An industry-wide increase in both “virtual” and physical data center migrations is being driven by the ever increasing infrastructure demands of high-density, high capacity servers and other IT devices. What’s the biggest challenge? For most IT executives, it’s not the project itself that scares them, as much as it is:

“What if I don’t know what I don’t know?”

Selecting a bad site or poor planning can result in an increased short-term risk of business disruption and the longer-term risk of having to move again. In an extreme case, a botched move can stop an enterprise dead in its tracks. For example, a hosting provider supporting 165,000 websites planned to relocate 200 servers to a new location. Customers were told their sites would be down for about 12 hours on a Saturday, but, in fact, many sites were down for days.

Benefits
Since 2002, Transitional Data Services has successfully relocated hundreds of data centers, and tens of thousands of servers and other devices across North America, Europe, and Asia. Through in-depth up front planning, purpose-built technology, and staff whose full-time responsibility is planning and executing migrations, TDS can ensure that our client’s migrations happen on-time, every time.

Client Success Story
Relocation of Major Travel Web Site with Zero Downtime

The Challenge
Kayak.com crawls hundreds of travel sites to provide its customers with the best options for their travel plans. Kayak was launched in early 2005 and immediately began explosive growth. In August 2005, Kayak realized that its New Jersey data center would have to be enlarged and moved closer to headquarters near Boston. Kayak’s business is based on 24x7 online availability. Any interruption would immediately impact operations, the user experience and revenue. It was crucial that their new data center accommodate needed growth, and that the transition from the old site to the new site be seamless and flawless. Kayak turned to TDS for help, and TDS managed the entire end-to-end data center relocation project.

The TDS Approach
• Identify the right location, the best data center and bandwidth providers
• Review and advise on contracts, warranties and lease agreements
• Design the new data center network, and build the new facility
• Design a robust, scalable technology architecture to protect against downtime and provide a cost effective growth path

Benefits
TDS helped Kayak achieve a zero-downtime transition, handling all the move strategy, planning and execution. After the relocation, Kayak retained TDS as its data center technical operations team, responsible for all the physical equipment including servers, switches, routers, load balancers and firewalls. TDS implemented multi-point monitoring of the entire Kayak.com infrastructure, tracking, anticipating and quickly solving any issues that arise keeping the Kayak.com website up and running 24x7x365.
Service Description

Physical Relocation
The TDS data center relocation methodology ensures smooth and successful move events
- Inspection and documentation of the source data center
- Using TDS TransitionManager™, the move team generates move-day “run books,” including un-rack and re-rack plans.
- Bar code tags are placed on servers and other items
- Walkthrough of both source and target sites to understand any special requirements or pre-move site work
- Un-rack and re-rack plans optimized to maximize efficiency and minimize crowding
- Detailed labels are generated by TransitionManager and placed on every item to be moved
- Rack elevation diagrams ensure that servers are racked in proper locations
- Connection of all power and network cables
- Dedicated project managers continuously audit rail installation, server locations and cabling; a final audit is performed upon completion

Virtual Moves and Data Migration
TDS relies on a systematic 3 phase approach to migrating physical hardware to a virtualized environment (P2V), and moving existing virtual hosts onto more redundant and scalable infrastructures (V2V).

Phase 1:
The current environment is documented and audited for CPU load, memory thresholds, bandwidth utilization, energy consumption, and other critical resources. Needs are analyzed to design the proper next generation virtual infrastructure, considering capacity requirements, security, and future growth. Any necessary hardware and software is acquired.

Phase 2:
Hardware for the new virtualized destination environment is installed. Physical to virtual migrations are conducted on existing test candidates. Successful migration of test candidates to the virtual environment is verified by TDS and client staff.

Phase 3:
Conversion of physical machines to virtual machines. Existing virtual machines are migrated to new hardware and/or improved resources. End to end performance and reliability testing is conducted to ensure project success.

Hybrid Migration
Today, data centers aren’t what they used to be. In recent years, data centers have transformed from large physical spaces filled with racks of gear to embrace a broad variety of new forms of computing. Virtualization, XaaS and cloud computing are now key elements of most organization’s environment.

But, how do you decide which applications to move, and where to move them? How do you ensure that business needs will still be satisfied while meeting regulatory and security standards? And just how do you measure the efficiency gains and potential savings over the long haul?

TDS works hand in hand with our clients to answer these questions, and we can assist with everything from the upfront financial analysis, to solution design, vendor selection and data migration.

ABOUT TRANSITIONAL DATA SERVICES (TDS)

Transitional Data Services provides independent assessments, improvements and operational support for IT including enterprise applications and infrastructure migrations in hybrid deployment environments.
TDS clients include Kayak.com, Boston Red Sox, SAIC, Liberty Mutual, Devon Energy and many other companies of all sizes. What these diverse clients share is a common and overwhelming desire for flexible, cost effective solutions that can grow with them over time.