# Rossum: Partner Integration Process

The Rossum Elis product for AI-based invoice data capture consists of several main modules - **Data Extractor** containing the AI component for automated data extraction, **Document Manager** controlling the document workflow and interfacing with partner systems (with an option for PO/Supplier matching logic) and **Verification Interface** for operator-based data capture.
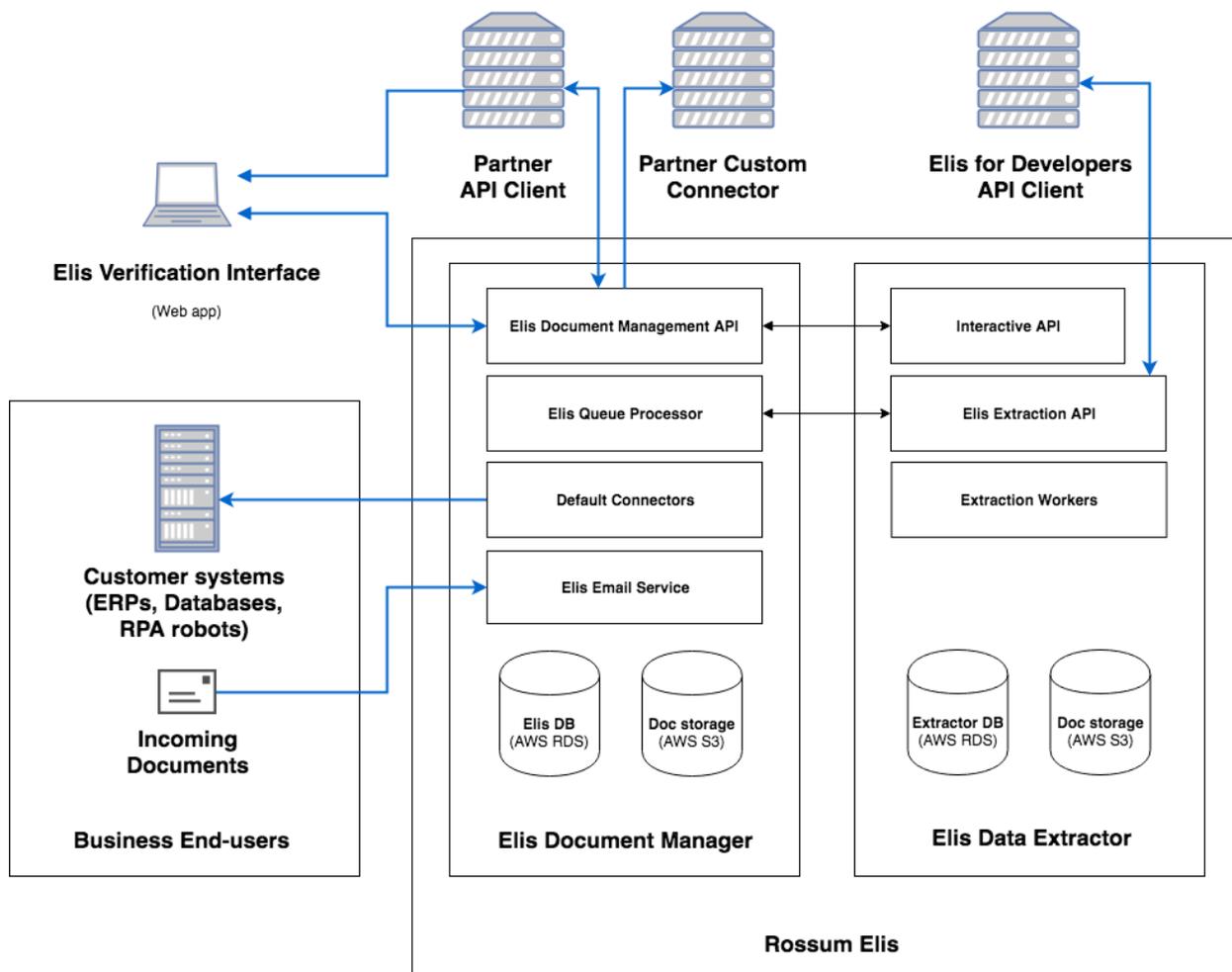
Elis offers two fundamental usage patterns - headless and assisted. The **headless pattern** relies on the fully automated information extraction, possibly integrated

with other processes like PO matching and supplier matching. The **assisted mode** of operation includes a user interface where documents (or some of the documents) may be verified and data capture completed by human operators.

The simplest option for a headless interface is the **Data Extraction API**. We recommend this option for rapid prototyping and operation isolated to the backend; there is no option to dynamically maintain user and organization accounts or trigger the verification interface.

The appropriate option for the full-fledged AP process is the **Document Management API**. It includes the functionality to automatically capture data from invoices, but also the assisted mode for users to verify the data, hook in components for PO matching, and a flexible input/output interfacing.

The Data Extraction API documentation is available at the address https://rossumrir.docs.apiary.io/ while the Document Management API is described in https://api.elis.rossum.ai/docs/. Both are RESTful APIs available via HTTPS.

Integration in RPA Workflows

The simplest variant for integration of Elis in an RPA process is to call the **Data Extraction API**. This is appropriate for quick prototyping, and then typically in three special cases:

- human verification of captured data can be substituted by a fully automated process;
  Example: Purchase Order matching in a scenario of high invoice PO coverage
- multiple data capture systems used in a tandem, cross-checking their output;
  Example: Template matching for the most prolific supplier, AI data capture for the rest
- the integrator is already using a different user interface for data capture verification;
  Example: A customized SAP posting module that is difficult to replace quickly

However, we observe that in the most typical AP automation workflows, a speedy human verification using the Elis user interface is the best match as it provides (A) the most *reliable* results (thanks to human verification), (B) the highest *coverage* of incoming invoices (all invoices may be captured in Elis, even if they are not associated with a PO), and (C) the highest *speedup* of the process (thanks to the fine-tuned user experience). The interface is designed to completely replace the

invoice posting form of the ERP in the AP process - invoice takes the major portion of the screen, OCR verification uses our *single-glance* UX design, and the interface can include even non-captured fields like GL coding.

The verification user interface also future-proofs the deployed workflow, as Elis will soon gain ability to capture also custom data fields and documents using field localization data from the operators gathered in the verification interface.

To include this verification interface in the workflow, using the **Elis Document Management API** is the appropriate option. The unassisted RPA workflow is split in two parts (typically run the night before and the night after). The first part of the workflow gathers the invoices and submits them to Elis in a batch. During the night,
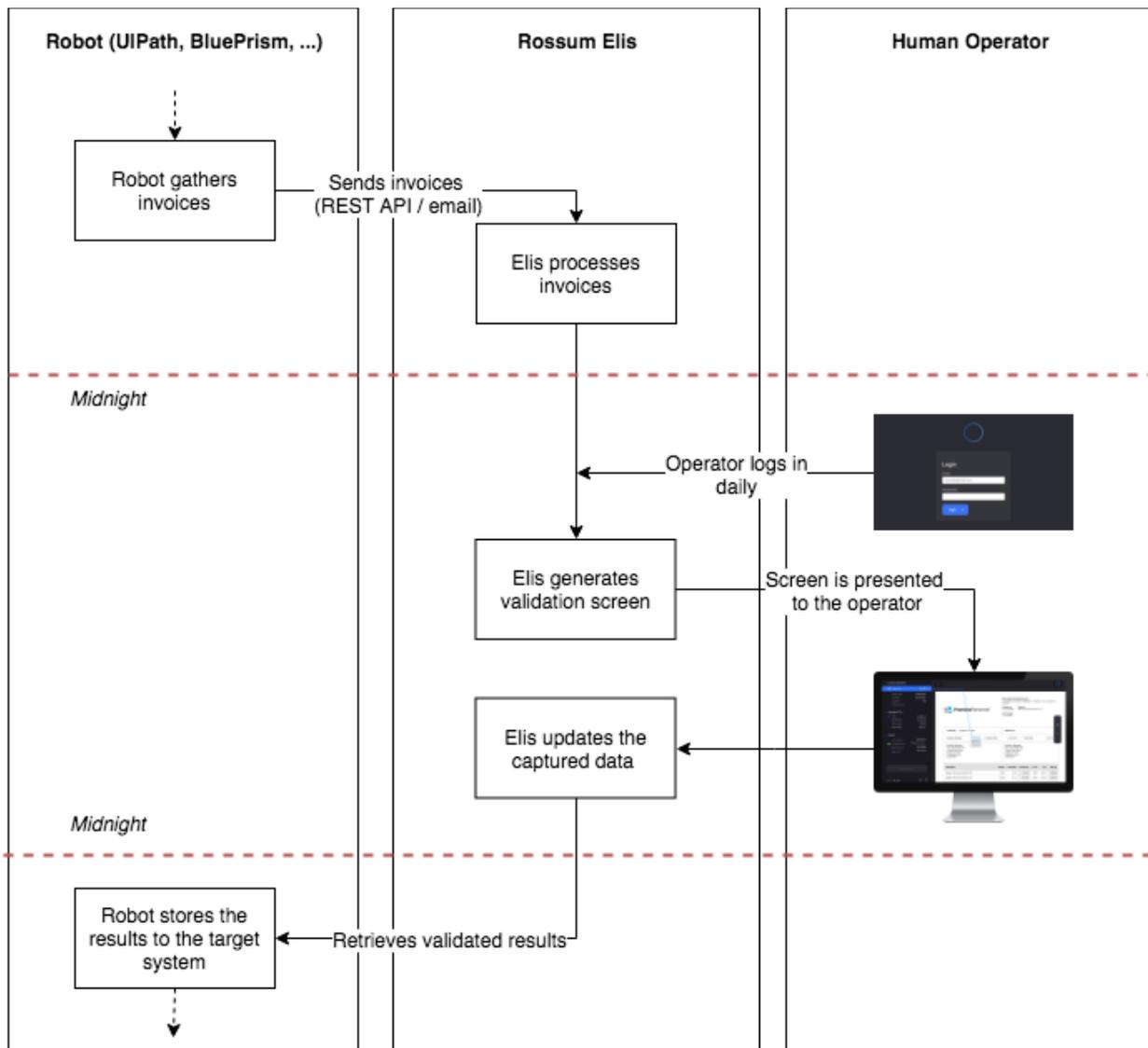
the Elis neural networks automatically pre-capture the information from invoices. Then, in the day, the AP team logs in the Elis web application, verifies the captured data and "exports" the invoices. In the evening, the second part of the RPA workflow downloads the batch of exported invoices and continues processing them to post them in the client's ERP.

Two RPA interfaces are available for the document manager:

- **Simple integration:** Using ready-made RPA components, simply send invoices to Elis by email, then later download the captured data for all invoices and use existing RPA components to parse the data (e.g. a CSV parser).

  In Elis, a fixed schema describing captured data is set up once. If an invoice cannot be processed and is skipped, the AP team is notified by an email message to handle these special cases.

- **Tight integration:** A two-way communication based on RESTful HTTPS APIs allows all the features of the simple integration. The main advantage is the ability to add a customer-specific interactive verification to the user interface - suppliers and POs may be matched on the fly during the data capture process, feedback about business rules violation is shown directly to the operator during the verification, and cost centers and GL code selectors may be loaded dynamically.

  In some scenarios, using the HTTPS interface for document submission is also more appropriate than relying on the email gateway. This mode of integration may also allow for assisted RPA workflows (see the "embedded scenario" in the software vendor section below).

Integration for Software Vendors

Vendors wishing to extend their user-facing products with invoice data capture capability may best take advantage of the Document Management API so that they can present their users with the Elis verification interface. This interface typically completely replaces the invoice data entry form in the invoice posting process.

Two basic invoice processing scenarios may be considered:

- **Simple scenario:** Submit invoices to be processed in a batch, ask the user to login to the Elis web application, process all waiting invoices from the user dashboard, then download the batch of processed invoices

- **Embedded scenario:** Submit invoices to be processed, then for each open the verification interface directly from the vendor's application and download capture results one by one
  - For smooth operation, pre-queuing a larger batch of documents to be processed is still recommended.
  - The verification interface is a web app - a special URL opening directly the particular document may be generated.

After the partner demonstrates an initial proof-of-concept integration and when required, they may be also issued with special API keys that allow for programmatic creation of new organizations and users. An organization is the basic permission unit as well as a usage count and billing unit (but this does not preclude all organizations created by the partner to be billed to the partner). Rossum recommends compartmentalization of customers of the vendor to separate Elis organizations.

For more details, please refer to the API documentation.

White Label

A white-label option is available for select partners, allowing to (A) run the Elis app at **a custom URL address**, including within the domain space of the partner (e.g. https://invoices.partner.com/), and (B) replace the standard Elis "Blue Circle" brand logo with **a partner-provided logo** at all places within the web applications.

For the white-labeling process, the Elis support team needs to know:
- the desired URL address (the partner must also configure their DNS servers by placing a CNAME record to en.elis.rossum.ai for the appropriate domain name)
- the URL addresses where the partner logos, in dimensions and formats provided by the Elis support team, will be permanently available

Technical requirements

- Public internet connectivity in the user-facing product operation environment
- Ability to issue arbitrary HTTPS requests
- Documents must be submitted either as a PDF (one PDF per logical document, i.e. per invoice, up to a 16 pages limit) or a JPEG or PNG for single-page scans
  - Regarding scans, for best results we recommend at least 300 DPI resolution, though this is not a minimal requirement
- For verification interface usage in the "embedded scenario", ability to open websites in the vendor's application

- Browser support
  - Chrome is recommended, but Elis also supports Edge, Firefox and Safari
  - Please note that the IE11 browser specifically is not supported at the moment;
- Ability to parse either JSON (recommended), CSV or XML to retrieve captured data
- *Optional:* Ability to expose an authenticated HTTPS API for the "connector" interface, reachable by the Elis cloud environment, i.e. with a public unfirewalled IP address *(suggested for the embedded scenario)*

Take the journey with us

Rossum welcomes new technical partners who are interested in integrating Elis within their product or implementing the Elis data capture for their customers. As the first step, you are welcome to set up your free account for the Data Extraction API at https://rossum.ai/developers to start experimenting now! You will also find a variety of technical references and code examples at our Developers portal.

Let's create a world without manual data entry together.

Please contact us at rossum@rossum.ai for business inquiries. You may also directly speak to **Tobias Rataj** (Head of Partnerships) at tobias.rataj@rossum.ai.

rossum.ai | +44 20 3287 6959 | +1 347 269 2599