CASE STUDY

Auto Manufacturer

How a Global Manufacturer Got on the Right Road for IT Transformation

THE CHALLENGE

Automotive manufacturers have been facing escalating demands for digitization for some time. Car technology is being continuously reinvented and powered by increasingly complex algorithms and sensors. Digitization has also changed the buying process, maintenance, supply buying and distribution, the manufacturing process, and safety technologies.

To survive and thrive in this rapidly evolving environment and meet retail and wholesale expectations for the buying and driving experience, the IT team leaders at an international auto manufacturer recognized that they needed to embrace the changes and rebuild their IT infrastructure.

Their goal was to ensure that it was agile, scalable, and ready to take on the rapid business changes coming down the road.

They decided to undertake a complete Data Center Transformation initiative. The program focused on providing infrastructure to support cohesive IT Operations, successfully migrating the applications to the new infrastructure, improving application performance, and building a technology foundation to support the future needs of several combined IT organizations.

This global project first involved a review of the firm's IT infrastructure, including all data assets, with the goal to understand the current state, challenges, future growth, and requirements. It was critical to identify and gather current, accurate information on all applications.

Understanding, identifying, and documenting applications AND their dependencies is crucial to successfully create, transition, migrate, and establish the foundation for a resilient, agile IT environment.

Obstacles Along the Way

After completing an RFP process, a vendor was selected for the project. The initial approach taken by the vendor was not atypical for most IT initiatives. They distributed questionnaires across the enterprise in North America to identify all applications, application owners, current use and any interdependencies and documented the information on spreadsheets.

However, the program team soon realized that this approach was falling far short of their expectations for efficiency and accuracy. Using questionnaires and documenting information on spreadsheets is counterproductive for several reasons:

1. They are susceptible to human error with input of incorrect and/or old information or different interpretations of the questions by each individual.

2. The resulting spreadsheets are difficult to troubleshoot or validate.

3. The gathering and documenting process often takes so long that the "final" information is already out of date.

4. They are not designed for collaborative work, making it cumbersome for staff to share and keep track of updates.

5. They are difficult and time consuming to consolidate.

As this organization quickly discovered in their first attempt, they had unreliable and inconsistent data. And consolidating hundreds of spreadsheets (one for each app) is prone to errors which could jeopardize the entire process.

Once the program team realized that the project was veering off track, they approached and engaged Transitional Data Services (TDS) to apply their proven methodology and software for data center migrations and IT transformations. The TDS team stepped in with a goal to conduct a rapid evaluation of the information collected and recommend an optimal data center consolidation approach.

The TDS team brought their TransitionManager software tool to the project which provides an advanced alternative to traditional, manual methods to gather, document, collaborate and track data assets and applications. The team at TDS was able to step in and leverage much of the initial data gathered so it wasn't necessary to start from scratch.

Discovery and Understanding was Critical

The discovery process began by populating TransitionManager's centralized database with the existing information which the manufacturer had collected.

Within days, TDS had modeled the information into TransitionManager and had put a plan in place to mitigate missing information and validate those questionable data points.

TransitionManager, in the hands of IT staff, **proved to be a robust and agile platform**, able to manage a complex cutover effort, and facilitate real-time communications and collaboration.

Analysis and Planning: A Foundation for Modernization

A complete understanding of the interdependencies between applications, servers, and other infrastructure is essential to ensuring applications work properly after migration or transition. Through the interactive user interface, the client gained an immediate visual representation of the data center migration plan from various perspectives – servers, storage, network, applications, etc.

The power of TransitionManager was also leveraged to support an internal application modernization program. By identifying applications which are part of the modernization, the ability to support the advanced planning and development of the move groups allowed the application modernization program to advance in parallel with the data center consolidation, so that when applications had completed their modernization, they were ready to be consolidated.

TransitionManager's dependency analysis helped project managers visualize these interdependencies and develop 40 logical groupings or "move bundles," which were best migrated together.

Execution

The client's strategy was to build everything new in the target facilities, install, configure and test new application environments in advance, and then use TransitionManager to orchestrate cutovers. In addition, TransitionManager allowed the management of pre-cutover milestones, which were represented as runbooks with tasks per application. On a weekly basis, they updated the cutover event, and due dates for the pre-event steps related to apps undergoing schedule changes.

TransitionManager was used as the centralized communications platform to track the progress, through pre-defined stages, of each application's readiness to cut over.

TransitionManager automatically generates step-by-step runbooks and these were highly customized to the applications and cut-over steps established with the client. Runbooks are critical to ensure that proper shutdown, migration, and startup procedures are properly sequenced. Traditionally, runbooks are manually created, using tools like MS Excel and MS Project. But this process risks missing essential steps or performing tasks out of order.

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IT managers and task owners were able to log in to the system and provide activity updates in real time. For organizational leaders, TransitionManager provided a variety of reports, including detailed timelines, task duration averages, task exceptions and incident summaries for tabletop planning, allowing the team to learn from previous issues and adjust plans for the next transition.

The software offered comprehensive real-time reporting throughout the move events. TransitionManager also has different roles built into the system allowing administrative privileges in the command center, which gave the project manager an overall view of the status of an event with the powerful ability to triage when necessary if any potential or current issues arise.

Summary of Project

Software Use	• Hybrid IT • Data Center Migration • Network Architecture • Low-Level Migration Design
Applications discovered	2,837
Databases identified	4,096
Dependencies identified/ analyzed	21,797 application to application, application to server, application to database, database to server
OS Images	7,105
Migration Events	40
Project Duration	24 months – on time and on budget

TransitionManager software helped reduce the burden for IT management and enabled them to plan and execute a successful IT transformation.

Perhaps even more important, it laid the foundation for perpetual business change and management of the transition to this new, hybrid computing environment. The project scope, from discovery, analysis, planning and execution, has now enabled the IT team to cost effectively deliver the services this dynamic business requires today – and be at the ready for tomorrow's needs as well. •

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