SAOUG
CONFERENCE 2026

MIRACLE

Leadership, Resilience and Innovation in the AI Era

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HELLO
AFRICA



UBUNTU
moving forward
TOGETHER.

Unlocking Business Value with Next-Gen Cloud and AI

MIRACLE

ENGINEERING RESILIENCE · KEYNOTE

The High Availability Mindset

Building systems, teams and leaders that perform when failure is not an option.

Francisco Alvarez Global CTO, Miracle Group

[Event · Date]



ABOUT THE SPEAKER

Francisco Alvarez

Global CTO, Miracle Group

- Former Oracle Distinguished Product Manager
- Oracle ACE Director and global Oracle community leader for many years
- Oracle Magazine recognition and an Oracle Excellence Award
- **Creator of CrashSimulator**, an open-source Oracle-focused project project

350+

events spoken at

45+

countries

Team Australia

Dragon Boat National Team, the Auroras

Resilience is not revealed during failure. failure. It is engineered long before failure occurs.

01

9:47 on a Tuesday

The morning everyone in this room recognises.

THE DAY EVERYTHING STOPPED

Fourteen minutes

09:47

A payment platform freezes freezes

One component nobody has thought thought about in years quietly gives gives up.

09:49

Cards decline

At supermarkets, petrol stations and pharmacies across the country.

09:53

Salaries hang mid-transfer transfer

Payroll files sit in a queue that is no no longer moving.

10:01

Service restored

A week of headlines. A quarter of lost lost trust. A boardroom that never never sees IT the same way again.

Every organisation in this room is one dependency away from this from this moment.

THIS IS EVERYONE'S PROBLEM

Downtime stopped being an IT problem twenty years ago

WHAT WE BUILT

Lives and economies on always-on systems. Airlines, banks, banks, hospitals, governments, and the corner shop that suddenly can't take payments. The expectation is absolute. absolute.

WHAT WE STILL DO

Hope for stability instead of engineering for disruption. Downtime is lost revenue, broken trust and stalled

Hope is not a strategy.

WHY WE FAIL

Complexity breeds fragility

- Modern systems are webs of dependencies: cloud, microservices, AI, third parties
- Complex systems never fail simply; small faults cascade into big outages
- Automation moves at machine speed, and so do its mistakes
- Dashboards show the past, not the next failure

More power means more complexity means more fragility, unless resilience is engineered in.
engineered in.

02

The start line

Two hundred metres that decide two years.



WORLD CHAMPIONSHIPS · START LINE

Twenty paddlers. One heartbeat.

Twenty of us sit frozen over the water. Two years of training, decided in the next two hundred metres.

The boat that wins is never the strongest. It is the one that moves as a single organism. One paddler out of rhythm slows everyone. Perfect timing makes the boat fly.

Under pressure you don’t rise to the occasion. You fall to the level of your training.

WHAT THE MEDALS DON’T SHOW

Motivation gets you to the the start line. Preparation wins the race.

8,323

hours trained

1,429

kilometres paddled

11

training camps

Two hundred metres of racing. Years of rehearsal nobody sees.



THE IDEA WORTH SPREADING

The High Availability Mindset: resilience engineered in three places at once

01

Resilient systems

Architect for failure with redundancy, automated failover and zero data loss. Maximum Availability Architecture turns uptime from hope into engineering.

02

Synchronised teams

High performance is a team property. Shared rhythm, clear roles and trained responses keep operations steady under pressure.

03

Leadership under pressure

Leaders set the recovery tempo. Calm, decisive leadership turns incidents into into controlled, rehearsed procedures.

Engineer systems that expect failure

- Assume everything fails, and design for it, so you are never surprised by it
- No single points of failure: infrastructure, data, networks or people
- Machines fail over in seconds; humans confirm, they don’t scramble
- Zero data loss is an engineering decision (RPO zero), not luck
- **If you haven’t rehearsed the failover, you don’t have one. You have a theory.**

Three principles that change everything

01

Redundancy with independence independence

Duplicated components that share fate fail together. Isolate power, network, storage, sites, and change windows.

02

Fast, automated recovery

Detection and failover in seconds, not meetings. Runbooks become automation; automation becomes muscle memory.

03

Evidence over confidence

Availability is proven by drills, measurements and data, never by architecture diagrams. If it is not tested, it tested, it does not work.

Build teams that move as one

- One rhythm: shared cadence beats individual heroics, every time
- Every seat has a job, in the boat and on the incident bridge
- Train under race conditions: chaos drills, game days, failure simulations
- Trust is built in training and spent in crisis
- Blameless reviews turn every failure into team capability

Lead like the storm is coming

- Calm is contagious, and so is panic; leaders choose what spreads
- Decide with incomplete information, then correct fast
- Communicate in rhythm: status, impact, next checkpoint
- **The incident is the wrong time to meet your team**
- Own the failure, share the learning

SAME DISCIPLINE. DIFFERENT WATER.

The race and the data centre

	IN THE BOAT	IN THE ENTERPRISE
Synchronisation	Twenty paddles strike as one.	One runbook, one status, one goal. No heroes, no surprises.
Preparation	Race pace is trained until it is automatic.	Drills and chaos testing before the real outage, never never during it.
Recovery	A missed stroke is recovered within one beat.	Automated failover recovers before customers ever notice. notice.

03

The next wave

Resilience in the AI era.

THE NEXT WAVE

Resilience in the AI era

THE WARNING

- AI systems evolve with every input; they can behave in ways their creators never programmed
- Automation removes natural friction: the human pauses that once caught mistakes
- When automation fails, it fails quickly and broadly, at machine speed speed

THE RESPONSE

- The goal is no longer just availability; it is reliable behaviour in dynamic, adaptive systems
- Resilience must govern models, data and pipelines, not just servers servers
- AI as a crew member: predictive failure detection, self-healing platforms, smarter drills

DELIBERATELY BORING

What you can do on Monday

01

Assess

Map critical services. Agree RTO and RPO with the business, not with IT.

02

Architect

Remove single points of failure. Automate recovery.

03

Rehearse

Run a failover drill. Then run it run it again until recovery is is routine.

04

Lead

Blameless reviews. Evidence Evidence over confidence.

05

Measure

Availability is a business KPI. KPI. Put it next to revenue.

Pick one. Just one. Start this Monday.

IF YOU REMEMBER THREE THINGS

Engineer it. Rehearse it. Lead it.

Engineer it

Failure is a design input

Build systems that expect it, absorb it and and recover from it, automatically.

Rehearse it

Resilience is proven, never assumed

In drills, evidence and measured recovery.

Lead it

Culture decides the outcome

Leadership decides how your systems and and your people behave when it matters matters most.

GO DEEPER

The book, and two free tools to start rehearsing

Engineering Resilience Resilience

The High Availability Mindset · Mindset · the book

Five parts: the age of disruption, disruption, the engineering, the the human factor, lessons from from elite sport, and resilience in in the AI era.

CrashSimulator

Open source. Inject real Oracle failures, run the real recovery, measure the result.

DRRA

Data Resilience Review Assistant. Free. Turns the evidence into an MAA scorecard. scorecard.

YOUR NEXT STEP

Run one drill in your own lab, this afternoon

CrashSimulator · open source

DRRA · free

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MIRACLE

DEDICATION

To every engineer who has spent the night restoring a system.
system. To every leader who has carried the weight of an
an uncertain decision. To every team that refused to give up
give up when failure seemed inevitable.

Resilience is never an accident. It is engineered.

THANK YOU

Together we make miracles.

Trained. Synchronised. Led. So can your systems. So can your teams. So can you.

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Thank you

Together we make miracles.

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