


**DCAG**  
Data Center Assistance Group, LLC

# REQUIREMENTS TRANSPARENCY MATRIX (RTM)







– USES AND STRUCTURE –

*Trace Every Requirement. Prove Every Outcome. Deliver with Confidence.*



The Requirements Transparency Matrix (RTM) is the **single source of truth** that captures, tracks, and links requirements from business need through design, development, testing, and operations to ensure complete visibility, accountability, and compliance.







**CONTENTS**


-  **Requirements**  
Business, Functional, Technical, Security, Compliance
-  **Attributes**  
Source, Priority, Owner, Status
-  **Design & Build**  
Design Reference, Development Task
-  **Verification**  
Test Case, Test Results
-  **Compliance**  
Security Controls, Regulatory Mapping
-  **Notes & History**  
Comments, Decisions, Dependencies

**RTM**

Requirement ID	Description	Owner	Design Reference	Dev Task	Test Case	Status	Comments
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**INTERFACES**

-  **Stakeholders**  
Business Units, Customers, Product Owners
-  **Risk & Compliance**  
Risk Register, Policies, Standards, Regulations
-  **Architecture**  
HLD, LLD, Design Artifacts
-  **Development**  
Tasks, Repositories, CI/CD Pipelines
-  **Testing**  
Test Plans, Test Cases, Test Results
-  **Operations**  
Deployment, Monitoring, CMDB




**PURPOSE: PROVE SUCCESS**


The RTM provides end-to-end traceability and evidence that applications are successfully developed, tested, deployed, and compliant.




COMPLETE TRACEABILITY



QUALITY & CONFIDENCE



COMPLIANCE ASSURANCE



BETTER OUTCOMES

**ONE SOURCE. COMPLETE VISIBILITY. ASSURED DELIVERY.**

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<note> RTM is also known as Requirements Traceability Matrix

Created by

Thomas Bronack, President

Data Center Assistance Group, LLC

[bronackt@dcag.com](mailto:bronackt@dcag.com) | [bronackt@gmail.com](mailto:bronackt@gmail.com) | [www.dcag.com](http://www.dcag.com) | (917) 673-6992

**Contents**

Requirements Traceability Matrix (RTM) Overview .....3

1. Definition of an RTM.....3

2. Why an RTM is Used .....3

    Why an RTM is Used .....6

3. RTM Traceability Flow.....6

4. Standard RTM Structure .....7

    RTM Contents .....7

    RTM Structure .....8

5. Enhanced CAF RTM .....9

    Recommended Illustrations .....9

    RTM End-to-End Traceability Flow.....9

    RTM Governance Dashboard ..... 10

    CAF Enhanced RTM Architecture ..... 11

    Requirements-to-ATO Evidence Chain ..... 12

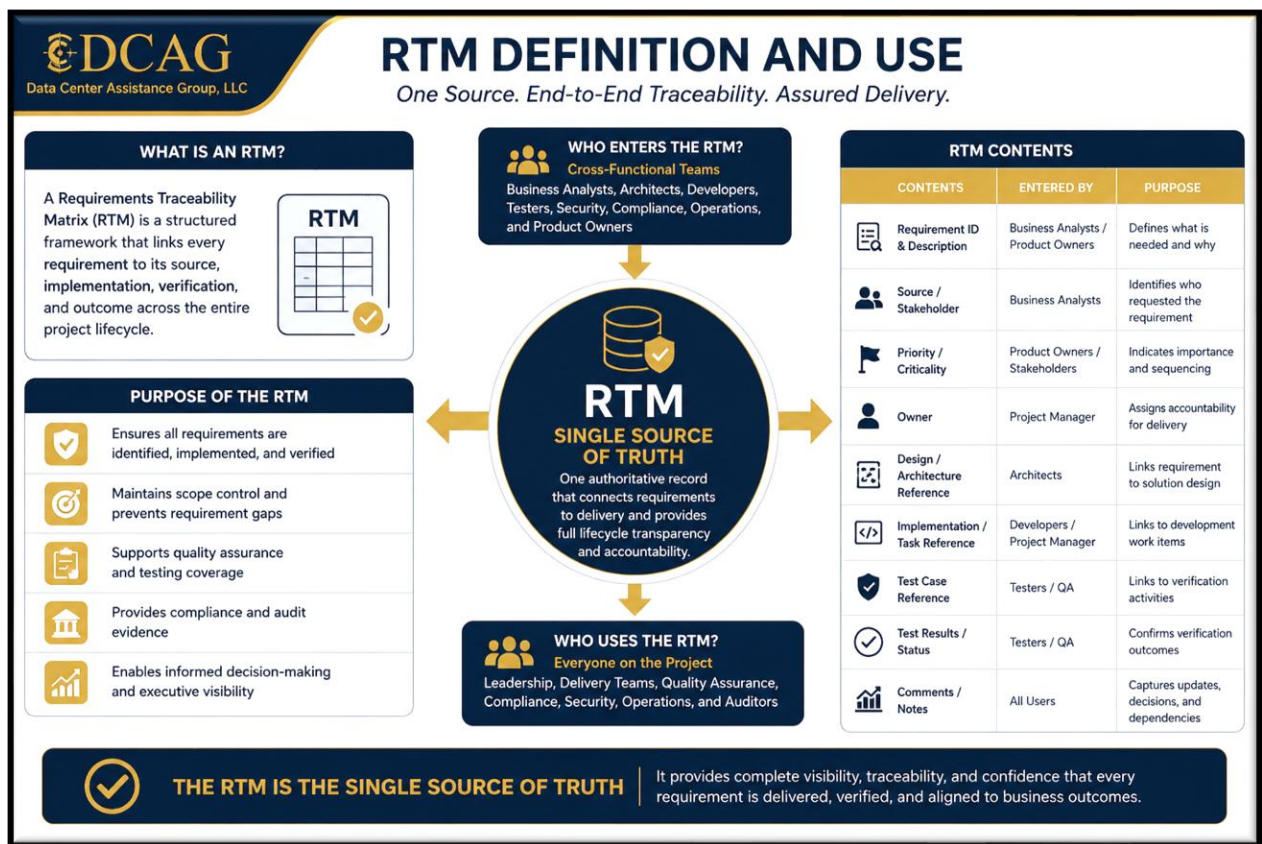
Executive Summary ..... 12

## Requirements Traceability Matrix (RTM) Overview

### Executive Reference Document with Illustrations

#### 1. Definition of an RTM

A Requirements Traceability Matrix (RTM) is a structured document used to track and manage requirements throughout the entire project lifecycle. It ensures that every business, functional, technical, security, compliance, and operational requirement is accounted for, implemented, tested, validated, and delivered. The RTM is a single source of truth for validating Product/Service/Project actions are completed correctly and that they adhere to compliance, security, ATO, CTEM, cATO and governance requirements.



#### 2. Why an Requirements Transparency Matrix (RTM) is Used

Requirements management, scope control, quality assurance, compliance validation, and ATO/cATO evidence management. The fields contain in the RTM are:

RTM Component	Why It Is Included	Who Provides It	Purpose	Executive Value
Requirement ID	Provides unique identification	Business Analyst, Product Owner	Prevents duplication and enables tracking	Ensures accountability and auditability

RTM Component	Why It Is Included	Who Provides It	Purpose	Executive Value
	for every requirement			
<b>Requirement Description</b>	Defines what must be delivered	Business Owner, Product Owner, Stakeholder	Establishes scope and expected outcomes	Ensures business objectives are clearly understood
<b>Business Objective</b>	Aligns requirements to strategic goals	Executive Sponsor, Business Owner	Demonstrates business value	Shows direct alignment to enterprise strategy
<b>Source/Stakeholder</b>	Identifies who requested the requirement	Business Analyst	Establishes ownership and approval authority	Eliminates ambiguity regarding requirement origin
<b>Priority/Criticality</b>	Establishes implementation sequence	Product Owner, Steering Committee	Supports resource allocation and planning	Focuses attention on highest-value items
<b>Risk ID</b>	Links requirements to identified risks	Risk Management Team	Demonstrates risk mitigation activities	Reduces operational and compliance exposure
<b>Compliance Requirement</b>	Maps requirements to regulatory obligations	Compliance Officer, Auditor	Ensures regulatory adherence	Supports audits and certifications
<b>Security Control Mapping</b>	Connects requirements to security controls	Security Team	Demonstrates implementation of safeguards	Supports ATO, cATO, CTEM, and Zero Trust initiatives
<b>Owner</b>	Identifies responsible delivery party	Project Manager	Assigns accountability	Improves project governance
<b>Design Reference</b>	Links requirements to architecture and design documents	Solution Architect	Validates solution alignment	Ensures design integrity
<b>User Story/Epic</b>	Connects requirements to Agile	Product Owner	Supports Agile planning and execution	Improves development traceability

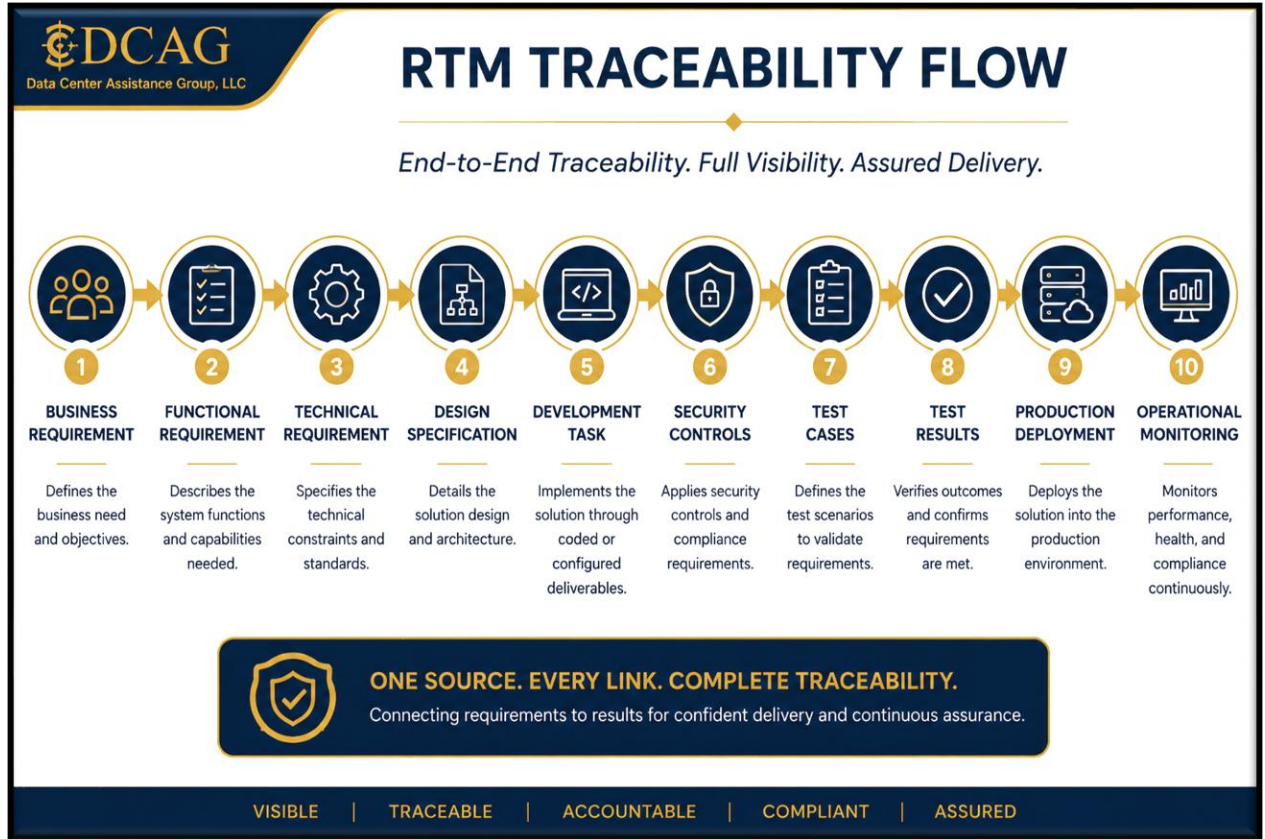
RTM Component	Why It Is Included	Who Provides It	Purpose	Executive Value
	development activities			
<b>Development Task</b>	Identifies implementation activities	Development Team	Tracks work execution	Provides delivery visibility
<b>Test Case Reference</b>	Links requirements to validation procedures	QA Team	Ensures verification coverage	Demonstrates quality assurance
<b>Test Results</b>	Records validation outcomes	QA Team	Confirms requirement fulfillment	Provides confidence in delivery quality
<b>QC Gate Approval</b>	Verifies successful stage completion	Quality Control Team	Prevents defective progression	Improves project success rates
<b>ATO Evidence Reference</b>	Links requirements to compliance evidence	Security and Compliance Teams	Supports certification activities	Accelerates ATO/cATO approval
<b>Deployment Reference</b>	Tracks production implementation	Operations Team	Confirms deployment status	Provides operational visibility
<b>Continuous Monitoring Reference</b>	Tracks post-production monitoring	Operations, SRE, SOC Teams	Supports operational resilience	Enables continuous assurance
<b>POA&amp;M Reference</b>	Tracks deficiencies and remediation efforts	Security Team	Supports risk management	Ensures issue resolution
<b>Status</b>	Shows current lifecycle state	Project Manager	Tracks progress	Provides executive reporting visibility
<b>Comments/Notes</b>	Captures decisions, exceptions, and dependencies	All Stakeholders	Maintains project history	Creates an auditable decision trail

**Why an RTM is Used**

<b>Purpose</b>	<b>Explanation</b>	<b>Business Benefit</b>
<b>Single Source of Truth</b>	Central repository for all project requirements	Eliminates conflicting information
<b>Requirements Management</b>	Ensures all requirements are captured and managed	Reduces missed deliverables
<b>Scope Management</b>	Controls unauthorized changes and scope creep	Improves budget and schedule performance
<b>Traceability</b>	Tracks requirements from idea through production	Provides full lifecycle visibility
<b>Quality Assurance</b>	Ensures every requirement is tested and validated	Improves solution quality
<b>Compliance Management</b>	Demonstrates regulatory adherence	Simplifies audits and certifications
<b>Risk Management</b>	Links requirements to risk mitigation activities	Reduces operational exposure
<b>ATO/cATO Support</b>	Provides evidence for authorization decisions	Accelerates approval processes
<b>Executive Reporting</b>	Provides status, progress, and readiness metrics	Improvement of governance and decision-making
<b>Audit Readiness</b>	Maintains a complete record of decisions and validations	Supports internal and external audits
<b>Operational Readiness</b>	Verifies production deployment preparedness	Reduces implementation risk
<b>Continuous Improvement</b>	Supports lessons learned and process refinement	Improves future project outcome

**3. RTM Traceability Flow**

Business Requirement → Functional Requirement → Technical Requirement → Design Specification → Development Task → Security Controls → Test Cases → Test Results → Production Deployment → Operational Monitoring



#### 4. Standard RTM Structure

Typical columns include Requirement ID, Description, Source, Priority, Owner, Design Reference, Development Task, Test Case, Status, and Comments.

#### RTM Contents

Column Name	Description	Entered By	Purpose
<b>Requirement ID</b>	Unique identifier assigned to the requirement (e.g., BR-001, FR-010, TR-105)	Business Analyst, Product Owner	Provides unique traceability throughout the lifecycle
<b>Description</b>	Detailed statement describing the requirement	Business Analyst, Stakeholder, Product Owner	Defines what must be delivered
<b>Source</b>	Originator of the requirement (customer, business unit, regulation, audit finding, etc.)	Business Analyst	Identifies requirement ownership and justification
<b>Priority</b>	Business importance level (Critical, High, Medium, Low)	Product Owner, Business Sponsor	Assists with planning, scheduling, and resource allocation

Column Name	Description	Entered By	Purpose
<b>Owner</b>	Individual or team responsible for implementation	Project Manager	Establishes accountability for delivery
<b>Design Reference</b>	Reference to architecture diagrams, HLDs, LLDs, specifications, or design documents	Solution Architect	Links requirement to solution design
<b>Development Task</b>	Reference to implementation activities (Epic, Feature, Story, Task, Work Order)	Development Lead	Tracks implementation activities
<b>Test Case</b>	Reference to validation and verification procedures	QA/Test Team	Ensures requirement testing coverage
<b>Status</b>	Current state of the requirement	Project Manager	Tracks lifecycle progress
<b>Comments</b>	Notes, assumptions, decisions, dependencies, exceptions, or lessons learned	All Stakeholders	Maintains historical and audit information

## RTM Structure example

Requirement ID	Description	Source	Priority	Owner	Design Reference	Development Task	Test Case	Status	Comments
<b>BR-001</b>	Customer data must be protected	Business Sponsor	Critical	Security Team	HLD-001	EPIC-100	TC-001	Complete	Approved by Security
<b>FR-010</b>	System shall encrypt customer records	Product Owner	High	Development Team	LLD-005	STORY-205	TC-010	Testing	Awaiting validation
<b>TR-020</b>	AES-256 encryption shall be used	Security Team	High	Infrastructure Team	ARCH-003	TASK-501	TC-025	Complete	NIST compliant

Requirement ID	Description	Source	Priority	Owner	Design Reference	Development Task	Test Case	Status	Comments
SEC-030	MFA required for privileged users	Compliance Team	Critical	IAM Team	SEC-DESIGN-02	TASK-710	TC-040	In Progress	Linked to IA-2 control

### 5. Enhanced CAF RTM

The RTM extends the Controlled Application Factory (CAF) traceability from business objectives through risk, controls, testing, ATO evidence, deployment, and continuous monitoring.

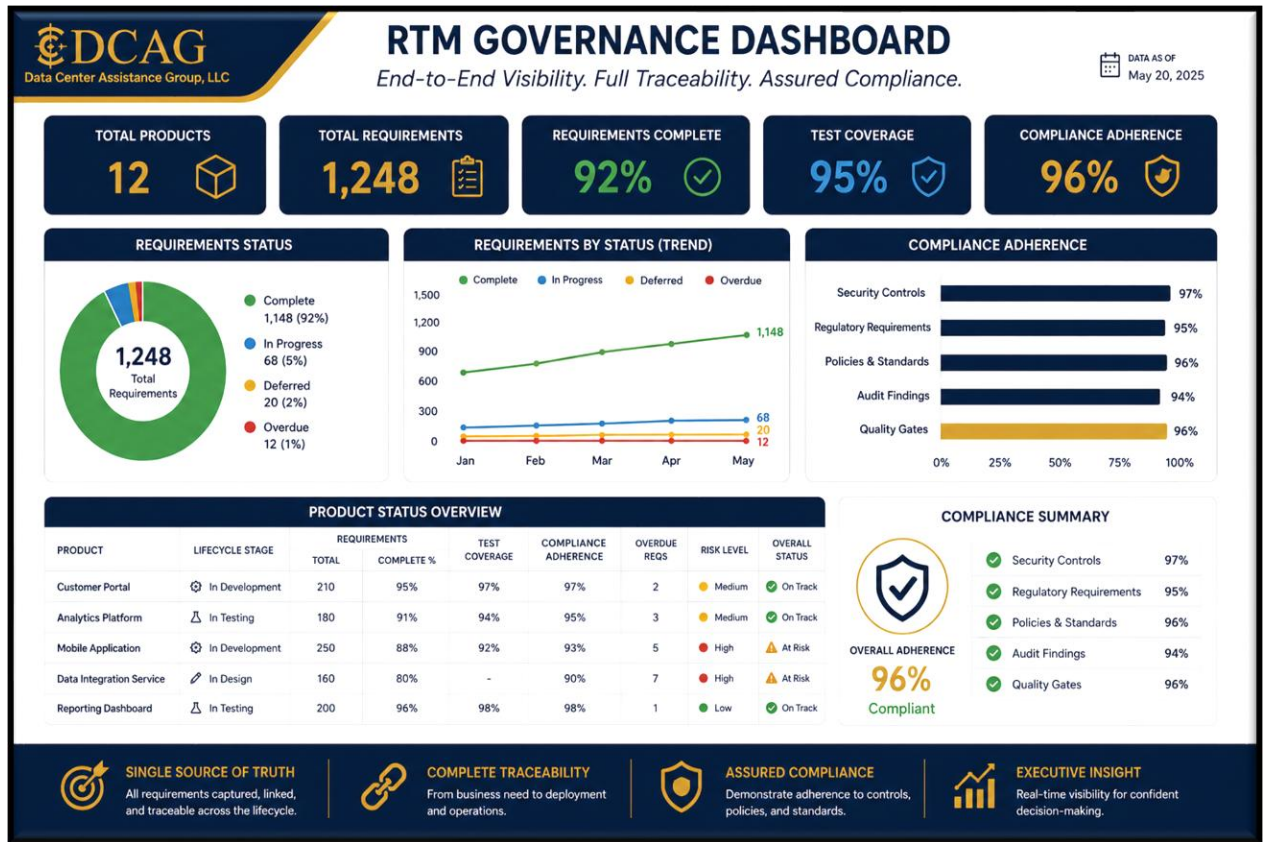
#### Recommended Illustrations

Illustration Title	Purpose	Audience
RTM End-to-End Traceability Flow	Show requirement lifecycle	Executive
RTM Governance Dashboard	Show status and compliance	Executive
CAF Enhanced RTM Architecture	Show full CAF integration	Executive
Requirements-to-ATO Evidence Chain	Demonstrate auditability	Auditor/Executive

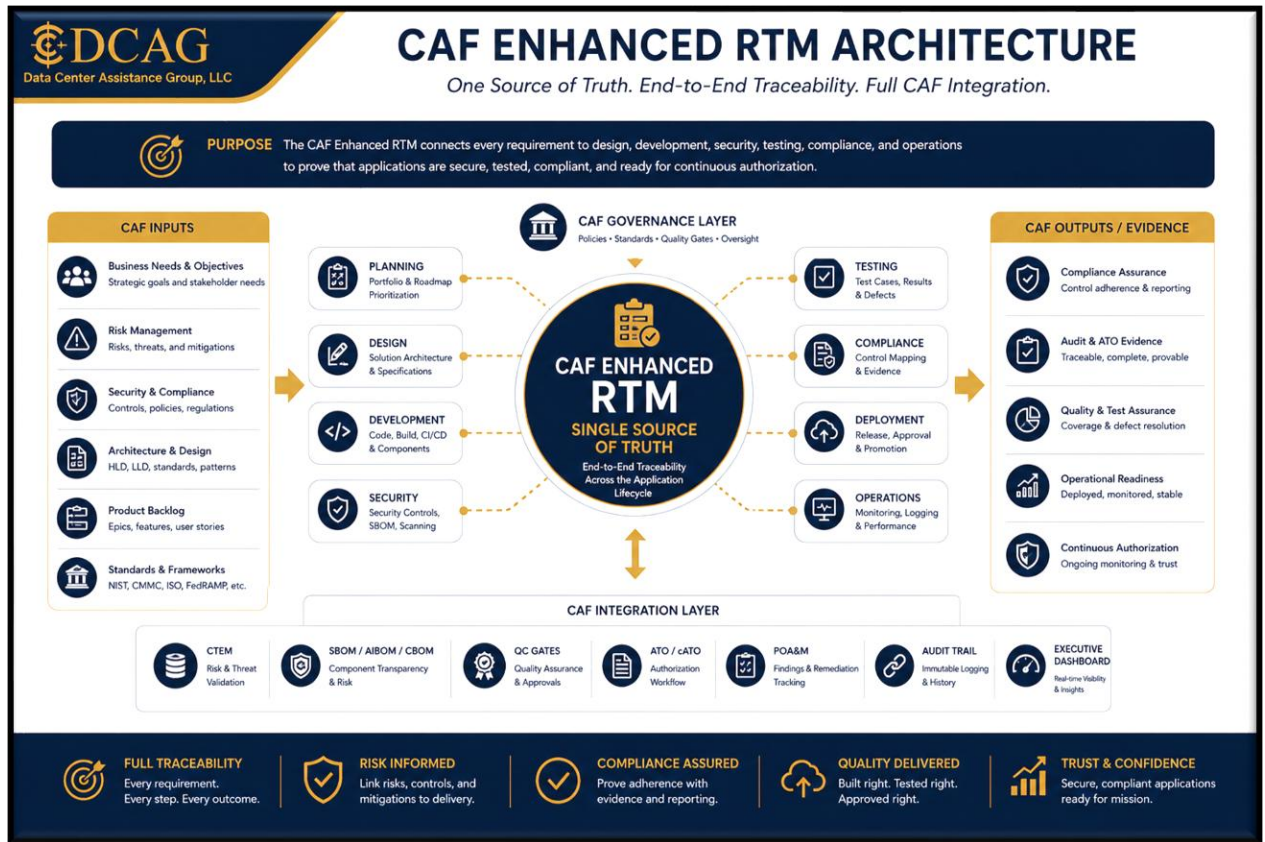
#### RTM End-to-End Traceability Flow



RTM Governance Dashboard



CAF Enhanced RTM Architecture



Requirements-to-ATO Evidence Chain



Executive Summary

An RTM is much more than a requirements spreadsheet. It is the **authoritative system of record** that connects business objectives, requirements, risks, compliance controls, architecture, development, testing, deployment, and operational monitoring into a single traceable framework. For organizations implementing your **Controlled Application Factory (CAF)**, the RTM becomes the foundation for governance, quality assurance, compliance validation, CTEM integration, and ATO/cATO evidence management.

When properly implemented, the RTM provides executives with confidence that every requirement has been approved, implemented, tested, secured, documented, deployed, and continuously monitored throughout the lifecycle of a product, service, or enterprise initiative.