PROJECT DOCUMENTATION

SAP Ticket System

How requests to SAP S/4HANA became guided tickets: eight questions, a live check against SAP, and one thread until the record exists.

DURATION	QUESTIONS	MODULES	STATUS
3 months	8	17	Live, v1.0
Discovery to support	The rest is derived	Three roles	Since Oct 2026

CLIENT Confidential	REFERENCE PD-Ektra_0002	DURATION 3 months
CATEGORY Custom Solutions	VERSION 1.0	PREPARED BY Ektra Tech

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01 OVERVIEW

The project at a glance

The SAP Ticket System takes every request a company makes to its SAP S/4HANA: a new material, customer or supplier, a change to one, an error to fix or something new to build, and carries it from the first question to the record in SAP.

CLIENT	KIND OF PROJECT	PLATFORM	DURATION
Confidential	**In-house web system**	**Web app, hosted**	**3 months**
DELIVERED BY	STATUS	USERS	LIVE LINK
Ektra Tech	**Live, version 1.0**	**SAP users, warehouse, SAP team**	**Private, client domain**

ENDPOINTS
106
One API under /api/v1

RULES
V1 to V7
Plus warnings W1 to W7

TICKET KINDS
5
Material, customer, supplier, error, request

02 THE CONSTRAINT

What held the client back

Asking SAP for a new material or customer needed knowledge most requesters did not have. Requests arrived incomplete, duplicates slipped in, and nobody could see where a request stood.

- **Too many fields:** a material master needs dozens of SAP fields; a requester knows the thing they need, not the field names.
- **Duplicates:** a material already in SAP under a slightly different description was created again.
- **No status:** a request lived in emails and chats; the requester, the warehouse and the SAP team each held a different picture.
- **Templates by hand:** the SAP Migration Cockpit files were filled manually for every batch of new records.

03 HOW WE FOUND IT

Discovery

We started from the material creation specification and the real SAP exports, not from a wish list.

01 **Read the specification.** The material creation procedure, field by field, and which fields a requester can really answer.

02 **Reduced it to eight questions.** Everything else is derived by rules V1 to V7, with warnings W1 to W7 where a choice looks odd.

03 **Loaded what SAP already holds.** The client's SAP exports (materials, customers, suppliers, profit centres, units, material types) became the live check and the reference lists.

04 **Named the stages.** Warehouse adds the storage data, the SAP team creates the record and records its number, the administrator closes.

One rules module, two copies: the business rules live in one pure module on the server, copied byte for byte to the browser, so the wizard and the API can never disagree. A test fails if they drift.

04 THE SOLUTION

What Ektra built

A guided ticket system in SAP colours: a four-step request wizard with a live check against SAP, stage buttons for the people who work the request, and one thread until the administrator closes it.

- Master data requests: a new material, customer or supplier, or a change to one already in SAP, with the mandatory fields in one wizard and a live search of what SAP holds, in Arabic and English.
- Support tickets: an SAP error (at least one screenshot) or a service request for something new (a report, a field, a form, an authorization), taken, asked about and resolved by the SAP team.
- SAP templates: new records fill the SAP Migration Cockpit files, one numbered version at a time, every version kept and downloadable alone or all in one.
- User guidance: every topic in five sections and a screens tab with numbered rings over the controls; a Start button opens the request from the guide.
- Library and training: folders of manuals, procedures and videos of any size, and a training calendar with "I will join" and three reminders before each session.
- Analysis: the performance of a month, a quarter or two dates per person, as a PDF with a page per person and as Excel.

One shared ticket sequence: every ticket takes the next number of one sequence, so a code says nothing about its kind and numbers never collide or repeat.

The stack

SERVER **Node.js 20, Express 4**	DATABASE **PostgreSQL**	WEB APP **React 18, Vite**	LIVE UPDATES **Socket.io across workers**
REPORTS **Headless Chrome PDF, Excel**	DESIGN **Glass shell, light and dark**	HOSTING **Client domain, Nginx, PM2**	ACCESS **Three roles, module matrix**

05 MODULES AND FEATURES

What the system holds

Seventeen modules in five groups, three roles, one permission matrix.

MODULE	WHAT IT DOES	STATUS
M01 Home	Your queue, the counts of both ticket families, the latest tickets, how a ticket moves, New request	Live
M02 Master data requests	Materials, customers and suppliers, new or changed: open, follow, export to Excel	Live
M03 Support tickets	SAP errors and service requests: report, take, ask, resolve, export	Live
M04 Stage modules	Warehouse, SAP creation and SAP support: the grants behind the stage buttons	Live
M05 SAP templates	The Migration Cockpit files per version: download, Done in SAP, record SAP numbers, history	Live

MODULE	WHAT IT DOES	STATUS
M06 SAP master data	What SAP already holds, searchable in Arabic and English, export to Excel	Live
M07 User guidance	The manual per topic: what it is for, step by step, the fields, a worked example, good to know, screens	Live
M08 Library	Folders inside folders, documents of any type and size, progress bars on every transfer	Live
M09 Training	Sessions on a calendar, requests, "I will join", reminders on the bell and by mail	Live
M10 Reference data	Every list the forms use: kinds, currencies, error areas, editable fields	Live
M11 Analysis	Opened, done, returned, rejected, open by stage and kind, per person; PDF and Excel	Live
M12 Users, roles, log, settings	Accounts, the permission matrix, every change and sign-in, the days per stage and the reminder offsets	Live

Features worth a line

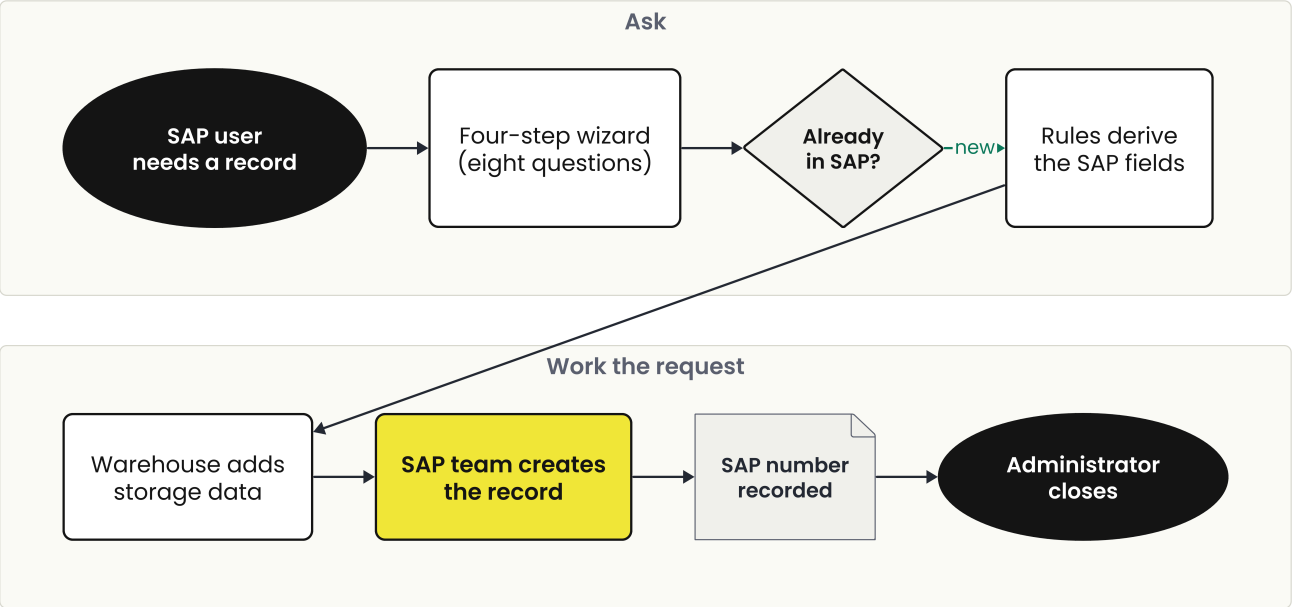
- Live check "Already in SAP?" as the requester types
- One ticket thread until the administrator closes it
- Every list has an Export Excel button
- Global search with a keyboard shortcut
- Rules V1 to V7 derive the SAP fields from eight answers
- Ticket codes from one shared sequence
- Light and dark mode, usable on a phone
- Numbered rings over the controls in every guide

06 HOW IT WORKS

The flow, start to end

A master data request moves through three stages; a support ticket through one. Every move notifies the people whose turn it is.

A MASTER DATA REQUEST, FROM QUESTION TO SAP NUMBER



An error or a service request goes straight to SAP support: taken, asked about if needed, resolved, then closed.

01 **Ask.** The requester answers the four-step wizard; the live check shows close matches already in SAP and the requester confirms the item is new.

02 **Check.** The system derives the SAP fields, runs the rules and the warnings, and looks for duplicates among open requests.

03 **Warehouse.** For a new material, the warehouse adds the storage type and bin where the material type allows them.

04 **Create in SAP.** The SAP team creates the record, by copy buttons or by the template version, and records the SAP number.

05 **Close.** The administrator closes the ticket; the record joins the SAP master data list for the next live check.

07 PROJECT STEPS

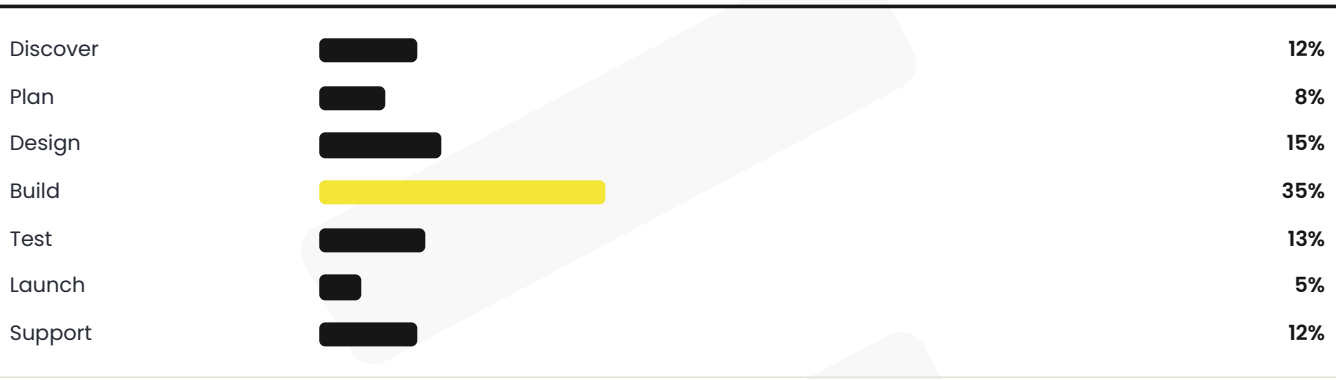
3 months, seven phases

Every Ektra project runs the same seven phases; here is what each one did for SAP Ticket System and the share of the 3 months it took.

PHASE	WHAT WAS DONE	SHARE	TIME
01 Discover	Read the material creation specification Loaded the SAP exports behind the live check	12%	2 weeks
02 Plan	Ticket kinds and stages, one shared sequence The Migration Cockpit mapping per template	8%	1 week
03 Design	The four-step wizard with a help rail The glass shell in SAP colours, light and dark	15%	2 weeks

PHASE	WHAT WAS DONE	SHARE	TIME
04 Build	Wizard, rules engine, stages, templates, library, training Analysis reports as PDF and Excel	35%	4 weeks
05 Test	217 live checks across every module and role 92 browser checks, two contexts, no reload	13%	2 weeks
06 Launch	Deployed to the client domain SAP master data imported for the live check	5%	1 week
07 Support	A redesign round answered note by note Reference lists aligned with new SAP exports	12%	1 week

Share of the duration

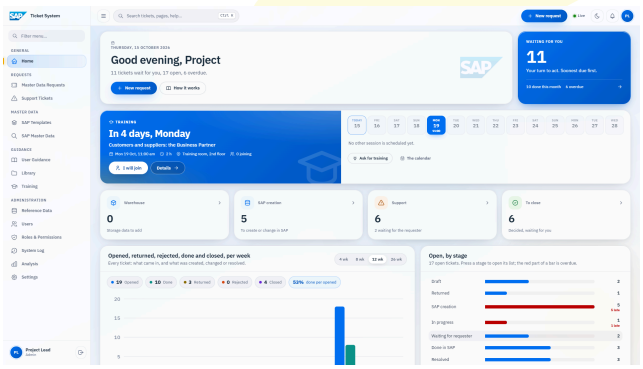


08 SCREENS

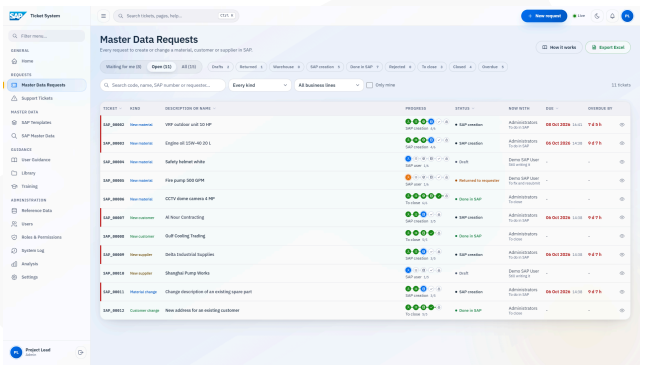
Real screens

Real screens of the delivered system, with demo data.

SAP TICKET SYSTEM, AS DELIVERED

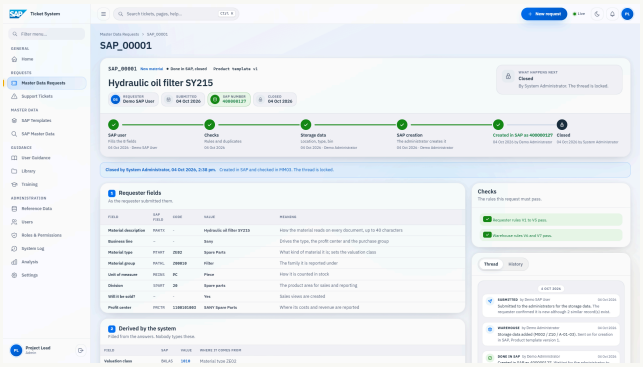


Home: the queue, the four stages, the next training session, the week in numbers

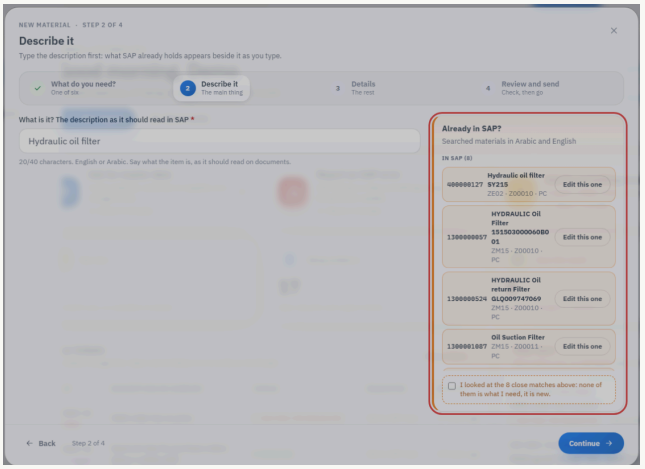


Master data requests with their stage filters and Excel export

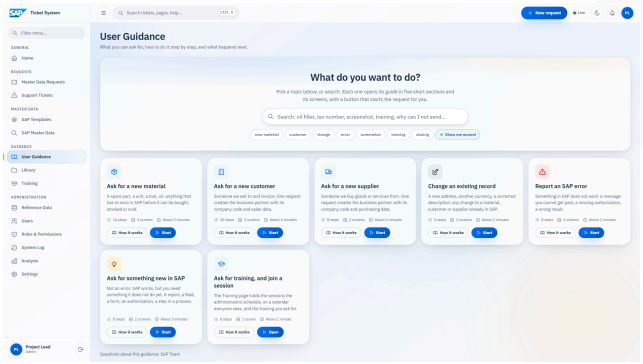
SAP TICKET SYSTEM, AS DELIVERED



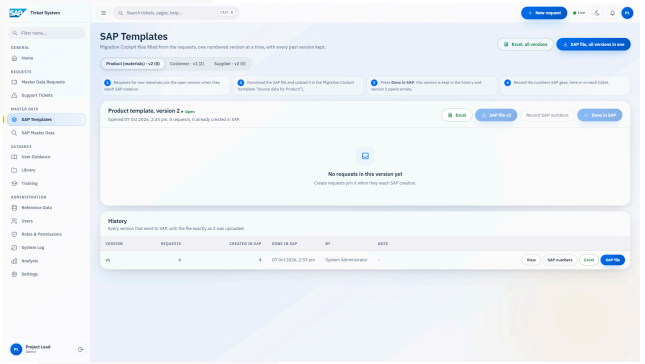
A ticket: the stage bar, the requester's fields, the checks, the thread



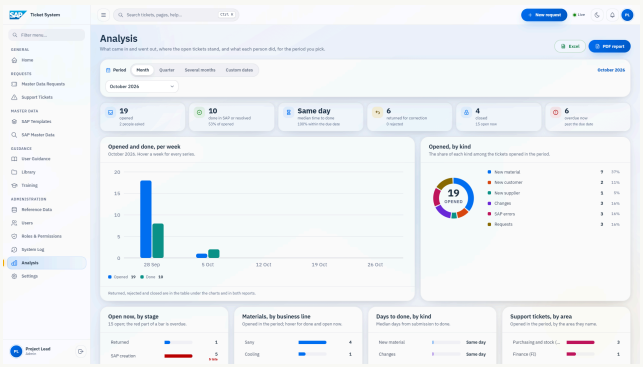
Step 2 of the wizard: the live check shows what SAP already holds



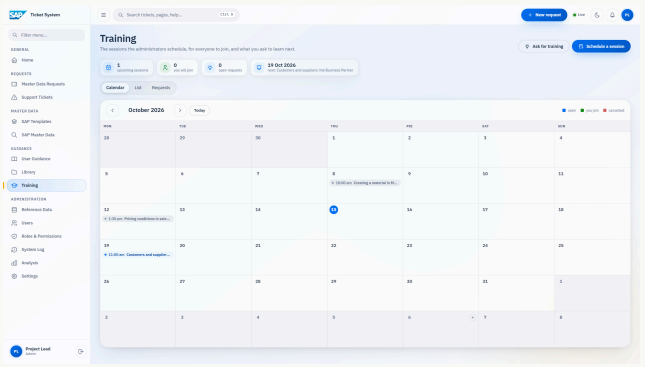
User guidance: one card per topic with a Start button



SAP templates: the Migration Cockpit file per version, with its history

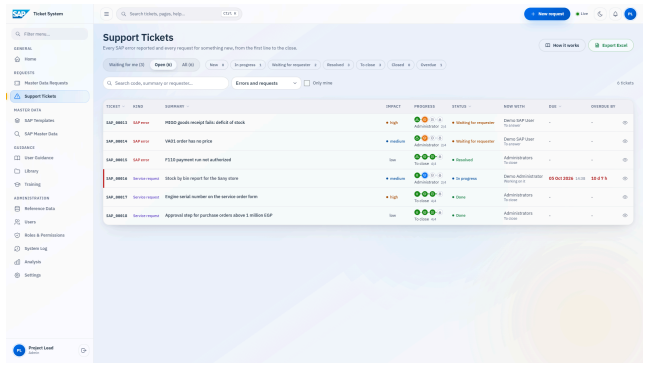


Analysis: opened, done, returned and rejected, by stage and kind

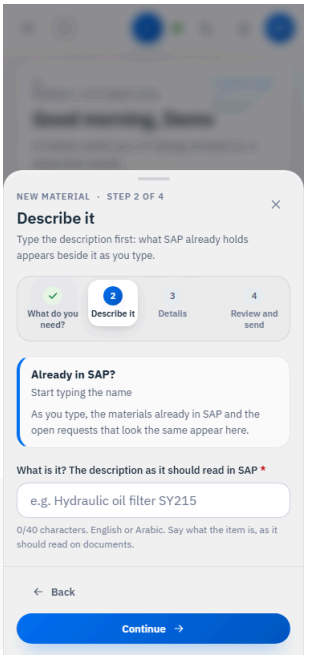


Training: the sessions calendar

SAP TICKET SYSTEM, AS DELIVERED



Support tickets: errors and service requests



The wizard on a phone

09 DELIVERY TIMELINE

13 weeks end to end

The 3 months, phase by phase, from the first conversation to the first weeks in use.

WEEKS 1 TO 2 **Discover**
Eight questions, the rules, the stages and the three roles agreed.

WEEK 3 **Plan**
Data model, API and release plan.

WEEKS 4 TO 5 **Design**
Screens a normal user can follow, on a phone too.

WEEKS 6 TO 9 **Build**
The system, module by module.

WEEKS 10 TO 11 **Test**
Every path proven on the running system.

WEEK 12 **Launch: go-live**
Requests move through the system from day one.

WEEK 13 **Support**
Library sub folders, training reminders, warehouse role, analysis.

10 RESULTS

What changed

Requests to SAP now arrive complete, checked and visible to everyone who works them.

- Eight answers replace dozens of SAP fields; the rules derive the rest and warn about odd choices.
- Close matches already in SAP appear as the requester types, before a duplicate can be asked for.
- Every request has one thread, one status and one due date; whoever's turn it is gets notified.
- The Migration Cockpit files are filled by the system, one numbered version at a time.
- The team's performance is a report away: per month, per quarter, per person.

> Turnaround times are not published because the baseline before the system was not measured.

11 SUPPORT AND NEXT STEPS

After launch

Live on the client's domain since October 2026, with a release procedure and a redesign round behind it.

- **Releases:** one command from the repository; two workers behind a process manager; every version tagged.
- **SAP alignment:** the reference lists are re-audited against new SAP exports before any list changes.
- **Guidance:** the screens in the guide are re-photographed by a script after any wizard change, never redrawn by hand.
- **Tests:** the rules engine, a live workflow scenario and a CRUD gate across every module and role run before a release.

Next steps

- Emailed codes at sign-in once the client's mail relay is connected
- More ticket kinds as the SAP team asks for them

End of document
Version 1.0. A guided ticket system for your SAP users: info@ektra-eg.com.

REFERENCE
PD-EKTRA_0002