



Operations software demystified

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Summary

The field of operations software is filled with opaque acronyms and dense descriptions. This goal of this white paper is to lay out commonly used terms and their relationship to one another.

Definitions

I. Software systems and areas of concern

Enterprise resource planning (ERP) – ERPs are common across many enterprise sectors and handle operations needs common to all. These concerns include logistics, inventory, finance, human resources and project management. Sometimes, these systems will also have customer relationship management (CRM) built-in. Some companies have a single integrated system for ERP needs and some use a variety of single purpose solutions. These systems do not need validation in most quality regimes, but can require it depending on the products being shipped and tracked.

Examples:

- Odoo (<http://www.odoo.com>)
- Zoho (<http://www.zoho.com>)
- NetSuite (<http://www.netsuite.com>)

Process control/Business process management – Process control management (PCM) or business process management (BPM) systems ensure that data being collected and/or generated by the company about their particular operations is entered, integrated, and stored correctly. These systems are highly specific to a market sector or require extensive customization. They contain proprietary workflows and quality assurance checks as well as integrate with process instrumentation. For example, in many research companies, a laboratory information management system (LIMS) will be used for process control.

These systems can integrate with ERP, quality systems and document repositories and enforce standard operating procedures (SOPs) if present in the company. This system must be validated in most quality regimes.

Examples:

- Activiti (<http://docs.alfresco.com/activiti/docs/>)
- Decisions (<http://www.decisions.com>)
- Trello (<https://trello.com/>)



Document repository – Software that controls and organizes enterprise documents. It is a required platform and must be validated if the company has an electronic quality management system. Some repositories also include authoring tools built-in, some do not.

Examples:

- Google docs (<https://docs.google.com>)
- Microsoft SharePoint (<https://products.office.com/en-us/sharepoint/collaboration>)
- Box (<http://www.box.com>)

Content management system (CMS) – Software system to create, edit and organize digital content. A high-level umbrella term for many different types of content organization systems. Some CMS systems also contain built in viewers, editors or content templating to enhance productivity. Many websites are run off of a CMS. Some CMS systems specialized for specific tasks also contain process control support.

Examples:

- WordPress (<http://www.wordpress.com>)
- Microsoft SharePoint (<https://products.office.com/en-us/sharepoint/collaboration>)

Enterprise content management (ECM) – ECM platforms are a type of CMS designed to manage digital content with enterprise needs prioritized. Depending on the platform, these often will contain process control/BPM strategies to enhance management efficiency in addition to a document repository. They stress security, efficiency and interoperability with enterprise standards.

Examples:

- Alfresco (<https://www.alfresco.com/>)
- Microsoft SharePoint (<https://products.office.com/en-us/sharepoint/collaboration>)
- Box (<http://www.box.com>)

Electronic quality management system (eQMS) – A type of ECM designed to facilitate quality assurance/quality control (QA/QC) and regulatory requirements. As well as a repository for digital quality documents, workflows are built-in to ensure user compliance with QA/QC or regulatory requirements.

Examples:

- MasterControl (<http://www.mastercontrol.com>)
- TrackWise (<https://www.spartasystems.com/products/trackwise-qms>)

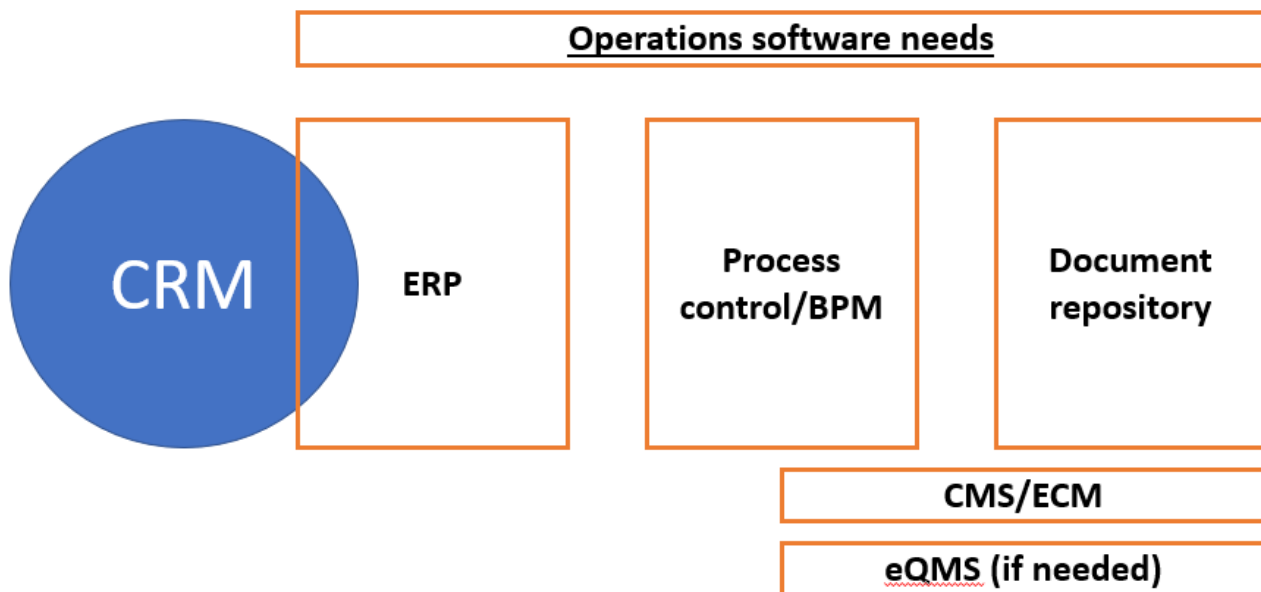
Customer relationship management (CRM) – Not usually considered under the umbrella of corporate operations, instead the CRM is handled by the head of sales or business development.

CRMs assist in tracking and managing marketing efforts. Sometimes it is bundled with ERP packages to increase the value proposition for purchase.

Examples:

- Salesforce (<http://www.salesforce.com>)
- Zoho (<http://www.zoho.com>)

II. Operations software overview



III. Software implementation definitions

Fully custom – Software system is completely implemented by enterprise using internal or contract engineering. All cost and implementation risk is assumed by the enterprise. All intellectual property is owned by enterprise. All code is maintained and tracked by enterprise.

Customizable – Software is partially implemented by enterprise using internal or contract engineering to customize a publicly available framework. Customization cost and risk is assumed by enterprise. Customized intellectual property is owned by enterprise. Framework intellectual property remains held by framework implementer. Code is maintained as defined by contract between enterprise and implementer. This is a less costly implementation solution for a



customized end product, but can be more complex to implement owing to the requirement of a suitable customizable framework as the foundation.

Examples:

- Customized Alfresco ECM deployment
- Customized SharePoint site
- Customized Odoo module

Enterprise (Single purpose) – Software is fully implemented by 3rd party. Cost outside the license fee is assumed by 3rd party. Risk is contractually assigned. All intellectual property remains held by 3rd party. All code management is handled by 3rd party and not available to enterprise. Software does not intend to solve all enterprise needs for an area of concern instead attempting to be the best-in-class for a specific enterprise need.

Examples:

- Trello (<https://trello.com/>)
- Quickbooks (<https://quickbooks.intuit.com/>)

Enterprise (All-in-one) – Software is fully implemented by 3rd party. Risk is contractually assigned. Software is usually customized to an end user at a negotiated cost, but all intellectual property remains held by the 3rd party. All code management is handled by 3rd party and not available to enterprise. Software intends to solve all enterprise needs for an area of concern instead of attempting to be the best-in-class for a specific enterprise need.

Examples:

- NetSuite (<http://www.netsuite.com>)
- Zoho (<http://www.zoho.com>)

Summary

Enterprise operations is a hard to understand and rapidly evolving product space.

Accendero Software, Inc. can walk you through the process of getting a rock-solid enterprise software strategy in place. Contact us today: info@accendero.com.

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