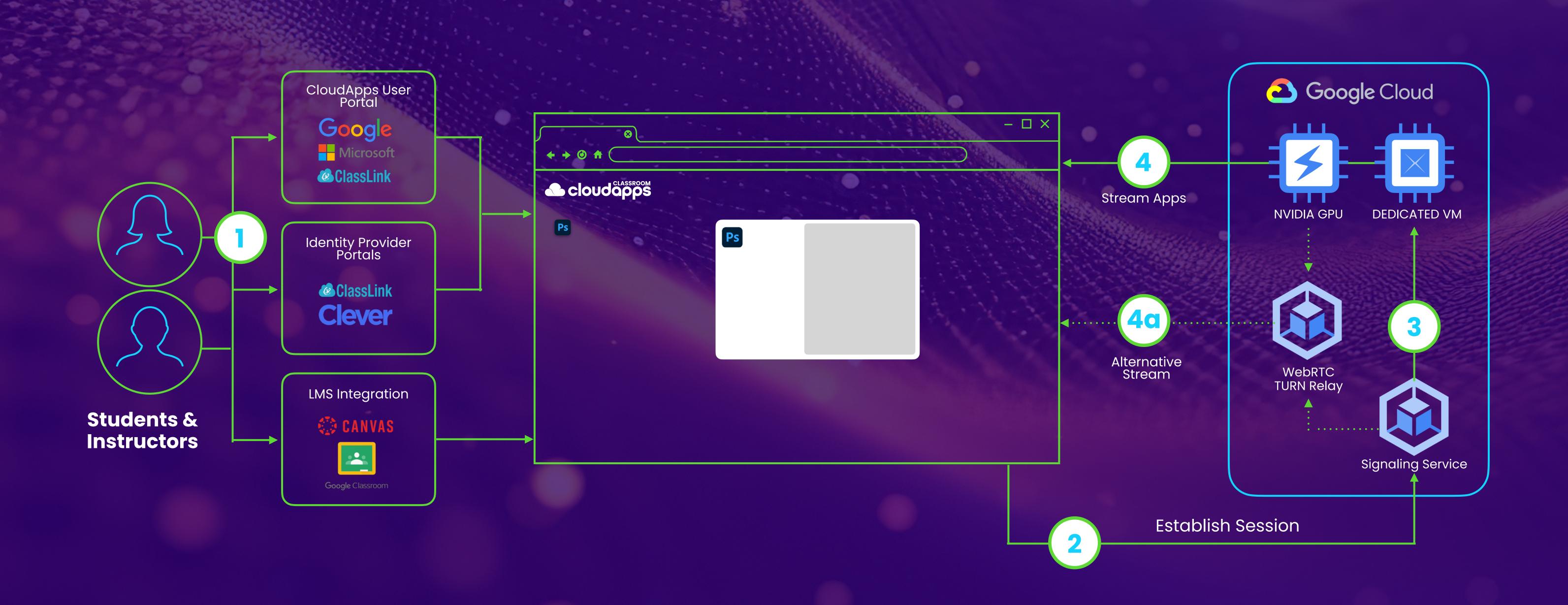


# CIOUCCLASSROOM CIOUCGOOS

# Cloud Automation Stack Architectural Overview

Components and Connectivity







## Overview

## What is CloudApps?

itopia CloudApps is an application streaming platform that delivers high-performance Windows applications directly into a Chrome browser or Chromebook

#### Is it VDI?

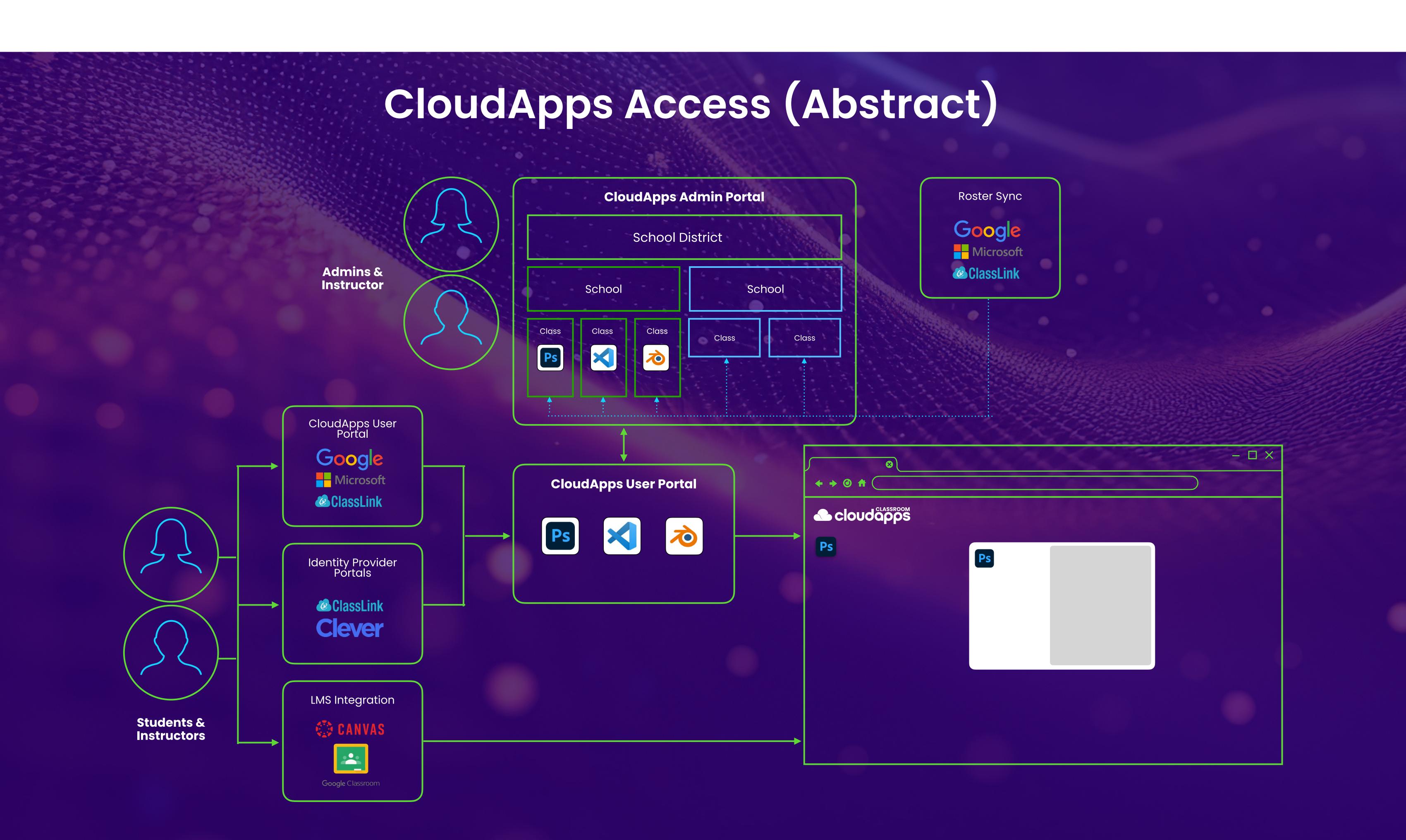
No. CloudApps is a Software as a Service (SaaS) that offers a curated list of applications based on popular curriculum. Although there are some similarities, CloudApps continues to evolve away from VDI and towards SaaS

## Does Labs use Remote Desktop Services (RDS / RDP)?

No. CloudApps uses a fully-customized delivery stack that leverages our proprietary iStreamer technology to stream the desktop to the browser.

## Are users' sessions shared? Are they persistent?

No. CloudApps creates a brand new instance for each user every time they connect. The user's profile is saved in between sessions, allowing some settings to be retained between sessions. However, users should save all their files and data into their Cloud Storage (Google Drive or OneDrive).







## More Information

## How often are CloudApps images updated?

CloudApps regularly refreshes images with hotfixes and patches, sometimes updating images multiple times a week if needed. However, CloudApps updates applications once a month, alongside installing Windows updates following "patch Tuesday" (2nd Tuesday of each month)

## How are application updates handled?

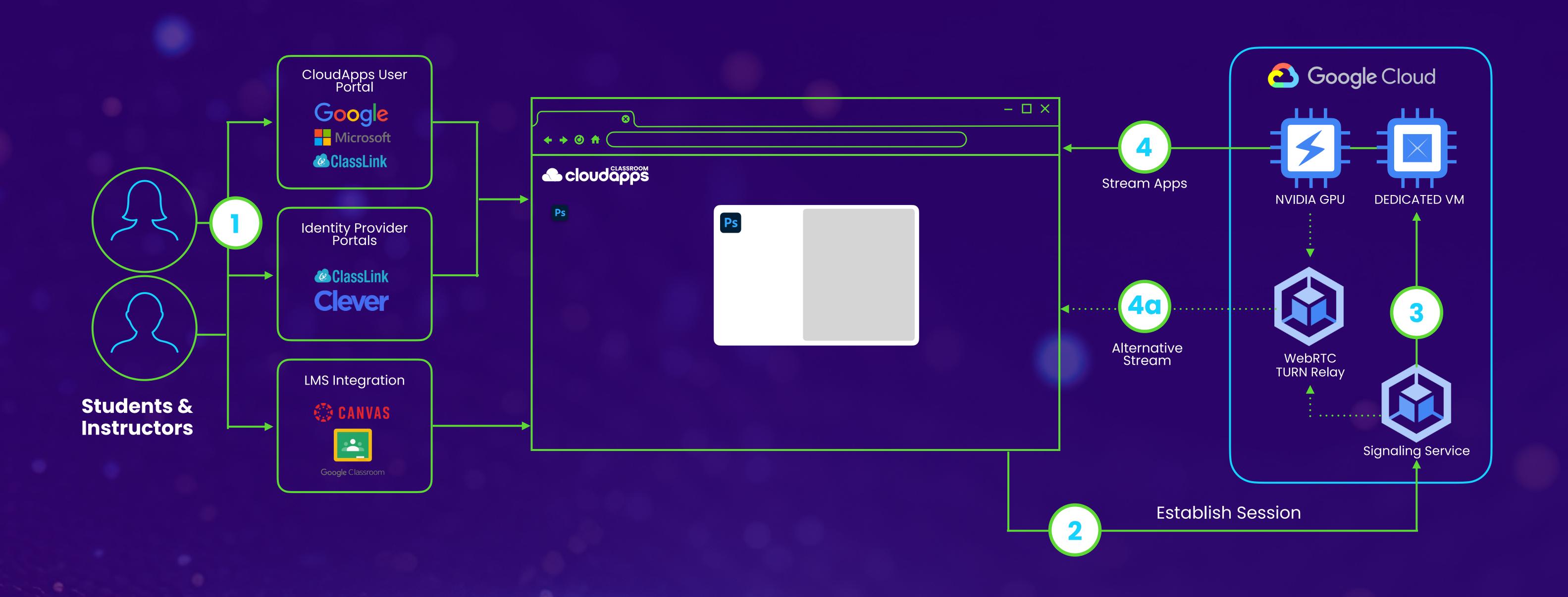
CloudApps installs minor version updates every month (i.e. 12.4 → 12.5). Major version updates (i.e. 12.5 → 13.0 or 2022 → 2023) typically occur at the end of each semester, or possibly at the end of the school year, depending on what schools tell us they prefer.

## Key Features

- Accessible from any Chrome/Chromium browser
- Support for SSO integration with Google Workspace
- Support for signing in with Microsoft and ClassLink identities
- Automatic rostering and Lab assignment using Google, Microsoft 0365, or ClassLink
- Always up to date with the latest OS and application patches
- Security-hardened and minimal web access
- Proprietary iStreamer delivery stack
  - Application streaming at up to 4K and 60 FPS
  - GPU-accelerated instances with NVIDIA RTX Virtual Workstation
  - Support for stereo audio output
  - Support for printing to local devices (Q1 2023)
- One-click deployment of powerful CTE applications
- "Session Scheduling" to allow instant-on availability during predefined class times
- Support for Google Drive and Microsoft OneDrive for cloud file storage



# CloudApps Technical Overview



# CloudApps Workflow

- 1. Teachers and Students sign in to CloudApps Classroom using any major identity provider.
- 2. Launching a session connects to a dedicated virtual machine, with GPU acceleration enables for applications that benefit from it.
- 3. The web client attempts to connect to the VM using the webRTC STUN protocol; if it can't make the connection due to network settings, it automatically switches to TURN.
- 4. The applications are streamed via WebRTC at up to 4K resolution and 60 FPS.

CloudApps Classroom Demo Request itopia.com/request-a-demo

