Customer Success Stories

TEKsystems Global Services®

Designing and Implementing IT Infrastructure Standardization for a Large Energy Company

ENERGY SERVICES
NETWORK INFRASTRUCTURE SERVICES – TECHNOLOGY DEPLOYMENT

TEKsystems Global Services

Executive Summary

TEKsystems supported the client, a top-ranking Fortune 500 energy organization, in standardizing 30,000 user workstation platforms by migrating users to a Windows 7 operating system, consolidating disjoint Active Directory domains and standardizing user applications.

Quick Facts

Client

- **Industry:** Energy
- **Revenue:** Nearly $25 billion
- **Employees:** More than 30,000
- **Geographic Presence:** Headquartered in the Midwest, the company has operations and business activities in 48 states, the District of Columbia and Canada

Objectives

- Provide a managed deployment solution to standardize 30,000 user workstation platforms across 90 client locations in 47 states
- Migrate 35,000 users to the new Active Directory domain and complete workstation platform standardization functions simultaneously to limit user downtime and the need for next-day support
- Customize deployment solutions and application portfolios for each of the client's 11 business units

Challenges

- Coordinate deployment schedules for more than 350 deployment resources over the course of 18 months
- Anticipate application data verification inaccuracies and gaps in user migration schedules
- Schedule 35,000 end users based on application readiness and user availability at levels to support the project completion dates
- Minimize disruptions to business operations by limiting user downtime to less than two hours

Results

- Upgraded approximately 30,000 systems to the new standard platform and migrated 35,000 users to one consolidated Active Directory domain
- Minimized user interruptions with support tickets occurring at only 50 percent of the projected volume with user downtime averaging less than 30 minutes
- Transferred over 73 terabytes of user data with a 99.99 percent success rate
- Reduced the command center's migration-day schedule evaluation process from five hours to two hours through process improvements
- Implemented, refined and improved standardization procedures, allowing nine business units to be migrated in nine months, compared to the nine months it took to complete the first two business units
- Conducted in-person data verification interviews with 20,000 end users to verify and correct reported application needs
- Completed 135 application packages with a 94 percent first-run success rate
- Provided over 350 resources working in excess of 125,000 hours in support of the project

Technologies Supported

- Cisco AnyConnect
- Citrix Remote Access
- LANDESK
- Microsoft Lync
- Microsoft Office 2010
- Microsoft User State Migration Tool
- Microsoft Windows 7
- SEP 12
- System Center Configuration Manager

Client Profile

Our client is a leading U.S. energy provider with one of the cleanest and lowest-cost power generation fleets and largest retail customer bases in the country. The client's family of companies participates in every stage of the energy business, from generation to power sales, transmission and delivery.

Industry Landscape

IT infrastructure is one of the most important components at the center of any organization. IT infrastructure encompasses anything that makes up an enterprise IT environment, from hardware, software and applications to network resources and security protocols. With so many different elements making up the IT environment, it can be daunting for an organization to keep up with the management, maintenance and upgrades needed to keep the environment secure and functioning.

As security threats continue to evolve, organizations must maintain safe IT infrastructure by regularly upgrading components when newer versions become available. Many organizations are seeing the benefit in standardizing elements of their infrastructure as a way to optimize their ability to combat security threats, as well as stay current with new releases and provide better IT support.

After 12 years of supporting Windows XP, Microsoft announced they would discontinue support of the operating system in April 2014. Leading up to the cutoff date, many organizations were faced with the transition to Windows 7, the new Microsoft operating system, and the opportunity to standardize additional areas of their IT environment. Taking these steps to standardize various portions of the infrastructure environment allowed for lower support costs and increased security.

Situation

Having acquired four companies over more than a decade, the client, a top-ranking Fortune 500 energy organization, had been largely focused on integrating their energy business, not standardizing their IT infrastructure. As a result, the IT environment contained various operating platforms and multiple Active Directory (AD) domains with many different applications providing the same functionality for different users. These variances left the client with high support costs and compatibility issues when internal business units worked together.

After learning of Microsoft's decision to end support for Windows XP, the client saw an opportunity to standardize their entire IT infrastructure via a migration to Windows 7. Standardization would help the client reduce IT support costs and allow collaboration across multiple business units. Additionally, Windows 7 upgrades and patches would now be automatically and uniformly applied to all users within the company, reducing security risks.

Knowing Microsoft XP's cutoff date was April 2014, the client recognized the need to act quickly in order to eliminate significant fines from Microsoft and protect against potential security threats. Coordinating the standardization of approximately 30,000 user workstations at 90 U.S. locations in 47 states would require extensive logistical planning to

minimize impact to end users. Additionally, the client was made up of 11 different business units, which required specialized application sets based on their unique functions.

Given the vast scope of the project, the client sought the expertise of a third-party IT services partner. The ideal partner would have national reach and the ability to ramp up quality resources quickly in order to stay on track with the aggressive deployment and migration schedule. In addition, the meticulous level of project management required to oversee and coordinate the standardization effort demanded a partner with extensive, large-scale project management experience.

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Solution

Facing the strict Microsoft XP deadline, the TEKsystems Technology Deployment practice proposed a solution with an aggressive schedule to minimize impact to the end users while maximizing the efficiency of our teams. Our proposed solution addressed all areas of the client's IT infrastructure that needed to be standardized, including migrating users to Windows 7; consolidating disjoint AD domains into one new domain; and standardizing applications such as:

- Antivirus software
- Instant messaging
- Microsoft Office
- Remote access tools
- Systems management tools
- VPN applications

Standardizing these applications would enable improved collaboration across the client's business units. In order to achieve this, applications would need to be analyzed for each business unit to ensure the appropriate personnel received the proper applications needed to do their jobs. A survey outlining all applications used by each user would need to be completed. This data would provide the project management team with a better understanding of each business unit's needs. Because of the high level of customization needed for each business unit, a tailored migration solution and schedule for each entity would be created.

Also as part of the solution, disparate AD domains would be consolidated into one new AD domain. We would assist with implementing new user account structures and coordinating user migration with computer migration.

We would provide a project management team to oversee the IT standardization. Extensive on-site coordination and diligent scheduling would be required to ensure that all users were migrated on time, received the right applications and granted the

appropriate permissions on the new AD domain, all with minimal disruption to their day-to-day work.

The client's internal command center would serve as the central authority for the migration and management of scheduling individual end-user workstations. The command center would work with each of the client's business units to identify when their respective users would be migrated and communicate with TEKsystems' teams on the upcoming schedule. In conjunction with the client's internal IT team, we would work after normal business hours to complete both the user AD migration and workstation platform standardization. The client's next-day support team would be available on site to answer any user questions and address technical issues.

TEKsystems' deployment teams would work with the command center's schedule to migrate and standardize approximately 1,000 end-user workstations per week. We would provide the command center with daily migration updates and communicate progress to client stakeholders through weekly, monthly and quarterly reviews.

Based on our recommended approach and our demonstrated experience, the client selected TEKsystems. Also, having partnered with us in the past, the client trusted that we would provide high-caliber project management and a quality, scalable team—both critical factors for this large, complex and geographically dispersed initiative.

Results

Over the course of 18 months, TEKsystems helped the client migrate approximately 30,000 systems at over 90 locations across the U.S. Approximately 35,000 users were migrated to one consolidated AD domain and standardized on a Windows 7 infrastructure platform. On any given day, we provided upwards of 200 resources at 15 to 20 different client sites to complete the work. TEKsystems met the goals of minimizing user impact and ensuring higher user satisfaction by reducing help desk tickets to 50 percent of industry standard volumes and limiting average user downtime to less than 30 minutes. TEKsystems transferred 73 terabytes of user data with a 99.99 percent rate of accuracy. We also provided stakeholders with weekly project status reports summarizing migration progress, monthly financial status tracking and monthly status reviews. Additionally, this information was shared with client leadership during quarterly business reviews.

After standardizing workstation platforms for the first two business units, the client saw an opportunity to drive a deployment redesign that would enhance the efficiency of the standardization process for the remaining nine business units. The client asked us to review current processes

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to identify areas of improvement, define clearer lines of accountability and improve communication among teams. To do this, the client leveraged our expertise in several functional areas, including user scheduling, user data verification, asset preparation, deployment process and post-migration support. We paired a TEKsystems project manager responsible for each functional area with a client project manager responsible for the same function to collaborate on the assessment, compile feedback, identify gaps in efficiency and strategize ways to improve the overall function. Partnering with the client in this manner established a strong sense of ownership, commitment and relationship. This synergy meant our teams would be able to work together quickly, efficiently and with the same level of understanding.

During the redesign process, we identified several gaps in service and were able to provide services to improve the overall effort. Listed below are the service gaps identified and our solution to each obstacle.

Functional Area 1: Data Verification

Properly evaluating and inventorying user information, applications and asset data was vital to the project to make sure end users received the appropriate applications, hardware and permissions needed to do their daily work. The client's IT team had initially deployed a survey for each individual user to report on specific user information; however, due to the complex nature of the environment, reliable data could not be produced. To combat this issue, we provided a data verification team, comprising approximately 15 resources, to conduct in-person interviews with 20,000 individual users to verify and correct the data reported on their survey. The enhanced accuracy of data allowed our deployment teams to ensure end users received the appropriate applications at the initial time of migration, minimizing next-day support, user downtime and additional application maintenance.

Functional Area 2: Scheduling Enhancements

Our project management team identified a difference between the way the command center scheduled end-user migrations and way the business units scheduled migrations. Business units committed to a certain number of migrations each day; however, these numbers were often not achieved because users either requested to be rescheduled or were absent at the scheduled time. Disconnect between the command center, business-unit leaders and end users extended the overall project timeline and created inefficiencies for deployment teams.

In response to the unpredictable schedule changes, we provided a team to work with each business unit to schedule their respective users. This team served as an intermediary between business-unit leaders and end users, allowing the command center to more accurately prepare deployment teams for the specific users scheduled for migration on a given day. The schedule team helped business-unit leaders maintain high-level schedules while working directly with end users to set expectations for specific migration dates. The schedule team also held weekly site preparation calls to ensure each site was adequately prepared for the coming migrations. The improved scheduling coordination helped keep the project on schedule and increase deployment efficiencies.

Functional Area 3: Application Packaging

Given the large number of applications that needed to be packaged for automated

distribution, the client asked for application packaging services to augment their in-house application packaging team. We were able to meet this request in two ways: providing additional on-site resources and delivering outsourced application packaging services from our on-shore center in Texas. Up to four on-site application packagers were provided over a 14-month period to work directly with the client's application packaging team. We completed 135 application packages with a 94 percent first-run success rate, meaning once the application was deployed via the system management tool, the application operated successfully on the first attempt. Of the 135 packages, 32 were expedited with a 48-hour completion deadline. For non-expedited applications, we delivered application packages 25 percent faster than the service level agreement, which was important given the aggressive timeline.

Functional Area 4: Command Center

The command center was responsible for coordinating the logistics of migrating approximately 250 end-user systems per night and supporting issue escalation after business hours. Ensuring deployment teams worked in tandem with the client's teams to complete standardization work meant end-user workstations needed to migrate to the new AD domain at the same time. If a workstation migrated to the new AD domain at a different time, the user would have been unable to work due to permission restrictions. Evaluating continually changing schedules and accurately identifying who needed to be migrated each night was a cumbersome process that took the client between four and five hours.

As part of the redesign, we worked with the command center to provide best practices and refine processes to more clearly define the exact users to migrate. With our support, time required to finalize the schedule was reduced to two hours. This reduction in time allowed both TEKsystems' deployment teams and the client's IT teams to start migration activities three hours earlier, increasing the completion window overnight and decreasing user downtime. Because of our work to improve command center efficiencies, the client asked us to assume responsibility of the command center process and control of its daily functions.

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Functional Area 5: System Build and Staging

In order to reduce the amount of work needed to standardize a system and reduce user downtime, applications were installed on computers in advance of the migration schedule at build and staging facilities. To stay ahead of this demand, we established teams in Chicago and Philadelphia to prepare computers at a centralized location before being sent to various sites in accordance with the respective business units' migration schedules. Once the on-site deployment teams received the prepared assets, they deployed the new systems and reclaimed the existing systems. These existing systems were then shipped back to the staging center for new application loads. The build and staging centers maintained a "just-in-time"

inventory of systems to reduce inventory carrying costs. Any computers that did not meet deployment standards were recycled. We processed 30 tons of existing equipment through the recycling process. This team shipped an average of 500 systems per day and managed capacity planning for 10 to 15 deployment teams. As a result of these efforts, user downtime was limited and the client maintained minimal inventory at the end of the project.

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Functional Area 6: Additional Support Provided

End users across all 11 business units used Microsoft Excel macros to improve daily work function efficiencies. When end users were migrated to Microsoft Office 2010, Excel macros built in previous versions of the program no longer worked. Over the course of five months, we provided a dedicated team to remediate and convert hundreds of Microsoft Excel macros as part of the Office 2010 rollout.

Following user migrations, next-day support had previously been provided by the client's internal IT team. With approximately 250 end users being migrated each night, the required bandwidth to provide the appropriate support levels left the client's IT team spread thin. We integrated our resources into the client's traditional user-support structure to strengthen their capacity and efficiency.

To improve the end-user experience, we established a number of quality assurance (QA) measures that were implemented during the standardization work. Among these measures was having multiple team members review different components of work done on individual assets with each team. These steps created a dual point of accountability between the technicians completing the migration work and the QA teams, which helped ensure all user systems were functional prior to performing business functions. Following the implementation of the QA measures, we were able to achieve a 97 percent success rate for the migrations we completed, helping reduce the amount of next-day support needed. Help desk support tickets were reduced to 50 percent of the originally expected volume.

Throughout the course of the engagement, the client was very impressed by our ability to adapt to changes as the project evolved and grew in scope. We were able to offer proactive solutions to address gaps in service and drive efficiencies to better overall deployment logistics. Our resources were able to seamlessly integrate into the client's environment and function much like a member of their internal team, which resulted in a stronger collaborative working relationship. The client is very interested in leveraging TEKsystems' services for future projects and has already engaged us in the approval process for several upcoming engagements.

Key Success Factors

The ability to grow services

Throughout this partnership, the client sought our enhanced support because we were able to successfully deliver on our original mission, ultimately tripling the scope of our work. We provided a managed deployment solution to meet the client's IT infrastructure standardization goals. We also completed a deployment redesign to create efficiencies in scheduling, data verification, application packaging and command center functionality to better our overall solution delivery. Finally, we were able to foster a greater sense of partnership by aligning our project managers with the client's project managers responsible for the same functional areas during the deployment redesign.

Flexibility

Over the course of the engagement, we remained flexible in adapting our solution to meet the needs of the client and individual business units. We provided customized migration approaches for each of the 11 business units to ensure all users were migrated on time and with minimal downtime.

Breadth of expertise

As part of the deployment redesign, we were able to leverage our expertise in a variety of areas to improve the overall standardization process, procedures and execution measures. From providing outsourced and on-site application packaging assistance to ultimately taking ownership of command center responsibilities, we delivered true value to the client and improved overall efficiencies throughout the standardization process.

About TEKsystems®

People are at the heart of every successful business initiative. At TEKsystems, we understand people. Every year we deploy over 80,000 IT professionals at 6,000 client sites across North America, Europe and Asia. Our deep insights into IT human capital management enable us to help our clients achieve their business goals—while optimizing their IT workforce strategies. We provide IT staffing solutions, IT talent management expertise and IT services to help our clients plan, build and run their critical business initiatives. Through our range of quality-focused delivery models, we meet our clients where they are, and take them where they want to go, the way they want to get there.

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