Generating and Transmitting E-Invoices to KSeF via KGT Add-on

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Document Type – Use Case

This document outlines the process of creating, validating, and transmitting electronic invoices (e-invoices) to the Polish National e-Invoicing System (Krajowy System e-Faktur or KSeF) using a third-party software solution, referred to here as the "KGT Add-on," integrated within a company's primary Enterprise Resource Planning (ERP) system.

1. Use Case Details

- **ID:** UC-KSEF-001
- **Title:** End-to-End B2B E-Invoice Processing for Poland KSeF
- **Objective:** To successfully generate a structured e-invoice from the seller's ERP system, transmit it to the KSeF platform for clearance, and make it available to the buyer in a compliant and automated manner.
- **Frequency:** High. This process will occur for every B2B transaction requiring a VAT invoice in Poland.

2. Users

- **Seller (Accounts Receivable Clerk):** The user responsible for creating and issuing invoices within the company's ERP system.
- **ERP System:** The seller's primary business management software (e.g., SAP, Oracle NetSuite, Microsoft Dynamics) where transaction data originates.
- **KGT Add-on:** A specialized software module installed within or connected to the ERP system. Its role is to convert ERP invoice data into the required KSeF XML format, manage communication with the KSeF platform, and handle status updates.
- **KSeF (National e-Invoicing System):** The government-mandated central platform that receives, validates, time-stamps, and assigns a unique ID to every e-invoice.
- **Buyer (Accounts Payable Clerk):** The recipient of the invoice who can access the cleared invoice directly from the KSeF platform or via their own integrated system.

3. Preconditions

- The Seller's company is registered with the Polish tax authorities and has acquired the necessary digital authorization token to access the KSeF platform.
- The KGT Add-on has been successfully installed, configured, and integrated with the Seller's ERP system.
- The authorization token has been securely stored and configured within the KGT Add-on settings.
- The customer (Buyer) master data in the ERP includes a valid Polish NIP (Tax Identification Number).
- A standard sales order or delivery has been processed in the ERP, and a billing document is ready to be created.

4. Main Success Scenario (Happy Path)

Step	User	Action
1.	Seller (A/R Clerk)	Creates a standard invoice for a customer transaction within the ERP system as per the normal business process.
2.	ERP System	Generates a draft invoice document containing all necessary data (line items, quantities, prices, tax rates, buyer/seller details).
3.	Seller (A/R Clerk)	Clicks a "Send to KSeF" or similar button enabled by the KGT Add-on directly on the invoice screen within the ERP.
4.	**KGT Add-on**	**(Validation)** Automatically extracts the invoice data and validates it against the latest KSeF FA(2) XML schema requirements. It checks for mandatory fields, correct data formats, and valid codes.
5.	**KGT Add-on**	**(Conversion)** Converts the validated invoice data into the official KSeF-compliant XML file format.
6.	**KGT Add-on**	**(Authentication & Transmission)** Establishes a secure API connection to the KSeF platform, authenticates using the pre-configured digital token, and transmits the XML file.
7.	KSeF Platform	Receives the XML file. It performs its own validation. Upon success, it assigns a unique KSeF Identification Number (KSeF ID) and an official timestamp to the invoice. The invoice is now legally issued.
8.	KSeF Platform	Sends an Official Receipt

		Confirmation (UPO - Urzędowe Poświadczenie Odbioru) back to the sender's system via the API. This UPO contains the KSeF ID and timestamp.
9.	**KGT Add-on**	Receives the UPO. It updates the invoice status within the ERP system to "Accepted by KSeF" and stores the KSeF ID and timestamp against the original ERP invoice document.
10.	Seller (A/R Clerk)	Can view the KSeF ID and the "Accepted" status directly in the ERP invoice screen, confirming the successful and legal issuance of the invoice.
11.	Buyer (A/P Clerk)	Can now access the legally binding e-invoice by logging into the KSeF portal or through their own KSeF-integrated accounting system using the Seller's NIP and the KSeF ID.

5. Alternative Paths & Exceptions

- **Validation Fails (Step 4):**
  - The KGT Add-on detects missing or incorrect data (e.g., invalid NIP, missing line item description).
  - It blocks the transmission and displays a user-friendly error message to the Seller within the ERP, highlighting the exact fields that need correction.
  - The Seller corrects the data in the ERP and re-initiates the process from Step 3.
- **KSeF Rejects the Invoice (Step 7):**
  - The KSeF platform finds a logical or business rule error that the add-on's initial validation missed.
  - KSeF sends back an error message with a rejection code.
  - The KGT Add-on receives the rejection, updates the ERP invoice status to "Rejected by KSeF," and displays the government-provided error reason to the Seller.
  - The Seller must cancel the original ERP invoice and create a new, corrected one.

- **KSeF Platform is Unavailable (Step 6):**
    - The KGT Add-on attempts to connect to KSeF but receives a timeout or an "unavailable" status.
    - The add-on places the invoice in a "Pending Transmission" queue.
    - It automatically retries sending the invoice at configured intervals until the KSeF platform is back online and the transmission is successful. The ERP status is updated to "Pending."

6. Postconditions

- **On Success:** The invoice is legally issued and stored in the KSeF platform. The ERP system contains a permanent record of the KSeF ID and the "Accepted" status, providing a complete audit trail. The Buyer is legally notified and can access the invoice.
- **On Failure:** The invoice is not legally issued. The ERP system reflects a "Rejected" or "Error" status, and the Seller is required to take corrective action.

7. Benefits of the KGT Add-on Approach

- **Seamless Integration:** Users do not need to leave their familiar ERP environment to handle e-invoicing.
- **Pre-submission Validation:** Reduces the rate of rejections from the official KSeF platform by catching errors early.
- **Automation:** Automates the XML conversion, transmission, and status update processes, saving significant manual effort and reducing human error.
- **Centralized Monitoring:** Provides a dashboard or log within the ERP to monitor the status of all invoices sent to KSeF.
- **Simplified Compliance:** Shields the end-user from the technical complexities of API communication, authentication, and changing XML schema requirements.