

Getting the IT Processes Right

By: Harris Krn's Enterprise Computing Institute

When building a distributed infrastructure the following key areas must be addressed: People, Processes and Technology. We focus on People and Process. We often defer Technology, as it can be effectively addressed only after People and Process plans have been developed.

Companies that have implemented a distributed computing environment share common problems regarding the management of IT. Historically, large investments have been made to develop and deploy applications as quickly as possible. It is common for the IT service organizations to allocate the majority of their resources, staff and capital, to applications. At the same time little attention is given to the operational infrastructure to ensure that the applications are available and performance is acceptable.

When problems arise it is common for companies to focus on incremental technology solutions, ignoring the People and Process issues which are at the foundation of an effective IT environment. As a result, additional operational problems arise with an unstable technology infrastructure.

Objectives

The objectives of the high-level infrastructure review are to identify and understand the issues and initiatives with respect to production support, and develop recommendations based on the findings.

In conducting the review, we interview key IT staff to understand the IT services organization's culture, processes, issues and initiatives. Utilizing lessons learned and best practices from past assessments, we identify key problem areas and develop recommendations with action items to build a high-availability infrastructure.

IT Operations Overview

Many IT service organizations have rapidly deployed applications and technologies infrastructure to support key business requirements and growth. However, in many cases the key processes and procedures are not in place to sustain an effective IT infrastructure over time. This is because there are usually no well-defined processes, metrics, service levels or standards in place.

IT Organization Structure

While growth is desirable, it is also a major source of issues. In many IT service organizations staff have roles and responsibilities that cross functional areas. It is not uncommon for staff involved applications support, also to have responsibilities for monitoring servers, networks and backups.

Without a well-defined organizational structure with well-defined responsibilities, it is difficult for any organization to ensure high levels of performance, availability and service given rapid growth.

Once the IT service organization is properly structured, it is recommended that it proceed with the development and implementation of key processes. In order to minimize cost and time, the focus should be on those processes that will enable the IT service organization to provide effective and efficient services in the shortest amount of time.

With this in mind, the IT service organization should normally be restructured in phases with the first focusing on operations and administration, and the second on project management. The primary priority is to implement a 24 by 7 operations environment comprising key functional areas such as Help Desk, Systems Monitoring, Network Monitoring and Facilities Management.

With the right organization structure in place, the next step is to develop and implement key processes.

Production Acceptance

The Production Acceptance process is required to transfer new applications new (or major revisions) and systems into production or launch new projects. Without this process, the results will be an unstable production environment with poor reliability and availability.

Production acceptance complements Applications Development ensuring that sufficient operational requirements and considerations are accounted for in the overall system architecture and design, development and deployment of new system.

Problem Management

An effective enterprise-wide Problem Management process does not exist within many IT service organizations. Problems are not reported and tracked in a systematic way. Problems are reported directly to support personnel. Senior personnel who should be responsible for high-level activities, such as infrastructure design and architecture, are frequently forced into a reactive mode resolving low-level problems. Moreover, key metrics often do not exist to determine the IT service organization's effectiveness in resolving problems and allocate resources.

Without an enterprise-wide Problem Management solution, it is difficult to service customers with problems. There is no accounting for technical resources and many problems go unresolved without a tracking mechanism in place. Eventually, frustrated customers resort to self-maintenance and introduce unsupported software, hardware and technical schemes into the environment.

A comprehensive problem management solution will enable an IT service organization to track problems more effectively leading to timely resolution. Moreover, customers can be informed of problem status proactively, while management is able to track the effectiveness in resolving problems and allocate resources accordingly. The result is better service and cost-effective resource management.

Change Control

Like Problem Management, an enterprise-wide Change Control process does not currently exist within many IT service organizations. While system changes are occurring at a rapid pace, changes that affect the production environment are not documented, communicated and formally approved before being implemented.

Without controls in place, it is impossible to minimize potentially negative affects of changes. Change control in a networked computer environment is complex requiring active involvement from different areas in the company. Without proper procedures it is difficult to communicate the impact of changes across the organization. The results are low levels of system availability and low customer satisfaction.

Change Control is the simplest form of Change Management. The change process coordinates any change that can potentially impact the operational production environment. Key areas include, among others, hardware, system software, application software, networks, environment (heating, cooling, power, etc.), and documentation. Change control incorporates a well-defined system of checks and balances that help eliminate human errors, manage system changes and maintain high systems availability.

Internal Support Agreement

There are often no structured agreements between different functional areas within IT service organization. Expectations are not clearly defined, leading to communication and relationship problems between IT Infrastructure Support and other IT functional areas. A critical problem is the lack of communication between the Applications Development and Production Support areas.

Without Internal Support Agreements it is difficult to implement and support business-critical applications ensuring quality and high levels of availability. Without well-defined responsibilities, expectations and procedures, coordination between the Applications Development and IT Infrastructure Support areas will be affected resulting in a negative impact on IT service organization's ability to avoid and resolve problems.

As company continues to grow, it is critical that Internal Support Agreements be developed and implemented between the IT Infrastructure Support functions and the other IT functions especially Applications Development.

Customer Satisfaction

Many IT service organizations need to design and implement a customer feedback process that measures and tracks satisfaction of its key customers. The objective is to get 100% feedback using a simple point-and-click solution.

In summary, many of the major challenges facing most companies are related to organization and process. These problems are not uncommon in distributed networked environments. In addition to structuring the organization, we identify solutions to effectively and efficiently implement the critical processes that provide a 'world class' IT service organization.

The Harris Kern Enterprise Computing Institute is a consortium of publications – books, reference guides, tools, articles - developed through a unique conglomerate of leading industry experts responsible for the design and implementation of ‘world-class’ IT organizations. This information extends well beyond technology-bound publications predominant in this industry and the general data provided by leading research firms. The Harris Kern Enterprise Computing Institute is quickly growing in to the world's foremost source of information on building the ideal IT organization. Organizations that master our approach and techniques ensure that their IT initiatives are closely aligned with their business objectives. And surprisingly, technology is the easy part. The key is taking a comprehensive approach that truly includes people, process, and organizational disciplines. Without that technology can be your worst enemy.

Our approach and techniques are proven. Placing special emphasis on and applying a special framework designed around organization, people, process, and technology, we have assisted numerous companies to assess, build, and manage complex computing environments. These companies include, among others, The Royal Hong Kong Jockey Club, Standard & Poors, Twentieth Century Fox, U.S. Satellite Broadcasting, The Weather Channel, several Time Warner companies, TransAmerica Corporation, and Fannie Mae. Over the next few months we will publish this special framework, its approach, methodologies, processes, organizational structures, and technology architectures in a series of exciting articles that will allow you to build a world-class IT organization.

Today, under the umbrella of the Institute, IT professionals from many of the country's leading companies come together to take advantage of our leading edge disciplines and strategies for improving the IT industry through the management of organizational, process, and technology issues. In the weeks and months to come those same professionals will be joining together with us in a dialogue to discuss those same strategies. Together with Prentice Hall PTR, members of the Institute have published several ‘how-to’ books, including such titles as “IT Services,” “IT Organization,” “IT Systems Management,” “IT Problem Management,” “Technology Strategies,” “High Availability,” “IT Automation,” “Building Professional Services,” “Data Warehousing,” “Software Development,” “Rightsizing the New Enterprise”, “Networking the New Enterprise,” “Managing the New Enterprise”, and “Building the New Enterprise”. For more information on the Harris Kern Enterprise Computing Institute, visit www.harriskern.com.