Application Architecture

Vision

Object-Relational Database Implementation Model

Party Role / Customer

Assignment for role: Application Architect, Telia

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Background

Mission Objectives

- Elevate Customer Experience & Optimise Business Units Operations
  - Customer Base | Organisations bring new individuals + vice-versa
  - Smart CRM | Data Management & Analytics, Communication Automation
  - Service Quality | Lean interactions between Customers & Business Units
- Brand & Market Development
  - Customer Experience | Design of Customer Journey & Product Lifecycle
  - Marketing Strategy | ML for Macro-Trends & Customer Profile

Background

Design Considerations

- Cross-Country (Nordic & Baltic) | Flexibility & Localisation for Territory Values
- Global Coverage | Compliance to Regional Privacy & Security Standards
- Business Units | Business Network, Industry Digitalisation, Cloud & Security, Mobility, Contact Center, Wholesale, IoT, Crowd Insights
- 25M Customers 19k colleagues | Shared, Scaleable, Redundant & Fast
- Compliant to Tele Management Forum guidelines and frameworks

Guidelines

TM Forum Frameworks

GB922 Customer Domain Business Entities | Version 22.5.0
GB922 Party Business Entities | Version 19.0.1
GB991 Core Frameworks (Concepts and Principles) | Version 22.5.0

TM Forum Open Digital Architecture (ODA)

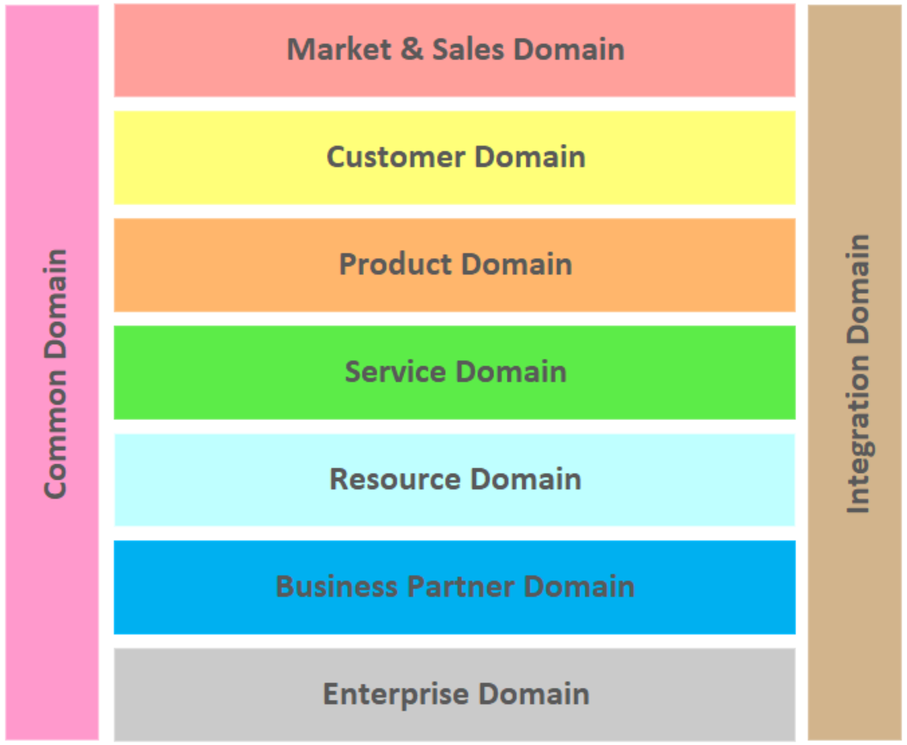
1. The Business Process Framework (aka eTOM)
2. The Information Framework (aka as SID)
3. The Functional Framework

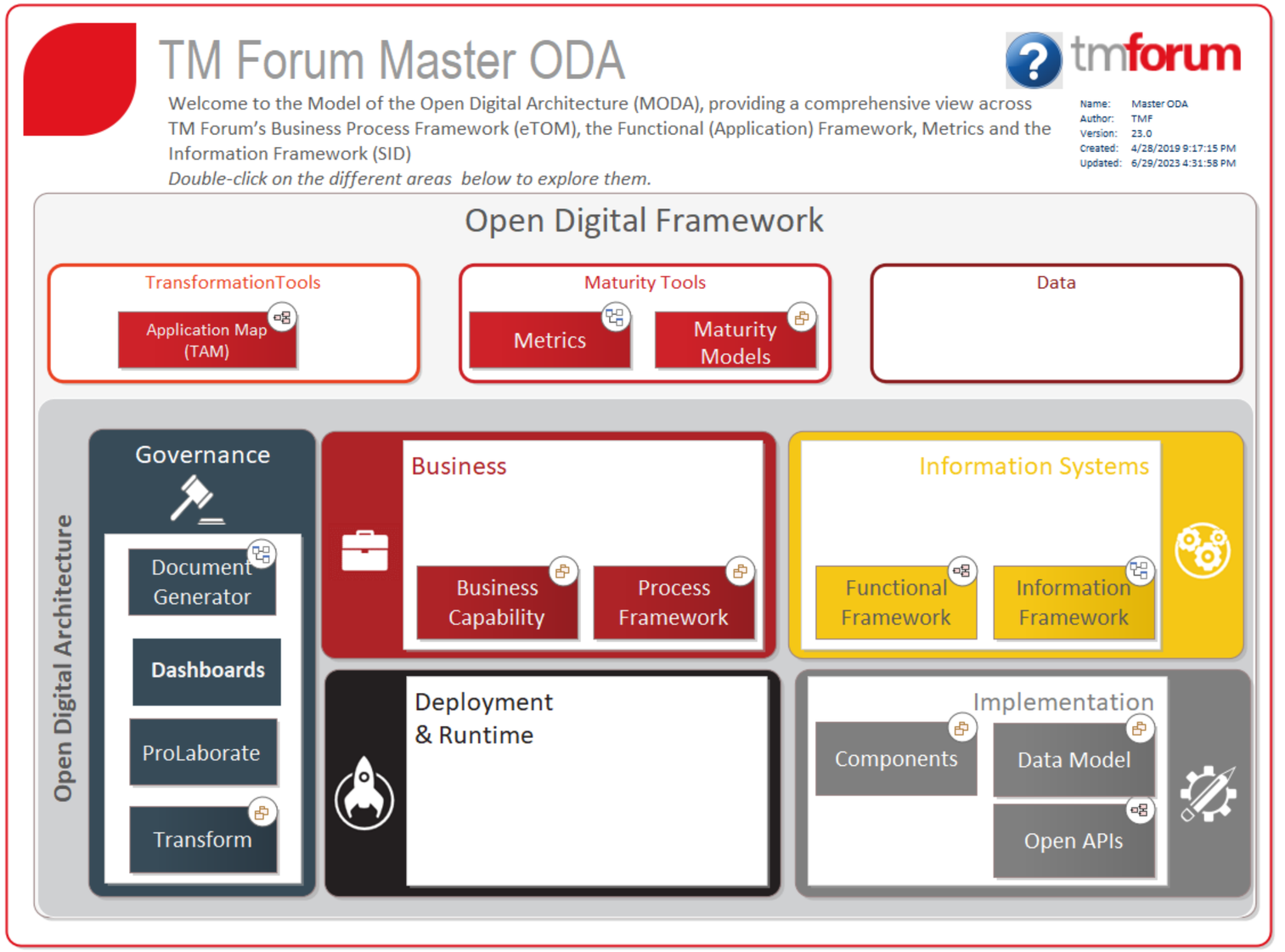
TM Forum Master ODA https://www.tmforum.org/oda/moda/

TM Frameworks

Business & Information

- Domains from Open Digital

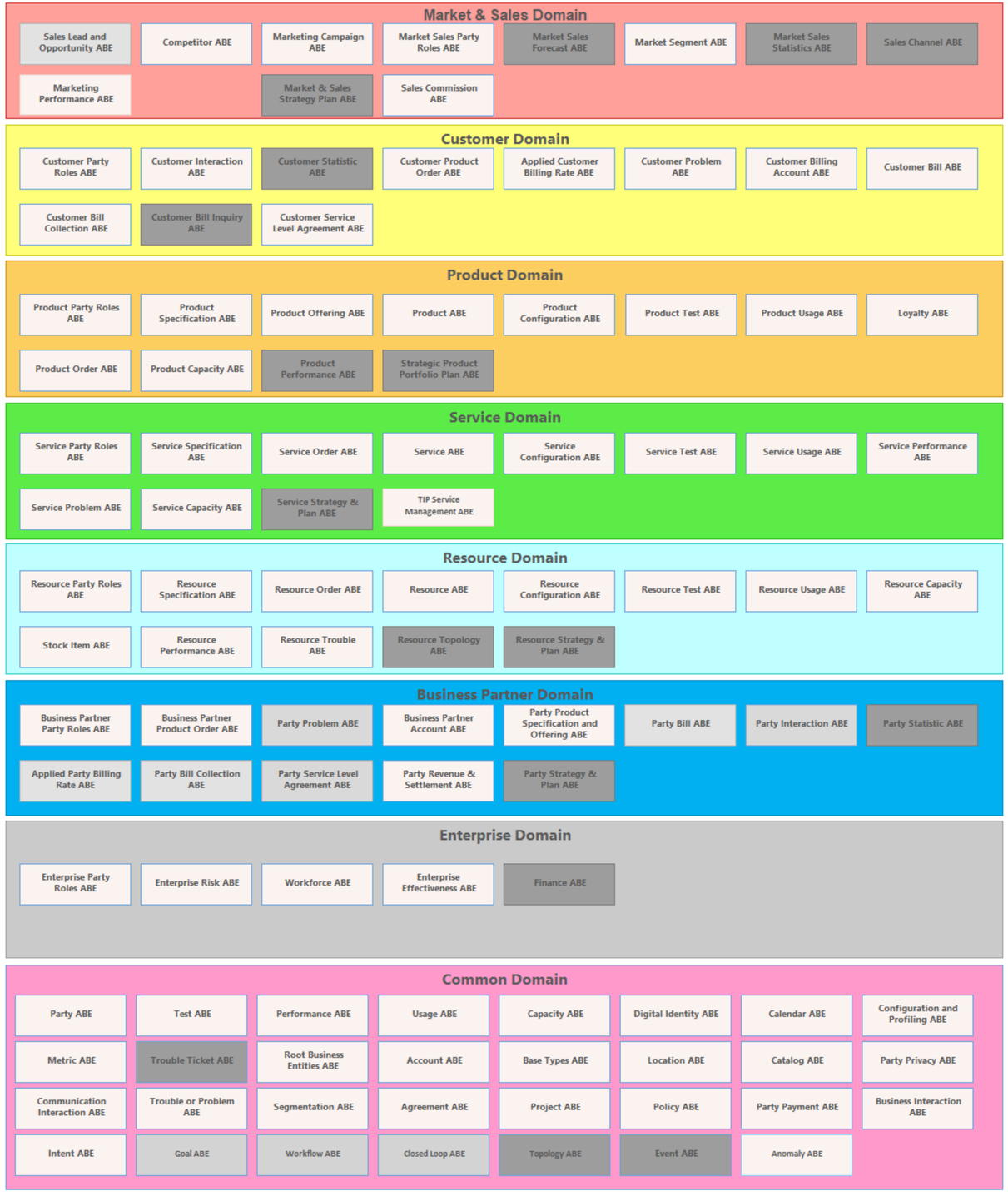




TM Frameworks

Focus: Information / Customer

- Focus: Information Framework
  - Customer Domain
    - Customer PartyRole ABE
- Consider: Business Framework. &
  - Other Domains, esp.:
    - Market & Sales
    - Service | Product



Teamwork & IS Lifecycle

Database Planning

- Identify enterprise plans and goals with IS needs
- Evaluate current IS for strengths & weaknesses
- Include opportunities for competitive advantage
- Plan DB to support Mission Objectives
  - => Mission Statement to be met

Teamwork & IS Lifecycle

System definition

- Define scope and boundaries of DB
  - Interfaces with other IS parts in Enterprise
  - Current users & applications
  - Future users & applications
- Definition of user roles: Customers, Partners and Enterprise users
  - then User Views

Teamwork & IS Lifecycle

Requirements & Analysis

- Requirements specification & management (centralised + view integration)
- User View Integrations
  - PartyRole / Customer (Customer | Buyer + Service | Product + CSR + M&S)
  - PartyRole / Buyer (Buyer | Customer + Service | Product + CSR + M&S)
  - PartyRole / CustomerServiceRepresentative (CSR + Customer | Buyer + Service | Product + M&S)

Teamwork & IS Lifecycle

Database design & Applications design

- IS to support Enterprise operations & objectives
  - DB design approach: Agile (Top-down + Modular)
  - Applications design: Agile (Modular in parallel with DB)
  - DB Conceptual & Apps UX design
  - DB Logical & Apps Transaction design
  - DB Prototyping & Apps UI design
  - Implementation, Data Conversion & Loading, Test, Deploy, Maintain

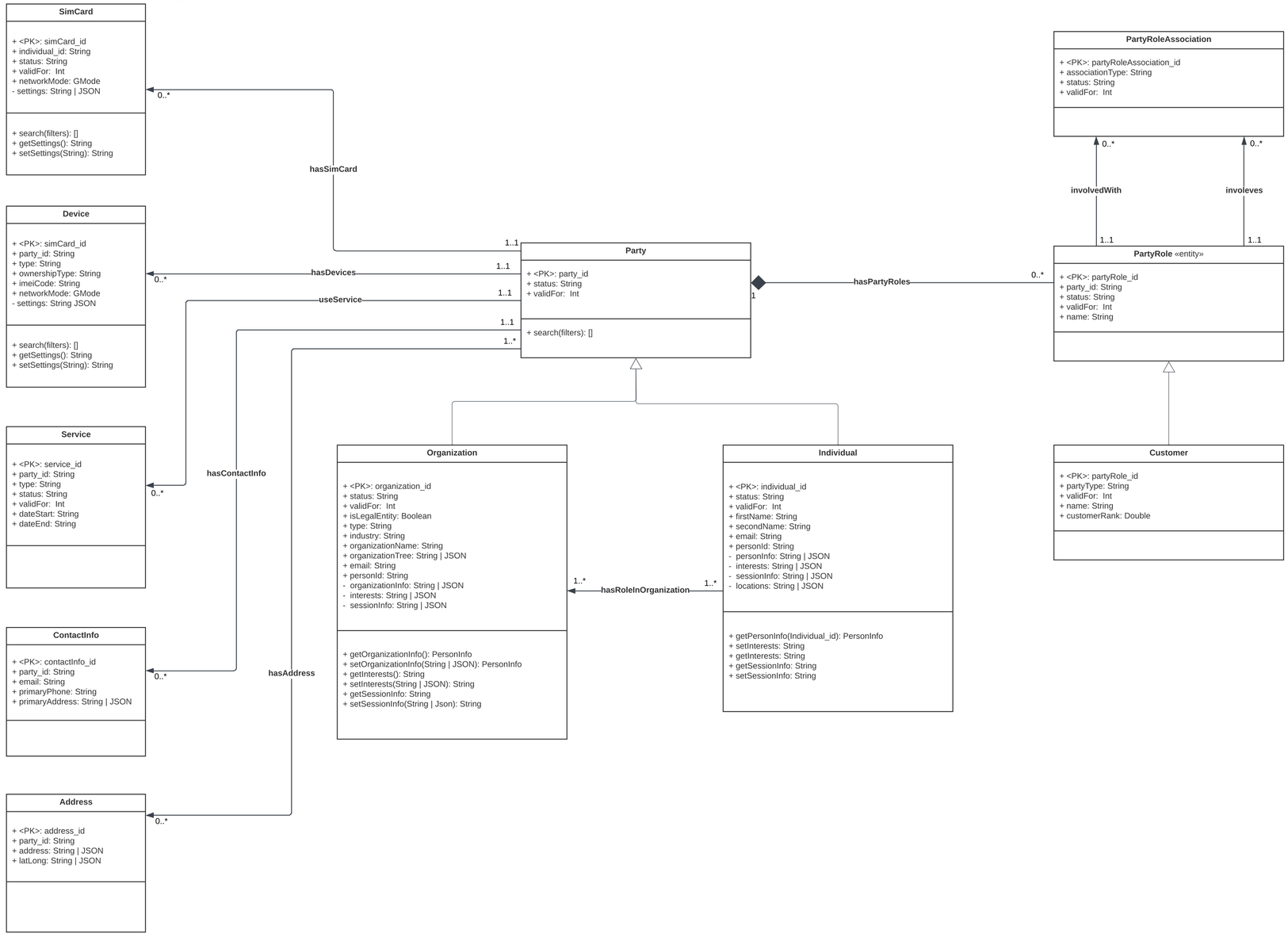
Database Design

Scope: PartyRole / Customer

- Parties: individuals & organisations
- Activities: acquire, use, pay, support for services & products
- Strategy to Readiness: customer strategies, capabilities, customer lifecycle management
- Operations: customer relationship management, data, privacy, interactions, communications, orders, accounts, balances, service level agreements (SLAs), training, problems, cases, invoices, payments, disputes, collections, loyalty, performance, usage statistics, analytics and support

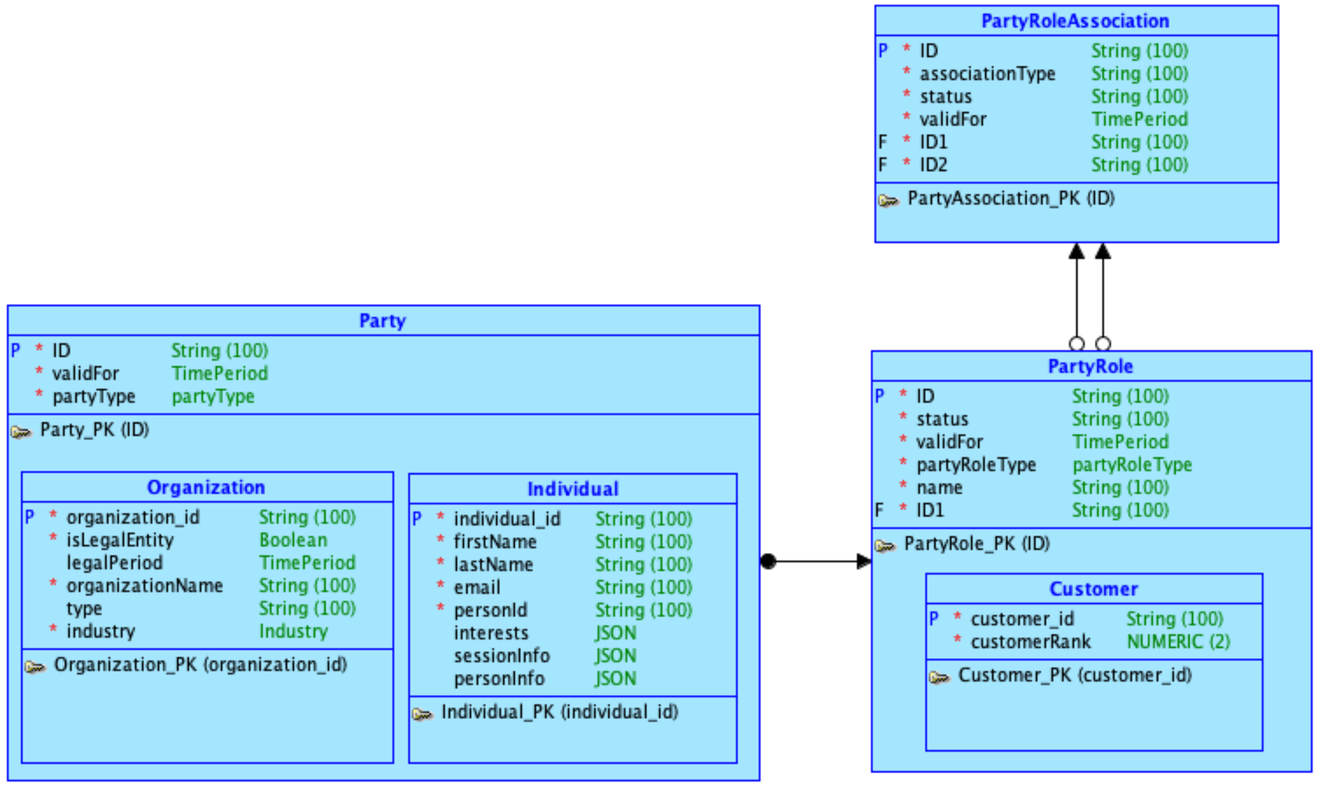
Database Design

Class Diagram



Database Design

Logical Diagram Party Role / Customer (draft)



Database Design

Relational Diagram Party Role / Customer (draft)