



Beta Presentation

Intelligent Ticketing and Release Management

The Capstone Experience

Team WK Kellogg Co

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*From Students...
...to Professionals*

Spring 2025

Project Overview

- Automate Incident Triage
 - Leverage LLMs to predict an incident's priority based on its perceived business impact and suggest relevant knowledge articles if available.
 - Route incidents to the appropriate responding team.
- Summarize Updates to Application Landscape
 - Routinely scrape release note information from software vendor websites.
 - Summarize key changes and generate installation instructions using LLM analysis.
 - Notify opted-in employees of specific vendor updates.

Team Member's Technical Tasks

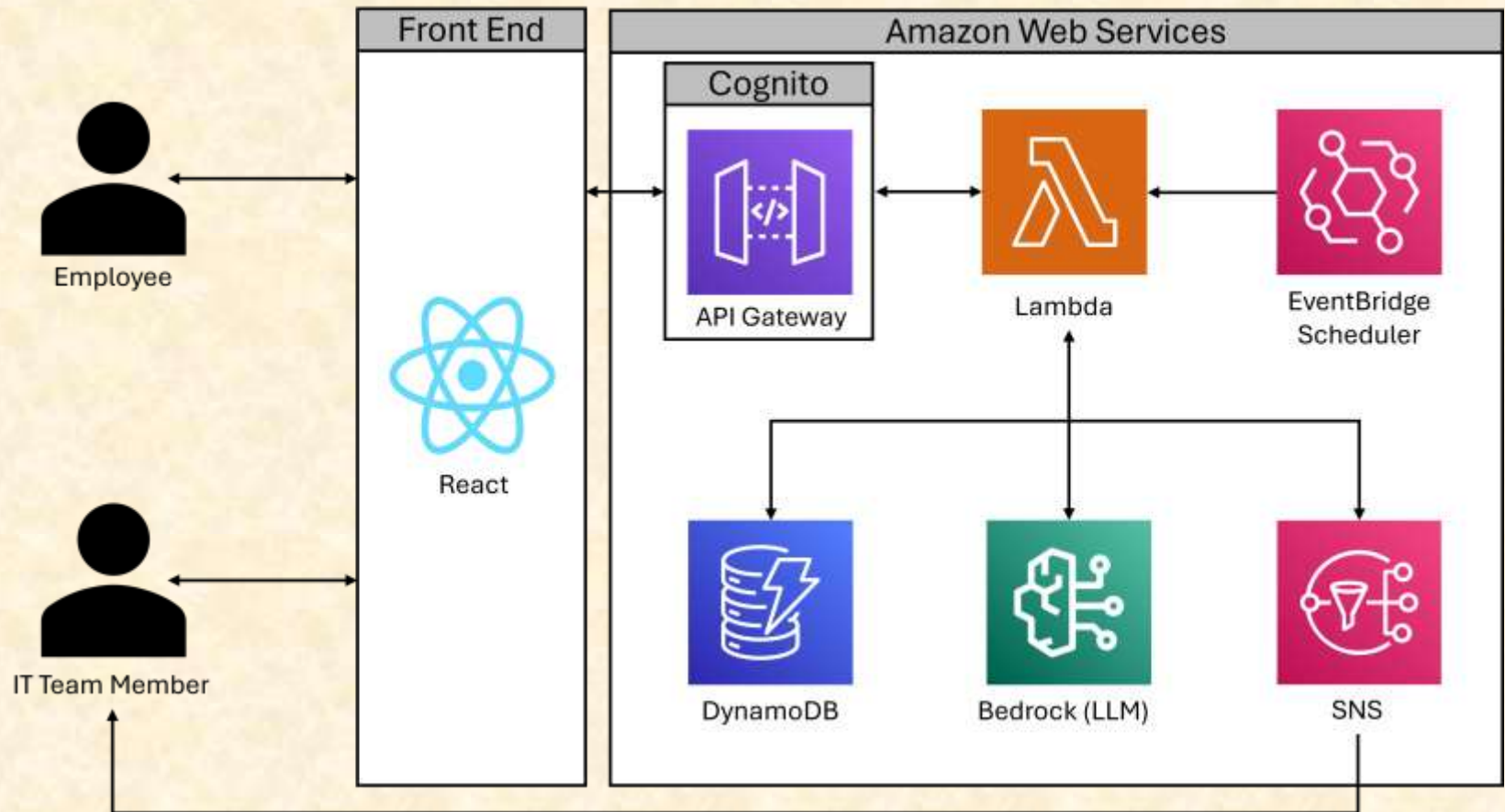
Technical Tasks Assigned

- Shuja Husain
 - Assignment Group Prompt
 - Release Notes Front-End
 - Incident Report Creation Pop-Up
 - Knowledge Article Embed
- Alex Gale
 - Web scrape vendors' release notes
 - Implement lambda functions for web scraping and saving HTML content (all 14 vendors)
 - Implement lambda function for LLM summary and notify (all 14 vendors)
 - Set up automated state machines for HTML pull for all vendors at 12:01am every morning
 - Set up automated state machine for processing and notifying for all vendors at 8:00am every morning
 - Set up state machines for each vendor
- Jennifer Lee
 - Web scrape vendors' release notes
 - Implement lambda functions for extracting vendors' release updates
 - Implement Microsoft 365 lambda function for summarizing updates and notifying SNS
 - Set up state machines for each vendor
- Gavin Heiner
 - System Architecture Design
 - Incident Reports API

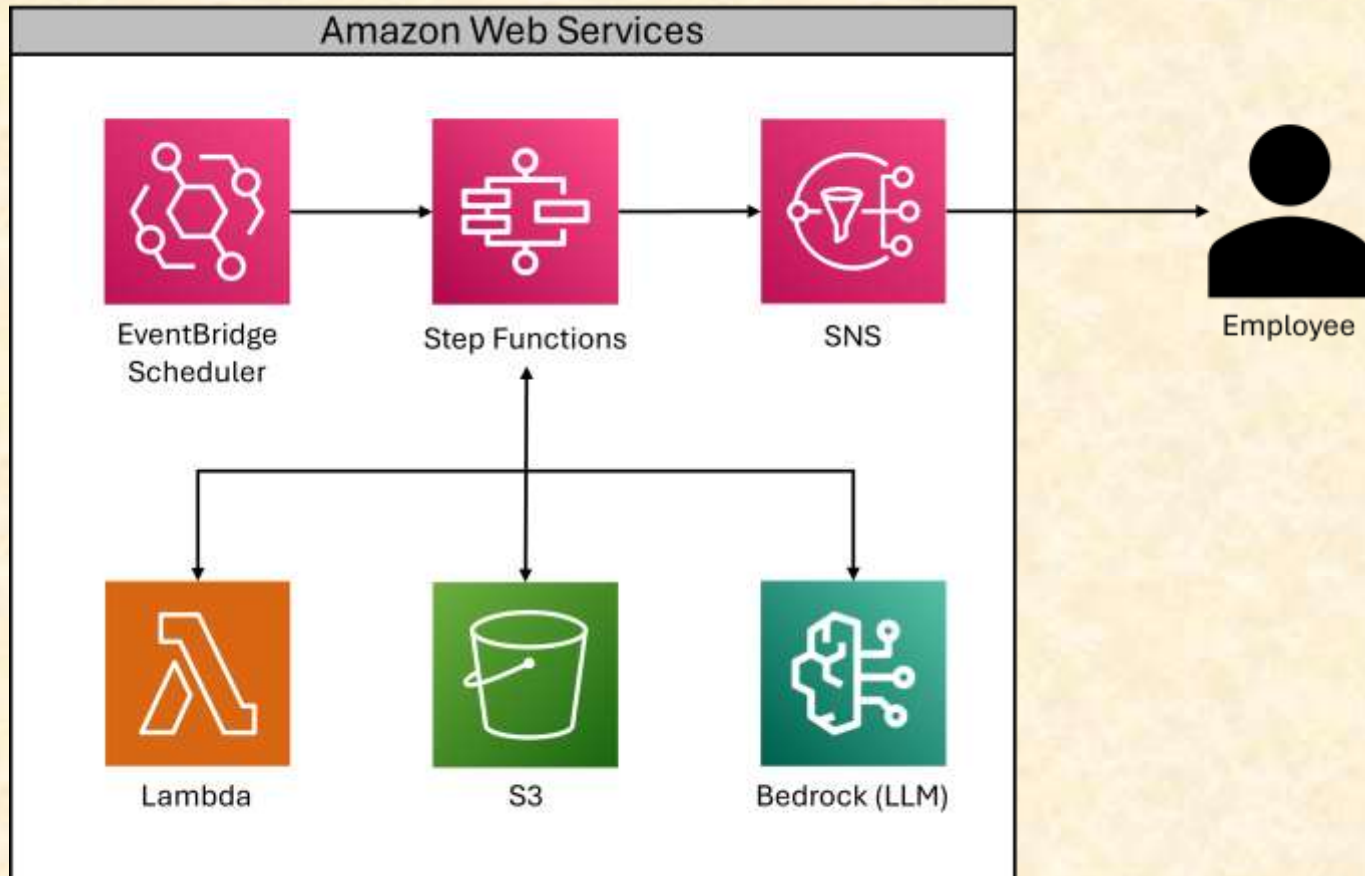
Technical Tasks Completed

- Shuja Husain
 - Release Notes Front-End UI + Incident Report Creation Pop-Up
 - Knowledge Article Embed
- Alex Gale
 - Web scraped AWS Bedrock, AWS Cloudwatch, AWS EC2, AWS Lambda, AWS Q, AWS SageMaker, AWS S3, iOS + PadOS, macOS
 - Completed 15 State Machines (2 for scheduled use) (13 for front end use)
 - Completed 14 Lambda functions to make HTTP request and save HTML content to S3 bucket with built in file management
 - Completed 2 Lambda functions for extracting release updates and saving them into JSON files
 - Completed 13 Lambda functions for creating an LLM summary of the release notes with instructions and notifying subscribed employees of the release note
- Jennifer Lee
 - Web scraped Anaplan, Uber Freight, AWS Redshift, Windows, and Microsoft 365
 - Implemented 12 lambda functions for extracting release updates and saving them into JSON files
 - Created state machine for Microsoft 365 and its lambda functions for LLM summary of release notes and notification
- Gavin Heiner
 - System Architecture Design
 - Incident Reports API
 - Secured API endpoints and web application routes.

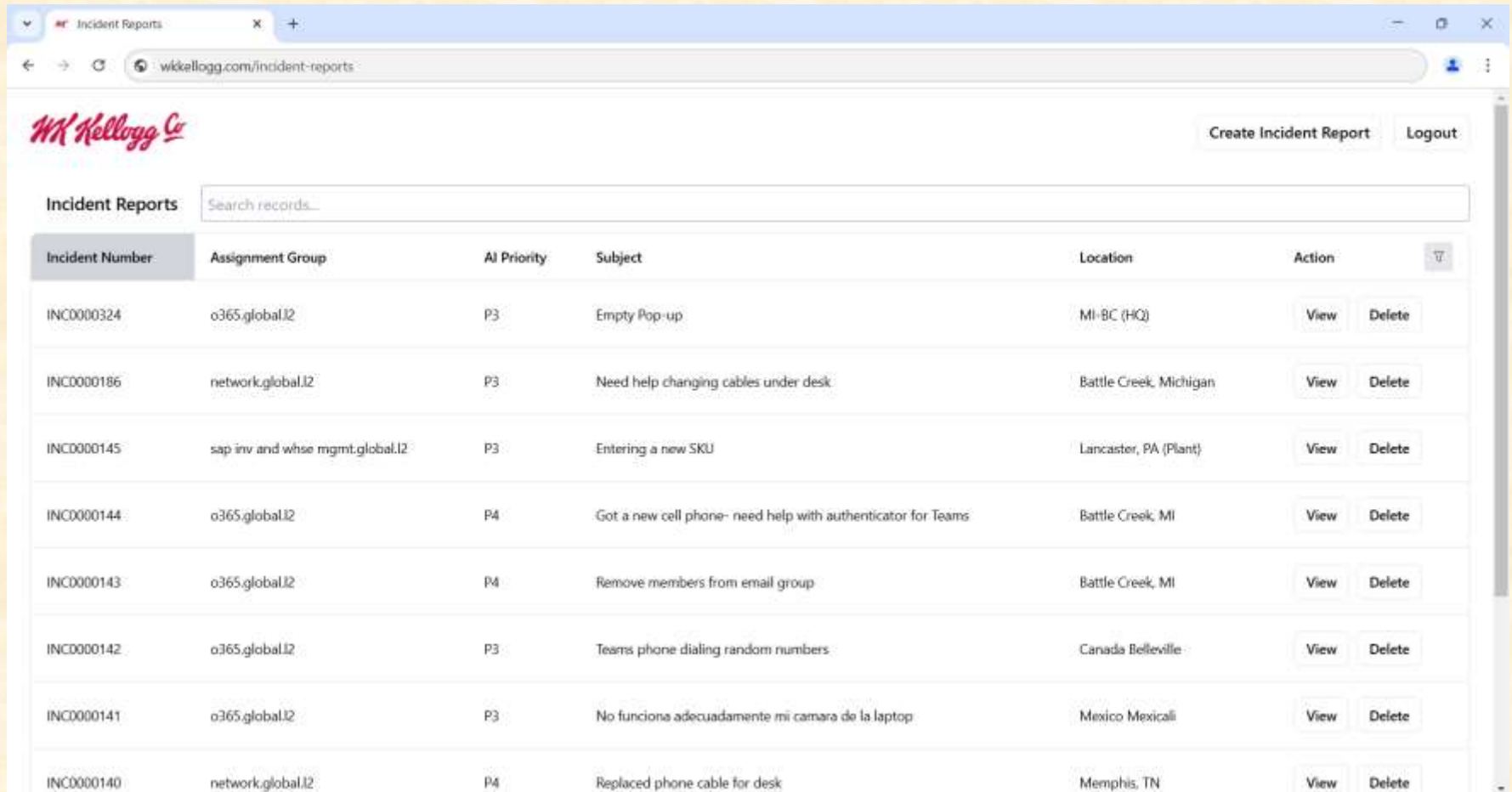
System Architecture



System Architecture



IT Service Desk Dashboard



The screenshot displays the WK Kellogg Co IT Service Desk Dashboard. At the top, there is a navigation bar with the company logo, a 'Create Incident Report' button, and a 'Logout' button. Below the navigation bar, there is a search bar labeled 'Incident Reports' with the placeholder text 'Search records...'. The main content area is a table listing incident reports. The table has columns for Incident Number, Assignment Group, AI Priority, Subject, Location, and Action. Each row represents an incident report with its details and 'View' and 'Delete' buttons.

Incident Number	Assignment Group	AI Priority	Subject	Location	Action
INC0000324	o365.global.i2	P3	Empty Pop-up	MI-BC (HQ)	View Delete
INC0000186	network.global.i2	P3	Need help changing cables under desk	Battle Creek, Michigan	View Delete
INC0000145	sap inv and whse mgmt.global.i2	P3	Entering a new SKU	Lancaster, PA (Plant)	View Delete
INC0000144	o365.global.i2	P4	Got a new cell phone- need help with authenticator for Teams	Battle Creek, MI	View Delete
INC0000143	o365.global.i2	P4	Remove members from email group	Battle Creek, MI	View Delete
INC0000142	o365.global.i2	P3	Teams phone dialing random numbers	Canada Belleville	View Delete
INC0000141	o365.global.i2	P3	No funciona adecuadamente mi camara de la laptop	Mexico Mexicali	View Delete
INC0000140	network.global.i2	P4	Replaced phone cable for desk	Memphis, TN	View Delete



Incident Report Detailed View

The screenshot shows a web browser window with the URL `wkkellogg.com/incident-reports/82806537-cb88-465d-8057-33a4d8a3d655/view`. The page title is "View Incident Report".

Incident Number
INC0000324

Ticket Info
Opened by: gavin.heiner@wkkellogg.com
Date and Time Opened: 2025-03-30 20:20:46.148081

AI Insights
Adjusted Subject: Microsoft Word and Excel Pop-up Window Issue
Adjusted Priority: P3
Adjusted Category: Application
Adjusted Subcategory: Error Message
Status: OPEN

Subject
Empty Pop-up

Category
Other

Subcategory
Other

Location
MI-BC (HQ)

Description
Whenever I try to save or copy data in Microsoft Word or Microsoft Excel, an empty pop-up window appears.

☐ P1 ☐ P2 ☐ P3 ☒ P4

Comments
saw.vandyke@gmail.com
I love commenting!
3/31/2025, 8:36:53 AM

Edit



Incident Report Creation Pop-Up

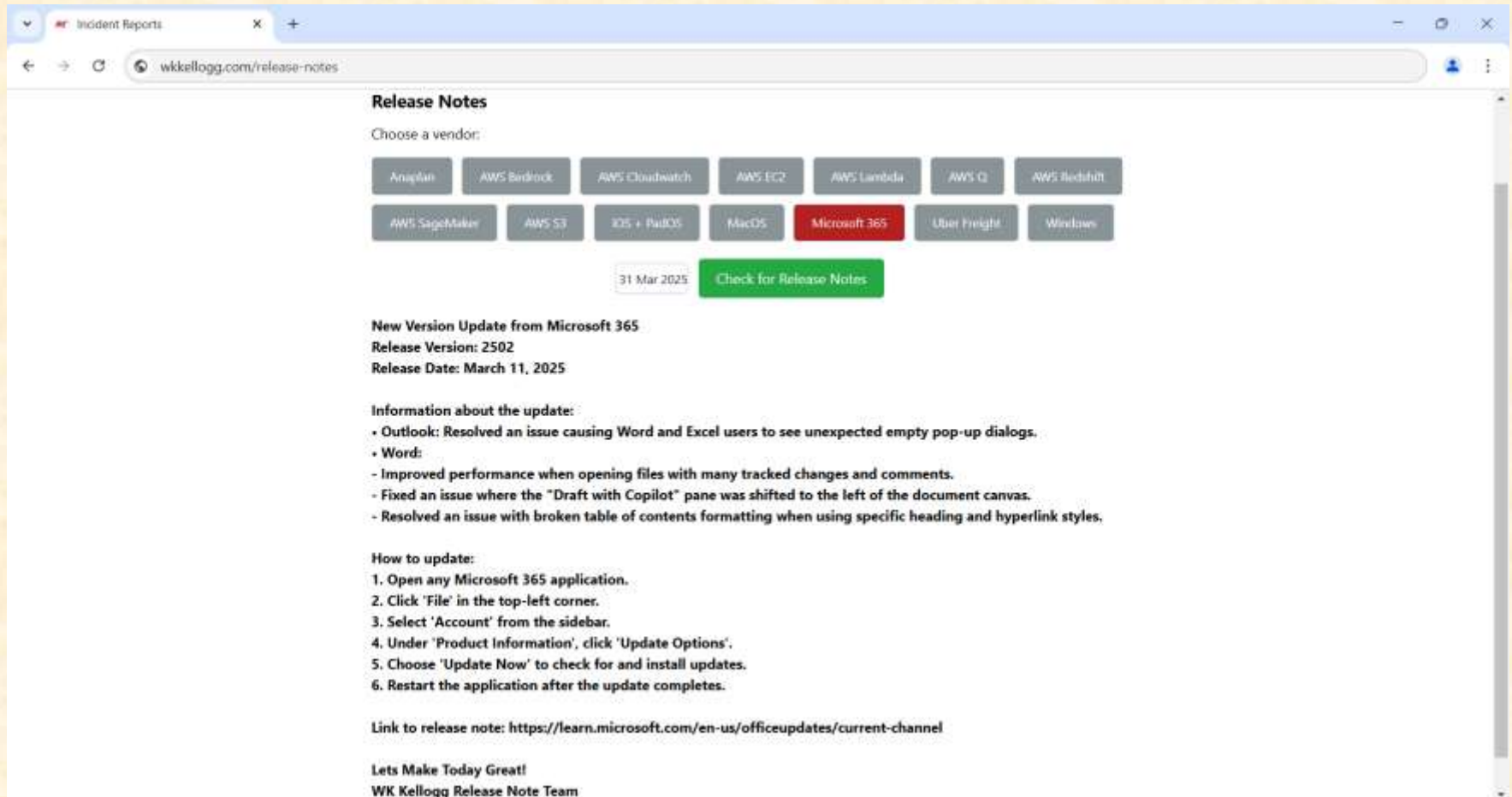
The screenshot displays a web browser window with the address bar showing `wkkellogg.com/incident-reports/create`. The page is titled "Ticket Details" and contains the following information:

- Adjusted Subject:** Lexmark Printer CA_Belleville Operations Services Error and Not Printing
- Location:** Belleville, Ontario, CA (Plant)
- Adjusted Priority:** P3
- Adjusted Category:** Hardware
- Adjusted Subcategory:** Printing
- Description:** Belleville Operations Services printer has an error message on the screen and will not print. Device Name: CA_Belleville Operations Services Host Name: LXPB-US-LNP-05 Brand: Lexmark Model #: X954dhe Serial #: 75582672533553 IP Address: 10.109.15.17 MAC Address: 0026B9494FE8 SAPID: LA51

Below the ticket details, there is a preview of a knowledge base article titled "Lexmark Printer - How to Access Lexmark Support Resources". The article is displayed in a dark-themed viewer with a sidebar on the left showing two thumbnails labeled 1 and 2. The main content area shows the title "Lexmark Printer - How to Access Lexmark Support Resources" and a breadcrumb trail: Home > Knowledge > Knowledge Base (Knowledge Base) > Hardware - Printer/Copier - Printer. Below the breadcrumb trail, the article ID "KB0010784" is visible, along with an "Actions" dropdown menu. The article title "Lexmark Printer - How to Access" is partially visible at the bottom.



Software Vendor Release Notes History



The screenshot shows a web browser window with the address bar displaying `wkkellogg.com/release-notes`. The page title is "Release Notes". Below the title, there is a section "Choose a vendor:" with a grid of buttons for various vendors. The "Microsoft 365" button is highlighted in red. Below the grid, there is a date input field showing "31 Mar 2025" and a green button labeled "Check for Release Notes".

Release Notes

Choose a vendor:

Buttons: Anaplan, AWS Bedrock, AWS Cloudwatch, AWS EC2, AWS Lambda, AWS Q, AWS Redshift, AWS SageMaker, AWS S3, iOS + iPadOS, MacOS, Microsoft 365, Uber Freight, Windows.

31 Mar 2025 Check for Release Notes

New Version Update from Microsoft 365
Release Version: 2502
Release Date: March 11, 2025

Information about the update:

- Outlook: Resolved an issue causing Word and Excel users to see unexpected empty pop-up dialogs.
- Word:
 - Improved performance when opening files with many tracked changes and comments.
 - Fixed an issue where the "Draft with Copilot" pane was shifted to the left of the document canvas.
 - Resolved an issue with broken table of contents formatting when using specific heading and hyperlink styles.

How to update:

1. Open any Microsoft 365 application.
2. Click 'File' in the top-left corner.
3. Select 'Account' from the sidebar.
4. Under 'Product Information', click 'Update Options'.
5. Choose 'Update Now' to check for and install updates.
6. Restart the application after the update completes.

Link to release note: <https://learn.microsoft.com/en-us/officeupdates/current-channel>

Lets Make Today Great!
WK Kellogg Release Note Team



What's left to do?

- Stretch Goals
 - Terraform (Infrastructure as Code)
- Other Tasks
 - UI Improvements
 - Shorten Prompts
 - Documentation
 - Bug Fixes

Questions?

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