Lean IT

A CAI White Paper by Nicholas Spanos

OVERVIEW

Every year there are studies published that show that IT development and integration projects continue to be challenged and have a high failure rate. Business organizations question the value provided by IT. This white paper discussed how to apply the concepts of Lean to identify waste, improve effectiveness, and increase value to the business.

The mission of IT is to deliver the information processing capability required by the business at a cost that represents value. In order to accomplish this mission, IT organizations have the following responsibilities:

- Implement and operate IT infrastructure
- Develop/purchase/enhance, implement, operate, and support applications
- Provide a variety of development, support, consulting, and management services

Lean concepts focus on the optimal use of labor, materials, and other resources. These concepts are easier to apply to the manufacturing environment where the results of wasteful processes can easily be observed. This document discusses how to identify and minimize waste in IT and improve effectiveness and value.

IDENTIFYING WASTE

How do we identify waste in IT? Unlike manufacturing, waste in IT is not easily observed. Significant analysis is required. This section will discuss how to identify waste.

PLANNING

In order to identify excess capacity or wasteful practices, we need to compare performance or capability against expectations. Expectations are commonly defined as plans, requirements, estimates, or service level goals. The lack of documented plans, requirements, estimates, specifications, or goals makes it very difficult to identify waste. The first step in identifying waste is to define the success criteria represented by each of these examples.

The SEI/CMMI and ITIL V3 discuss the importance of identifying the "Commitment to Deliver" and ensuring an "Ability to Deliver" that matches the commitment. ITIL V3 requires the creation of a Service Strategy, Service Catalog, and Service Design to define the required capabilities. The management frameworks can provide the required guidance but they must be followed.

CAI
Computer Aid, Inc.®
World Leader in IT
Metrics and Productivity

COMPUTER AID, INC.
Nick_Spanos@compaid.com
www.compaid.com
1390 Ridgeview Drive
Allentown, PA 18104
United States
(610) 530-5000

Lean Application Development

INFRASTRUCTURE

Thirty years ago, the capacity and supportability of infrastructure was a high priority item because of the high cost of computers and software licenses. There has been a dramatic drop in the cost of Infrastructure with a corresponding increase in performance. As a result, IT organizations continue to deploy, operate, and support obsolete infrastructure, excess capacity, and unnecessary redundancy simply because the low cost of Infrastructure makes this a lower priority.

While the cost of the infrastructure may not be significant, the support labor costs and the risks of operating obsolete results in significant waste and risk. In the last few years, the trend toward virtualization has increased awareness and interest in this area. Additionally, identifying and resolving Infrastructure issues is easier than other areas.

Addressing this issue requires a detailed inventory of Infrastructure and Applications along with an analysis to determine the required level of processing capacity to handle current needs and expected short-term increases. The recommended configuration should also allow for adjustments based on changing business requirements.

APPLICATIONS

Application Management is a growing trend within IT. The failure to manage applications has results in redundant capabilities, obsolete technologies, reliability issues, and insufficient flexibility to adjust to changing business needs. Each of these issues increases support and operations costs that consume limited IT resources and hinder the completion of strategic value-add projects.

An Application Rationalization assessment should be conducted to identify applications, functions, business users, priority, frequency of use, reliability, flexibility, technical supportability, and costs for operations and support. This assessment should make recommendations by application to retire, replace, retain, or enhance each application. The recommendations should be presented to the business and prioritized with other strategic priorities.

DATA

Application redundancy also results in Data redundancy that consumes storage resources and increases support requirements to keep the data synchronized. The Application Assessment should include a Data assessment to identify redundant or obsolete data. If the obsolete data and applications are kept for archival purposes, the archiving strategy should be examined to determine how the data can be transformed, stored, and accessed in order to allow for the retirement of obsolete applications and data. This will include a review of Business queries, data access, and reporting capabilities.

IT SERVICES

Finally, it is important to assess the services delivered by the IT staff. In many cases, these services result in a satisfied customer but they still represent waste because they are in support of obsolete applications or they sacrifice other more important priorities.

At a high level, most forms of application support can be classified as waste. Incident response and problem management are indications of quality or design deficiencies in applications. High levels of consultation to business areas may be the result of inadequate training or documentation or the lack of a user-friendly design.

The types of services provided by IT staff should be identified and documented in a Service Catalog. An analysis should be conducted to determine the reason why the services are necessary and to look for opportunities to optimize delivery of the services or eliminate them altogether. If a service cannot be linked to a supported business strategy, the justification for providing the service should be questioned.

CONCLUSION

As demonstrated by these examples, identifying waste and optimizing IT is not a simple process. The only way to make significant progress is to define strategic objectives for eliminating waste and redeploying capabilities and budgets to strategic projects and services that provide value.