

Critiquing Business Process Models to Facilitate the Identification and Selection of Optimal IT Systems

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Overview

- **Challenge**
 - Business process challenges at Space Engineering Services Ltd
- **Solution: KTP**
 - Transfer Role Activity Diagram (RAD)
 - Knowledge and skills
- **Knowledge Transfer mechanisms**
 - workshop
 - Expert feedback on
 - Process elicitation
 - RAD modelling
- **Benefits**
 - Knowledge and skills acquired
 - Learning adopted, adapted and extended
 - Strategic processes improved
 - Cost savings
- **Significance**
 - Benefit other SMEs

KTP Partners

■ Space Engineering Services Ltd

- Refrigeration, air-conditioning, mechanical & electrical services
- UK wide
- 450 employees
- £100 million + annual turnover

■ University of the West of England

- Research, Business and Innovation
- Bristol Business School
- Faculty of Environment and Technology

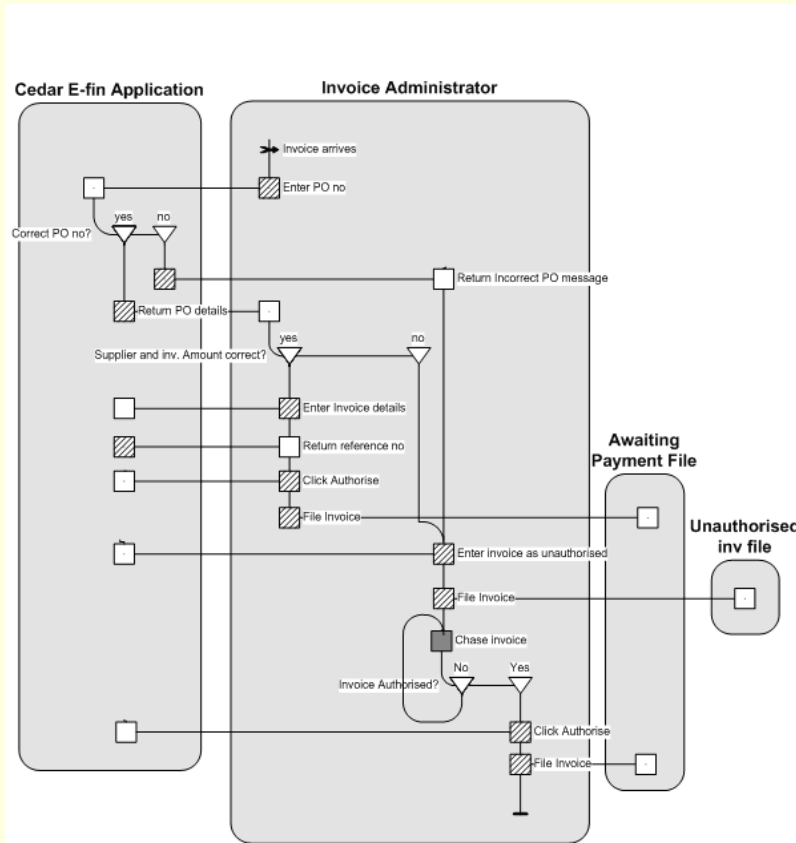
Challenges

- Multiple business process variants
- Business process / IT disconnect
- Non-scalable IT systems
- Un-enhanceable IT systems
- Contemporary IT not exploited

Modelling with RADs

- Role Activity Diagrams (RADs)
(“Business Process Management”, M. Ould, 2005)
 - Graphical business process modelling language:
 - Business process, trigger, action, role, interaction, goal, prop...
 - Supporting
 - Sequence
 - Parallelism
 - Looping

Example RAD



- Process for entering & authorising invoices
- 4 roles
- Trigger start: invoice arrives
- Interaction between roles
- Conditional looping

Improving Business Processes

- Business process improvement method
 - Concrete as-is process model
 - Abstract as-is process model
 - (Better) concrete to-be process model

Knowledge Transfer Mechanisms

- Short course on RAD
- Expert feedback on:
 - Eliciting business processes
 - Modelling with RADs

RAD Short Course

- Attendees:
 - Associate,
 - Business Development manager,
 - IT Manager
 - Business Analyst
- Face-to-face presentation (50 slides)
 - RAD graphical modelling language
 - Improving business processes
- Two practical group-work exercises
 - Model a business scenario
 - Improve a process; support it with IT
- Result: very positive feedback on the course

Feedback on Process Elicitation and Modelling

■ Elicitation

- Observed Associate eliciting a business process from process stakeholder
- Fed back to the Associate on the elicitation technique

■ RAD modelling

- Assessed Associate's & Business Analyst's initial RADs
- Discussed notation use, accuracy of models & granularity of modelling
- Ability to RAD model increased

Adopting, Adapting and Extending the Business Process Improvement Method

- To improve the company's strategic business processes & support with appropriate IT
 - Elicit and model as-is, concrete process
 - Critique as-is process and supporting IT in order to...
 - design a new to-be, concrete process
 - Analyse the to-be process for requirements for IT support
 - Put out to tender the requirements specification(s)
 - Assess and shortlist responding companies
 - Assess shortlisted companies' demonstrations
 - Carry out reference sites visits
 - Select best company
- Ould's second step is implicit in step two above
 - Intentions are derived, and, though not formally modelled, used to derive the new to-be concrete model

Example in the Paper

- The new, extended process was applied to the HR system
- A complex time-consuming process was transformed into a time-saving simpler process
- Saving £3,500 annually on this system
- Saving £11,500 on all HR improvements

Strategic Processes Improved

- HR System
 - Savings forecast:
 - £11,500 annually
- Service Management System
 - Savings forecast:
 - £640,000 in year 1
 - £5,000,000 + after 5 years
- Finance System
 - Savings forecast:
 - £100k - £200k per annum

Benefits to the Company

- RAD knowledge and modelling skills acquired
- New strategic-process improvement method introduced
- Strategic processes improved
- Cost savings made
- Evidence-based approach to process improvements encouraged
- Selection of better IT systems
- RAD models now used as communication medium

Significance

- It is expected that by using the extended process improvement method described here, other SMEs could make substantial savings.