



entando

DATASHEET



## ENTANDO: THE DXP PLATFORM FOR UX CONVERGENCE

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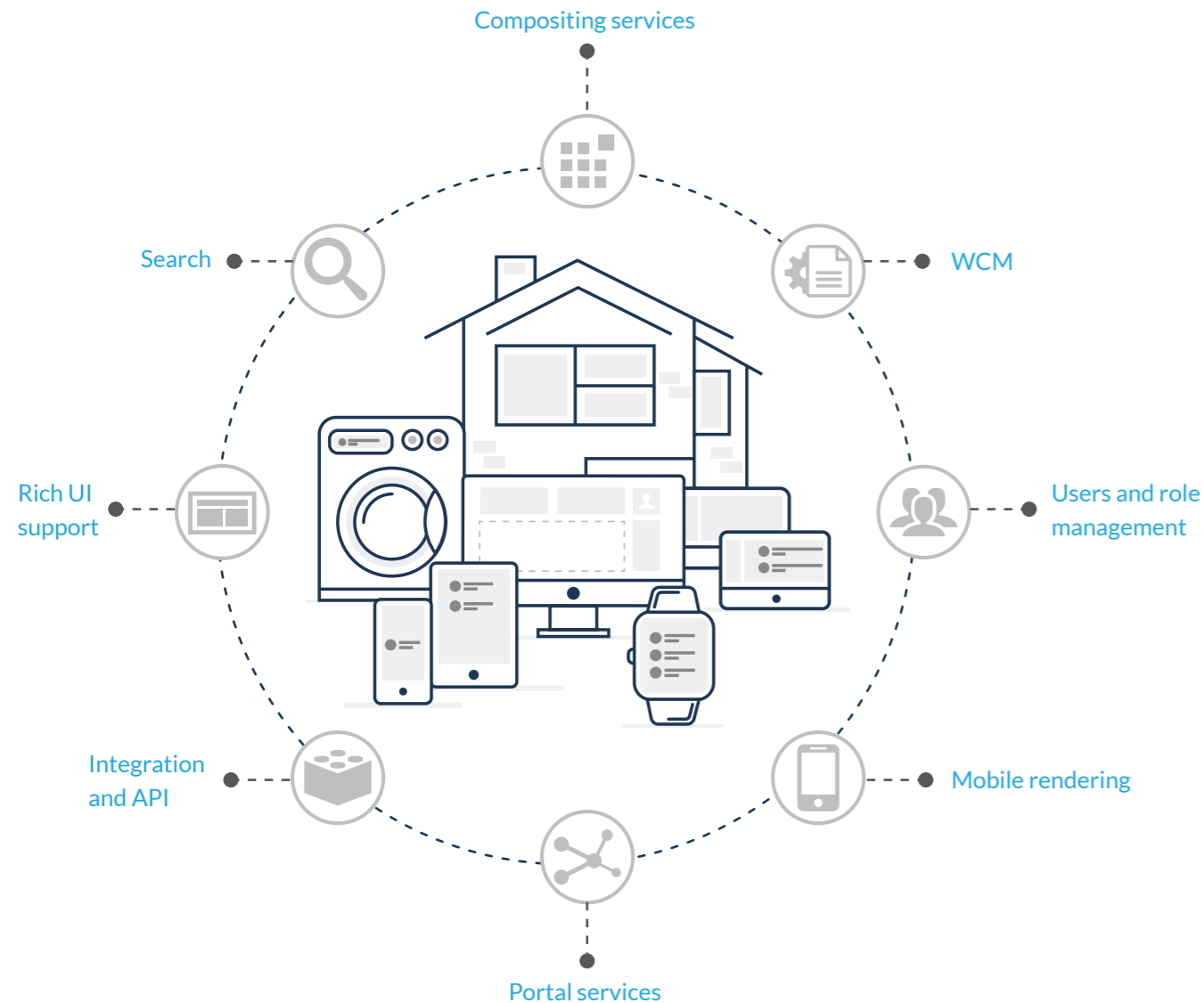
Entando is the lightest open source, enterprise ready Digital Experience Platform (DXP) for UX convergence. Entando in fact unifies user experience across different applications, people, devices while reducing technical complexity, time-to-market and project development costs. Entando can be used to develop modern UI/UX layers on top of existing applications or to build new applications aligned to UI/UX standards across different industries and use cases.

# CAPABILITIES

Born as a content management system, Entando is now evolving into a richer horizontal platform that includes the typical DXP capabilities: **Content, Portal, Compositing, Mobile, Collaboration, Search, Rich UI, Integration and API services.**

Applications created with Entando can be deployed across multiple channels and devices. They may face different types of audiences: employees, customers, consumers, business partners, suppliers, contractors, citizens, students. Next generation portals, Web and mobile applications, IoT applications are the three main use cases.

A common theme, though, is that Entando provides a holistic user experience, across the breadth of services provided, conformed to the latest UX and UI standards: we call it UX convergence.



# PRODUCT STRUCTURE

Entando is a **component based** platform.

The architecture allows developers to deploy and manage only the components needed for a given project, minimizing deployment size and application complexity.

Components also simplify the product life cycle for applications, allowing new features to be added or maintained as components.

Finally, as various components can be built or modified by separate teams, Entando enables collaborative development.

Entando consists of **three levels of components** - core, standard and enterprise - which can be combined as needed for a given project.

While core components are the backbone of an application based on Entando, standard and enterprise components are useful to extend the core Entando platform features and/or to improve custom applications.

## CORE

Core components are needed for all implementations. They provide essential and foundation features. The weight of the core is only 55 Mega Bytes.

## STANDARD COMPONENTS

These are add-ons that can be added to the core to add specific behaviours to the final application. An example is the E-MAIL SENDER, providing the basis logic for registration forms and subscription to newsletter services.

## ENTERPRISE COMPONENTS

Enterprise components are those that can be added to convey specific services or integration, typical of enterprise environment. An example is TOKEN API, allowing to authenticate Entando's users through a security token.

Diving deep into the **Entando Core**, it **consists of three main sections**: Engine, Admin Console, Application User Interfaces.

## ENGINE

Underlying the DXP is a set of core features, internal services, supporting infrastructure services: this is what the engine does. The engine, based on the Spring Framework, provides an infrastructure support for developing your Java applications. It includes control levers to manage all enterprise Entando services (e.g. user registration, user authentication, events notification, system actions tracking, etc.). It also provides interfaces to manage integration with a wide range of applications, through REST APIs, RSS, Enterprise Service Bus -that developers can build-, web services and access to all features from a single point of entry. Furthermore, it defines interfaces for secure building and safe administration.

## ADMIN CONSOLE

It makes it possible to manage administrative features of the core and web applications functionalities. For instance, it provides specific (graphic) interfaces to manage users, groups, roles, user profile, languages, software components configuration (e.g. plugins configuration), Rest APIs services, multimedia assets, cms functionalities, and so on

## APPLICATION USER INTERFACES

This last module provides the tools to create interactive application user interfaces. It consists of Front-End servlets, tools for security services to manage user access requests,

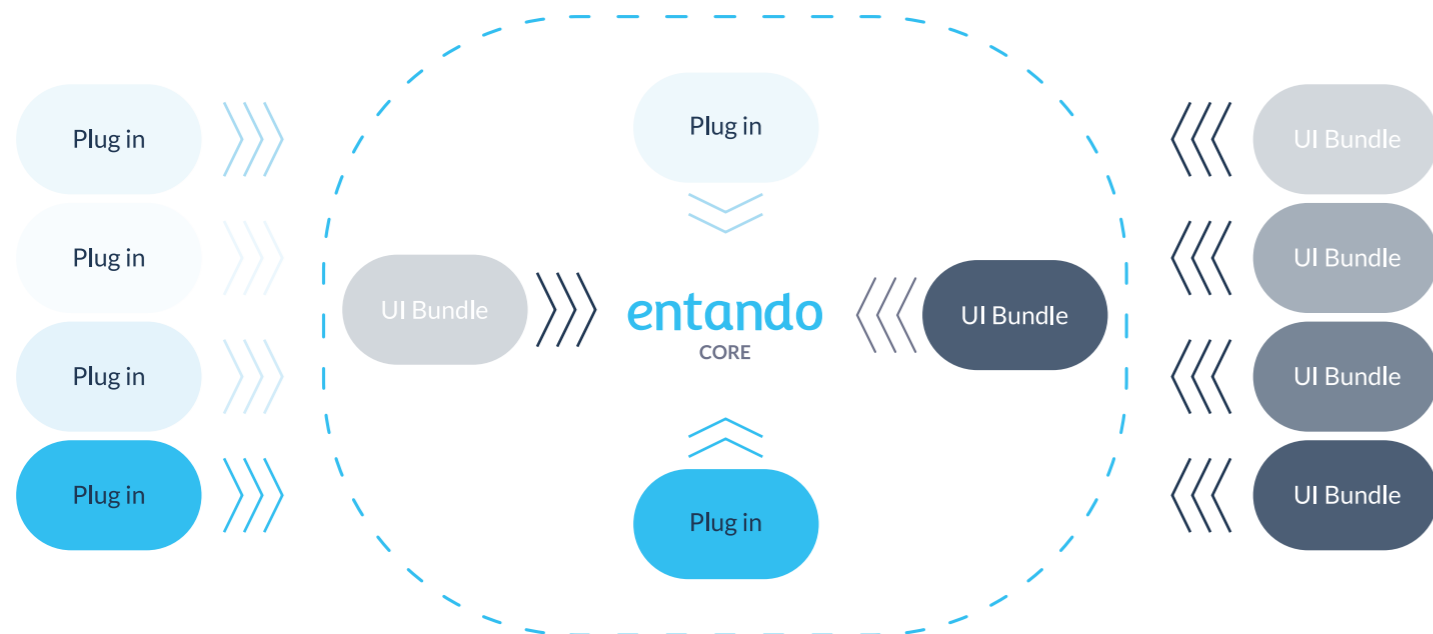
Standard and enterprise components can be installed into the core using Maven and they can be classified into Plugins and UI Bundles. A Plugin is a software components that performs a specific feature (eg. LDAP, a plugin that allows allows centralized authentication and user group management). By UI Bundle we mean an “off-the-shelf” UI software component that introduces a presentation behavior (eg. PORTAL PAGE LAYOUT, a UI bundle that hat deals with the arrangement of visual elements on a portal page according to market best practices).

## A COMPONENT BASED PLATFORM

### Available Plugins

### Selected Plugins and UI Bundles

### Available UI Bundles



## FEATURES

Entando comes with some built in features, that can be extended by adding further components to the core.

### Users and Authorization

- Identity Management
- Role-Group based access control
- Centralized authentication
- Users registration module

### Contents & Data

- Contents and digital assets management
- Contents and data types
- Content workflow
- Content versioning
- Content classification (taxonomy and facet-based navigation)
- Web form management
- Fast content editing
- Georeferenced content

### Collaboration and Communication

- Blog management
- Social collaboration tools
- Calendar
- Content feedback
- Newsletter
- Photogallery
- Survey and pools
- RSS and RSS aggregator
- Tag Cloud

### UX Design

- Flexible presentation
- Widget-based UI
- Responsive User Experience
- Support for modern UI frameworks
- Search Engine Optimization (SEO)
- Templating engine
- Multilingual support (i18n)
- Page designer with drag&drop features
- Page preview

### Platform

- Easy integration
- Ready for REST API
- Centralized admin console
- Search engine
- Cloud deployment
- Subsites support
- Integrated analytics tools
- Business Process Management (BPM) capabilities
- Dynamic generation of navigation

# ARCHITECTURE

From an architectural standpoint, Entando is a **multi-layered platform** based on Java EE. The three layers that compose the architectural model of Entando Platform are: Data Access, Business, Presentation.

## DATA ACCESS LAYER

Integration with external data, services and devices are managed at this level, which is the entry point of data, no matter how they are sourced.

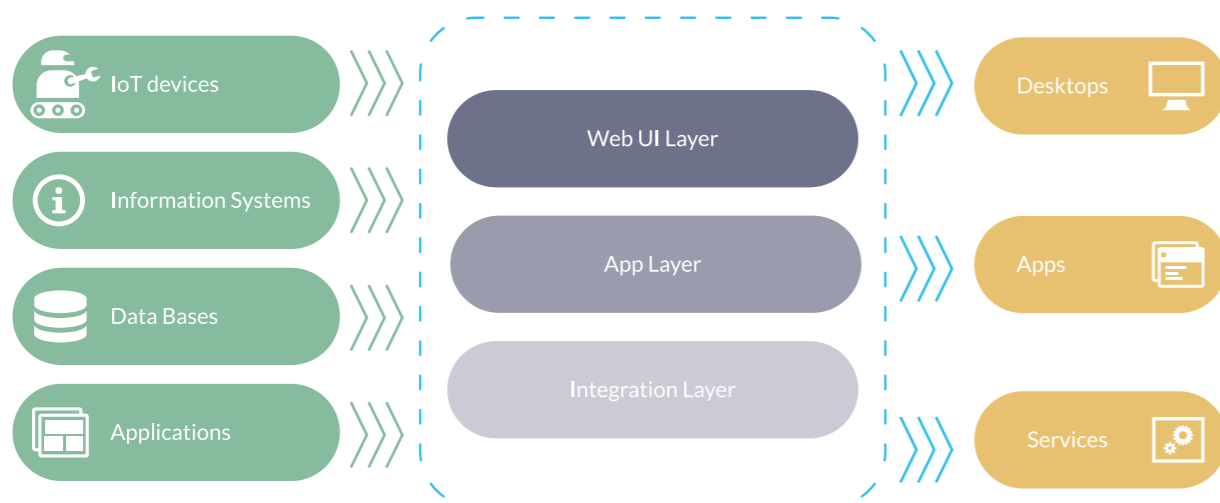
## BUSINESS LAYER

This is the core of the system: built upon the Spring Framework, the Business Layer utilizes the Data Access layer to get the necessary data and pass them to the higher layer (the Presentation layer) and supports it in the execution of actions.

## PRESENTATION LAYER

The job performed by this layer is building the graphic interfaces of the application based on Entando for desktop and mobile browsers. The presentation layer also includes REST APIs, which give access to the functions and resources of the system by non-human clients (mobile applications, modules functional and other GUI systems) or can be used to develop AngularJS UI layers and mobile native applications.

## A multi-source and omni-channel platform



The Entando platform was born to deliver business applications, hence applications built on Entando do communicate with external systems, both in terms of data sourcing and with respect to delivery channels.

As a result, applications based on Entando are multi-source, as they can receive data from multiple sources: simple data bases, information systems, external applications or even IoT devices.

At the other hand, applications are omni-channel as they can be delivered on different supports, such as browsers and apps or even integrated into other services via API.

# BENEFITS FOR DEVELOPERS

## 1 NO LIMITS TO DEVELOPER CREATIVITY

Standard building blocks and UI patterns allow developers to focus on fulfilling applications needs, rather than building code.

## 2 FAST LEARNING CURVE

Even the most junior developers can learn Entando in a few hours, thanks to easy widgets and reusable components.

## 3 FULL CUSTOMIZATION

Add your own specs and functionality in days. Take the code, run it, hack it and share your changes with the community.

## 4 LESS CODE, HIGHER EFFICIENCY

Teams are more productive than if they were using older monolithic software thanks to standard widgets and segmentation of tasks across distributed team members.

## 5 STRESS FREE DEVELOPMENT

Deliver fast, without compromising security, scalability, ha and performance. We take care of this.

## 6 FULLY OPEN SOURCE

Move seamlessly from POC, to development, to full production support - without undergoing a costly migration.

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