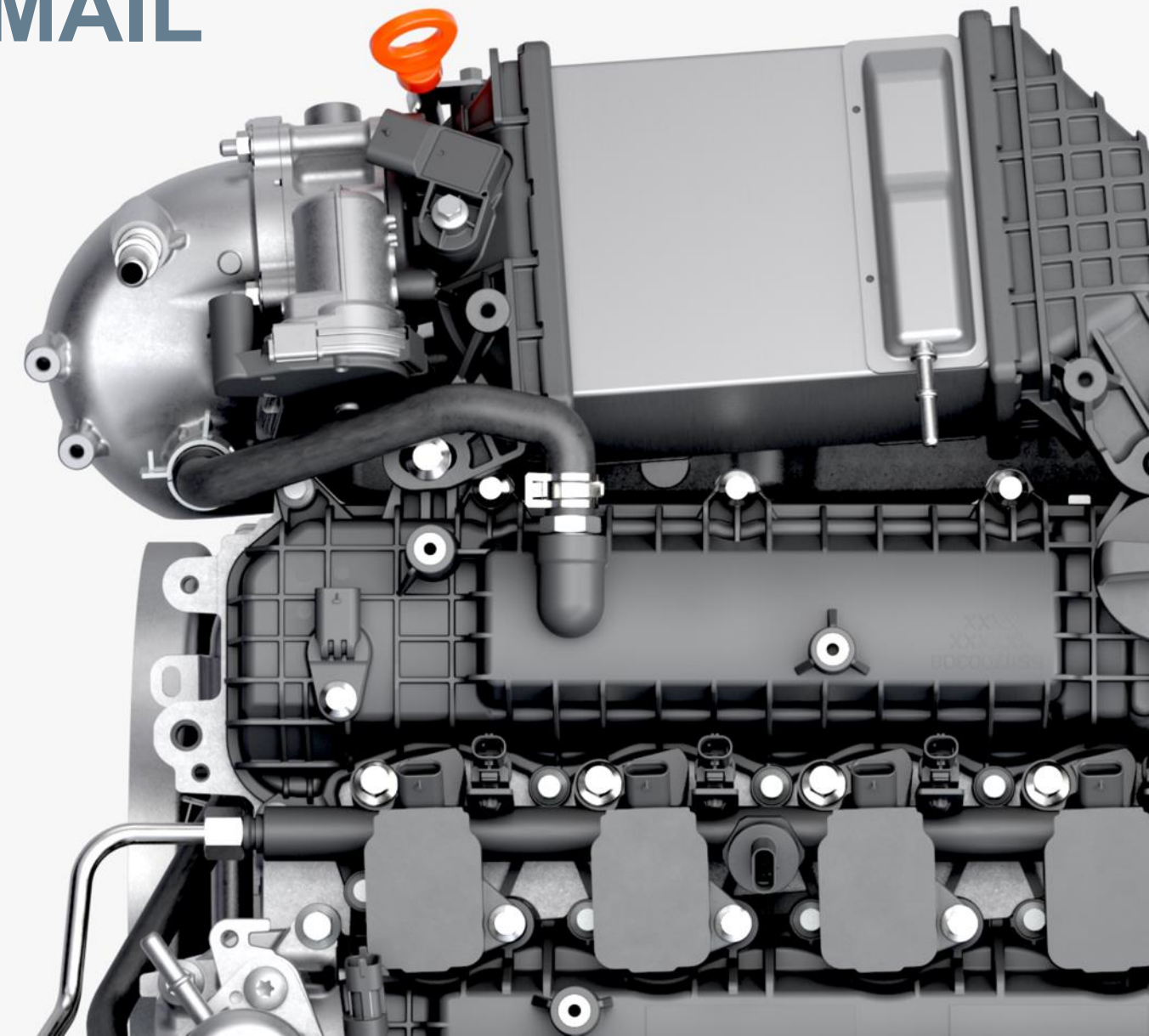
HOW TO CREATE SALESORDER AS PDF AND SEND BY EMAIL

SAPSA IMPULS 2025-11-26

CLEAN CORE APPROVED



HORSE

About me

Technical SAP generalist/specialist.

Been in SAP technology domain since 1998.

Strong believer in use of Clean(er) Core.

In favor of continuous improvements.

Likes automation of boring tasks.

Have proven that recurrent SAP upgrades is a way of getting to stable system operations.

Focus Group Leader - RISE

DISCLAIMER

This is an awareness session — not professional advice, not a ready-made solution, and not the magical fix your architecture nightmares deserve.

Think of it as a gentle push (or a light shove) toward meaningful discussions about clean core architecture… before the technical debt comes alive and eats us all.

Requirement – User Story

As a **sales representative**, I want the system to **automatically send an email to the business partner containing a link to, or an embedded PDF of, the newly created sales order**, so that the partner **receives immediate and accurate order documentation without manual effort**.

Acceptance Criteria

When a sales order is successfully created, an email is automatically generated and sent to the associated business partner.

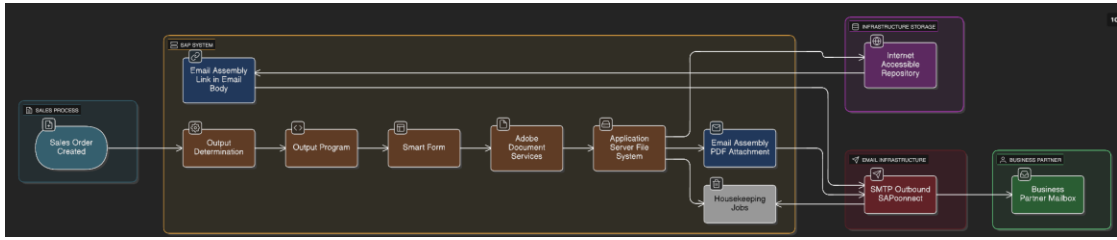
The email includes:

- A secure link to view the sales order or An attached PDF version of the sales order.
- The email is sent using the business partner's primary email address on file.
- The email content includes the sales order number and basic details.

Classic solution – ECC Style development

Using Output Determination (NACE) in Sales we trigger an email output when a sales order is created.

We just need to create:



- An output program that will generate a PDF of the sales order.
- A Smartform.
- And we need to ensure there is an Adobe Document Server active that can generate the PDF
- We also need to have SCOT configured to send emails externally.

After generation of the PDF we need to fetch the PDF file from the application server and generate the email body so we can send it to the business partner using SAP-connect (SCOT) as a PDF attachment.

If we want to distribute a link, we need to figure out how to store the file in an internet accessible area and then attach the link in the mail instead.

Note: We also need to consider housekeeping of the generated PDFs which occupy file system storage in SAP system + clean up of sent emails.

Clean Core Solution using events and APIs

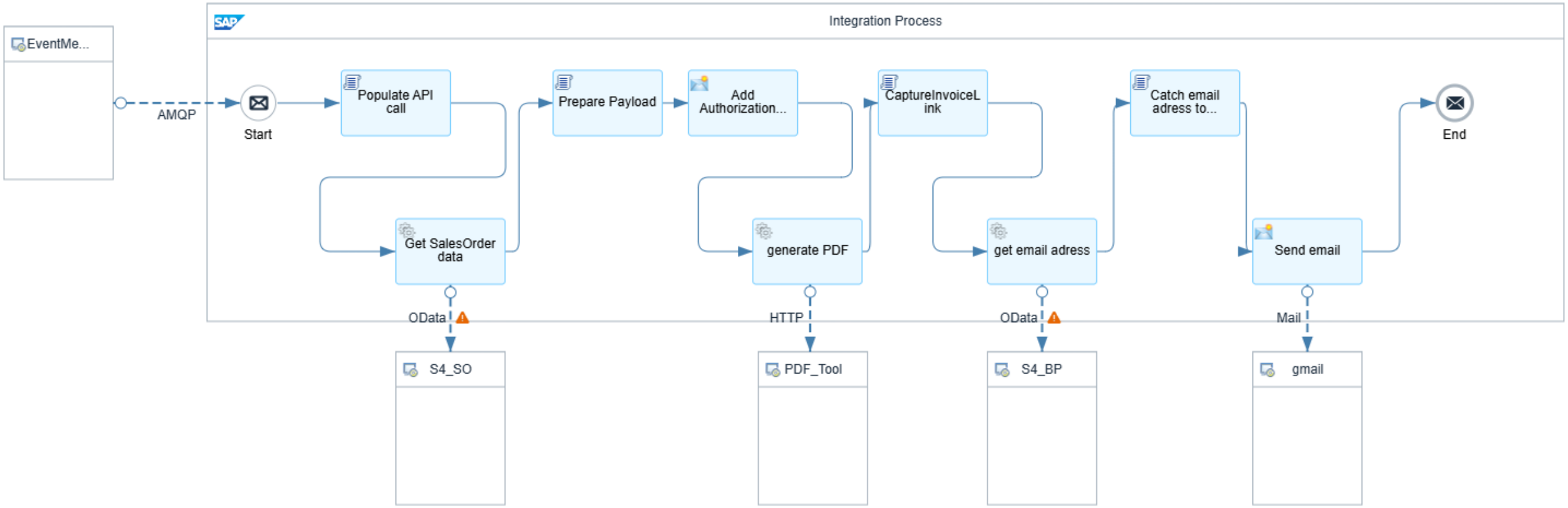
Configure event to be sent to event mesh

Create iflow in Integration suite to:

- Fetch event from SAP Event Mesh
- Call Odata to get sales order details
- Call PDF generation service
- Call Odata to get customer details (email)
- Call mail API or use IMAP connector to send email.

- This solution requires some groovy script code in Integration suite to modify the payloads but no ABAP resource required.

Clean Core Solution using events and APIs - happy flow



LIVE DEMO

Event and APIs used in demo

S/4HANA 2023 FPS02

- Event SalesOrder-Created - Overview | Sales Order Events | SAP Business Accelerator Hub
- API_SALES_ORDER_SRV - SAP Business Accelerator Hub
- API_BUSINESS_PARTNER - SAP Business Accelerator Hub

PDF Generator

- PDF Generator API | Automate PDF document creation - free sandbox with 2000 documents

Find the iflow at github:

fborlie-aby/sapsa-demo-2025-11-26

Side-by-side comparison of pros and cons

Dimension	ECC 6.0 Classic (NAST + ABAP)	Clean Core (Events + APIs + Integration Suite)
Trigger	NAST / Output determination (ZSOE)	Business event (SalesOrder.Created) via Event Mesh
Where main logic lives	In ECC (Z-print program, Smart Form)	In Integration Suite (iFlows, mappings, mail adapter)
Data access	Direct table reads (VBAK, VBPA, ADR6)	Standard APIs (Sales Order, Business Partner)
PDF generation	Smart Form / SAPscript in ECC	Any external API enabled, or S/4 form API or PDF in BTP (HTML → PDF)
Email sending	SCOT/SMTP from ECC	Mail adapter in Integration Suite, external SMTP or API based
Attachments vs links	Mostly PDF attachment; link is custom text in ABAP	Flexible: link to Fiori/portal, PDF, or both
Monitoring	NAST logs + SOST	Integration Suite message monitor, alerting, log analytics
Change impact on core	High – changes require ABAP transport, testing in ECC	Low – mostly in iFlows; S/4 stays standard
Fit with “clean core”	Weak – custom Z objects in core	Strong – core is only publisher + API provider
Multi-channel (SMS, API…)	Hard – new dev per channel in ECC	Easier – reuse event, new iFlows per channel
Migration path	Stays in ECC, must be re-thought when going to S/4/HANA	Already aligned with S/4 + BTP target architecture

Cost Comparison: Classic ABAP vs Clean Core

Classic ABAP (NACE + Smart Forms + Z-Code in Core)

Pros (Lower Initial Cost):

No new licenses; uses existing system.
Quick to implement with internal ABAP/SD skills.

Costs & Technical Debt:

Ongoing maintenance in core (Z-programs, forms, table reads).
Higher regression testing effort for every ECC/S/4 upgrade.
SPAU/SPDD conflicts; obsolete APIs; NAST framework limitations.
Each similar enhancement adds more core complexity (“multiply-by-N debt”).
Future migration to S/4 requires rework or redevelopment.

Clean Core (Events + APIs + SAP Integration Suite)

Pros (Strategic Architecture):

No Z-code in core; S/4 remains standard.
Integration logic centralized in BTP; reusable for other processes.
Easier evolution to multi-channel communication (email, API, SMS, partners).

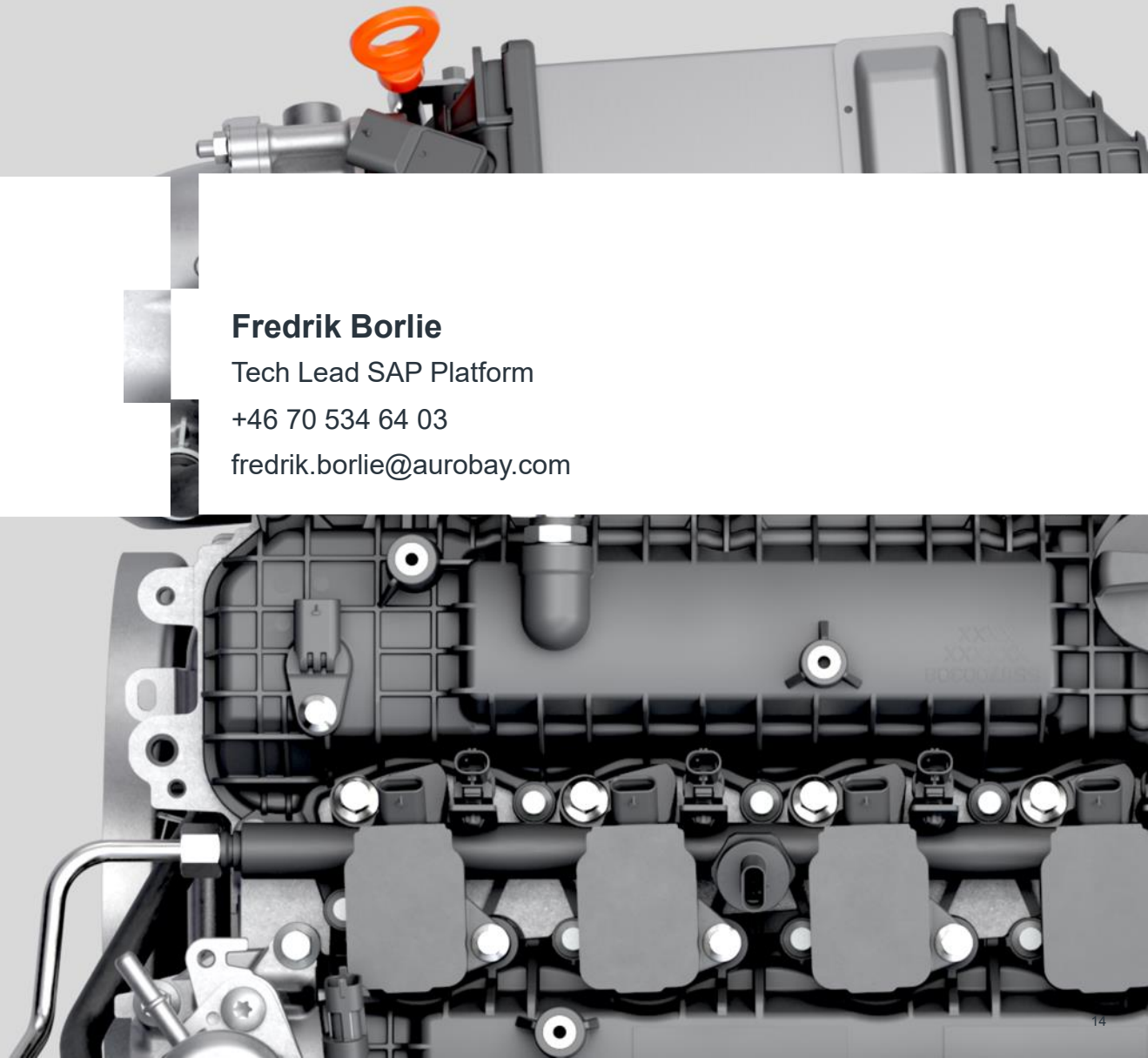
Costs:

Integration Suite subscription + Event Mesh (platform cost).
Initial setup: connectivity, events, iFlows, PDF generation.
Need BTP/Integration Suite skills.

Total Cost Profile:
Low now → High later (upgrade debt accumulates).

Total Cost Profile:
Higher now → Much lower later (upgrade-safe & scalable).


IT IS BETTER WITH A
CLEAN
CORE
THAN A PURE HELL



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