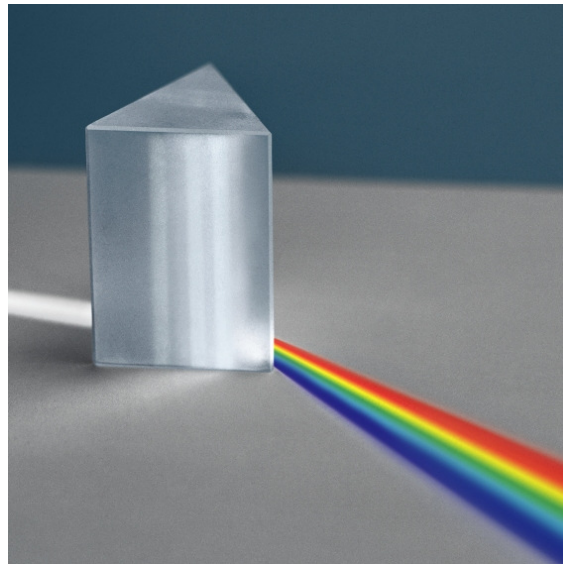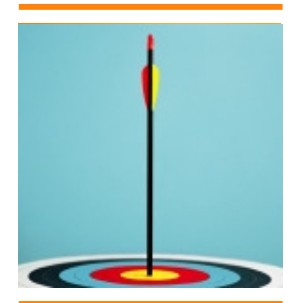# Case Study

Web-Application Refactoring for SpareParts

Kai Schwidder

The objectives of the Case Study are the following

1. Understand the customers business requirements

2. Explore the possible solution alternatives from an outside-in approach

3. Design the solution based on your identified decisions and findings

4. Present your solution to different stakeholders (CEO, CFO, CIO, Developers)

5. Create a customer-ready documentation

# SpareParts has the following objectives which have to be addressed

Overview

- Leading international European trading company for automotive spare parts

- Provide comprehensive knowledge and services with a high degree of flexibility

- Delivery of spare parts within 2-3 hours after order has been received

- Self-written ERP System based on Oracle-Technology (Oracle-Forms, PL/SQL)

- Application availability/ performance is mission critical for their business

- Sophisticated Web-Enablement

Key-Figures

- Handling over >= 200.000 spare parts (high growth YoY)

- Serving >= 30.000 partners (increasing YoY)

- Peak hours between 7:00 a.m. and 2:00 p.m. (Mission critical)

- ~800 Employees

- FTE's
  - 3-4 ➜ Operation
 - 10 ➜ Development
  - 3-4 ➜ Support

- ~600 Oracle Forms

Customer Profile (cont.)
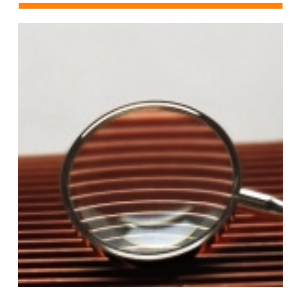
Technology Stack (Actual)

- Oracle 8i
  - Oracle-Forms for the sophisticated Rich-Client Front-Ends
  - PL/SQL as programming language (Web/Non-Web)
  - Oracle 4-GL Development Tools

- Citrix
  - Deployment of Oracle-Form applications

- Hardware
  - Set of standard xSeries Pizza-Boxes
  - HP Superdome for Oracle

Challenges

- Trading with Partners is key and emerging

- Life-cycle of the application portfolio is reached (Oracle-Forms)

- Need to define the strategic platform for the future (SAP, Microsoft, Oracle, others)

- Re-Use of existing Assets

- Time to Market

- Flexibility to „Build for Change"
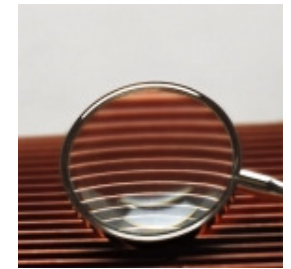
Case Study
Slide 4
18 October 2010

Kai Schwidder
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Goals to be achieved

Business

- Faster Time-To-Market

- Strong Focus on Business Processes

- Service oriented approach

- High flexibility to reach-and-extend

- New country enablement planned
  #1 CH, #2 A, #3 Spain, #4 Russia

Operations

- Streamlined management of the
  infrastructure with low TCO

- Monitoring of Business-Services

- On-Demand management of system
  resources

Development

- Re-Use of the ERP-Business
  Logic/Objects

- Rapid Application Development

  - Integrated Testing
  - Performance Tuning
  - Rapid Deployment
  - Team Development
  - Consistent Documentation
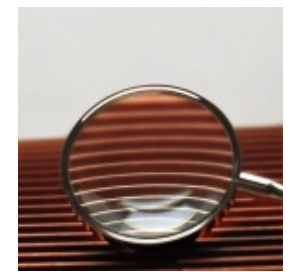
The following key requirements have been defined
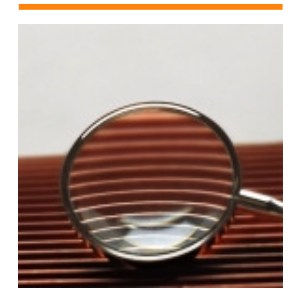
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Standards

- Java Enterprise Edition for mission critical applications

- Oracle as the Database engine

- LDAP User Registry & Sync

- Eclipse-based tooling

- Web-Standards such as XML, HTML, HTTP/S Standards

- Open Source Standards

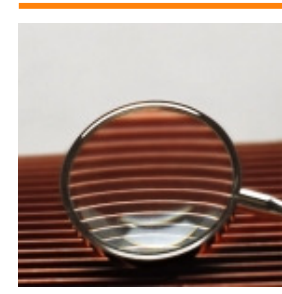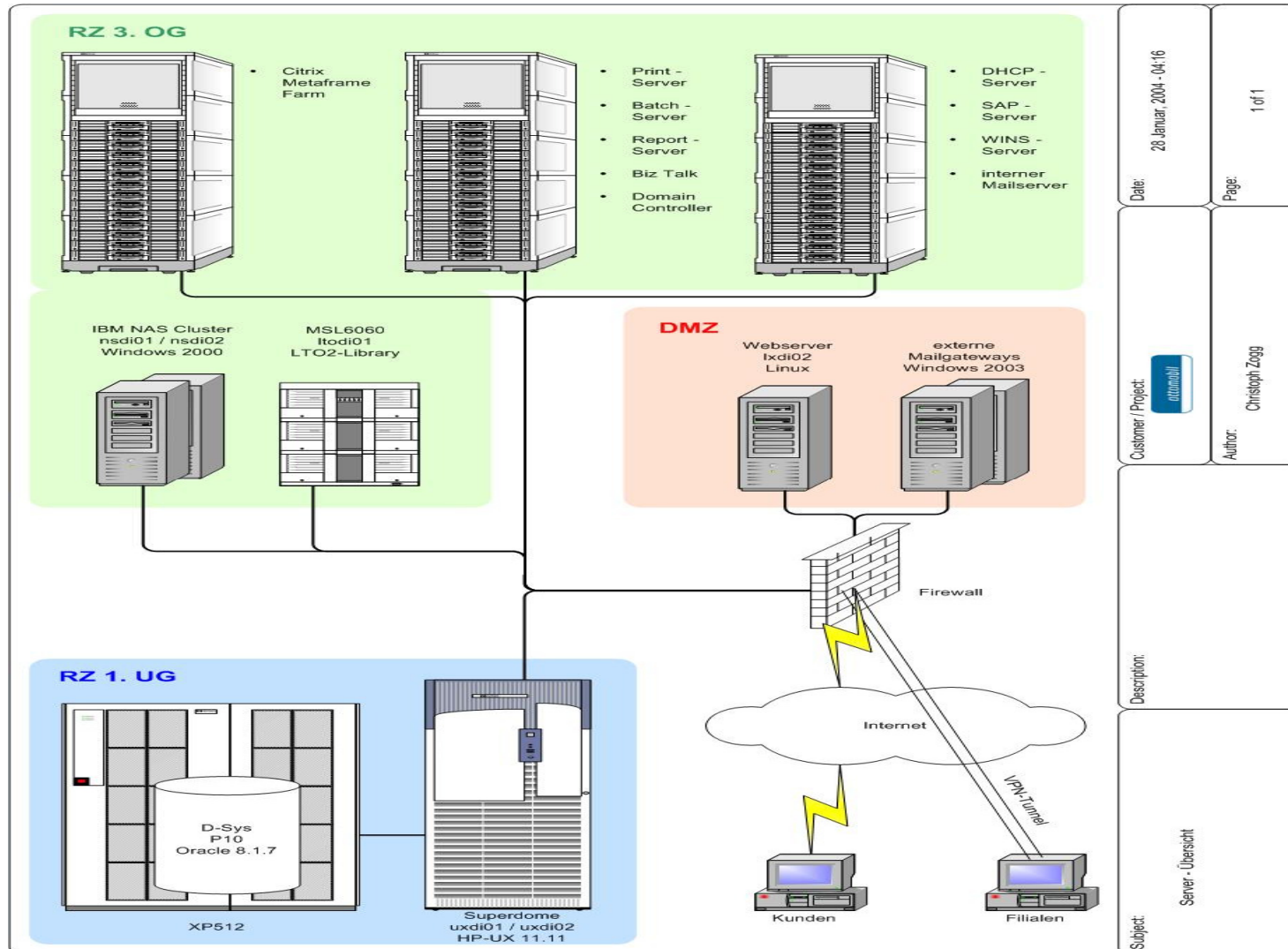- Server Virtualization

Others

- RUP Method

- A key building block is the content management system

- Rich Client Support with minimal deployment footprints

- Simplified Management and Deployment Activities

- Brands: Rational, WebSphere, Tivoli, Lotus
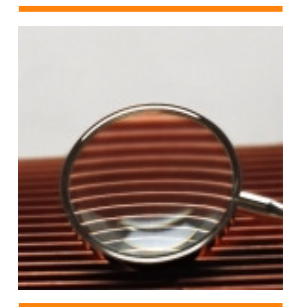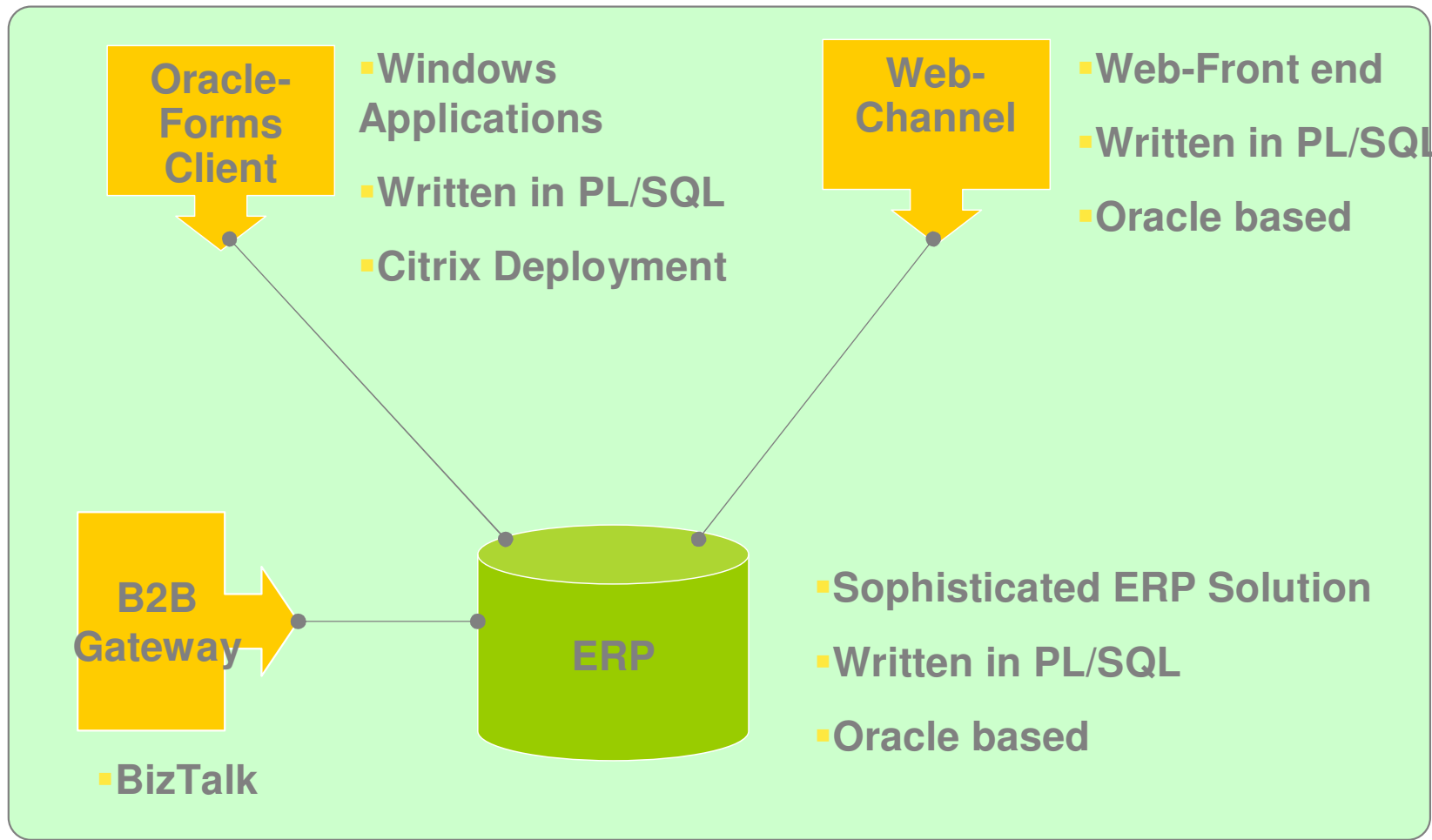
- Multi-Channel Support

SpareParts has a sophisticated network topology as follows

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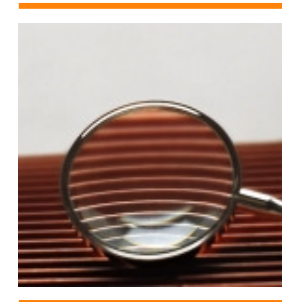
RZ 3. OG

- Citrix Metaframe Farm
- Print - Server
- Batch - Server
- Report - Server
- Biz Talk
- Domain Controller
- DHCP - Server
- SAP - Server
- WINS - Server
- interner Mailserver

IBM NAS Cluster
nsdi01 / nsdi02
Windows 2000

MSL6060
ltodi01
LTO2-Library

DMZ

Webserver
lxdi02
Linux

externe
Mailgateways
Windows 2003

Firewall

Internet

VPN-Tunnel

RZ 1. UG

D-Sys
P10
Oracle 8.1.7

XP512

Superdome
uxdi01 / uxdi02
HP-UX 11.11

Kunden

Filialen

Date: 28. Januar, 2004 - 04:16

Page: 1 of 1

Customer / Project: attomobil

Author: Christoph Zogg

Description:

Subject: Server - Übersicht

Case Study
Slide 7
18 October 2010

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The current high-level application context is as follows

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Oracle-Forms Client

- **Windows Applications**
- **Written in PL/SQL**
- **Citrix Deployment**

Web-Channel

- **Web-Front end**
- **Written in PL/SQL**
- **Oracle based**

B2B Gateway

- **BizTalk**

ERP

- **Sophisticated ERP Solution**
- **Written in PL/SQL**
- **Oracle based**

The project-scope is high-lighted as follows

Web Server

E-Web

DERE

D-SYS

D-SYS
Oracle
Forms
Client

Andere
Systeme

IAS

Request
Dispatcher

Controller

Packages

HTTP request

transfer

invoke

response page

record set

record set

record set

Sessions

Sessions

Caching

Presentation

Business Logic and Data
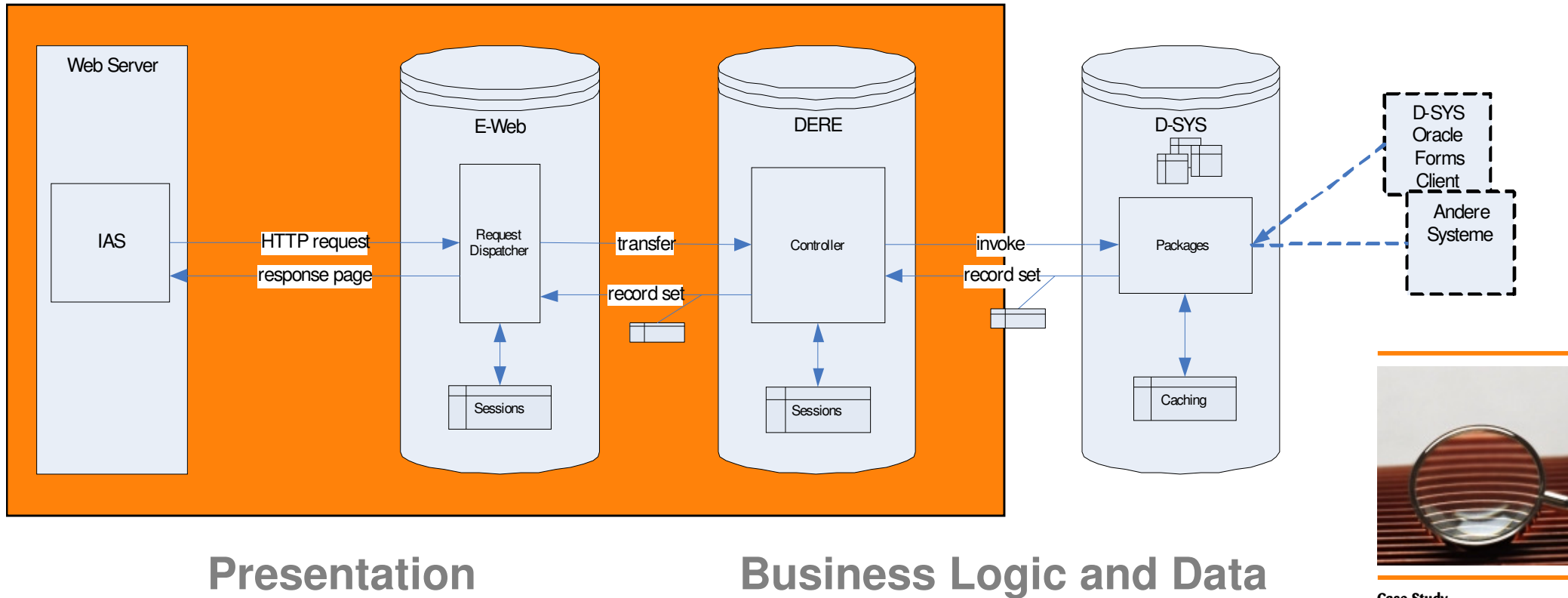
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As an example please have a look at www.derendinger.ch for further details

Transport emotions associated with the key customer benefits of SpareParts

Emotions (vertical axis)

- high
- low

Content (horizontal axis)

Management Summary

Introduction

Solution

Price/ Value/ Timeline

Why YOU ?

Structure
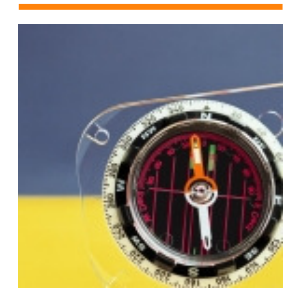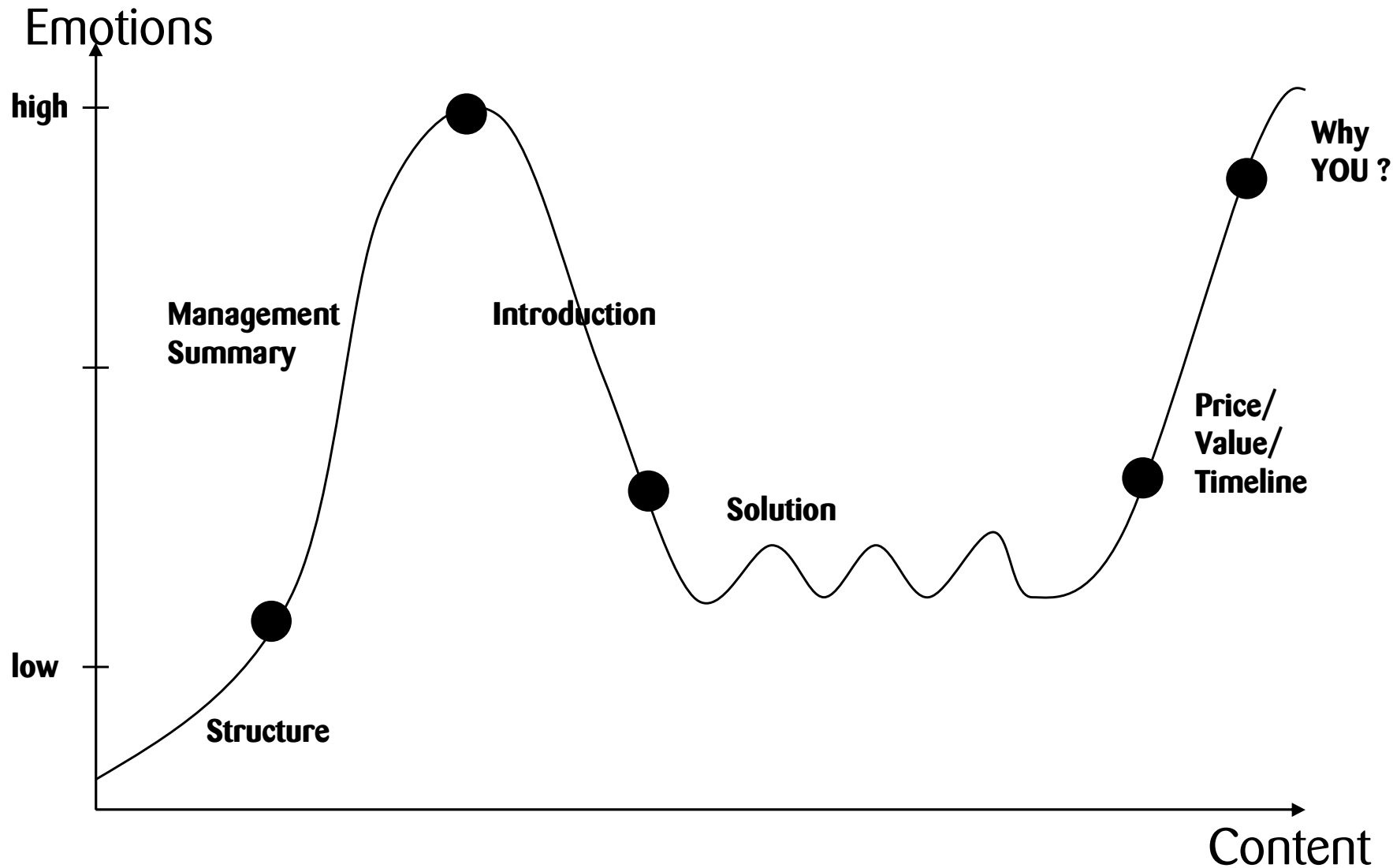
Link the emotions to the identified stakeholder business value propositions of SpareParts

Emotions

high —

Business Value Proposition

Management Summary

Introduction

Solution

Structure

Why YOU

Price/ Value/ Timeline
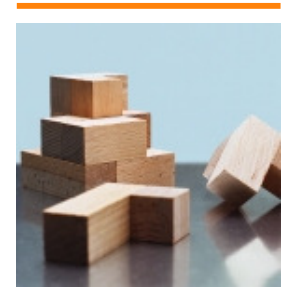
low —

Content
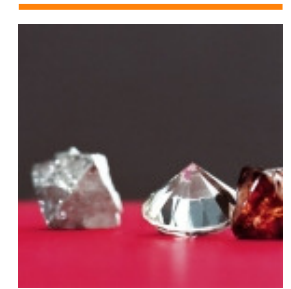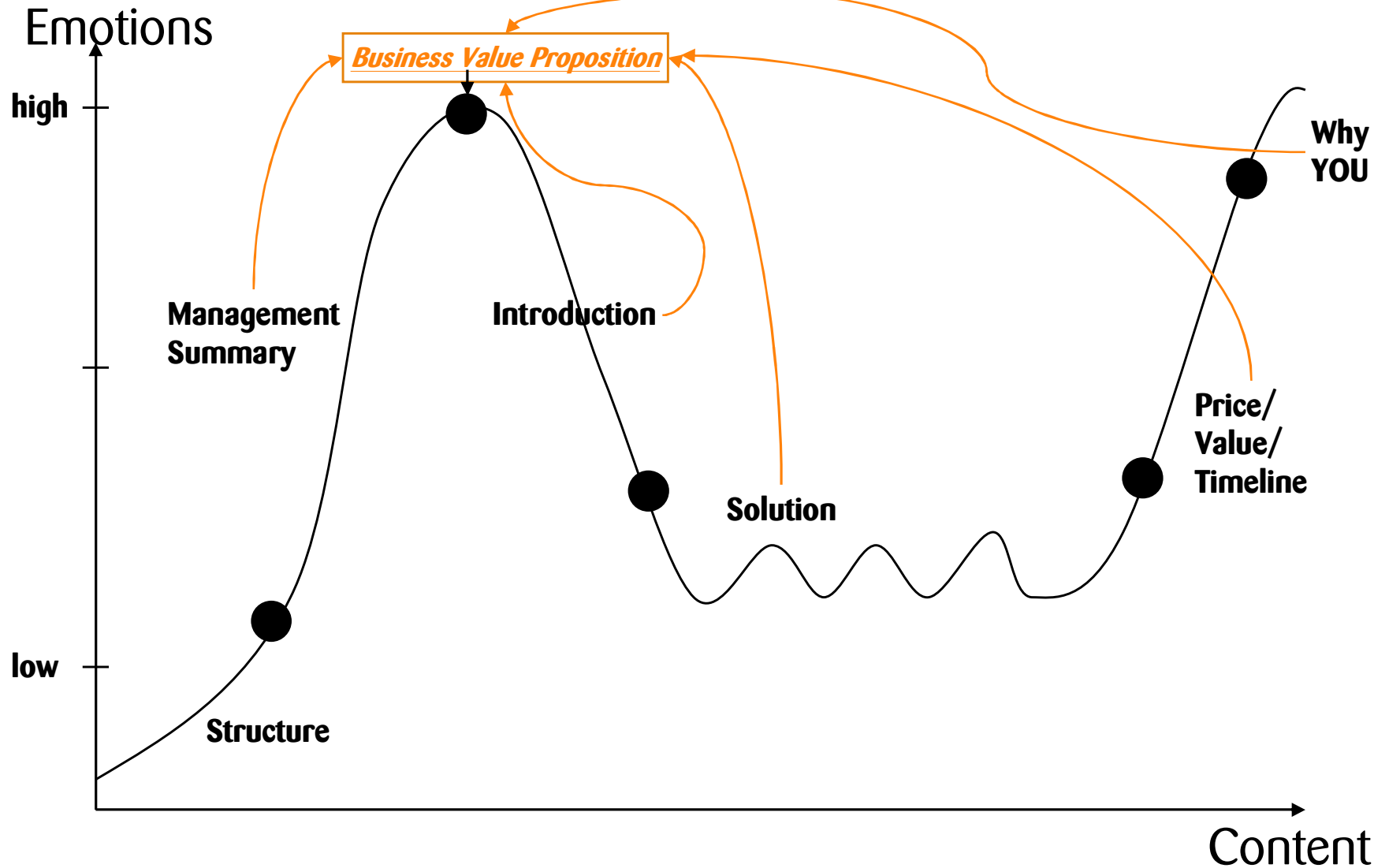
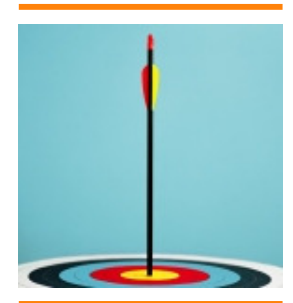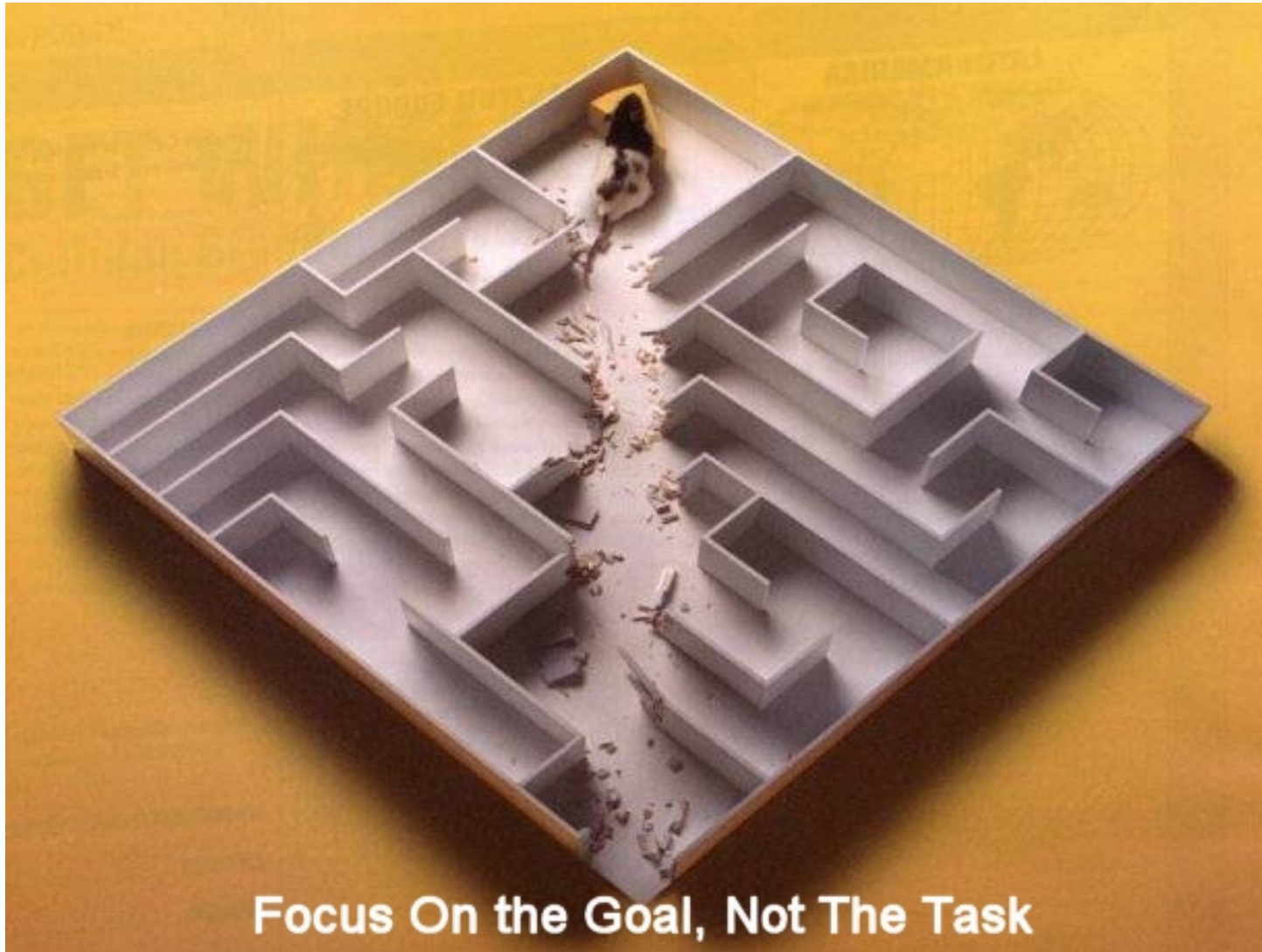# Your presentation and documentation should address the following key topics for SpareParts

1. Management Summary

2. Solution outline

3. Project Schedule - Time to Market

4. Why XYZ - Your benefits

5. Your investment

Thank YOU

Focus On the Goal, Not The Task