IMPLEMENTATION PITFALLS TO AVOID:
OPENLINK ENDUR

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In a recent article looking at pitfalls to avoid when implementing Allegro's Horizon Commodity Trading and Risk Management (CTRM) product, we noted that there is no 'one size fits all' approach to implementing CTRM software solutions. Systems from different vendors require different approaches and increased diligence in configuring specific technical, functional, and workflow capabilities. Addressing the unique complexities of these projects requires knowledge of the system's technical and business capabilities and experience in understanding the intricacies of the client's business, a skill set not generally available within either the vendor or client resources.

OPENLINK ENDUR — A MULTIFACETED CONFIGURABLE SOLUTION FOR MANAGING COMPLEX BUSINESSES

For almost a decade, ION's Openlink Endur product has been the leading CTRM solution for the upper tiers of the energy and commodity markets. Larger mid-sized, large, and global-scale companies - those that trade multiple commodities and in multiple markets, often across national borders or continents — usually have complex supply chains, sophisticated trading strategies, and employ advanced risk analytics as they produce, buy, sell, and transport commodities. Given the complexities of the clients served by Endur, the system has a reputation as being one of the most costly and complex to purchase, implement, and support. And although that reputation is primarily driven by the scope and scale of their clients, there is little question that an Endur implementation, regardless of the client's needs, will require particular skills and experiences to ensure a successful and timely go-live.

By nature of its architecture and functional complexity, Endur provides tremendous configurability options to meet the most complex businesses' needs — including trade management, logistics, advanced analytics and risk management, and comprehensive back-office capabilities. Implementing Endur requires the capability to translate the client's complex business into the system's functional flow and requires an in-depth understanding of the technical architecture of Endur to configure and customize those capabilities that provide the highest level of usability while maintaining supportability.

For energy and commodity trading organizations that have selected ION's Endur as their new CTRM solution, a deep understanding of how to properly configure the system's functional, technical, and integration capabilities is key to ensuring the deployed solution is efficient, effective, supportable, and adaptable.

Based on Capco's extensive experience implementing Endur and supporting customers during in-production use of the system, we have identified ten issues that can increase implementation project risks and/or create significant in-production problems once implemented:

1. **Lack of adequate pre-project planning:** Often, in a desire to accelerate implementation timelines and limit costs, projects will proceed without proper review and planning, resulting in an effort that does not fully address the initial business objectives. When implementing any system, but mainly a system as complex as Endur, the project team must undertake a comprehensive review of the processes involved and ensure objectives (including those of the business units/desks and of the corporate sponsors) are clearly understood. This process helps enable the development of a plan that fully elaborates and establishes the desired outcomes at a level of detail that verifies alignment with those goals.

2. **Overuse of customizations:** Endur offers a level of configurability and customization that exceeds most, if not all, other systems currently available. However, developing and implementing customizations will always increase implementation time and costs. If not carefully planned and architected before the start of actual implementation activities, these customizations will increase project risks and potentially introduce cascading delays, adding months to the project timeline and driving massive cost overruns. Even if the customizations are well-planned and implemented within the initial project scope, in almost all cases, customizations will impact subsequent software updates and version upgrades for the life of the customer's use of that system with increased costs and longer upgrade project cycles (particularly in terms of the time required to test those upgrades prior to production fully). Capco consultants understand the impact such customizations can have and work diligently during the planning and review process to ensure the costs, benefits, and risks are all appropriately recognized and weighed before recommending a course of action.

3. **Poorly designed and supported customizations:** Though limiting or eliminating the use of customizations should be a guiding principle of any implementation project, that may not always be possible given the complex needs of the types of customers that select Endur. Should it be determined

that customization is necessary or is the most efficient path to achieving the project and business goals, it is imperative that their development be fully documented and planned before coding. Capco's implementation process addresses best practices for developing these customizations, including ensuring utility classes are created for common functionality, allowing re-use of developed code across the project.

4. **Attempting to replicate current state processes instead of designing an optimized operating model and implementing to achieve those goals:** Endur has been architected to allow users to streamline their business processes and improve efficiencies via configuration of system processes and screens. However, without employing experienced resources that understand both the effort required and the benefits you can accrue via system configuration changes, the implementation effort is unlikely to deliver any measurable improvements in process efficiencies and/or commercial insights that yield improved bottom-line performance. Backed by mature and comprehensive implementation methodologies, Capco consultants leverage their deep product expertise and identify opportunities to best leverage Endur's native configurability options to ensure their clients achieve real and measurable improvements once in production.

5. **Not having Endur knowledgeable consultants from the start:** As we have often mentioned, CTRM systems, while addressing common business processes, can vary greatly in their technical complexity and flexibility. And though having experience on a particular vendor's product may benefit when attempting to implement a system from another vendor, the reality is that Endur is unique in technical complexity and configurability. Without resources with prior and deep experience in the product, project risks will increase rapidly, as poorly informed design and configuration decisions are made. These uninformed decisions will result in significant cost and time overruns throughout the project and beyond. With large-scale monolithic systems such as Endur, the concept of 'fail fast' is difficult (if not practically impossible) to implement and errors can compound. In such instances, if errors or process failures are not detected early, the client may be forced to continue into production with a flawed or suboptimal design due to the costs in time and money involved in attempting to redesign and remedy upstream errors.

6. **Inadequate or wasteful reporting** – Report development is often one of the last activities considered during implementation projects. Without understanding the system's ability to report on the data and information held within it, users frequently do not define their requirements for those data views or reports that are truly necessary for them to accomplish their tasks efficiently. Unfortunately, this often leads to a late scramble to develop custom reports that turn out to be unnecessary, as that same information or data is later determined to be available for export from a configurable screen view. Even if that data is available in a screen view, users may demand a slightly different view or addition of a data field that might be unavailable on the screen. Without adequate time to understand the necessity of that particular unique report, the requested custom report may just be included in the stack of other reports that need to be developed before go-live, increasing costs and potentially introducing additional development burdens that could slow go-live.

7. **Lack of involvement from decision-makers and key users throughout the project** – Though applicable to virtually all large-scale implementation efforts, given the nature of the customers that select Endur as their preferred system (large complex organizations), it is vitally important that the project team be comprised of dedicated representatives from all of the affected business units. Project plans should fully elaborate on a schedule for decision milestones and ensure rapid access to management decision-makers on an ad-hoc basis throughout the implementation process to address any unforeseen issues that may arise.

8. **Inadequate test planning and lack of focus on change management** – It is not uncommon for implementations to not have dedicated project resources for testing and change management. While most of the testing occurs later in project delivery, having a dedicated test lead to facilitate the creation of test cases/scenarios is critical to testing success, especially when you get into parallel and user-acceptance testing.

Additionally, Endur's functionality is new to many end-users, and getting user adoption and buy-in is critical to project success. Therefore, a strong focus on organizational change management and training throughout the project lifecycle greatly increases the probability of project success.

9. **Overuse and provisioning of User-Defined Simulation Results (UDSRs) without a comprehensive plan** - UDSRs allow users to extend and customize the standard simulation results provided in Endur, and provide a high level of flexibility to implement proprietary calculations. Without knowledge of and familiarity with the standard simulation results, duplications can occur with existing UDSRs or base simulation results. Unless the result is to be used in multiple scenarios and/or downstream feeds, it is often better to have a script written for that 'one' particular use case. If not well thought out and designed, UDSRs can cause performance issues – especially if they are configured to run as part of the End of Day (EOD) batch process. If included in the EOD batch, it is important to monitor UDSR script runtime to ensure the process does not slow as more transactional data is added to the system. Additionally, as UDSR output is saved to the production environment, the results must be periodically purged to ensure adequate storage space…and the same is true if saved to a data warehouse. Capco recommends a regular periodic review of all UDSRs that run in the EOD batch to ensure each is still valid and required by the business users.

10. **Archiving and purging data** – Something often overlooked and can be costly in the long run is a lack of planning around archiving and purging data. An archiving and purging strategy is especially essential for companies with limited governance and controls over creating and using 'User Tables' and 'UDSR's.' The lifecycle of data residing in the database should be clearly defined and automated archiving and purging tasks should be designed at the beginning, for each object in the system. These policies should be reviewed and modified as necessary at periodic intervals. This will help maintain system performance at optimal levels.

CAPCO'S EXPERIENCE, TOOLS, AND ACCELERATORS HELP CLIENTS AVOID ENDUR IMPLEMENTATION PITFALLS

Through years of working with Endur clients in a wide variety of businesses, Capco has developed deep knowledge and understanding of the Endur product's capabilities and the complexities associated with its implementation and use. With decades of consulting experience around Endur, Capco has developed a broad set of best practices baked into our implementation methodology to ensure a successful go-live and in-production use. Additionally, having worked with several clients that had previously implemented Endur without our assistance, Capco's team has seen firsthand the impacts of a "less than ideal" implementation effort. It has developed several tools and accelerators that ensure issues common to Endur implementations are as fully addressed as possible up-front in new client implementation projects.