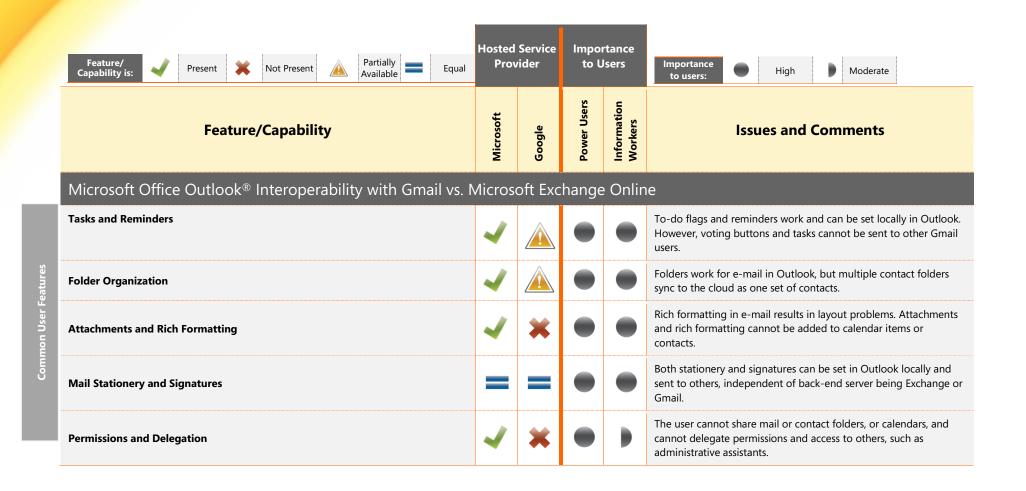
Microsoft Exchange vs. Google Gmail

Hosted services comparison

Organizations today have many choices regarding their messaging environments. As budgetary pressures continue to drive evaluations of new and existing technologies, hosted services can offer the ability to reduce on-premises infrastructure and administrative costs. While these services offer attractive savings at first glance, it is important to understand the effects on user productivity and support resources necessary beyond deployment. This comparison overview document evaluates the capabilities, limitations, and overall business impact for hosted solutions from both Microsoft® Business Productivity Online Suite (BPOS) and Google Apps Premier Edition (GAPE). The categories were selected based on common business needs for hosted messaging and include user experience, IT administration and support, end-user transition to the hosted environment, mobility, offline access, and pricing options.



| | Feature/ Capability is: Present Not Present Partially Available Equal | Hosted Service Provider | | Impoi to U | tance sers | Importance to users: |
|-------------|---|----------------------------|--------|---------------|------------------------|--|
| | Feature/Capability | Microsoft | Google | Power Users | Information Workers | Issues and Comments |
| | E-mail Rules (includes Out of Office settings) | ✓ | × | | | Client-side rules only. For example, no Out of Office/Vacation responder support. |
| Messaging | Encrypted Mail (message vs transport) | ~ | * | | Þ | Not supported as a feature in Outlook if using Gmail back end; prevents mail from being sent with an ambiguous "unexpected error." |
| Š | Address Auto Complete | | | | | Auto complete works when using Gmail back end. Requires registry entry to enable the shared address list from Google Apps. |
| | Mail Tracking and Receipts | √ | × | | | Delivery receipts do not work with Gmail back end, but read receipts do. |
| Calendaring | Calendar Free/Busy Information | ~ | À | | | Busy/Free requires deployment of GAL Generator and provides no support for Out of Office status. GAL Generator must be run everytime users are added/deleted or emails addresses edited. |
| | Rich Calendar | ~ | * | | | Google strips attachemnts from appointments, so content might be missed when collaborating with anyone on other rich messaging platforms (use case example: Agendas). |
| Cal | Shared User Calendars | ~ | * | | | Outlook users cannot share their calendars if using a Google Apps back end, and cannot delegate permissions for others to manage their calendars, such as administrative assistants. |
| | Synchronized Group Calendars | 4 | | | | Google Apps does not provide as complete a collaboration solution, like SharePoint, for group calendaring that can be synchronized to Outlook for tracking project meetings, timelines, etc. |
| Ş: | Meeting Attendees and Responses | ~ | * | | | Attendees can be required only, not optional. Responses can be accept or decline only, not tentative. The user cannot delete attendees from exceptions to recurring events. |
| ry/Contacts | User Created (local) Contact List | | | | | Outlook local contacts are complete and can include user-created groups and distribution lists. |

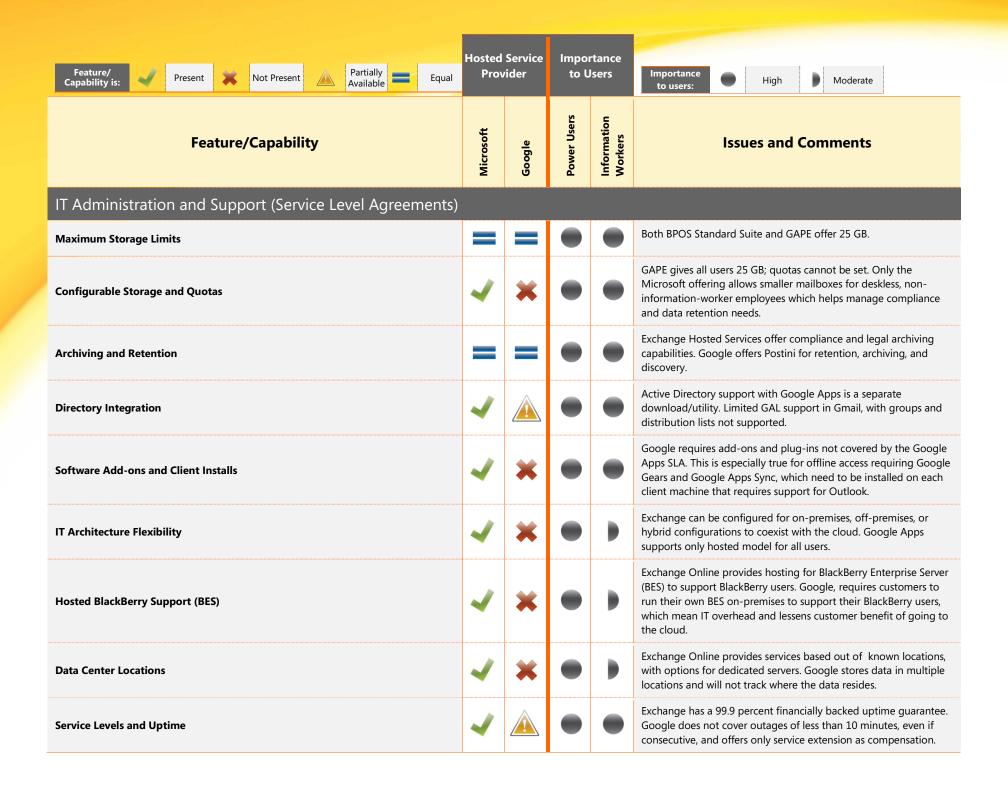
| Feature/ Capability is: Present Not Present Partially Available Equal | | | | rtance Isers | Importance to users: High Moderate |
|---|-----------|--------|-------------|------------------------|---|
| Feature/Capability | Microsoft | Google | Power Users | Information Workers | Issues and Comments |
| Company Directory | ~ | À | | | Global Address List (GAL) is missing phone number, company name, business unit, work office location, manager, and other key metadata fields to help identify unique users In addition IT must deploy the GALSYNC tool for the limited functionality. |
| Distribution Lists and Groups | ✓ | * | | | No support for synching of groups and distribution lists with Google Gmail. No support for multiple contact lists, etc |
| E-Mail Feature Gaps—Exchange 2010 vs. Gmail | | | | | |
| File-Level Manipulation of Messages (attach mail threads to new mail for reference) | | × | | | Outlook messages (.msg files) can be attached to other e-mails, put in folders, copied to desktop, cut and pasted, etc. Gmail items are not files, so there is no item-level control for cut-and-paste or archiving. |
| Unified and Multiple Views | | * | | | Gmail has only a conversation view for mail. Outlook has multiple views including AutoPreview. Outlook also provides one unified view of all user data (e-mail, calendar, etc.). |
| Right Click and Multiple Select | | * | | | In Gmail, simple actions, like "mark as unread," require extra clicks and user actions because of the use of check boxes and buttons, decreasing user productivity. Much more difficult with a large number of items. |
| E-mail Rights Management | | × | | | Secure and controlled distribution of e-mail (such as limiting forwarding, preventing saving, and requiring expiration) is not supported in Gmail. |
| MailTips | ~ | * | | | Outlook 2010 offers automated guidance to avoid e-mail mistakes and be more effective, such as notifying the user when the recipient is out of office (before the message is sent), or warning the user that he or she is sending to a large distribution list. |
| Cleanup | ✓ | × | | | Outlook 2010 offers advanced and automated capabilities to cleanup the user's e-mail account, such as AutoArchive, and Mail Cleanup. |

| Feature/ Capability is: Present Not Present Partially Available Equal | | Service vider | Importance to Users | | Importance to users: High Moderate |
|--|--|------------------|------------------------|------------------------|--|
| Feature/Capability | | Google | Power Users | Information Workers | Issues and Comments |
| Social Connector | | × | | | Outlook 2010shows communication history, status updates, and social networking service updates from LinkedIn and Microsoft Windows Live™, in people-centric views. |
| QuickSteps | | * | | Þ | Save time by automating common information worker e-mail needs; reply to all meeting attendees, reply to manager, reply and delete, and more. |
| Unified Communication (voice mail, SMS/text, instant messaging, RSS feeds, etc.) | | × | | | Google offers no inbox management of communication other than e-mail. |
| Instant Messaging/Presence Integration | | | | | Gmail does not provide integrated presence capabilities within mail messages. Users must use the application sidebar or open the secondary application to search for a user. |
| | | | | | |

Consistent features across communication tools can empower users to complete tasks and collaborate more efficiently and reduce support costs for IT. . E-mail is perhaps the most widely used of these tools, so it is important to consider the impact that moving from a Microsoft to Google environment will have on day-to-day operations.

Lack of instant messaging (IM)/presence interoperability with Google could impact end users ability to work on a real time basis.

Google Apps has no delegation ability with Outlook interoperability or ability to 'send as'. Executive or department assistants would be prevented from monitoring seperate inboxes or managing calendars.



| | Feature/ Capability is: Present Not Present Partially Available Equal | | Service vider | Importance to Users | | Importance High Moderate |
|----------------------|---|-----------|------------------|------------------------|------------------------|---|
| | Feature/Capability | Microsoft | Google | Power Users | Information Workers | Issues and Comments |
| | Group Policy | 4 | × | | | Not supported with Google Apps. |
| From IBM Lotus Notes | User Data Migration (automated tools) | ✓ | * | | | Much of the users' existing data (including archived mail, contacts, tasks, recurring calendar items, etc.) will not migrate over to Google Apps or will require unsupported manual tools or costly third-party applications to complete the migration. In order to migrate users' locally archived messages to Google, tools must be run on each user's machine. |
| | Mail and Calendaring Coexistence During Transition | ~ | * | | | BPOS provides gateways that correctly translate complex message types and calendar invitations so they are delivered intact to the migrated users now running Outlook/Exchange. Google, however, does not provide these gateways, so links, rich text formatting, and attachments are stripped from mail and calendar items being sent by Lotus Notes users. |
| | Directory Coexistence During Transition | ~ | * | | | BPOS provides full directory synchronization during the transition for Lotus Notes users, so mail and calendar requests can be used without interruption. Google does not provide this service, thereby forcing users to manually type the e-mail addresses of colleagues in order to send messages and calendar items. |
| From Exchange | Mail-Enabled Workflow Application Support | 4 | * | • | • | Google does not support the translation of workflow messages, including doc links, for Lotus Notes applications. These applications will need to be rewritten to utilize different notification methods, which can be extremely costly for IT support groups. BPOS provides a utility that does perform the message translation, so workflow items can be acted on by users who have migrated to the hosted environment without issues. |
| | User Data Migration (automated tools) | ✓ | * | | • | Both BPOS and Google provide automated tools to transition users' data from Exchange to their hosted environments. However, Google does not migrate tasks, notes, distribution lists and some rich calendar content. With Outlook front end to Google Apps, IT department must deploy, configure, and maintain Google Apps Sync for every PC with Outlook. |

One proposed advantage of a cloud solution is the ability to move system administration off-premises, reducing drain on IT resources. This is true to an extent, but the Google solution requires some additional resources to facilitate the migration and continue optimal service delivery.

Data migration: While migration is facilitated with an online wizard and support, many items do not move or may require unsupported third-party applications. Tasks, distribution lists, or recurring calendar items (and possibly archived e-mail) will not move in a standard migration, and directory synchronization may not be available or complete. The absence of these items and services may increase help desk call volume and IT staff time necessary to support the deployment. As users turn to

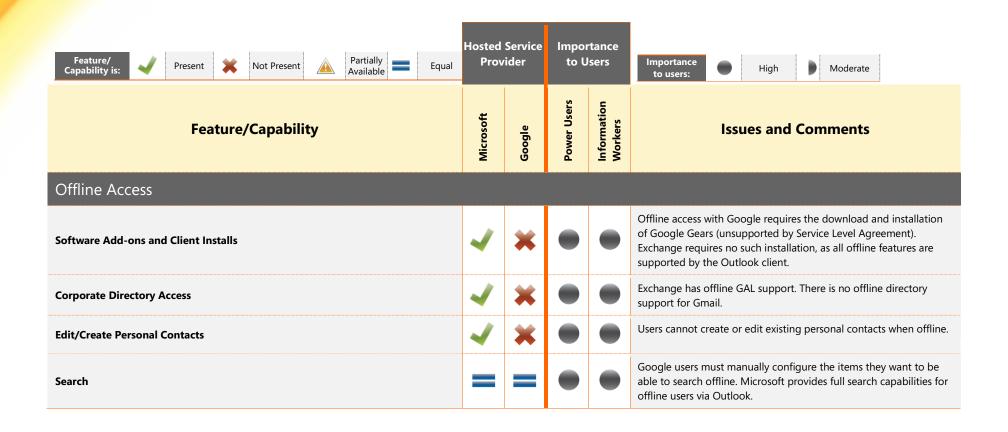
third-party devices to help move the remaining data, more issues need attention.

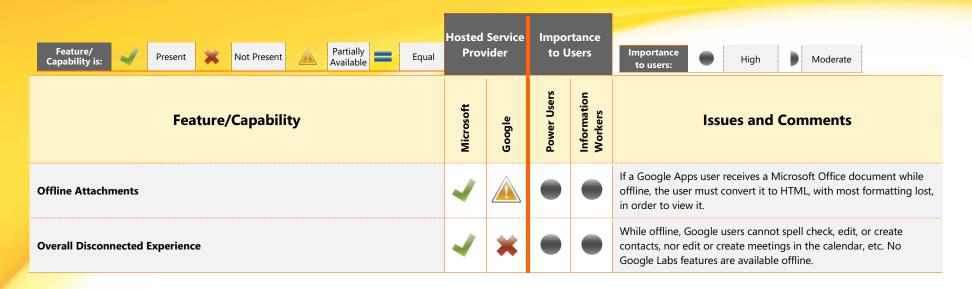
Software add-ins and client installs: The core service is delivered via the cloud, but many e-mail tools you are familiar with require plug-ins and connectors, some to be installed locally (e.g., conferencing add-in, Gears, free busy tool, GAL tool, archiving, and migration). Once these are installed, they will need to be maintained or reinstalled as you upgrade operating systems or change PC images, or if the end user downloads software that interacts with the process the connectors support.

| Feature/ Capability is: Present Not Present Available Equal | | Service vider | Importance to Users | | Importance to users: |
|---|-----------|------------------|------------------------|------------------------|--|
| Feature/Capability | Microsoft | Google | Power Users | Information Workers | Issues and Comments |
| Mobility | | | | | |
| Remote Push | | | | | Remote push is supported by Google on Windows Mobile®, Android, Symbian, BlackBerry, Palm, and iPhone, using a combination of clients and sync applications. For Exchange, any WM 6.0 device and all of the above devices/platforms are supported. |
| Server Search | ✓ | × | | | Exchange supports server side search, allowing mobile users access to all of their email, whereas Gmail only allows access to recent email that has been synchronized |
| Mobile Directories | √ | * | | | Exchange has mobile GAL support for all Windows Mobile 6.0 devices. There is no mobile directory support for Gmail, except on BlackBerry, with the Google Apps Connector for BlackBerry Server installed. |
| Synchronization | 4 | * | | | E-mail is synchronized similarly across both on all devices. Contact sync on most devices other than Windows Mobile requires Google Sync App install. Exchange ActiveSync supports full over-the-air sync of contacts, calendars, and e-mail. |
| BlackBerry Support | ✓ | À | | | Google requires customers to support an on-premises BES for every 500 users, whereas the Exchange offering can support up to 2,000 users per server and can be hosted and managed for customers with Exchange online. |



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|---|----------------------------|--------|------------------------|------------------------|---|
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| iPhone Support | ~ | | | | Google sync support for iPhone is a Beta environment. Limitations include sync issues with recurring events. In addition, actions in Gmail may have different results, e.g., archiving messages moved to the trash and attendee status for messages not clearly defined (yes/no/maybe not available; only check mark as a hint will appear). No way to reply to calendar event with a message via the iPhone. |

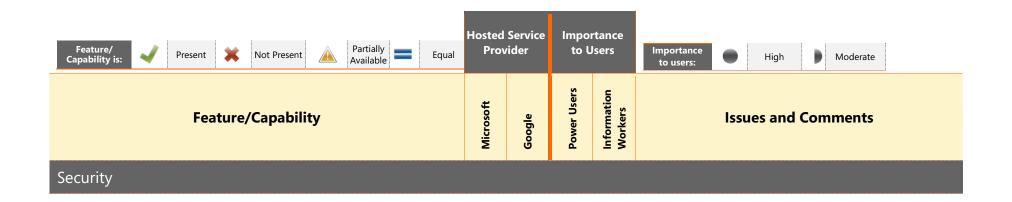




Mobile directories: When you are away from your desk, a corporate directory allows you to locate your colleagues and send them an e-mail via a mobile device. Google does not support corporate mobile directories with Gmail, except via the Google Apps Connector for BlackBerry.

BlackBerry support: Google's Gmail solution supports BlackBerry but requires an on-premises BES to deliver limited integration. This necessitates hardware costs and on-premises expertise to support a hosted environment. Microsoft also requires a BES but will host the server as part of its service.

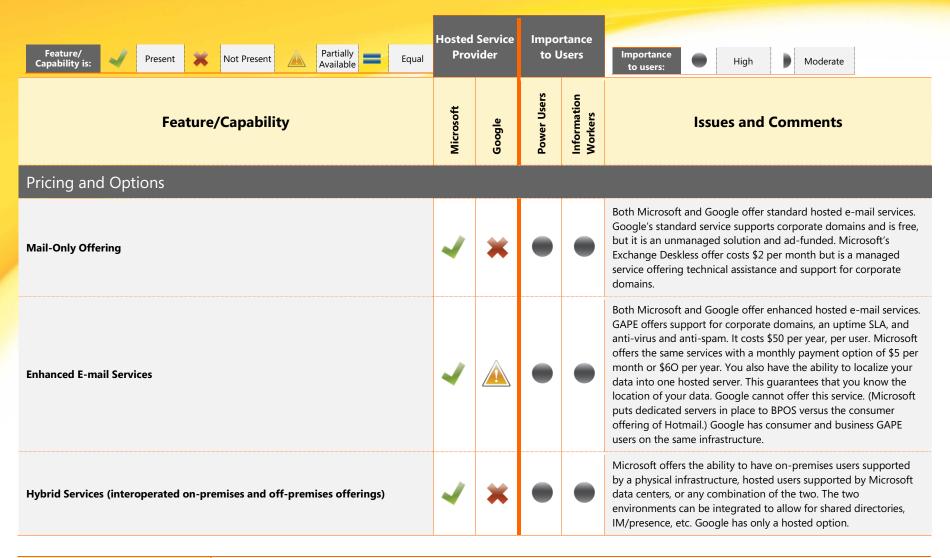
Offline access: Google provides a limited offline experience with support from a Beta product. Without the ability to reply to or create new messages, users lose valuable



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| Feature/Capability | | Google | Power Users | Information Workers | Issues and Comments |
| SSL | ✓ | | | | Microsoft provides SSL, a "by default approach" to help ensure securityGoogle SSL support varies by service and is available for e-mail, chat, calendar, docs, and sites. SSL access is not available for the Google Apps Start Page, Google Video for Business, and the Google Talk desktop client. Forcing HTTPS can make Gmail a little slower, and if you enable SSL, you will not be able to see your mail in the Gmail gadget on the Google Apps Start Page, since it is not served over SSL. |
| Information Rights Management | | * | | Þ | Information Rights Management (IRM) allows individuals and administrators to specify access permissions to documents, workbooks, and presentations. This helps prevent sensitive information from being printed, forwarded, or copied by unauthorized people. Google does not support IRM. |
| Encrypted Mail Support | | | | | Encrypted mail is extra fee for Postini with Gmail. |
| Offline Security | ~ | | | | Cross-site scripting has been shown to be able to compromise the security of Google Gears, which uses client-side JavaScript to manipulate local data. Local data are stored in an unencrypted state and based on the physical and access security of the user's machine. |

Information security is the number one IT issue for most organizations. This includes the ability to restrict access when information is off the corporate network or in the hands of unauthorized users.

IRM is a powerful tool in securing data transmitted via e-mail. If an unauthorized person is added or left on a message without IRM, confidential information could be shared, exposing an organization to possible punitive damages. Google has no IRM support for its corporate e-mail offering.



Pricing and options: Hosted e-mail allows for cost reduction and delivery of services to users whose messaging needs normally would not have warranted investment in the service. While Google offers two options, only one may be a viable business solution. Its standard service is unmanaged and may pose a risk of data loss or theft. The business option provides some of the standard protections you would expect in a corporate environment, but it is a one-size-fits-all solution with little flexibility.

With Microsoft you have a choice of supported e-mail solutions, allowing for greater cost savings where the standard service can be deployed. In addition, you can keep some users on the on-premises system and deploy other users in the cloud. This flexibility allows you to continue to depreciate existing investments while piloting new technologies. You can also take your time in evaluating the impact of the new solution, knowing that all of your workforce can work together efficiently.

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