



Techint Engineering & Construction Case Study

Digital Signatures for SAP ERP Forms

Products used: dbx LiveForms™ (Enterprise Edition)

BACKGROUND

Techint E & C, a global construction and engineering company with over 75 years in business, generates US\$3B in annual sales and employs over 20,000 people. The company uses SAP as its ERP system to manage operations, including dispatching materials and supplies to work crews from thousands of warehouses across the country. These warehouses perform tens of thousands of dispatch workflows daily, each culminating with forms generated by the SAP system, which are printed and handed to crew members for signing to receive their supplies. As transaction volumes continue to grow, managing these paper forms has become a significant operational challenge. Consequently, a decision was made to digitize all forms, ultimately aiming to eliminate paper use entirely.

BUSINESS CHALLENGES

- The sheer volume of dispatch transactions made the logistics and storage requirements for physical paper forms untenable.
- In addition to handling massive amounts of paper, there were significant additional burdens and costs related to managing the printer network for form printing and its toner supplies.

- Managing the creation and physical storage of these forms required dedicated personnel and logistics for moving paper from warehouses to storage locations.
- As a result of these challenges, the costs associated with continuing to operate the warehouses using paper forms were estimated to be in the hundreds of thousands of dollars annually.
- Based on these challenges, the main requirements for the desired electronic forms solution were defined:
 - ↳ The solution must capture compliant digital signatures from any device, including dedicated secure signature pads manufactured by TOPAZ.
 - ↳ It must seamlessly integrate with SAP ERP using APIs.
 - ↳ It must include an easy-to-use forms designer with features that support a wide range of use cases.
 - ↳ It must include a workflow engine to support complex workflows.

SUMMARY OF THE SOLUTION

After evaluating the requirements and objectives, the customer selected dbx LiveForms™ (Enterprise Edition). The deployment began with a small-scale pilot, hosted in the dbx Cloud, where drafts of the paper SAP forms were digitally replicated, the dispatch workflow was modelled, and the integration capabilities were tested using mock API service endpoints. The pilot ran successfully for a few weeks, and the project was subsequently greenlighted by the client's executive team.

Following the pilot, dbx LiveForms™ was deployed on-premise, self-hosted in the client's own secure private cloud. The production SAP dispatch forms were quickly replicated using LiveForms' intuitive drag-and-drop forms designer, and rules were added to refine the behavior of the forms to ensure the best end-user experience.

One of the main reasons the client selected dbx LiveForms™ was the ease with which the solution integrates with SAP's ERP using web development standards and RESTful API services. This allowed LiveForms to be seamlessly integrated into the client's SAP dispatch workflow so that digital forms could be invoked from within SAP's UI. Additionally, a bidirectional integration point was quickly deployed, supporting ODATA (POST/GET) actions to automatically pass information between LiveForms and SAP ERP in real-time during the signature workflow.

Finally, support for the TOPAZ secure signature capture devices was enabled, allowing the client to choose between capturing signatures using LiveForms' own signature capture control or the dedicated TOPAZ device, depending on the dispatch workflow required.

EXPECTED BENEFITS

With dbx LiveForms™ (Enterprise Edition), Techint expects to completely eliminate paper and all associated overhead from the SAP warehouse dispatch workflow. As a result, they estimate net cost savings from implementing the solution to be in the hundreds of thousands of dollars, with an expected ROI achievable within a few weeks post-implementation.

ACHIEVED BENEFITS

Key benefits achieved by implementing dbx LiveForms™:

- Elimination of paper for SAP dispatch workflow forms.
- Streamlined SAP dispatch workflow and digital signature capture, reducing the time required to release materials to work crews.
- Improved document management with completed digital forms stored electronically within SAP.
- Extremely fast ROI on the solution investment.

Additionally, due to the powerful features and flexibility of the solution, the client plans to expand the use of dbx LiveForms™ by adding additional electronic form workflows to support the warehouses, as well as other areas of operation, including route management and field project inspections.

DEPLOYED SOLUTION FEATURE SET

- dbx LiveForms™ (Enterprise Edition) with drag-and-drop forms designer, workflow, and business rules engine.
- RESTful API integration with SAP ERP R3 7.4.
- Support for TOPAZ secure signature capture devices.
- Forms design and solution support from the dbx expert team.

“Due to the powerful features and seamless integration between db's LiveForms™ and the SAP ERP, this solution greatly enhances and could even replace the legacy forms used in SAP workflows today (Smartform or SAPScript)”

~ Andres A., Support and Development Coordinator, Techint E & C

