Disaster Recovery That Actually Works

Thought Leadership Series

Disaster Recovery That Actually Works

Introduction

In today's healthcare landscape, ensuring effective disaster recovery is more crucial than ever. With outages **costing organizations an average of $10 million** and **increasing patient mortality rates by 28-43%**, healthcare systems must prioritize business continuity. In this eBook, we delve into the insights shared during our recent Disaster Recovery That Actually Works webinar. Experts from AWS, AMD, and Atayo outline key strategies for minimizing downtime, optimizing performance, and maintaining financial health. Discover how modern innovations and best practices can protect your organization and ensure uninterrupted patient care.

Background

Justin Barnes – Healthcare Strategist & Host

Justin Barnes is a healthcare strategist and host of the This Just In podcast. He has extensive experience advising healthcare organizations and has testified before Congress on key issues like value-based care and disaster recovery. Justin's leadership in healthcare innovation makes him a trusted voice in helping organizations navigate the complexities of disaster recovery and ensure resilience during crises.

Donny Wilson – Security & Compliance, AWS

Donny Wilson is an expert in cloud security and compliance at Amazon Web Services (AWS). He specializes in helping healthcare organizations develop disaster recovery plans that safeguard patient data while reducing costs. Donny's deep knowledge of AWS infrastructure and automation allows healthcare providers to prevent and recover from disasters efficiently, ensuring continuity of care.

Mike Thompson – Sr. Cloud Product Manager, AMD

Mike Thompson is a Senior Cloud Product Manager at AMD, helping organizations optimize disaster recovery through cloud technologies. He focuses on how AMD's EPYC processors enhance performance and reduce costs for healthcare organizations. Mike's expertise ensures that critical functions are maintained during outages, while energy consumption and costs are minimized.

### Jeromey Brown – Principal, Cloud Services, The Atayo Group

Jeromey Brown is the Principal of Cloud Services at The Atayo Group, where he focuses on creating disaster recovery solutions for healthcare organizations. He works with clients to design scalable, cost-efficient systems that ensure care delivery during crises. His expertise in cloud migration and performance optimization helps healthcare providers build strong disaster recovery infrastructures.

Why Disaster Recovery Matters

Ensuring Patient Safety and Continuity of Care

- **28-43%** increase in mortality rates during outages
- Uninterrupted care = Lives saved
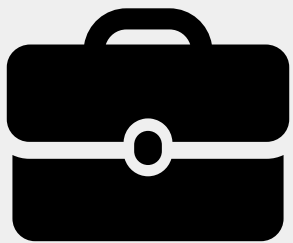
Protecting Business Continuity and Financial Health

- **$10 million** average cost per outage
- Minimize downtime with full recovery in minutes
- Maximize financial health for your organization

Ensuring Patient Safety and Continuity of Care

Healthcare organizations face significant risks when disaster recovery is not adequately prioritized. Outages in critical systems can increase patient mortality rates by **28-43%**, disrupting care at the most crucial times. Implementing a comprehensive disaster recovery plan ensures that care remains uninterrupted, directly saving lives. By safeguarding continuity, healthcare providers can prevent the worst-case scenario: delays in treatment that lead to avoidable loss of life.

Protecting Business Continuity and Financial Health

The financial impact of outages is staggering, with **the average cost exceeding $10 million per incident**. In addition to the immediate financial strain, the reputational damage can be long-lasting. With a well-executed disaster recovery plan, organizations can minimize downtime and recover critical systems within minutes, helping to secure both their financial health and operational continuity. Investing in proactive disaster recovery strategies ensures that healthcare organizations remain resilient, even in the face of unexpected disruptions.

Current Issues in Disaster Recovery

In today's rapidly evolving healthcare landscape, disaster recovery efforts often fall short due to a combination of people, process, and technology challenges. As healthcare systems become increasingly reliant on technology, these shortcomings can lead to serious interruptions in patient care, financial losses, and organizational instability.

PEOPLE
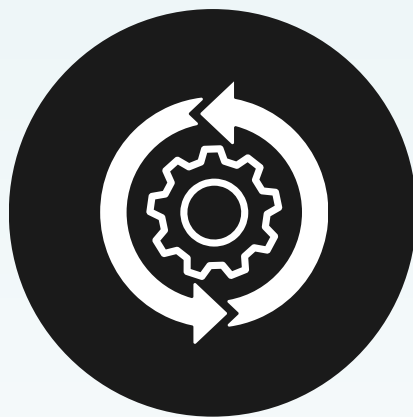
PROCESS

TECHNOLOGY

People

Disaster recovery strategies frequently encounter challenges due to unclear roles and responsibilities within organizations. When roles are not clearly defined, communication breakdowns are inevitable, leading to delayed decision-making during critical moments. As Donny Wilson from AWS mentioned in the webinar, many organizations rely on staff who are not formally trained in disaster recovery, further exacerbating the issue. The result is a lack of preparedness when disaster strikes.

Process

Another significant issue lies in the processes governing disaster recovery. As highlighted during the panel, many organizations face interruptions in care delivery due to the absence of standardized procedures and plans. Without clear, consistent protocols, recovery efforts are often executed haphazardly, leaving organizations vulnerable to further complications. As Donny Wilson pointed out, backing up systems is essential, but without reliable procedures for complete restoration, organizations struggle to fully recover during critical moments.

Technology

Technology also presents its own set of challenges in disaster recovery. Unreliable recovery copies and overburdened onsite staff are common issues. According to Mike Thompson from AMD, organizations often fail to optimize their infrastructure, resulting in inefficient recovery systems that require significant manual effort. Additionally, inadequate automation further hinders recovery efforts, leaving organizations reliant on outdated, error-prone processes. By not embracing modern technologies, organizations miss opportunities to streamline disaster recovery and ensure resilience in their operations.

Pain Points in Current Disaster Recovery Practices

Despite best intentions, many healthcare organizations face significant pain points when attempting to implement disaster recovery strategies. These challenges fall under governance, care continuity, and operational continuity, and they impact both the quality of care and the financial health of the organization.

Governance

One of the major challenges in disaster recovery is creating cohesive plans and processes. As discussed during the webinar, putting together a comprehensive disaster recovery plan that accounts for all potential risks and contingencies is difficult. Many organizations struggle to clearly define roles, allocate responsibilities, and ensure that everyone involved understands their tasks. This lack of clarity leaves organizations vulnerable when disaster strikes.

Care Continuity

The cost of failed disaster recovery extends beyond financial loss—it directly impacts patient care. Outages in critical healthcare systems can increase patient mortality by 28-43%, making uninterrupted care essential. As Donny Wilson mentioned, the stakes are incredibly high when care delivery is disrupted, and the reputational damage from such failures can be long-lasting. Organizations must ensure that their disaster recovery strategies prioritize patient safety and continuity of care.

Operational Continuity

Backing up data and restoring systems is only part of the solution; without a detailed analysis of recovery costs, organizations can overspend and still fall short of their objectives. As Mike Thompson from AMD noted, it's crucial for healthcare organizations to implement disaster recovery strategies that not only safeguard operations but do so in a cost-effective manner. Merely backing up without a well-thought-out recovery plan can lead to inefficiencies, wasted resources, and prolonged downtimes.
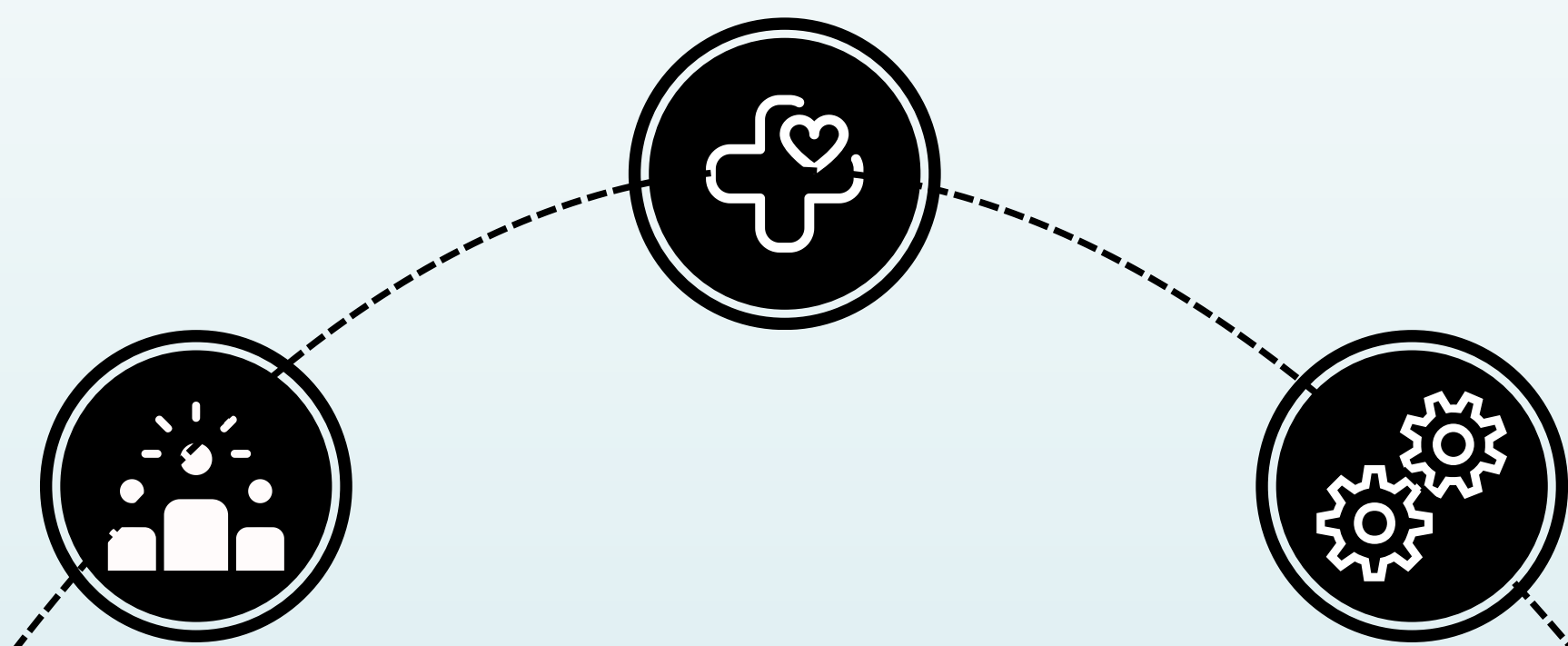
Optimizing Disaster Recovery Cloud Cost, Performance, and Energy Consumption

Optimizing disaster recovery is about more than preventing outages—it's about doing so cost-effectively and sustainably. AMD EPYC processors, paired with AWS cloud solutions, offer healthcare organizations the ability to enhance disaster recovery strategies while maintaining efficiency and reducing environmental impact.

Performance-Driven Economic Benefits

AMD EPYC-powered cloud instances provide up to 2x performance at 37% lower costs. Mike Thompson from AMD highlighted how these improvements reduce operational expenses, enabling organizations to reinvest in critical areas such as patient care and innovation.

Operational Cost Savings

Organizations using AMD EPYC-powered instances save 27-45% on general IT cloud operational expenses (OpEx). These savings allow healthcare providers to enhance disaster recovery strategies while controlling costs, as explained by Mike Thompson.

VMware Transformation

Healthcare organizations benefit from VMware transformation, which includes customized landing zones and consulting. As Jeromey Brown noted, these strategies ensure resilient, scalable disaster recovery infrastructures.

Enhanced Energy Efficiency

AMD EPYC processors offer up to 2.6x better performance per watt compared to Intel Xeon, reducing energy consumption. Mike Thompson emphasized that this helps healthcare organizations minimize both costs and their environmental footprint.

Key Strategies for Effective Disaster Recovery

Implementing an effective disaster recovery plan requires more than just having backups in place—it involves a comprehensive approach to ensure that recovery is both seamless and reliable. As discussed during the webinar, these strategies focus on preparing organizations for quick restoration and minimizing the impact of disruptions on both care delivery and operational continuity.

Business Impact Analysis

A critical first step in disaster recovery is conducting a thorough Business Impact Analysis (BIA). This involves application rationalization and the tiering of critical applications to structure recovery efforts. As Donny Wilson explained, it's essential to prioritize applications based on their importance to patient care and organizational operations. Identifying dependencies between systems is also crucial for ensuring a smooth recovery process.

Practice and Restoration

While backing up data is often straightforward, ensuring that the restoration process is clean and reliable is much more challenging. During the panel, Mike Thompson emphasized the importance of consistent practice in restoring systems, making sure that the right measures are in place to verify the integrity of those backups. To further secure disaster recovery, making backups immutable ensures that they cannot be altered or corrupted, providing additional peace of mind during a crisis.

Incident Response Capability Strategy

Effective disaster recovery plans must also include a strong incident response capability. This strategy involves preparing teams to respond quickly and efficiently to any disruptions. As highlighted by Jeromey Brown, organizations should regularly test their response protocols to ensure readiness, focusing on minimizing downtime and safeguarding both patient care and financial health.

Backing up is *easy*, complete restoration is *hard*

Best Practices for Implementing Disaster Recovery Plans

Disaster recovery isn't just about having a plan—it's about building a strategy that aligns people, processes, and technology to ensure a quick, efficient response to any disruption. As discussed during the webinar, here are three key best practices:

1. People & Expertise

Identifying the right roles and expertise early is essential for disaster recovery. Jeromey Brown emphasized that disaster recovery plans should remove complexity from onsite staff, leveraging cloud experts like AWS and Atayo to ensure smooth execution. Having the right team in place from the beginning enables effective implementation and recovery.

2. Create Playbooks

Building and regularly testing playbooks for disaster recovery ensures preparedness. Donnie Wilson highlighted the importance of test runs and prioritizing the order of restoration. By creating gold-standard backups and playbooks, organizations can minimize downtime and secure their recovery process.

3. Embrace Innovation

Mike Thompson and Jeromey Brown discussed how leveraging automation, GenAI, and machine learning can streamline disaster recovery. AI-driven solutions can automate critical processes, making recovery faster and more efficient. These technologies reduce the manual burden and allow organizations to focus on innovation.

"The best disaster is the one that you prevented and never occurred"

Disaster Recovery Landing Zone Best Practices

Building a strong disaster recovery landing zone requires careful attention to cost efficiency, security and compliance, and scalable infrastructure. As discussed during the webinar, following these best practices ensures that organizations can recover quickly while maintaining operational continuity.

Cost & Efficiency

Managing costs while maintaining effective disaster recovery capabilities is a key challenge for healthcare organizations. As Mike Thompson emphasized, automated cost management and compute-optimized instances are essential for balancing performance with cost control. Resource right-sizing and on-demand testing allow organizations to avoid over-provisioning while still ensuring their disaster recovery systems are robust enough to handle disruptions when they occur.

Security & Compliance

Security is a critical concern in healthcare, particularly when managing sensitive patient data during a disaster recovery event. Jeromey Brown noted that encryption, access control, and compliance monitoring must be integrated into disaster recovery plans to ensure data integrity. Regular disaster recovery drills help organizations stay prepared and compliant with industry standards, minimizing risk during a crisis.

Scalable & Resilient Infrastructure

Healthcare organizations need infrastructure that can scale with demand while remaining resilient during unexpected events. Multi-region architecture and auto-scaling allow systems to handle increased workloads during recovery. Jeromey Brown discussed how infrastructure-as-code and cross-region replication enhance the flexibility and reliability of disaster recovery systems, ensuring minimal downtime and quicker recovery times.

Discussion Highlights

The expert panel emphasized several key takeaways for effective disaster recovery in healthcare, summarizing the critical points of the discussion:

- **Effective disaster recovery is essential:** Outages lead to increased patient mortality rates, which can rise by 28-43%. Ensuring uninterrupted care is a matter of life and death.
- **Outage costs are significant:** The average cost of an outage exceeds $10 million, making financial and operational preparedness a priority.
- **Success relies on the right team:** It takes a skilled team of experts, alongside clear strategy and processes, to implement effective disaster recovery.
- **Create and follow playbooks:** Consistent playbook testing and optimization help ensure that restoration is clean and efficient.
- **Leverage modern innovation:** Technologies like automation, AI, and cloud solutions play a critical role in reducing downtime and enhancing recovery processes.
- **AWS landing zone:** Establishing an AWS landing zone is an excellent starting point for structuring disaster recovery efforts.
- **AMD and AWS provide an optimized solution:** Using AWS on AMD infrastructure ensures reduced costs, optimized performance, and streamlined disaster recovery processes.

Disaster Recovery That Actually Works
Expert Panel

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Conclusion & Resources

In today's healthcare environment, effective disaster recovery is not just a priority—it's a necessity. Outages can have devastating impacts, from increased mortality rates to significant financial losses. By leveraging the latest cloud technologies and best practices, healthcare organizations can ensure continuity of care while reducing operational costs and enhancing system resilience.

From automating cost management to creating secure and scalable infrastructures, the insights shared by the experts during our webinar provide a clear roadmap for navigating disaster recovery. With the right team, strategy, and tools, healthcare providers can safeguard both patient care and business continuity, even in the face of unexpected challenges.

If you're ready to optimize your disaster recovery strategy and learn more about the solutions available, don't hesitate to connect with an expert.

Talk To an Expert

INTRODUCTION

REAL DISASTER RECOVERY IN DIGITAL HEALTH

Backing Up is Easy, Recovery is Hard

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