University of Pisa

MSc in Computer Engineering

Systems for Strategic Management and Support

LECTURE 7

http://www.iet.unipi.it/m.cimino/ssms/

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I) DISCOVER BUSINESS PROCESSES

S126 **I-4) Initiate First Session**

S127 - **Venting (30'):** give to everyone a common understanding of what it important and what is not, solving some of the common concerns

S128 - Invite the sponsor in the kickoff session, to describe the overall goals for what you hope by now is a process-oriented project.

S129 - Ensure that everyone really understands what a business process is, via one or two prepared examples (like the telephone service), **not** an example in the context of their industry.

S130 - Make use of **brainstorming** sessions. Basic guidelines: each participant makes one suggestion during his turn or says "pass". The facilitator records the idea without editing. There must be no criticism or negative comments. Arrange the group in a wide "U" and go around the group clockwise. Even absurd and impossible ideas are encouraged.

- A prepared example: a global manufacturer of sophisticated electronic products
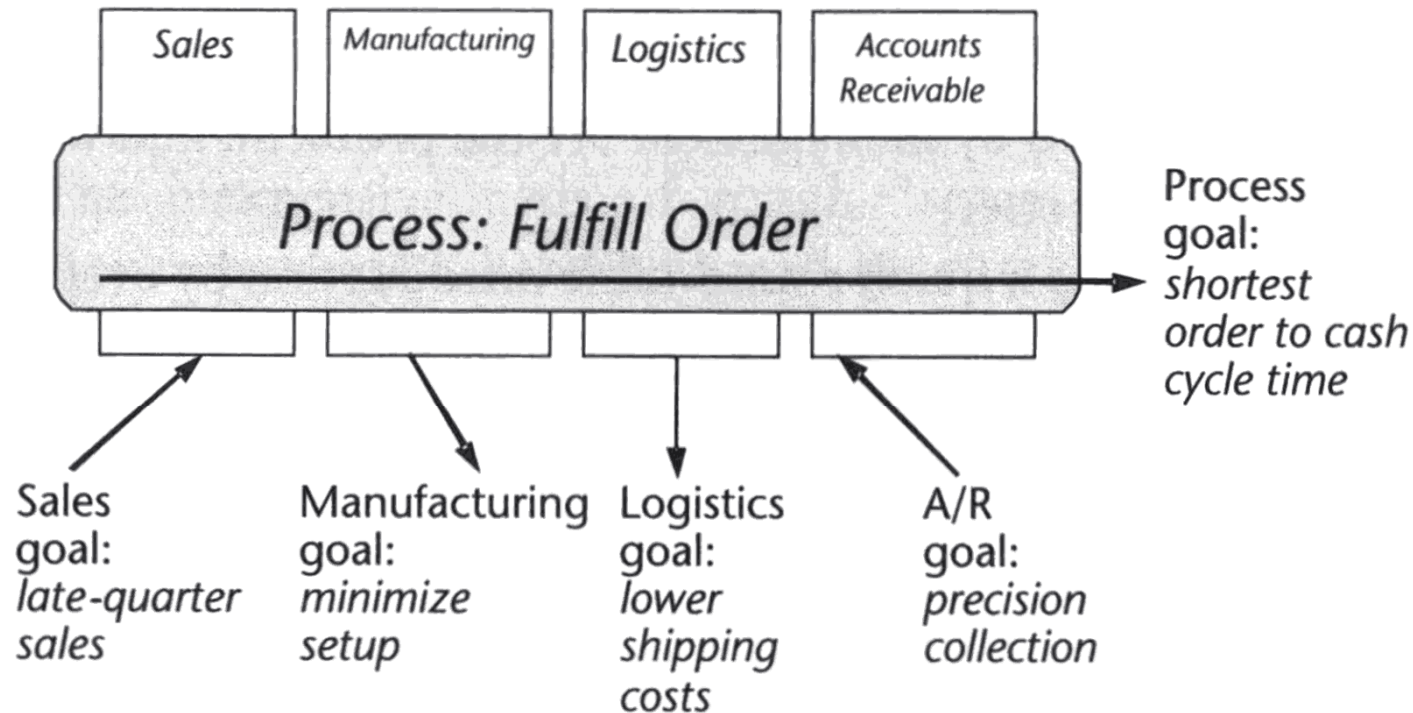
Process versus organization chart for Fulfill Order.

- The "fulfill order" process crosses four major organizations. The as-is process is not managed as a whole, with all functional areas striving for the same goal

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I) DISCOVER BUSINESS PROCESSES: BUILD TO ORDER OPERATION

- A "build to order" operation involves custom marking and labeling so as to allow a separate production run scheduled for each order.

- **Sales** negotiates the terms of the order and books it.

- **Manufacturing** plans the order, and determines which production stages would take place at which manufacturing facility.

- Manufacturing completes the first stage of the process for the lot and turns it over to Logistics for movement to the next stage

- **Logistics** moves the lot to the next stage, which is often on another continent

- The next manufacturing stage is completed, Logistics is then involved, for a total of 2-3 stages

- When manufacturing is complete, the lot is turned over to Logistics for delivery to the customer site

- **Accounts Receivable** invoices, collects, and applies the payment for the order

- **Logistics** an outdated cost-cutting program strives for low shipping unit costs. It consolidate shipments and choose lower-cost carriers

→ This negatively impacts the process. Who is looking for that?
- **Manufacturing** schedules orders optimizing equipment utilization

→ Some high-value orders move to the back of the queue

- **Accounts Receivable** is focused on invoices accurate to decimal

→ Time is spent to collect precise information

- **Sales** receives a cash bonus for orders received in the closing days of a fiscal quarter

→ There are many orders purposely delayed in the bonus period. This introduces delays and amount of work for Manufacturing

- The example shows that if no "higher authority" coordinates those individual targets, process performance will suffer.

S131
- **Business processes are fundamentally about coordination and alignment around the end result.**
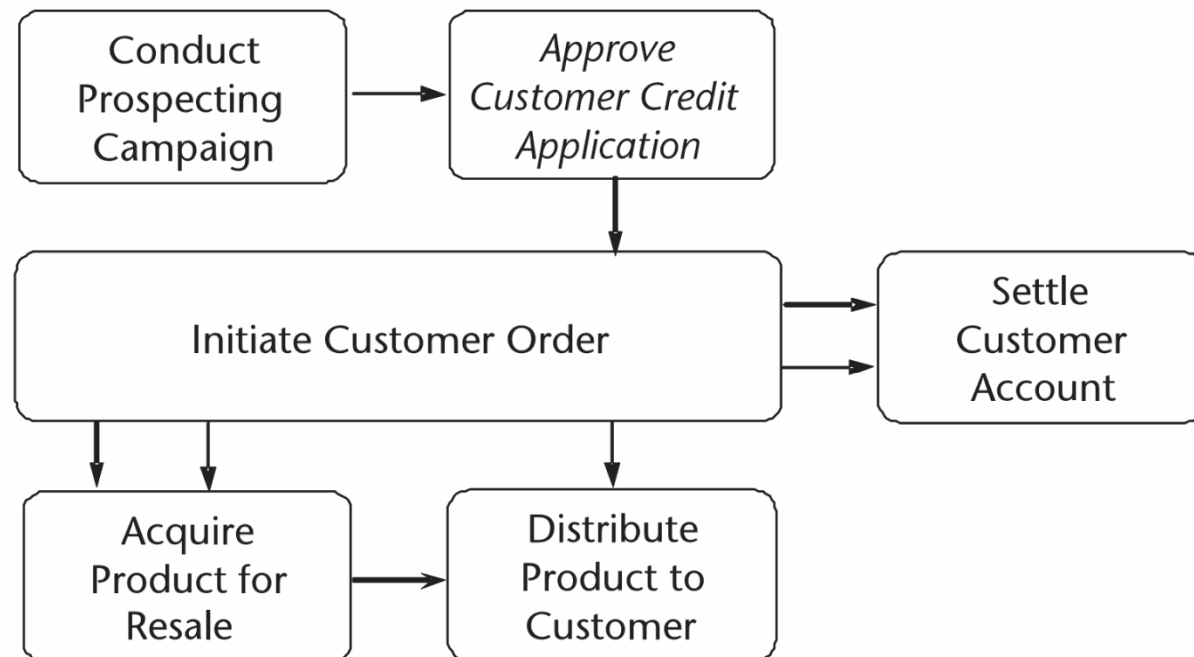
I) DISCOVER BUSINESS PROCESSES

- In **your session kickoff,** explain the idea of:

- Triggering event, discrete results, action verb-noun naming, subprocesses vs. organization, process area

- Use a sample of overall process map or process landscape

From a supplier of bulk fuel and lubricants to the transportation industry (shipping, trucking, airlines)

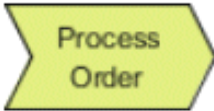The purpose of the first 2-3 sessions is to discover an overall process map

Overall process map for Customer Acquisition and Order Fulfillment.

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- Process Map Diagram in **Logizian**:

- It gives an overview that shows the processes needed to approach a business goal.

- It is in a upper level of analyzing and understanding a business process.

Notations

Name	Representation	Description
Process	Process Order	A process is a part of process flow in achieving a goal.
Send	Order Received	An event that initiate the process chain.
Receive	Goods Delivered	The result of process chain.
Process Link	→	The flow of process.

A list of supported notations in process map diagram

Order Received → Process Order → Ship Order → Goods Delivered

S135 **I-5) Analyze Terms and Find the Nouns**

S136 - Agreement on a Data Model (Entity-Relationship, UML Analysis Class Diagram, Ontology)

S137 - Start with a list of core things or nouns, a project glossary, and later in the project you will deal with attributes and relationships

- Glossary Support in **Logizian**:

S138 - Create and maintain a set of domain specific terms used in your model

S139 - Glossary grid   Define Aliases   Reporting

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I) DISCOVER BUSINESS PROCESSES

S140 - Processes work on **things**, an agreement on those things is needed

S141 - Post the flipchart sheets for post-it on a large section of plain wall

S142 - Invite the group to spend 5-10' thinking about the most important terms in their area

S143 - Each **term** will probably fit in one of the following **8 categories**:

- a) Things (guidelines to follow)

- b) Facts about things

- c) Metrics

- d) Organizations, departments, jobs, roles, …

- e) Processes, functions, activities, tasks,…

- f) Sytems, tools, equipment, mechanism,…

- g) Reports, forms, screens, queries,…

- h) Other: too vague ("the competition"), mono-instance ("the company itself"), or not in scope

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S144 - Criteria that should be met to be a **"thing"**:

- a singular noun that implies a single instance

- has multiple occurrences

- need to keep track of each occurrence (uniquely identifiable)

- has facts that must be recorded an maintained

- processes act on them, they make sense in a verb-noun pair

- refer to the essence, not the implementation,

so it is nota a report, form, list, query, screen, metric,

or other depiction of things an facts

S145 - Provide some examples, such as Customer, Product, Order

S146 - Sort the terms into the 8 categories: each flipchart takes two categories, labels are on post-it

S147 - If a term belong to two categories, duplicate it (e.g. "sales" is bot a metric and an organization)

S148 - Encourage the participants to move the post-its: physical involvement stimulate interest

S149 - Arrange the post-its so that synonyms are in a row

S150 - For each row, the group select the standard term an move it to the left side of the row

Selected nouns	Synonyms
Survey	
Market segment	Market need
Product	Section, feature
Issue plan	Editorial calendar
Editorial item	Article, story, interview, wire item, copy
Writer	Reporter, freelancer, columnist, contributor
Issue	Edition
Page	Flat
Customer	Prospect, account, client, advertiser
Display ad order	Order, ad order, retail ad order
Display ad	Ad, retail ad, proof, artwork
Classified ad order	
Classified ad	Classified
Invoice	Bill, receivable
Payment	Receipt, cheque
Commission	

Terms chosen as "things" arranged

S151 - It is a collective activity> different interpretations for the same term are presented

S152 - Flexibility is important

S153 - When people explain the meaning for a term, group learn the business

| Facts |
|---|
| Error, invoice amount, run date |
| **Metrics** |
| Content percentage, growth rate, profit, *sales*, cash flow, circulation, readership, market share, retention rate |
| **Organizations, departments, jobs, roles, ...** |
| Traffic, *Sales*, Production, Graphic designer, Sales rep |
| **Processes, functions, activities, tasks, ...** |
| Billing, design |
| **Systems, tools, equipment, mechanisms, ...** |
| G/L system, customer database |
| **Reports, forms, screens, queries, ...** |
| Booking sheet, runsheet, order form, master runsheet |
| **Others—too vague, single instance, not tracked, out of scope** |
| Competition, crunch period, the paper, reader |

Terms other than "things."

S154 **I-6) Identify Activities**

S155 - The purpose is to identify the activities that in the next step will be sequenced and clustered into business processes

S156 - Do not get into all the exceptions, variations, and "rainy day" cases, or you will never finish

S157 - The focus is on normal, mainstream, "sunny day" activities.

S158 - Do not get into all the management and control activities that sit over the process, which are typically supported by information, not workflows.

S159 - Introduce an example to the group:
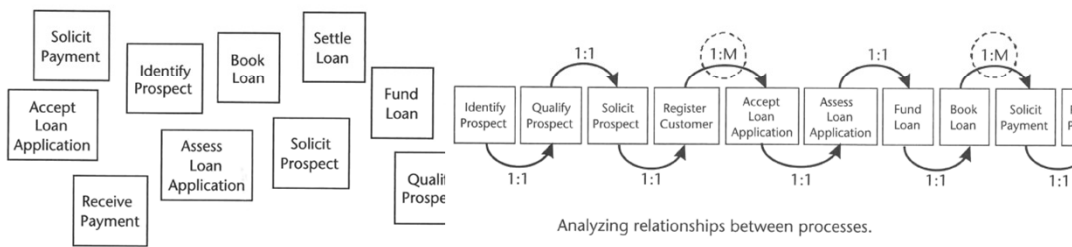
Initial suggestions for Commercial Loans processes.

Analyzing relationships between processes.
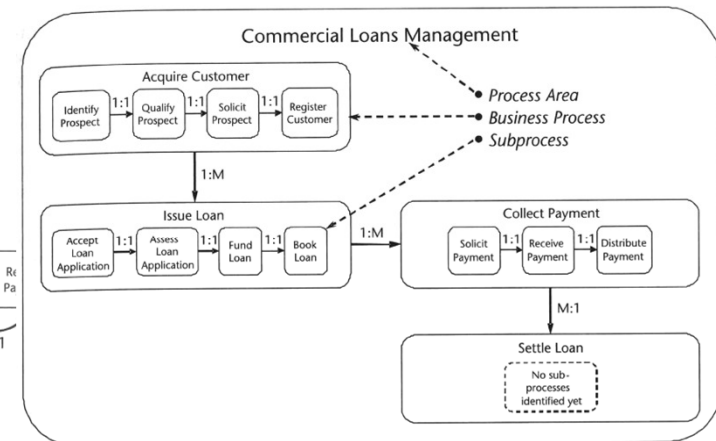
Process area, business processes, and subprocesses.

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S160 - Use the same color for post-its, to avoid distinguishing groups.

S161 - Do not thin too hard, you are doing discovery and not analysis

S162 - Take each selected noun and ask the group to identify activities by thinking of which verbs go with it. New discovered activities are added to the collection

S163 - Clean up the activity names so they usa an action verb and one or more nouns:

    e.g. Designing -> design advertise;

        Writing –> write editorial item;

        Billing -> issue invoice

S164 - Generalize any that refer to specific actors or technologies unles those references are key to understand the activity

S165 - Eliminate duplicates, use the noun-is-verbed form to check the names, remind people the difference between result and objective

S166 **I-7) Link the Activities and Determine Business Processes**

S167 - The purpose is to uncover a set of related business processes by linking the activities into "result-trigger" chains, analyzing the linages and determining business process boundaries

S168 - Rules: a cluster of activities with 1:1 links generally is a well-formed business process, whereas 1:M and M:1 connections are not coordinated within the same process

S169 - The group places, on long sheets of plotter pages, the activities in sequence. Simply ask to identify cases when an activity is generally preceded of followed by another activity

S170 - This sequencing makes missed activities more evident.

S171 - Activities can be made of a long chain, but also of some parallel streams. Sometimes M:M linkages are also possible. Focus on 'happy path' (do not worry about looping or instances 1:0).

S172 - Identify the business process boundaries and name the business processes.
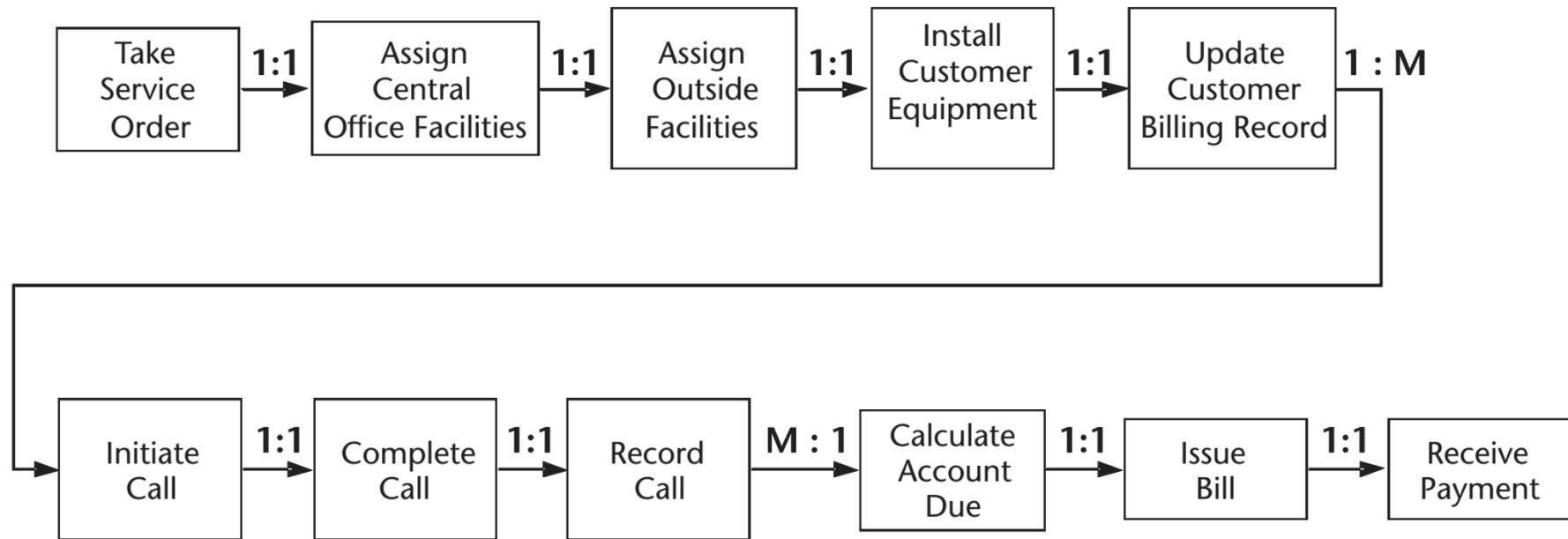
I) DISCOVER BUSINESS PROCESSES

- Exercise with Logizian: a Brainstorm Diagram to discover real processes in a Telephone Company
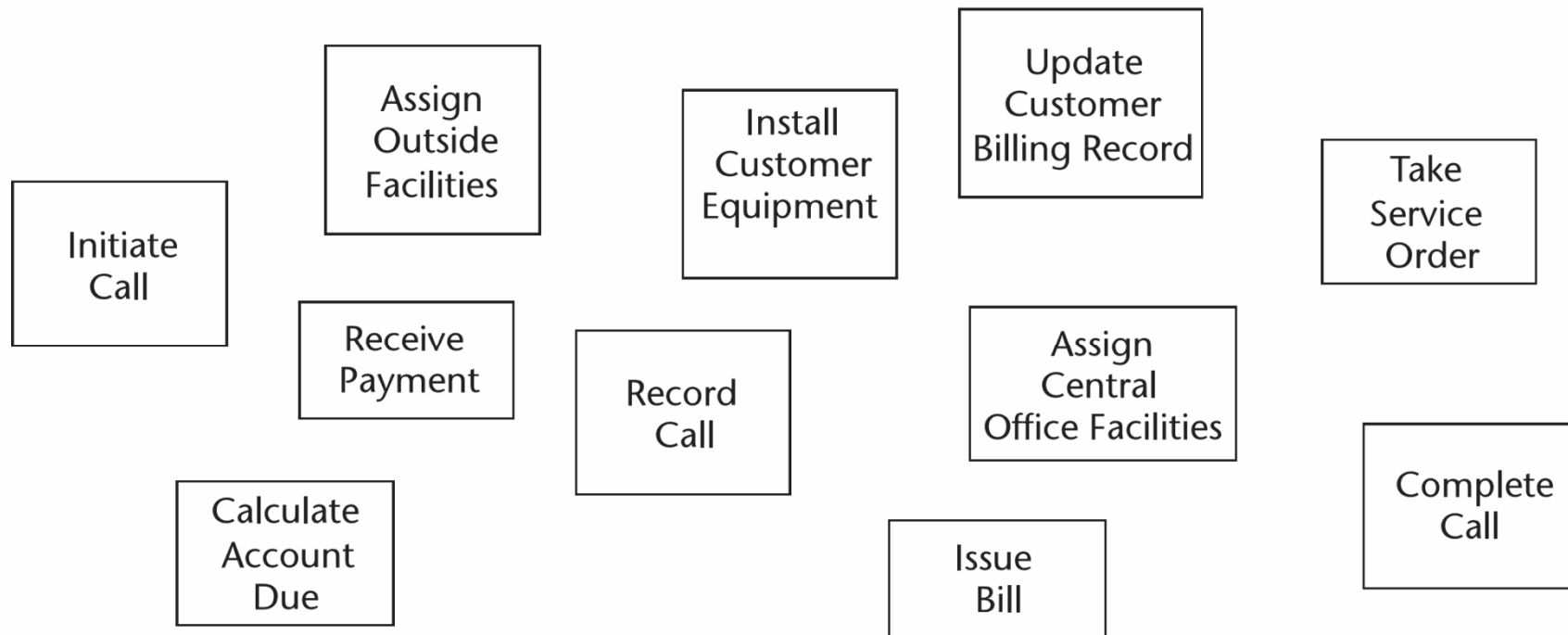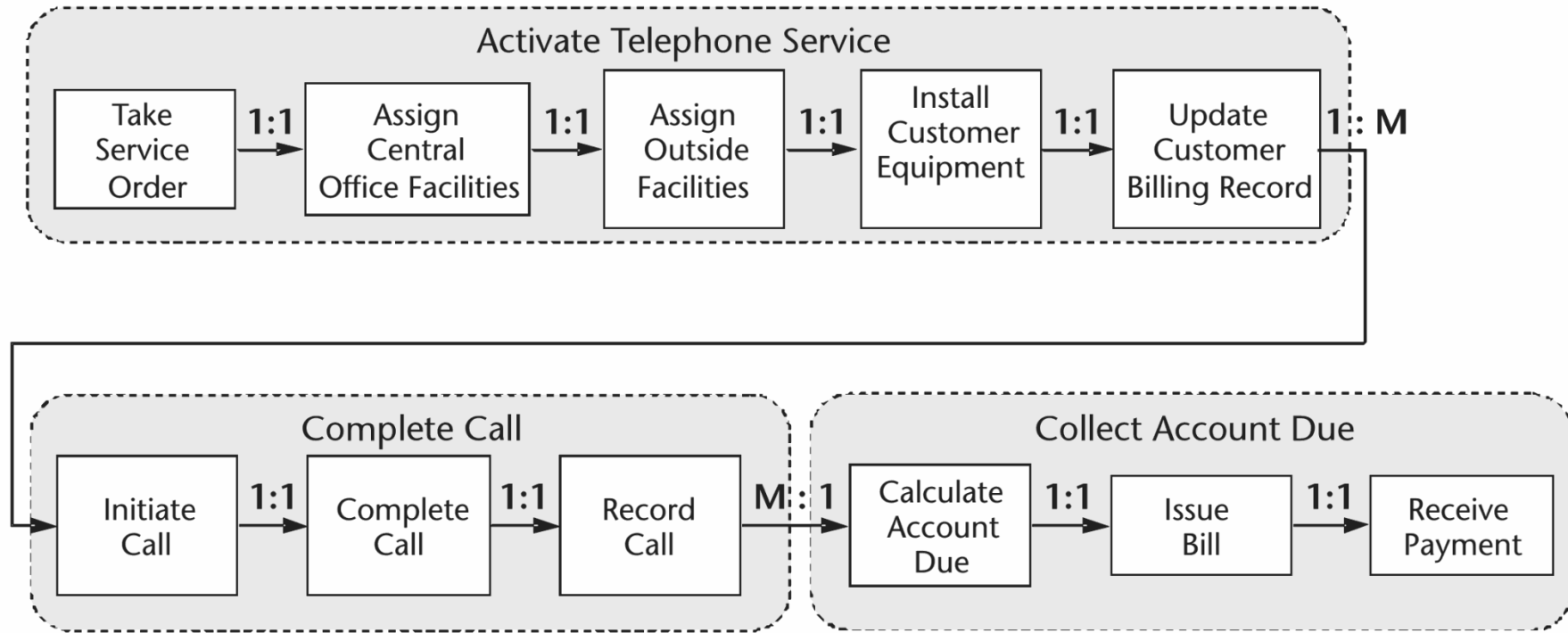

Partial results from activity identification.

Sequence activities and analyze linkages.

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Activate Telephone Service

Take Service Order → 1:1 → Assign Central Office Facilities → 1:1 → Assign Outside Facilities → 1:1 → Install Customer Equipment → 1:1 → Update Customer Billing Record → 1:M

Complete Call

Initiate Call → 1:1 → Complete Call → 1:1 → Record Call → M:1 →

Collect Account Due

Calculate Account Due → 1:1 → Issue Bill → 1:1 → Receive Payment

Identify business processes.