What Actually Breaks When Modern Apps Fail

Modern Apps Move Fast. Failures Move Faster. Resilience Keeps Your Business Running.

Modern application failures aren't just data loss events. When something goes wrong, it's rarely an isolated incident. Often, it's a dependency breakdown, a configuration error, a deployment issue, a visibility gap, or something else working against you.

What Breaks, and What to Do About It

WHY MODERN APPS BREAK

Modern apps run on distributed -- not monolithic -- infrastructure. These distributed environments enable agility and shorter dev cycles, but they also introduce new complexity and possible breaks that exceed the limits of traditional protection strategies.

These strategies are built for outages that hit one server, but few users. This unfortunately doesn't span the reach of modern outages, which can ripple across hundreds of users and dependencies.

A NEW APPROACH TO RESILIENCE

Since modern app components rely on one another, changes carry risk. It's important to understand those exposures.

With the growth of AI and hybrid environments, system level thinking is key. For the best result, organizations must protect their entire app estate. This should span data, configs, policies, dependencies, metadata, and context.

Proactivity counts too, since resilience gaps can stay hidden until something breaks. Insightful system health tools can help you see these gaps before they become a problem.

Modern Applications Face Frequent Operational Disruptions

>2/3

of organizations lose over $300,000 per hour during IT incidents.

* PagerDuty 2026 State of AI-First Operations Report

54%

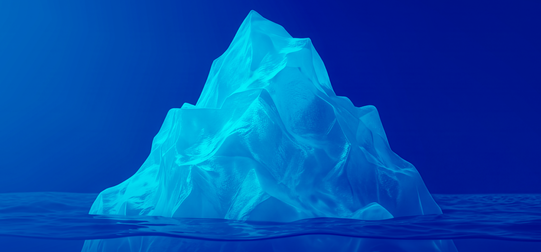
of ransomware victims used backups to restore encrypted data in the past year.

* Sophos State of Ransomware 2025

$2 million

per hour is the median cost of high-impact IT outages.

* New Relic 2025 Observability Forecast



Breaks Happen Fast

01
Broken Dependency

Application dependencies break. One failed service cascades into stalled transactions.

02
Ransomware Attack

Ransomware impacts modern environments. Attackers target backups, not just data.

03
Misconfiguration

Misconfigurations cause outages. Small errors leave apps broken but "healthy."

04
Failed Deployment

Failed deployments create business disruption. Flawed releases break data and configs fast.

05
Outage Ripple Effects

Outages have ripple effects. Fragmented tools across Kubernetes, VMs, and SaaS blur what's actually protected.

06
Data Inconsistency

Backups can succeed even while context, metadata, and dependencies are lost.

The Risk to Your Business is Real

Downtime equals risk. Consequences include:

OPERATIONAL
More firefighting, less innovation.

FINANCIAL
Every minute of downtime comes with a cost.

SECURITY
Wider exposure to ransomware and error.

STRATEGIC
Confidence erodes top to bottom.

Modern Resilience is Key

Modern resilience protects the complete application ecosystem by restoring applications, data, governance, and confidence when organizations need it most.

Top Criteria for an Effective Resilience Solution

Automated Restore
Recovery is repeatable, validated, and built in, not improvised mid-incident.

Clean, Consistent Data
Protects data, policies, metadata, configs, and dependencies together, not separately.

Policy Guardrails Enforced
Policy guardrails keep workloads consistent across every cluster, cloud, and app type.

Application Continuity
Restores the full app and its operational state instead of manual rebuilding.

Compliance Validation
Auditable compliance proves policies are enforced and recovery is repeatable, rather than assumed.

Confident Operations
Build trust and confidence. You're sure about what's protected, at risk, and recoverable before an incident hits.

Modern Applications Demand Modern Resilience

Discover how Veeam Kasten empowers you to simplify, secure, and streamline your modern apps. Free your team from complexity, reduce risk, and ensure your business is always ready, no matter what comes your way.

Ready to explore the topic further? Go deeper with Why Modern Applications Need Native Protection e-book to learn how native protection safeguards the data, context, policies, and dependencies needed for complete recovery when modern apps fail.

TRY KASTEN

GET E-BOOK

© 2026 Veeam Software. Confidential information. All rights reserved. All trademarks are the property of their respective owners.