TECHNOLOGY AUDIT

Enterprise Collaboration

Novell

BUTLER GROUP VIEW

ABSTRACT

Novell’s collaboration technologies consist of: GroupWise 8, the new version of a well-established and popular enterprise communication and collaboration system; Novell Teaming 2 for collaborative workspaces and file sharing process automation; Novell Conferencing (version 1) for online meeting capabilities and desktop sharing; and GroupWise Instant Messenger for Peer-to-Peer (P2P) real-time communication. Novell’s technologies provide users with the means to collaborate as well as store and manage important team and project information. Many of the built-in features have been designed with productivity in mind and the workflow adds to that with automation of day-to-day processes. There is cross-platform support for Linux, Open Enterprise Server (OES), and Windows; however, there is no remote hosting capability on offer for the server side of the collaboration solutions. GroupWise remains well supported by Independent Software Vendors, with companies such as Research In Motion (BlackBerry) extending the product’s core functionality to meet a broad range of business requirements.

KEY FINDINGS

- Good support for Linux and Windows on both client and server sides.
- Includes native Document Management functionality.
- Benefits from far fewer security vulnerabilities when compared with competing products.
- Only on-premises server deployment is available for these products.
- GroupWise task management features include nesting of parent/child tasks.
- GroupWise Instant Messenger integrates with third party IM tools.
- There is no integration between GroupWise Instant Messenger and Teaming, but this issue is being addressed by Novell.
- GroupWise Requires eDirectory – Novell’s identity management and directory service.

LOOK AHEAD

Future enhancements will be focused on improving the end user experience, with tighter integration with Novell products and with popular third party products e.g. Outlook, MS Office, ECM, and portal solutions.
FUNCTIONALITY

The collaboration and communication market is a lot more complicated than it used to be. Even though the corporate e-mail system is still the number one tool for ad hoc collaboration, use of other tools such as shared workspaces, presence and Instant Messaging (IM), is on the increase. Back in the 1990s, when Novell reigned supreme, GroupWise was widely adopted by organisations favouring the company’s NetWare network operating system, as its features and functionality were comparable with any other proprietary product on the market. Then, in 1996, Windows NT Server 4.0 arrived and with it Microsoft Exchange Server; the rest, as they say, is history. Now, however, a decade or so later, and with organisations reliant on e-mail and other collaboration tools more than ever, Novell is embarking on bringing its disparate collaboration software together to fully address a diverse and growing set of requirements.

Product Analysis

Novell offers a number of products that together provide end-to-end collaboration capabilities. These are:

- GroupWise, a well established and popular enterprise communication and collaboration system;
- Novell Teaming for secure, interactive, online workspaces;
- Novell Conferencing for online meeting/conferencing capabilities;
- GroupWise Instant Messenger for Peer-to-Peer (P2P) real-time communication.

For well over a decade Novell dominated the corporate e-mail market along with Microsoft and IBM (Lotus), but then it appeared to fall behind the competition as the company focused on other priorities, such as Directory Services, Identity and Access Management, and Linux. But in the summer of 2005 that all changed, as Novell injected new life into what is still a very capable integrated communication and collaboration offering. Novell is committed to GroupWise until at least 2015, and has augmented it with a number of other offerings.

New companies are born every day, and for these organisations the selection of a corporate e-mail system is probably one of the most fundamental decisions that they can make. When evaluating the options, organisations must consider a number of issues, such as cost, functionality, scalability, reliability, security, interoperability, and of course service and support.

In Butler Group’s opinion, GroupWise 8 hits the mark in just about every category, and upon close inspection surpasses the competition in a number of areas, e.g. ease of transferring information from e-mail to calendar and contacts with drag-and-drop capabilities, a wide range of colour-coding options, and the ability to integrate the user interface of any Web enabled third-party application into the GroupWise dashboard. This means that the user seldom has to leave the dashboard to use or check the status of other Web- or browser-enabled applications, or indeed, favourite Web sites such as Twitter, Facebook, or to check RSS feeds.

Novell is much more than a vendor of messaging and collaboration technologies, with Butler Group still rating it as one of the world’s leading providers of infrastructure technologies and services.

The combined capability of Novell’s thousands of employees and partners, together with the firm’s strong portfolio of enterprise-class solutions and support services, enables it to play a significant role in the enterprise market.
Although Novell remains a strong commercial organisation, its support for the open source software market makes it a very appealing, if at times a little unpredictable, company to do business with. Novell argues that its customers get the best of both worlds: traditional commercial and open source – a view Butler Group tends to concur with. As a vendor of enterprise communication and collaboration products, Novell offers organisations choice, and with that choice comes the ability to pick and choose technologies and platforms to suite particular business requirements. This choice, Novell contends, provides organisations with increased operating flexibility and with it the opportunity to lower Total Cost of Ownership (TCO). GroupWise has been around for a long time – almost 20 years if one takes into account its WordPerfect heritage – and throughout this time the product has continually offered the user many leading-edge features: the industry’s first client/server-based Mailbox and the first e-mail product to include document management features – a selling-point we believe Novell should promote more actively.

**Product Operation**

**GroupWise**

GroupWise is a comprehensive solution that runs on Linux, Netware, OES, and Windows. It offers a rich client experience for users of the Windows operating system and provides a solid feature-set to users of Linux and Apple Macintosh computers. GroupWise provides Web-based clients and mobile clients with a secure, authenticated communications platform that sits well with existing IT infrastructure components. Despite Microsoft and IBM’s apparent dominance of the corporate e-mail and collaboration market, GroupWise is still in use by millions of users, and so Butler Group is pleased to see renewed commitment from Novell toward this product.

The messaging functionality provided by GroupWise enables users to send and receive mail messages, phone messages, and reminder notes. The GroupWise client ships in two distinct flavours: the Windows client and the Cross-Platform client for both Linux and Macintosh users.

The Home View or main application dashboard (Figure 1) enables the user to get a portal-like view of their most important information. By default, the Home View displays calendar information for the day ahead, checklist items, and unread messages. The Home View is fully configurable, and users can create additional panels to display information to which they frequently refer. The Navigation bar enables users to quickly and conveniently access the folders they use the most.

By default the Navigation bar contains the Home, Mailbox, Calendar, Contacts, and Trash folders. A strong feature of the application is the use of panels that allow the UI of any Web-enabled third party application to be dragged into the Home View or dashboard and viewed without having to navigate away from GroupWise.

In addition to its e-mail functionality, GroupWise offers multiple calendar options that enable users to build the complete picture of their schedules including work and personal calendars. One feature that Butler Group particularly likes is the additional time zones displayed side by side alongside appointments. This is ideal for people who collaborate with colleagues located in different parts of the world. There is support for third-party calendars and iCalendar format.
Contact information includes address, photo, and Google Maps location information, plus multiple phone numbers, e-mails, and IM details. Presence and status information about contacts is also provided. Time-stamped notes can be added to a contact's information thus allowing users to keep better records of communications, for example, when a phone call was made to a customer and the specific points that were discussed during the call.

E-mails have presence indicators that show if the sender or recipient of an e-mail is available for contact. E-mail and IM archiving is available with stubbing that shows if a message has been archived.

Task management and information can be colour coded for prioritisation and parent/child relationships can be created to nest tasks and sub-tasks. The tasks have a completion indicator that shows the percentage of work that is completed. This is rolled up into the parent task's indicator to show overall progress. In Butler Group's opinion, these are useful features that enable users to mange their schedules better and to improve their personal productivity. Tasks and e-mails can be dragged into calendar to create appointments. This is another time-saving feature that boosts productivity.
GroupWise provides organisations with communication and collaboration services that are secure, highly available, and easily accessible. A basic GroupWise system consists of a Domain with a Post Office and a Document Library. The Post Office Agent (POA) delivers messages between users’ mailboxes in each Post Office, and the Message Transfer Agent (MTA) routes messages between Post Offices and Domains in an enterprise-wide configuration. GroupWise Document Management Services (DMS) allows authorised users to create documents with standard desktop applications, save them to a document library, and then retrieve them at a later date without having to worry about the authoring application, specific document name, or the document’s physical location. Using the Windows client, users can create, share, locate, edit, view, and check out documents that are created under the management of GroupWise DMS.

A GroupWise document library consists of a set of documents and a database that allows those documents to be managed as a single entity. Although a library must belong to a specific Post Office, authorised users belonging to other Post Offices can be granted access to its content. Documents created using GroupWise DMS are not stored as individual files; instead, the documents are stored in database structures called Binary Large Objects (BLOBs). Documents, together with any versions of these documents, are stored in separate, compressed BLOB files, and are encrypted to provide security. The GroupWise POA transfers documents between the GroupWise client and the library, and thereby ensures the highest levels of security.
It is important to note that OpenOffice.org Novell Edition is available for Windows and Linux. It is a special release of OpenOffice with enhancements for interoperability with Microsoft Office and other word processing programs. OpenOffice.org Novell Edition includes improved integration with Open Document Management Architecture (ODMA) services, for example for GroupWise. This means that if the GroupWise client is installed on the machine, OpenOffice.org Novell Edition will offer to open documents from GroupWise, or save documents in GroupWise.

**Novell Teaming**

The capabilities of Novell Teaming include customisable workspaces, file sharing, a search engine, and Web-based interfaces. Teaming also provides rights management on folders and workspaces with user-based access control. Workspaces can include file sharing, wikis, blogs, discussion groups, surveys, tasks, calendars, milestones, graphics library, and custom forms and workflows. There are three workspace types: Global, Team, and Personal, for different uses within teams or by individuals. The Teaming Library provides forms and workflow templates enabling novice users to get started quickly.

The relevance dashboard is new to Personal Workspaces and provides project and team-related information as relevant to the user, e.g. updated tasks, new or changed information. Personal workspaces include information that is synced from the directory. That is part of the profile which is separate from the relevance dashboard. The dashboard allows the user to see what is going on in the projects that he/she is involved in at a glance, without having to visit the individual project workspaces. The Recent Entries option allows the user to check and revisit the workspaces that he/she has visited before.
The search capability indicates relevancy of the results to the search query and indicates additional content that might be pertinent to the query. The search query can be saved and reused later on. Queries can also be made against tags and workflows, people, and places. Users with the right privileges can create community tags that others can search against. Personal tags can be created but will not be available to other users.

Personalisation includes features such as welcome messages or customised forms with fields that are partially prefilled for specific team-related work. Completed forms initiate workflow and approvals. The header of every workspace can be branded to include company/team graphics, or messages. The branding is inherited by child workspaces and folders.

Teaming has Oracle Stellent Viewer embedded in it and supports viewing, indexing, and Web viewing of content in any format.

**Novell Conferencing**

Novell Conferencing provides sharing of documents, desktops, and whiteboards with annotation capabilities. There is also a presence capability with public and private chat features. Other features include audio conferencing, recording, and playback of meetings. Conferencing records all meetings in Adobe Flash format so that meeting invitees who can’t attend a meeting can review the proceedings in the future. The integrated Voice over IP (VoIP) capability allows Conferencing to be integrated into a company’s phone system. Currently Novell Conferencing is best suited for small meetings.

**GroupWise Instant Messenger**

GroupWise Instant Messenger offers P2P instant communication. It provides secure communications among employees to protect sensitive information. Security is achieved through directory authentication, SSL encryption, and user and corporate conversation recording. Policy-based management is provided through Novell eDirectory to simplify administration. It also provides searchable directory features, multi-party conversations, and presence indicators. At the moment there is no integration between GroupWise Instant Messenger and Novell Teaming or Novell Conferencing so there remains some degree of isolated and at the same time overlapping chat functionality between the two packages. This is planned to be addressed by the end of 2009.

**Product Emphasis**

Novell’s collaboration technologies deliver the core features and functions that are expected of an enterprise-wide messaging and collaboration system in a secure, robust, and performant manner. The sweet-spot for the solutions is clearly the medium-sized organisation seeking a well supported system that is open to deployment across a range of technologies. In terms of market profile, Novell’s offerings have been in the shadows for some time, and this has not been helped by Novell’s focus on other territories. However, the company’s recent strategy and the release of GroupWise 8 appear to have revived confidence and interest in the product group. In our view, if Novell wants to compete more effectively with the leading vendors of this software segment it must become clearer and more concise in the way that it communicates its offerings to this market.
DEPLOYMENT

GroupWise uses Novell eDirectory for authentication and access management. Novell Identity Manager can be used to provision users from other directories/user repositories such as Active Directory. For WebAccess organisations must be running Apache, Microsoft Internet Information Server, or Tomcat. Novell packages the WebAccess install file into a .war file for easy consumption by Tomcat, which unpacks the file into subdirectories under the relevant GroupWise directory. Any of the following Web browsers can be used for agent administration and WebAccess: Mozilla Firefox, Microsoft Internet Explorer version 6 and above, and the latest version of Safari for the installed MAC/OS.

Novell Teaming can use the following databases: MySQL, Microsoft SQL Server 2005 or 2008 (Windows platforms only), and Oracle 10g and 11g. Teaming supports the same browsers as GroupWise WebAccess.

Organisations wishing to deploy the GroupWise Cross-Platform client on Linux and Macintosh computers should review the GroupWise documentation carefully to identify any restrictions here at present, particularly in the area of message encryption, Document Management, and Contact Management. WebAccess (the GroupWise Web client) has been improved in the latest version but it remains the least functional aspect of Novell’s solution.

Novell solutions are for traditional on-site deployment with no Software-as-a-Service (SaaS) option currently available. In our view this is a weakness that we hope Novell will address in the near future. Given the role of collaboration in the changing and increasingly mobile world of work, being able to connect to a collaboration server from anywhere without having to connect and login to a corporate server via a VPN would be extremely helpful.

The minimum system requirements for GroupWise installation on a server are as follows:

- 32-bit/x86 processor or 64-bit/x86 processor running in 32-bit mode.
- Any of the following server operating systems, plus the latest support pack:
  - Novell Open Enterprise Server (NetWare® or Linux version).
  - Novell Open Enterprise Server 2 (NetWare or Linux version).
  - NetWare 6.5.
  - SUSE® Linux Enterprise Server 10.
- eDirectory® 8.7 or later.
- ConsoleOne® 1.3.6 or later.

The minimum system requirements for Teaming installation on a server are as follows:

- Novell® Open Enterprise Server (OES) 2 Linux.
- SUSE® Linux Enterprise Server (SLES) 10 or SLES 11.
GroupWise Windows client workstation requirements include any of the following Windows versions, plus the latest service pack for the relevant version of Windows:

- 32-bit/x86 processor or 64-bit/x86 processor running in 32-bit mode.
- Any of the following desktop operating systems for the GroupWise Windows client:
  - Windows XP on a 300 MHz or higher workstation with at least 128 MB of RAM.
  - Windows Vista on a 1 GHz or higher workstation with at least 1 GB of RAM.
  - 200 MB of free disk space on each user’s workstation to install the Windows client.

GroupWise Linux client workstation requires any of the following desktop operating systems, plus the latest support pack: 32-bit/x86 processor or 64-bit/x86 processor running in 32-bit mode; SUSE Linux Enterprise Desktop 10, plus the KDE desktop or the GNOME desktop; 200 MB of free disk space on each user’s workstation to install the Linux client.

GroupWise Macintosh client workstation requires any of the following desktop operating systems, plus the latest support pack:

- 32-bit/x86 processor or 64-bit/x86 processor running in 32-bit mode; PowerPC.
- Any of the following desktop operating systems:
  - Mac OS 10.4 (Tiger), Mac OS 10.5 (Leopard).
  - Mac OS X for Intel.
  - Mac OS X for PowerPC.
- Apple Java Virtual Machine (JVM) 1.5 or later.
- 75 MB of free disk space on each user’s workstation to install the Mac client.

On mobile devices any can be used that supports Wireless Access Protocol (WAP) and has a micro-browser that supports Hypertext Markup Language (HTML) 4.0 or later, or Wireless Markup Language (WML) 1.1 or later.

The minimum system requirements for GroupWise Mobile Server for Linux or Windows installations includes Sybase ASA 9.0.1 database, although there is also support for SQL Server 2000 (SP3) and SQL Server 2005. Novell’s solutions support the following Portal Containers: Liferay, JBoss, Oracle, and BEA. Databases supported by Novell are: MySQL, Oracle (Enterprise), and Microsoft SQL Server Enterprise Edition.

PRODUCT STRATEGY

The target market for Novell’s collaboration solutions is mid-sized organisation and beyond. GroupWise, Novell’s flagship collaboration product, has been around for a long time, and so Novell and its partners are very accomplished in the delivery of this solution. Very large enterprise deals may well be handled by Novell’s own sales personnel, even though the company’s large network of channel partners is capable of handling very large deployments. GroupWise continues to be well supported by third-party solutions and the industry as a whole – a clear indication that this product is going to be around for many years yet.
Novell is doing a good job of leveraging the skills and expertise of the open source community and it gives-back as much as it takes out. Novell continues to actively pursue the existing GroupWise installed base, green-field sites, and of course disaffected Microsoft customers.

Licensing of the products is on a perpetual per user model but the first 20 users of Novell Teaming are licensed for free through the Novell Teaming Starter Pack.

Novell’s product release strategy for Teaming and Conferencing is set to change soon with smaller, more frequent releases delivered every five to eight months with no planned support pack releases. New updates will include bug fixes and new features and functionality, and this is planned for the next two to three years. GroupWise will include Teaming and Conferencing integrations with its support packs.

The future roadmap over the next 24 months will see increased and significant focus placed on improving the end user experience, with tighter integration with Novell products and with popular third party products, with Outlook, Microsoft Office, ECM, and portal solutions taking priority.

COMPANY PROFILE

Novell Data Systems began life in 1979 as a computer manufacturer and maker of disk operating systems. In 1983, it was reincorporated as Novell, Inc., to design and market software and hardware used for data networks and introduced NetWare, the first LAN software based on file-server technology. Having later focused on directory-based management of customers’ heterogeneous platforms, Novell released NDS eDirectory in 1999 as an identity-driven service that offered open standards and interoperability. In 2001, Novell acquired Cambridge Technology Partners to strengthen its ability to deliver both services and products to customers. In 2002, Novell established itself as a frontrunner in Web services with the acquisition of SilverStream Software, a leader in Web services-oriented application development. In 2004, Novell rounded out its Linux story with the acquisition of SUSE Linux – offering the full range of Linux solutions, from the server to the desktop, with additional enterprise-grade networking services and technical support unmatched by any other Linux vendor. It further expanded its commitment to the open source community by launching www.openSUSE.org, aimed at promoting the adoption of Linux worldwide, by providing free and easy access to the world’s most usable Linux distribution, SUSE Linux Enterprise. In 2006, Novell signed a landmark collaboration agreement with Microsoft on Linux and Windows interoperability and support. During 2007 and 2008, Novell acquired Senforce Technologies, SiteScape, PlateSpin Ltd., and Managed Objects. These acquisitions have enhanced Novell’s offerings in management and collaboration.

Today, Novell (NASDAQ:NOVL) has over 50,000 customers in 43 countries, 3,900 employees, and over 60,000 Certified Novell Salespersons, 5,541 Solution Provider Partners, 2,262 Technology Partners, 470 Training Partners, 140 Distributors, and 12 Software Service Agents.
Income for the last three financial years ending 31 October was as follows:

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<tr>
<th>Year ending 31 October</th>
<th>2008</th>
<th>2007</th>
<th>2006</th>
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<tr>
<td>Revenue (US$ Million)</td>
<td>957</td>
<td>932</td>
<td>919</td>
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<tr>
<td>Change on Previous Year (%)</td>
<td>3</td>
<td>1</td>
<td>–</td>
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<tr>
<td>Total Net Income/(Loss) (US$ Million)</td>
<td>9</td>
<td>56</td>
<td>26</td>
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Table 1: Financial Details

SUMMARY

Novell’s collaboration technologies are designed to enable people to work together intelligently from any location, utilising Internet-capable communication devices. The flagship product is GroupWise that handles e-mail, calendaring, contact management, and document management services across network operating systems, including NetWare, OES, Microsoft Windows, and Linux. Next are Novell Teaming and Novell Conferencing that provide collaborative workspaces, file sharing, and online meeting capabilities. Lastly, GroupWise Instant Messenger provides IM and chat capabilities. Novell’s approach to the provision of collaboration services incorporates security, control, and mobility, and is aimed at increasing user productivity while reducing TCO. Although the products have some excellent, innovative, and well thought-out features, they do not appear to be supported by a notable go-to-market strategy. Butler Group would like to see Novell develop a stronger strategic focus on this range of products and is pleased to see that such a strategy might just be emerging.

Table 2: Contact Details

<table>
<thead>
<tr>
<th>Novell Inc. Corporate Headquarters</th>
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<tbody>
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<th>Novell’s UK Office</th>
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<td>Downshire Way, Bracknell</td>
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<td>Tel: +44 (0)1344 724 000</td>
</tr>
<tr>
<td>Fax: +44 (0)1344 724 001</td>
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Source: Novell

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