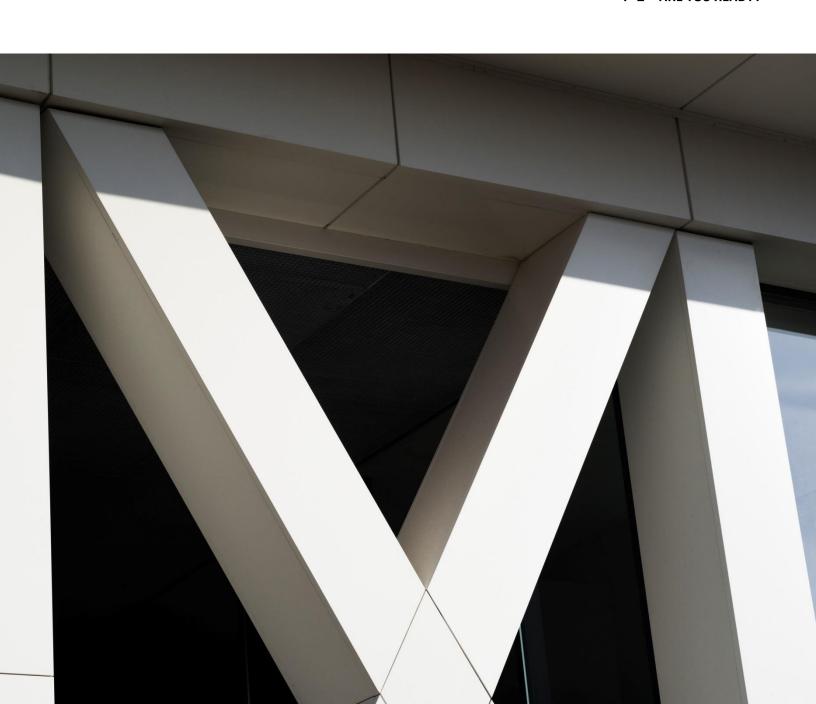
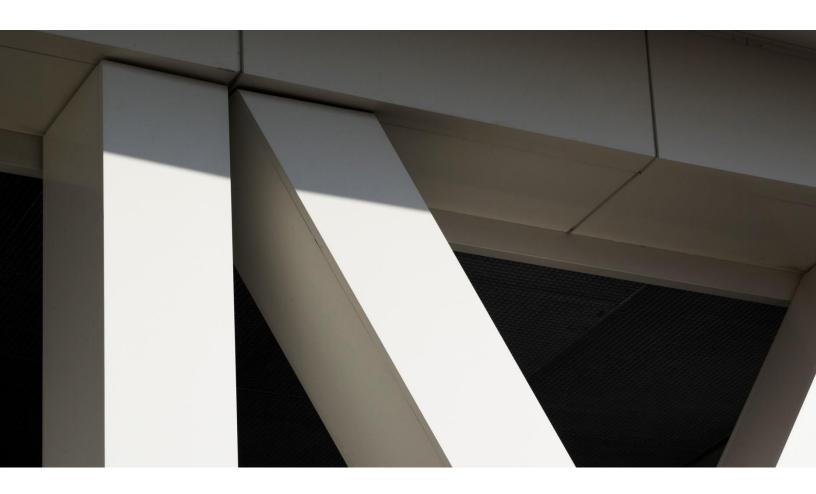
CAPCO

T+2 - ARE YOU READY?







THE TRANSITION TO **T+2 SETTLEMENT**

WHERE ARE YOU NOW?

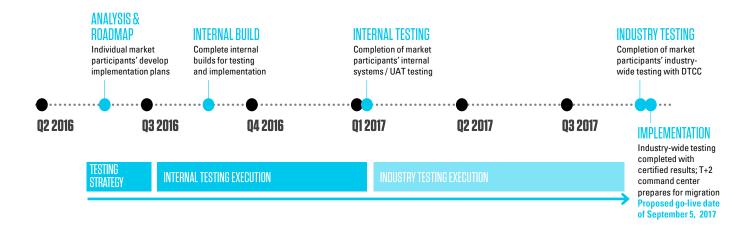
The transition from a T+3 to T+2 settlement cycle continues to be an ongoing industry-wide initiative with a target go-live date of September 5, 2017. Many firms have performed assessments of their preparedness for the necessary operations and technologies, and are well on their way to completing the design and development phase. As organizations modify and reshape the day-to-day processes and infrastructure necessary for a successful migration, the need for robust end-to-end testing is paramount. Conducting thorough testing will be a critical step in the journey and will serve as the validation point for readiness.

Capco counsels clients to be proactive in their approach to managing this transition. We encourage clients to think critically about establishing practical plans for the facilitation and execution of testing, both internally and externally across the industry. With less than a year-and-a-half until the migration golive date, firms should be finalizing their strategies and beginning to coordinate execution broadly across internal channels. Capco has a unique approach to various considerations in this space, as well as expertise in leading large migration initiatives with a focus on testing.

Migration timeline and suggested testing execution

Under the current timeline, market participants should have completed their initial impact analysis and be close to finalizing their testing strategy.

Internal testing is expected to occur during Q3 and Q4 of 2016, with industry-wide, end-to-end testing scheduled to begin Q1 2017. However, many institutions have plans to begin internal testing in late Q2 and expect to have some level of testing / enhancements required in early 2017. Further, with the current industry-wide uncertainty regarding specific certification requirements for readiness, many market participants are placing added emphasis on their testing. With increased focus and effort on testing, the need for a comprehensive strategy, adequate preparation, and an effective approach will be critical for each organization.



T+2 testing approach

Capco has the expertise to execute robust front-to-back testing in all areas of T+2 migration using a wave based approach that can be tailored to various levels of client preparation.

PROGRAM LEVEL end-to-end testing framework encompasses all systems, interfaces,

TESTING LIFE CYCLE processes, and relevant internal and industry environments

MONITOR AND CONTROL				
STRATEGY AND Master Planning		CONSTRUCT AND EXECUTE TESTING		FINAL Acceptance
TEST STRATEGY AND ROADMAP	MASTER TEST PLANNING	CONSTRUCT TEST CASES AND DATA	EXECUTE TESTING	PRODUCTION READINESS
WAVE 1 - TESTING STRATEGY / VALIDATION				
WAVE 2 - COMMAND CENTER AND TESTING DEVELOPMENT			WAVE3 - TESTING EXECUTION*	

* leverages our world class 'testing center of excellence'

WAVE 1

Consists of testing SMEs to develop or review testing strategy and roadmap including internal end-to-end testing, counterparty and industry specific testing.

Test strategy / validation

- · Validate Test Strategy
 - · Review BRDs
 - Data requirements
- · Amend/update roadmap to align to key testing milestones
 - · Internal systems
 - Counterparties
 - · Industry testing

WAVE 2

Establishes a Command Center to facilitate test execution and senior management reporting. Additionally testing experts are deployed to develop test scenarios, test cases, and scripts for all phases of the migration.

Command center setup and test development

- **Establish Command Center**
 - Stakeholder Engagement Model (RACI)
 - Communication Plan
 - **Command Center Execution Project** Plan (Timeline)
 - E2E Business IT Architecture
 - · Command Center Kick-off Document
- Construction of Testing Artifacts
 - · Build test scenarios/test cases
- · Entry/exit criteria
- · Defect management system

WAVE 3

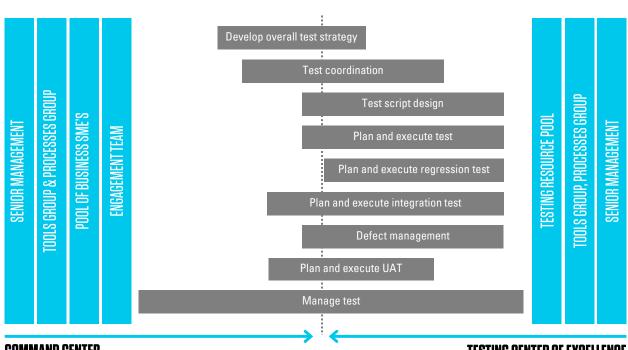
Leverages our world class 'testing center of excellence' with dedicated resources to execute readiness testing; testers will execute test scripts, manage and escalate defect capture, report metrics for all test phases of the project.

Execution and production readiness

- · Test Execution
 - · Execute and capture test results for each cycle
 - · Capture metrics to highlight quality trend
 - · Defect management Track and manage breaks across the program including root cause analysis
 - · Orchestrate Runbooks (e.g., handoffs, timing, results) incl. downstream impacts of delays
- · Production Readiness
 - · Data conversion
 - · Migration
 - · Check outs

Testing utility

Utilizing our extensive roster of testing experts and our world class 'Testing Center of Excellence,' our approach efficiently delivers testing services while effectively balancing cost and delivery throughout the testing lifecycle.



TESTING CENTER OF EXCELLENCE COMMAND CENTER

Key considerations / Success factors

KEY CONSIDERATIONS

Sufficient oversight to drive

- · Governance process and escalation
- · Outcome-based KPIs and reporting

Holistic end-to-end testing

- · Clearly defined end-to-end testing processes
- Control-based framework for end-to-end testing
- Well documented test scripts and run-books, incorporating automation over time
- Ensure transparency to senior management and program leads

Flexible program

- Combination of high-quality on-shore and near-shore resources (if appropriate); additionally, the ability to quickly and effectively ramp up / down resources based on demand is critical to success
- Testing standards including development, adoption, and automation/visualization
- Flexible test execution, building in model-based testing over-time
- Defect tracking with a focus on quality, cycle time, and efficiency

We encourage clients to think critically about establishing practical plans that are both holistic and flexible for the facilitation and execution of testing. both internally and externally across the industry.

CRITICAL SUCCESS FACTORS

Wave 1 - Testing strategy / validation

- Ensure buy-in from senior leadership and key stakeholders; Senior leadership and key stakeholders must be involved in the validation process and agree to any suggested changes, if needed
- Define a fluid strategy with the ability to be executed throughout the migration timeframe while also remaining flexible to account for change

Wave 2 - Command center and testing development

- Establishing a collaborative Command Center provides direction and drives strategy while ensuring sufficient oversight and
- Confirm appropriate resources that support the test plan; Ensure that resource constraints are known where they are common to other responsibilities (e.g. development vs. BAU) including functional/system coverage
- Ensure testing artifacts adhere to defined standards and are signed off by stakeholders
- Ensure collaboration with technology team

Wave 3 – Testing execution

- Facilitate / execute end-to-end testing over established baseline and deliver quality results
- Ensure defect triage
- Effective communication loop between command center and senior leadership to escalate issues and change testing plans as needed

Our differentiators

Specialist in front-to-back testing for financial services

- Our front-to-back testing solution is grounded in our knowledge of capital markets and our vision to bring together End-to-End Testing, UAT and Testing Center of Excellence (TCOE) capabilities
- Our holistic solution is optimized for highest quality incorporating governance, end-to-end testing, a test utility and TCOE – to plan and manage the testing program
- We bring extensive expertise in test utilities and an experienced and dedicated leadership team to provide governance and oversight for testing engagements
- Investing in tools to drive automation and efficiencies

Industry leader in shortened settlement cycles

- Played major roles in the Group of Thirty (G30) when the industry moved from T+5 to T+3 settlement
- Co-led the original business case for SIFMA, the DTCC, industry participants and regulators which helped shape the necessary enablers and actions to achieve a shortened settlement cycle
- Partnered with SIFMA to develop shortened settlement cycle building blocks to improve market efficiency and STP and reduce settlement risk, plus led the program management office (PMO) effort to support the 10 industry committees tasked to achieve the STP building blocks
- Acted as a key advisor to the Institutional Trade Committee to improve efficiency and reduce risk of institutional DVP/RVP trades; led the design, development and implementation of Omgeo's central trade matching system
- Heavily engaged in T+2 industry committees, including ongoing working groups and the DTCC T+2 Symposium
- Coordinated firm-wide responses on behalf of clients for DTCC's 2013 and 2015 industry surveys on T+2
- Led T+2 conversions for European clients and delivered overall impact assessments for U.S. and Canadian clients on the move to T+2

Specialists in financial services and operations

- Deliver a diverse range of projects, from strategy to implementation, across the trade lifecycle for many of the world's largest financial institutions
- Possess deep industry knowledge on front- to back-office processes with first-hand knowledge of industry operations and best practices in global markets
- Maintain a knowledgeable team of experts, with consultants averaging 17 years of experience in the financial services industry
- Act as an effective change agent in benchmarking and optimizing middle- and back-office processes, and creating substantial operational efficiencies by adapting to industry and proprietary platforms

Impact framework and execution accelerator

- Capco developed an impact framework accelerator that will help facilitate the successful transition to shortened settlement cycles
- Provides a comprehensive view of key processes and functional areas that are impacted as well as possible enhancements that may be required
- Accelerator framework can be tailored to multiple brokerdealer functional models and specific client needs, allowing for the delivery of immediate value for change across industry stakeholders
- Helps identify the areas that will require investments as well as determine size and scope estimates for the effort required to meet shortened settlement cycle requirements

"As organizations modify and reshape the day-to-day processes and infrastructure necessary for a successful migration, the need for robust end-to-end testing is paramount. **Conducting thorough testing will** be a critical step in the journey and will serve as the validation point for readiness."

Conclusion

As firms finalize their analysis and planning from their initial T+2 settlement cycle pre-migration assessment, significant effort should be focused on end-to-end testing strategy, roadmap and overall execution. Robust end-to-end testing involving internal systems and counterparties, as well as a comprehensive end-to-end dry run with industry participants and utilities, is a critical success factor for ensuring organizations are adequately prepared for a T+2 Settlement cycle. Capco is distinctively positioned to provide both expert advice and overall implementation / execution services. We offer a unique combination of benefits including: a deep understanding of testing; a world class testing center of excellence; a holistic solution with quality focus; and; commercial agility and investment in innovation.

CONTRIBUTORS

Steven Halliwell steven.halliwell@capco.com Michael Martinen michael.martinen@capco.com

ABOUT CAPCO

Capco, an FISTM company, is a global business and technology consultancy dedicated solely to the financial services industry. Our professionals combine innovative thinking with our unrivalled first-hand industry knowledge to offer our clients consulting expertise, complex technology and package integration, and managed services to move their organizations forward. Through our collaborative and efficient approach, we help our clients successfully, innovate, increase revenue, manage risk and regulatory change, reduce costs and enhance control. We specialize in Banking & Payments, Capital Markets, Wealth & Asset Management and Technology Services. We serve our clients from offices in leading financial centers across North America, Europe, Asia Pacific and Africa.

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To learn more, contact us in the U.K. on +44 20 7426 1500, in Continental Europe on +49 69 97 60 9000, in North America on +1 212 284 8600, visit our website at **CAPCO.COM**, or follow us on Twitter @Capco.

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