The LEAN Service Desk

From Theory to Practice

Peter Hubbard
Principle Consultant
Pink Elephant
p.hubbard@pinkelephant.co.uk

© Pink Elephant 2017 unless otherwise stated. All Rights Reserved.

Introduction – Peter Hubbard

- Principal ITSM Consultant
- Worked in ITSM for almost 20 years
- Regular speaker at industry events
- Worked in all sorts of organisations, large and small
- Once pelted a co-worker with plastic balls in the name of Release Management

City of London

© Pink Elephant 2017 unless otherwise stated. All Rights

LEAN is a way of thinking and acting

Lean thinking and acting is all about:

- Increasing Customer value
- Eliminating Waste
- Management as facilitator
- Involvement of all employees
- Continual Improvement

"Preserving value with less work"

© Pink Elephant 2017 unless otherwise stated. All Rights

Defining Moments in History of LEAN

Craft Production

Customization
Highly skilled workforce
High cost

Mass Production

Moving Production Line
Production Engineering
Low cost, inflexible model

Toyota Production System

Focus on quality
Just-in-time production
Continual Improvement

Lean In Service

Services & Health
Professionals
Productivity improvement

1880 **1910** **1920** **1955** **2000**

Scientific management,
labor productivity

Frederick Taylor

Business process
improvement

W. Edwards Deming

Proved the value of
continual improvement
at General Electric

Jack Welch

A7

© Pink Elephant 2017 unless otherwise stated. All Rights

Proven Methodologies Behind LEAN IT

Six Sigma	Lean Manufacturing	Lean Services
• *Reduce variation* • *Process improvement* • Statistical • Data-driven problem-solving (DMAIC) • Root Cause Analysis **Subject**: Product **Style**: Fact based	• *Eliminate waste* • *Process optimization* • Tangible • Predictable • Structured • Measured **Subject:** Machine **Style:** Tuning	• *Eliminate waste* • *Professionalization* • Intangible • Unpredictable • Chaos • Not measured **Subject**: People **Style**: Change

Evolution of Lean IT

A17

© Pink Elephant 2017 unless otherwise stated. All Rights

The Importance of measuring

"You can expect what you inspect."

"The worker is not the problem. The problem is at the top! Management!"

"There is no substitute for knowledge."

""In God we trust; all others must bring data."

© Pink Elephant 2017 unless otherwise stated. All Rights

What is Lean IT?

"Lean IT is the extension of lean manufacturing and lean services principles to the development and management of information technology products and services.

Its central concern, applied in the context of IT, is the elimination of waste, where waste is work that adds no value to a product or service."

Source: Wikipedia, 2011

© Pink Elephant 2017 unless otherwise stated. All Rights

LEAN – Three Types of Activities

Value-Add: Work that adds Value in the eyes of the customer that they are willing to pay for

- First Time Fix
- Incident Resoutions

Necessary Non-Value-Add: Work that is not "Value-Add" but must be done

- Staffing rota creation
- Time Sheet filling in

Non-Value-Add: Work that does not add Value for the customer or the business

- Redundant work
- Solving IT incidents again and again
- Doing more than required
- Shepearding calls

© Pink Elephant 2017 unless otherwise stated. All Rights

Reduce Waste, Variability & Inflexibility

Waste

Waiting time

Motion

Over-processing

Inventory

Defects & Rework

Transportation

Over-production

Variability

Variability in volume or complexity of customer demand

Spread in the outcome of processes

Inflexibility

Team capacity cannot scale up or down with demand

Fixed service time frames or release schedules

Batch and queue operating model

Specialized resources in a limited number of tasks

© Pink Elephant 2017 unless otherwise stated. All Rights

What Is Lean Behavior?

Continual Improvement

- "Go see" for yourself to thoroughly understand the situation
- Discussions happen on the work floor, in front of the real situation, with the people really involved – not in the manager's office
- Small concrete adjustments can make a big difference
- Learning becomes a part of the everyday routine

Exciting & Open

- Just do it
- Ask 5 times "Why?"
- A problem is an opportunity to improve
- Experiencing an 'aha!' moment – a moment of sudden and profound insight
- There is an open dialogue between staff at different levels

© Pink Elephant 2017 unless otherwise stated. All Rights

The Five Dimensions of LEAN IT

How much time is spent on value added activities?

What is the performance of teams and individuals?

Who is the customer?

What element of our service is of value to the customer?

Voice of the customer

What are the capabilities of our processes?

Value Stream Mapping

How do we work as a team?

How customer focus are we really working?

Is the organization structured to meet customer demand?

© Pink Elephant 2017 unless otherwise stated. All Rights

The Evolution of the Service Desk

Call centre

- Log and Flog
- No attempt to fix issues
- High premium on quick response
- Low emphasis on IT Skills

Helpdesk

- High first time fix rate
- High premium on IT Skills
- Little or no proactive activities

Service Desk

- Attempt to fix issues
- High premium on customer service
- Has duties beyond simple incident fixing

© Pink Elephant 2017 unless otherwise stated. All Rights

The Evolution of the Service Desk

Speed & Throughput.

Log and Flog!
Next please!

Technical Expertise and Competence.

Have you tried turning it off and on again?

Balance Technical Expertise with Customer Service and Business Awareness

"I understand this is a big deal, let us deal with that for you. We will keep you in the loop and informed."

© Pink Elephant 2017 unless otherwise stated. All Rights

So what is a Service Desk? – Incident Mgt

A Service Desk should be....

- 2 Parts **Paramedic**
  - *Fix it!*
  - *Fix it now and fix it fast!*

1 Part **Butler**

If you cant fix it, get all the right information into hands of someone who can, to let THEM fix it.

- And a dash of **Radar** to taste!

The information that the SD process produces tells almost all other areas what's going on in the 'real world' and tells the end user what's happening with their issue.

© Pink Elephant 2017 unless otherwise stated. All Rights

First, Second & Third Line Support

© Pink Elephant 2017 unless otherwise stated. All Rights

Service Desk & Lean – Challenges

- The service desk is the public face of IT. Its processes are critical to the effective and timely delivery of IT services.
- Yet, even organisations with relatively mature service desk processes can struggle to achieve the high levels of end-user satisfaction and productivity the business expects.
- Analysts for each of the three tiers of the service desk often do not understand how the customer experiences end-user support.
- IT staff feel overworked, and believe the service support organisation is understaffed, yet they waste time on unnecessary tasks. They struggle to identify and prioritize activities that create the most customer value.

© Pink Elephant 2017 unless otherwise stated. All Rights

The Voice of the Customer

- The customer defines what value is, expressed in the context of a service or product!
- Look at the entire end-to-end customer experience

- **Two types of customers:**
  - The person who uses your product or service
  - The person who is next in line in the value stream

- **Key questions to analyze the voice of the customer**
  - Who is my customer?
  - What does my customer want?
  - Which activities add value to my customer?

© Pink Elephant 2017 unless otherwise stated. All Rights

The Voice of the Customer…

Day 1 -----Original Message**-----**
From: itservicedelivery@ns.co.cl

Day 38 -----Original Message-----
From: Barry Sanders (bsanders)
Subject: FW: Tx435672: Set up of new laptop.)
Any i

Day 41 -----Original Message-----
From: IT Service Delivery

Day 55 -----Original Message-----
From: Barry Sanders (bsanders)
Subject: FW: Tx435672: Set up of new laptop.

Day 70-----Original Message-----
From: IT Control Service Delivery

Day 87
Still no delivery.

Day 94
From: Barry Sanders (bsanders)
Sent: Thursday, April 27, 2006 12:01 PM
To: David (CIO)
Thought you might be interested in reading The Tale Of The Traveling Laptop
A 3 month, 19 email, frustrating journey that turned out just fine in the end. I hope this is the exception story.

© Pink Elephant 2017 unless otherwise stated. All Rights

Ways to Analyse the VOC

- Segmentation of customers
  - Different needs and capabilities
  - E.g.: Internal users, internal support teams, 3rd party support
- Observation
  - Customers using your product or service
  - What is it like to be a customer of your product/service
- Interviews
  - Get feedback on existing products
  - Identify requirements
- Surveys
  - Quantitative data from larger customer base sampling

You cannot identify all needs through any single method!

© Pink Elephant 2017 unless otherwise stated. All Rights

LEAN Theory – How to Create a Value Service Map

1. Define the VOC and the process to analyze

2. Identify the steps in the process
   Scope the bounderies of the process

3. Identify work flow in process
   Collect data of the current workload

4. Create a VSM per process
   Start with the most important process

5. Collect data: “Takt” time, volumes, duration, cycle times, etc.
   Identify Waste and issues in the process

6. Complete the VSM with all the inputs
   Validate the VSM with the team and experts

© Pink Elephant 2017 unless otherwise stated. All Rights

Creating a Value Stream Map – Step 4

Create Value Stream Map Based On SIPOC Diagram

The objective is to quantify as much as possible!

Unit of work: nn
Takt time: xx
Lead time: yy

Customers:
x% orders from C_1
y% orders from C_2

© Pink Elephant 2017 unless otherwise stated. All Rights

Takt Time

- Takt Time: from “Taktzeit”, translates to cycle time
- To achieve flow in a process, production should be in line with the Takt Time
- Customer Demand Rate: How often does the customer ask for our product or service
- Takt Time determines the rhythm of the process output to comply with the customer demand

$$\text{Takt Time} = \frac{\text{Available Work Time}}{\text{Customer Demand (in the same time period)}} \qquad \frac{\text{360 Minutes Available}}{\text{60 Customer Orders}}$$

© Pink Elephant 2017 unless otherwise stated. All Rights

Process Capacity Metrics

Cycle Time (CT): Time between start and finish of production cycle

Lead Time (LT): Time between customer order and delivery

Process Time (PT): Time spent creating the product (value-add time)

Wait Time (WT): Time spent waiting for next activity

Machine Time (MT): Time product is worked on by a machine

Changeover Time (CT): Time reconfiguring between two types of orders

Parallel Lines (PL): Number of simultaneously operating lines of work

Throughput (TP): Calculated maximum volume of process or step

Capacity (CP): Actual volume of process or step

Work in Progress (WIP): Average volume of work in progress

© Pink Elephant 2017 unless otherwise stated. All Rights

Some Symbols used in a Value Stream Map

Transport Of Goods

Inventory

Waiting Time

Motion Of People

Rework

Overprocessing

Overproduction

Information Flow

Physical Flow

External Supplier

Process / Process Step

lead time

Lead Time

#

Problem / Issue

Kaizen Option

© Pink Elephant 2017 unless otherwise stated. All Rights

Value Stream Map Analysis Questions

- Are there points in the process where complexity is high?
- Are there handovers between teams or people in the process?
- Where are delays or waiting time built into the process?
- What are the constraints limiting process throughput?
- Does the process flow – each step having just enough capacity?
- Are there queues in between the process steps?
- Are there steps that do not add value?
- Can necessary non-value-add work be reduced?
- Are there things that are done more than once?
- Is there rework that can be avoided?
- Is there motion of people in the process?
- Can we reduce motion by changing the physical layout?

© Pink Elephant 2017 unless otherwise stated. All Rights

Step 5 Example VSM: Request Process

Unit of work: Service Request
Takt time: 14 days
Avg lead time: 10 days

Customers:
20% from Email
80% from Phone calls

© Pink Elephant 2017 unless otherwise stated. All Rights

Case Study A
Example IT to IT Impact

Company A: Fortune 500 Retail Chain

- ***Inefficient server build process*** – one-off each time – takes too long to provision servers and host business applications
- Deployed a Service Catalogue for all IT services – including end user computing and ***IT-to-IT data center services***
- Defined IT-to-IT services in a standard and readily available form – with ***common understanding of what's included*** and what's optional (at an additional cost) and By moving to standardized server images, they ***saved $1M*** in the server build process and reduced the delivery time from their outsourcer from ***26 weeks to 4 weeks***
- They also achieved ***millions of hard dollar savings*** after they ***uncovered the fact that they were double-paying*** their outsourcer for imaging services that were already covered in the base cost of the hardware/software

© Pink Elephant 2017 unless otherwise stated. All Rights

Case Study B
Example End User Impact

Company B: FTSE 500 Financials Services Firm

- ***IT reputation suffering*** – multiple service request entry points, manual validation and "shepherding" for fulfilment
- Deployed Service Catalog as ***single point of entry*** for all service requests, with streamlined request fulfillment process
- ***Payback in less than 34 weeks*** by eliminating **shepherding time** and retiring legacy request channels
- With self-service, calls to the service desk central support team ***reduced by 50%***
- Service Catalogue extended to 700+ service items within first year, ***expansion to security, HR, and other non-IT areas***
- Enabled ***compliance and governance*** for SOX & ISO 20000
- A quick win for IT, with greatly improved user satisfaction: ***"One of the best things IT has ever done"***

© Pink Elephant 2017 unless otherwise stated. All Rights

Case Study C
Example External Client Impact

Company C: Global IT Outsourcer & Manufacturing Company

- Global manufacturing leader with an IT consulting, system integration, and IT infrastructure outsourcing business
- Deployed Service Catalog for communicating standardized services and enabling more cost-effective ***self-service request management***
- Gives their IT outsourcing business a distinct ***competitive advantage*** in the marketplace
- Enables them to have ***ITIL v3 compatible*** processes for IT service management
- Achieved ***greater end user satisfaction for existing clients*** and helped them to win new contracts
- The Service Catalog was a significant factor in winning ***more than $120 million in new business*** in 2008

© Pink Elephant 2017 unless otherwise stated. All Rights

Lean IT and Service Desk – Final thoughts

- On the Service Desk focus on two main areas
- By reducing Muda (waste) you improve incident flow to reduce MTTR
  - Right information gathered first time
  - Reduces 'call ping pong
- With Request Fulfilment IT Service Desk should focus on reducing Mura (variance) to improve customer satisfaction.
  - Right information gathered
  - Correct expectations set
  - Information provided at pre defined periods
  - Correct items in stock at all times
- Service Desk managers develop strategy & tactics to free up executive resources by reducing time spent on major outages.

© Pink Elephant 2017 unless otherwise stated. All Rights

Questions?

p.hubbard@pinkelephant.co.uk
info@pinkelephant.co.uk
www.pinkelephant.co.uk

© Pink Elephant 2017 unless otherwise stated. All Rights