AI-04003 MD Labs and Fax Cloud

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We have medical faxes and lab results setting in the local drive in the medical office and our MD wants to read these files efficiently and make critical medical decisions anywhere in the world. Which app is the BKM, Google drive or Onedrive ? Design a solution for a small medical office.

If we have Microsoft 365 Business Premium and the folders are sync per instructions, can the folders be AI consumed and I can engage in AI conversation about the lab results and faxes?

Explain first the incoming fax, e-fax and lab results, what file format are they when it comes in to the medical office? Office is using Mediware and Amazing Charts.

Then explain your possible efficient solution to this medical office.

File Formats of Incoming Medical Documents

When faxes and lab results hit a medical office using systems like **Amazing Charts** (Electronic Health Record) and **Mediware**, they generally arrive or are captured in specific standard digital formats.

1. Traditional & Electronic Faxes (e-Fax)

- **Format: PDF (Portable Document Format)** or **TIFF (Tagged Image File Format)**.
- **How it works:** Traditional physical fax machines scan documents and convert them into compressed TIFF or PDF files when digitized by an internal gateway. Modern e-fax systems (like Updox or RingCentral) completely bypass paper,

receiving the digital transmission directly from the telecom line and saving it as a standard, multi-page **PDF**.

2. Lab Results

- **Format: HL7 (Health Level 7 text files)** or **PDF**.
- **How it works:**
  - **Direct Interfaces:** If Amazing Charts or Mediware has an active cloud/network interface with national labs (e.g., Quest, Labcorp), results arrive as structured **HL7 text data**. The EHR automatically parses this text data into discrete numerical values directly within the patientâ€™s flowchart or chart.
  - **Manual/Stand-alone Delivery:** If the lab is a local imaging center or boutique clinic without a direct EHR interface, they deliver results via e-fax or a web portal. These files arrive strictly as **PDFs**, which sit on a local drive until processed.

Google Drive vs. OneDrive: The Best Known Method (BKM)

For an office already utilizing **Microsoft 365 Business Premium**, **OneDrive (paired with SharePoint)** is definitively the Best Known Method (BKM).

While Google Drive is excellent, choosing OneDrive leverages your existing licensing, eliminates extra costs, and integrates natively with Windows and Microsoft's security stack.

Core Requirements for a Small Medical Office

To make this work seamlessly and legally (especially regarding HIPAA compliance), your setup must adhere to strict security bounds:

- **Execute a Business Associate Agreement (BAA):** Microsoft covers OneDrive, SharePoint, and Teams under the standard enterprise BAA included with Business Premium.
- **Do Not Use Personal Accounts:** The MD and staff must never use personal @outlook.com or @gmail.com accounts. All access must flow through

corporate identities (e.g., md@yourclinic.com).

- **Turn Off Public Sharing:** Configure the Microsoft 365 admin center to completely disable external/anonymous link sharing for the lab folders.

Designing the Solution

A small medical office should not rely solely on a single userâ€™s local OneDrive sync folder, as this creates a single point of failure. The ideal architecture uses **SharePoint Online** as the centralized cloud repository, with **OneDrive** handling the local desktop sync for the staff.

[Incoming Faxes / Portal PDFs]

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[Local Network Folder / Local Drive]

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â–¼ (Synced via OneDrive Client)

[SharePoint Online: "Clinic Documents" Document Library]

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[Office Staff] [MD Anywhere in World]

(Local Sync) (OneDrive App / iPad / Web Portal)

The Workflow Blueprint

1. **The Intake Point:** Configure your e-fax software or local scanner to automatically drop all incoming PDFs into a specific local folder on the office computer (e.g., C:\ClinicRecords\Incoming_Faxes).
2. **The Cloud Bridge:** Use the OneDrive sync client on that office computer to map that exact local folder to a secure **SharePoint Document Library** (e.g., named "Pending Review").

3. **The MD's Mobile Access:** The MD can install the official **Microsoft OneDrive app** or **Microsoft Teams app** on a tablet, smartphone, or laptop. As long as they have an internet connection anywhere in the world, they can securely view, zoom, and scroll through the multi-page PDFs instantly.

AI Consumption: Chatting with Lab Results & Faxes

Yes, the folders can be consumed by AI, allowing for interactive conversations about the lab results and faxesâ€"provided you have the appropriate Microsoft licensing and setup.

To achieve this securely and natively within your environment, you need **Copilot for Microsoft 365** licenses assigned to the users who need AI access.

How it Operates under Microsoft 365 Business Premium

- **The Sync Prerequisite:** Because the local drive folders are actively syncing to SharePoint/OneDrive, they are fully indexed by the Microsoft Graph. This makes them readable by the AI.
- **Data Isolation (HIPAA Security):** This is critical: when using Copilot with a Business Premium account, your data remains isolated within your private tenant. The AI does not use your patient data to train public models, maintaining strict compliance.
- **Interacting with the Data:** The MD can open **Microsoft Copilot** (via the web browser, Edge sidebar, or the dedicated Copilot app) while logged into their work account and issue prompts such as: *"Summarize the lab results for John Doe from the PDF uploaded yesterday." "Are there any critical flag alerts or out-of-range values in the recent faxes in the Pending folder?" "Compare the lipid panel numbers in the newest fax against the previous one for this patient."*

Operational Caveats for the MD

- **Handwritten Notes:** Faxes with handwritten doctor notes or poorly scanned, skewed text can degrade AI accuracy. Copilot relies heavily on OCR (Optical

Character Recognition). Clear, typed digital e-faxes yield the most accurate AI performance.

- **Verification:** The AI serves as an exceptional tool for rapid synthesis and locating specific data points across massive multi-page documents. However, clinical decisions must always be cross-checked against the raw PDF values before executing a plan of care.