

Data Center Migration and Consolidation Planning

DATA CENTER CONSOLIDATION HAS BECOME A MAJOR PRIORITY FOR INFORMATION TECHNOLOGY TEAMS AS ADVANCES IN HARDWARE, VIRTUALIZATION AND CLOUD COMPUTING ACCELERATE.

Driven by reducing costs and increasing performance, planners of large-scale moves forecast huge opportunities, but confront substantial execution risks.

Asset Point works closely with leading global organizations that rely 24x7x365 on their mission-critical IT infrastructure.

Any disruption of services to business users can derail timetables and crush anticipated ROI. A consistent management approach to these projects that combines process, people and tools is essential to succeed in the new “normal” – an IT environment in which large change events occur repeatedly.

EFFECTIVELY MANAGE YOUR MIGRATION PROJECT

It’s essential to have an approach to the move process that delivers tools for every step – from planning to execution. Having a “dashboard” of information to track, publish and manage real-time data for every aspect of a migration is key to delivering success without impacting the business.

Using Asset Point® as a foundation, Align has developed a comprehensive data center migration module that supports both the physical and logistical aspects of planning and executing large-scale migration projects. It features:

- A web-based portal that provides a single reference point for all information and communications related to the migration process for both technical and business groups
- A dynamic link into the operational inventory system that utilizes the verified information from the core Asset Point database that reflects changes in real time
- A user interface that is easily configured for specific move plans and adapts to the inevitable last-minute tactical changes

Through our years of experience with data center design and relocation management, the Asset Point Server Migration Module (APSM) was developed to control and manage the critical factors that directly contribute to the success of a migration project.

APSM PROVIDES MANY BENEFITS

- A comprehensive inventory of both the servers/ hardware involved with the project
- An accurate listing of applications and their linkages to both their server platforms and other applications
- Assignment of IT staff to the systems and applications they support
- A contact listing for the application owners at the business level
- A clearly defined, repeatable process for managing the various types of migration delivery methods, including:
 1. Lift and shift
 2. Swings (movement of an application from one physical host to another physical host
 3. Virtualization (physical to logical conversions)
 4. Virtual to virtual
- Consistent communication between all members of the migration process
- The ability to adapt to changing needs of the business when necessary

THE CRITICALITY OF ACCURATE DATA

An accurate device inventory is an essential starting point for any move plan. In many cases, inventory data then needs to be supplemented with information from various sources. Your planning process may need to include or link to:

- Manually-maintained spreadsheets and databases containing listings of applications and their business owners and support staff
- Automated discovery tools to providing real-time documentation on the application-to-host relationship or application dependencies
- SAN or virtual machine management systems providing information relative to the logical clustering and configuration of their supported devices
- Connectivity management and environmental monitoring systems providing useful information for the hardware space allocation process
- Email and messaging systems supporting the communication process among technical staff supporting the project and business users/application owners that need to be informed throughout the process

Consistent communication about each phase is imperative to a successful transition.

Asset Point contains several mechanisms to incorporate this information into the system for migration management and operational support. Methods for integration range from ad-hoc imports of spreadsheets and other flat files to scheduled

or trigger-based database exchanges and a configurable web-services utility to support real-time information flow. When correctly architected for a client-specific environment, Asset Point becomes the tool for central information access and tactical migration management.

A STREAMLINED PROCESS FOR IMPLEMENTATION

A window into every step of the move process and consistent communication about each phase is imperative to successfully transitioning. This view can be gained from a central location through Asset Point.

Once the initial data is gathered and loaded into the system, APSM allows for servers to be grouped into migration “waves” – groups of devices that will go through the migration cycle at the same time and move on the same migration date. The wave management screens provide:

- A detailed tabular view of the main data elements that need to be defined and confirmed for each device, such as shutdown times, dependent systems, from/to locations and other key fields
- Separate tabs detailing both the IT support staff and business/application owners for each device
- In-depth information about the connections supporting the device: LAN, SAN, KVM or any other type of physical link required for migration planning and preparation of the “To” location

These important details are also integrated into the communication management functions of the system, incorporating this information into scripted emails sent out to during the migration waves.

PLANNING FOR AN EFFICIENT PHYSICAL MOVE

The unique nature of each enterprise – and each migration – a customizable process must be available and easily defined. This is not only imperative for move planning and identifying the wave groups, but is an integral part of the physical “lift and shift.” Relying on the same central system for this phase simplifies the process.

DATA CENTER MIGRATION PROCESS



As the migration wave approaches completion, physical preparation of the new locations is performed, typically with server mounting rails and new network patching being pre-installed to minimize work required on the actual move weekend. APSM produces numerous reports to support this and other phases of the process. As the move date for each wave nears, a migration console is activated to display all of the logistical steps required for the execution of the move process over the weekend.

The most critical task is the final user sign-off and acceptance that the application is working.

The steps for each move or migration wave can be configured based on specific requirements with tasks defined in a sequential order for the different methods. Even within a wave, different or additional steps may be

required based on a certain application type, device type or function. When the migration console is activated, staff supporting the migration process can:

- Access the web page to view the status of a particular (or group of) servers
- Update the system when tasks are completed, which will turn that box “green”
- Flag a task as “red” to signify a problem and send appropriate notifications

This migration console can also be enabled for management or business users to view, if desired, providing them with real time information on the migration progress over the weekend. In-move status meetings become shorter and more effective as a result.

CONFIRMING A SUCCESSFUL MOVE

In any migration process, the most critical task is the final user signoff and acceptance – positive acknowledgement that the application is working at the new site/on the new hardware. APSM incorporates a series of web-based screens specifically for this purpose, providing a listing by application, tester and application owner. Application sign-off screens show the status of the application – to identify if it is ready for testing and record issues to be addressed – and track acceptance.

As with all other tasks managed by the module, each event is time-stamped and recorded so that there is a full audit trail of the migration progress details for each device. Once final acceptance has been confirmed for all assets within the migration wave, the plan is “executed” and all moves and changes are automatically written to the core Asset Point database, updating the system for use in daily operations.

THE REWARD OF AN EFFECTIVE PLANNING PROCESS

The complexity of the planning and execution of a migration project can be overwhelming. The operational and logistical management capabilities of the APSM provide all key elements required for success:

- Gather needed data
- Manage physical hardware planning and preparation
- Coordinate IT groups
- Communication to end users
- Manage the logistics of the move weekend

APSM is invaluable in increasing operational efficiency and reducing the risks associated with the migration process.



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