Happy State Bank

How a Community Bank Prepared for the Future by Tackling a Complex Data Center Migration

Financial organizations face unique challenges when developing disaster recovery strategies. Most organizations have an enterprise continuity plan (ECP) that includes disaster recovery but, unlike other industries, having an effective disaster recovery plan is a requirement in finance. Being able to quickly recover from a disaster is crucial for the finance industry because these institutions are so reliant on digital records and applications in the day-to-day transactions they perform on behalf of clients.

THE CHALLENGE

Similar to most organizations today, IT leaders at Happy State Bank in Texas are under pressure to become more agile, rapidly adopt new technology to deliver innovative customer experiences, and improve operational efficiency. Historically, change in IT—
no matter how small—has had a significant impact on other systems. This requires a comprehensive understanding of complex IT environments, and of all the interdependencies among assets, across all business silos, hosting sites, and vendors.

Recognizing the need to stay competitive and offer state-of-the-art and secure services to their clients, Happy State Bank (HSB) launched a major initiative to consolidate different databases, refresh their infrastructure and build a resilient IT environment that was able to execute a switchover plan without risk of disrupting services to customers.

About Happy State Bank

Founded in 1908 as First State Bank in Happy, Texas, Happy State Bank is a $3.2 billion bank operating 35 branches, one loan production office and the GoldStar Trust Co. It operates in 25 communities with 700 employees, spread from the Texas Panhandle/South Plains to Dallas/Ft. Worth. In 2018, Forbes rated Happy State Bank (HSB) as the 3rd best bank in Texas.

Happy State Bank sought a partner to assist in the discovery, analysis, planning and execution of its upcoming data center migration and switchover project. Realizing the complexities and magnitude of this project, they looked for a partner that specialized in data center migrations and IT resiliency implementations.

The primary objectives for the project were to:

- Migrate existing resources from HSB's original data center in Canyon, Texas to their data center in Dallas, Texas. Following the migration, the Canyon Data Center was to be closed.
- Establish disaster recovery / planned switchover capabilities between HSB's Dallas and Amarillo data centers, including HSB servers and the HSB network.
- Execute the planned switchover, taking applications offline in the Dallas Data Center and bringing them back online in the Amarillo Data Center.

The approach defined by HSB had three major workstreams:

1. Migrate the remaining HSB resources in their legacy data center to their new state of art data center in Amarillo.
2. Design, document, and implement switchover capability for all applications between HSB's primary and alternate data centers.
3. Execute the new switchover plan.

Another important factor for this particular project was integration with Fidelity National Information Services (FIS). HSB licenses the FIS software, a core banking system and the industry standard for banking, payments, asset and wealth management. HSB runs the FIS core banking solution on-premises.

HSB chose TDS to support their data center migration and switchover project. "We set very aggressive timelines to complete the project. And we chose TDS because we were confident that the experience of their team and the powerful orchestration capabilities of their TransitionManager software would help lay out a clear path to both our business users and IT staff on how to get from point A to point B quickly – without disrupting critical services," said Jeff Rademaekers, senior vice

president of IT at HSB. "TDS clearly demonstrated that they were the best partner to help us accelerate this complex, transformational project with reduced risk."

THE SOLUTION

1. The Discovery Process

The discovery phase began by populating TransitionManager's centralized database with HSB data. The software's ETL engine automates ingestion from a variety of sources and then normalizes the data to filter out noise and build a single, consistent source of truth. Validating the data and application dependencies with subject matter experts mitigated the risk of missing key relationships and dependencies, enabling the team to make better decisions. The discovery phase included:

- Creating a physical inventory of assets

- Creating an application inventory describing all applications

- Developing a complete map of the interdependencies of the involved applications, hardware, and supporting components.

- Conducting discovery of internal ownership and stakeholders for each identified application.

- Reviewing the created data center infrastructure, application inventory, and application interdependency map; identify and address deficiencies.

- Refining all created documentation, in order to meet auditing standards.

"TDS recommended a rigorous discovery process. We thought we could get all what we needed with auto-discovery tools and were skeptical about the value of interviewing application owners. But, once the process was underway, we found it to be efficient and highly effective," said Kraig Knox, vice president of project management at HSB. "We were surprised to learn new information about certain applications and their dependencies and even correct some of our assumptions about their owners, through the discovery process."

The discovery phase of the HSB project captured and verified an accurate current state, the cornerstone of the migration and switchover project. "After TDS completed their thorough discovery process, TransitionManager produced a complete visual diagram of our entire IT landscape, with all of its applications, servers and, most important, their interdependencies. The final view impressed many folks on the business side of the organization and was fondly referred to internally as 'the brain', as they had no idea that the ecosystem was so complex," added Rademaekers.

2. Analysis and Planning

The discovery process solidified a trusted database in TransitionManager and enabled dynamic analysis and planning so the team could then create the migration waves and switchover events. TransitionManager was then utilized to develop logical move groups, made up of assets that must be migrated together. The dependency maps determined which IT assets must move together and which have assets that could be reassigned and moved within other events.

TransitionManager then generated on-the-fly runbooks that orchestrate the execution of human and automated tasks needed to execute transformation or return applications to a steady state. TransitionManager provided a library of built-in templates which can be modified and customized as needed. Because TransitionManager provides a single repository of data and doesn't require working with spreadsheets and disparate sources of data, runbooks can be regenerated at any time, repeatedly, and incorporate changes to reflect business needs and environment.

For each event, runbooks were created to orchestrate the step-by-step process of human and automated tasks during a migration event. These runbooks ensure you avoid the inefficiencies, downtime, human error and risks common to working with disparate tools. Runbooks are accessed by project members through the collaborative TransitionManager platform. Generated tasks ensure that all shutdown, migration and startup procedures were properly sequenced.

3. Go Time

Tasks were automatically assigned, distributed and tracked. Team members could update their tasks in real-time, and task sequencing was updated automatically as each task is completed. Real-time dashboards displayed actionable information to all appropriate levels of management and IT, keeping everyone informed which ensured that steps were happening and doing so in the right sequence.

Realistic dry run exercises were conducted to simulate migration runbooks and enable HSB to test and improve migration and DR plans. Once the live migration started, team members knew exactly what they needed to do, when, and how. The first significant migration phase of Tier 1 data center applications was completed in May 2018 and the planned switchover was completed in July. Migration and planned switchover of remaining Tier, 2 and 3 applications were completed in November.

Throughout the project HSB was appropriately concerned about evaluating the switchover event – they not only checked the functionality of each application, they tested performance to ensure it satisfied auditors. TransitionManager provides an audit trail to document when dates and performance time for tasks, an important issue when for assessing recovery times. Clear task ownership, timely communication, and full visibility throughout the process ensured that team could respond to task assignments quickly, notify project members of any needed change, and

continue with the event to completion.

SUMMARY

"C-suite expectations for this project were quite high. Yet, from the get-go it was apparent that this was going to be a steep learning curve for our IT team, because there was no prior experience with tackling such a complex data center migration project," commented Rademaekers. "However, once the team witnessed the experience of TDS and the capabilities of the TransitionManager tool, their confidence grew. Our CEO, Pat Hickman, came in during one of the migration events, saw that the team had the project well in hand, and left smiling."

The IT team at HSB has established a foundation that will enable them to adapt to change quickly and without concern about disruption. Through the work with TDS, the team gained experience and best practices for tackling complex transformation initiatives. Immediate plans for the bank's IT team include a critical switchover event in 2019, which they expect to handle with significant improvements in their efficiency, compressing both staff time and the number of migration events, while continuing to minimize any disruptions to the business. With continued access to the TransitionManager platform, they can expect to swiftly manage their IT environment in the fact of inevitable changes in lending practices, consumer ebanking trends, partner services, and industry regulations in the future.