

Coveo’s G2B for Email

With telework soaring, access to email archives including from mobile devices is an imperative... And companies must control access to maintain security and compliance

Intel’s Email Waterloo

Intel hit a big road bump – and even bigger legal action – when their internal e-mail archiving system failed in 2007. In their case, about 1,000 e-mails a court wanted to study related to a 2005 AMD antitrust lawsuit against the chip maker went missing.

That “mistake” was big trouble, and both Intel and AMD had to meet with a judge to discuss the archiving problem. AMD’s statement said: “Through what appears to be a combination of gross communication failures, an ill-conceived plan of document retention and lacklustre oversight by outside counsel, Intel has apparently allowed evidence to be destroyed.”

The judge gave Intel 30 days to come up with the e-mails and ordered the company to provide a report on how it intended to recover the information. Documents have been recovered steadily since 2007, and the American case has been delayed until 2010 so AMD can make its case. While the case is still in debate in American courts, Korean antitrust regulators bypassed further investigation into the missing e-mails and went ahead with a cease and desist order against Intel and fined the company \$25 million. On June 6, the U.S. Federal Trade Commission launched an official probe into Intel’s business practices.

Four Key Questions

- 1. How much money is your firm spending for staff time required to locate needed documents, email attachments, or contact information?**
- 2. Have you calculated the total financial cost of inefficient email and factored in an amount to cover lost opportunities because the item needed to close a deal was not findable at the moment you needed it?**
- 3. Are employees able to search their email archives now from their desktop, their mobile device, and find exactly what they need? And how much information gets recreated as a result of their inability to find?**
- 4. Are you aware of the legal and financial exposure associated with the lack of compliance associated with email or the costs of running a data discovery process within email archives?**

The cost of finding, not finding, or re-creating information can be substantial. For a firm with a few employees, the costs soar into the thousands. For a company with thousands of employees, the financial implications are considerable.

Email: Critical and Out of Control

The **451 Group** has identified email as pivotal to work. But email is “out of control.” **Beyond Search Research** concurs.

Here’s why:

- The volume of email continues to increase which makes email the key collaboration and work enabler.
- Professionals spend more time out of the office so immediate access to email, email archives, and attachments are more important than at any other time, and telework means that most professionals cannot always call a colleague to locate the needed information.
- Smartphones include primitive search functions and cannot handle email and attachments archives.

Email Server Search: A Mission-Critical Function for a Mobile Worker

You are at breakfast, and you need to find the details of a meeting and speaking engagement details in a PDF your partner sent you nine months ago. Your laptop is in your checked baggage. You need that email and attachment. Your BlackBerry does not have what you need. Sound familiar? What do you do?

Email: the true knowledge repository

For a majority of knowledge workers email has become the unofficial de facto file storage server, which it was not originally designed for. Email contains critical business information ranging from HR data to financial, compliance, transactions, engineering, marketing, sales, pricing, customer relationships, competitive intelligence, etc.

Email has become one of the largest corporate information repositories, and one of the fastest growing enterprise data corpuses. Email is the memory of knowledge workers and the “nerve center” of an organization.

Most organizations use blunt instruments to manage, search, and access essential information in email.

Compliance and regulatory issues loom large. And the problem grows bigger each day as the volume of email grows.

More email archives access paths needed

Native email clients like Microsoft Outlook and other cloud-based services like Gmail provide some tools to categorize and tag email. Even with these tools, finding information within Email archives remains challenging.

Smartphones don’t provide such tools. As a result, when you need to locate a critical email, you lack important access paths.

Worldwide sales of smartphones reached \$36.7 billion in 2007 and more smartphones shipped in 2007 than either desktop PCs or notebook computers.



The mobile devices (above) show the Coveo mobile email server search results display. Note that the display is automatically optimized for readability.

Coveo's G2B for Email Solution

Coveo, a respected leader in enterprise search, information access and content processing, has introduced the G2B for Email solution - part of the G2B product suite - that allows a mobile professional to search, access, and retrieve server based email and attachments in a secure, easy-to-use way.

Beyond Search Research tests of the Coveo system revealed:

- Near zero latency access to live and archived email content, including calendar items, attachments such as PDFs and Word documents, and contacts from either a personal computer or a mobile device.
- Consistent interface regardless of device, including point-and-click access to contacts, email organized by sender and other paths of access to content.
- A server-based search index so the smartphones do not have to retain a large index and deal with index updates.



Selected Mobile Search Systems

Beyond Search Research analysts tested four email search systems. Here's what we learned:

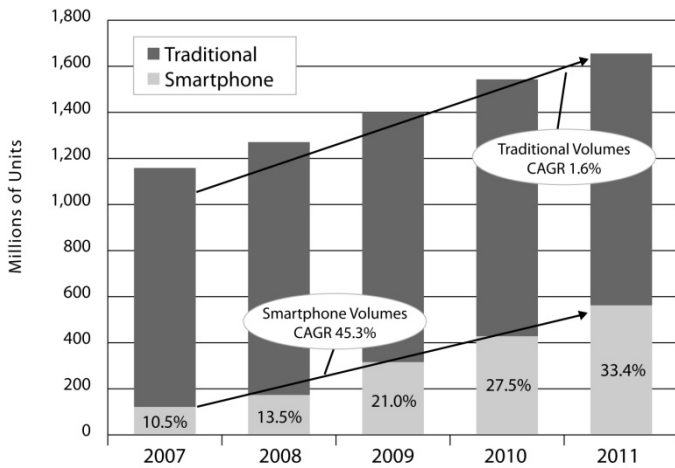
- **BlackBerry.** Linear server search function only with no indexing. No access to archives. No navigation and drill-down into search facets. No conversation folding (grouping). Scrolling through emails only with no attachments viewing for server-based emails.
- **Gmail.** Key word and tag search from the mobile device. Rendering was sluggish. Certain attachments such as compressed files (TAR, ZIP) were not supported under certain circumstances. Rendering required third-party viewers on our test devices (Apple iPhone, BlackBerry Curve, and Treo).
- **Yahoo.** Search exhibited latency. Results did not render on certain wireless connections. Once mobile Yahoo was configured, latency issues remained. Attachments would not render.
- **Coveo.** Results and drill-down capability in seconds thanks to a server-based index. Key word and point-and-click access to attachments, contacts, and mail was supported. Word, PowerPoint, and Adobe PDF attachments rendered in the Coveo G2B application. Full security and permission support. Exchange, Notes, and archives such as Quest and Symantec Enterprise Vault supported.

Key findings

Our tests revealed some surprising insights into mobile email server search and its potential application and market.

- First, the existing email search systems from Research in Motion, Google, and Yahoo were more brittle than Coveo's solution. Coveo's mobile search was stable and worked like its other enterprise search solutions (intranets, databases, CRM, eCommerce, etc.).
- Second, the need for third-party applications was an unexpected hurdle. Viewers are available, but these must be located, downloaded, installed. Resolving this issue makes the mobile user do unexpected work. Coveo did not require add-ins.
- Third, latency was a big issue when searching email. Coveo's dedicated server did not exhibit significant latency in displaying search results. Downloading a .pdf or PowerPoint attachment for display did require normal file transfer time.
- Fourth, rendering was an issue. BlackBerry's default display is fine for scrolling and reading email. The Gmail and Yahoo rendering were acceptable but there were no point-and-click options for displaying only contacts or attachments. Coveo rendered email and attachments as well as point-and-click hot links efficiently.
- Finally and most importantly, access to emails, contacts, and attachments in the enterprise email server system was simply not supported well. Coveo's system put the "server content" on the mobile device.

**Worldwide Mobile Device Unit Sales Forecast
(2007-2011)**



With mobile device and smartphone sales accelerating over the next three years, Scotia Equity Research in March 2008 identified an exploding market in mobile services such as mobile email. RBC Capitol Markets said, "the fast growing global smartphone market supported 100 million users in 2007, growing to 400 million in 2010, in a May 2008 report. Scotia Equity said, "For 2008, the smartphone segment is projected to grow by 41 percent from 122 million to 172 million units, to account for 13.5 percent of total mobile phone volumes."

Security Plus Compliance

More and more organizations find it necessary to comply with regulatory requirements pertaining to email. Coveo's enterprise and mobile search system allow a licensee to have access to the information in email and its attachments.

Upon installation, G2B for email integrates seamlessly with Microsoft Exchange, Symantec Enterprise Vault and Quest Archive Manager access rights. G2B supports RIM's and Microsoft Windows Mobile's user authentication methods. Plus Encryption of transmissions between Coveo and email servers and between Coveo's mobile email server search servers and the user via wireless connection

Depending upon the specific security requirements which an organization follows, Coveo's system can be extended via an application programming interface to comply with:

- HIPAA, BASEL II, Sarbanes Oxley, and the US FDA requirements, among others
- OMB, NIST and DOD security specifications

In addition, licensees can define custom reports and add support for specific security methods.

The bottom line

Our hands-on testing showed Coveo's G2B system to offer organizations these benefits:

1. Intuitive operation from the mobile device and the desktop for search and retrieval.

2. Multiple points of access, including key word and phrase search and point-and-click access to contacts, attachments, and categories.
3. Low-latency access to archived email, current email, and attachments.
4. In-application rendering of attachments such as Word, PowerPoint, and Adobe PDF file types.
5. Administrative controls including support for existing Microsoft Exchange and Symantec Enterprise Vault access rights, support for user authenticating on RIM and Windows Mobile devices, and administrative overrides for user-defined permissions in Exchange and Enterprise Vault.

Estimates vary widely, but there is one thing which is constant—growth in mobile email is growing in step with the sale of smartphones.

Mobile email is the currency of a mobile professional's life. Voice and email extend the conversation. Combined with short text messages, smartphones are the catalyst for expanded collaboration.

As reported by VNU, Cipher Trust said, **"Email has become a window into your business. If email doesn't work, what else doesn't?"**

The study pointed out that downtime is a result of different factors. Employees lack an understanding of how to deal with email problems and a lack of access.

Email Search Score Board

Feature ↓	Coveo G2B Mobile Email Server Search	Google Gmail	Microsoft Windows Mobile	Yahoo Mail
Engine	Coveo	Variant of Google Web search	Multiple engines, Window centric	Stata Labs' technology
Architecture	Distributed, massively parallel	Distributed, massively parallel	Multi-tier on Windows Server	Distributed
Search Type	Contact, concept and key word searching	Key words and "tags" if user creates them	Key word	Key word and "tags" if user creates them
On Device Rendering	Yes	No. Will not process certain files	No, Microsoft Office and add-ins needed	No
Automatic Archiving	Yes	Yes	No	No
Security	Active Directory, OMB, NIST, DOD	User name and password needed	Varies by service; Exchange, yes. Hotmail, no	User name and password plus Yahoo "ID" code option

This comparison does not include the basic search functions of RIM BlackBerry, Motricity Pinpoint, and other "mobile search" vendors. These systems allow key word matching and display of menus via pick lists. Users click on a menu item and then scroll to a particular entry. At this time, neither RIM nor Motricity offer a full-feature email server search functionality. The mobile search feature available from InfoSpace is based on Fast Search & Transfer technology. Microsoft has acquired Fast Search, and it is not clear if this build of the Fast Search system will be supported in the future. Apple does not provide mobile email server search, and Coveo plans to release iPhone support in the coming months.

Coveo Mobile Email Server Search Feature Checklist

Next-Generation Platform

Coveo uses a distributed, parallelized architecture to ensure speedy operation without indexing and query processing bottlenecks.

Attachment Support

The Coveo email search system can handle most standard file types on the device. Reformatting for the device's display is automatic.

Real-Time Email Indexing

Proprietary technology allows Coveo's system to index email and attachments upon arrival.

Security

Email is encrypted at each point in the work flow. Coveo's enterprise-grade security system ensures

compliance with government requirements and a client's particular security procedures.

Device Independence

Coveo supports most mobile devices that can connect to the Internet. The system supports BlackBerry (through a specific midlet application), Windows Mobile, and Symbian operating systems as well as mobile Internet devices such as the Asus eee900. Coveo has plans to release a specific iPhone application in the coming months.

Granular Accounting

System administration provides access to log files for account and usage data. The system is multi-tenant but handles each account as a separate entity.

Comprehensive Reports

Default reports on usage, number of messages, and similar baseline data are provided. Additional reports can be developed using the Coveo mail application programming interface. Secure reports allow operators access to search data.

User Interface Customization

The search experience can be customized to meet the needs of an organization.

Fast Implementation

Implementation takes less than 24 hours. Standard installation on a server takes less than one hour, and initial indexing time varies with email archive size.

Customer Support Typical

Coveo provides 24x7 support.

Graphical Administrative Interface

A graphical user interface is provided for system administrators. No programming or custom scripting is usually required for operations, including blocking an account, activating a new account, etc.

Hardware Requirements

Microsoft Windows Server 2003/2008, .Net framework, Lotus Notes, Symantec Enterprise Vault, RIM BlackBerry server and/or Microsoft Exchange Server. Coveo recommends one server per 40 million email items (emails, attachments, etc.). Coveo claims it can support one Billion email items, which would easily support a central index for 10,000 to 20,000 mailboxes.

Control of an Organization's "Knowledge"

Control and access to an organization's email and its attachments from the desktop and mobile devices. Coveo's approach eliminates the need for local copies of mail stores or "PST" files which are weak points for security.

Time + Information = Opportunity

Email is today's common information denominator. Email owns critical content for most facets of an organization's business: human resources, client data, engineering, marketing, sales, governance, legal, and management.

Productivity gains from "anywhere and instant" email access are significant. In an organization with 20 mobile professionals averaging \$100,000 per year in salary, eliminating fruitless searches and telephone calls information in email adds up quickly. **Beyond Search Research** has calculated that saving 12 minutes per day frees up as much as \$48,000 in time. In larger organizations, the savings are more important. If you include opportunity costs, access to email can translate to an even greater value.

In short, anywhere email search and access to attachments reduces certain costs and opens windows of opportunity across functions and sales.

An organization with 1,000 employees will have upwards of 50 million emails across mail servers and archives. With email growing at a rate of 20 megabytes per day per mailbox, scaling is essential. Thus maintaining a centralized index for email and contacts is essential to an organization's growth. Coveo's G2B solution:

- Eliminates the need for local email stores or archives.
- Permits comprehensive search across all of an organization's email.
- Provides an infrastructure for eDiscovery or other business intelligence functions such as identifying contacts in one client organization.
- Provides a single point of administration for enterprise and mobile email server search.

The payoff can be substantial. We estimate that the cost of email searching using existing methods is inefficient. The Coveo G2B system can convert this time to more productive purposes. In a calendar year, an organization could realize increased productivity equivalent to:

- 20 employees using mobile email return a benefit of \$19,200 to \$38,400 per calendar year to the organization
- 200 employees using mobile email return a benefit of \$192,000 to \$384,000 per calendar year to the organization
- 2,000 employees using mobile email return a benefit of \$1.9 million to \$3.8 million per calendar year to the organization.

Beyond Search Research concludes that reducing the inefficiency of mobile email server search reduces a licensing organization's cost for unproductive time spent hunting for email.

The Net Net

Beyond Search Research's assessment of Coveo's G2B mobile email server search is that the system:

- Defines the email search category.
- Scales using Microsoft server technology.
- Supports all smartphone devices.
- Conforms to licensees' security requirements.
- Delivers worry-free email access.
- Supports integrated on device document rendering for Word, PDF, and other file formats.
- Permits fine-grained administrative control.
- Is competitively priced for organizations and individuals.

After testing the application **Beyond Search Research** determined that in June 2008, Coveo's G2B for Email server search technology is a segment leader, ranking ahead of Yahoo's, Google's Gmail search, and RIM BlackBerry "linear remote keyword search" capability.

The system is now shipping and supports any mobile devices that can establish an Internet connection - browser-based. A device-specific Midlet is currently available for RIM's BlackBerry – and similar interfaces for Windows Mobile and iPhone are underway.

About Coveo

One of the leaders in enterprise search, Coveo has more than 1,000 customers worldwide, including HP, Procter & Gamble, Lockheed Martin, Vodafone, NASA, and AC Nielsen.

Coveo is a team of search experts who fulfill the growing need in businesses for comprehensive and instantaneous information access from disparate IT repositories. Its solutions for INFORMATION ACCESS AT THE SPEED OF BUSINESS™ are based on robust enterprise search technologies for email, CRM applications, archives, databases, multimedia or other types of content. The company's range of search systems combines ease of use, next-generation performance, and natural language processing in a ready-to-run system.

The firm's search-powered applications offer an agile model for deployment which requires a few hours, and ECONOMICAL SCALABILITY which enables enterprise grade scalability beyond one Billion documents at a hardware infrastructure cost twice lower than comparable search based technologies.

Coveo offers mobile email server search built on the G2B platform, the subject of this white paper. The system is available for mobile search and Intranets, customer relationship management, databases, multimedia, and custom applications.

Learn more at www.coveo.com

†About Beyond Search Research

***Beyond Search Research** is the research and marketing arm of Arnold Information Technology, a firm specializing in strategic advisory services. BSR provides technology and business analysis services to clients worldwide.*

The founder—Stephen E. Arnold—is the author of the first three editions of Enterprise Report, two Google studies, and Beyond Search, published by the Gilbane Group in April 2008. This special report was commissioned by Coveo in June 2008 and is the work of Jessica

This special report was commissioned by Coveo, www.coveo.com