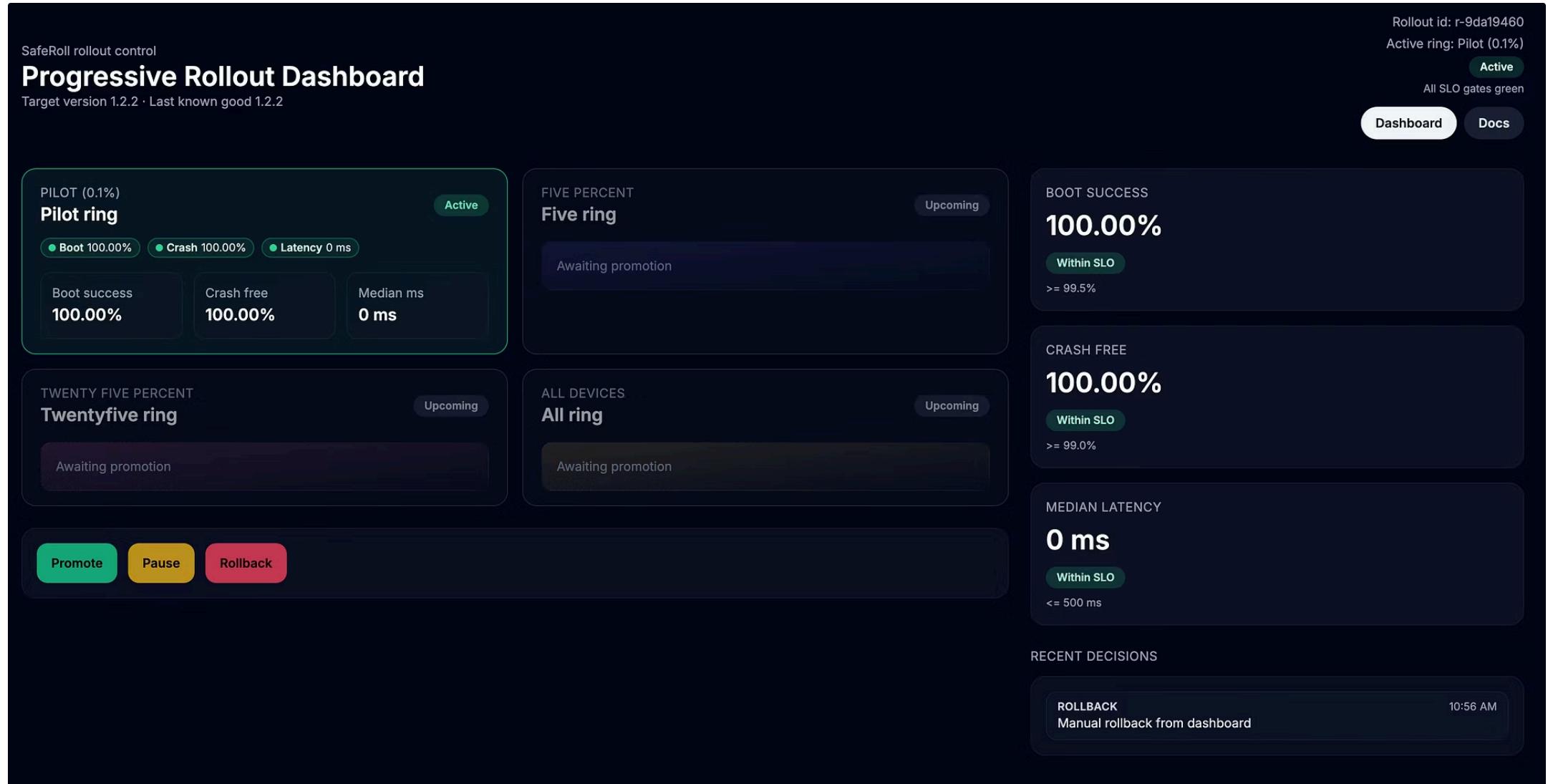


# SafeRoll: Protecting 1M+ Hospital TVs from Update Disasters

## Built for PDi Communication Systems



Live Demo Available

Intelligent progressive rollout orchestrator preventing catastrophic firmware update failures

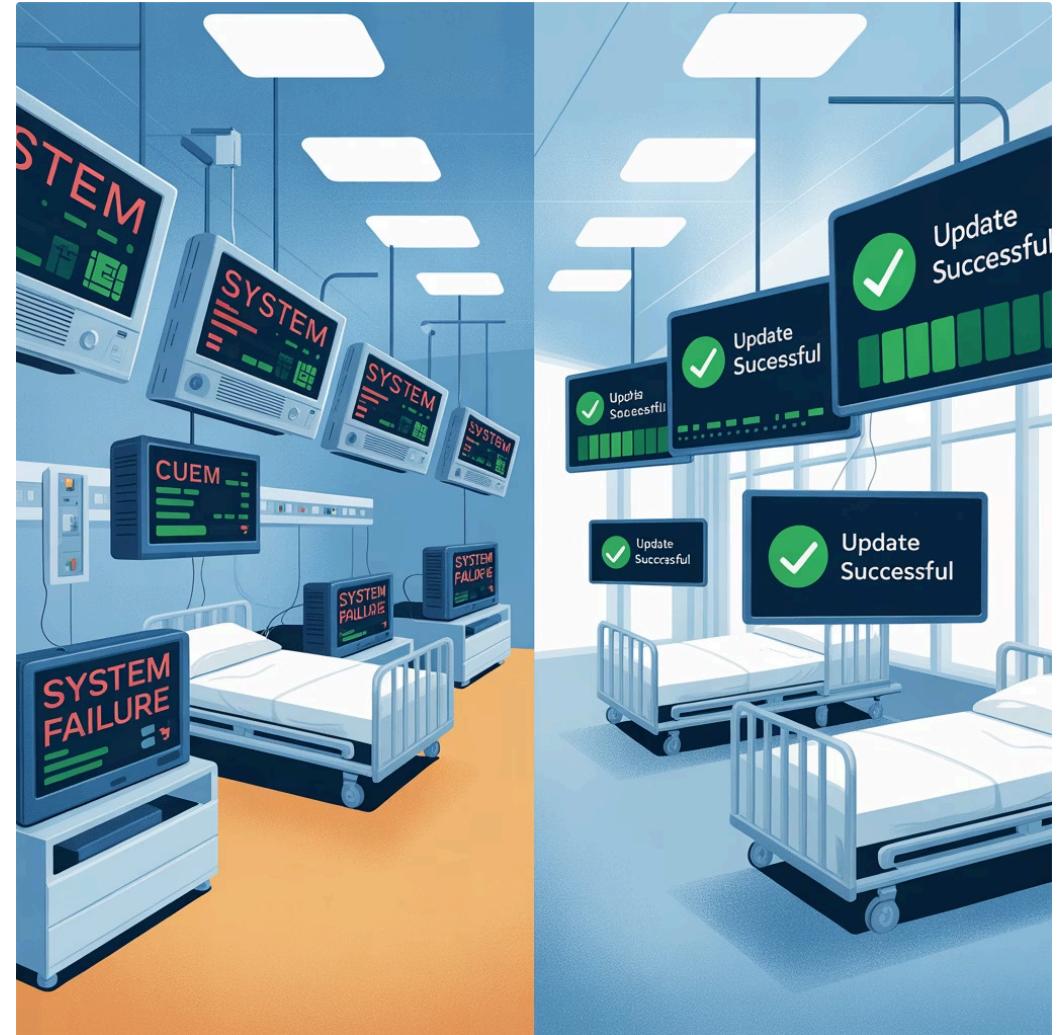
# One Bad Update = \$100M Disaster

**Current State:** All 1M+ TVs Updated at Once

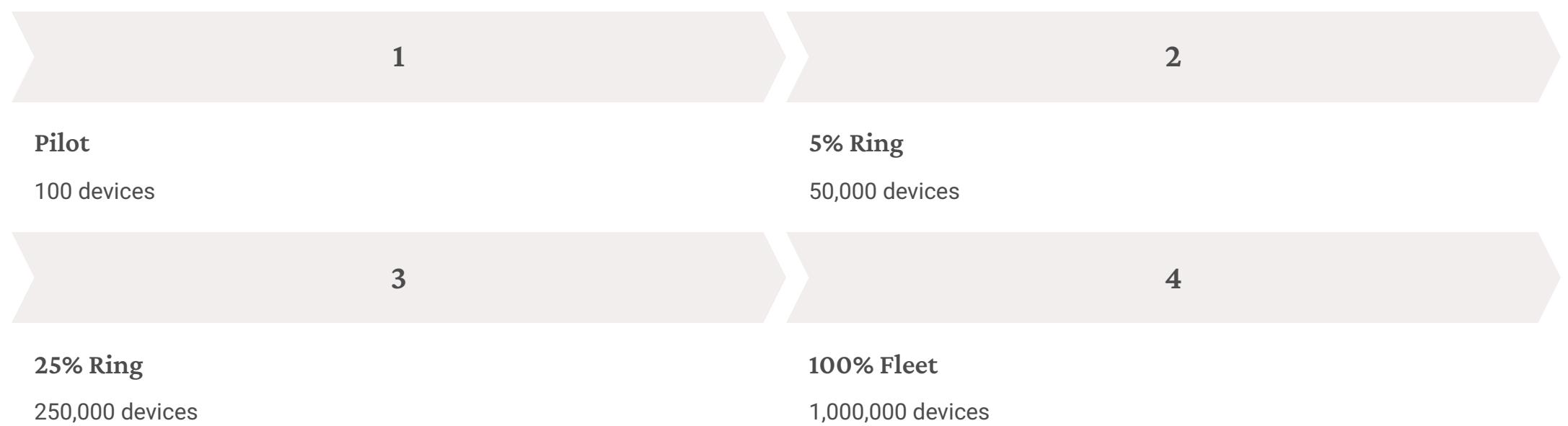
**Real risk:** Microsoft 2018 - bricked millions of devices

**PDi's Specific Pain:**

- \$50-100M potential loss
- ICU/ER TV failures = patient safety risk
- 24-72 hour recovery time



# SafeRoll Solution & Architecture



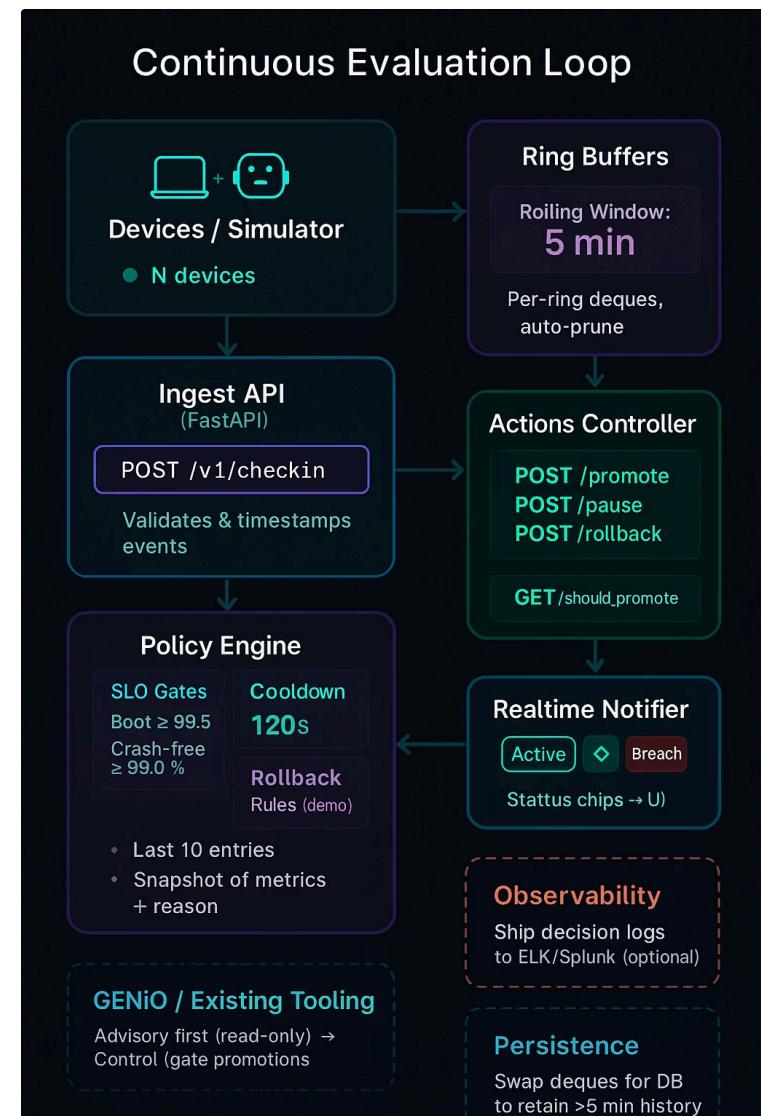
## Tech Stack

FastAPI + React + WebSocket

Handles 2,000+ checks/second

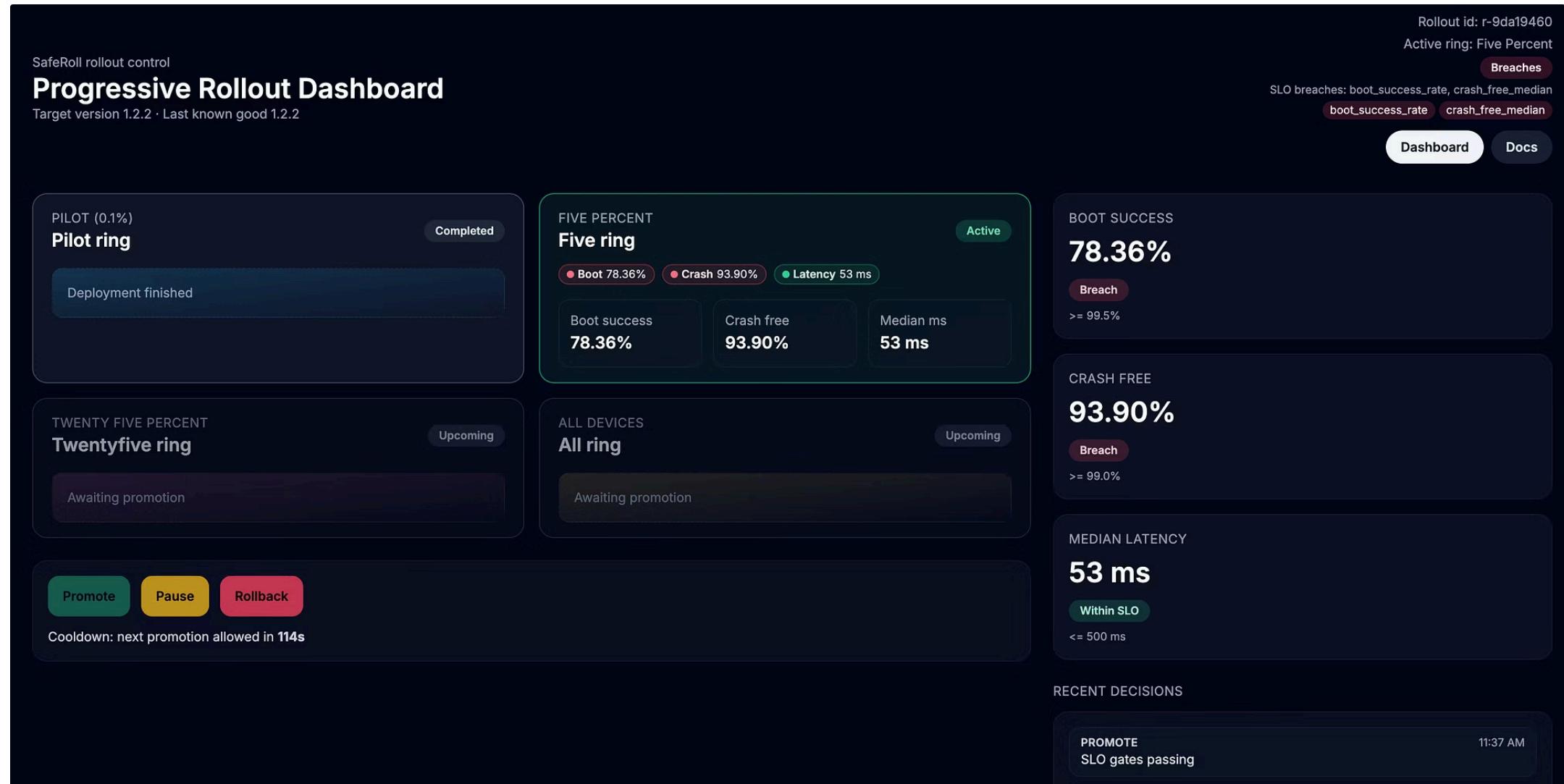
## Automatic SLO Gates:

- Boot Success <95% = Auto-rollback
- Crash-free <95% = Auto-rollback
- Latency >500ms = Warning

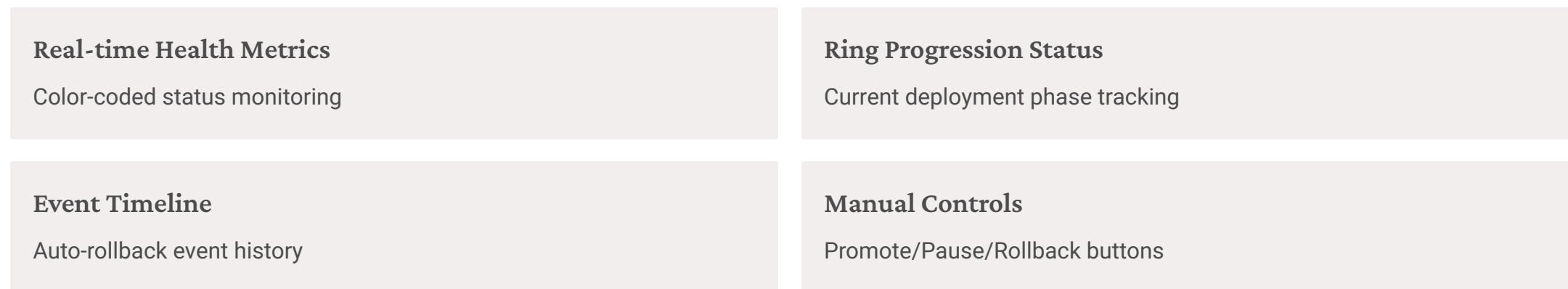


Integrates WITH GENiO, doesn't replace it

# Live Dashboard Screenshot



Real-time monitoring across 1,000 simulated devices



# Demo - Disaster Prevention in Action

Visual flow of actual demo:

01

✓ Healthy pilot: 99.8% success → Auto-promote

03

🛡 Instant auto-rollback triggered

SafeRoll rollout control

## Progressive Rollout Dashboard

Target version 1.2.2 · Last known good 1.2.2

Rollout id: r-9da19460  
Active ring: Pilot (0.1%)  
Paused  
Rollout is paused

**PILOT (0.1%)**  
**Pilot ring**  
Paused

No metrics available

**FIVE PERCENT**  
**Five ring**  
Upcoming

Awaiting promotion

**ALL DEVICES**  
**All ring**  
Upcoming

Awaiting promotion

**BOOT SUCCESS**  
**99.92%**  
Within SLO  
>= 99.5%

**CRASH FREE**  
**99.10%**  
Within SLO  
>= 99.0%

**MEDIAN LATENCY**  
**50 ms**  
Within SLO  
<= 500 ms

Promote Pause Resume Rollback

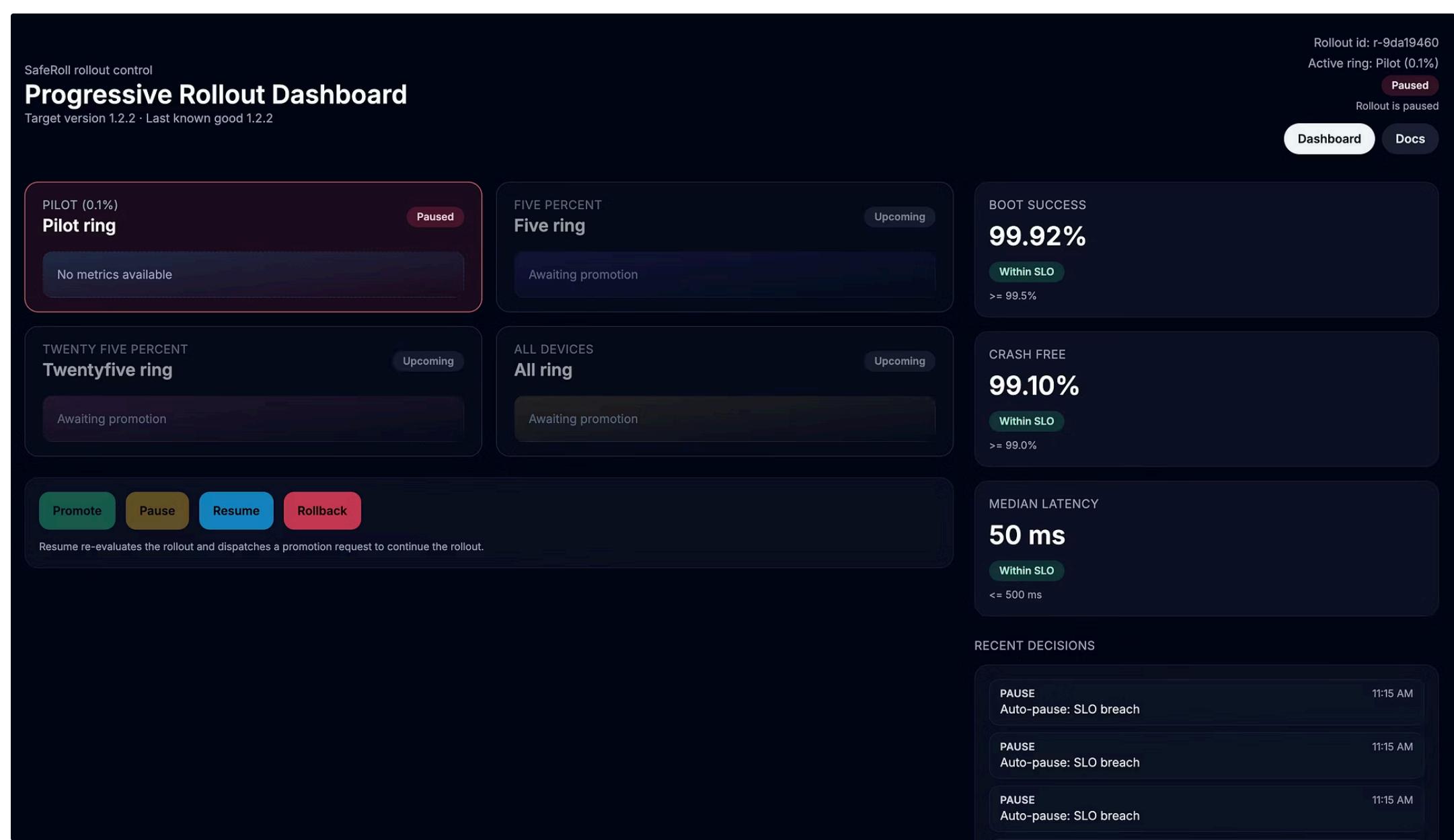
Resume re-evaluates the rollout and dispatches a promotion request to continue the rollout.

### RECENT DECISIONS

PAUSE Auto-pause: SLO breach 11:15 AM

PAUSE Auto-pause: SLO breach 11:15 AM

PAUSE Auto-pause: SLO breach 11:15 AM



10-second detection, 2-minute recovery

# Business Impact

For PDi:

**99%**

Reduction in Update Incidents

**90%**

Faster Deployments

**\$50M+**

Saved Per Prevented Incident

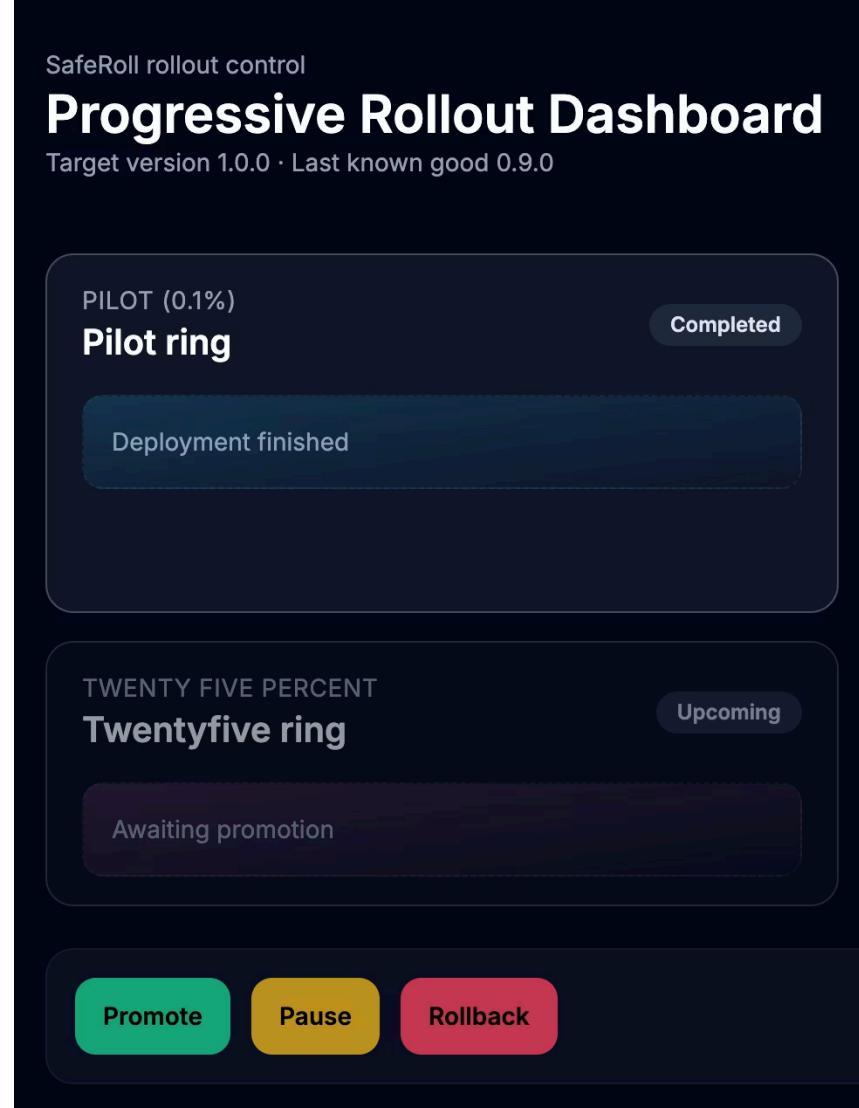
Ensures ICU/ER TV reliability

Implementation:

2-week integration with GENiO

Zero infrastructure changes

Start in advisory mode, then activate



# Why I Built This for PDi

## Built specifically for PDi Communication Systems



### Shows Technical Expertise

Modern stack, scalable architecture



### Understands Healthcare

Patient safety, ICU criticality



### Proves Capability

Working demo with 1,000 devices



### PDi-Specific

Integrates with GENiO, respects your workflow

## GitHub Repository

sharathodepalli/  
**saferoll**



1 Contributor    0 Issues    0 Stars    0 Forks

## Live Demo URL

frontend-iota-eight-60.vercel.app

SafeRoll Dashboard

## Built in 5 days

Prototype

## [Video Demo](#)



GitHub - sharathodepalli/saferoll

Contribute to sharathodepalli/saferoll development by creating an account on...

# Let's Protect PDi's Fleet Together

Ready to eliminate deployment risk?

## Proposed Pilot:

- Duration: 2 weeks
- Scope: 5% of fleet

## Success Metrics:

- Zero incidents
- <15min MTTR

## Contact Info and Links:

- Live Demo: [click hereh](#)
- GitHub: <https://github.com/sharathodepalli>
- Email: Sharathodepalli@gmail.com



*Scan for live demo*

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From \$100M risk to 100% confidence