**Migrate from G Suite to Office 36****5**

**Client Name – G7CR**

Table of contents

1 Executive summary 3

2 [Introduction](#page5) 3

3 G7CR O365 Migration Services 3

4 Security 4

5 Performance 4

6 Migration scope 5

[6.1](#page9) Mail – what's migrated 5

[6.2](#page10) Mail – what isn't migrated 5

7 Migration approaches .6

[7.1](#page16) IMAP migration 6

[7.1.1](#page16) IMAP migration benefits 6

[7.1.2](#page16) IMAP migration considerations 6

8 Understanding Impact of migration to users 6

9 Steps to migration success 7

[9.1](#page20) Plan 7

9.2 Prerequisites 7

[9.3](#page21) Check the source system setup 7

[9.4](#page22) Check the target system setup 8

1 Executive summary

Data migration is a major part of moving from one business app suite to another. The process is dotted with hurdles which can cause unforeseen problems for businesses with little or no experience in data migration. Many businesses today are unsure where to start with such a large task. Migrating data without an informed approach and a clear path can get expensive and time consuming, not to mention stressful.

However, with the right tools and support, migrating data between business apps is a painless process for IT staff, managers and end users.

2 Introduction

Migrating business users from their usual email system and business tools to a new system can be a daunting task for all involved. How can migration occur without business interruption? What pre-migration planning is required? How can you be sure that all data has been migrated? And even if the migration is a success, how do you get your users on board with embracing the new products?

This document aims to provide a technical overview of considerations such as migration time, approaches, speed and security, as well as an overview of what can and cannot be migrated.

3 G7CR O365 Migration Services

The Migration services provides a flexible approach to data migration, making it suitable for migrations of all sizes and complexities.

As well as data migration, logging and a migration dashboard, G7CR's solutions include the following, which will also be discussed in this:

|  |  |  |  |
| --- | --- | --- | --- |
| Mail migration | *  | Email address conversion |  |
|  | |  |
|  |  |
|  | *  | Source to Destination |  |
|  |  | |  |
|  |  | |  |
|  |  | |  |
|  |  | |  |
|  |  | |  |
| Group migration | Pre-migration utility to create a comprehensive list of groups to be | |  |
|  | Migrated, the list can be shared, and we will create in Office 365 target. | |  |
|  |  | |  |
|  |  | |  |
|  |  | |  |
|  |  | |  |
|  |  | |  |
|  |  | |  |

4 Security

For total assurance, G7CR uses the secure, Exchange IMAP migration methodology with secure data connections and a logging system. More specifically:

* G7CR doesn’t store your mail, files or site data
* the migration takes place in memory only: the migration engine connects to the source, pulls data and pushes it in real time;
* connections to the source and the target are done using HTTPS so no data is transferred unencrypted over the internet; and,
* nothing is stored internally.

Note - IMAP migration needs credentials to connect to the source and the target. Either you can share this with us, and we will ensure that it isn’t misused, or we can work with you and help you create batch files to import data.

**We are covered under NDA/Confidentiality agreement and the same prohibits any data breach and/or misuse of client information.**

5 Performance

The Exchange platform uses all available resources to provide the fastest migration possible and can support both small and large migrations.

However, there are limitations. Many mail systems can heavily throttle users. When you perform too many API calls, the remote server will begin throttling and decrease the number of calls that can be performed each minute, thus reducing the migration throughput. Exchange IMAP tool continuously attempts to migrate email at the maximum capacity allowed to achieve the highest throughput.

*Office 365 limitations*

Office 365 uses throttling policies to limit the resources consumed by a single account. To maximize throughput and limit throttling, G7CR follows Microsoft best practice and uses impersonation.

An account that has impersonation privileges can impersonate 100 users concurrently. The platform uses EWS (Exchange Web services) protocol; Microsoft theoretically allows throughput of around 300 MB per user per hour. However, in practice we typically see throughput between 200 Mb and 300 MB per user per hour. This gives an average throughput of around 500 GB per day with a constant migration of 100 concurrent mailboxes.

During mail migration, mailbox item count is also a factor. Office 365 throttling policies limit migration to 1500 to 1800 mails per user per hour. Therefore, a mailbox with 1,000,000 small emails will be slower to migrate than a mailbox with 1,000 large mails containing attachments.

*Google Limitations*

Google limits migration to 2.5 GB per user per day. Usually, some extra data migration is possible before throttling begins. When it does begin, the Exchange will attempt to migrate 10 GB of data per user, then sleep for 6 hours and automatically restart the migration where it left off.

6 Migration scope

6.1 Mail – what's migrated

The following components/features of a Gmail inbox can be migrated to Office 365 mail using Exchange IMAP tool

* Emails
* Labels (primary label converted to folder)

.

*Email address conversion*

This option rewrites email addresses found in the header of mail being migrated and replaces source email addresses with their corresponding target email addresses. For example, if Bob sends an email to his colleague, Chloe, from his source address bob@source.com to chloe@source.com and a week later, after migration, chloe@target.com replies to Bob, the Exchange IMAP tool has already updated SMTP header in Bob's original email in her inbox, so her reply will be sent to bob@target.com.

*Source to Destination,*

In this case the contents of source mailbox will create the replica in the destination mailbox. For example: if any folders exist in the source will be created in destination automatically during the migration.

6.2 Mail – what isn't migrated

G Suite uses labels rather than folders to organize received emails, which means users can apply more than one label to a single email. Office 365 mail doesn't offer labels, so storage for each email is limited to one folder. Exchange IMAP tool uses the first label applied to an email and creates a folder with the same name, where the email will be stored.

Currently, inbound rules (including out of office rules) are not migrated from G Suite to Office 365

7 Migration approaches

Exchange migration platform helps businesses perform elaborate technical migrations through a simple SaaS interface. As a result, migrations require no additional software installation or overhead, and migrations can be performed securely and quickly.

7.1 IMAP migration

We can migrate the contents of user mailboxes from your source email system to Office 365. Use the Internet Message Access Protocol (IMAP) to migrate email

7.1.1 IMAP migration benefits

* Fastest, simplest form of migration.
* Your users can start using all components of Office 365 immediately.
* Folders are structured.

7.1.2 IMAP migration considerations

Here are a few limitations to be aware of:

* We can migrate a maximum of 500,000 items from a user's mailbox (emails are migrated from newest to oldest).
* The biggest email you can migrate is 35 MB.
* If you limited the connections to your source email system, it's a good idea to increase them to improve migration performance. Common connection limits include client/server total connections, per-user connections, and IP address connections on either the server or the firewall.
* Only items in a user's inbox or other mail folders can be migrated. Exchange IMAP tool doesn’t have a feature to migrate contacts, calendar items, or tasks.

8 Understanding Impact of migration to users

To migrate email, you need access to the user mailboxes in your source email system. If you know the user passwords or can access their mailboxes by using administrator credentials, there won't be any impact to users until you shut down your source email system.

If you can't access user mailboxes, you'll have to reset the passwords. This lets you access the user mailboxes by using a new password that you know. If users don't know the new passwords, they won't be able to get to their old mailboxes during or after the email migration. You can distribute the new passwords after the migration if you want users to get to their old mailboxes.

**Note – There will be a maximum of 1 hour down time for users while updating the DNS records. We are happy to perform this activity during late evening hours to minimize impact.**

9 Steps to migration success

9.1 Plan

Without fully planning a mail migration from start to end, steps can be missed out or misunderstood and performed incorrectly. At worst, the wrong migration path can lead to an unsatisfactory migration that may need to be restarted from scratch, costing time and money.

Make sure you take time to analyze your migration goals and the details of what, how and when all data should be migrated. Take note of the source and target system details, the size and type of data to be migrated, and the timeframe for migration. Decisions of what to include in a migration are needed for:

* **mailboxes**: Emails;
* **groups**: Need to be recreated

9.2 Prerequisites

* **Need to understand the On-premise Architecture**
* **G-Suite user credentials to be shared or we can work with you and help you create batch files to import data.**
* **CAS authentication to be disabled for the G-suite accounts.**
* **Alternately (if you don’t want to disable CAS authentication Generate an APP password on each G-suite account and share or we can work together on remote session)**
* **Once the migration process is initiated, please make sure that users shouldn’t change the Password, till the completion of migration.**

9.3 Check the source system setup

A data migration will fail if it doesn't have the right information from the source system. One common problem is using email aliases instead of SMTP addresses, making the originating mailboxes impossible for the mail migration tool to identify.

Taking time to audit the source system is a requirement for a successful migration. Follow this checklist to minimize any hiccups:

* Please ensure to check the user list contains no aliases (use primary SMTP addresses);
* Set migration account passwords to never expire;

9.4 Check the target system setup

It's easy to overlook what's required on a target system prior to migration, particularly if it's new to the business. Mailboxes can only be migrated to a Office 365 if it's ready to receive the data. Office 365 must have enough licenses purchased to accommodate all users prior to migration. In addition, all users must be provisioned, otherwise the migrated items have no inboxes.

A general checklist for the target system includes:

* Creating the same user list in O365 environment;
* set migration account passwords to never expire;
* purchase licenses for all resources at the target; and,
* provision all resources (users).