Archimate Technology Layer

Specifica ArchiMate

https://pubs.opengroup.org/archi tecture/archimate3-doc/ch-Technology-Layer.html







Welcome to the ArchiMate® 3.1 Specification, a Standard of The Open Group

Frontmatte

- 1 Introduction
- 1.1 Objective
- 1.2 Overview
- 1.3 Conformance
- 1.4 Normative References
- 1.5 Terminology
- 1.6 Future Directions

2 Definitions

- 2.1 ArchiMate Core Framework
- 2.2 ArchiMate Core Language
- 2.3 Architecture View
- 2.4 Architecture Viewpoint
- 2.5 Aspect
- 2.6 Attribute
- 2.7 Composite Element
- 2.8 Concept
- 2.9 Conformance
- 2.10 Conforming Implementation
- 2.11 Core Element
- 2.12 Element
- 2.13 Layer
- 2.14 Model 2.15 Relationship
- .

Language Structure

- 3.1 Language Design Considerations
- 3.2 Top-Level Language Structure
- 3.3 Layering of the ArchiMate Language
- 3.4 The ArchiMate Core Framework
- 3.5 The ArchiMate Full Framework
- 3.6 Abstraction in the ArchiMate Language
- 3.7 Concepts and their Notation
- 3.8 Use of Nesting
- 3.9 Use of Colors and Notational Cues

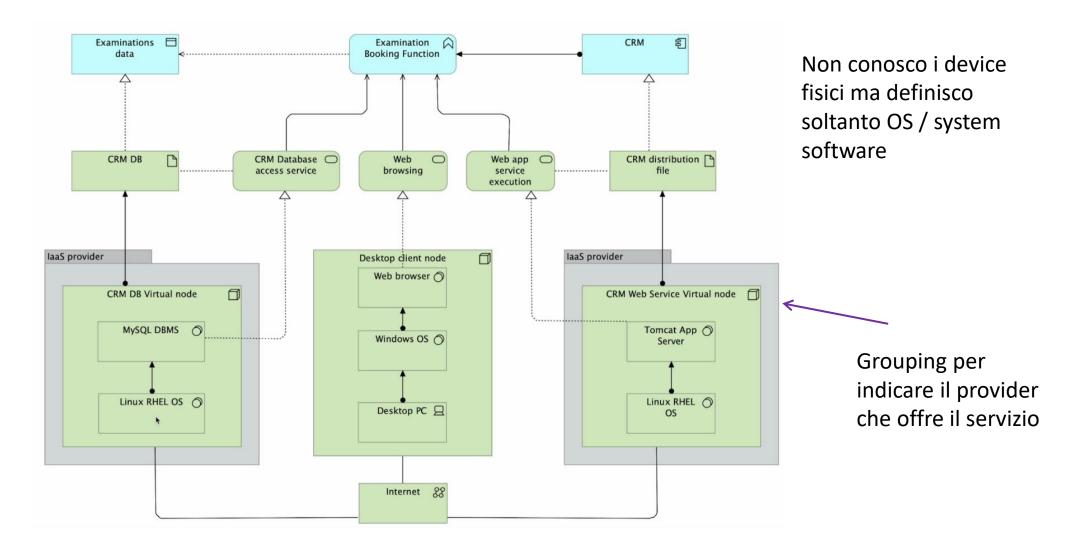
Provisioning models nel cloud computing

laaS: provides virtualized computing resources; users manage applications, data, runtime, and OS, while the provider handles the hardware

PaaS: provides managed OS, middleware, and runtime; users focus on application development, without managing infrastructure

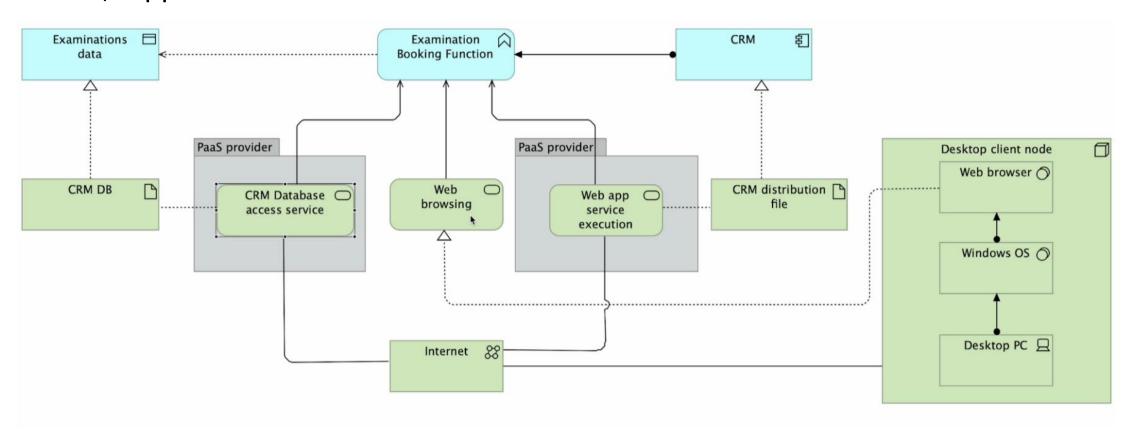
SaaS: offers fully managed software applications over the internet

Infrastructure as a Service



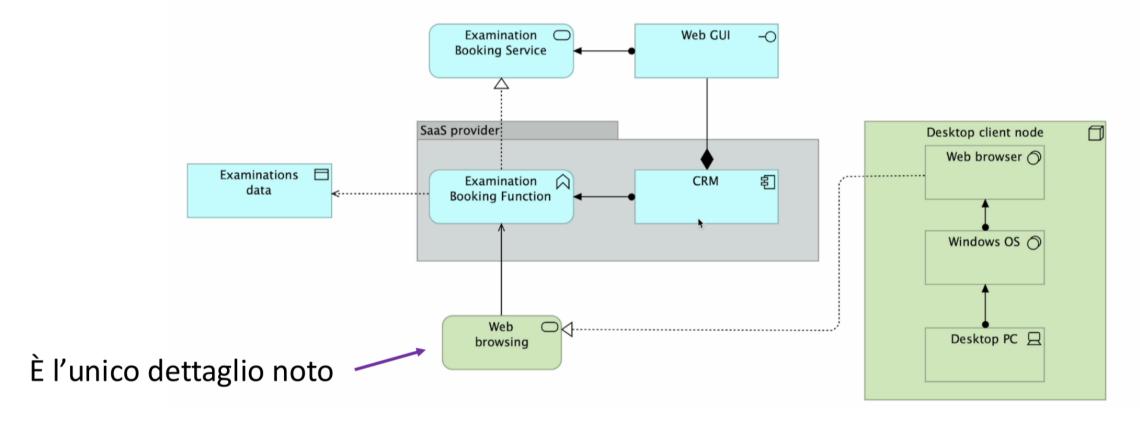
Platform as a Service

Modello più semplice: non siamo a conoscenza dei dettagli di piattaforma sottostanti ai servizi, rappresentiamo soltanto i servizi



Software as a Service

Dal momento che il servizio è SaaS servizi vengono collassati a livello applicativo. A livello tecnologico si dettaglia soltanto il client



Archimate Esercizi con Archi

UBooks

UBooks buys and resells used books. Each time it buys a book from a customer, it must ensure to be able to sell it at a higher price to prevent losses. The process through which it buys a book is the following: first of all, the user logs in, then enters book information and details about the condition of the book. Ubooks analyzes the book, to determine its condition. If the condition is not considered sufficient, the book is rejected. Otherwise, it estimates the value of the book and proposes it to the customer. If the customer accepts the offer the book is acquired.

Ubooks has developed a new application to realize this process for users with the following functionalities: insert new books and to compute the offer for customers. The offer for customers is computed by the application using also an external web-service which provides potential sales information on every book upon request. The Ubooks application runs on a single node, together with two databases, i.e. an operational database, which stores the current state of the business, and a historical database which keeps tracks of all the books bought and sold by the company. The system accesses the APIs of the external web-service through the Internet.

Model in Archimate the information service provided by the company and its infrastructure.

I-Rep

I-REP is a new company that offers repair services for smartphones, laptops, and other small electronic devices. One key feature of its value proposition is the possibility for customers to insert details about the device to be repaired and the kind of damage through a mobile app and instantly receive a cost estimate before sending the device.

The company has implemented a new process that starts by collecting information about the device. If the device belongs to the list of devices supported by the company, damage information is collected. At this point, there are two options: if repair and processing costs exceed the device value, the user is notified about this and directed to a partner marketplace to buy a similar product. Otherwise, a cost estimate range is provided and the user has two options: refuse it or accept it, pay an advance, insert address details, and print the prepaid shipping label.

The process is supported by a new application with the following functionalities: check device, compute estimate, and generate shipping label. The new application resides on a dedicated server, together with an operational database and a historical database for analytics purposes.

To compute estimates, the application also accesses a third-party service that provides the updated market value of electronic devices. The service is accessed through the public Internet.

Model in Archimate the information service provided by the company and its infrastructure.

BancaMI

BancaMI wants to offer a new online service for the disbursement of mortgages to its customers in a fully autonomous manner. The service, provided via the Web, is managed by a dedicated application module called "mortgage application" that offers the functionalities of creating a new request and evaluating the request. Specifically, the evaluation of the request provided by this application module requires invoking the functionalities of an already existing module dedicated to analyzing the applicant's reliability.

The "mortgage application" module is configured in a two-tier mode. The client contains only the presentation logic, while the server distinguishes between the application logic (offered through an application server) and data access logic (offered through a database server). Both the application server and the database server are provided by a cloud provider in PaaS mode.

With reference to the previous text, define the Archimate diagram consisting of the Business Layer, Application Layer, and Technology Layer. The modeling of the customer reliability analysis module at the Technological, Business, and Data object levels is not required.