

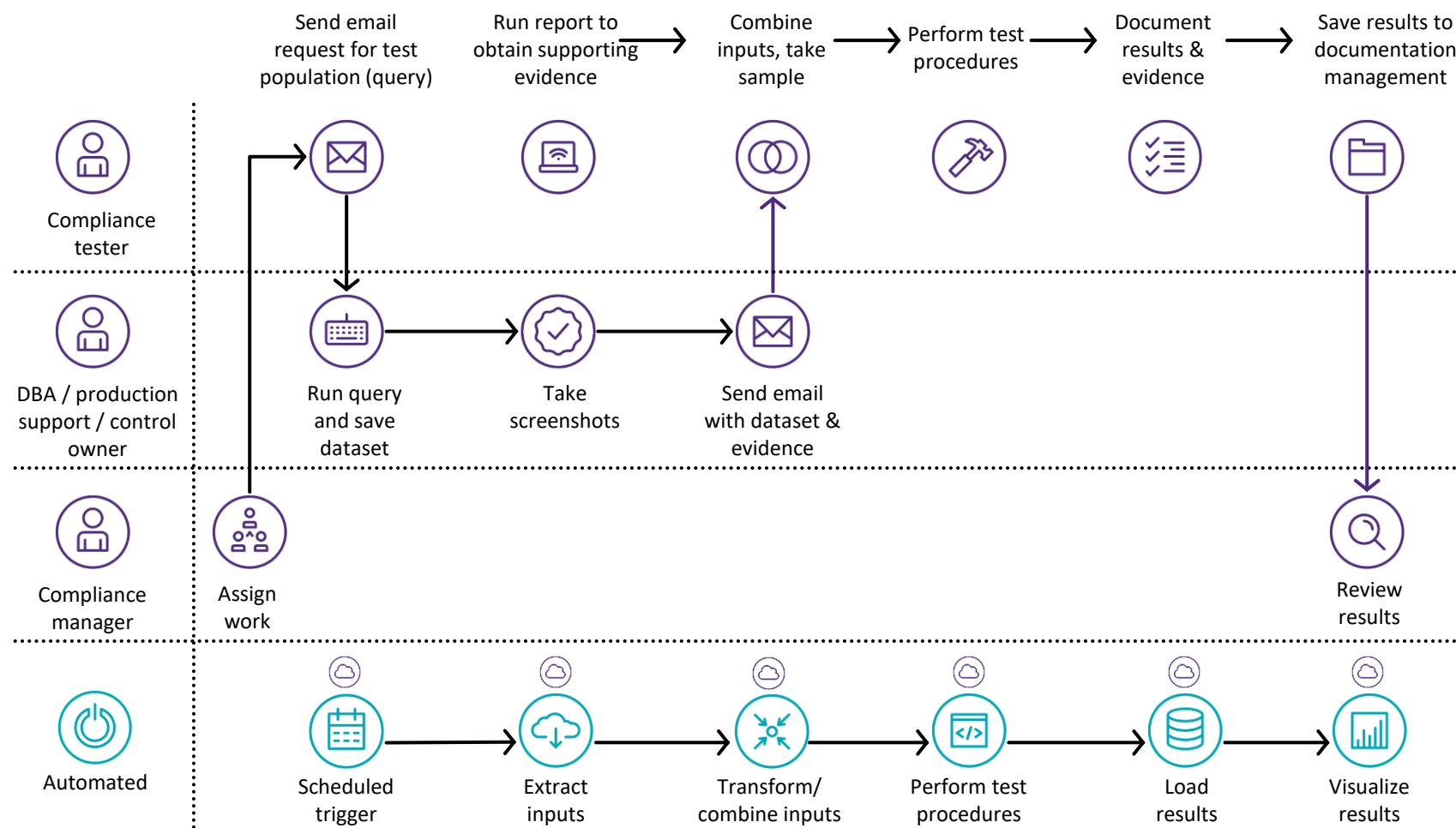


Control test automation – the Grant Thornton approach

Automating controls and control tests across the three lines of defense

Grant Thornton’s proprietary cta.x solution transforms risk management and compliance activities by making them more data-driven, integrated and automated. For risk and compliance managers that are looking for ways to drive greater assurance at a lower cost, cta.x goes beyond the traditional RPA process orchestration approach.

Grant Thornton has an experienced team with deep expertise in the strategic planning, development and execution of [control automation](#) and [control test automation](#).



Example of exception reporting

Opportunities for Quick Wins	
Process areas	Actions for success
Security	<ul style="list-style-type: none"> User Access Provisioning User Access Terminations User Access Recertification’s Privileged Access (across in-scope applications) Password Configurations Parameters
Change Management	<ul style="list-style-type: none"> Change Testing & Approval (application layer) Periodic Review of changes to production environment Change Testing and approval (database and OS layer)
Operations	<ul style="list-style-type: none"> Physical Security (i.e., data center) Access to job scheduler Interface job failure and exception handling

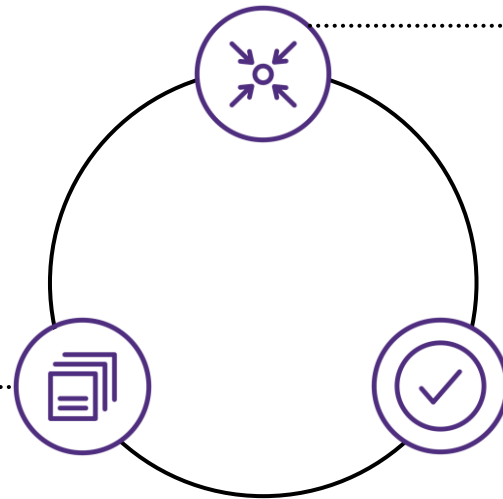


- Continuous data pipelines
- Deficiency identification & remediation
- Automated testing
- Dynamic dashboard monitoring

The benefits of automation and Grant Thornton's control test automation approach

Proven solution design

- Framework to prioritize automation candidates
- Standardized control tests (e.g., data models, testing logic, scripts, reporting, logging)
- Functional tools (e.g., data connectivity, data preparation / workflows, logging, notifications)
- Repeatability of code across controls



Continuous monitoring

- Automated, full population testing (e.g., from quarterly to continuous)
- Flexibility in triggers for alerts (i.e., manual, scheduled or event-based execution of control test)
- Control test exception (pass/fail) reporting and automated notifications
- Front-end collaboration tools (e.g., file sharing, task assignments)

External audit reliance & reduced fees

- Methodology and documentation that external auditors have placed reliance on
- Technical testing and parallel testing to support reliance and ensure completeness and accuracy

The benefits of automation

- Reduced time spent testing (e.g., hours to minutes)
- Reduced test cycle times (e.g., quarterly to weekly)
- Increased assurance coverage (i.e., sampling to full population coverage)
- Centralized presentation of results with historical performance trends

The Grant Thornton difference

Best of both worlds: We have the resources and skillsets of the larger firms with the accessibility and agility of a smaller firm.



Continuous data pipelines



Automated testing



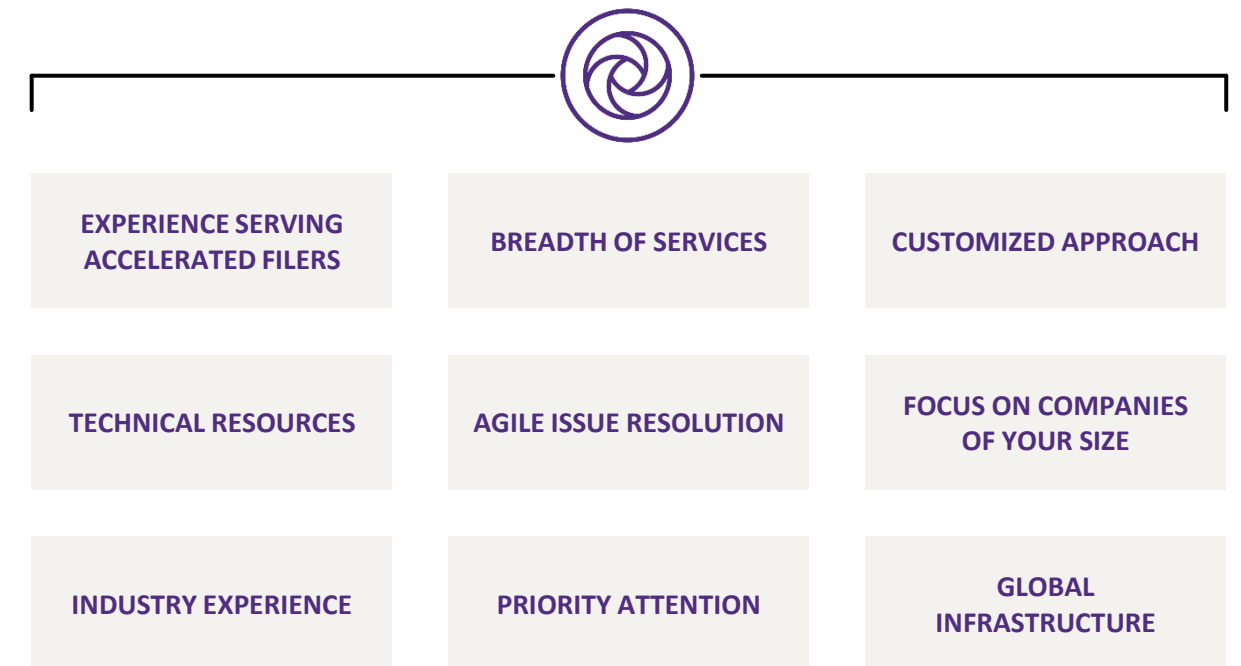
Deficiency identification & remediation



Solution accelerators



Dynamic dashboard monitoring



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