

LM01_KDD035 - Network bandwidth for Day 1

Status	DECIDED
Owner	Jean-Baptist Lanneluc
Stakeholders	Steering Committee

i **Decision: Option 2:** Outlook: 3 months data & 50% bandwidth download; OneDrive: 50% bandwidth upload

Decision made by: IT Steering Committee

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Online Meeting: MS Transformation - IT SteerCo #3

Issue

Potential network saturation on Day 1 postmigration (GWS M365) due to Outlook Fat Client initial sync/download of large volumes of emails and attachments.

Recommendation

Option 1: Outlook: **1 month data** & 50% bandwidth download; OneDrive: 50% bandwidth upload

Two actions need to be taken:

- Optimize applications to reduce the amount of data
- Apply bandwidth limitations to these applications for Day 1

The 2 applications mentioned are mostly OneDrive and Outlook.

Background & Context

On the first business day after cutover of each Wave, many users will perform an initial synchronization of their mailboxes in Outlook fat client.

On Day 1, **Outlook downloads** 1 year of emails and attachments locally, which can generate massive downloads of historical emails and attachments from M365.

Similarly, OneDrive synchronization will consume some bandwidth mainly to upload files from the computer main folders into Onedrive.

OneDrive uploads the content of the folders "Documents", "Desktop" and "Images" to OneDrive.

Assumptions

- This will not impact all users, only **E5 with corporate device and fat client of Outlook**,
- Outlook is configured to download mailbox content including attachments,
- Even if Outlook is set to only download 1 month of historical emails locally, the other emails will still be found via the research feature on the fat client (that relies on the web) if the employee is online.
- Network capacity is not dimensioned for a "mass concurrent bulk download" event, so congestion may occur and impact other business-critical traffic, especially on certain sites that already face network challenges.

Constraints

- Users still need to access these applications for their business requirements, so the bandwidth limitation needs to be reasonable.

Impacts

Network / Service impact

- **Network saturation at sites and internet breakouts** due to thousands of clients downloading mailbox content (emails + attachments) while simultaneously uploading user folders to OneDrive.
- **Degraded performance or outages** for other business-critical traffic (Teams meetings/voice/video, intranet/SaaS apps, ERP, VDI/Citrix), especially during morning peak.
- **Higher risk of bottlenecks on VPN** for remote users, potentially making remote access unstable.

End-user impact

- **Outlook becomes slow/unresponsive** during initial caching (long “Updating mailbox” / “Trying to connect”), delayed send/receive, attachments opening slowly.
- **Outlook search experience** for old items might require online connection and will be slower to load and display these items.
- **OneDrive sync backlogs**: longer time until Desktop/Documents/Pictures are fully available in the cloud; users may see “sync pending” and missing files on other devices.
- **More file conflicts/duplicates** if users edit files while large sync is still in progress.

Support / operational impact

- **Spike in service desk tickets** (Outlook slowness, mailbox not fully visible, “missing emails”, OneDrive not syncing, Teams call quality issues).
- **Harder troubleshooting** because the root cause is shared congestion; issues appear “random” across multiple applications.
- **Potential need for emergency controls** (ad-hoc throttling/blocks) during business hours, which is typically more disruptive than planned limits.

Options considered

Option 1: Outlook: 1 month data & 50% bandwidth download; OneDrive: 50% bandwidth upload

Option 2: Outlook: 3 months data & 50% bandwidth download; OneDrive: 50% bandwidth upload

Option 3: Outlook: 1 year data & 50% bandwidth download; OneDrive: 50% bandwidth upload

Evaluation

Eval uation	Option 1: Outlook: 1 month data & 50% bandwidth download; OneDrive: 50% bandwidth upload	Option 2: Outlook: 3 months data & 50% bandwidth download; OneDrive: 50% bandwidth upload	Option 3: Outlook: 1 year data & 50% bandwidth download; OneDrive: 50% bandwidth upload
Techn ical Feasi bility	+ OK	+ OK	+ OK
User Impa ct	+ Limited network congestion on site for a short time (1 hour at most) - Users will need internet access to browse their emails beyond 1 month	+ Limited network congestion on site for several hours (up to 3 hours for many sites) - Users will need internet access to browse their emails beyond 3 months	- Limited network congestion on site for a full day for many sites. + Once downloaded, 1 year mails accessible from outlook without internet access.
Supp ort Impa ct	+ Medium: fewer “network is slow” incidents, but more end-user questions like “I can’t find older emails in Outlook” / “Search doesn’t show old mail” (they’ll need to be online to access >1 month which may display and open slower). + Some tickets for how to access archives/older mail and user guidance.	+ Low–Medium: good balance; fewer “older mail missing” tickets than Option 1. + Some performance/sync complaints may remain in the first hours, but generally manageable.	- Medium–High: more Day1 slowness risk (longer caching), leading to more tickets (“Outlook stuck /slow”, “can’t send/receive”, Teams call quality issues due to congestion). + Fewer “older email missing” questions, but more performance/network-related incidents .
Oper ational Com plexity	- More change-management effort due to behavioral change for users.	+ Low–Medium: same type of controls as Option 1, but less user disruption and fewer exceptions. + Standard monitoring and comms.	- Medium–High: higher need for Day1 command center , active network monitoring, potential reactive throttling, and site-by-site troubleshooting. - More coordination with network team.
Cost	+ Low direct cost (configuration/policy + comms).	+ Low direct cost.	+ Low direct cost for configuration.

See also

The following section describes relevant documentation:

Repository	Description
M365 - Outlook BW Consumption per site	Document describing the amount of data to be downloaded by Outlook clients per site, as well as the time it would take for all users to download their data if 100% of the bandwidth was allocated to Outlook.

Version	Published	Changed By	Comment
CURRENT (v. 8)	May 06, 2026 10:45	CHUDZIAK-ext, Aleksander	
v. 7	May 06, 2026 07:14	TODESCHINI-ext, Gautier	
v. 6	May 05, 2026 20:37	TODESCHINI-ext, Gautier	
v. 5	Apr 29, 2026 19:48	CHUDZIAK-ext, Aleksander	
v. 4	Apr 28, 2026 12:34	CHUDZIAK-ext, Aleksander	

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