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## **Digital Testing and Controls Automation**

A transformative approach to automating  
your control environment

# Overview

In a world of increasing risks, regulations, and internal control requirements, transparency into your organization's control environment is no longer optional—it is vital—and affects all three lines of defense. Imagine being able to access information on demand to enable continuous monitoring and provide insights into your environment beyond control effectiveness. The resulting data would expand the ability for organizations to identify trends, make real-time decisions, and redeploy resources where they add greater value. These possibilities are driving many organizations to rethink the manual nature of their control environments and begin migrating to an increasingly automated state.

As more and more companies embark on a digital journey, transparency into control environments becomes more difficult due to:

- Manual processing/information gathering
- Limited resources
- Competing business priorities
- Decentralized data and disparate technology

Our DTCA solution helps organizations automate their control execution and testing using a thoughtful methodology, analytics, tools, and technology that can help execute controls and evaluate processes in real time rather than waiting for testing results. Real-time evaluation of transactions flags controls that fall out of normal range, enabling process owners to fix issues immediately.



## CLIENT SPOTLIGHT

One global bank struggled to address the risk of segregation of duties within their wire disbursements process. Using Deloitte's Digital Testing and Controls Automation (DTCA) solution, we analyzed numerous security profiles and transactions, uncovering critical segregation-of-duties violations that would likely have gone undetected due to the complex nature of their information technology environment. In one situation, the same individual had the ability to update payee information and process disbursements, creating the potential for fraud. Analyzing the security profiles is now a continuous process alerting the company of future violations in real time.

# Why consider DTCA?

DTCA allows organizations to reduce their risk profile, uncover trends and provide valuable insights, increase efficiencies, modernize controls, and foster an environment of continuous monitoring by evaluating 100 percent of the desired population.

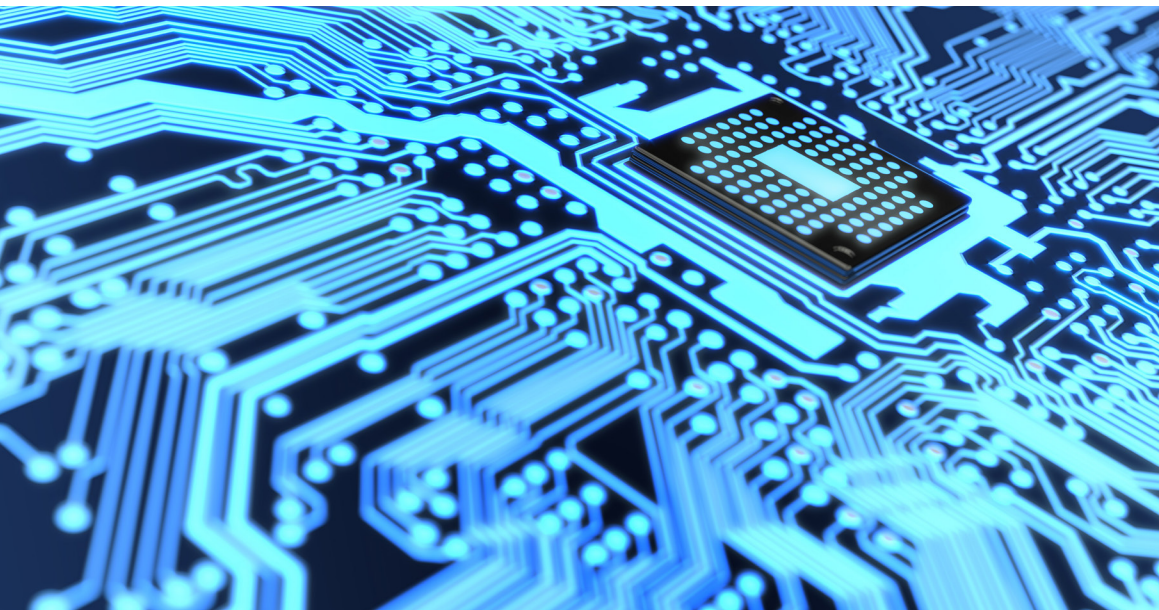
## Reduce risk

Organizations that fail to identify and address noncompliance face potentially significant financial, compliance, client service, and reputational damage. Manually driven control processes are inefficient, time consuming, and use only a small sampling from large data populations, which results in potential sampling risk. This makes it difficult to identify anomalies in a population that may be meaningful to management. However, our DTCA methodology extracts, compiles, and evaluates/tests defined aspects of data from multiple systems across an organization and, through automation, enables 100-percent analysis/testing of the control and identification of anomalies. Having a full view of noncompliance items provides transparency and helps reduce a company's risk profile.



## CLIENT SPOTLIGHT

One organization discovered that 80 percent of its invoices were processed by only two of the five individuals within the AP team, which created backlog and operational delays that impacted its mandated 45-day payment window and resulted in a higher-than-normal number of manual errors.



### Uncover insights

Companies that lack an integrated and consistent technology platform for risk assessments also lack a single view of risk and reporting for noncompliance. However, DTCA provides a consolidated view of controls and testing results that can reveal trends and provide valuable insights to management that might not be uncovered using a traditional approach. By uncovering these items, departments and functions are elevating themselves from a cost center to a value driver.



#### CLIENT SPOTLIGHT

A global asset management firm identified concerning trends after analyzing 100 percent of its change management data using DTCA. A significant number of technology changes were implemented during its fiscal year-end month, impacting the availability of their systems. In an effort to close the books on time, management implemented a 15-day mandatory freeze on changes at fiscal year-end to avoid potential financial statement issues. In addition, the company discovered that 72 percent of change management tickets were opened and closed within one business day, indicating improper use of the ticketing system and a lack of governance over the process. These concerns would likely not have been noticed, researched, and changed had the company used a traditional population sampling approach.

### Increase efficiency

Manual execution and testing processes are inefficient, prone to error, and often time consuming. Automating the execution and/or testing of a control reduces the time and resources spent gathering data, reconciling information, selecting what to test, and volleying back and forth to obtain the detailed documentation. DTCA allows an organization to automatically extract and map data from various systems and reconcile it using scripts to execute the control more efficiently. Further, it may also reduce the risk of manual error and improve the quality and speed of the execution and testing of the control. Using DTCA, organizations can redeploy resources to activities with greater value and higher priority.



#### CLIENT SPOTLIGHT

For one data marketing firm, DTCA was used to extract data from more than 1,500 servers across Windows and Unix environments and to perform user access reviews and termination testing as part of an Service Organization Control (SOC) attestation service. This saved the team significant time on an ongoing basis due to the repeatable function of that test across multiple quarters and reports.

### **Establish continuous monitoring**

DTCA enables continuous monitoring, provides oversight, and lays the groundwork to automate the execution of controls. DTCA captures and stores control data in a single electronic format and applies codes and rule sets against data across an entire population, systematically flagging exceptions and reducing the need for manual review. Business units and control owners can now evaluate the execution of their controls in real time, enabling them to immediately identify fraud and proactively remediate issues. Further, governance functions can test controls on a repeatable basis throughout the year as opposed to the traditional year-end audits. This creates a more transparent environment across all three lines of defense.

### **Modernize controls**

Once a specific automated control test is established, the test itself can become a monitoring control. The future state of controls clearly lies in control modernization through automation and 100 percent evaluation/testing.



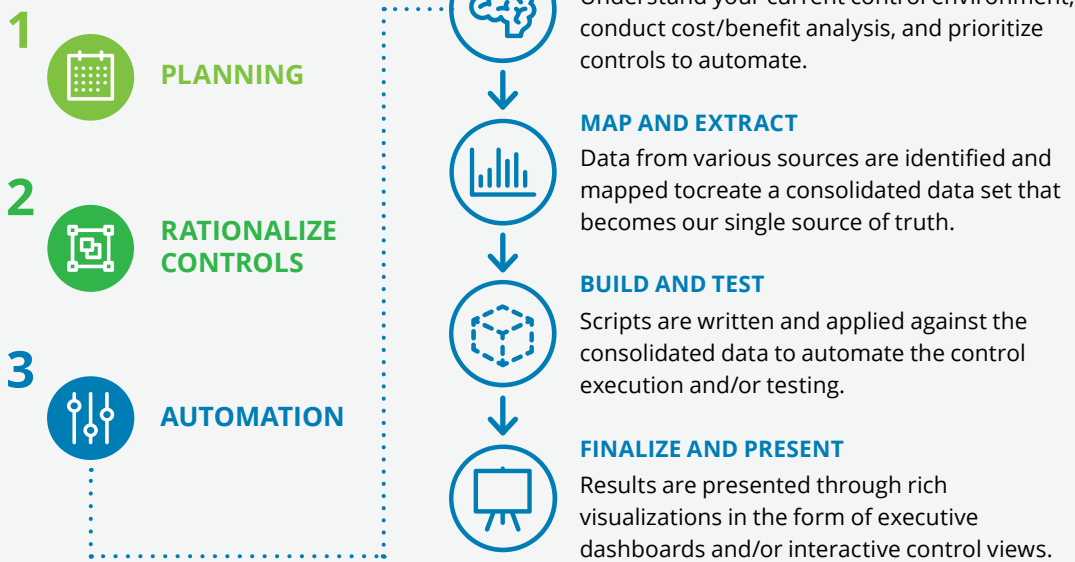
### **CLIENT SPOTLIGHT**

At one organization, ensuring that terminated personnel no longer had access to any of its 100+ systems entailed generating a list of terminations from one system and comparing it to a list of access-approved personnel from every other system to identify those to be removed. Implementing DTCA resulted in an automatic extraction of information from all systems that was reconciled daily, flagging terminations and automatically sending notifications to the appropriate departments. The process now continuously monitors terminations to reduce security risks, making it the new test for the control.



# How to establish a DTCA approach

## DTCA IN ACTION



For companies that want to implement DTCA, it is important to establish a project scope and align key stakeholders (including business, technology, and analytics subject-matter experts), so they understand the necessary changes that will be made to the current processes. It is also important to identify processes or controls that are prime for automation—typically those where data is currently in an electronic format (e.g., stored within applications, databases, spreadsheets, etc.). A thoughtful rationalization process helps identify data optimization opportunities to remove and/or consolidate controls based on the use of common data elements. Developing and executing a proof of concept on a single process or set of controls will keep implementation manageable and help enable success. After successful implementation, the scope of automation can be expanded across multiple processes.

While none of these concepts are new, identifying the best set of controls for a proof of concept and applying the appropriate tools and techniques can be a challenge. To determine which controls offer the greatest opportunity for a proof of concept, start by asking the following questions.

### **WHICH CYCLES/PROCESSES:**

- 1** Keep me up at night?
- 2** Are costly or inefficient to execute and test?
- 3** Primarily rely on electronic data?
- 4** Could yield the greatest insights for senior management—fraud, risk, operational efficiencies, etc.?

Answering these questions and applying a structured approach can help organizations understand the potential benefits of DTCA and form the basis for a strategy and vision. The next step is to establish a business case for leadership and develop use cases that allow the company to explore current and future opportunities DTCA offers. Priority use cases should address critical business issues such as the organization's greatest risks or data that should be analyzed more thoughtfully. Once these steps are achieved, the organization can execute a proof of concept that will illustrate the benefits of a DTCA implementation and measure the resulting benefits.

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