

MANUFACTURING

ILLUSTRATIVE SCENARIO

Every part inspected, even when the power blinks

A multi-plant manufacturer moved visual quality inspection onto UnitedEdge® AI at each plant. The day a breaker tripped, the line never noticed.

ORGANIZATION

Multi-plant manufacturer

SITES

Plants in the US and Europe

FIRST WORKLOADS

Vision QA, plant VMs

MODELS

Vision and small models

The situation

Quality checks were sampled by hand, so defects slipped through between samples. Plant telemetry and product images were treated as trade secrets and could not be sent to a public cloud. Each plant also ran its own aging servers for manufacturing systems, maintained by a small team that travelled between sites.

The turning point

A run of returns traced back to a defect that sampling had missed. Leadership wanted every part inspected, which meant running vision models at line speed inside the plant, on infrastructure that could survive a plant environment without a technician standing by.

What was at stake

Quality

Defects escaping between hand samples.

IP

Images and telemetry had to stay in the plant.

Uptime

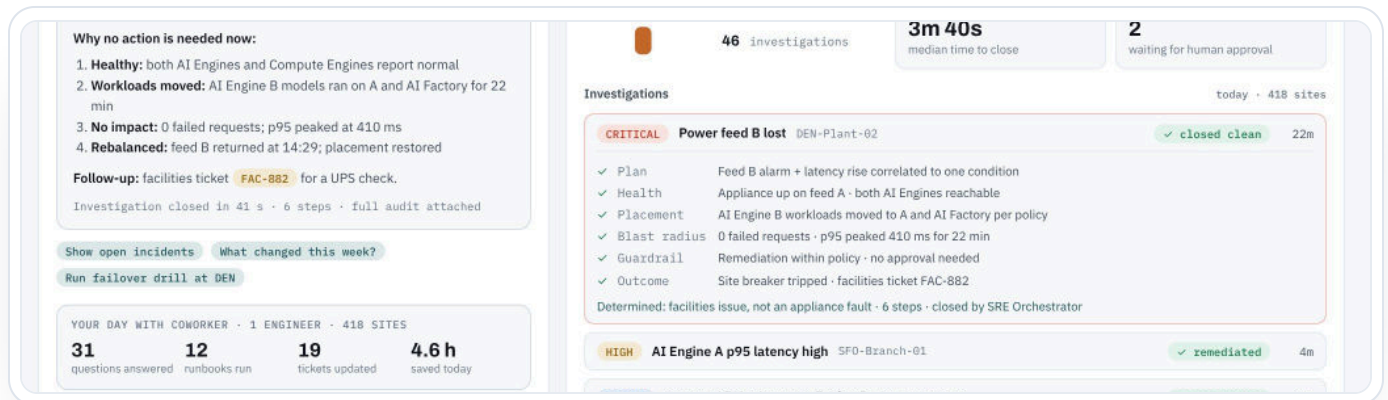
A stopped line costs more than the hardware.

Illustrative scenario based on typical UnitedEdge® AI engagements. Not a specific customer.

HOW IT UNFOLDED

UPC piloted one appliance at the largest plant, then rolled out to the rest in waves from the console.

- 01 Workshop**
 Sized the appliance for a vision QA endpoint and the plant VMs to consolidate.
- 02 Pilot at one plant**
 A vision endpoint served the inspection cameras locally, with failover to the peer AI Engine.
- 03 The day it was tested**
 Power feed B dropped when the site breaker tripped. The appliance stayed up on feed A, AI ops closed the incident and opened a facilities ticket.
- 04 Roll out in waves**
 Plants were added region by region, with models and patches updated in canary waves.



The SRE Orchestrator closed the power-feed incident in 41 seconds, with a full audit trail.

WHAT CHANGED

AREA	BEFORE	AFTER
Inspection	Sampled by hand	→ Every part, by a vision model
Outages	Truck roll per incident	→ Failover in seconds, closed by AI ops
Data	Images trapped or exported	→ Analyzed on site, never exported
Servers	Racks of aging VMs	→ Consolidated onto Compute Engines

WHAT'S NEXT

The manufacturer is now building agents that summarize shift quality each night and open maintenance work orders before a defect trend becomes a recall.

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