

NAVIGATING THE MAZE OF ARCHITECTURE DECISIONS



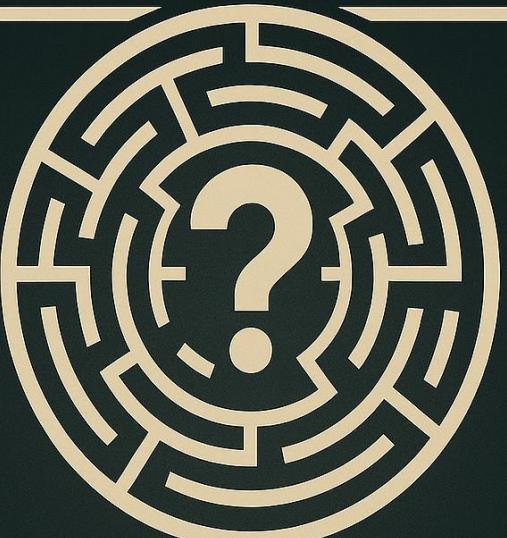
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Navigating the Maze of Architecture Decisions

Challenges in the Decision Maze

LOST IN THE
LABYRINTH



Challenges in the Decision Maze

LOST IN THE
LABYRINTH



TEAMS CROSSED
WIRES



Challenges in the Decision Maze

LOST IN THE
LABYRINTH



GHOSTS OF
DECISIONS PAST



Challenges in the Decision Maze

LOST IN THE
LABYRINTH



TEAMS CROSSED
WIRES



GHOSTS OF
DECISIONS PAST



The Hero's Tool: ADR to the Rescue



The Hero's Tool: ADR to the Rescue

SOKOVIA
ACCORDS



Leaving a Trail of Breadcrumbs



The Hero's Tool: ADR to the Rescue

Leaving a Trail of
Breadcrumbs



The Hero's Tool: ADR to the Rescue

Leaving a Trail of
Breadcrumbs

One Team, One
Mission

SOKOVIA
ACCORDS

Our Compass in the Maze

The Hero's Tool: ADR to the Rescue

Leaving a Trail of
Breadcrumbs



Our Compass in
the Maze

One Team, One
Mission

The Hero's Tool: ADR to the Rescue

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One Team, One
Mission

Our Compass in
the Maze

Learning from the
Past



Mission Briefing



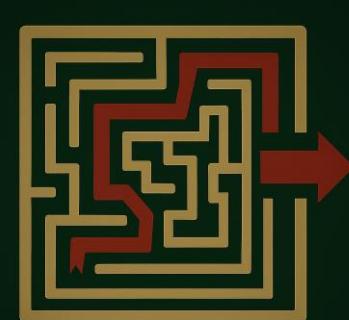
Origins & Intel



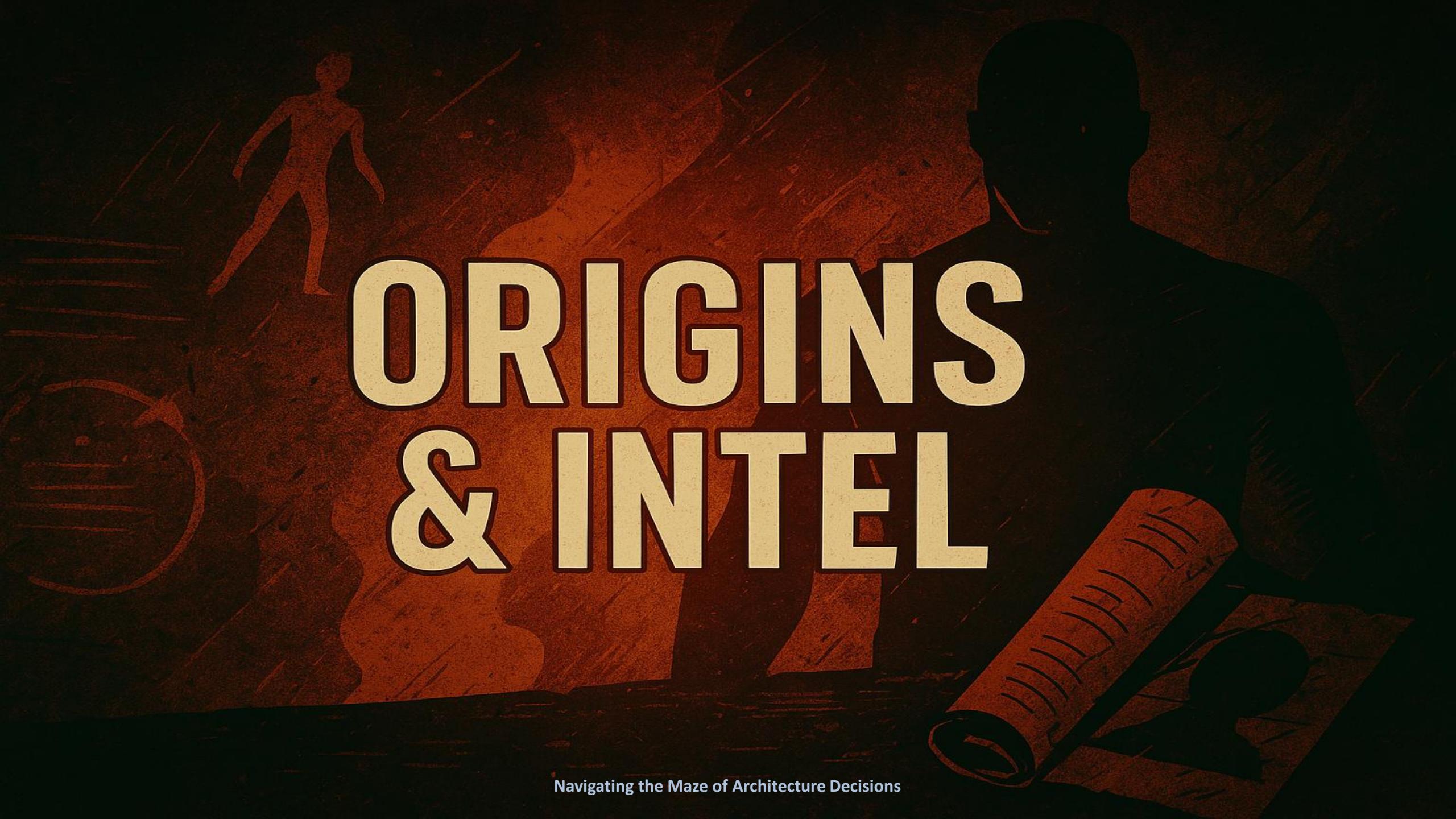
War Stories



Tools & Tactics



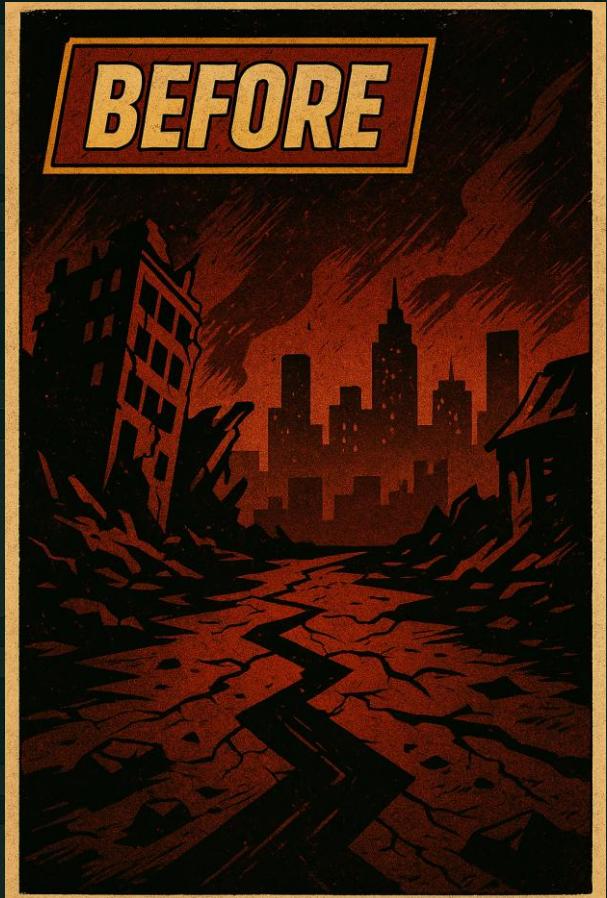
Your Mission



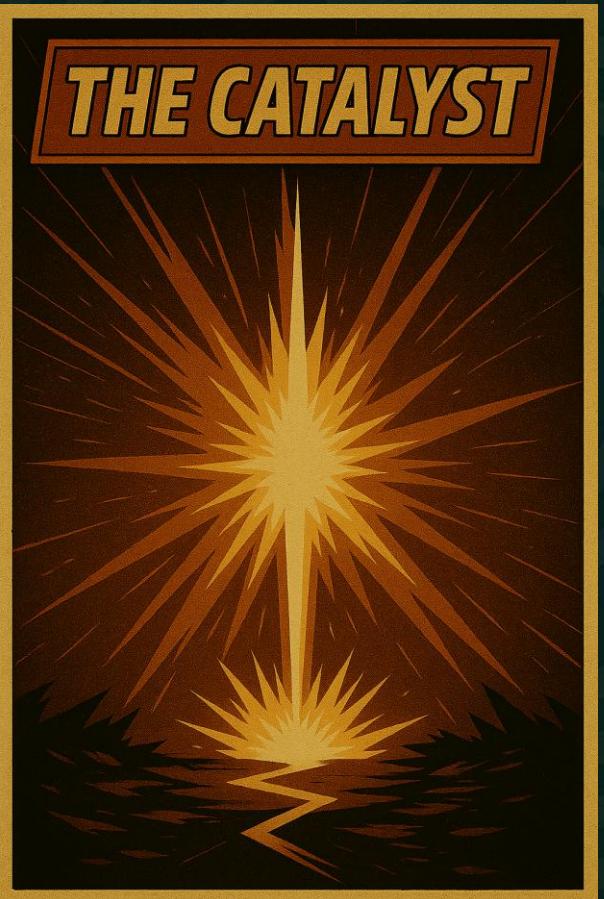
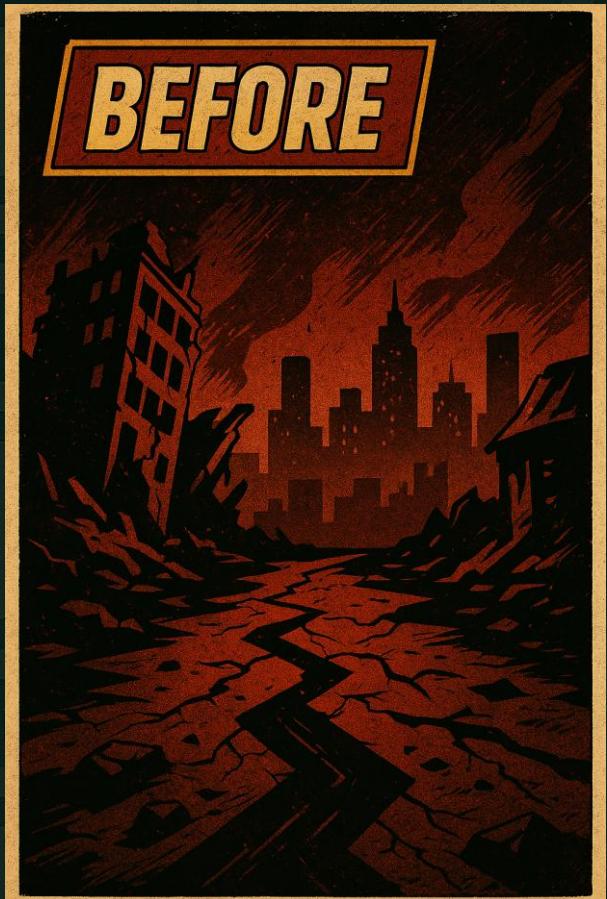
ORIGINS & INTEL

Navigating the Maze of Architecture Decisions

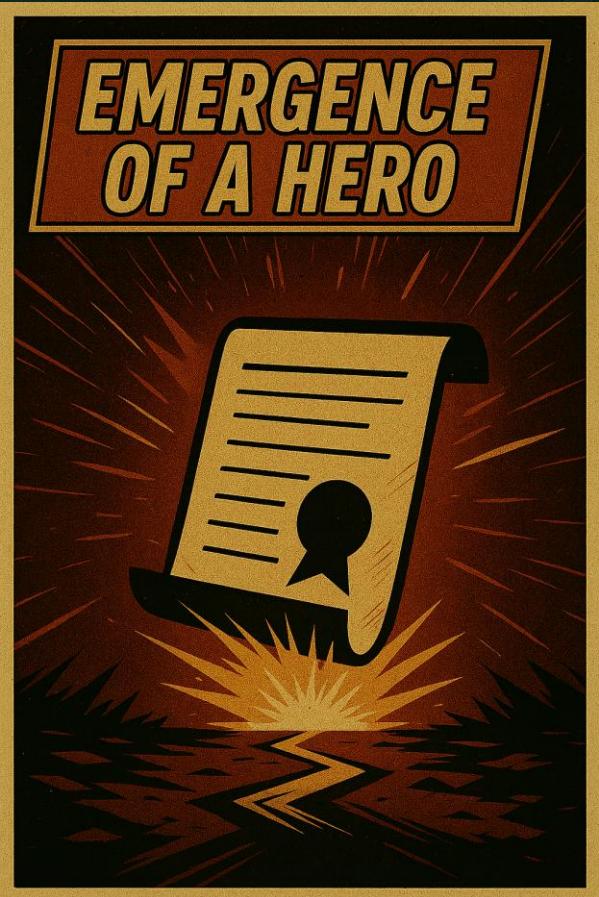
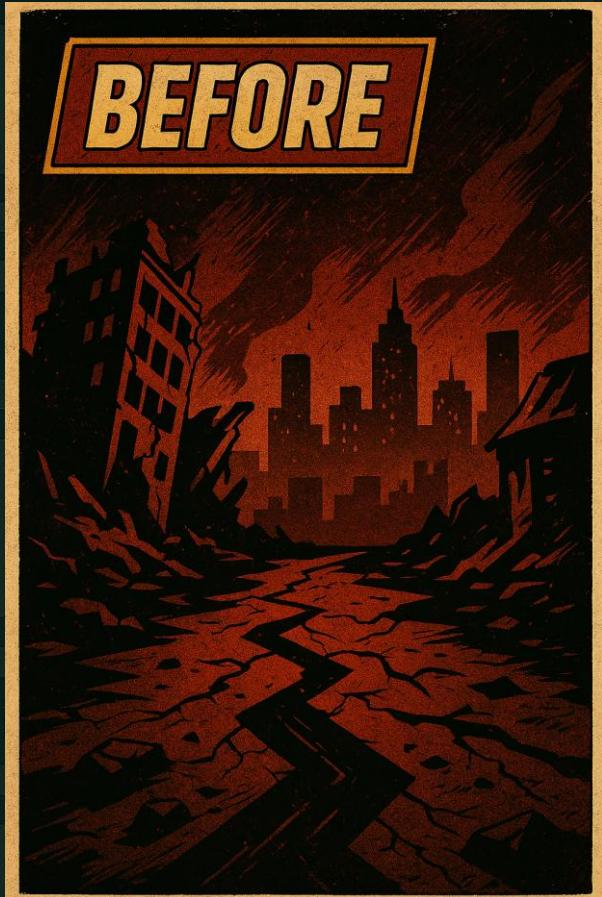
The Birth of ADRs: A Hero's Origin



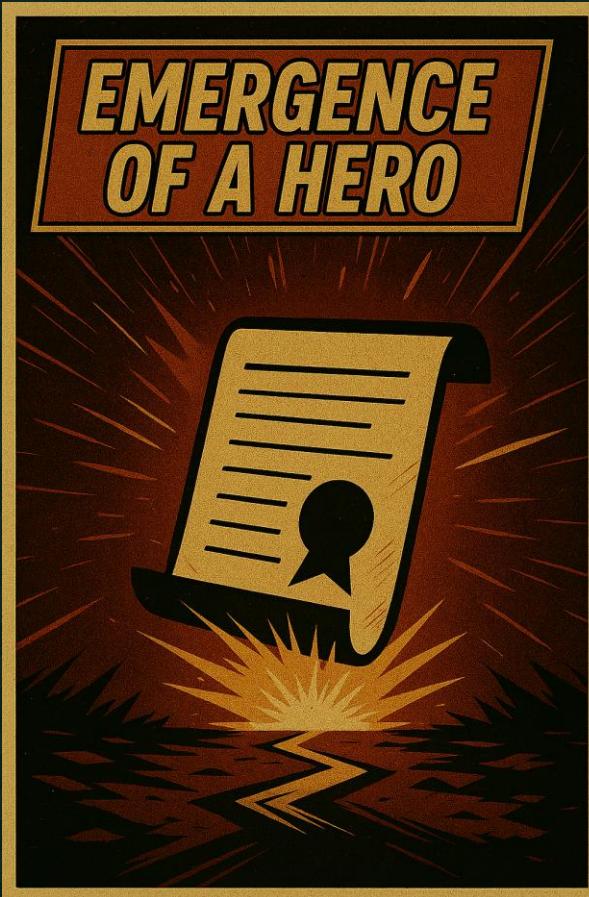
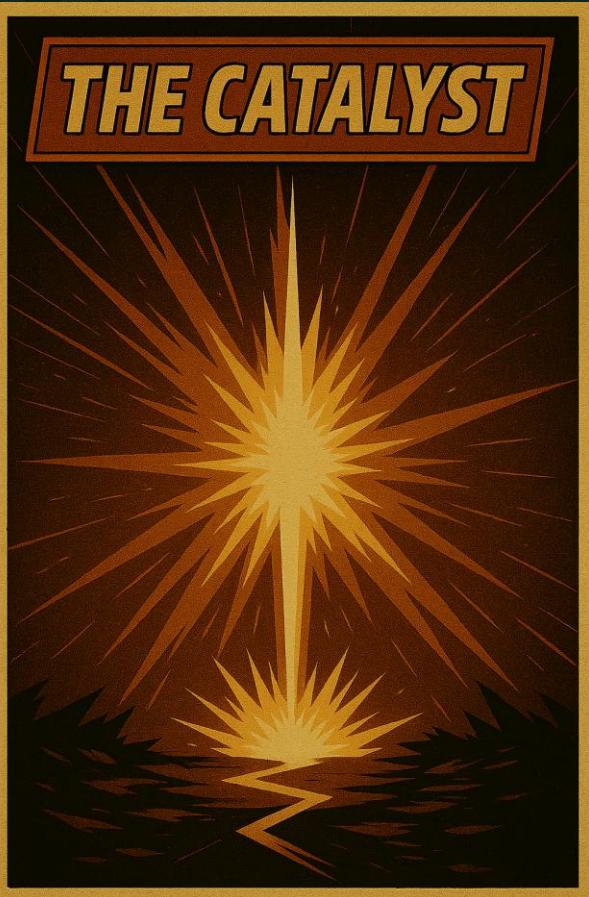
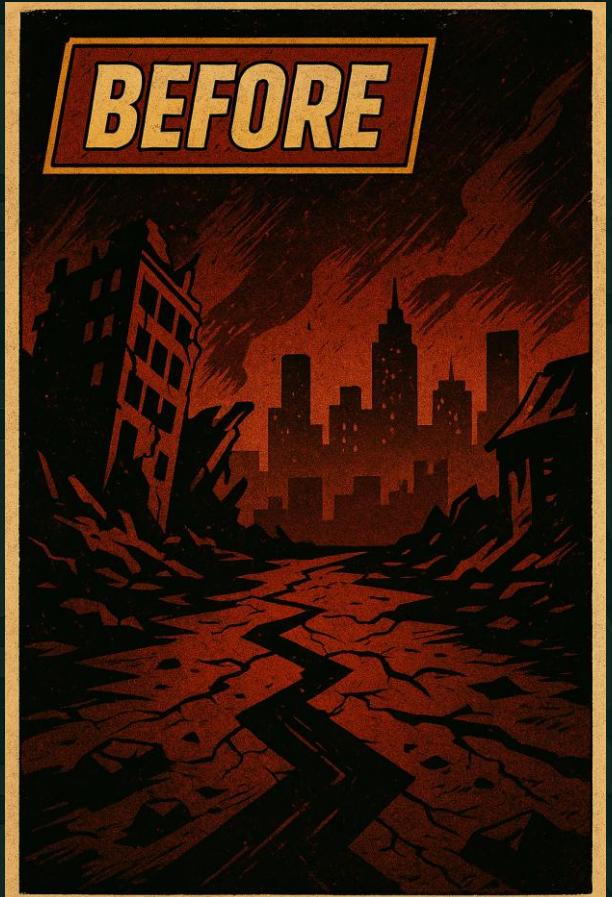
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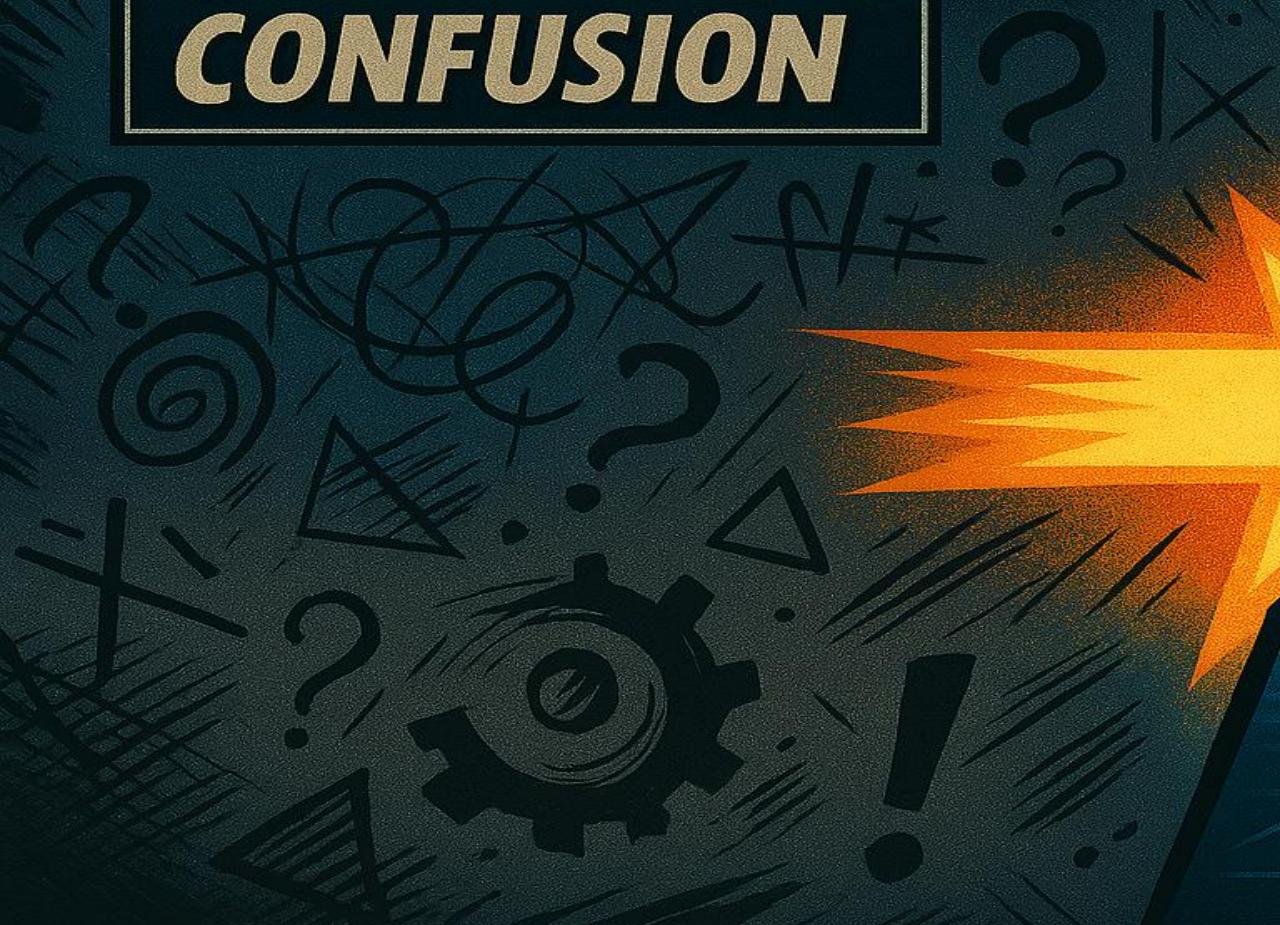


The Birth of ADRs: A Hero's Origin



EVOLUTION: FROM CONFUSION TO CLARITY

CONFUSION

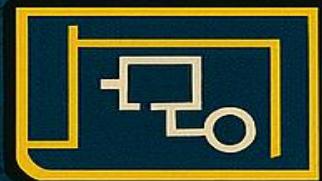


CLARITY

ARCHITECTURE DECISION RECORDS: WHAT THEY ARE



**LIGHTWEIGHT DOCUMENTS THAT
CAPTURE IMPORTANT DECISIONS**



DECISION BLUEPRINT



**PROVIDE TRANSPARENCY,
ACCOUNTABILITY, AND TRACEABILITY**

ARCHITECTURE DECISION RECORDS: WHAT THEY ARE



**LIGHTWEIGHT DOCUMENTS THAT
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DECISION BLUEPRINT

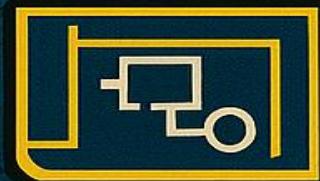


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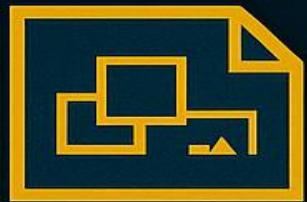


DECISION BLUEPRINT



**PROVIDE TRANSPARENCY,
ACCOUNTABILITY, AND TRACEABILITY**

WHY ADRs ARE IMPORTANT



**WHY DID WE DECIDE TO DO
THINGS THIS WAY?**



**REDUCE THE NEED FOR BACK-
AND-FORTH DISCUSSIONS**

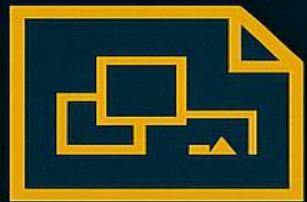


**ENHANCE ALIGNMENT
ACROSS TEAMS**



**PROMOTE TRANSPARENCY
AND ACCOUNTABILITY**

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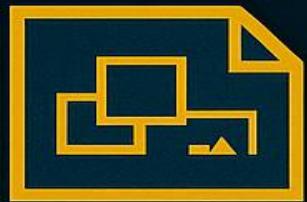


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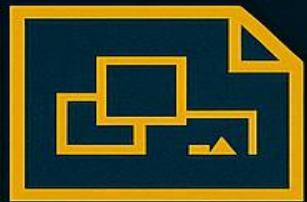


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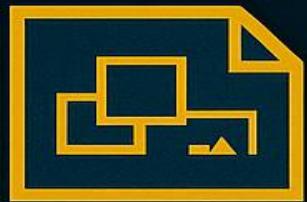


**ENHANCE ALIGNMENT
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WHY ADRs ARE IMPORTANT



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**REDUCE THE NEED FOR BACK-
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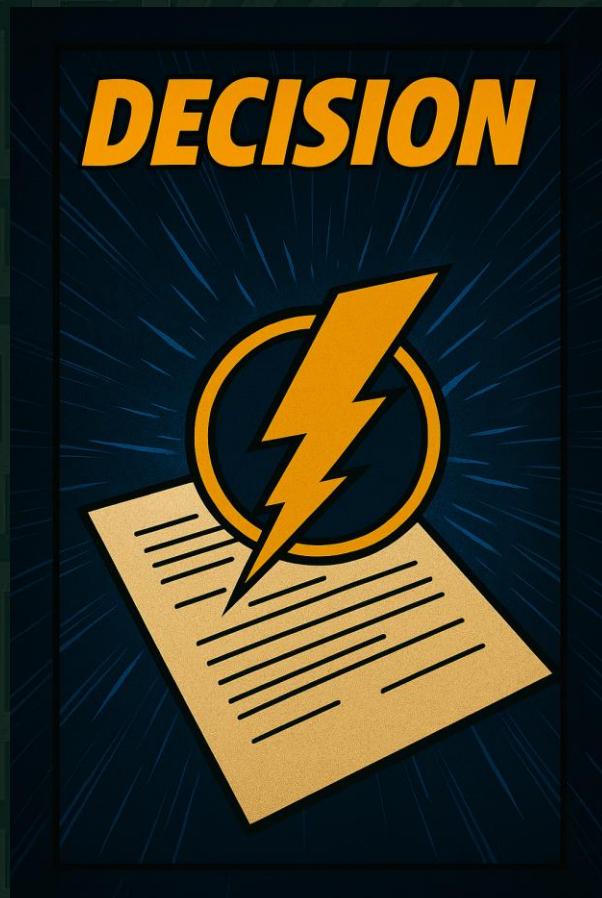
**ENHANCE ALIGNMENT
ACROSS TEAMS**



**PROMOTE TRANSPARENCY
AND ACCOUNTABILITY**

TOOLS & TACTICS

Building Blocks of Heroic Decisions



Building Blocks of Heroic Decisions

DECISION



CONTEXT



Building Blocks of Heroic Decisions

DECISION



CONTEXT



CONSEQUENCES



Crafting a Heroic Narrative

[Short title of solved problem and solution]

- Status: [proposed | rejected | accepted | deprecated | superseded by xxxx]
- Date: [YYYY-MM-DD when the decision was last updated]
- Work Item: [Identifier and name of the work item initiating the decision linked to the work item and in the form of xxxx-yyyy where xxxx is the number of the work item and yyyy is the name of the work item.]

Context and Problem

[Describe the context and problem in which the decision is being made in free form using a couple of sentences or in form of an illustrative story.]

<!-- Decision Drivers is an optional element; feel free to remove. -->

Decision Drivers

- [Decision driver 1, e.g., a force, facing concern, ...]
- [Decision driver 2, e.g., a force, facing concern, ...]
- ... <!-- numbers of drivers can vary -->

Considered Options

- [Title of Option 1]
- [Title of Option 2]
- [Title of Option 3]
- ... <!-- the number of options can vary -->

Decision Outcome

Chosen option: "[title of chosen option]," because [justification, e.g., the only option, which meets criterion decision driver | which resolves force (force) | ... | comes out best (see below)]

Consequences

- Good, because [positive consequence, e.g., improvement of one or more desired qualities, ...]
- Bad, because [negative consequence, e.g., compromising one or more desired qualities, ...]

Implementation

[Describe the steps required to implement the decision, including any dependencies, timelines, or resource allocations.]

Confirmation

[Describe how the implementation of/compliance with the ADR is confirmed.]

Stakeholders

[List the stakeholders involved in or affected by the decision. This may include individuals, teams, departments, or external parties.]

Pros and Cons of the Options

[Title of Option 1]

- Good, because [argument a]
- Good, because [argument b]
- Neutral, because [argument c]
- Bad, because [argument d]
- ... {numbers of pros and cons can vary}

[Title of Other Option]

- Good, because [argument a]
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More Information

[You might want to provide additional evidence/confidence for the decision outcome here and/or document the team agreement or the decision and/or define when/how this decision should be realized and if/when it should be re-visited. Links to other decisions and resources might appear here as well. If there is no more information, please use "No more information available".]

Follow-On Information

[Provide details about what happens to the ADR after approval or rejection (and the record is immutable). This section can include information about any updates, revisions, or further actions taken based on the decision outcome.]

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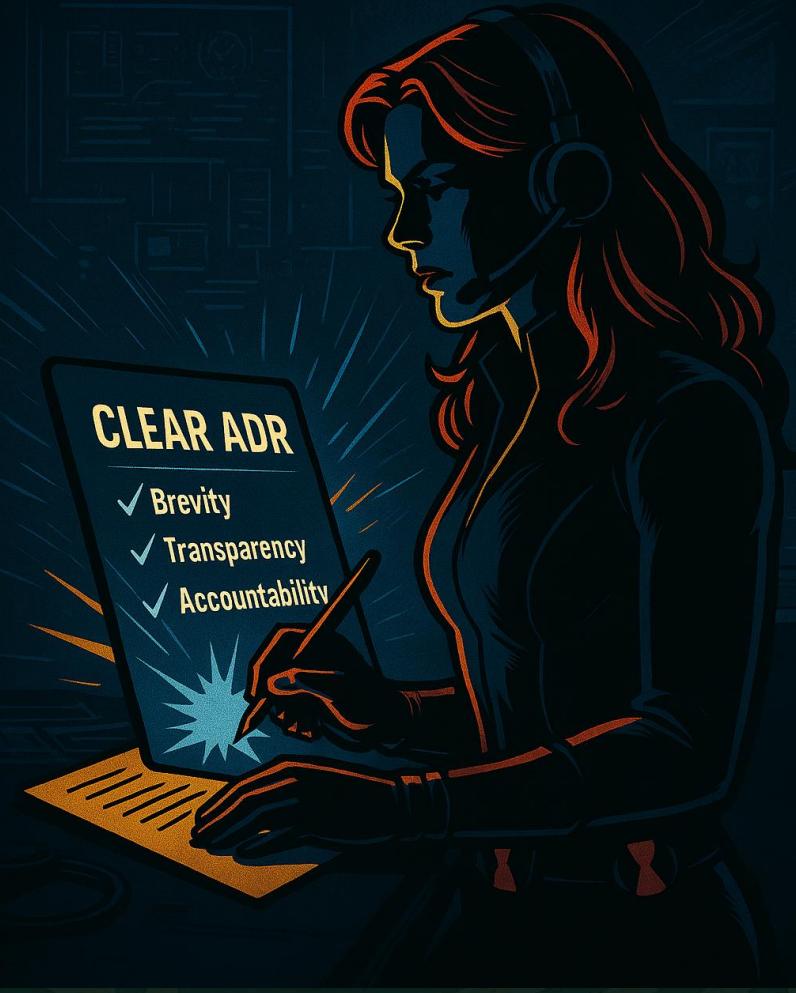
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WRITING CLEAR ADRs

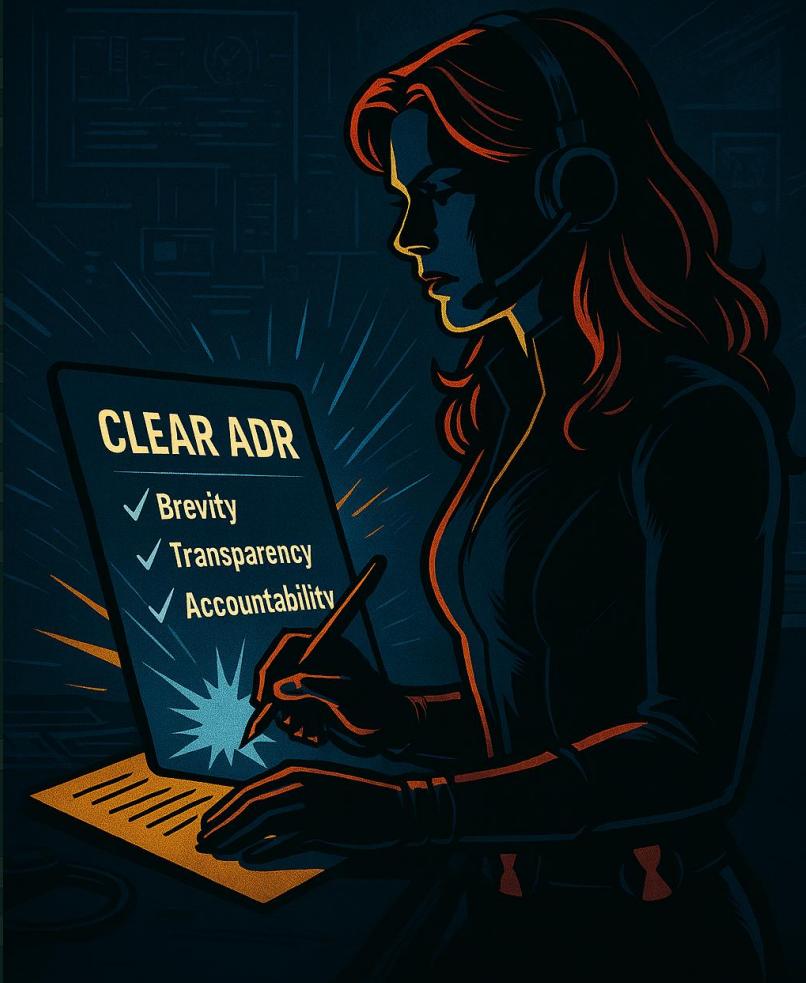
CRAFTING A HEROIC NARRATIVE



Navigating the Maze of Architecture Decisions

WRITING CLEAR ADRs

CRAFTING A HEROIC NARRATIVE



- Be concise but comprehensive

WRITING CLEAR ADRs

CRAFTING A HEROIC NARRATIVE



- Be concise but comprehensive
- Focus on the ‘why’, not just the ‘what’

WRITING CLEAR ADRs

CRAFTING A HEROIC NARRATIVE



- Be concise but comprehensive
- Focus on the ‘why’, not just the ‘what’
- Address alternatives and rejected options

WRITING CLEAR ADRs

CRAFTING A HEROIC NARRATIVE



- Be concise but comprehensive
- Focus on the ‘why’, not just the ‘what’
- Address alternatives and rejected options
- Keep the language simple and direct

WRITING CLEAR ADRs

CRAFTING A HEROIC NARRATIVE



Vague ADR Decision Statement

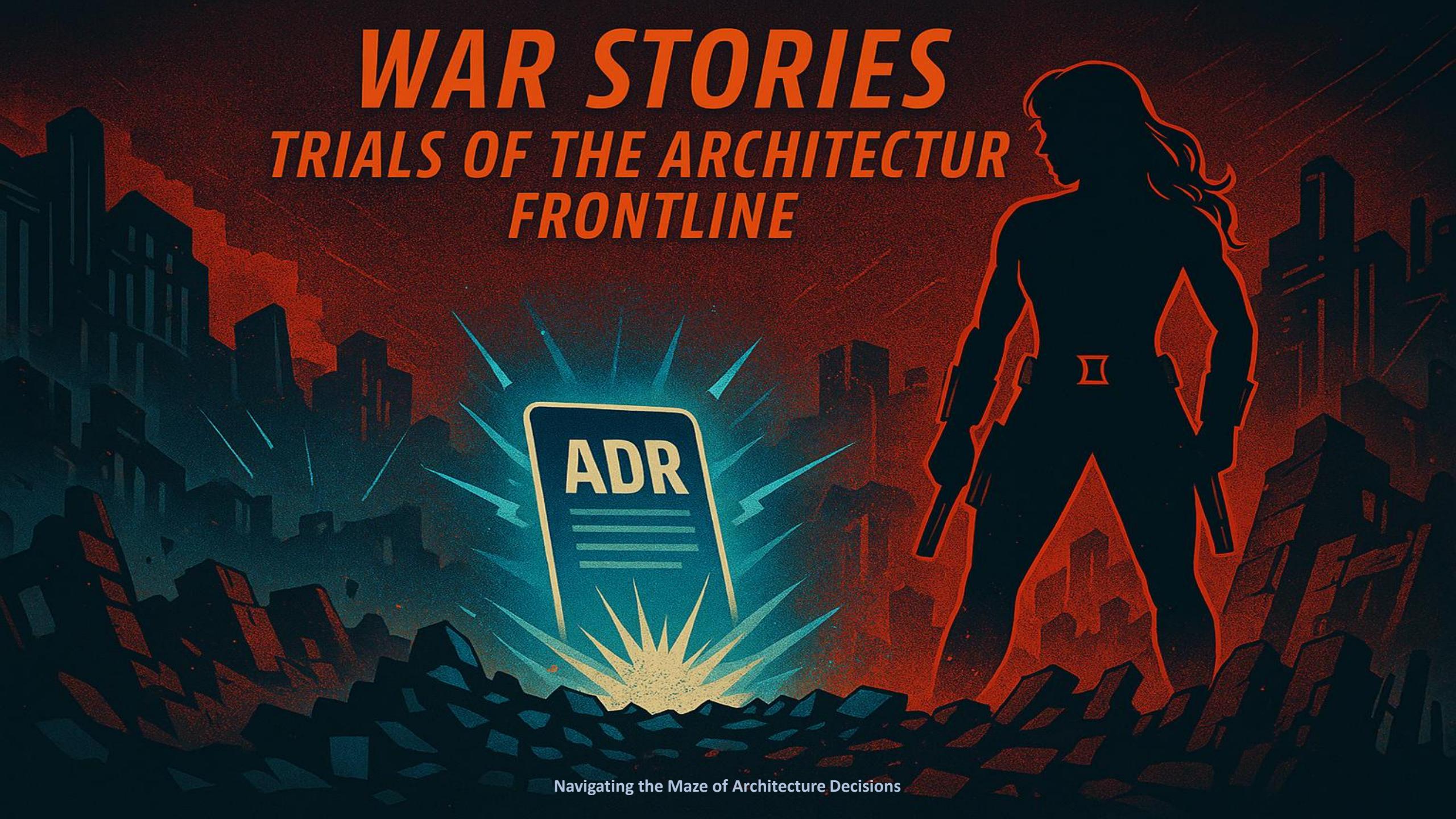
We chose the Black Widow Covert Communications System.

Clear ADR Decision Statement

We chose the Black Widow Covert Communications System because its advanced end-to-end encryption, real-time threat detection, and adaptive network performance provide our high-risk operations' discreet, secure, and responsive communication.

WAR STORIES

TRIALS OF THE ARCHITECTURE FRONTLINE



ADR

Navigating the Maze of Architecture Decisions

Adopting Serverless Architecture

- **Status:** Accepted
- **Date:** 2024-10-05
- **Work Item:** 0001-Serverless_Adoption

Context and Problem

As a tech startup, we must quickly build a scalable web application to meet growing user demand. Traditional infrastructure solutions would require significant time and resources, which we cannot afford.

Decision Drivers

- There is a need for rapid development and deployment to stay competitive.
- Limited resources for managing infrastructure
- Unpredictable traffic patterns requiring automatic scaling
- Minimizing operational overhead to focus on core development

Considered Options

- Serverless Architecture (Azure Functions)
- Traditional Server-Based Architecture
- Containerized Microservices

Decision Outcome

Chosen option: "Serverless Architecture (Azure Functions)," because it allowed the team to focus on writing code without worrying about infrastructure management, provided automatic scaling, and minimized operational overhead.

Consequences

- **Good, because:** Faster time-to-market, reduced operational costs, and improved scalability.
- **Bad, because:** Initial learning curve and dependency on third-party services, leading to some vendor lock-in concerns.

Implementation

- Set up Azure Functions for backend processing.
- Integrate with other Azure services (API Management, Cosmos DB, etc.) as needed.
- Monitor performance and make adjustments as required.
- Train the team on serverless best practices and Azure tools.

Confirmation

- Regular performance reviews and scaling checks
- Continuous monitoring of costs and operational overhead
- Feedback loops from the development team to ensure smooth operations

Stakeholders

- Development Team
- Operations Team
- Product Management
- Customers

Pros and Cons of the Options

Serverless Architecture (Azure Functions)

- **Good, because:** Faster development, reduced costs, automatic scaling.
- **Bad, because:** Learning curve, dependency on Azure, potential vendor lock-in.

Traditional Server-Based Architecture

- **Good, because:** Familiar to the team, more control over infrastructure.
- **Bad, because:** Higher operational overhead, slower to scale, increased time-to-market.

Containerized Microservices

- **Good, because:** Flexibility, isolation of services, easier scaling than traditional servers.
- **Bad, because:** More complex setup and management, still requires infrastructure oversight.

More Information

No more information available.

Follow-On Information

- Regularly revisit the decision to ensure it continues to meet the startup's needs as it grows.
- Document any significant changes or adjustments made to the architecture over time.

Record History

- **Proposed:** 2024-10-01
- **Accepted:** 2024-10-05
- **Last Reviewed:** N/A
- **Deprecated:** N/A
- **Superseded by:** N/A
- **Date Superseded:** N/A
- **Archived:** N/A

THE WIDOW'S CHOICE



The Decision

**Adopt a serverless
architecture using Azure
Functions**

THE WIDOW'S MIND

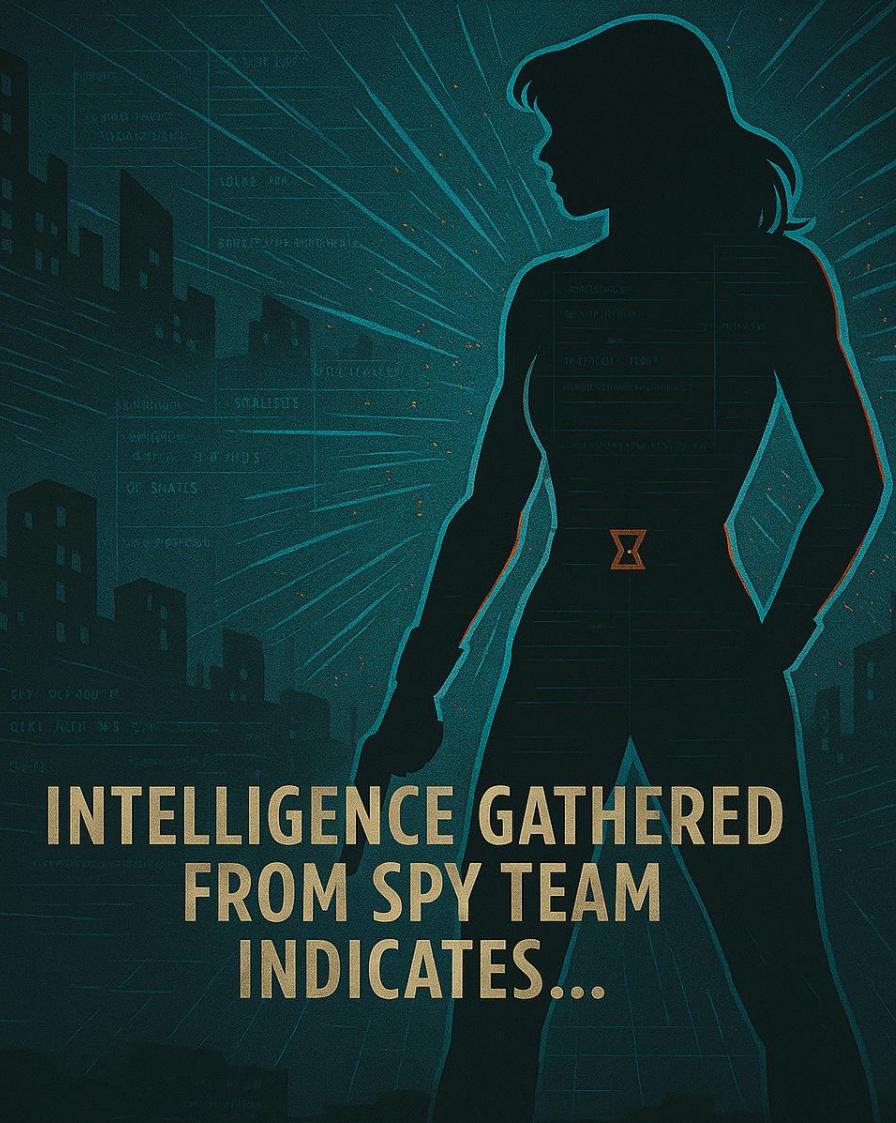
RATIONALE

Rationale

reduced need for
infrastructure management

Azure Functions provided
automatic scaling

THE WIDOW'S BATTLEGROUND

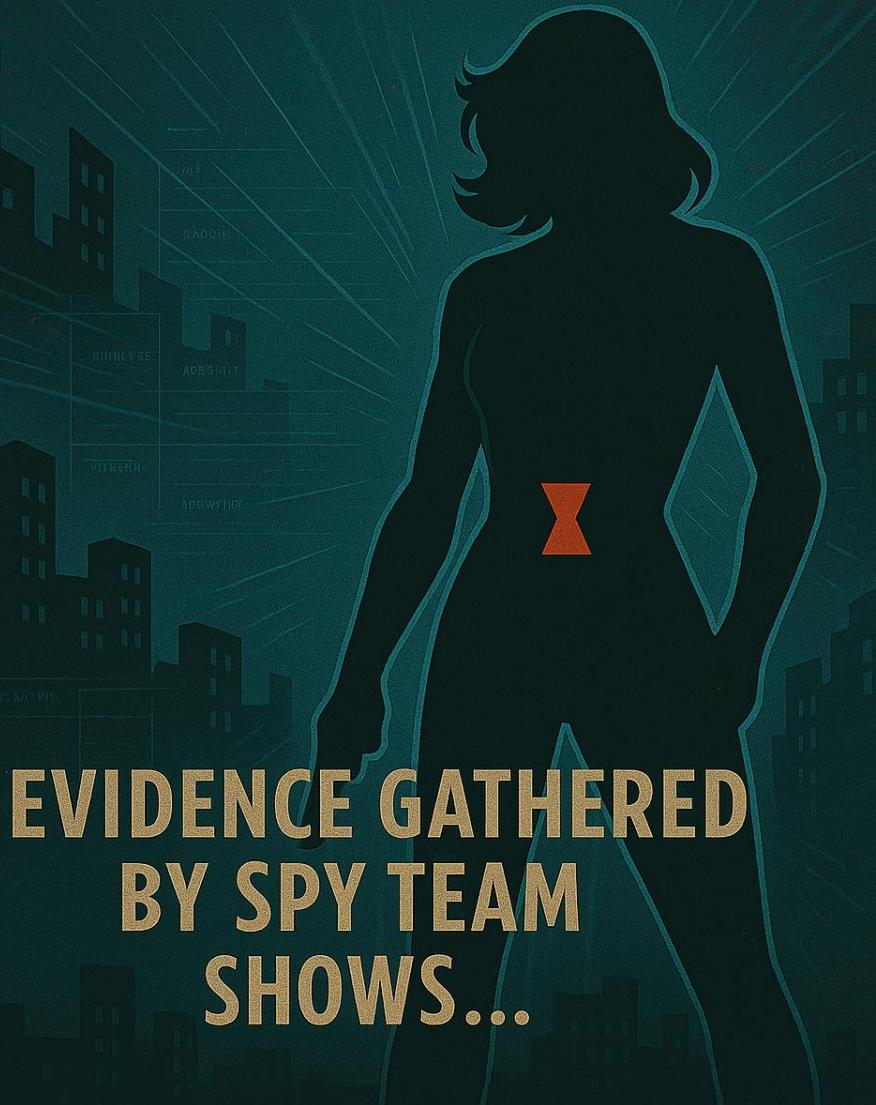


INTELLIGENCE GATHERED
FROM SPY TEAM
INDICATES...

Context

needed to move fast to stay competitive in a fast-evolving market

THE WIDOW'S IMPACT



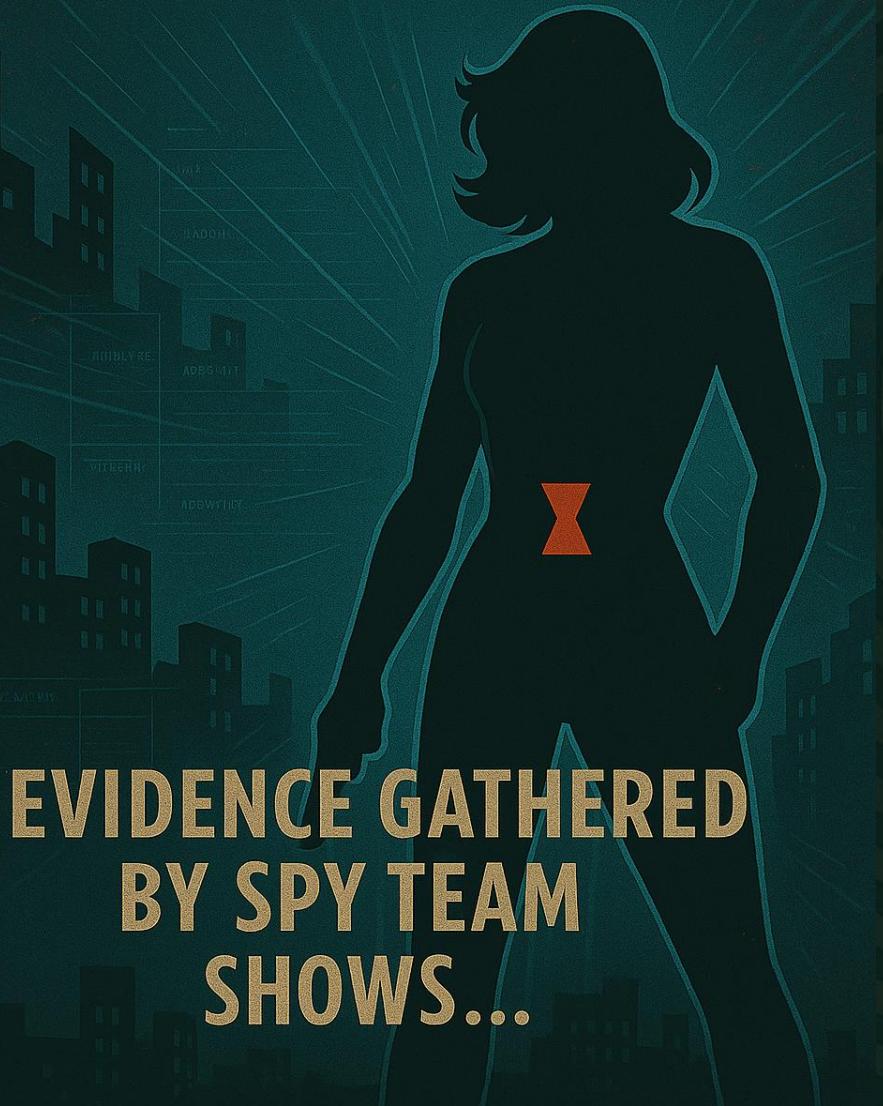
EVIDENCE GATHERED
BY SPY TEAM
SHOWS...

Consequences

Positives

- Faster time-to-market
- Reduced operational costs
- Improved scalability

THE WIDOW'S IMPACT



EVIDENCE GATHERED
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SHOWS...

Consequences

Positives

- Faster time-to-market
- Reduced operational costs
- Improved scalability

Trade-Offs

- Initial learning curve
- Vendor lock-in

BATTLE-TESTED BEST PRACTICES

write ADRs early

BATTLE-TESTED BEST PRACTICES

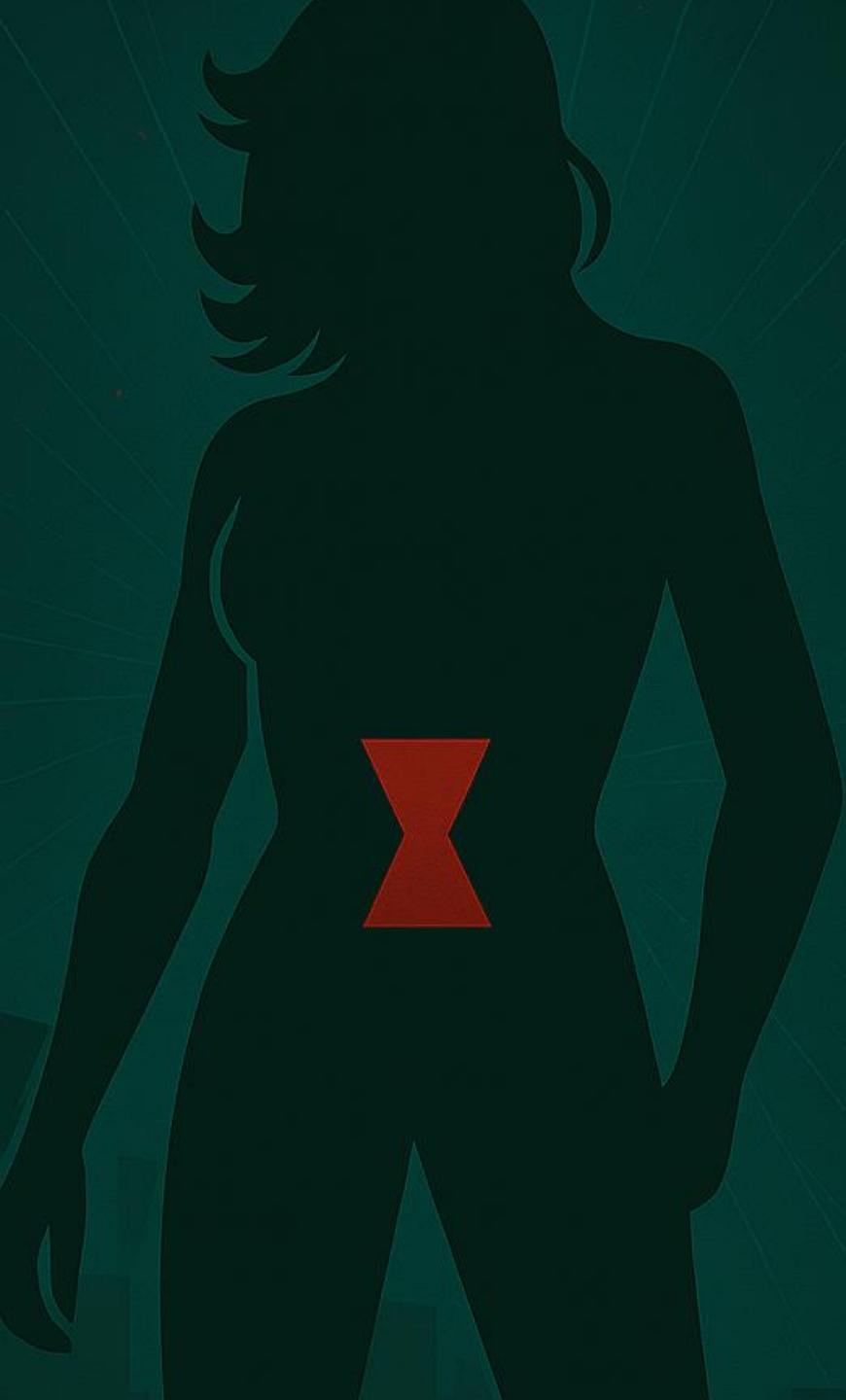
**keep ADRs short and
focused on a single decision**

BATTLE-TESTED BEST PRACTICES

**regularly review and update
ADRs**

BATTLE-TESTED BEST PRACTICES

involve the entire team



BATTLE-TESTED BEST PRACTICES

- Write ADRs early
- Keep ADRs short and focused on a single decision
- Regularly review and update ADRs
- Use a consistent format
- Involve the entire team

Intel Vault

Preserving Decisions

Navigating the Maze of Architecture Decisions

Intel Vault

Preserving Decisions

establish a regular review
process

Intel Vault

Preserving Decisions

update ADRs when decisions
change



Intel Vault

Preserving Decisions

use statuses

Intel Vault

Preserving Decisions

archive outdated ADRs

Intel Vault

Preserving Decisions

archive outdated ADRs

Intel Vault

Preserving Decisions

version control your ADRs

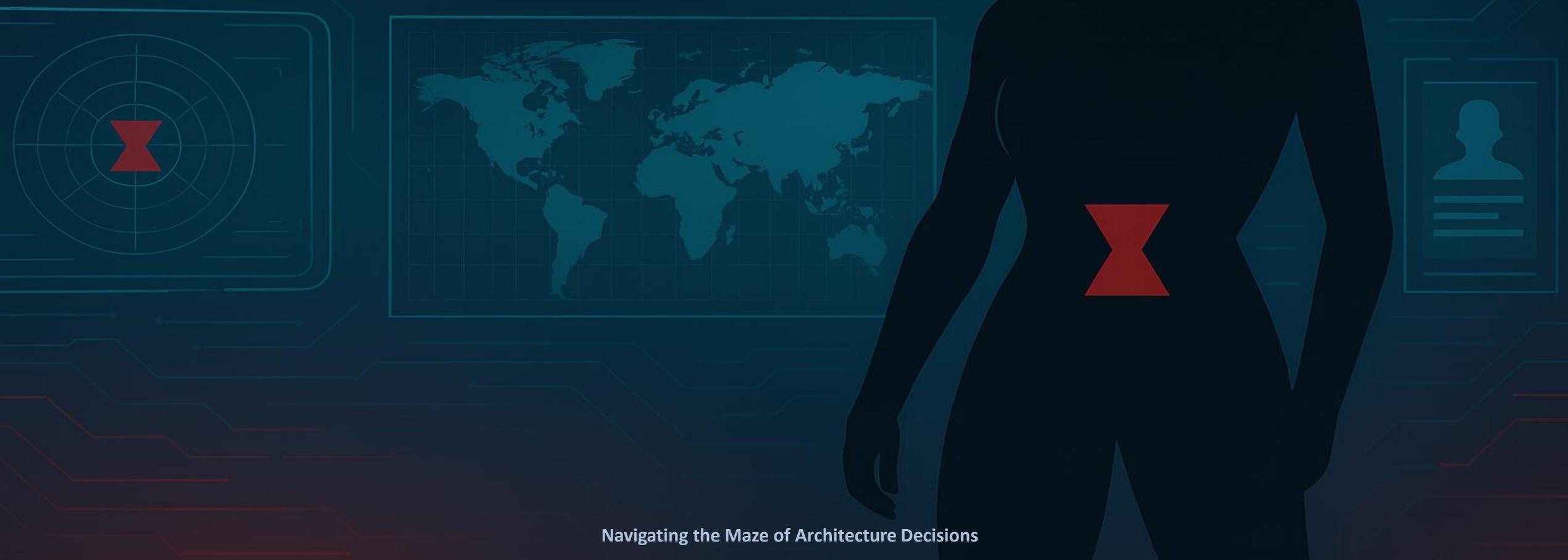
Intel Vault

Preserving Decisions

- Establish a regular review process
- Update ADRs when decisions change
- Use statuses
- Archive outdated ADRs
- Version control your ADRs



MISSION BRIEFING YOUR NEXT MOVE



Navigating the Maze of Architecture Decisions

**YOUR ORDERS:
THE NEXT MOVE**

- ADOPT ADR BEST PRACTICES
- BEGIN REVIEWING AND UPDATING ADRS
- ENSURE TEAM-WIDE ALIGNMENT

Commit to ADR Best Practices

**YOUR ORDERS:
THE NEXT MOVE**

- ADOPT ADR BEST PRACTICES
- BEGIN REVIEWING AND UPDATING ADRS
- ENSURE TEAM-WIDE ALIGNMENT

**Begin Your First ADR Review
Cycle**

**YOUR ORDERS:
THE NEXT MOVE**

- ADOPT ADR BEST PRACTICES
- BEGIN REVIEWING AND UPDATING ADRS
- ENSURE TEAM-WIDE ALIGNMENT

**Ensure Team Alignment on
ADRs**

**YOUR ORDERS:
THE NEXT MOVE**

- ADOPT ADR BEST PRACTICES
- BEGIN REVIEWING AND UPDATING ADRS
- ENSURE TEAM-WIDE ALIGNMENT

**Adopt a Tactical Approach to
ADRs**

**YOUR ORDERS:
THE NEXT MOVE**

- ADOPT ADR BEST PRACTICES
- BEGIN REVIEWING AND UPDATING ADRS
- ENSURE TEAM-WIDE ALIGNMENT

Own the Mission & Execute

FINAL DIRECTIVE: OWN THE MISSION

Navigating the Maze of Architecture Decisions

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