Customer Relationship Management as an Organizing System

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Customer Relationship Management is a set of practices, strategies and technologies that companies use to manage and analyze customer interactions with the goal of improving business relationships with customers, increase customer retention and drive sales growth. CRM systems are organizing systems that consolidates customer information resources, record and track various customer interactions over email, phone, social media etc, automate various workflow processes such as tasks, alerts and reminders, and give managers the ability to track performance and productivity.

This case study explores how customer information resources and interaction resources are stored in CRM systems, and compares and contrasts CRM systems in different industries.

What is being organized?

CRM systems are hubs of customer information: the primary resource in a CRM system is the customer's information such as the customer's name, their different addresses (home, office, emergency), contact numbers (home, office, mobile), emails id's (personal, official), identification numbers (passport, DL, SSN), credit card numbers, bank accounts etc. CRM systems rarely exist on their own, and are often integrated with other systems to fetch resources stored in these systems to present a holistic view of the customer. For instance, in the telecommunications industry, CRM systems are linked to billing, ordering, provisioning, networking systems so that a customer's billing information, information about the customer's devices and the network they're on is displayed in a unified dashboard of customer information for the customer care rep to view while resolving the customer's issues. In the banking industry, CRM systems are linked to deposit and loan systems so that a bank rep is able get a holistic picture of all of the bank's products a customer is subscribed to.

In addition, all information about customer interactions, whether it is through the company's website, telephone, email, live chat, marketing materials or social media, are stored in CRM systems as interaction resources. If a company rep interacting with the customer requires further action from other teams in order to address the customer's request, this information is captured as a 'ticket' and the CRM system handles routing of the ticket to the appropriate team(s), reminders and escalations if the SLA (service level agreement) is not met.

A third type of resource stored in CRM systems are automated and manual reports which provide actionable insights for taking steps to increase customer satisfaction and retention, better sales and marketing and ultimately driving sales growth and profitability.

Why is it being organized?

The costs associated with acquiring new customers is huge, thus every effort is made to retain and sell to existing customer (cross-sell). CRM systems facilitate this by providing a number of useful features:

1. Contact Center Automation - CRM systems automate some of the tasks performed by human agents by providing pre-recorded audio assists and IVR (interactive voice response) prompts that help the customer in problem-solving and information dissemination. If the system is not able to resolve the customer's problem, the call is routed to an appropriate human agent who is qualified to handle the problem. The system also handles routing of the customer problem 'tickets' to multiple agents until the problem is resolved, all the while keeping track of SLA and notifying the customer of any updates.
2. Marketing Automation - CRM systems automate marketing efforts to potential and existing customers by identifying specific customer requirements and suggesting alternatives or enhancements. The system can then automatically send them targeted marketing materials with the goal of turning a sales lead into a full-fledged customer.
3. Sales force Automation - CRM systems keep track of all contact and follow-ups between a company salesperson and a customer. Using customer information resources and usage pattern resources, CRM systems can identify and target profitable customers. CRM systems anticipate and time sales efforts based on historic trends of high sales.

How much is it being organized?
CRM systems store all customer information resources at a granular level - names, addresses, identification numbers, bank and credit card details, income range, job title etc. In case of business or enterprise customers, information about the type of organization and number of employees are also stored.

Details of every interaction between a customer rep and customer, regardless of channel, are captured as interaction resources. The level of granularity of details of interaction resources is dependent on the CRM implementation. Often businesses require very granular data in specific fields for interactions which require a follow up ‘ticket’ in order to automate the process of routing of tickets to appropriate team(s) for handling. Interaction resource data include a title or reason, description, priority or severity, and SLA depending on the reason and priority.

In addition, the CRM systems may fetch resources from other integrated systems, for instance usage patterns which is a type of interaction resource is retrieved from other systems to display a holistic picture of the customer to the company rep. This interaction resource is used in generating reports or for predictive analysis in order to better understand customer needs and cater to them. For instance, telecommunication companies and banks may use interaction resources to better tailor existing products to their customers’ needs and suggest additional products that the customer may be interested in.

When is it being organized?
Most of the organization of customer information resources in CRM systems is done "on the way in" i.e when a lead is generated, when the lead is converted into a customer, or when the customer orders additional products - all these events lead to customer information resources being created in CRM systems. Interactions between customers and customer reps are captured as interaction resources when the interaction takes place. Resources from other integrated systems may be fetched in real time or in batches for the purpose of viewing, or they

may be consolidated into customer information resources and stored for report generation and/or predictive analysis. Reports and analysis are run periodically or on an on-demand basis.

A resource purging policy is defined due to legal or privacy reasons, where interaction resources older than a specified time is deleted.

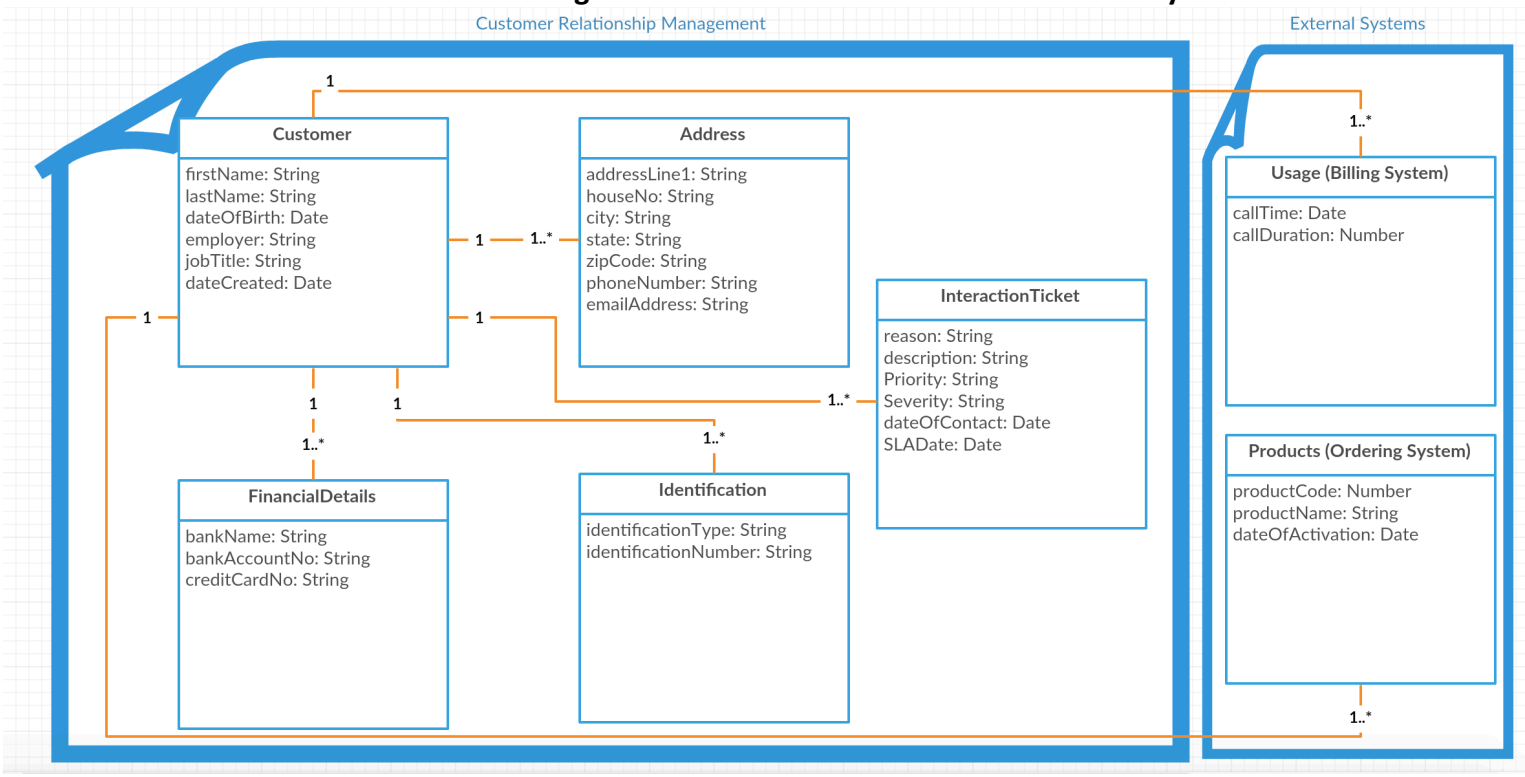
Who (or what) is organizing it?
Resources in CRM systems are saved in relational databases according to a predefined schema. The customer information resource schema is decided during the implementation of the CRM system based on business requirements of capturing data in sufficient granularity. Customer information resource instances are created automatically in the case of online customer creation or manually by store or customer care reps when a lead is converted to a customer in stores or in a call center. Interaction resources are created on the fly when an interaction event occurs between a company representative and a customer.

Where is it being organized?
Organization and storage of customer information resources and interaction resources in CRM systems happen in the cloud for could-based CRM deployments or on company premises when there are security and privacy constraints.

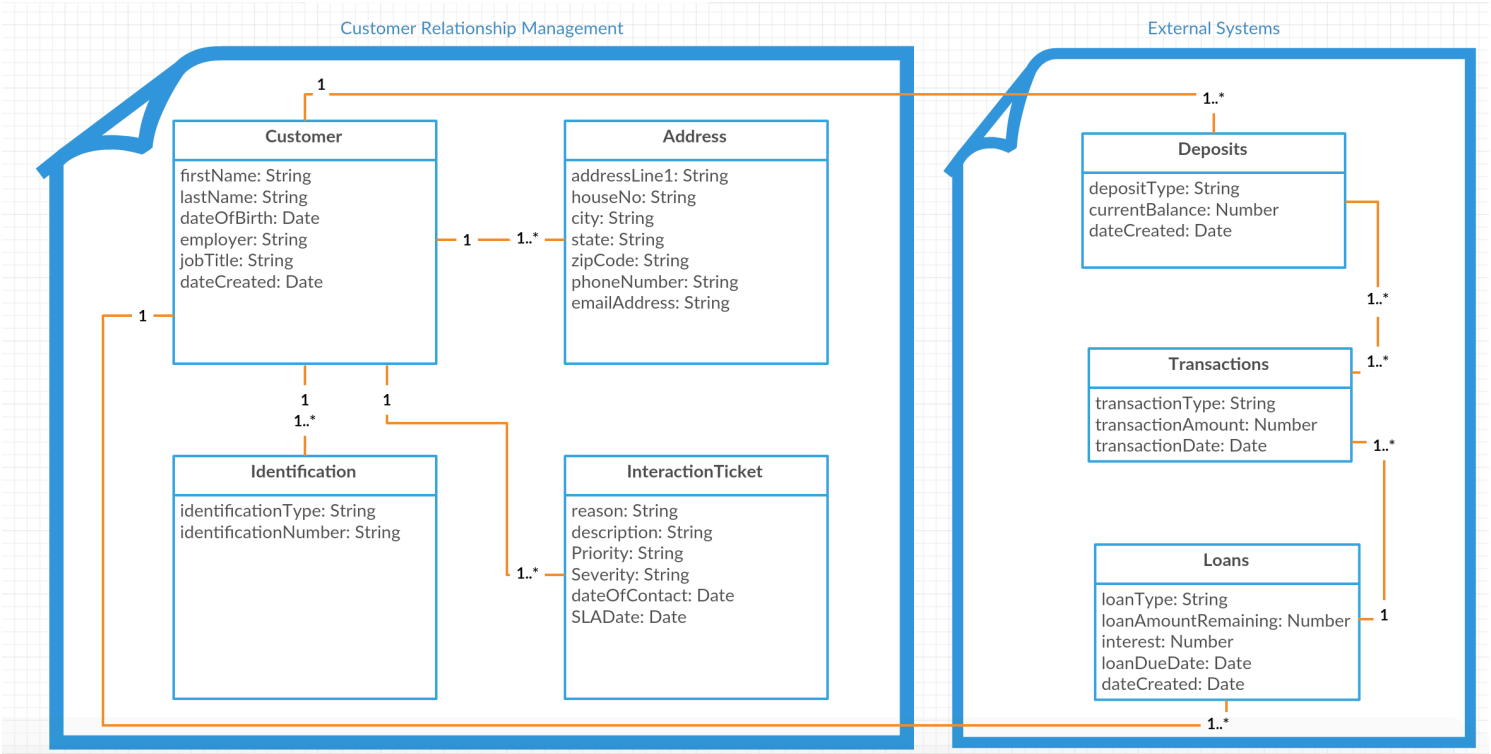
Artifacts
To better understand CRM as an Organizing System in terms of how resources are organized within CRM and linked to resources in External systems, two class diagrams of CRM systems in telecommunications and banking industries are provided to contrast the differences.

In addition, two important flows of CRM systems: Customer Orders Product (COP) and Customer has Question (CHQ) are described through swimlane diagrams.

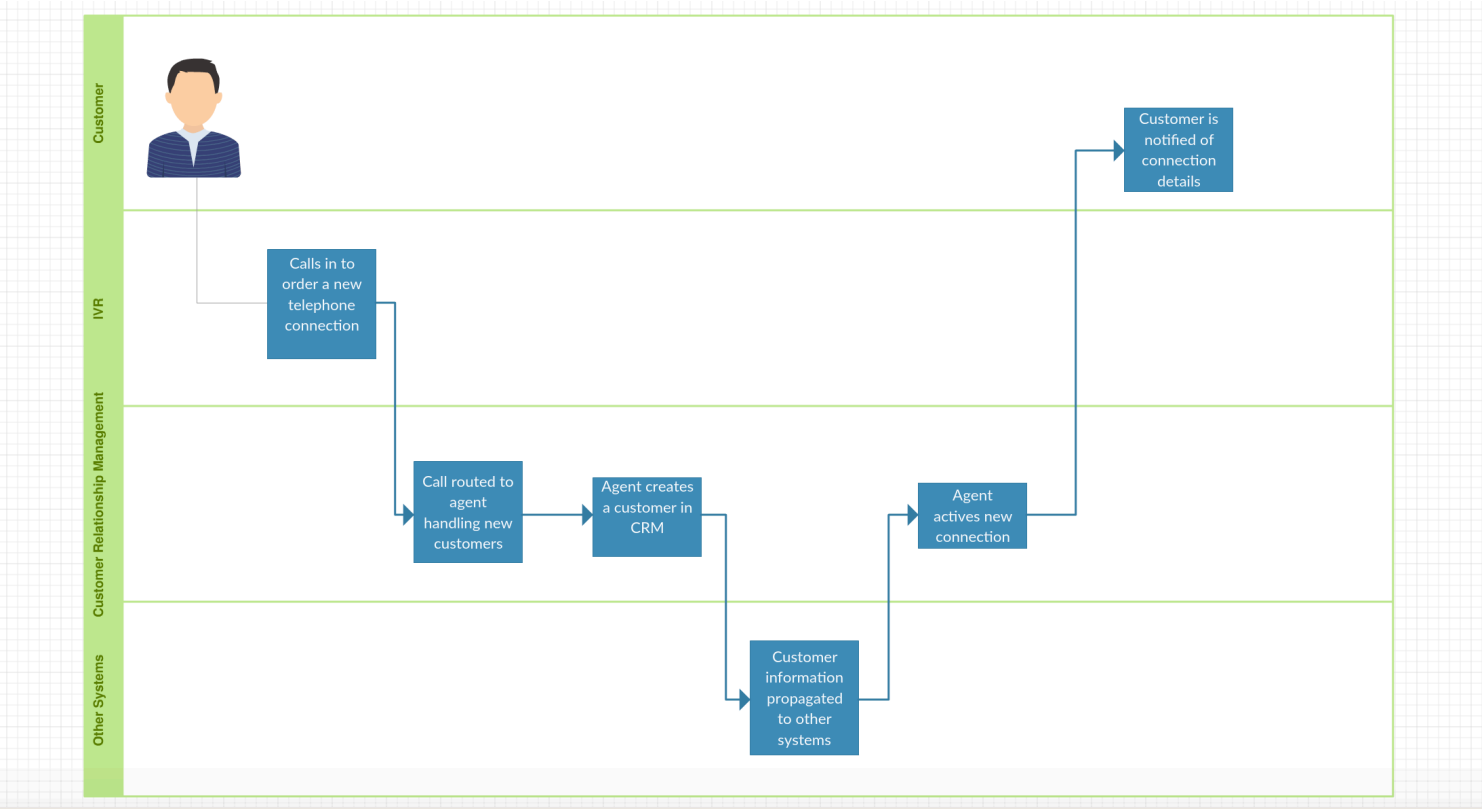
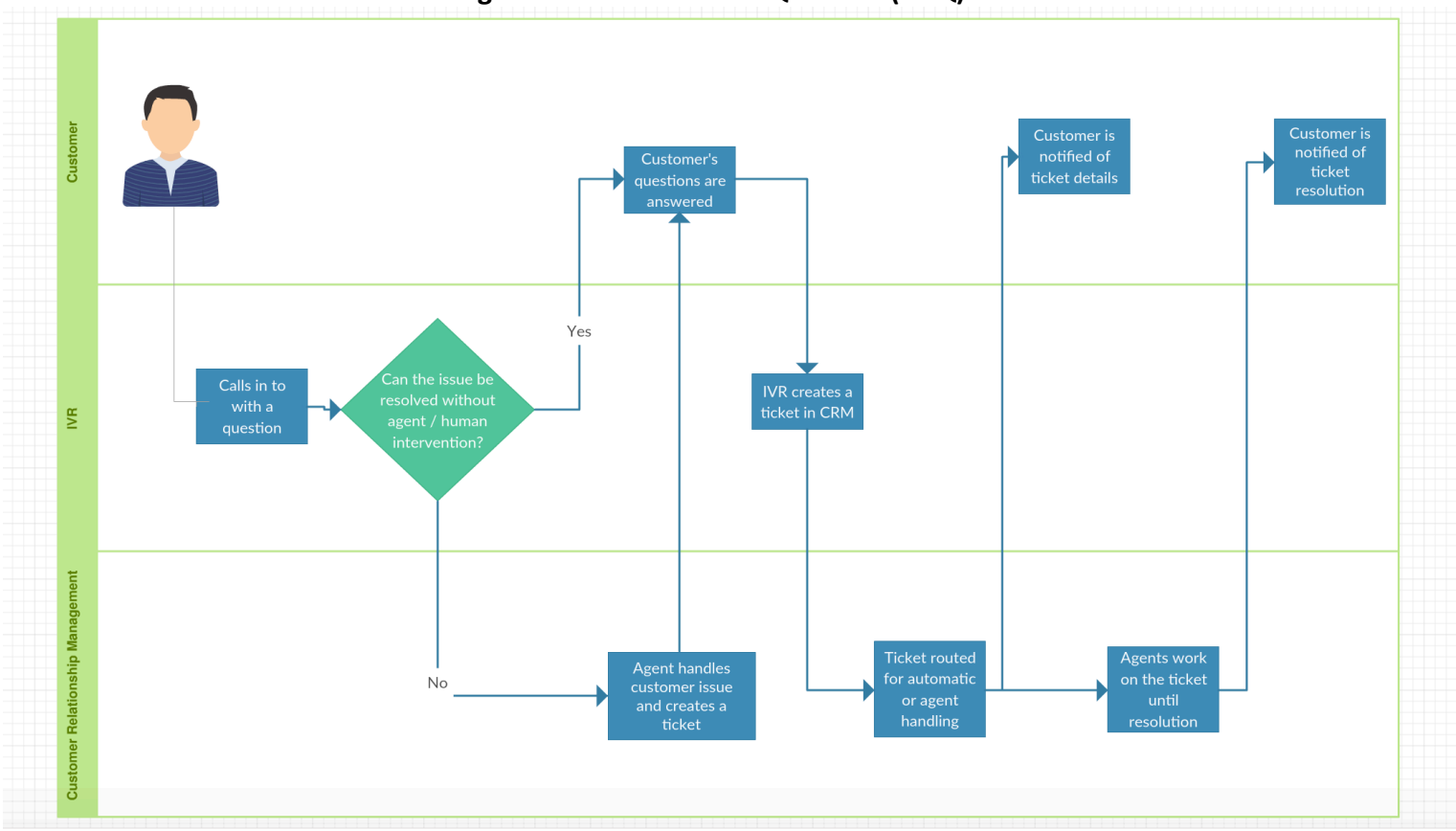
1. Class Diagram of CRM in Telecommunications Industry



2. Class Diagram of CRM in Banking Industry



3. Swimlane Diagram of Customer Orders Product (COP) Flow



4. Swimlane Diagram of Customer Has Question (CHQ) Flow