

CAPABILITIES PRESENTATION

Beezy.Network

Smart process automation for a shipping company

Using a Knowledge Base (KB) and integration with DANAOS ERP

S U B J E C T

Capabilities and indicative use cases

D A T E

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1. What Beezy.Network is and what it offers

Beezy.Network works as a “smart filter” on top of your company’s emails and shared mailboxes. It reads every incoming message from vessels, agents, suppliers, charterers and authorities, understands it, and starts the appropriate process, connected to DANAOS ERP.

Integrating a Knowledge Base (KB) allows the system to act as an experienced “Senior Operator” or “Superintendent” who never forgets anything: it knows the manuals, the charter parties, the supplier agreements, the Safety Management System (SMS) and the history of your entire fleet.

Separation of roles

Knowledge Base (KB)	DANAOS ERP	Beezy.Network
The source of rules, forms, policies and approval limits: manuals, charter parties, SMS, templates, frame agreements.	The source of data: vessels, equipment, Noon Reports, BDN, inventory, budget, crews.	Reads, understands, enriches, prepares and proposes. The final decision is always taken by a human.

Key benefits

Speed	Within seconds, the responsible person receives the relevant manual excerpt, contract clause or previous incident.
Reliability	Answers are based on official documents and the company's history, not on memory or guesswork.
Cost and risk control	Deviations, overcharges and contractual risks are detected before they turn into cost.
Up-to-date data	Data for all vessels in the fleet is updated without delays of days.
Human control	No data is locked into the ERP without approval from the responsible employee.

2. How it works: a 4-stage workflow

For all vessels, the workflow is unified, centrally controlled and executed in real time. It is applied horizontally across all departments of the company.

1

Central intake and filtering Inbound & Triage

- **Monitoring:** The system monitors emails coming from vessels, agents and suppliers (e.g. procurement@, operations@, technical@).
- **AI Categorization:** The AI reads the subject and body of the email and identifies the vessel name (cross-checked against the fleet in DANAOS) and the type of request (e.g. invoice, Noon Report, defect, PSC deficiency).
- **Routing:** The email is automatically routed to the correct digital pipeline of the relevant department.

2

Enrichment with the Knowledge Base Context Enrichment

Before the email reaches the Superintendent or the Operator, Beezy "reads" the Knowledge Base to provide context:

- **Procurement:** Sees a quote and checks the old agreements with the supplier and their evaluations.
- **Technical:** Sees a defect report and searches the digitized manuals for the specific machinery serial number.
- **Operations / Claims:** Sees a Statement of Facts (SoF) and checks the laytime terms of the specific charter party.
- **HSEQ:** Sees a PSC observation and looks up the approved Corrective Action Plan in the SMS.

3

Automated action and preparation Action & Drafting

The system performs the manual work and prepares everything for the human:

- **Procurement & Finance:** Runs OCR on the invoice or quote PDF, extracts the data and automatically opens a Draft Purchase Order or Invoice Registration inside DANAOS.
- **Operations & Technical:** Converts the Noon Report into structured data and enters it as a draft in the Operations Module. Creates a Technical Ticket with the relevant excerpt from the manufacturer's manual attached.
- **Legal & HSEQ:** Automatically drafts a Draft Reply Letter (e.g. Letter of Protest or PSC Rectification) using the company's official templates.

4

User approval and final posting Human-in-the-loop & Sync

No data is locked into the ERP without human review.

- **Notification:** The responsible employee (e.g. Superintendent or Accountant) receives a notification in the form of a ready-made proposal: "Beezy read the email from M/T [Name]. Posting this invoice/report in DANAOS is proposed. Press Approve."
- **Review:** The user checks the pre-filled fields and makes corrections if needed.
- **Final Sync:** With one click, the entry is finalized in DANAOS, the vessel's file is updated and the email is automatically archived with the "Processed" label.

Daily overview for Management (Management Dashboard)

Management has a live picture of operations every day:

Response KPIs	Bottlenecks	Data Accuracy
How many claims or defects are pending per department.	Which emails or processes are delayed in being approved by Superintendents.	Assurance that, for all vessels, the data in DANAOS is always up to date.

3. Examples by department

The following sections present indicative scenarios, based on real, everyday challenges, for each department of the company.

3.1 Technical Department

Smart fault handling

The problem	The Chief Engineer sends an email about a main engine fault (e.g. MAN B&W) asking for instructions.
The solution with the Knowledge Base	Beezy reads the email, identifies the engine type from DANAOS and “searches” the vessel’s digitized manuals and the company’s history of previous faults.
The result	Within seconds, it suggests to the Superintendent the exact manual page with the solution or reminds them: “The same problem occurred on vessel X 6 months ago and was solved by replacing valve Y.”

Dry-dock and retrofit management (Dry-Docking & Retrofits)

The scenario	5 vessels are being prepared for the installation of BWTS (Ballast Water Treatment) systems or Scrubbers, and dozens of emails arrive from shipyards with technical questions.
How the Knowledge Base works	The AI has “read” all vessel specifications, General Arrangement (GA) drawings and the company’s previous studies.
The result	When a shipyard asks whether there is space in the steering gear room for a specific pipe, Beezy consults the drawings and answers the Superintendent: “Based on the GA drawing of M/V [Name], the space is sufficient, but in 2024 on the sister vessel [Name 2] a pump had to be relocated. See the relevant repair report.”

3.2 Operations Department

Compliance with charter parties (Charter Parties)

The problem	An email arrives from the Charterer asking for a change of route or loading port.
The solution with the Knowledge Base	The system is “fed” with all the company’s active charter parties (CPs). It reads the email, checks the terms of the specific Rider Clause and verifies whether the request is legitimate or carries risk (e.g. delay claims).
The result	It warns the operator: “Attention, under Clause 14, waiting at this port burdens the charterer after 48 hours.”

Handling detentions (Port State Control Detentions)

The scenario	A vessel undergoes an extraordinary PSC inspection in Shanghai and the Captain sends an email: "They are giving us Code 30 (Detention) for a problem with the emergency fire pumps."
How the Knowledge Base works	The system is fed with the official Tokyo MOU regulations, the company's internal SMS procedures and previous similar incidents.
The result	Before the Operator has time to panic, Beezy shows the workflow: the official appeal template (Letter of Appeal), the list of approved technicians in Shanghai who can go to the vessel immediately, and the SMS instructions on how the Captain should handle the inspectors.

3.3 Procurement Department

Purchasing history and strategy

The problem	Receipt of a quote for a critical tank cleaning or a chemicals purchase.
The solution with the Knowledge Base	The knowledge base contains all the old agreements, the Approved Vendors per port and feedback on their quality.
The result	Beezy does not simply pass the quote to DANAOS, but adds a note: "This supplier in Rotterdam delayed the delivery to M/T [Vessel Name] by 3 days in 2025. The alternative is recommended."

Smart quote evaluation (Contract Lifecycle Management)

The scenario	Quotes are received for the annual supply of lubricants for the whole fleet.
How the Knowledge Base works	The knowledge base contains the Frame Agreements signed with companies such as Shell, Total or ExxonMobil, as well as the discounts per geographic zone.
The result	The AI reads the quote and warns: "The quote for the port of Singapore includes a \$500 barging charge. Under the Contract 2026 (page 4), this charge should be free for orders above 5 tons." Procurement saves thousands of dollars with one click.

3.4 Crewing & SMS Department

Crisis and procedure management

The problem	A Captain sends an email about an injury or pollution incident.
The solution with the Knowledge Base	The system has access to the company's Safety Management System (SMS).
The result	It immediately answers/suggests the steps that must be taken according to the manual (e.g. Checklist for Port State Control or Oil Spill), ensuring that the company follows the legal procedures without delay.

Medical cases and insurance (P&I Crew Claims)

The scenario	The Captain sends an urgent email: "A seaman injured his hand during work and needs hospital treatment at the next port (Houston)."
How the Knowledge Base works	The system knows the rules of the company's P&I Club, the MLC (Maritime Labour Convention) procedures and the contacts of the local P&I Correspondents in Houston.
The result	Beezy drafts the notification email to the P&I Club, sends the Captain the "Illness/Injury Report" form to be completed, and retrieves the hospital cost coverage procedure, so that the Crew Department makes no wrong move that would void the insurance coverage.

3.5 Accounting Department

Automatic agreement check

The problem	A FDA (Final Disbursement Account) arrives from an agent.
The solution with the Knowledge Base	The knowledge base knows the tariffs and standard discounts agreed with the specific agency worldwide.
The result	It identifies charges that deviate from the agreed ones and informs the accounting department in DANAOS of any overcharges.

3.6 Safety & Quality Department (HSEQ / Marine / Safety)

Management of inspection observations (Vetting & Port State Control)

The scenario	The vessel undergoes a PSC inspection in the USA and the Captain emails the list of observations (deficiencies).
How the AI & Knowledge Base work	Beezy reads the email, "understands" the deficiency code (e.g. a problem with the Oily Water Separator) and consults the Knowledge Base for the standardized rectification procedures (Corrective Actions) approved by the USCG.
The result	It automatically creates the incident log in DANAOS and proposes to the HSEQ Manager the ready response text (Rectification Report) to the authorities, together with the correct checklists.

Incident analysis (Near Misses & Accidents)

The scenario	A report arrives about a "near miss" on deck.
How it works	The system consults the history of all fleet vessels in the Knowledge Base. It identifies whether a similar Near Miss has happened before on vessels of the same type (e.g. Supramax).
The result	It automatically proposes the issuance of a safety circular (Safety Flash) for the whole fleet.

3.7 Legal & Claims Department

Claims for fuel quality problems (Bunker Claims)

The scenario	Laboratories (e.g. Veritas Petroleum Services) send emails with fuel analyses, warning of high sediment on a vessel.
How the AI & Knowledge Base work	Beezy cross-checks the report against the specific Bunker Delivery Note (BDN) in DANAOS and pulls the legal terms (Bunker Clause) of the charter party from the Knowledge Base.
The result	It automatically drafts the official Letter of Protest to the bunker supplier, observing the strict deadlines (usually 7-14 days) so that the right to compensation is not lost.

Delay monitoring (Demurrage Claims)

The scenario	An email with the Statement of Facts (SoF) from the discharge port.
How it works	The AI reads the time stamps (laytime) from the email and compares them with the Laytime terms of the charter party in the Knowledge Base.
The result	It automatically calculates the delay hours and prepares the claim (Demurrage Claim) in DANAOS, so that the charterer can be invoiced.

Fuel consumption disputes (Speed & Consumption Claims)

The scenario	A Charterer sends an email with an official claim of \$50,000, arguing that the vessel consumed more fuel than agreed during the last voyage.
How the Knowledge Base works	The AI consults the Rider Clause of the charter party (which defines the "About" tolerances for speed and weather) and at the same time "reads" the Noon Reports and Good Weather Days from DANAOS.
The result	The system prepares the company's defense: "The claim is rejected. Under Clauses 8 & 12, March 14 and 15 had Douglas Sea State 5 (>3) conditions, and are therefore excluded from the performance calculation, as proven by the attached weather bulletins."

3.8 IT / Cyber Security Department

Remote support for vessels (IT Helpdesk for Vessels)

The scenario	The Captain sends an email: "The Starlink/VSAT satellite system lost its connection or the local network is down."
How the AI & Knowledge Base work	Beezy identifies the IT equipment type of the specific vessel (from the DANAOS inventory) and searches the Knowledge Base for the company's IT Troubleshooting Guides.
The result	It sends an automated but fully customized reply to the vessel with steps (e.g. "Restart router X", "Check switch Y"), saving the IT Superintendent time, especially outside office hours.

3.9 Sustainability & Compliance Department (ESG / Carbon Emissions Compliance)

EU ETS & CII data check	
The scenario	Receipt of emission reports.
How it works	The system checks whether the consumption data is consistent with the regulations (EU ETS / FuelEU Maritime) loaded into the Knowledge Base.
The result	If a vessel is at risk of falling into a low CII category (e.g. Category E), the system notifies the ESG Manager with a proposal for speed optimization (eco-speed), based on the vessel's historical performance.

4. 20 shipping company processes in Beezy.Network

Below are 20 indicative processes covering the full range of a shipping company's operations. Each process is described with Trigger, Scenario, Actions, Outcome and Exceptions.

In all processes, the Trigger comes from an incoming email (from a vessel, agent, supplier, charterer, authority or an automatic ERP notification). Beezy.Network reads the email, identifies its type using rules from the KB and starts the process with the details of the message and its attachments.

A. Technical Department

1	Planned maintenance deadline (PMS)
Trigger	Automatic ERP email that a PMS task is approaching its limit (e.g. 30 days or 100 running hours before).
Scenario	Overhaul of generator No2 on a vessel at sea.
Actions	Beezy reads the email, identifies the vessel and equipment from the subject and attachments, and creates a task for the Superintendent. The KB provides the manufacturer's checklist and the fault history. Spare parts availability is checked in the ERP and a requisition is created automatically if any are missing. The Chief Engineer is notified.
Outcome	The task is closed in the ERP with a report, hours and cost.
Exceptions	Unable to execute due to weather or itinerary → postponement request with Technical Manager approval and, if the task is class-related, notification to Class. Critical equipment → escalation to the Technical Director.

2	Defect Report from the vessel
Trigger	Email from the vessel's Engineer (or automatic ERP email) with a defect report.
Scenario	Autopilot failure before entering port.
Actions	Reading the email and the photos or attachments, identifying the vessel from the sender address. Severity classification based on the KB. Assignment to a Superintendent and notification of Operations. Search for similar incidents and technical instructions. Quote request from a service provider.
Outcome	A recorded repair process with timeline and cost, linked to the ERP.
Exceptions	Defect affecting navigation safety → immediate escalation to the DPA and Master, assessment as a non-conformity and possible notification to Flag/Class.

3	Dry-Dock preparation
Trigger	Email approving the dry-dock plan from Management, 12 months before.
Scenario	Dry-docking of a vessel with certificate renewals.
Actions	Reading the approval email and attachments (plan, budget). Creating a project with sub-tasks (specification, tender, shipyard selection, spare parts). The KB provides a specification template and a list of preferred shipyards. Collecting and comparing quotes. Updating the budget in the ERP.
Outcome	An approved project with budget and timeline, and cost-to-date monitoring.
Exceptions	Budget overrun above 10% → Management approval. Shipyard delay → notification to Chartering for off-hire.

4	Class / Flag State inspection
Trigger	Reminder email from the ERP or from the Class/Flag body about an approaching survey or certificate expiry.
Scenario	Annual Survey.
Actions	Extracting the date and port from the email. Notifying the vessel and Operations of the port and date. Sending a preparation checklist from the KB. Assigning responsibilities and, after the survey, recording the observations.
Outcome	Renewed certificates and an updated ERP.
Exceptions	Pending categories (Conditions of Class) → creation of corrective tasks with deadlines. Risk of expiry → extension request.

B. Procurement

5	Spare parts request (Requisition)
Trigger	Email from the vessel with a requisition (or automatic ERP email for a new requisition).
Scenario	Ordering main engine spare parts.
Actions	Extracting items and quantities from the email and attachments. Checking category and approval limits based on the KB. Requesting quotes from approved suppliers. Comparison and approval. Creating a Purchase Order in the ERP.
Outcome	An order with delivery tracking and a notification to the vessel.
Exceptions	Non-approved supplier → Procurement Manager approval. Urgent (AOG) → fast-track with post-approval.

6	Provisions and stores ordering (Provisions/Stores)
Trigger	Email from the vessel with a provisions list or monthly email reminding of the ordering cycle.
Scenario	Ordering food at a port with an imminent arrival.
Actions	Extracting the list and the port from the email. Selecting agent and supplier based on the ETA from the ERP. Checking the budget per vessel. Confirming delivery from the vessel.
Outcome	On-time delivery and closing the order with an invoice.
Exceptions	ETA change → renegotiation. Quantity difference → credit note.

7	Supplier evaluation and approval
Trigger	Email requesting registration of a new supplier or annual email reminding of re-evaluation.
Scenario	Registering a new lubricants supplier.
Actions	Identifying supplier details from the email and attachments. Sending a questionnaire and certificates. Evaluation based on KB criteria. Approval by Quality and Procurement. Creating the supplier in the ERP.
Outcome	An approved supplier with a score and re-evaluation date.
Exceptions	Missing certificates → conditional approval. Poor performance → suspension.

C. Crewing / HR

8	Crew Change (embarkation and disembarkation)
Trigger	Email from Crewing or the agent confirming a scheduled crew change.
Scenario	Change of 5 seafarers at the port of Singapore.
Actions	Extracting names, roles and dates from the email. Checking certificates, medicals and visas. Booking travel, notifying the agent, ordering transport. Embarkation checklist from the KB.
Outcome	A completed change and an updated crew list.
Exceptions	Flight cancellation → alternative travel. Certificate expiry → replacement. Medical unfitness → immediate replacement.

9	Seafarer certificate monitoring
Trigger	Automatic notification email for STCW or medical expiry at 90/60/30 days.
Scenario	Expiry of an Officer's firefighting certificate.
Actions	Identifying the seafarer and certificate from the email. Notifying the seafarer and Crewing. Scheduling training. Updating the ERP after renewal.
Outcome	Compliance without gaps.
Exceptions	Unable to renew within the deadline → recall and replacement.

10	Evaluation and promotion
Trigger	Reminder email for contract expiry or annual evaluation.
Scenario	Promotion of a 2nd Engineer to Chief Engineer.
Actions	Identifying the seafarer and contract from the email. Collecting evaluations from the Master and Chief Engineer, checking promotion criteria from the KB, approval by the Crewing Manager and updating the payroll ERP.
Outcome	An approved promotion with a new contract.
Exceptions	Insufficient experience → development plan. Negative evaluation → re-examination.

D. Operations and Chartering

11	Vessel arrival preparation (Port Call)
Trigger	Email from the Master or agent with a new ETA or voyage.
Scenario	Arrival in Rotterdam in 5 days.
Actions	Extracting the ETA and port from the email. Appointing an agent, requesting port requirements, checking certificate validity, preparing documents (FAL forms, crew list).
Outcome	A smooth arrival without delays.
Exceptions	Port authority inspection request (PSC) → activating PSC readiness. Change of destination → re-planning.

12	Laytime and Demurrage monitoring
Trigger	Email from the Master or agent notifying that NOR was tendered at the port.
Scenario	Loading with a delay due to weather.
Actions	Extracting the NOR time from the email. Recording the Statement of Facts, calculating laytime from the ERP, checking Charter Party terms in the KB and creating the claim.
Outcome	A documented demurrage claim to the charterers.
Exceptions	Charterer dispute → legal support. Excepted time (weather) → adjustment.

13	Off-hire and Performance check
Trigger	Email from the Master or Technical about a defect or stoppage above the hours limit.
Scenario	Off-hire due to engine repair.
Actions	Extracting the time and cause of the defect from the email. Estimating off-hire time, notifying the charterer, recording in the ERP and notifying accounting.
Outcome	Correct hire calculation and notification.
Exceptions	Performance dispute (speed/consumption claim) → referral to Technical.

E. Quality, Safety and Compliance (ISM/ISPS/Vetting)

14	Non-Conformity
Trigger	Email reporting an observation or near-miss from a vessel or auditor.
Scenario	Observation in an internal audit.
Actions	Classifying the email as an observation or near-miss and linking it to the vessel. Assigning a corrective action and deadline, root-cause analysis using the KB template and verification of completion.
Outcome	A closed NC with traceability.
Exceptions	Recurrence → systemic cause analysis. Open beyond the deadline → escalation to the DPA.

15	Vetting preparation (SIRE/CDI)
Trigger	Notification email for a scheduled or expected inspection.
Scenario	Inspection request from an oil major.
Actions	Extracting the date, port and inspector from the email. Internal pre-inspection checklist, correction of deficiencies and notification of the vessel.
Outcome	A successful inspection with few observations.
Exceptions	Critical findings → withdrawal before the inspection and immediate correction.

16	Accident or incident (Incident)
Trigger	Email with an incident report from the Master.
Scenario	Injury to a seafarer or minor contact with a jetty.
Actions	Identifying severity from the email content with immediate priority. Activating the Emergency Response Plan from the KB, notifications (DPA, Management, P&I, Flag), investigation and recording in the ERP.
Outcome	Documented handling, findings and corrective actions.
Exceptions	Serious incident → crisis team and notification of authorities. Environmental → mandatory reports.

F. Finance

17	Invoice approval and payment
Trigger	Receipt of an email with a supplier invoice (attached PDF).
Scenario	Invoice for a repair.
Actions	Reading the invoice PDF (OCR) and matching it to the supplier. Three-way match (PO – receipt – invoice) from the ERP, approval based on limits and payment scheduling.
Outcome	Payment within terms and an updated vessel budget.
Exceptions	Amount mismatch → hold and contact with the supplier. Duplicate invoice → rejection.

18	Monthly closing and Budget Control
Trigger	Automatic email reminding of the closing at the end of the month.
Scenario	Vessel operating cost (OPEX) deviations.
Actions	Identifying the reminder and the closing period. Gathering ERP data, analyzing deviations and assigning explanations to those responsible.
Outcome	An approved report and a forecast update.
Exceptions	Deviation above the limit → justification by the Technical Manager.

G. Insurance and Claims

19	Insurance claim management (H&M or P&I Claim)
Trigger	Email reporting damage or an incident from the vessel or charterer.
Scenario	Cargo damage.
Actions	Extracting damage details and attachments from the email. Notifying the insurer and broker, collecting documents, appointing a surveyor, recording cost and tracking compensation.
Outcome	A properly documented claim and collection.
Exceptions	Coverage rejection → legal assessment. Deductible exceeded → notification of Finance.

H. IT and Cyber Security

20	Access control and Cyber Incident
Trigger	Security notification email, suspicious email or HR email about a staff change.
Scenario	Departure of an employee with ERP access.
Actions	Classifying the email (security or HR) and identifying the user. Revoking ERP and Beezy permissions, checking logs, notifying vessels if required, and recording.
Outcome	A secure offboarding and compliance (IMO cyber risk management).
Exceptions	Possible breach → activating the response plan and notifying the ISM/DPA.

5. Next steps

The examples in this document are indicative and use generic terms (Planned Maintenance, Purchasing, Crewing, Accounts, etc.). The exact processes, approval limits and flows are adapted to your company's needs and organization.

We propose the following next steps:

1	Prioritization	Selecting the departments and processes to be activated first (pilot).
2	Feeding the Knowledge Base	Collecting and digitizing the documents (manuals, charter parties, SMS, frame agreements, templates).
3	ERP integration	Designing the technical integration (API Integration) between Beezy.Network and DANAOS ERP.
4	Training	Training users in the final approval process (human-in-the-loop).

