

# Cloud Collaboration Platform as Enterprise Game Changer

Androklis Mavridis,

Giorgos Fylaktopoulos

Mike Skolarikis

{andy, gfylak, mikeskolari@b-open.gr}

Ver. 1.0 – January 2014

## ***Introduction***

The need to provide employees with the right tools and means (more than just e-mail and phone) to collaborate, gave birth to what is currently known as “Enterprise Collaboration Market”. The plethora of social tools injected a new working mindset to the business world and as a result, vendors started to add and integrate social tools for their existing solutions. Initially, focus was given to document sharing, moving to document management, versioning and integrated library services.

With the advent of cloud Collaboration services, organizations are finally endowed with the much wanted agility, while employees can seamlessly exchange information and track knowledge among themselves but also with their customers and partners. As numerous market predictions<sup>123</sup> shoot true, we can expect global collaboration services market to continue its upward trend with a compound annual growth rate (CAGR) of 8% through 2018. It is anticipated that 2014 will be the “point of no return” year where most of the collaboration enabling technologies along with their associate models will be unconditionally adopted by Enterprises of any size. Major established SaaS vendors are already harvesting the benefits of this vast and yet unexplored market, and are building their arsenal for the upcoming all out war with the new comers in the collaboration services arena.

---

<sup>1</sup> The Forrester Wave™: Cloud Strategies Of Online Collaboration Software Vendors, Q3 2012

<sup>2</sup> Forester Consulting: Collaboration Services: Deployment Options For The Enterprise

<sup>3</sup> Accenture: From Talking to Transforming: Getting Real Value from Enterprise Collaboration Technology

**Challenges faced by vendors**

*Security:* Probably the most prominent challenge is the lack of trust and awareness regarding security in the cloud. Security concerns can be classified into two categories. The first regarding the technical aspects and the second related to the employees misuse. At the technical front there is skepticism over access control, authentication and data encryption, while also IT decision makers are puzzled with client data management and constantly evolving regulatory information security requirements.

At the employees misuse front, the fundamental argument is that employees may process and exchange customers' information without IT oversight, exposing enterprises to sensitive information leakage/disclosures and regulatory risks. While enterprises focus on preventing hacking, in reality collaboration services if not properly controlled, allow data breaching through accidental mishandling and inappropriate sharing.

*Robustness & Use Case centric:* Vendors seek to provide tool sets addressing most of the collaboration use cases in a robust manner. The focus is on providing a holistic enterprise collaboration "hub" instead of repackaging existing suites and social media tools. This is evident in SMEs that are in need of integrated solutions able to cover a wide range of business functions.

*Readiness:* Enterprises lack control over how they share information, and are highly concerned about how they collaborate and exchange valuable business data over the cloud. This uncertainty regarding the value and readiness of social collaboration is reflected in IT leaders' skepticism towards support, scalability, transparency of SLAs and data recovery upon exit strategies.

*Integration:* Naturally, the desired collaboration solutions should be able to exploit the existing legacy infrastructure (hardware and software), otherwise there is no point in introducing a service that will disrupt productivity. To do so, vendors should be able to convince IT leaders that the offered services provide the desired levels of customizability, scalability and connectivity with legacy applications.

*Organizational structure shifting:*

By Injecting social tools and social collaboration "mind-set", the traditional hierarchical structure is under increasing scrutiny. This is evident in enterprises that capture and transform knowledge. These knowledge-intensive enterprises are now embracing flexible knowledge networks and gradually abandon the former rigid and obsolete organizational structures. Hence, vendors should

be able to address this organizational shifting by providing the right tools enabling the creation of knowledge based networks.

*Localization - mobility:* Vendors should localize their services for a multilingual BYOD workforce. BYOD workers use their own devices like smart-phones, tablets, and laptops to access these services. To be able to run the service in a plethora of devices, is a must, vendors should provide.

*Cloud Commitment:* IT leaders desire to get assurances of vendors' long term commitment to cloud collaboration, in other words to be able to enjoy support and future updates for their purchased services and to know if the vendors put considerable resources in supporting and building their partner and customer base.

### **State of the art in Cloud-based collaboration platforms:**

Vendors are moving towards the social workflow management trend, encompassing the traditional social and file sharing toolsets into one common platform. This focus enable the deployment of classical real-time collaboration tools into use cases far beyond the strict collaboration realm, such as project management, customer communication and monitoring etc.

Below we present the most indicative collaboration market state of the art solutions:

#### **1. SharePoint 2010**

**Pros:** SharePoint 2010 is primarily an ECM suite with strong collaboration features. It is the natural choice for Microsoft customers, as it offers seamless integration with other Microsoft solutions. SharePoint gives enough scalability through third-party applications, and freedom on deployment options including on-premise and SaaS options.

**Cons:** SharePoint Foundations is free but with limited functionality forcing enterprises to opt for SharePoint Server.

#### **2. IBM Social Business:**

**Pros:** Enterprises grasp the benefits of IBM Connections' modular architecture to select the most appropriate collaboration modules for their needs. Strong embedded recommendation engine for knowledge items streaming and tracking, coupled with idea management system.

**Cons:** Collaboration features are not at the state of the art level, lacking content tagging system, and basic mobile offerings.

### **3. Cisco WebEx Social 3.0:**

**Pros:** WebEx Social fully supports BYOD through HTML5 and dedicated customized applications. Its powerful tagging and sharing engine allows the creation, sharing tagging and tracking of single instances of content across employees.

**Cons:** Lack of social workflow and task management capabilities

### **4. OpenText:**

**Pros:** Strong content management, versioning control and analytics on usage rates. Seamless integration with SharePoint and OpenText ECM.

**Cons:** True and advanced real-time collaboration is only achieved through integration with third-party solutions. Task management and social workflow management are currently not supported.

### **5. StreamWork:**

**Pros:** Probably the king in social workflow management coupled with project management and analytics capabilities, StreamWork provides the necessary bridges for integration with the well known third party apps like Google Docs, SharePoint, WebEx etc. It offers strong capabilities for page customization and a plethora of APIs available to developers for legacy systems integration.

**Cons:** No live audio/video capabilities.

### **6. Salesforce Chatter:**

**Pros:** With its ability to form groups with externals (customers, partners, providers etc.) it is the primary choice for enterprises focused on customer tracking and monitoring. Mobile capabilities and activity streaming is above the state of the art while integrates well with SharePoint.

**Cons:** Content management and real-time communication (audio/video) capabilities are primitive.

### **7. Socialtext:**

**Pros:** Above the state of the art collaboration capabilities focused on knowledge networks creation and social tagging. It provides excellent integration with SharePoint and a variety of cloud deployment options.

**Cons:** Basic to primitive content management and real-time collaboration capabilities.

### 8. Podio:

**Pros:** Podio provides an e-mail centric notification engine handling all collaboration tasks. Basic task and workflow management are available along with an interface for creating/modifying apps that can be added to the Podio home screen for iPhone.

**Cons:** Limited real-time communication and file searching. No integration with SharePoint.

### The Comidor approach:

We observe the formation of new trend in terms of how vendors perceive and target the collaboration market. This trend orders collaboration features/tools to be an integral part of traditional business application domains such as Project Management, CRM, ECM etc., as it became evident that collaboration for the sake of collaboration is not giving any business value. b.Open Ltd<sup>4</sup> follows this trend with Comidor<sup>5</sup>.

Comidor is a cloud application suite that combines Collaboration, Project Management, CRM and Document Management functionalities all in one platform. Comidor virtually “maps” the Enterprises’ organizational structure, such as Departments, Groups, Teams etc., and employs various Social Network tools to achieve fast and easy task management and information sharing and tracking. Schematically we present the four major functional axes in figure 1 below:

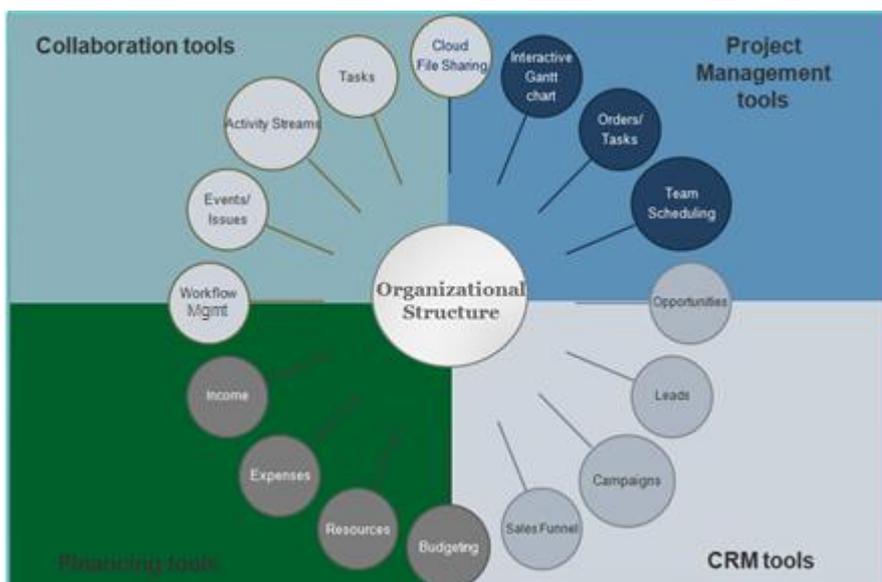
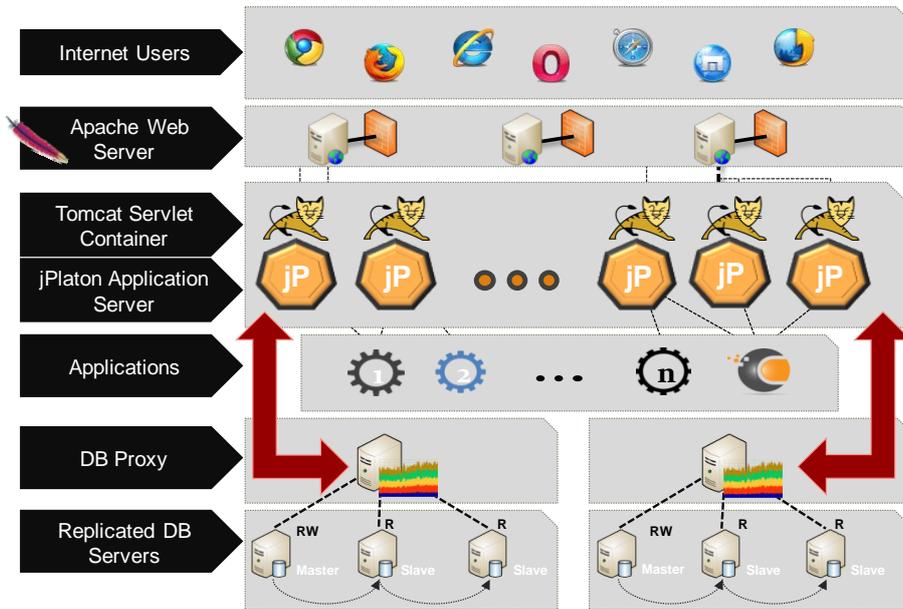


Figure. 1 The four functional axes of Comidor (

<sup>4</sup> www.b-open.com

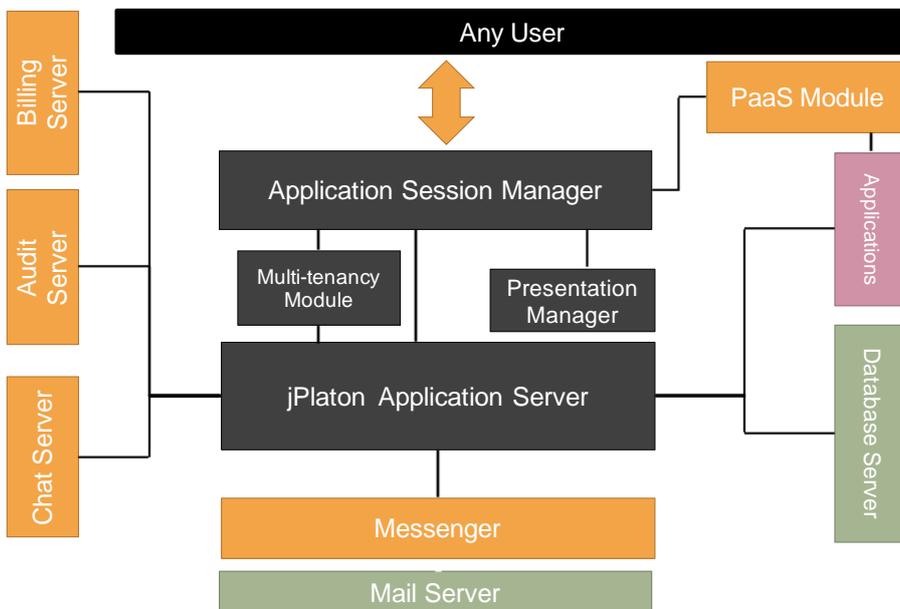
<sup>5</sup> www.comidor.com

**Back-end Architecture**



**Figure. 2 Backend Architecture**

As can be seen from figure 2, Comidor is accessible from all available browsers which are managed by the Apache web server. One level down, Tomcat Servlet Container contains the numerous jPlaton<sup>6</sup> application server instances, which in turn, are responsible for managing the various Comidor instances. Finally, at the lowest level we have the dedicated database servers controlled by the necessary DB proxies.



**Figure. 3 Internal Architecture**

<sup>6</sup> <https://www.comidor.com/index.php/en/jplaton>

Internally, jPlaton is located at the system's heart and communicates with the mail, database, audit, billing and chat servers. Through session manager, jPlaton offers true multi-tenancy to any number of users, while the PaaS module extends Comidor's functionality by adding, modifying and updating new or existing packages.

### ***Multi-layered development paradigm***

Every application in Comidor consists of small program parts (program units). All the operative characteristics (the functionality) of a program unit are contained in XML files that completely describe the definition, the properties, the behavior and the relations of these units. These XML files are well organized constructing a multi-layered, homocentric environment. Any layer may have new functionality (add) or may change the functionality of the inner layers (update or delete). Hence, the number and nature of the layers depend on the specific Comidor customization. At execution time all the necessary information of a specific program unit is collected and assembled from all the locations where it may reside, taking into account the specific installation and user settings.

To achieve the maximum scalability, Comidor per se, adopts a multi-layered distributed architecture that permits application growth and encourages collaborative software development. Any number of developers or developer teams can work on the same customization project and upgrade, modify, extend and integrate the Comidor project.

This completely open and transparent architecture (all in XML files – no binaries) permits the flow of know-how among the layers allowing integration, while the distributed multi-layered architecture makes the evolution of the product possible and the customization of an installation feasible preserving at the same time the simplicity and reliability of the inner (core) layers.

### ***Conclusion***

Enterprise decision makers are in need of complete collaboration solutions able to increase productivity without affecting, if possible, existing business processes. After years of hesitation and prejudice, finally the “collaborative social working” culture is mature enough to be presented as the only way towards true flexibility, scalability, productivity, knowledge monitoring and effort transparency. As a result, market forecasts predict 2014 to be the year of collaboration services massive adoption at global level. Traditional big vendors offer reliable and efficient enough

solutions that cover a wide spectrum of enterprises' current and foreseen collaboration needs. New players are also on the hunt, trying to get their share by either extending existing collaboration use cases or by introducing new ones, often blending or targeting specific application domains. With Comidor, b-Open introduces a new concept in business collaboration that addresses the need for homogenized solutions that cover most of the enterprises' operations. Comidor modules (Collaboration, Project Management, Finance and Customer Relationship Management) provide a broad spectrum of functionalities that are useful (not to say needed) for various types of enterprises and organizations. Furthermore, Comidor is flexible, customizable and integrates smoothly with other business software tools such as Gmail, Outlook, MS Word, MS Excel, PDF, LinkedIn, Dropbox, Twitter and much more.

## Authors

**Androklis Mavridis**

Comidor Product Manager

**Giorgos Fylaktopoulos**

Head of R&D

**Mikes Skolarikis**

Software Engineer

**b.open - Business Open Software Applications Ltd**

*Laskaratou 11A Thessaloniki Pylaia 54250, Greece*

<http://www.b-open.gr>

[info@b-open.gr](mailto:info@b-open.gr)

+30 2310 402522

+30 2310 403652

skype: comidor.support

<http://www.comidor.com>

[support@comidor.com](mailto:support@comidor.com)



[facebook.com/Comidor](https://www.facebook.com/Comidor)

[twitter.com/ComidorCloud](https://twitter.com/ComidorCloud)

Copyright © 2013 b-Open Ltd. All rights reserved. b-Open and the b-Open logo are trademarks or registered trademarks of b-Open - Business Open Software Applications Ltd.