

EXECUTIVE BRIEF



The Confidence Gap

■ Why enterprise AI requires trusted execution

Why Enterprise AI Requires Trusted Execution

Key finding

Enterprise organizations have invested billions of dollars building environments to evaluate, validate, and deploy new technologies. As AI, autonomous agents, proprietary source code, regulated information, and sensitive business workflows become central to enterprise transformation, traditional evaluation environments no longer answer the question executives actually need answered.

Strategic implication

Organizations no longer need to know whether technology works. They need confidence that it will work using their data, within their business, before committing to production.

This briefing explains why Trusted Execution has emerged as a new enterprise capability and how Replica enables organizations to safely evaluate, develop, and operationalize high-risk technologies using the information that actually defines their business. enables organizations to safely evaluate, develop, and operationalize high-risk technologies using the information that actually defines their business.

Enterprise Technology Evaluations Have Changed

Enterprise evaluations have shifted from infrastructure-centric validation to information-centric evaluation. AI, AI agents, source code, customer records, security telemetry, regulated information, and business workflows now determine success.

Organizations are no longer asking only “Does it work?” They are asking “Will it work for us?”

The Confidence Gap

Most organizations have done exactly what security teams should recommend. When sensitive information cannot safely be used during evaluations, synthetic or representative data enables meaningful testing while reducing risk. For many scenarios, this remains appropriate.

However, AI derives its value from enterprise context. Synthetic data proves technology can work. Real enterprise data proves it can work for your organization. That difference creates a confidence gap before production deployment.

A New Enterprise Capability: Trusted Execution

Closing the confidence gap requires more than additional infrastructure, it requires a new capability.

Trusted Execution: The ability to safely perform high-risk digital work using sensitive enterprise information inside isolated, governed environments purpose-built for that purpose.

Representative applications include:

- AI evaluation and AI agent development
- Source code analysis
- Security investigations and malware analysis
- Vendor evaluations and M&A due diligence
- Regulated research

Why Existing Enterprise Infrastructure Falls Short

Most enterprise infrastructure was designed for trusted work, not high-risk work. Evaluating unknown software, connecting to public AI services, investigating threats, analyzing malware, and handling sensitive enterprise information require a different execution model.

Trusted Execution fills this gap.

Built for Trusted Execution

Replica is a Secure Environment-as-a-Service platform purpose-built for Trusted Execution. Rather than performing high-risk work on corporate infrastructure, users operate inside isolated, governed environments designed for:

AI experimentation

Third-party software

Collaborative investigations

Sensitive enterprise data

Internet research

Regulated workflows

Trusted Execution in Practice

Organizations use Replica to securely evaluate technologies using proprietary source code, internal documentation, customer information, financial records, security telemetry, and business workflows — providing production-like confidence without exposing corporate endpoints.

Illustrative Use Cases

USE CASE 1 • ENTERPRISE AI EVALUATION



Faster, More Confident AI Adoption

A global financial institution compares enterprise AI platforms using approved internal documentation, source code, and operational procedures inside Replica.

Result: Faster, more confident AI adoption.

USE CASE 2 • SECURE VENDOR EVALUATION



Clean, Repeatable Execution at Scale

A Fortune 100 enterprise evaluates multiple cybersecurity platforms inside Replica without installing software on employee devices.

Result: Faster evaluations, lower risk, and clean, repeatable execution.

Business Outcomes

Organizations adopting Trusted Execution through Replica realize measurable outcomes across risk, speed, and standardization:



Higher confidence through enterprise-specific evaluations



Faster AI adoption



Reduced enterprise risk



Better technology decisions



Standard execution across AI, security, and engineering



Faster innovation

Looking Forward

Enterprise technology evaluation is becoming increasingly dependent on enterprise context. Trusted Execution represents the next evolution of technology evaluation, allowing organizations to safely use the data, workflows, and intellectual property that define their business.

Replica was purposefully built to enable this capability — giving organizations the confidence to move from “does it work” to “will it work for us,” without compromising governance or enterprise security.