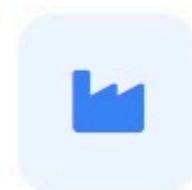
 15%
Reduction in Warranty
Costs

 Achieved in 90 Days



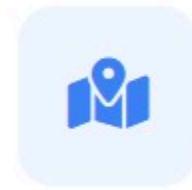
Company Overview & Context

CLIENT PROFILE



Tier-1 Manufacturer

A leading brake systems supplier serving multiple global OEMs and a vast aftermarket network.



Region: India

Operating in a high-complexity market with a fragmented distribution chain and thousands of dealer touchpoints.



Scale & Scope

High-volume production environment where manual serial checking is operationally impossible.

The Strategic Context

TREND OBSERVED

Rising warranty payouts quarter-over-quarter

QUALITY AUDIT

Stable plant quality metrics (No defects found)

“

“We were paying more in warranty claims every month, yet our factory audits showed perfect quality scores. We knew something was wrong in the field, but we couldn't see it.”

— Supply Chain Director

Executive Summary



01 THE PROBLEM

Rising Warranty Costs

Warranty payouts increased quarter-over-quarter despite stable quality metrics.

- ✗ Quality audits showed normal results



02 THE DISCOVERY

Hidden Counterfeits

Audit revealed a critical visibility gap in reverse logistics.

18%

of returned parts were counterfeit.



03 THE SOLUTION

Item-Level Traceability

- ✓ Unique digital identity per part
- ✓ Dealer-level verification
- ✓ No workflow disruption



04 THE RESULT

90-Day Impact

-15%

Warranty payouts

Rising Warranty Costs, No Clear Root Cause

🔍 The Worrying Trend

Leadership noticed warranty payouts increasing quarter-over-quarter despite internal data showing stable production quality.

Operational Reality

₱ Paper-Based Claims

Warranty validation relied on manual documentation and batch-level checks.

🔗 Traceability Black Hole

Once parts left authorized distribution, visibility stopped completely.

💰 Automatic Approvals

The OEM absorbed costs to avoid disputes, assuming all returns were genuine.

〽️ Cost vs. Quality Divergence

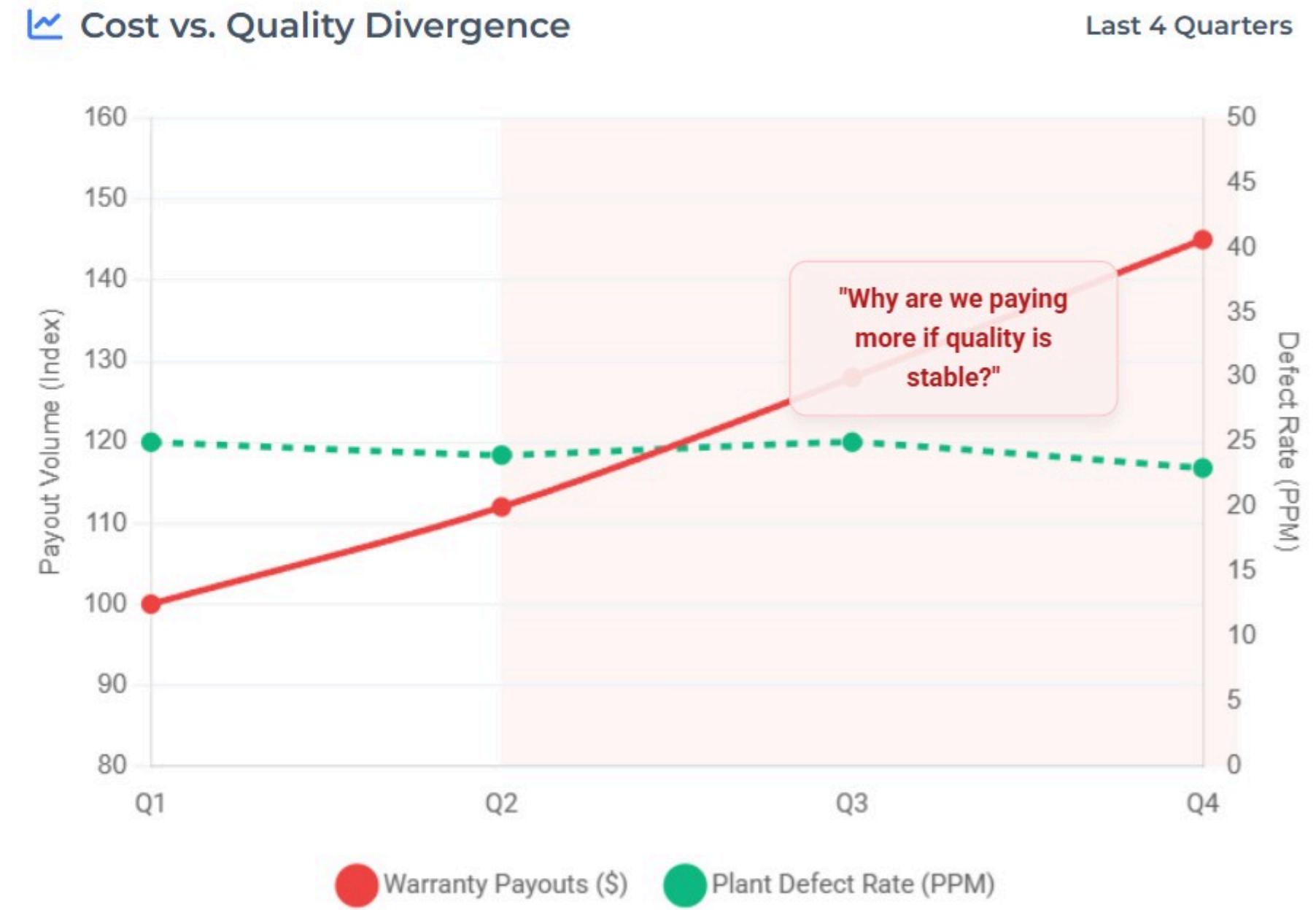
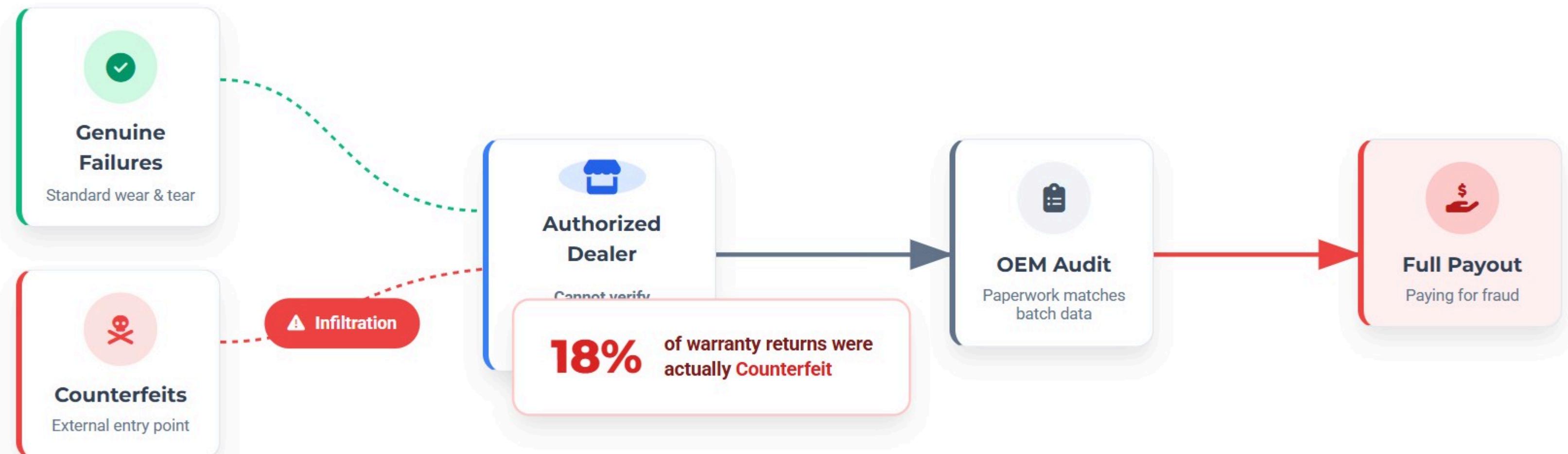


Fig 1.1: Warranty payouts surging while plant defect rate remains flat.

No Part-Level Identity in the Field

THE WARRANTY RETURN BLIND SPOT



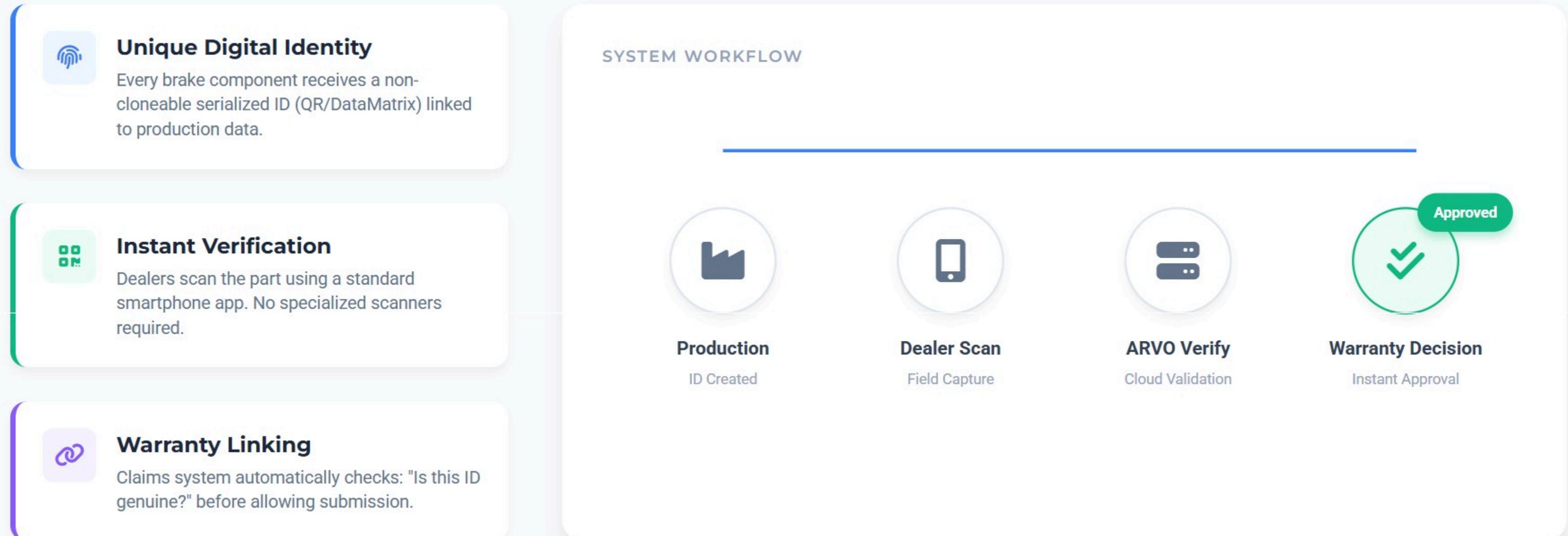
THE KEY INSIGHT

"If the part couldn't be traced, it was paid."



Without item-level serialization, rejecting claims risked damaging dealer relationships.

ARVO Item-Level Serialization



Operational Impact:

Zero Friction Deployment



No New Hardware

Utilized existing dealer smartphones



Minimal Training

Intuitive "Scan & Go" interface



No Slowdowns

Verification takes < 2 seconds

Results in 90 Days

↳ FINANCIAL OUTCOME

-15%

Reduction in total warranty payouts achieved within the first quarter.



100%

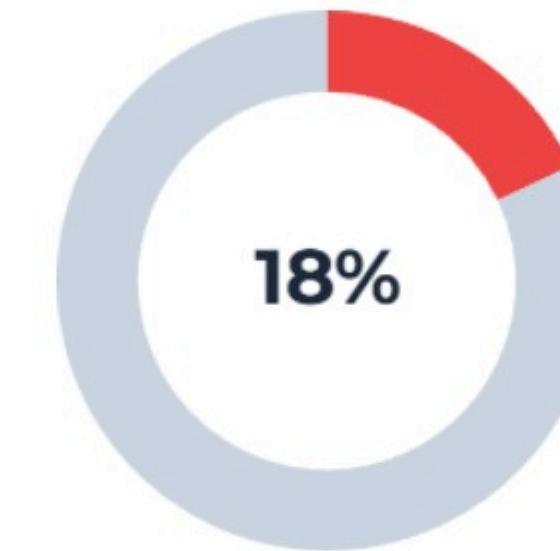
Elimination of payments for counterfeit claims



Positive ROI

Program paid for itself in < 3 months

⚙️ Operational Outcomes



Warranty Return Composition

● Counterfeit (Rejected)

18%

Genuine (Processed)

82%

*Counterfeit parts were identified at dealer level, preventing entry into reverse logistics.

👤 Experience & Efficiency

CLAIM APPROVAL SPEED

Traditional Process



DEALER FEEDBACK

⚡ Zero added friction to workflow

↗ Faster credit for genuine claims

🛡 Increased trust in OEM process

With ARVO

Why This Worked

THE OLD APPROACH

Reliance on Process

Attempting to control costs through administrative hurdles.

 Better Paperwork Tighter Policies More Random Audits Real Visibility

“

We assume this is genuine.

THE ARVO SOLUTION

Reliance on Visibility

Controlling costs through absolute identity verification.

 Verifiable Digital Identity Instant Scan Validation Data-Backed Decisions Total Supply Chain Visibility

“

We can prove it.

The Cost of Invisibility

**"If you can't trace it,
you'll end up paying for it**

!"



Beyond Quality Issues

Warranty costs don't rise solely because of product failures or manufacturing defects.



Exploiting the Blind Spot

Costs rise because counterfeit and unverified parts exploit visibility gaps in the supply chain.

— PATH FORWARD: MAKE PART-LEVEL IDENTITY THE GATE FOR WARRANTY —

Stop Paying for Failures You Didn't Create

Get Your ROI Calculator Today!

Quantify Avoidable Spend



Understand exactly how much of your warranty budget is wasted on fraud.

Identify Entry Points



Pinpoint where non-genuine parts are leaking into your reverse logistics flow.

Validate in 90 Days



Run a low-risk pilot on select product lines to prove the ROI.



Download the ROI Calculator

Let's analyze your warranty data to uncover hidden cost-saving opportunities.

[**Download Now!**](#)

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