WALLMOB™

A company in VISMA

Wallmob POS

POS PRODUCT OVERVIEW

Table of contents

1 POS PRODUCT OVERVIEW

1.1 Introduction

1.1.1 CLIENT APPLICATIONS

1.1.1.1 WALLMOB POS

The Wallmob POS is a native iOS application for iPad. The application provides all of the features one would expect of a modern POS system, as well as easily accessible and understandable statistical information through a built-in back office.

Its rich and large display allows for products to be presented with images and top-level categories to be presented tab style for quick navigation

1.1.1.2 WALLMOB MPOS

The Wallmob mPOS is a native iOS application for iPhone and iPod. As well as the fully-fledged iPad counterpart, the mPOS provides all of the means expected of modern POS.

The small form factor and weight allow for the mPOS to be carried around even more easily than the iPad POS.

1.1.1.3 CLIENT APPLICATION COMMONS

Both the POS and mPOS applications share the same core library, in which most of the logic for POS related functionality, cloud communication, hardware support, etc. reside.

The concept of shared logic not only allows for the clients to share functionality, it also minimizes the development required to improve upon existing or introduce new functionality.

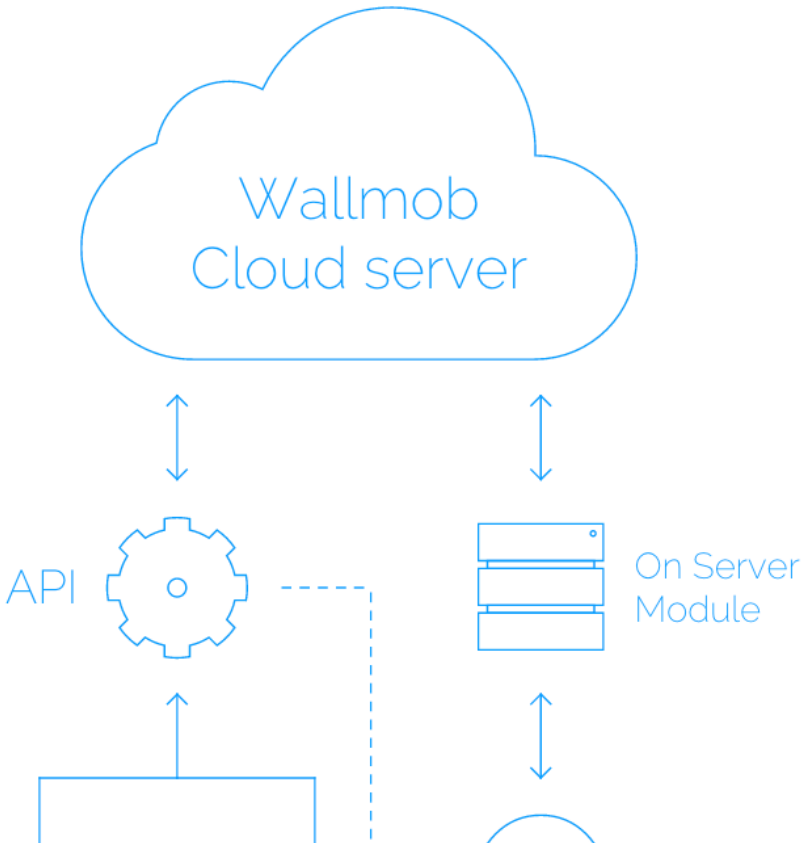
1.1.2 INFRASTRUCTURE

1.1.2.1 WALLMOB CLOUD

The Wallmob Cloud is the single point of online contact for the core components of previously described client applications. It provides an API that can only be accessed over a securely encrypted HTTPS connection, by peers that have been authorized accordingly.

The API allows for peers to access and mutate data that reside within their sandbox. Sandboxing data provides protection from both the outside and other Wallmob clients.

In addition to the databases that by default account for data powering the system, the APIs can be configured to retrieve data from external sources. In example, it may make sense to retrieve end-customer data from an external loyalty program provider.



1.2 Hardware

1.2.1 TABLET

Apple's iPad tablets are the most commonly used world wide, giving them an advantage in recognisability, limiting the need for user training. Best in class design and branding set aside, the iPads also provide the best performance and most durable components on the market. The glass and touch components have proven able to withstand professional daily use through multiple years.

1.2.2 CARD TERMINAL

Ingenico's card terminals have become a market standard. The iSMP and iSMP Companion terminals in particular, provide cutting edge mobility combined with the durability, security and speed for which Ingenico is known.

A great advantage of the iSMP and iSMP companion terminals, is that they have a built in barcode scanner, that supports both 1D and 2D.

Wallmob's client applications integrate with both of these and all future Bluetooth or Lightning enabled terminals from Ingenico.

1.2.3 PRINTER

For printing receipts, daily settlements, stock counts and all sorts of arbitrary information, the Wallmob client applications integrate with a wide variety of Ethernet, Bluetooth and Lightning enabled printers from manufacturers like STAR, EPSON and POWA.

Supported printers include both high frequency thermal and portable printers.

1.2.4 BATTERY BANK

In environments where access to power is limited or completely unavailable, Wallmob delivers professional, high capacity battery banks, suited for use with all of our hardware.

Amongst others, our battery banks include the Anker Astro E7, which despite its very small form factor has a very high capacity of 25600mAh, equivalent of multiple charges for the most demanding Apple tablets.

1.2.5 BEACONS

Beacons are low energy Bluetooth transmitters that allow for precise detection of location or context. An advantage of beacons compared to other location technologies is that they allow for native iOS applications to be awoken and execute logic without them being in the foreground of the iOS device. We supply the best enterprise level beacons on the market, with replaceable batteries and a battery capacity allowing them to run for ~2 years.

1.3 Standard Software

1.3.1 ONLINE/OFFLINE

Each of the client applications has their own on-device database, which is populated with the data necessary for its operation. This allows for the client applications to operate fully in an offline environment.

All operations performed on the client applications while in an offline environment, will be persisted as actions in a queue on the devices, awaiting presence of connectivity before being dispatched.

1.3.2 PRICE LISTS

Acknowledging the need for varying prices in one or more currencies, Wallmob's model separates pricing from products. This allows for the definition of product pricing at multiple levels depending customer requirements.

1.3.3 CURRENCY CONVERSION

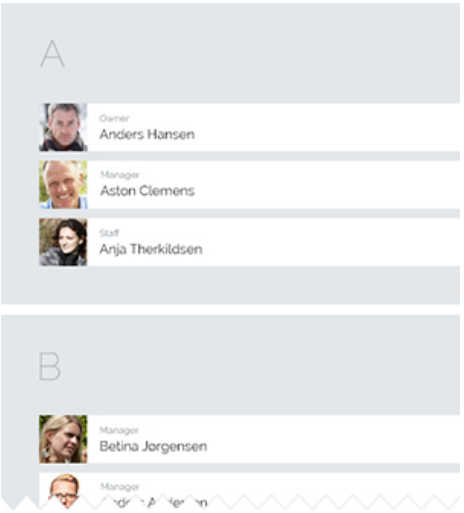
While prices can be specified in multiple currencies, POS clients require a base currency chosen at the beginning of each sale. If an end-customer request to pay in euros, prices will be presented as such to the user and a basket will amount to the total calculated from the pre-defined euro prices. At payment however, an end-customer may request to pay an amount of 200EUR in part with a 100SEK bill in cash. The POS clients allow for this by using currency conversion, the rates for which are retrieved and maintained by Wallmob.

For clients to configure these rates a concept of a conversion multiplier exists. This multiplier allows for clients to secure themselves from losing money in scenarios where conversion may be expensive.

1.3.4 TAX RATES

To meet the requirement of varying tax rates in different areas and multiple tax rates depending on the type of products sold in these, tax rates in Wallmob's system are, like prices, configurable on multiple levels. One POS client may be tied to an area with a default tax rate that is in turn overridable on a product level.

1.3.5 MULTIPLE USERS



Wallmob's system allows for multiple users to operate the same POS client. Users can be pin code protected and actions performed on the POS client will be tied to the active user for backwards tracking. The availability of users can be configured on a store level and they can be pin code protected if necessary.

1.3.6 DATA LOAD

To limit the amount of data that has to be present on each device, Wallmob's system is able to construct device databases that hold only the information relevant to the context in which it operates.

Device databases are compressed to the smallest possible size to allow for them to be downloaded on slow connections with little use of bandwidth.

1.3.7 PRE-ORDER

Orders in the Wallmob eco system have properties that define the state in which they're in at any given time. This allows for numerous combinations, examples of which follow here:

- Undelivered, unpayed.
- Undelivered, payed.

The combinations allow for orders to be treated as pre-orders because customer information can be related to them if desired.

Orders can be retrieved from within the POS for final processing, allowing for the operator to both alter the order, adding or removing items and finalize payment and/or delivery.

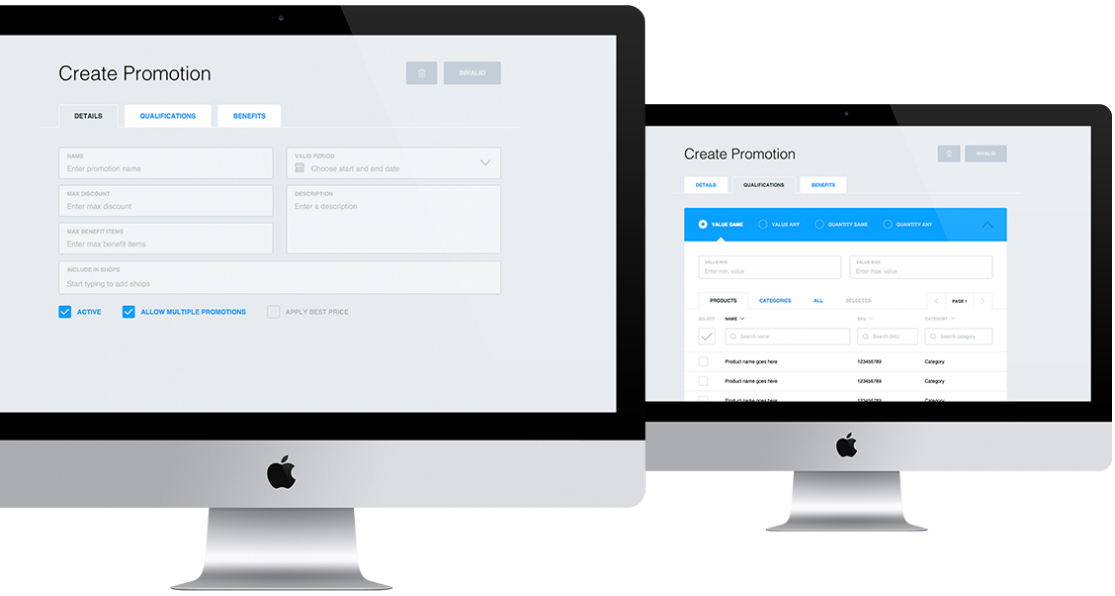
1.3.8 PROMOTIONS

To support pre-defined discounts Wallmob has a dynamically structured model for setting up promotions. Promotions consist of the following:'

- An identifier and a name.
- The time-interval in which they're active.
- A context in which it should be applied. Ie. an area or a set of stores.
- The conditions that have to evaluate to true for the promotion to be applied.
- A benefit that should be activated when the promotion is applied.

The model for promotions was first made to support the complexity of promotions defined through Microsoft AX Retail and later SAP Retail.

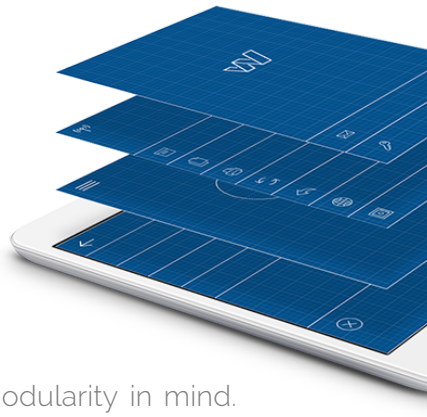
If necessary it is possible to add new types of both conditions and benefits to meet specific needs, though this is rarely necessary anymore.



1.3.9 LANGUAGES

All client applications in Wallmob's eco system take advantage of Apple's localization frameworks. In short this means that the applications will display text in the language that has been set in the system settings of the iOS device. The benefit of this behavior is that the language of all applications on respective devices will be the same and that it can be pre-configured if mobile device managent is used.

1.4 Customization



1.4.1 FUNCTIONALITY

1.4.1.1 OVERVIEW

All of Wallmob's systems are built with flexibility, configurability and modularity in mind. This is true for both cloud hosted applications, client applications and database structures. The distinction between configurability and modularity is important and the two are described as follows:

- Configurability is a concept that allows the alteration of behavior inside our systems without implementation of code, which will have to be separately maintained in the future. Wallmob aims to ensure that all concepts that may be commonly interesting are implemented as configurable parts of core, if possible.
- Modularity is a different concept. It allows complete customization of parts of our applications, but requires for module code to be maintained separately. Modules may be client specific, but can also be common. Examples of those two cases are as follows:
    - A module may alter the login flow of the client applications to present a concept different from that of stores. Though the entity store is used in the database model in the background, a concept of routes or something entirely different may be presented to the user for usability. Modules like these are mostly client specific.
    - Another module may alter the creation of orders, to ensure that they're decorated with information from a commonly used external system. In Sweden for instance, it is required for POS systems to communicate order activity to a system certified with their tax authorities. A plug and play module for this is interesting to multiple clients and not client specific.

1.4.2 DESIGN

1.4.2.1 OVERVIEW

Because of the enterprise level of Wallmob's client, all applications with user facing interface have been developed to support thorough theming. This allows for clients to white label some or all parts of the applications. Themes are configurable remotely and because of this they do not require developer assistance.

1.5 Mobile Device Management

1.5.1 CONFIGURATION MANAGEMENT

For many enterprise level clients, it is of grave importance to retain control of the mobile devices they distribute. This is true for a number of reasons:

- One may wish to apply certificates for security purposes
- It may be necessary to strictly control the device settings, allowing/disallowing roaming, etc.
- It is required that applications that can be installed on the device are restricted
- One wants to control the installations of updates centrally
- Devices have to be purged of their contents if stolen or otherwise lost
- One wants to bundle specific apps with configurations

Wallmob's client applications support that part of the login process, authorizing a device with a particular account, is automated.

1.5.2 AIRWATCH

Though Wallmob's applications do support mobile device management, the actual use of this

technology requires third party systems. Wallmob partners with a provider called Airwatch, who in our opinion are the best on the area.

1.6 Integrations

1.6.1 OVERVIEW

Wallmob's systems support integration in both directions:

- It is possible for Wallmob to implement integration modules that live in the cloud environment, dispatching or fetching data to or from external sources. There may be a case in which orders produced in the Wallmob system has to be dispatched onto a queue in another or similarly, Wallmob's system may listen to orders on a queue in an external system to pick up potential pre-orders.
- Wallmob's API allows for external parties to integrate and dispatch or fetch data to or from Wallmob's cloud databases. The previously mentioned example applies, just in the opposite direction.

1.6.2 BOOMI

To meet the ever-growing demands for a flexible and agile integration platform, Wallmob has partnered up with Dell Boomi.

Dell Boomi is the industry's leader when it comes to integrating Cloud and on-premise solutions seamlessly using an intuitive interface that offers a wide range of "out-of-the-box" connectors and tools; this makes the completion of even complex integration-tasks simple, fast and very cost efficient.

Dell Boomi is a true SaaS platform with a scalable multi tenant architecture that is accessed through any standard web-browser. Because of Dell Boomi's unique architecture, customers will never face any downtime caused by costly upgrade projects.

Dell Boomi offers everything what is required by a modern integration platform, and therefore Dell Boomi is Wallmob's first choice when offering integration from Wallmob to customers own back-end systems.

The advantage of using an integration platform is that two parties that integrate with Boomi can already integrate with each other without the need for code introduction that needs maintaining. Instead a configuration is made to map the relevant entities between each other.

1.6.3 DYNAMICS AX

Because Dynamics AX already integrates towards Boomi, no introduction of new code is required to integrate Wallmob's systems with Dynamics AX.

It is however important to understand that almost every Dynamics AX has been configured or customized so some extent in order to meet the demands or the setup in question. The result of this complexity is that a new mapping, in part, is required when integrating Wallmob's systems with Dynamics AX.

1.7 Custom Applications

1.7.1 POSSIBILITIES

Because of the shared logic in client application, described in part in the introductory section of this document, newly built or existing third party applications may choose to implement and use parts of this functionality as well.