

# Lean for Service Processes

By Willie L. Carter

The obvious issue at hand is that many companies have little experience in applying lean concepts to administrative/service areas. In addition there are few examples from which companies can learn. The intent of this white paper is to provide a basic understanding of how to apply lean to administrative processes.

## Identifying Waste in Service Activities

One of the first orders of business is understanding the application of the seven wastes to service/administrative processes. Learning to distinguish between value and waste begins with recognizing the many activities that are performed every day in a business for what they really are—waste that adds cost to the business, but no value to the internal or external customer. Let's demonstrate some simple examples to help stimulate your thought processes.

### *Seven Non-Value-Added Wastes That Add Costs to Your Business but Add No Customer Value*

Waste Category	Service/Administrative Examples
<b>1. Overproduction</b> Producing more, sooner, or faster than is required by the next process	Printing paperwork before it is really needed, purchasing items before they are required, processing paperwork before the next person is ready for it
<b>2. Inventory</b> Any form of batch processing	Filled in-boxes (electronic or paper). Office supplies, sales literature, batch processing transactions and reports
<b>3. Waiting</b>	System downtime, system response time, waiting for approvals, information from customers
<b>4. Over-processing</b> Extra steps or redundant tasks	Re-entering data, extra copies, unnecessary or excessive reports, transactions, cost accounting, expediting, budget processes, travel expense reporting, month-end closing activities
<b>5. Correction</b> Any form of defects	Order entry errors, design errors, invoice errors, employee turnover
<b>6. Excess Motion</b> Movement of people	Walking to and from copier, central filing, fax machines, other offices
<b>7. Transportation</b> Movement of paperwork	Excessive email attachments, multiple hand-offs, multiple approvals

Now that you have some understanding of the wastes you will find within your administrative processes the next step is to map these processes to identify the wastes and understand how they flow.

## Process or Value Stream Mapping

The objective of process or value stream mapping is to assist management in visualizing and communicating not only how the organization acts today, but also how it should act in the future to influence the cost, service, and quality of its products/services.

### Current State Mapping

To visualize how the organization acts today we must create the current state map. There are six basic steps to current state mapping.

1. Document customer information/requirements. As with any other aspect of lean, it is important to understand what the customer values. Put yourself in the customer's shoes and ask "What is the customer willing to pay for?"
2. Identify the key processes. Select a team of employees that touch the administrative system, list out the key processes and the boundaries of those processes.
3. Based on customer requirements and the processes themselves, choose process metrics. Metrics may include lead time, processing time, uptime, first pass yield, etc.

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4. Collect data by walking through the process. This involves calculating the above metrics based on actual observation not on historical data.
5. Establish how each process prioritizes work. In any administrative process in which information or data is transferred, prioritizing work is a key factor.
6. Calculate key summary metrics for the entire process. In most cases lead time and percent value creating time will be key metrics. This tells you how long the process actually takes and how much of that time is value-add versus waste.

## Future State Mapping

After the current state map has been created, creating the future state map involves the following six steps.

1. Confirm customer needs and requirements and calculate takt time. In this way you can ensure that you are providing sufficient capacity to meet demand. Takt time is a measure of customer demand relative to available time. It is calculated by dividing the available time by the number of units required by the customer in the same time period. Takt time isn't always easy to calculate for administrative processes, but a good estimate can usually be made. For example, orders per day may make sense for an order entry process, while line items per day may make sense for a purchasing process. Takt time will tell you how often a customer requires a product (engineering change order, processed order, a quote, etc.).
2. Determine how often performance will be audited. Determine how often to check on performance to takt. For very long takt times, this interval might be correspondingly long. For example, if for a particular process, takt time is measured in weeks, a multiple daily performance check would be unnecessary. Performance might be monitored over a longer period of time.
3. Critically examine each process step to determine which steps in the process creates value and which generate waste.
4. Create a work flow with fewer interruptions by reducing or eliminating the non-value-added steps
5. Prioritize work to control it between interruptions. Establish simple and visual rules to prevent one part of the process from getting too far ahead of the downstream step of the process.
6. Identify process improvements required to achieve the future state. This step focuses on the actual activities needed to incorporate all the design features for the new future state. Achieving each change to the current state requires a kaizen event. Some of the lean tools and techniques applicable to future state improvements are: standardized work, quality at the source, batch size reduction, visual controls, work cells, and error proofing.

After developing the future state, develop an implementation plan, which should be periodically monitored and updated.

In the end, all that you are trying to do is incorporate a Lean strategy to increase the value of your organization as perceived by your customers. Process or value stream management is an effective means of achieving this goal.

*Willie L. Carter is the president and principal of Quantum Associates, Inc., Northbrook, Illinois. Carter is a Certified Lean Sensei, Certified Manager of Quality/Organizational Excellence, and a Certified ISO 9000 Lead Assessor. For more information on Lean and Process Mapping Please contact Willie at [wcarter@quantumassocinc.com](mailto:wcarter@quantumassocinc.com) or by phone at 847-919-6127.*