

# Notes and Domino Next: A Glimpse Into IBM's Collaboration Future

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**IBM's primary goal with the next major release of Notes and Domino is to make it more consistent and interoperable across a range of IBM and other collaboration products.**

## Key Findings

The planned evolution of Notes and Domino highlights numerous trends in the collaboration market such as:

- The broader movement toward activity streams as a way of aggregating and propagating information.
- The decomposition of monolithic collaboration products to enable use of some services (like calendar) inside other applications.
- The ability for collaboration products to include external collaboration services via standards such as Representational State Transfer (REST) and OpenSocial.
- The elevation of browser and mobile access to parity with traditional desktop clients.
- Consistent features across "cloud" and on premises provisioning models.

## Recommendations

- Organizations looking to maximize investments in Domino need to understand IBM's Project Vulcan and Social Business Initiative.
- Organizations should encourage in-house staff to develop XPages, OpenSocial and REST programming expertise to fully exploit Notes and Domino application capabilities.
- Strategic planning for collaboration services should be flexible enough to accommodate changes in suppliers, tools and provisioning models.

## WHAT YOU NEED TO KNOW

The evolution of Notes and Domino highlights the broader shift in the collaboration market toward a blending of traditional collaboration services with newer social constructs and business applications – all accessible via mobiles, browsers and rich clients. This analysis is relevant to individuals tracking the evolution of the collaboration market, as well as IT leaders responsible for Notes or Domino infrastructures.

## EVENT

### Event Facts

At its annual Lotusphere event from 31 January to 4 February 2011, IBM disclosed details about the future of its Notes and Domino e-mail and application development platform.

### Analysis

In a world where new developments around collaboration and social software occur on a daily basis, what is the fate of an e-mail and collaboration platform that is two-decades old? That is the question essentially facing IBM with its venerable Lotus Notes and Domino franchise. The answer is, of course, “evolve or die.”

IBM's core challenge is to demonstrate innovation and true business value with its collaboration portfolio in the face of aggressive competition from Microsoft, Google and many other vendors.

IBM's strategy is to:

- Enable organizations to weave collaboration services throughout a broad range of business processes.
- Enable developers to rapidly write collaboration-oriented applications with deployment to browsers and mobile clients.
- Enable the use of external consumer and business collaboration services within the IBM collaboration portfolio.
- Deliver a consistent and interoperable experience across IBM's diverse collaboration portfolio.
- Generate significant demand for its LotusLive cloud service and demonstrate the value of a hybrid cloud and on-premises provisioning model.

In theory, these elements will enable a business to react rapidly to changing market conditions and thereby gain a competitive edge through the strategic deployment of collaboration services. IBM's approach is in contrast to Microsoft's strategy, which may seem characterized as more monolithic and less open to the rapidly changing dynamics in the collaboration market.

IBM highlighted the role of Notes and Domino in this strategy at Lotusphere this year, indicating that a point release (8.5.3) will be available in the middle of 2011, followed by a major upgrade (which we will call “Notes and Domino Next”) expected in late 2012.

### Notes and Domino Next and Project Vulcan

As part of its Project Vulcan initiative, IBM will be placing a consistent social overlay over multiple products, such as Connections, Quickr, Sametime and Notes and Domino. In the case of Notes and Domino Next, IBM plans to offer three elements of the Project Vulcan user experience: activity streams – embedded experiences that enable in-place editing and a new capability it calls Sharebox.

**Activity streams** will be separate from the Notes in-box and will display a mix of status updates from IBM products, such as Connections, LotusLive, Sametime, Cognos and third-party services that support Open Social Activity Streams' protocol. IBM Activity Streams will enable users (with permission from Domino administrators) to blend social network, enterprise applications and personal updates into Domino, from sources such as salesforce.com, Facebook and Twitter.

The key will be for IBM to develop rich control and customization services to allow users to suppress and promote certain streams, based on personal preference. Efficient consumption of a rising tide of updates and feeds will increasingly become a challenge for organizations and is likely to lead to attention management initiatives. The basis of the activity stream capabilities first shipped in Connections 3.0 and the user interface (UI) in Connections 3.0, is also an initial delivery of the Project Vulcan UI framework.

We anticipate growing adoption of activity streams across the industry, coming from vendors such as salesforce.com with Chatter and Novell with Vibe. However, the outcome of activity stream standardization (Open Social and Activity Streams) is still uncertain.

**Embedded experience (EE)** is an extensible and open model for enabling interactive and in-context access to capabilities and services from a home page or a Notes in-box. IBM intends to deliver a wide range of EEs for its applications and it will enable developers to build custom EE open social gadgets and widgets.

IBM demonstrated an in-place editing EE at Lotusphere that enables a user to edit documents within the Notes client and it has talked about file sharing and workflow approval scenarios. Third parties are also likely to develop EEs, for example, Voicerite demonstrated an EE at Lotusphere, which allowed voice mails to be played back directly from the activity stream and Silanis demonstrated a document signing applet.

**Sharebox.** The Notes Next client will access the Sharebox, which will be a readily accessible tool for users to share content and an extensible navigation bar that gives users quick access to services such as updating status, posting to forums and blogs, bookmarks and e-mail. The Sharebox and navigation bar will be consistently displayed across multiple IBM collaboration services such as Connections and Quickr. Sharebox will be extensible using the Social Business toolkit (referred to later in this research) to add customer-specific tasks to the navigation bar.

Furthermore, it is IBM's intention to expose these Project Vulcan user interface elements – activity streams, embedded experience and Sharebox – across browsers and mobile clients, both on premises and in its cloud-based LotusLive service. Ultimately, IBM intends to expand content and user recommendations through social analytics delivered as part of Connections, but these are not part of Notes and Domino Next.

## Development Services

**XPages** is a development service in Domino Designer that enables developers to write once and deploy applications across mobile, browser and rich clients. XPages moves Notes and Domino closer to broader Web trends, via the use of approaches like HTML, Cascading Style Sheets, JavaScript and JavaServer Pages.

Notes and Domino Next is expected to consume and generate OpenSocial gadgets directly out of XPages, which will enable it to supply and consume a heterogeneous mix of social data and applications.

Domino Designer will be able to wrap an XPage in an iWidget, so that services can be consumed by a WebSphere Portal Server, Connections or other IBM properties. In the near term, as part of Notes and Domino 8.5.3, we expect to see improvements in the load time, performance and scalability of XPages.

The elevation of XPages dilutes the utility of the Notes 8.x Eclipse wrapper around the traditional Notes client. Eclipse enables single-click access to a variety of internal and external resources. However, Eclipse is not integrated with the mobile and browser client for Notes and Domino and requires extra steps for deployment across mobile and browser clients. Consistent with its long-term direction for the Software Group, we believe IBM is likely to decouple XPages from Domino to give it broader appeal as a general-purpose development tool in Microsoft-centric shops.

**Social business initiative, framework and toolkit.** We also expect IBM to continue to open up Notes and Domino as part of its Social Business Initiative, which is IBM's broad campaign to socially-enable a broad range of business processes. The IBM Social Business Framework is a road map of how IBM will decompose and expose its collaboration portfolio for inclusion in IBM and non-IBM applications and the Social Business Toolkit is the actual tooling around the components.

IBM, for example, plans to REST-enable a variety of Notes and Domino services (such as the calendar), enabling outside applications to create, read, update and delete Domino services. Developers have been frustrated by the lack of API access to popular Notes and Domino functions. REST enablement will also allow lightweight browser access to services. IBM has already started its REST-enablement campaign with elements of Connections and Quickr.

IBM's challenge with these RESTful components will be to promote use of the services in a broad range of circumstances.

The expected progression in use of the components is likely to be in the following order, with each ensuing step encountering more resistance:

- Use of components within IBM's own collaboration portfolio.
- Use of components by IBM's broader software applications, such as business intelligence and CRM tools.
- Use of components by independent software vendors.
- Use of components by in-house developers for inclusion in non-IBM applications.

Furthermore, IBM has committed to making its Social Business Framework flexible enough to include popular collaboration services, such as Microsoft's SharePoint and Exchange, thereby offering a richer alternative to existing Notes and Domino shops and generating appeal to non-IBM customers. The ultimate IBM vision is to enable Notes and Domino (and other IBM collaboration services) to be mashed up in a multi-vendor mix of business and consumer applications.

## Management Services

As part its work to deploy LotusLive Notes (the cloud instantiation of Notes and Domino introduced in 3Q10), IBM has developed new management services, which it uses to promote stability and reduce operational costs.

Some of these cloud services will be included in the premises-based version of Notes and Domino Next.

IBM has developed configuration routines for LotusLive Notes, which will, for example:

- Enable patches and fixes to be scheduled and applied with minimal human intervention. These routines examine running server workloads and determine when the load is suitable for bringing down the server, thereby ensuring continuous user uptime.
- Optimize replication on server restart to synchronize mail files to servers in a cluster.
- Automatically run a check to ensure that system configuration is up-to-date and the same as other servers in the cluster in the case of a hard shutdown.
- Enable multi-threaded databases management tools to programmatically examine server loads and determine when concurrent routines can be run with no user impact.
- Proactively enable preventative restarts and system configuration checks when user performance will not be affected.

We expect these services, which should promote stability and lower ownership costs, to be part of Notes and Domino Next. In the near term, as part of the 8.5.3 release, we expect to see more improvements to the Configuration Tuner, such as the ability to identify misconfigurations like sub-optimal administrator configured memory pools, followed by administrator notification and suggested fixes.

As part of the drive to lower ownership costs, we also expect IBM to offer support for the Linux-based KVM virtualization service in Notes and Domino 8.5.3, as well as removing the 64 GB logical data size limit on NSF files, which currently drives administrators to have to split up or archive data – a cumbersome process.

In summary, the planned evolution of Notes and Domino highlights numerous trends in the collaboration market:

- Inclusion of social elements, such as activity streams, in a traditionally e-mail-centric environment.
- A focus on user experience parity (and optimization) for mobile, browser and rich client use cases.
- The ability to consume and publish collaboration services based on REST and OpenSocial APIs.
- The use of cloud provisioning constructs to augment on-premises deployments.
- A focus on lowering the ownership costs of on-premises collaboration deployments.

IBM has outlined an ambitious and appealing strategy for Notes and Domino. Its core challenge will be to make the message resonate for organizations that are adopting a Microsoft collaboration strategy.