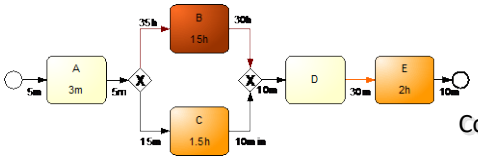
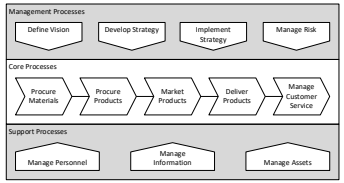
Business Process Management (6)

Slides adapted from: Dr. Marlon Dumas

Process Redesign



Process identification

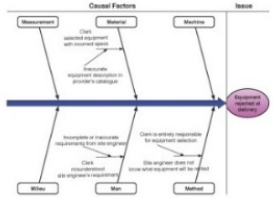


Process architecture

Process discovery

As-is process model

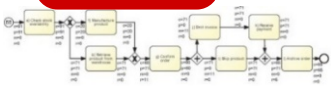
Process analysis



Insights on weaknesses and their impact

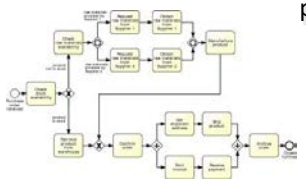
Process redesign

To-be process model



Process implementation

Executable process model



Process monitoring

Conformance and performance insights

Fundamentals of

Business Process Management

Marlon Dumas · Marcello La Rosa
Jan Mendling · Hajo A. Reijers

Second Edition

Springer

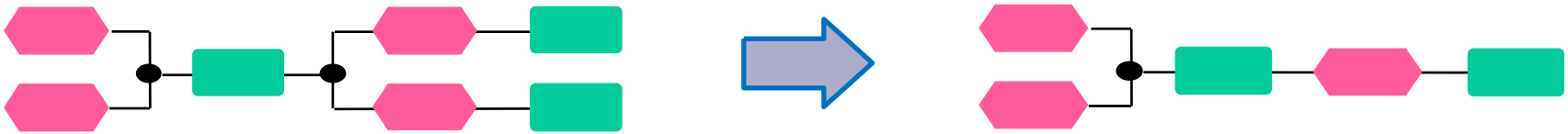
1. Introduction
2. Process Identification
3. Essential Process Modeling
4. Advanced Process Modeling
5. Process Discovery
6. Qualitative Process Analysis
7. Quantitative Process Analysis
8. **Process Redesign**
9. Process-Aware Information Systems
10. Process Implementation with Executable Process Models
11. Process Monitoring
12. BPM as an Enterprise Capability

Process Redesign

Identify possibilities for improving the design of a process

AS-IS: **Descriprive** modelling of the real world

TO-BE: **Prescriptive** modelling of the real world



- No silver-bullet: requires **creativity**
- *Redesign heuristics* can be used to generate ideas

Process redesign approaches

Exploitative Redesign (transactional)

- Doesn’t put into question the current process structure
- Seeks to identify problems and resolve them incrementally, one step at a time
- Example: Heuristic redesign (next week)

Explorative Redesign (transformational)

- Puts into question the fundamental assumptions and principles of the existing process structure
- Aims to achieve breakthrough innovation
- Example: Business Process Reengineering (BPR)

Business Process Reengineering (BPR)

- **Transformative:** Puts into question the fundamental assumptions of the “as is” process
- **Analytical:** Based on a set of principles that foster:
  - Outcome-driven processes
  - Integration of information gathering, work and decisions

The Ford Case Study

Ford needed to review its procurement process to:

- Do it cheaper (cut costs)
- Do it faster (reduce turnaround times)
- Do it better (reduce error rates)

Accounts payable in North America alone employed > 500 people and turnaround times for processing POs and invoices was in the order of weeks

(Hammer, 1990)

The Ford Case Study

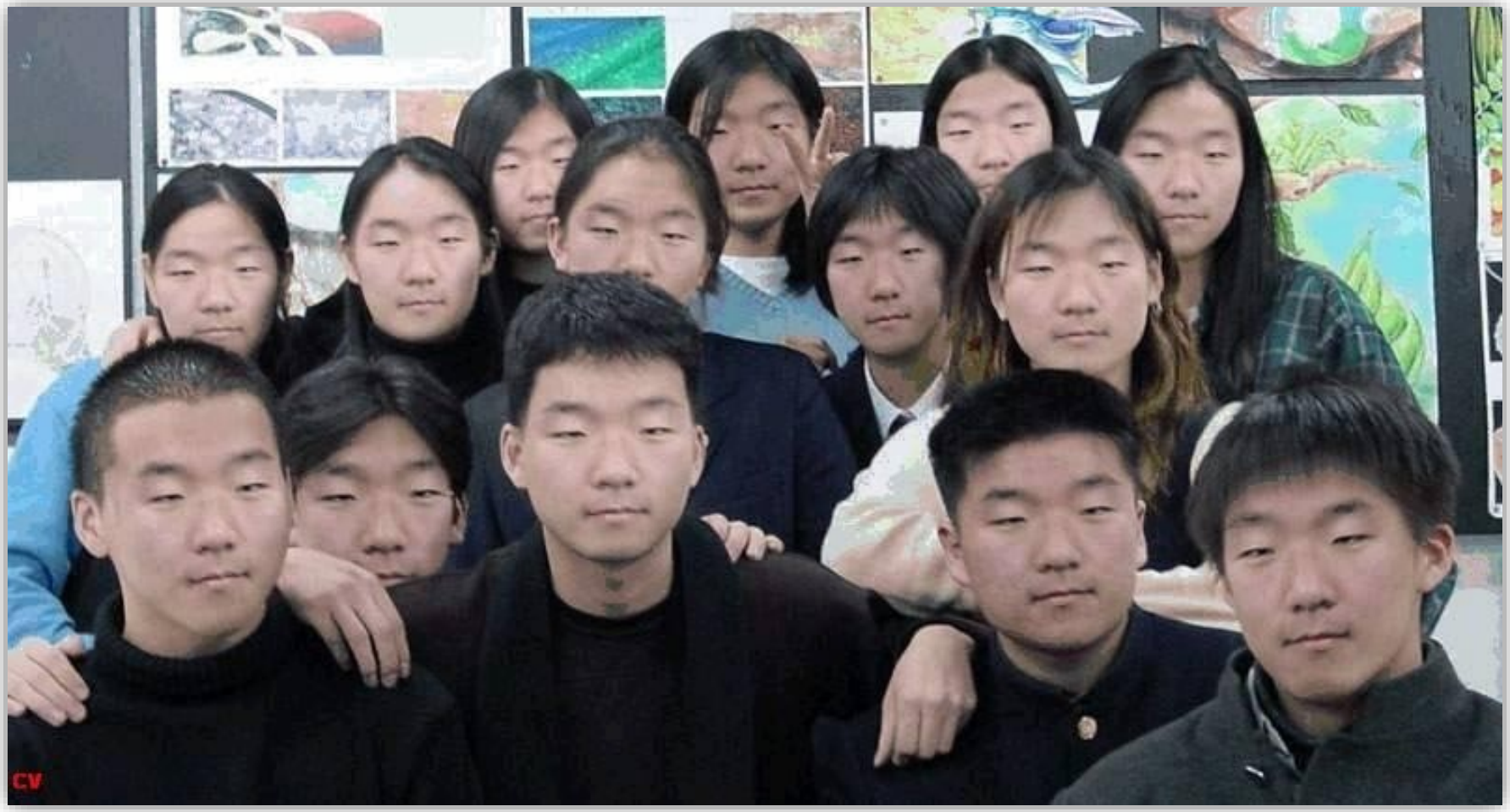
Automation would bring some improvement (20% improvement)

But Ford decided not to do it… Why?

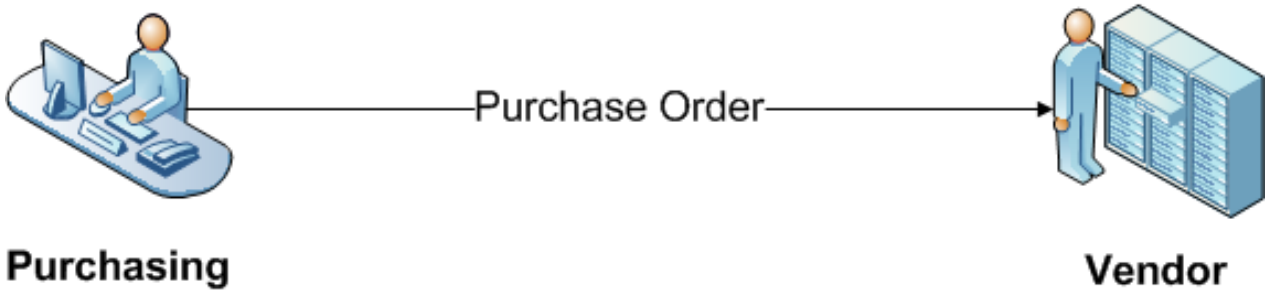
a) Because at the time, the technology needed to automate the process was not yet available.
b) Because nobody at Ford knew how to develop the technology needed to automate the process.
c) Because there were not enough computers and computer-literate employees at Ford.
d) None of the above

The correct answer is …

Mazda’s Accounts Payable Department



How the process worked? (“as is”)



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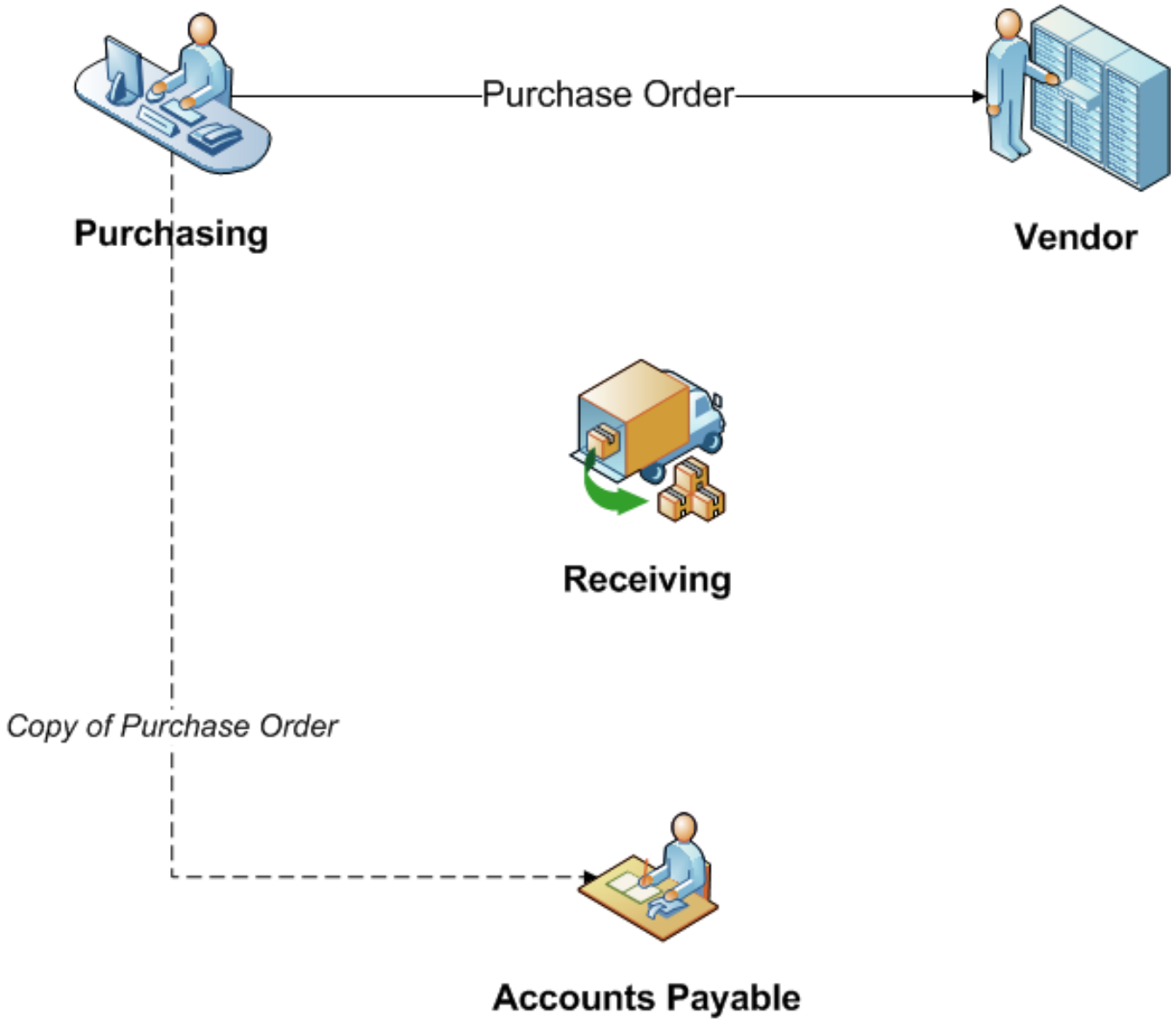

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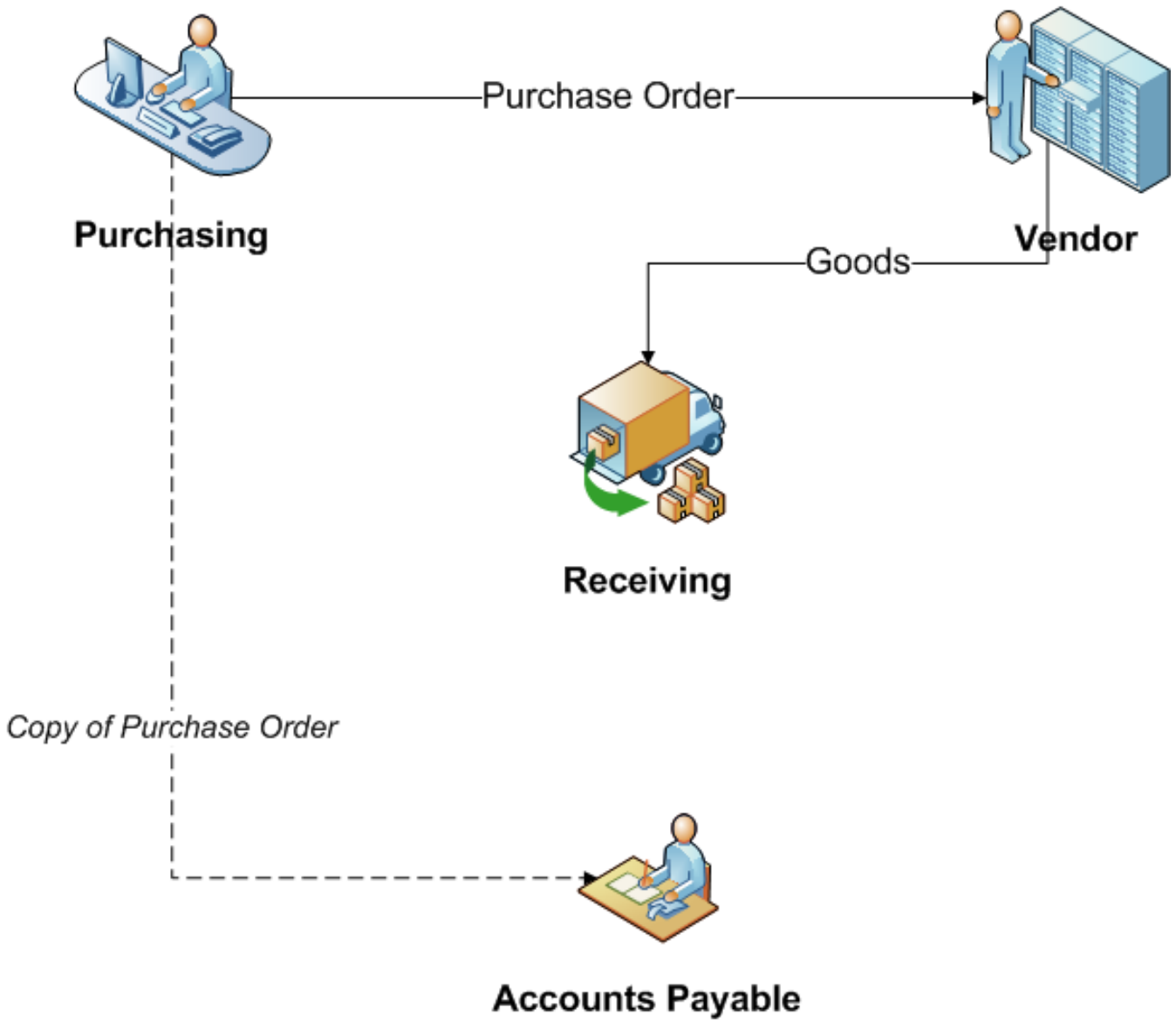

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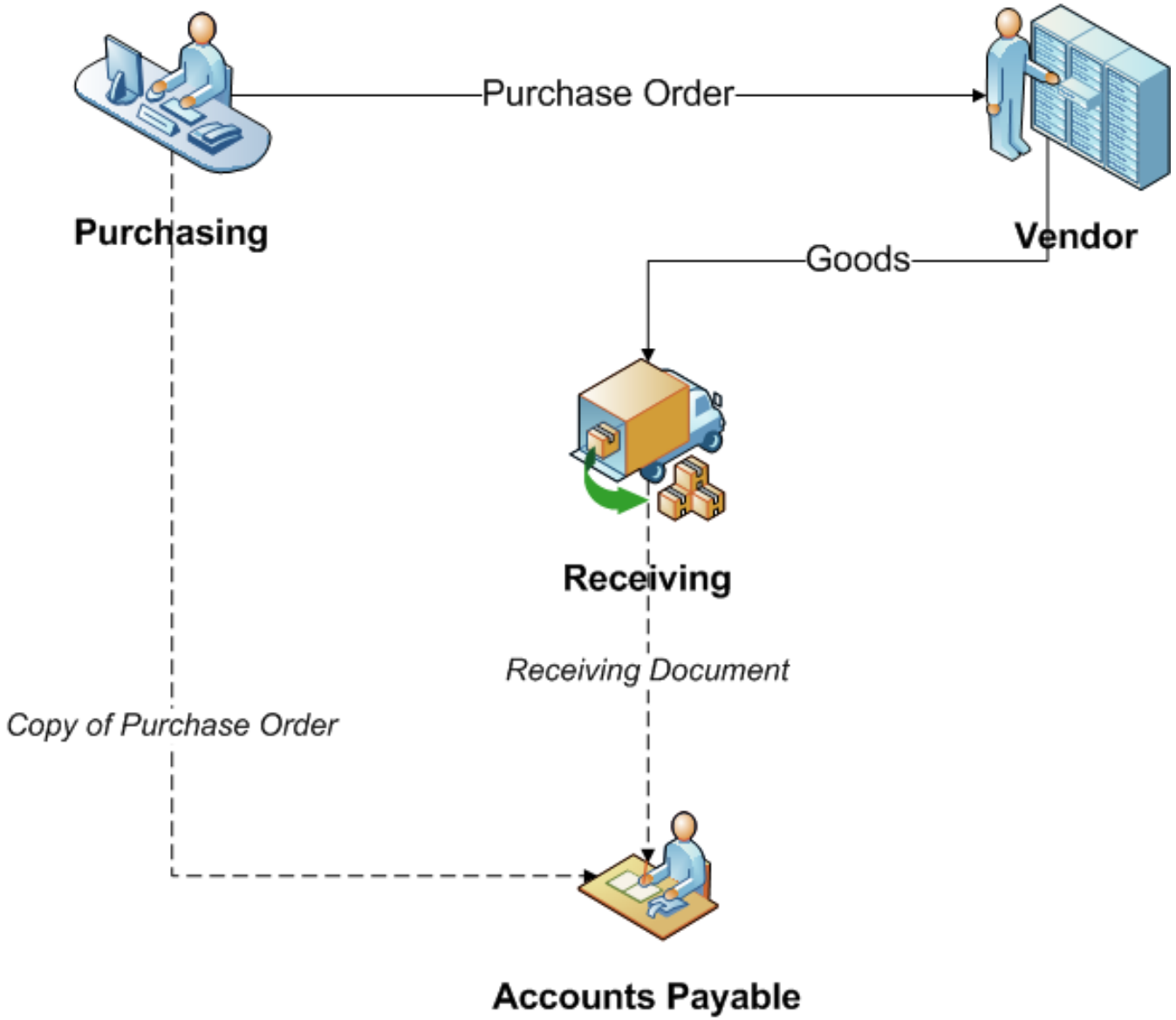

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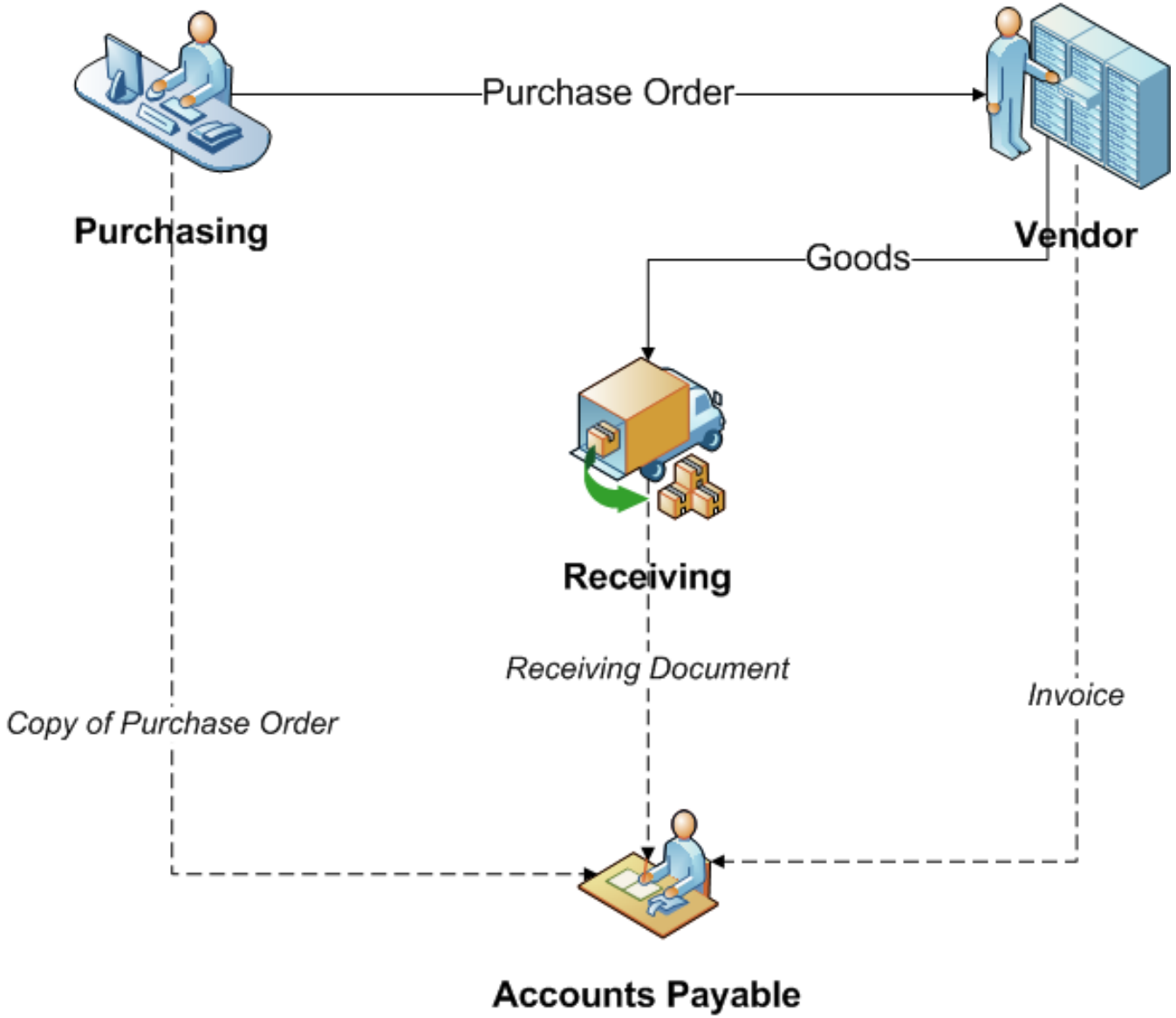

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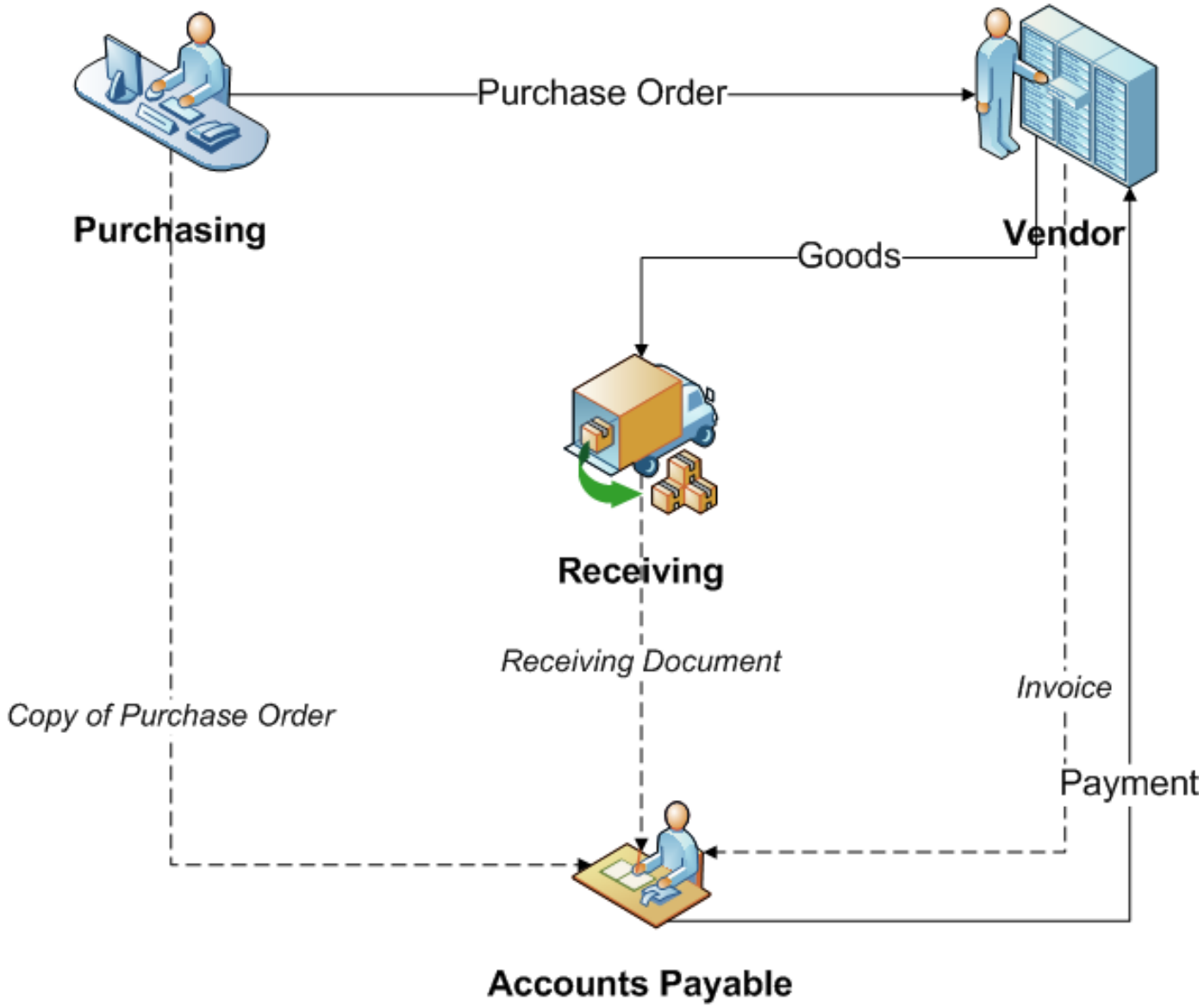
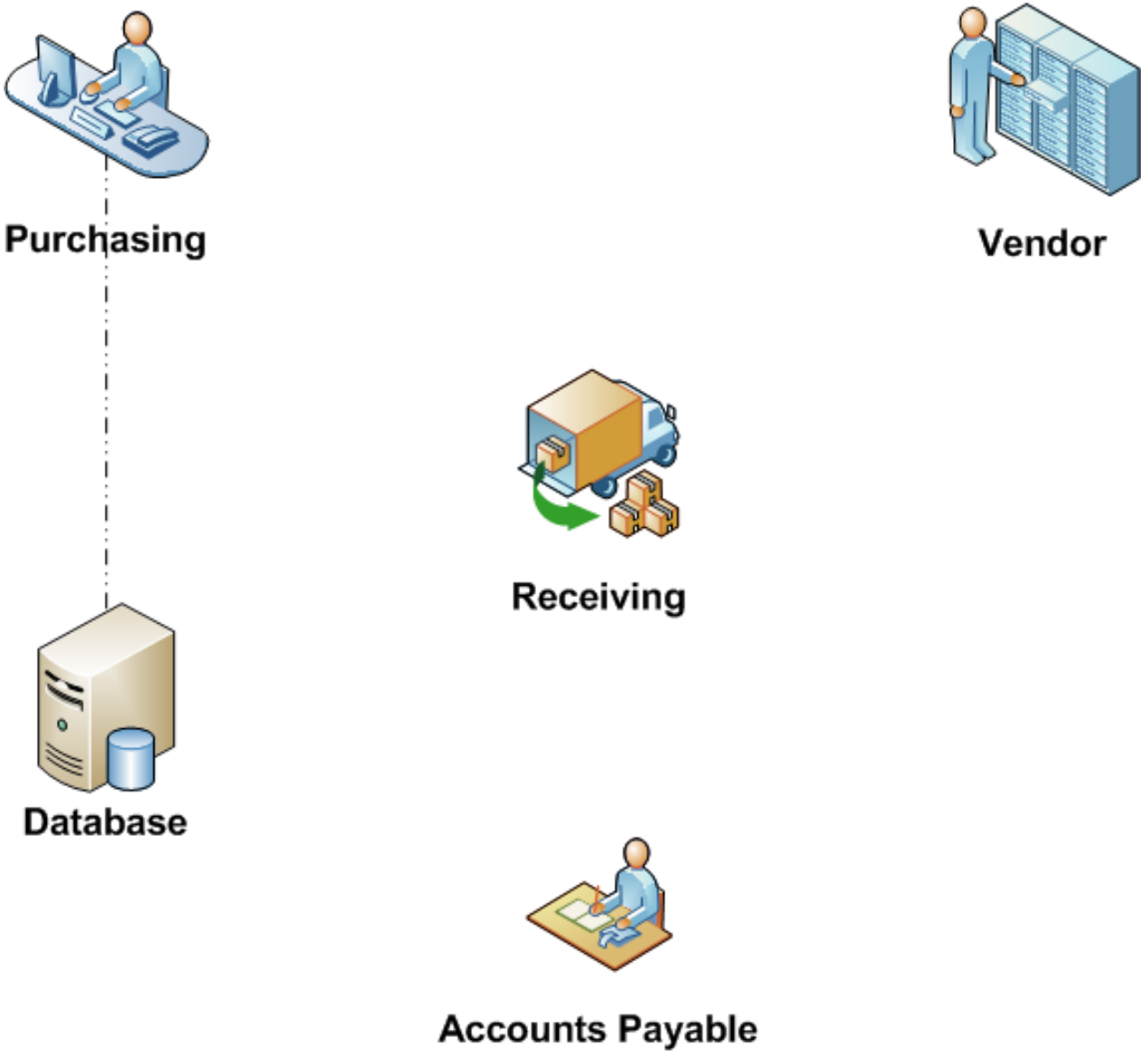


Reengineered Process (“to be”)



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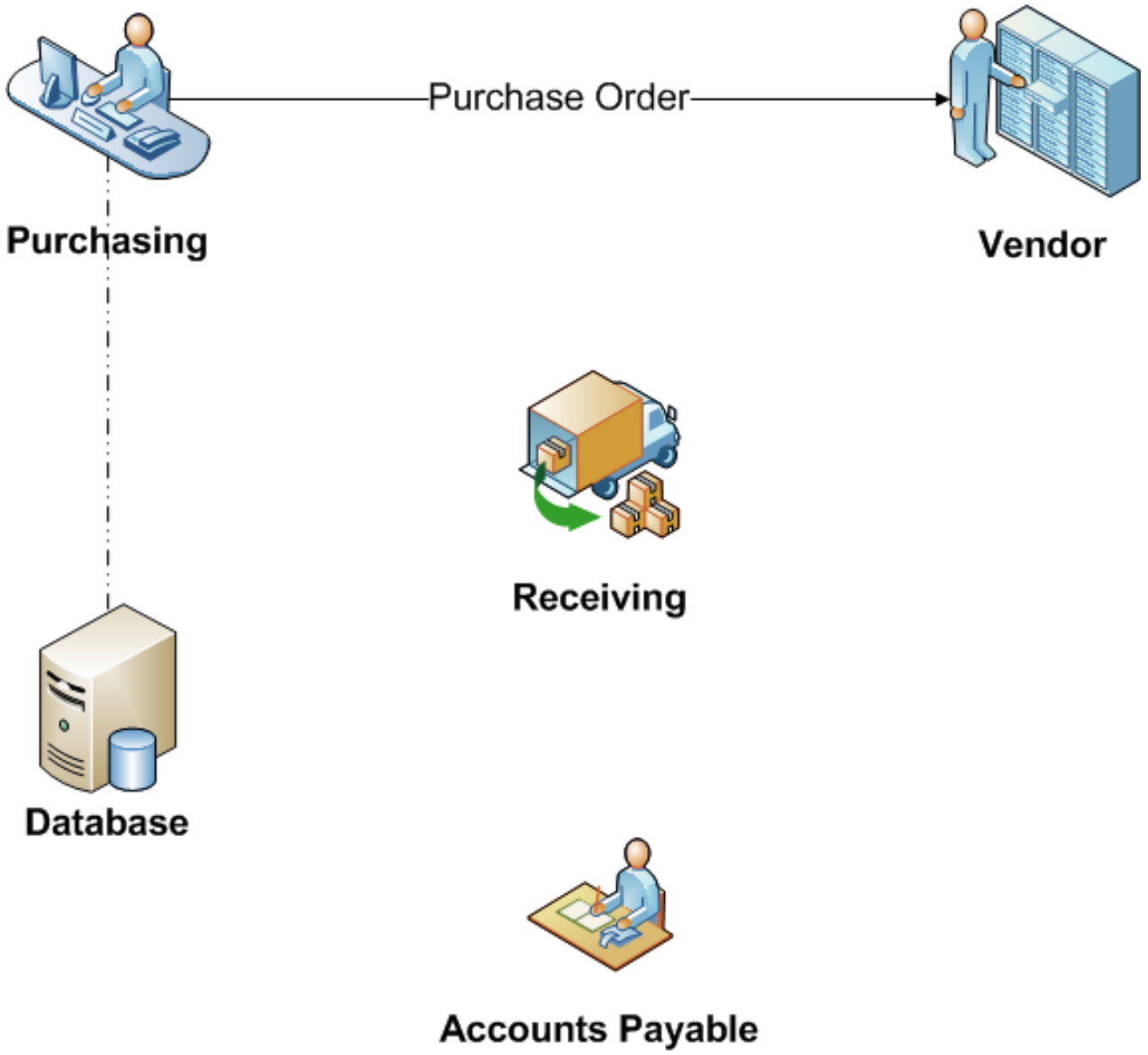

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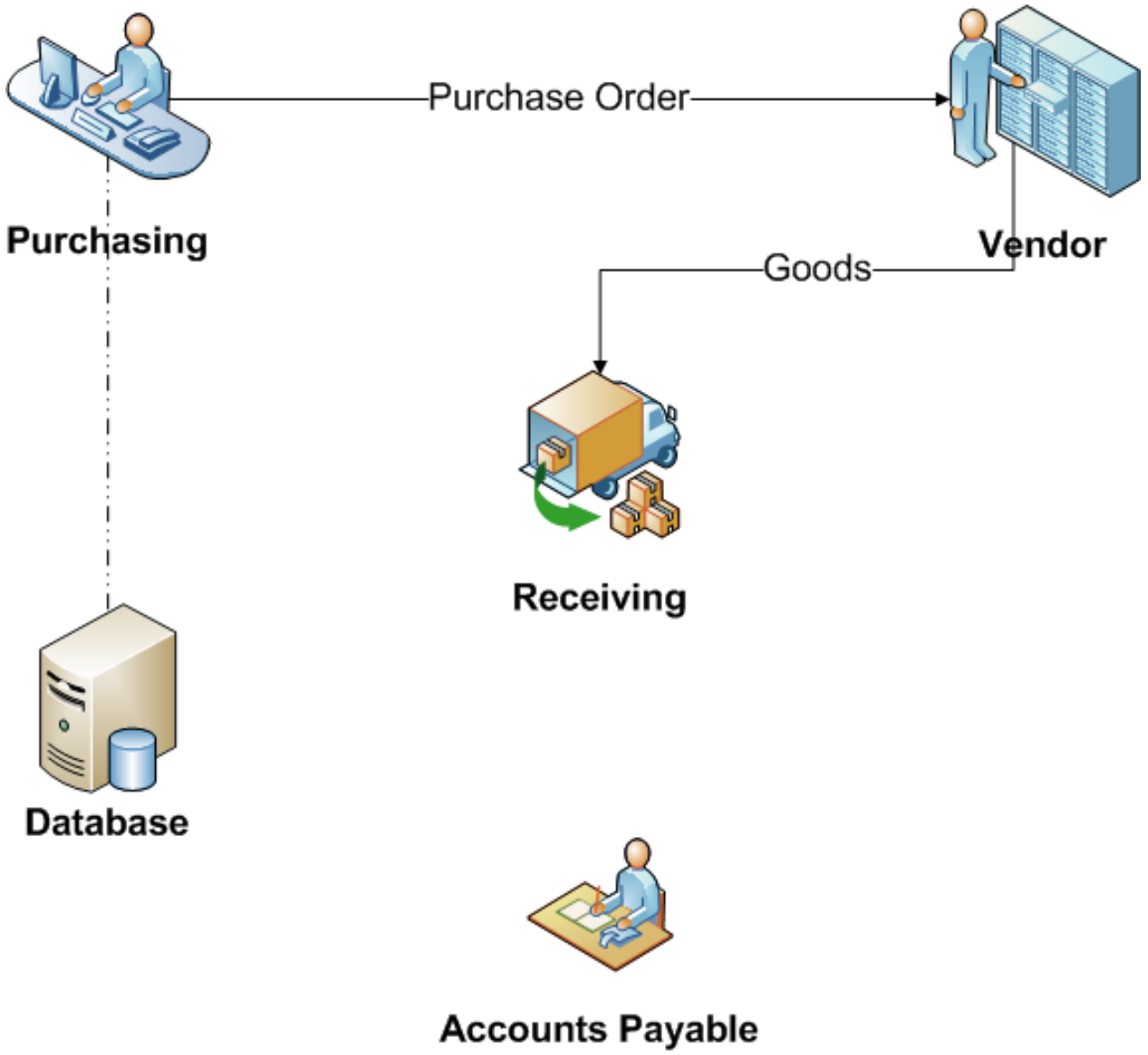

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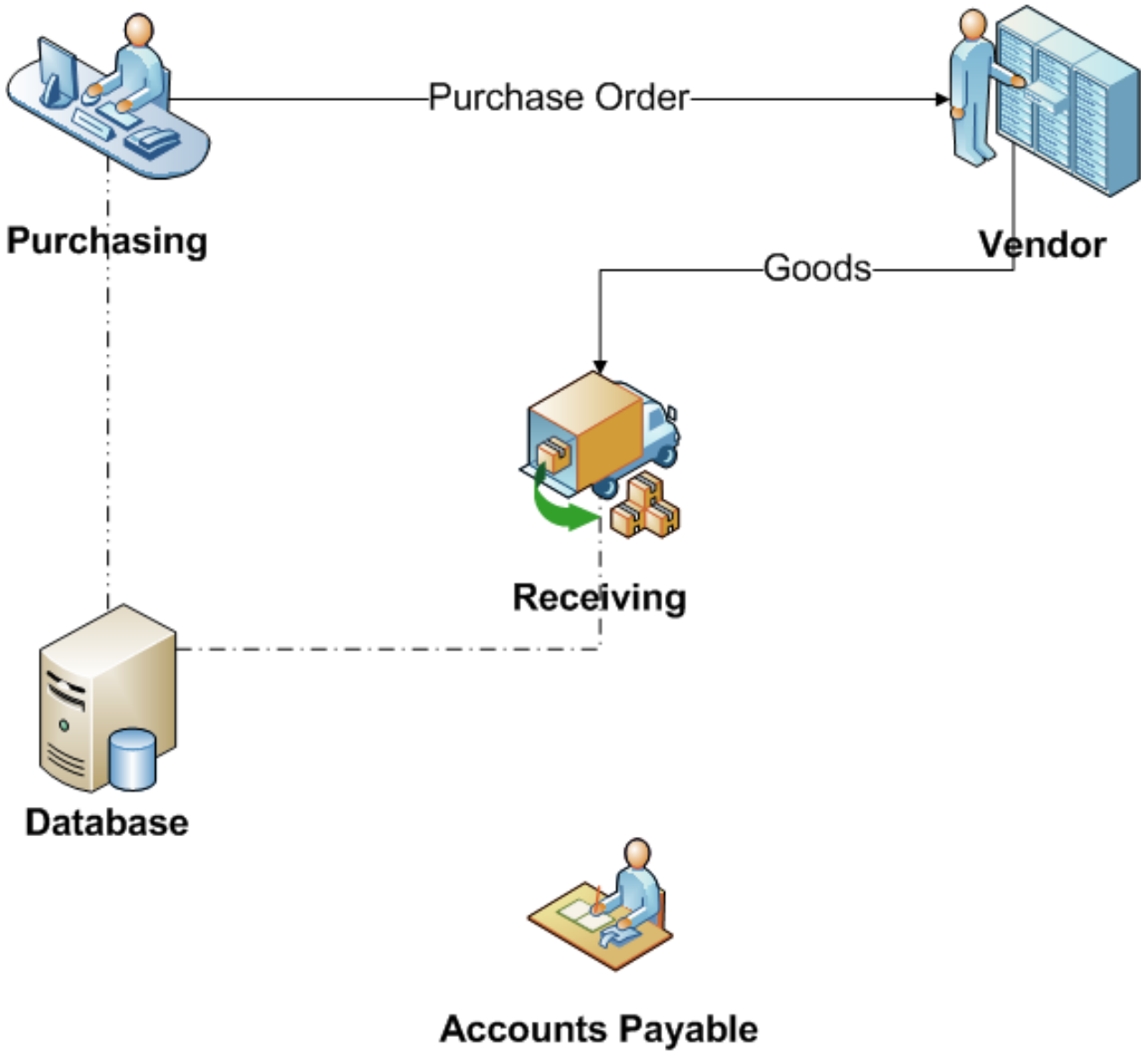

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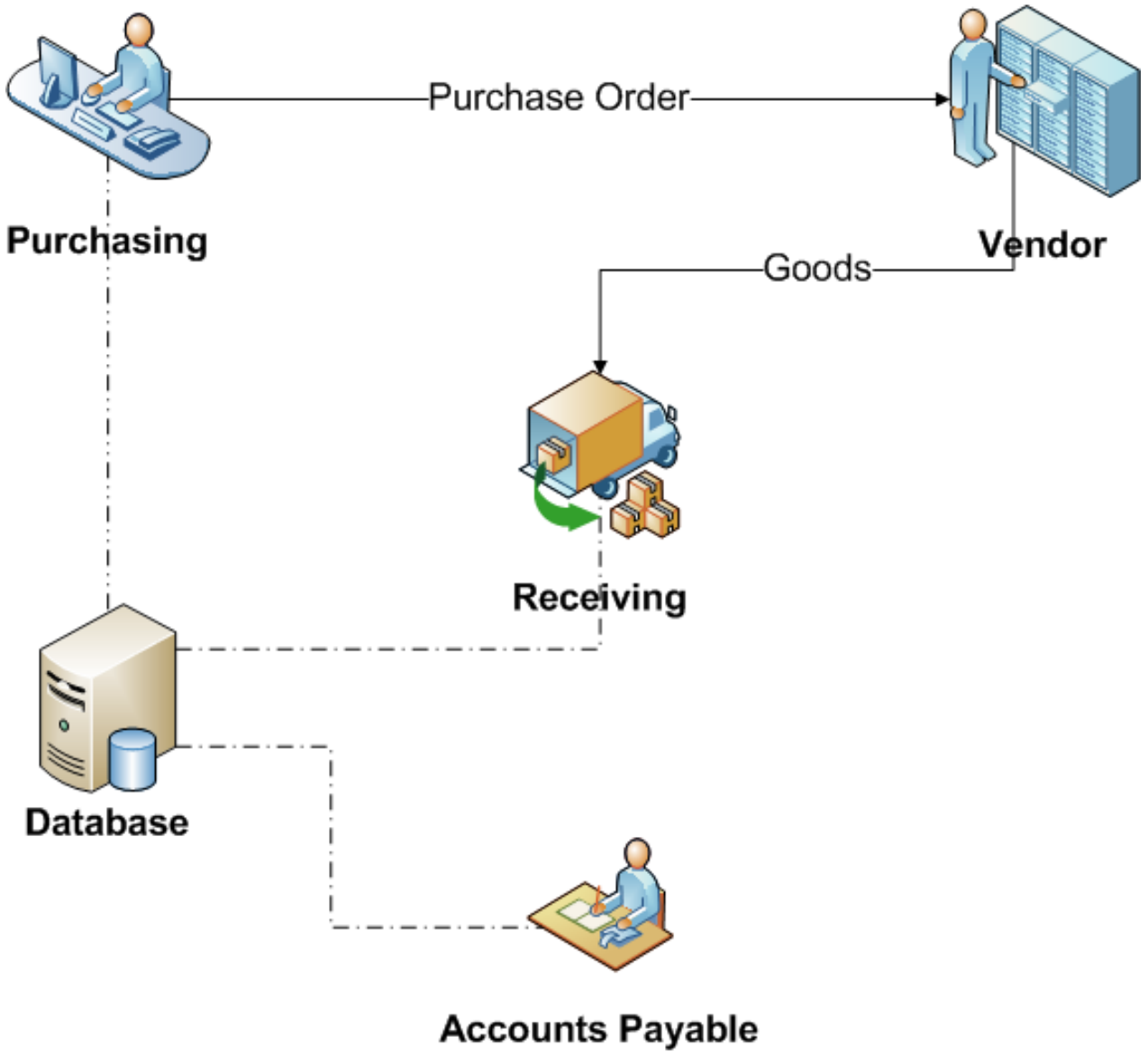

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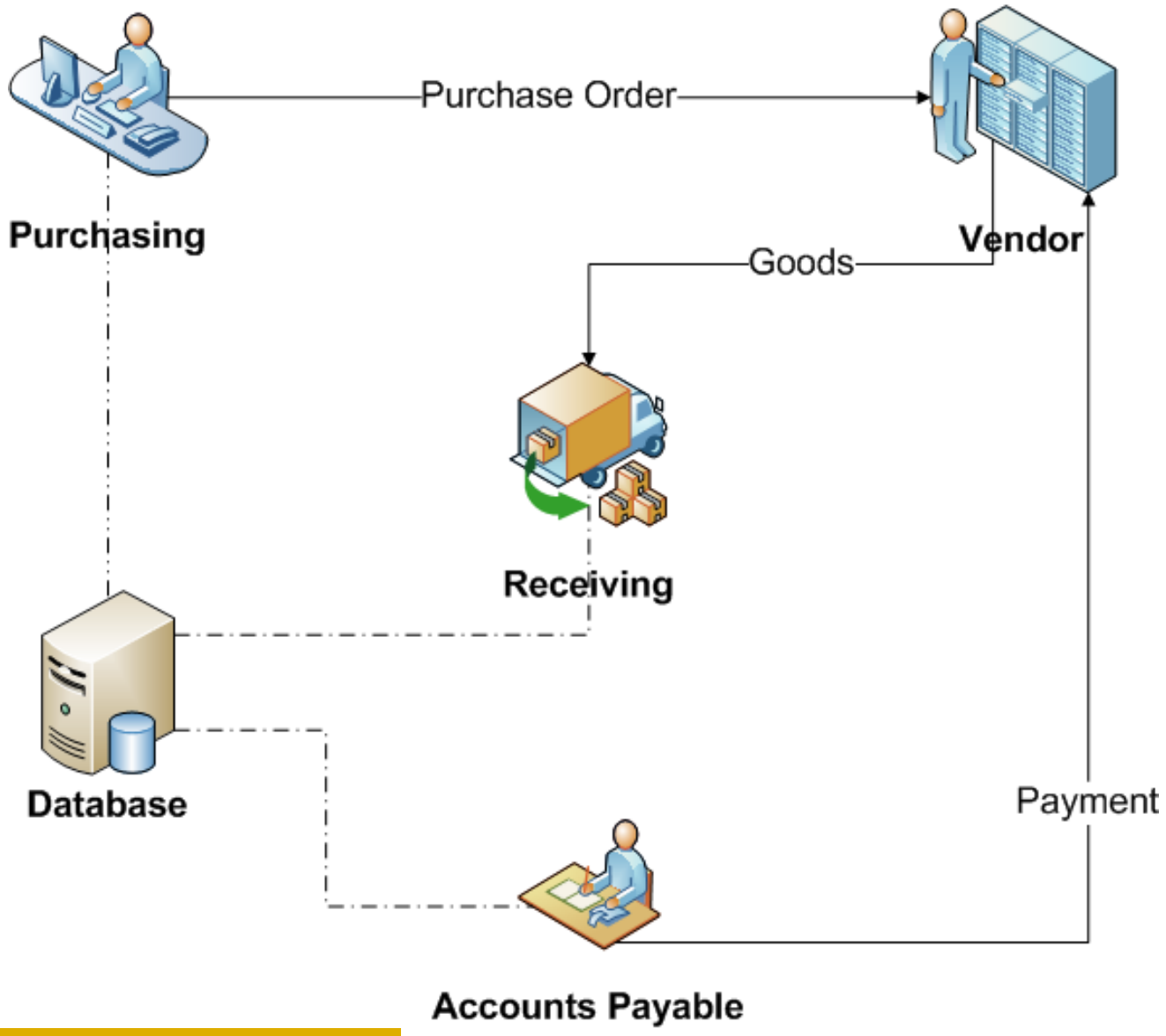


Evaluated Receipts Settlement

Outcome…

- 75% reduction in head count
- Simpler material control
- More accurate financial information
- Faster purchase requisition
- Less overdue payments

Lessons:

- Why automate something we don’t need to do at all?
- Automate things that need to be done.

“Don’t Automate, Obliterate!” (Hammer, 1990)

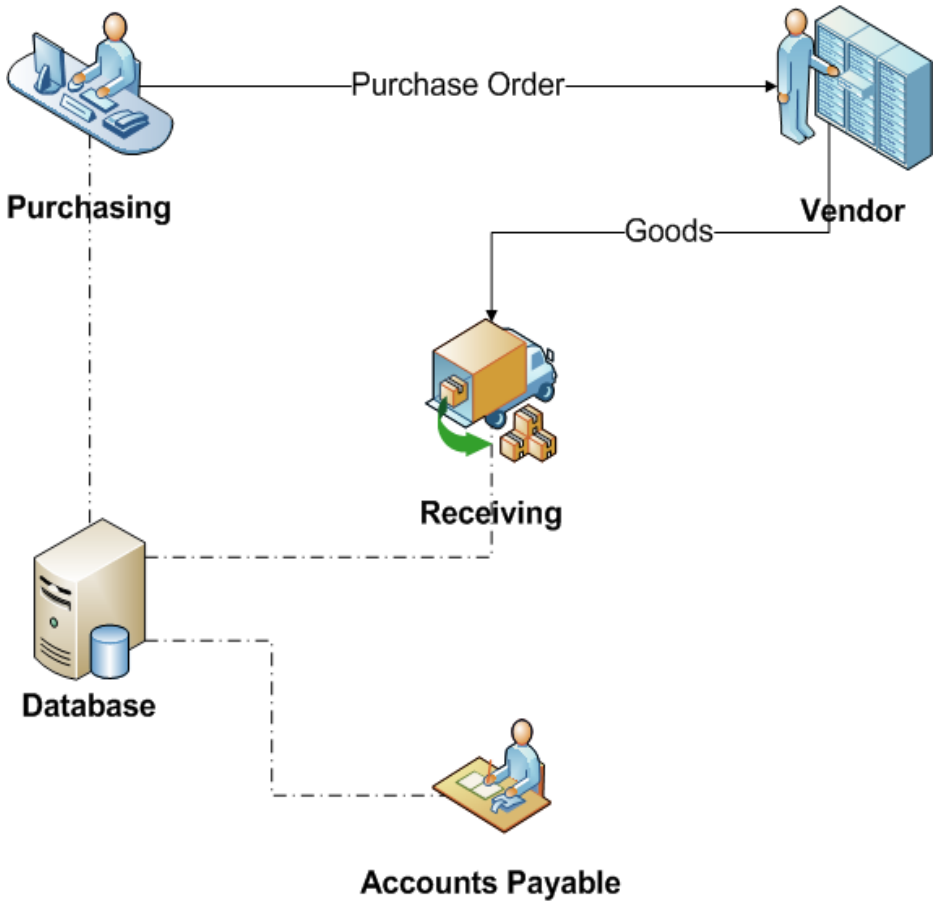
Some principles of BPR

1. Capture information once and at the source
2. Subsume information-processing work into the real work that produces the information
3. Have those who use the output of the process drive the process
4. Put the decision point where the work is performed, and build control into the process
5. Treat geographically dispersed resources as though they were centralized.

Principle 1

Capture information once and at the source

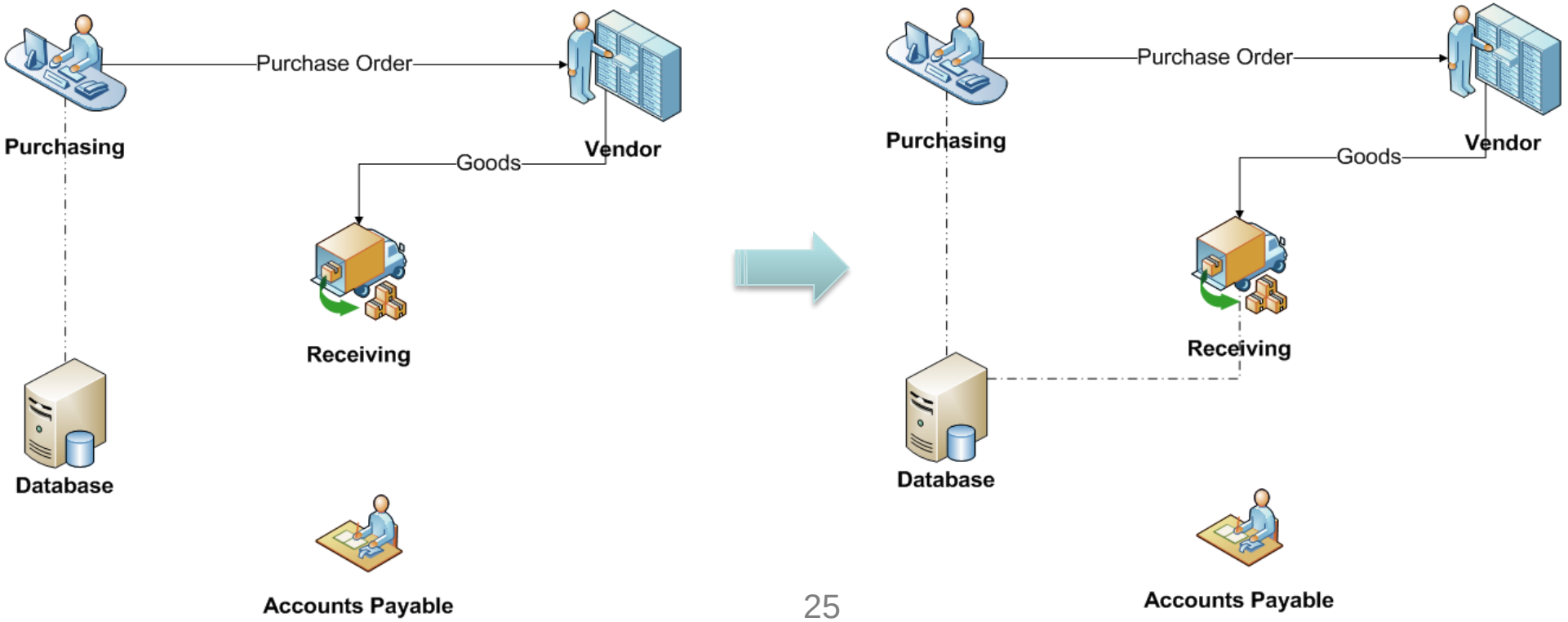
- Shared data store
  - –All process workers access the same data
  - –Don’t send around data, share it!
- Self-service
  - –Customers capture data themselves
  - –Customers perform tasks themselves (e.g. collect documents)



Principle 2

Subsume information-processing work into the real work

- Evaluated receipt settlement: when receiving the products, record the fulfillment of the PO, which triggers payment

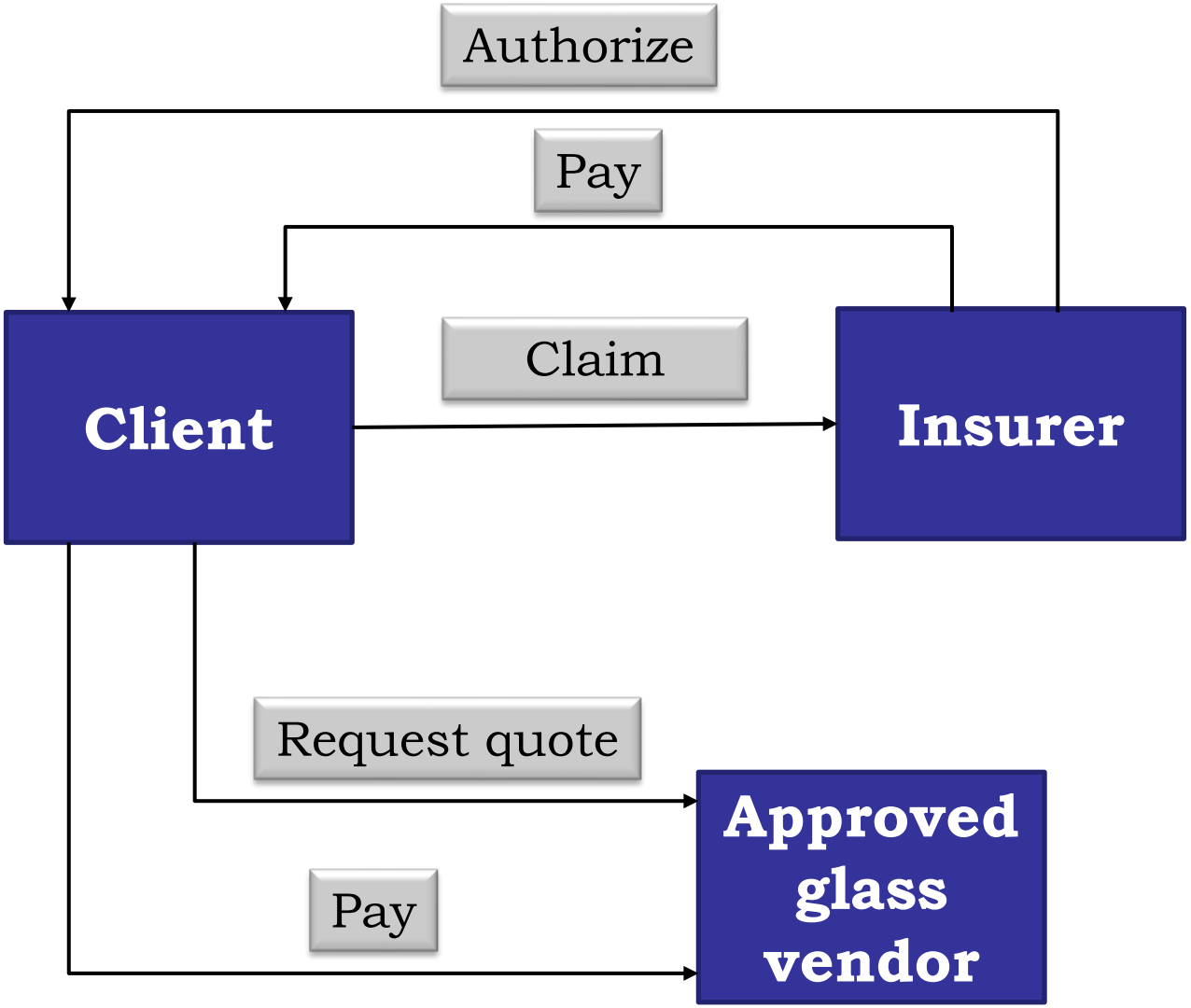


Principle 3

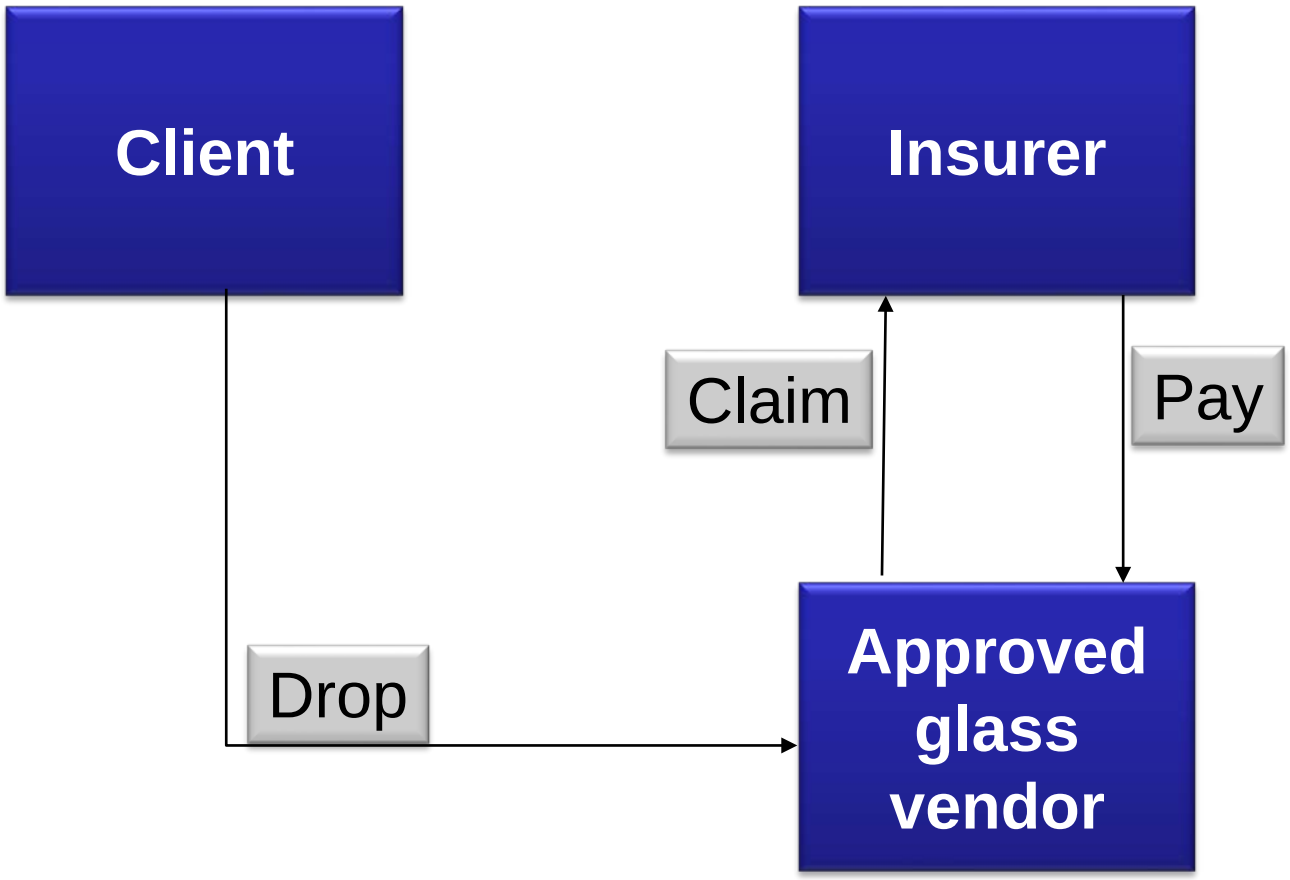
Have those who use the output of the process drive the process

- Vendor-managed inventory
- Scan-based trading
- Push work to the actor that has the incentive to do it

Example: problematic claims process



Redesigned claims process

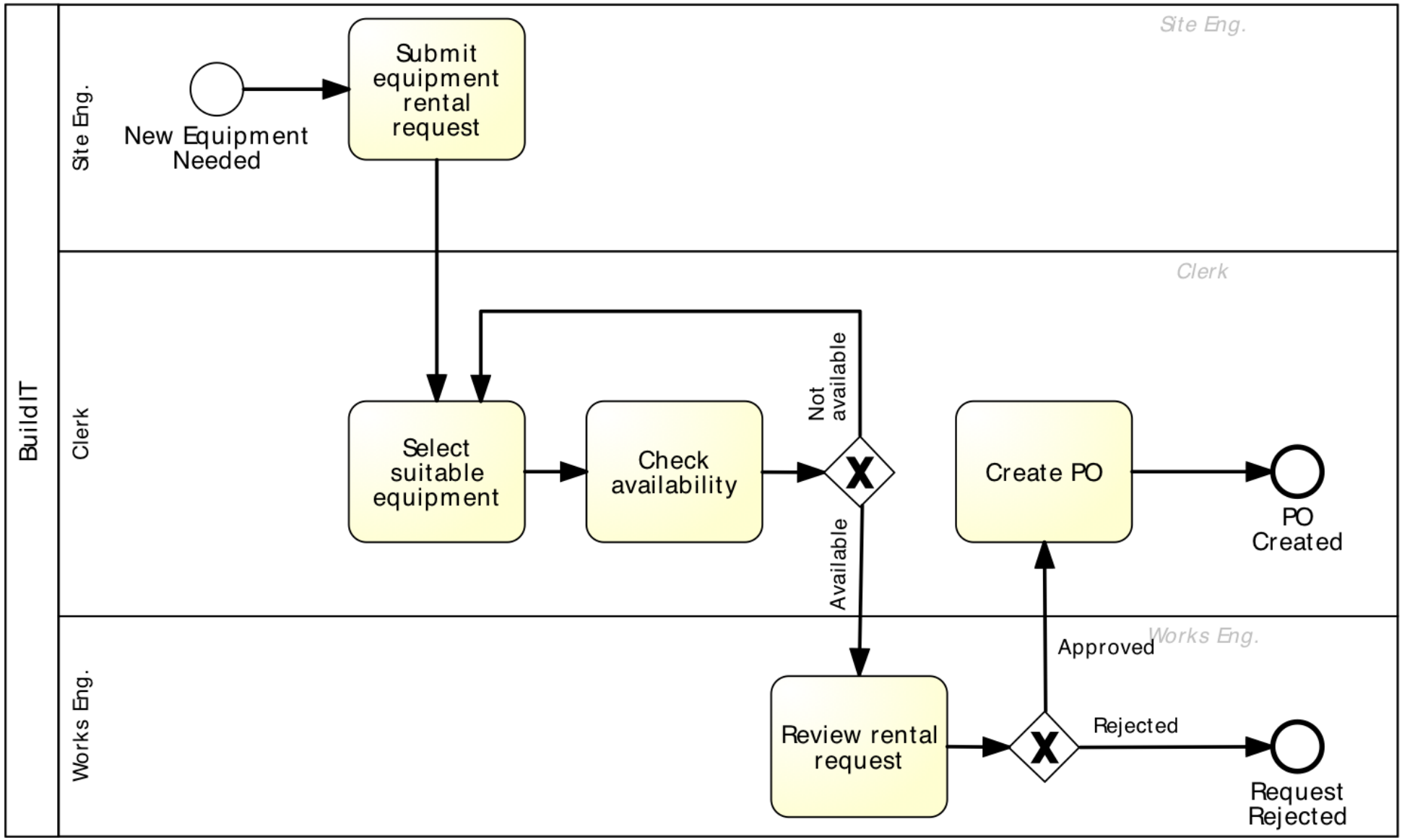


Principle 4

Put the decision point where the work is performed, and build control into the process

- Empower the process workers
- Provide process workers with information needed to make decisions themselves
- Replace back-and-forth handovers between workers and managers (transportation waste) with well-designed controls

Equipment rental process



Self-service-based redesign

Principles 1 & 2

- When equipment is needed, site engineer queries the suppliers' catalogue, selects equipment and triggers PO

Principle 3

- Supplier stocks frequently used equipment at construction site, site engineers scan to put them into use

Principle 4

- Site engineer is empowered with the authority to rent the equipment; works engineer performs statistical controls

Principle 5

Treat geographically dispersed resources as though they were centralized.

- If same people perform the same function in different locations, integrate and share their work wherever possible
- Larger resource pools → less waiting times even with relatively high resource utilization

Questions