

Process Reengineering for ThinkPad Repair Center



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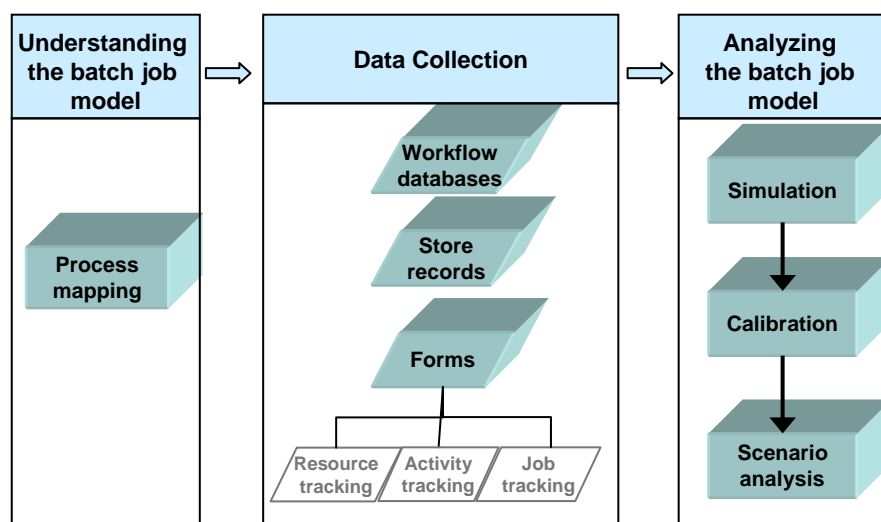
1) Summary

This Systems Design Project deals with the workflow of IBM Think Pads undergoing repair at the IBM Service Center in Singapore. The objectives of the project are to achieve more efficient workflow, attain greater operational savings, and enhance customer satisfaction.

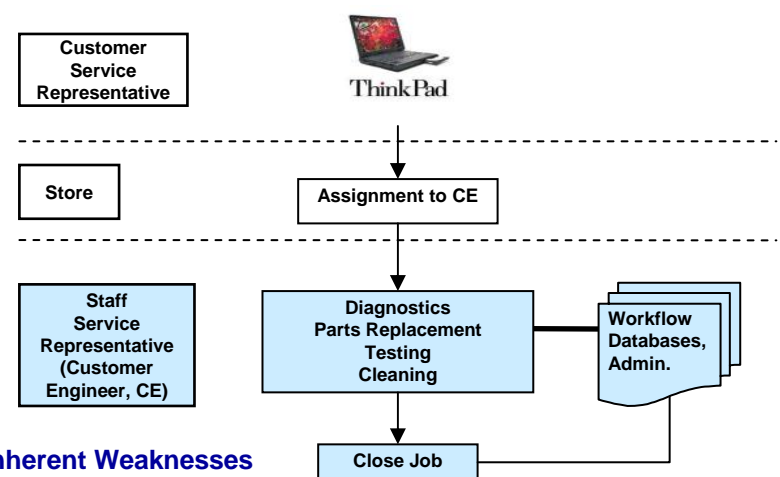
To successfully tackle the problem and develop practical improvements, it was imperative for the team to gain a good and accurate understanding of the current batch job model and pinpoint areas with potential for improvements. This was achieved through frequent discussions and interviews with the various stakeholders involved, extensive data collection, and computer simulation.

Two main improvements were proposed and presented. The first improvement targeted two areas in the current model deemed inefficient and controllable (highlighted in blue, section 4). The second improvement dealt with a reengineering of the entire workflow process (5-7). In particular, the feasibility of streamlining operations was examined. The proposed improvements were then compared based on operational performance, cost performance and qualitative performance, and final recommendations were made.

2) Project Build Up



3) Project Build Up – Understanding the Batch Job Model



Inherent Weaknesses

Service Portability

- Lack of transparency in work performed
- Lack of uniformity in service rendered

Operational Efficiency

- Push system leads to uneven distribution of jobs
- Job quota of at least 7 jobs a day
- Annual appraisal of work performance

4) Project Build Up – Analyzing the Batch Job Model (Scenario Analysis, Recommendations)

Scenario	Performance Measure			
	With Overtime		Without Overtime	
	SLA (%)	Ave Cycle Time (h)	SLA (%)	Ave Cycle Time (h)
Status Quo	97	13.7	86	16.5
(i) Improve parts availability in-store	97	13.4	89	16.5
(ii) Reduce admin & update system by 50%	99	11.3	99	11.6
(i) and (ii) combined, 7 CEs	99	11	99	11.0
(i) and (ii) combined, 6 CEs	*95	*13.9	77	18.8

* Projected annual savings of \$40 000

5) Streamlining:

Critical Success Factors

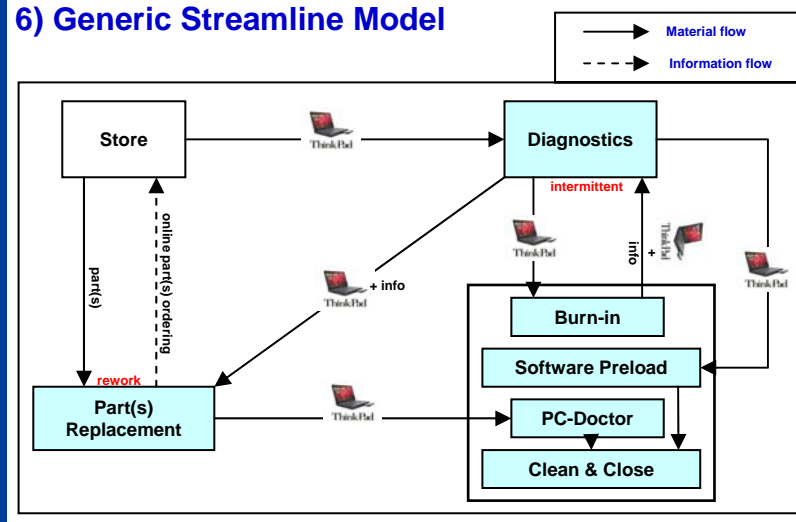
Volume is a requirement for optimal utilization of resources.

Standardization is the key to greater operational efficiency through task and time reductions.

This is achieved through:

Eliminate	Paperwork, Delay times, Rework
Simplify	System updating, Work processes
Integrate	Workflow reporting systems
Automate	Software tests
Institutionalize	Work procedures

6) Generic Streamline Model



7) Benefits of Streamlining

Operational performance:

- Specialization enables shorter task times and lower rework rates
- Standardization reduces ambiguity and complexity

Cost performance:

- “Operational efficiency brings about cost savings”
- Job segmentation, institutionalization, reduces staffing costs

Qualitative performance:

- Higher levels of consistency across repairs
- Greater transparency of work processes