BUTTERFLY

WHITE PAPER · BUSINESS ORCHESTRATION AND AUTOMATION

Butterfly BOAT Platform

The layer that pays off enterprise time debt.

Business orchestration that manages processes, systems, decisions and automations on one platform: on top of existing systems or, when needed, in their place, under the same permissions and audit trail.

30 min → 3 s
time of a heavy report query

~55,000
assets on one platform

12,287
payment lines passed through a dual e-signature flow

9
enterprise systems in one orchestration layer

EXECUTIVE SUMMARY

Process orchestration at the center, every capability around it.

Butterfly is a business orchestration and automation (BOAT) platform that defines and runs how work moves from start to finish. Integration, automation, application development, data and AI work as steps of the same process.

Most organizations already have ERP, CRM, cloud, data and AI infrastructure. Delay builds up between these systems: between idea and application, data and decision, decision and action. In this document we call this build-up **enterprise time debt** and explain the architecture Butterfly uses to shorten these distances.

Butterfly can be installed on top of existing systems and manage the work between them; when needed, it replaces work tracking, asset maintenance or approval systems. It is deployed on-premise, in a private cloud, in Butterfly cloud or as a hybrid, and it can also run in closed environments with no internet connection.

IN THIS DOCUMENT

- Enterprise time debt: four distances and how to measure them
- The BOAT category and Butterfly's answer in each capability area
- Architecture: orchestration in the middle, existing systems below, governance across all layers
- Controlled AI: permission limits, human approval, audit trail, local model option
- Four anonymized field cases and what was left unchanged in each
- Way of working, deployment models, certificates and frequently asked questions

30 min → 3 s
rail system operator, report query

~55,000
commercial vehicle manufacturer, assets

12,287
finance operations, payment lines with dual e-signature

9
mobile operator, integrated enterprise systems

PRINCIPLE

You do not have to replace your systems. If needed, we will.

ENTERPRISE TIME DEBT

The technology is there. The time in between keeps piling up.

Enterprise time debt is the accumulated cost of responding late to change. Pending work, ongoing manual operations, delayed decisions and postponed opportunities are the items of this debt.

The path a need takes inside an organization is usually the same. By the time the solution is ready, the need, the customer and the competition may have changed.

Request | Analysis | IT backlog | Resources | Development | Integration | Test | **Live**

Four distances

Between idea and application

A new form, approval step or screen joins the queue as a software project. In Butterfly, objects, forms and screens are built through configuration; changing a rule is a setting.

Between data and decision

Data sits in different systems and reports are compiled by hand. Butterfly combines different sources in a single reporting layer; business units build their own dashboards.

Between decision and action

Approvals stay in e-mail, handovers in Excel. In Butterfly, the owner, order, SLA and approval of every step are defined in the process; systems and robots step in at the right moment.

Between change and adaptation

A new regulation or AI expectation affects the whole chain. Because rules live in data rather than code, the process is updated without being rewritten.

Measuring the distances

MEASURE	DISTANCE	ANSWER IN BUTTERFLY
Time-to-Application	From idea to a working application	Enterprise application development
Time-to-Automation	From manual operations to automation	Automation and RPA
Time-to-Integration	From scattered systems to a connected workflow	Integration and connectivity
Time-to-Decision	From data to decision	Data and analytics
Time-to-Action	From decision to action	Process orchestration, AI steps
TIME-TO-CHANGE	**From the need for change to a working solution**	**Where the five measures meet**

CATEGORY

BOAT: Business Orchestration and Automation Technologies

Gartner defined the software category that brings process management, integration, robotic automation, low-code development and AI together on one platform as Business Orchestration and Automation Technologies (BOAT).

The aim of the category is to gather separately built automations into a single managed process. Low-code development is a way of building applications; RPA performs repetitive tasks with a software robot. BOAT manages the application, the robot, the integration and the AI as tracked steps of the same process: when the robot runs, who receives the work if it fails and whose approval the result goes to are defined in the process.

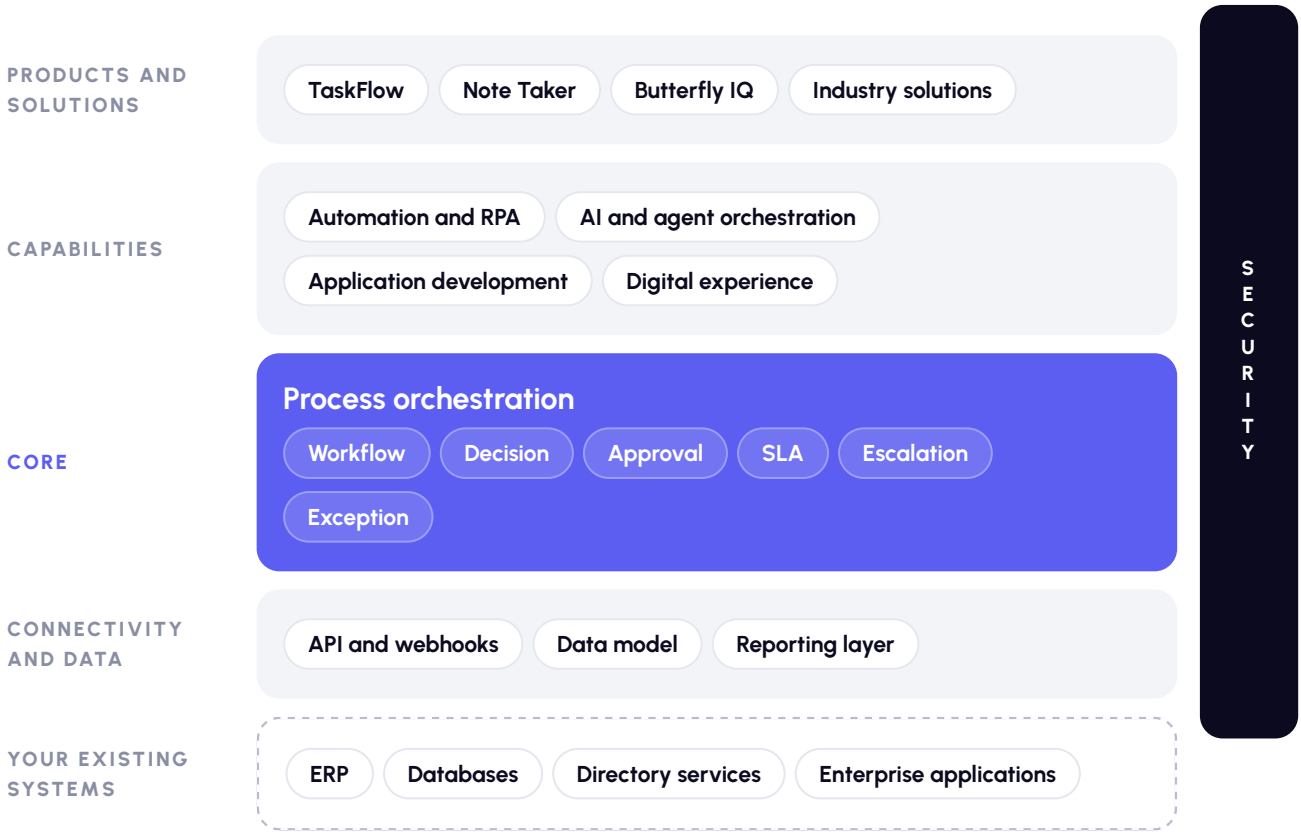
BOAT CAPABILITY	ANSWER IN BUTTERFLY
Workflow Workflow and approval management	**Process orchestration.** Who does what, in which order and with which approval; SLA, escalation and exception rules live in the process. The state machine and workflow engine record every transition.
BPA Business process automation	**Rules in data, not code.** Process steps, approval rules, permissions and forms change through configuration; every change is written to the audit trail.
iPaaS Integration and connectivity	**Integration and connectivity.** Works with ERP, databases, directory services and enterprise applications over REST and webhooks; which data comes from where and where it is written is visible in the process.
RPA Robotic process automation	**Automation and RPA.** Robot tasks are defined and tracked as process steps; failed runs go to an exception flow with a clear owner.
LCAP Low-code application development	**Enterprise application development.** Object, field, form and list screens are built through configuration and extended with Twig, JavaScript and SQL when needed.
AI Agents AI agents	**AI and agent orchestration.** AI tasks are defined steps of the process; at critical steps a recommendation is not applied until an authorized person approves it.
Intelligence Analytics and decision support	**Data and analytics.** Self-service reports, dashboards and anomaly alerts from multiple sources; reports are prepared without depending on the technical team.

The seventh capability of Butterfly Platform, **Digital Experience and Content**, connects enterprise web, mobile and content channels to the same processes: a request from a form goes straight into the process.

ARCHITECTURE

Orchestration in the middle, everything connected to it.

Existing systems sit in the bottom layer. Butterfly reaches them through its connectivity and data layer and manages the work through process orchestration; automation, AI and applications run as steps of this process.



Security and governance cut across all layers.

On top of existing systems or in their place

On top of

Butterfly is installed on top of existing systems and manages the flow, rules and visibility between them. ERP and enterprise applications stay in place; which data comes from which system and where it is written is decided in the process design.

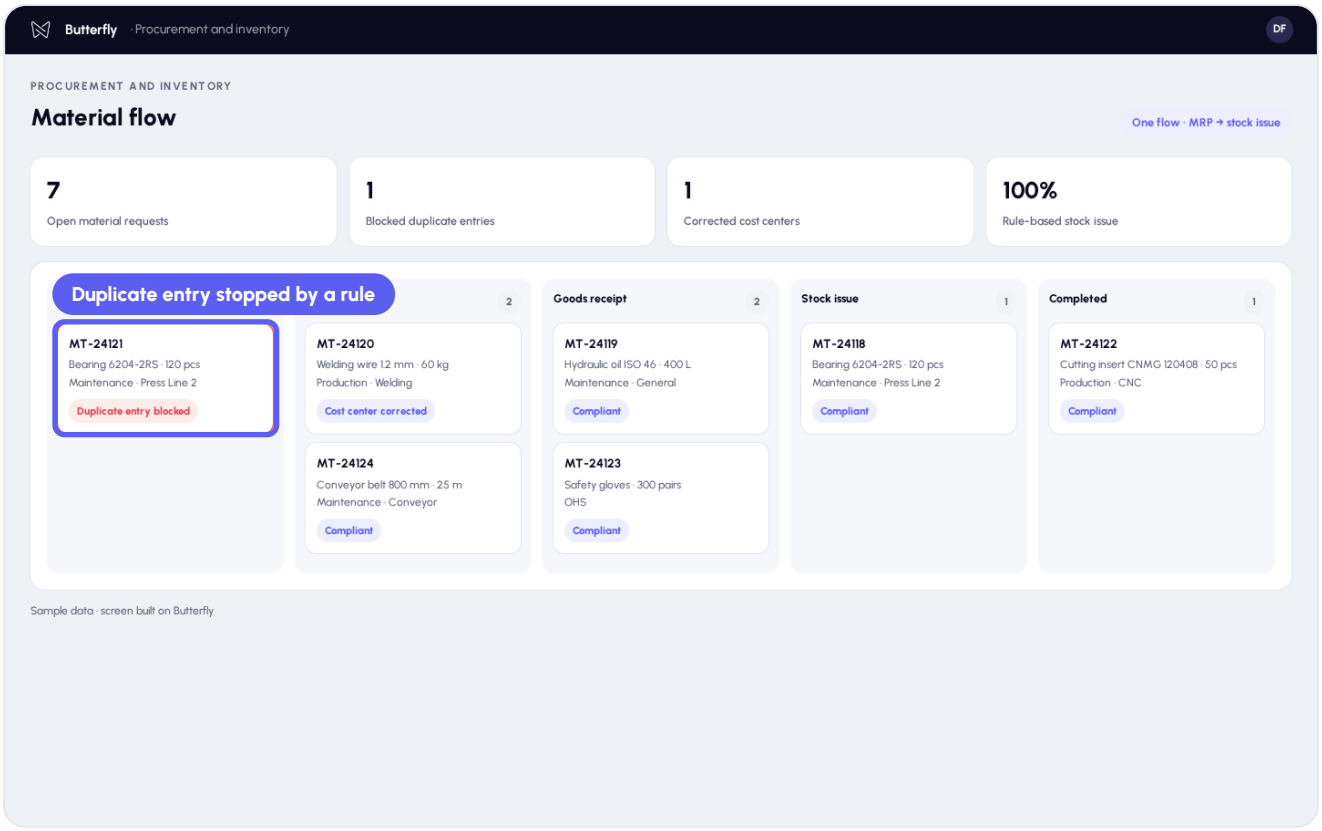
In their place

When needed, it replaces work tracking, asset maintenance or approval systems. Measurement of the current setup drives the migration decision; the migration is measured and gradual.

RULES IN THE PROCESS

Rules live in data, not code.

Process steps, approval rules, permissions and forms change through configuration. Changing an approval threshold is not a software project; it is a setting written to the audit trail.



Material flow. A single flow from MRP recommendation to stock issue. A rule stops a duplicate entry before it reaches approval and corrects the wrong cost center; nobody checks by hand. Sample data, screen built on Butterfly.

Keeps the rhythm

Systems, robots, AI and people step in at the right moment, in the right order.

Protects the work

Every step runs under permissions and an audit trail; critical decisions go through approval.

Configuration in git

The whole configuration is pulled into a git repository as files with the command line tool; the team works with its own development tools.

CONTROLLED AI

AI is a defined step of the process.

In Butterfly, AI does not work as a separate chat tool but as a process component with a defined task and permissions. It reads the process, prepares the decision and starts the action; which decisions go through human approval is written in the process.

Permission limits

An agent works only with the data and operations defined for its role. The data it can access and the operations it can perform are restricted.

Human approval

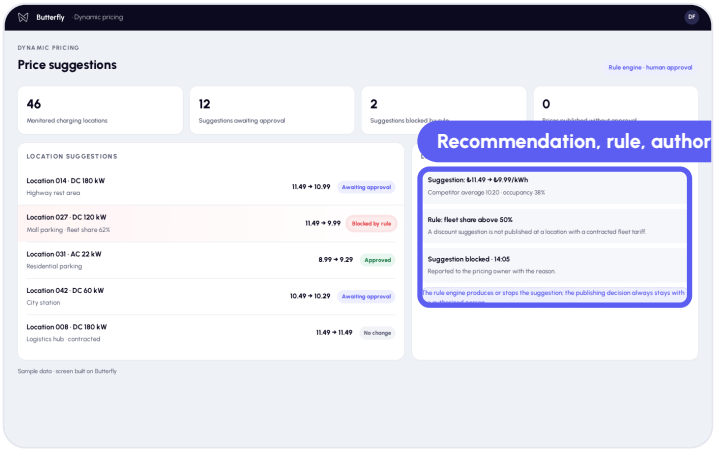
At critical steps a recommendation is not applied until an authorized person approves it. Routine work is handed to the agent; exceptions and decisions stay with people.

Audit trail

Every recommendation, operation and approval is recorded with who, when and on what grounds.

Local model option

The organization decides at deployment which model is used and where data is processed; in an on-premise deployment data stays within the organization.



Price recommendations. A recommendation is produced; a rule can stop it with a stated reason; the publishing decision always rests with the authorized person. AI steps work under the same control model. Sample data, screen built on Butterfly.

FROM THE FIELD

- In the IT operations of a telecom operator, AI agents analyze incident records and prepare likely root causes and suggested fixes. The decision to apply them stays with the expert team.
- At a bank, the meeting assistant runs entirely inside the organization's internal network on the bank's own AI infrastructure; no additional GPU hardware was needed.

FROM THE FIELD

The existing system stayed in place, the time in between got shorter.

Customer names in the cases below are not shared for confidentiality. The figures come from the organizations' records.

TRANSPORT AND LOGISTICS

30 min → 3 s

time of a heavy report query

A rail system operator with about 3,600 employees serving about 3 million journeys a day.

Situation. Journey, field inspection, human resources and maintenance data were spread across the ERP, analysis cubes, different databases and mobile applications. A 27-page daily operations report was compiled by hand every morning.

What was done. Butterfly was installed on top of these systems as a shared data and decision layer. The daily report is produced automatically overnight; field inspection data becomes an indicator on the same day; business units build their own dashboards without writing code.

What we did not change. None of the existing systems was removed. 42 ERP modules kept running.

MANUFACTURING AND INDUSTRY

~55,000

assets managed on one platform

A commercial vehicle manufacturer with about 5,000 employees.

Situation. The asset and maintenance process was locked in an expensive and inflexible system. Breakdown and work requests were disconnected from asset history; periodic and meter-based maintenance depended on individuals keeping track.

What was done. Asset records, maintenance definitions and work order history were moved from the old system. The system produces the 12-month rolling maintenance plan itself; in meter-based maintenance a task opens when a threshold is exceeded and closes on its own if it is no longer needed.

What we did not change. In this case Butterfly replaced the maintenance system; the ERP stayed in place. Material and cost reports come from the ERP.

FROM THE FIELD

No critical step passes without approval, the source system stays intact.

FINANCE OPERATIONS

12,287

payment lines passed through a dual e-signature flow

The finance and human resources operations of a commercial vehicle manufacturer with about 5,000 employees.

Situation. Salary, bonus and supplier payments were managed with an old desktop signing application. There was a risk of an unsigned file reaching the bank, and the approval chain could not be tracked.

What was done. The payment file created in the ERP is split into lines and a PDF instruction is generated from the bank template. The instruction goes through two levels of qualified e-signature; after the second signature it is sent to the bank automatically over a secure channel. Every step is in the audit log.

What we did not change. The payment file is still created in the ERP. The signature is applied on the user's computer; the server has no access to the private key.

TELECOM

9

enterprise systems in one orchestration layer

A mobile operator with about 3,300 employees.

Situation. Operations dashboards were spread across separate reporting tools and different databases. Automation ran on standalone tools with expensive licenses.

What was done. Butterfly runs as a multi-system orchestration layer on the organization's own infrastructure. It is integrated with asset management, risk and compliance, ERP, directory and RPA systems; operations dashboards were brought together on one platform.

What we did not change. Source systems are only read; nothing is written back. The deployment is on-premise.

The manufacturing and finance cases are two separate processes of the same organization: the same platform runs in both areas with the same user, permission and audit trail model.

HOW WE WORK

Start by measuring, expand step by step.

1 **Discovery**

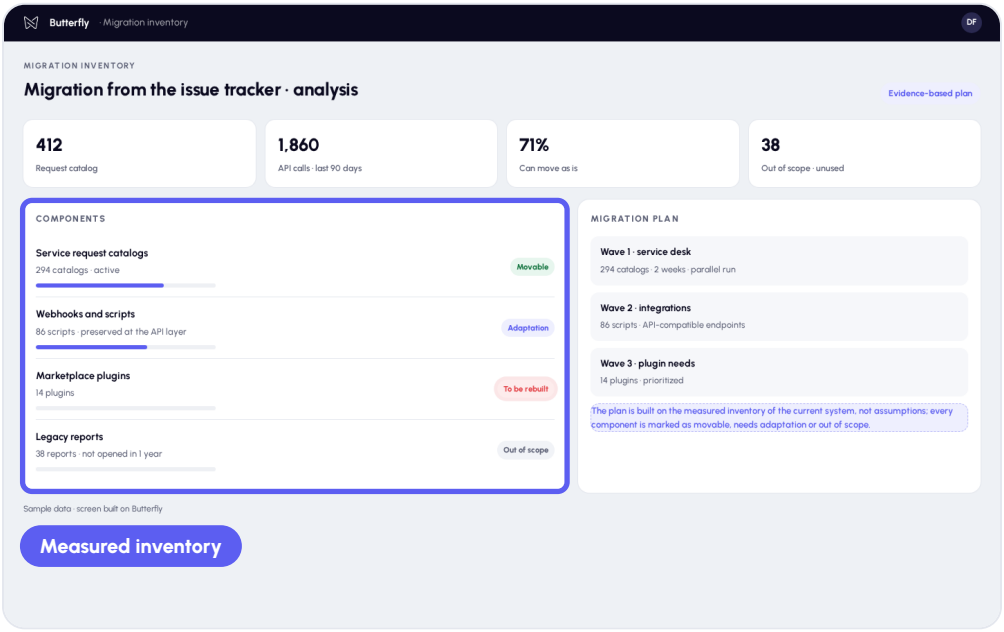
We map your processes and systems together. Most organizations start with the process where work is carried by hand the most and waits for approval the longest.

2 **Pilot**

The priority process is built in Butterfly with the organization's own rules and shown running. At a media agency, sales, content, invoicing and progress payment modules were built and shown in one day. If replacing a system is on the agenda, the plan is based on a measured inventory of the current system.

3 **Scaling**

New processes are added to the same platform. All solutions work with the same user, permission and audit trail model; a record, approval or integration built in one solution is used in the others too.



Migration inventory. Each component is marked as transferable, to be adapted or out of scope; the plan is based on measurement, not assumption. Sample data, screen built on Butterfly.

Deployment models

On-premise

In your own data center; data on the organization's servers.

Private cloud

In a cloud environment dedicated to the organization.

Butterfly cloud

For a quick start; data in İstanbul.

Hybrid

Sensitive data on-premise, other workloads in the cloud.

Air-gapped network

An on-premise deployment can also run on networks closed to the internet.

The same platform and the same security model run in every option; the choice depends on data residency, security policy and operating model.

TRUST AND GOVERNANCE

Who can access what, who changed what, where is the data?

These are the first questions of an enterprise buyer. In Butterfly the answers are ready from the first day of deployment; security and auditability are not features added later but the way the platform works.

Identity

LDAP and Active Directory, single sign-on (SSO), OIDC-compatible enterprise identity providers, two-factor authentication and passwordless sign-in with passkeys.

Permission model

Four layers: role, user group, workspace and service gate. Access is closed by default; rules at field and record level.

Audit trail

Add, change and delete operations; the old and new value of the changed field, the user who made the change and the time of the change.

KVKK and data residency

Processes compliant with KVKK and GDPR. In the cloud, data is in İstanbul; in an on-premise deployment it stays on the organization's own servers.

AI governance

Permission limits, human approval and audit trail apply to AI steps as well.

Certificates

CERTIFICATE	SCOPE AND ISSUING BODY
ISO/IEC 27001	Information security management system. Aprova Belgelendirme (Quattro Cert), accredited by TÜRKAK.
ISO 9001	Quality management system. Aprova Belgelendirme (Quattro Cert), accredited by TÜRKAK.
Technological Product Certificate	Domestic and original technological product: Butterfly DXP. Ministry of Industry and Technology of the Republic of Türkiye.
Domestic Product Certificate (Yerli Malı Belgesi)	Business process management software (Butterfly): 100% domestic content, class A, high technology. TOBB, Istanbul Chamber of Industry.

Certificates and official verification links: butterfly.dev/en/kurumsal/sertifikalar

FREQUENTLY ASKED QUESTIONS

Short answers about BOAT and Butterfly.

Do we have to replace our existing systems?

No. Butterfly can be installed on top of existing systems and manage the work between them; ERP and enterprise applications stay in place. If needed, it replaces work tracking, asset maintenance or approval systems; measurement of the current setup drives the migration decision.

Does it work with our existing ERP?

Yes. Butterfly works with ERP, databases, directory services and enterprise applications through APIs. Which data comes from which system and where it is written is decided in the process design; the ERP itself is not touched.

Is Butterfly a low-code tool?

Not only. Objects, forms and screens are built with little code and extended with full code when needed. At the center is process orchestration: who does what, in which order and with which approval, and which system steps in when.

Where does AI send our data?

AI works only with the role and data defined for it in the process. The organization decides at deployment which model is used and where data is processed; in an on-premise deployment data stays within the organization.

Which process should we start with?

Most organizations start with the process where work is carried by hand the most and waits for approval the longest. In the discovery meeting the process and system map is drawn up and the starting area is chosen together.

WE CAN BUILD IT TOGETHER IN A PILOT

- Your priority process, with your own approval rules and roles
- Connection to your existing systems, with a read-only integration if needed
- An AI step that works with permission limits and human approval
- A measured migration inventory, if replacing a system is on the agenda

Let's start with the longest distance in your time debt.

In a discovery meeting, let's talk about your existing systems and your priority process, and agree together which system stays in place, which step moves into orchestration and where to start.

Let's assess your scope together · butterfly.dev