



# Microsoft Office 365

## Business Requirements Gap Analysis Report

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## 1. Purpose

The business requirements gap analysis was performed as part of the project to develop a business case to determine the feasibility of adopting Microsoft Office 365 as an enterprise solution for the state of Washington. 16 agencies participated in the review of the suite of products included in Office 365. The purpose of the evaluation was to identify requirements and restraints of the products in a cross-agency environment, considering requirements of all Washington State Government agencies and to evaluate the functionality of those requirements. This was a functional evaluation and did not consider financial aspects which will be addressed separately in the business case.

## 2. Products Evaluated

The following Office 365 Products were evaluated:

- Exchange Online (including online archiving)
- SharePoint Online
- Lync Online
- Web Apps

The team evaluated the products against approximately 500 requirements and determined that the requirement either passed, or passed with minor differences determined to be acceptable.

Evaluation criteria were determined using the following sources of information:

- Shared Services Email requirements
- Secure Email requirements
- Online Archiving requirements
- Microsoft Office 365 Service Descriptions
- Multi agency user feedback

## 3. Contributors

| Organization                       | Evaluator(s)   |
|------------------------------------|--|
| Department of Natural Resources    | Carol Gravatt, Christina Hurley, Stew Souders, Jodi Barnes, Sara Rietcheck, Michael Kell |
| Department of Labor and Industries | Cameron Mcgee, Bruce Murphy, Robert Eby  |
| Department of Agriculture          | Rebecca Sotelo, Sheri Duncan, Beth Mason, Nathan Stevens, Dwight Moody                   |
| Department of Transportation       | Chuck Dorset, Grant Goldsby, Randy Baker, Tim Crabb, Dion Midkiff                        |

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|--|---|
| Department of Fish & Wildlife            | Ryan Koval, Scott Kissel  |
| Department of Commerce                   | Gary Wilkinson, Neil VanDeventer, Alice Huston, Yacob Zekarais                            |
| Department of Social and Health Services | John Bean, Jason Niemi, Lem McCleary, Scott Ayers, Doug Keck, Rick Reynolds, Steve Dotson |
| Department of Early Learning             | Gene Thomas, John Denk, Jennifer Stevens  |
| Liquor Control Board                     | Ruth Dodson, Casee Ariss, Gerard Scheeler, Leslie Halstrom                                |
| Department of Corrections                | Michael Palizzi   |
| Legislative Services                     | Fred McDowell, Jennifer Dittrich, Rustynne Dalton   |
| Department of Health                     | David A. Lee, Matthew Re  |
| Department of Ecology                    | Sirn Tran, Daniel Scavezze  |
| Consolidated Technical Services          | Laura Parma, Aaron Cuoio  |
| Office of the Chief Information Officer  | Scott Bream, Bob Zych   |

#### 4. Evaluation Lab

The evaluation lab was set up to assist in both the visualization and implementation of features to match the requirements for an Office 365 implementation. This included a multi-tenant design, complete with the proper federation technologies to bridge each tenant associated with the Office 365 tenancies. A single Office 365 tenant created a consolidated topology similar to the existing consolidated Exchange 2010 deployment for the Shared Services Email project. State agencies that were aligned with the CTS tenant included:

- **CTS.wa.gov** - Consolidated Technology Services
- **OFM.wa.gov** – Office of the CIO
- **WDFW.wa.gov** - Department of Fish & Wildlife
- **LNI.wa.gov** - Department of Labor and Industries
- **COMMERCE.wa.gov** - Department of Commerce
- **DSHS.wa.gov** - Department of Social and Health Services
- **AGR.wa.gov** – Department of Agriculture
- **ECY.wa.gov** – Department of Ecology
- **DNR.wa.gov** – Department of Natural Resources

The following separate tenants per agency created the autonomous requirements to align with criteria specific to a state agency. State agencies that were aligned with autonomous Office 365 tenants included:

- **DOT.wa.gov** – Department of Transportation
- **LEG.wa.gov** – Washington State Legislature
- **LIQ.wa.gov** – Washington State Liquor Control Board

Exchange Federated Delegation was established between all evaluation agency domains, to enable Office 365 features specific to free/busy and calendar sharing across both agencies and tenant boundaries. Shared namespace features, such as message tracking and cross-premises mailbox search were not possible.

Lync Federation was established between all evaluation agency domains, to enable Office 365 features for presence, chat and conferencing across both agencies and tenant boundaries. We implemented tenant wide and agency wide administrative roles. And, we also built a SharePoint Online Site Collection per agency, per product evaluation team and statewide.

## 5. Office 365 Operating System and Software Requirements

**Table 1: Operating systems and browser combinations supported by Microsoft Office 365**

| Operating system                               | Supported browsers  |
|--|---|
| Windows 7 (32-bit)                             | <ul style="list-style-type: none"> <li>• Windows Internet Explorer 8 and later versions</li> <li>• Firefox 3 and later versions</li> <li>• Chrome 6 and later versions</li> </ul> |
| Windows 7 (64-bit)                             | <ul style="list-style-type: none"> <li>• Internet Explorer 8 and later versions</li> <li>• Firefox 3 and later versions</li> <li>• Chrome 6 and later versions</li> </ul>         |
| Windows Vista with Service Pack 2 (32-bit)     | <ul style="list-style-type: none"> <li>• Internet Explorer 7 and later versions</li> <li>• Firefox 3 and later versions</li> <li>• Chrome 6 and later versions</li> </ul>         |
| Windows Vista with Service Pack 2 (64-bit)     | <ul style="list-style-type: none"> <li>• Internet Explorer 8</li> <li>• Internet Explorer 7</li> <li>• Firefox 5</li> </ul>   |
| Windows XP with Service Pack 3 (32-bit)        | <ul style="list-style-type: none"> <li>• Internet Explorer 7 and later versions</li> <li>• Firefox 3 and later versions</li> <li>• Chrome 6 and later versions</li> </ul>         |
| Windows XP with Service Pack 2 (64-bit)        | <ul style="list-style-type: none"> <li>• Internet Explorer 8</li> <li>• Internet Explorer 7</li> <li>• Firefox 5</li> </ul>   |
| Windows Server 2008 and Windows Server 2008 R2 | <ul style="list-style-type: none"> <li>• Internet Explorer 8 and later versions</li> <li>• Firefox 3 and later versions</li> <li>• Chrome 6 and later versions</li> </ul>         |
| Mac OS X 10.5 or Mac OS X 10.6                 | <ul style="list-style-type: none"> <li>• Firefox 3 and later versions</li> <li>• Safari 4 and later versions</li> </ul>   |

**Table 2: Software supported by Microsoft Office 365**

| Software  | Supported Version  |
|---|--|
| System software                                       | <ul style="list-style-type: none"> <li>• Microsoft .NET Framework 3.0 (for Windows XP)</li> <li>• Java client 1.4.2 (for Macintosh OS X)*</li> </ul>   |
| Office clients  | <ul style="list-style-type: none"> <li>• Microsoft Office 2010 or Office 2007 Service Pack 2</li> <li>• Office 2008 for Mac and Microsoft Entourage® 2008 Web Services Edition</li> <li>• Office 2011 for Mac and Outlook 2011 for Mac</li> <li>• Microsoft Lync 2010 client</li> <li>• .NET Framework 2.0 or later</li> </ul> |
| Client applications                                   | Office desktop set up  |
| Browser software for Microsoft Online Services Portal | <ul style="list-style-type: none"> <li>• Internet Explorer 7 or later</li> <li>• Mozilla Firefox 3.x</li> <li>• Apple Safari 3.x</li> </ul>  |
| Browser software for Outlook Web App                  | <ul style="list-style-type: none"> <li>• Internet Explorer 7 or later</li> <li>• Firefox 3 or later</li> <li>• Safari 3 or later on Macintosh OS X 10.5</li> <li>• Chrome 3 and later versions</li> </ul> <p>Outlook Web App also has a "light" version that supports a reduced set of features across almost any browser</p>  |

**Gap Analysis Summary of Results:** Listed below is a summary of gaps and key observations distilled from the entire gap analysis report. The entire requirements gap analysis compares nearly 500 requirements for the five parts of the current shared email service against the comparable parts of Office 365. In the summary, the first column (after item #) labeled Requirement is populated from the Shared Services email project requirements. If this column is blank, the gap is based on a limitation determined to be pertinent but not a requirement. The next column describes the gap or observation in more detail and includes the evaluation team's recommended solution and mitigation. The last column includes the team's assessment of the potential importance or impact of the gap based on their collective opinion.

| #                      | Requirement                | Gap Description or Observation<br><br>Recommended Solution   | Potential Impact |
|------------------------|----------------------------|--|------------------|
| <b>Exchange Online</b> |                            |  |                  |
| 1                      | Support for public folders | <p><u>Gap Description</u> - Public folders are not supported in Office 365.</p> <p><u>Recommended Solution</u> - Shared mailboxes and document libraries are supported, offering same plus some additional functions. Microsoft offers several solutions to migrate public folders, converting to SharePoint or using shared mailboxes being the most used. Third party tools are available to automate the migration to SharePoint.</p> | High             |

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|   |  | Additional analysis needs to be done by agency to understand what purpose they serve, who uses the data and determine the best migration path and effort required.  |     |
| 2 | Ability to configure message size limits per agency within the parameters set by ETAG (30 MB Limit) which includes attachments | <p><u>Gap Description:</u> The message size limit for Exchange Online is 25 MB, including attachments. Messages larger than this limit will not be delivered, and the sender will receive a Non-Delivery Report (NDR).</p> <p><u>Recommended Solution:</u> Will need to adapt to the new limit. Administrators can create transport rules to limit the maximum size of any individual attachment. An email client may limit the size of an individual file attachment to a value less than the message size limit.</p>  | Low |
| 3 | Ability to send bulk mail  | <p><u>Gap Description:</u> Each Exchange Online mailbox can send messages to a maximum of 1,500 recipients per day. An email message can be addressed to a maximum of 500 recipients. These limits apply to emails sent within an organization as well as to messages delivered to external organizations. For the purposes of these limits, a distribution group that is stored in the GAL counts as one recipient. In a personal distribution group, each recipient is counted separately.</p> <p><u>Recommended Solution:</u> While users should try to adapt to the limit, Microsoft states that exceptions may be made on a case by case basis. The limit is intended to discourage users from sending unsolicited bulk messages. Agencies should consider other sources such as listserv to send these types of messages.</p> | Low |
| 4 |  | <p><u>Observation:</u> Users have a message rate limit of 30 messages per minute. If a user submits messages at a faster rate, Exchange Online will deliver the messages but will queue the messages at the server and throttle the rate of delivery.</p> <p><u>Recommended Solution:</u> Evaluation team members felt that this would not be an issue. Since Microsoft says this is configurable, there is a possibility that exceptions could be made on a case by case basis.</p>  | Low |
| 5 |  | <p><u>Observation:</u> Deleted item recovery is set to 14 days. Currently agencies can configure this.</p> <p><u>Recommended Solution:</u> Evaluation team members felt that this would not be an issue.</p>  | Low |
| 6 |  | <p><u>Observation:</u> Deleted mailbox recovery is set to 30 days. Currently agencies can configure this.</p> <p><u>Recommended Solution:</u> Evaluation team members felt that</p>   | Low |

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|  |  | this would not be an issue.  |     |
| <b>Exchange Online Archiving</b>   |  |  |     |
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| <b>SharePoint Online</b> – (The following observations were made regarding differences in the SharePoint online product as compared to the on-premise solution.)                             |  |  |     |
| 7  |  | <p><u>Observation:</u> Specific customizations, like third party or self-made web parts, features or solutions, are not available.</p> <p><u>Recommended Solution:</u> SharePoint sites that require customizations should remain on-premise until such time that Microsoft matures its online offering to include these features.</p> | Low |
| <b>Lync Online</b> – (The following observations were made as possible limitations with an instant messaging solution.)  |  |  |     |
| 8  |  | <p><u>Observation:</u> Lync Online supports a maximum meeting capacity of 250 users.</p> <p><u>Recommended Solution:</u> Use other conferencing products when needing to include more than 250 users.</p>  | Low |
| 9  |  | <p><u>Observation:</u> Lync online does not provide the ability to make or receive phone calls from land lines or cell phones. This feature is only available using Lync On Premise.</p> <p><u>Recommended Solution:</u> If an agency requires this functionality, Lync On Premise should be considered.</p>                           | Low |
| 10   |  | <p><u>Observation:</u> Lync instant messaging is not supported on blackberry devices at this time. Blackberry has its own messaging client.</p> <p><u>Recommended Solution:</u> There is no workaround for this. Lync messaging is supported on other mobile devices including, android, iphone, ipad and windows mobile devices.</p>  | Low |
| <b>Web Apps</b> (The Web Apps product is a full fidelity viewing and light editing version of the Microsoft Office Suite. The following are examples of functionality that is not provided.) |  |  |     |
| 11   |  | <p><u>Observation:</u> Use of macros is not supported in Excel. Web Apps will not load any file type containing script, such as VBA.</p>   | Low |

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|    |  | VBA is commonly used by power excel users.<br><br><u>Recommended Solution:</u> Use Office Professional full client for this functionality.  |     |
| 12 |  | <u>Observation:</u> Unlike Google Docs where users can share and set permissions to anyone without Google account to view or edit the document, Office Web App requires users must have an Office 365 account.<br><br><u>Recommended Solution:</u> Other tools may be available for this type of functionality. | Low |
| 13 |  | <u>Observation:</u> Excel and OneNote co-authoring is only available in the browser. For Word and PowerPoint, co-authoring is only available in the desktop version.<br><br><u>Recommended Solution:</u>  | Low |
| 14 |  | <u>Observation:</u> Users can only print from the Word application in Web Apps. For other documents in Office Web Apps, users must switch to Microsoft Office and print to any available printer. Web apps are intended for use for light editing only.<br><br><u>Recommended Solution:</u>                     | Low |

## 6. Highlights of added functionality

| # | Functionality                                | Comments  |
|---|--|---|
| 1 | Ability to see users across tenants          | Exchange Federated Delegation can be established between all agency domains, to enable Office 365 features specific to free/busy and calendar sharing across both agencies and tenant boundaries.<br><br>Lync Federation can be established between agency domains, to enable Office 365 features for presence, chat and conferencing across both agencies and tenant boundaries. |
| 2 | Unlimited personal archive                   | Each user receives 25 GB of storage in the user's primary mailbox. The maximum size of the primary mailbox is 25 GB. The user also receives unlimited storage in the user's personal archive . Administrators can use Remote PowerShell to reduce maximum mailbox sizes for some or all of their users.   |
| 3 | Free conference rooms and resource mailboxes | Conference rooms and resources do not require a user subscription license. The mailbox quota for conference rooms and resources is 250 MB.  |
| 4 | Five user subscription licenses to Office    | The Office 365 subscription gives each user the ability to download up to five copies of Microsoft Office Professional on devices outside the   |

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|    | Professional.  | organization.  |
| 5  | Lync Online - Presence   | Office 365 provides the ability to see a person's availability from within the Office 365 products and easily communicate with them.   |
| 6  | Lync Online meeting  | Online meetings enable users to connect wherever they are through PC-based audio, video, and web conferencing, both as scheduled meetings and spontaneous, ad hoc collaboration sessions. Users can collaborate, share information, and coordinate their efforts in real time. |
| 7  | Use Lync to collaborate within SharePoint sites  | Lync Online serves as the presence engine for SharePoint team sites and portals, providing presence and IM access from within SharePoint sites.  |
| 8  | Use Lync to communicate with other organizations   | Communicate with other organizations who can use Lync attendee which provides instant messaging functionality (but not audio, video or desktop sharing).   |
| 9  | SharePoint online provides the ability to collaborate and share documents from any browser       | The new co-authoring capabilities help people work simultaneously with colleagues on Office documents.   |
| 10 | Using SharePoint online Web Apps provides increased productivity when you are outside the office | Access, view, edit, and share Microsoft office files from almost any computer with an Internet connection. And, access and view PowerPoint, Word, and Excel content from a browser on mobile devices.  |