Automating Ship Reporting

Proposal for a roadmap for roll-out of automated ship reporting

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Presentation Topics

1. The Problem
2. Use Cases
3. Development of Standards
4. Next Steps

Australian Government

Australian Quarantine and Inspection Service

AQIS BALLAST WATER LOG

Commonwealth of Australia Quarantine Act 1908 Section 27A

Ship's Name: Hanbara

Year Built: 1,973

IMO No: 4,564,536 Call Sign: AG7897

Master's Signature: _____

Date: 7/23/2015

1) Did you use the Ballast Water Decision Support System (BWDSS)?yes

If Yes, enter 7-digit Risk Assessment Number (RAN): ert

For tanks assessed as LOW risk: complete columns A, B and D

For tanks assessed as HIGH risk: complete columns A, B C and D

If NO, complete columns A, B, C and D

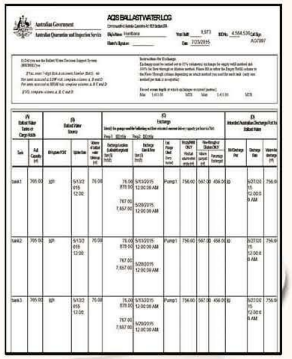
Instructions for Exchange:

Exchange must be carried out to 95% volumetric exchange for empty/refill method and 300% for flow-through or dilution method. Please fill in either the Empty/Refill column or the Flow-Through column depending on which method you used for each tank (only one method per tank is acceptable)

Record **ocean depth** at which exchanges occurred (metres):

Min: 5,435.00 MTR Max: 5,435.00 MTR

(A) Ballast Water Tanks or Cargo Holds		(B) Ballast Water Source			(C) Exchange Identify the pumps used for ballasting and their estimated current delivery capacity per hour (m^3/hr): Pump 1: 800 m³/hr Pump2: 800 m³/hr						(D) Intended Australian Discharge Port for Ballast Water		
Tank	Full Capacity (m³)	B/Wuptake PORT	Uptake Date	Volume of ballast water taken up (m³)	Exchange Location (Latitude/Longitude) Start (S) End (E)	Exchange Date & Time Start (S) End (E)	List Pumps Used (Pump Number)	Empty/Refill ONLY Residual volume when empty (m³)	Flow-through or Dilution ONLY Volume pumped (m³)	Flow-through or Dilution ONLY Percentage Exchanged	B/W Discharge Port	Discharge Date	Volume for discharge (m³)
tank1	765.00	jgh	5/13/2015 12:00:	76.00	76.00 878.00 767.00 7,657.00	5/13/2015 12:00:00 AM 5/20/2015 12:00:00 AM	Pump1	756.00	567.00	456.00	jg	5/27/2015 12:00:00 AM	756.0
tank2	765.00	jgh	5/13/2015 12:00:	76.00	76.00 878.00 767.00 7,657.00	5/13/2015 12:00:00 AM 5/20/2015 12:00:00 AM	Pump1	756.00	567.00	456.00	jg	5/27/2015 12:00:00 AM	756.0
tank3	765.00	jgh	5/13/2015 12:00:	76.00	76.00 878.00 767.00 7,657.00	5/13/2015 12:00:00 AM 5/20/2015 12:00:00 AM	Pump1	756.00	567.00	456.00	jg	5/27/2015 12:00:00 AM	756.0



CUSTOMS AND EXCISE SERVICE
香港海關

Arrival Declaration
船舶抵達申報表

Name of Vessel 船名 HANJIN TAMPA

Call Sign 船隻呼號 AB23436

Voyage No. 航行次數 23212332

Buoy No. 泡位 435435

Arrival 到港 時間 Tokyo port hrs. on 日期 5/20/2015 12:00:00 AM

(1) Shipping Particulars 船舶資料

Name of Owner 船東姓名: Delphi Navigation Ltd.

Nationality 國籍: KOREA

Port of Registry 註冊港口: Busan

Tonnage–Gross 噸位 毛重: 16,252

Registered Length 註冊長度: 20007

–Net 淨重: 45,350

Passenger Capacity 載客位: 200

Year Constructed 建造年分: 2,015

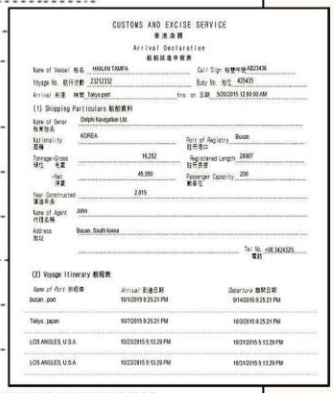
Name of Agent 代理名稱: John

Address 地址: Busan, South korea

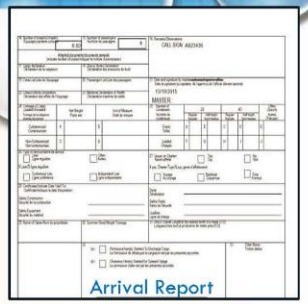
Tel No. 電話 +98 3

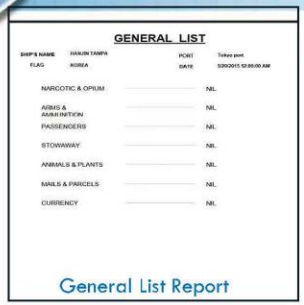
(2) Voyage Itinerary 航程表

Name of Port 所經埠	*Arrival* 到達日期	*Departure* 離開日期
busan , port	10/1/2015 9:25:21 PM	9/14/2015 9:25:21 P
Tokyo , japan	10/7/2015 9:25:21 PM	10/3/2015 9:25:21 P
LOS ANGLES, U.S.A	10/23/2015 5:13:29 PM	10/31/2015 5:13:29 F
LOS ANGLES, U.S.A	10/23/2015 5:13:29 PM	10/31/2015 5:13:29 F

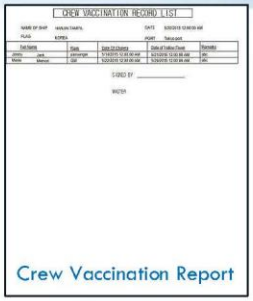


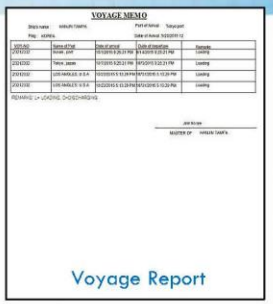
Arrival Report


Arrival Report


General List Report

Port of Call Report

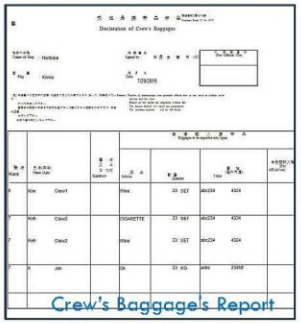

Crew Vaccination Report


Voyage Report

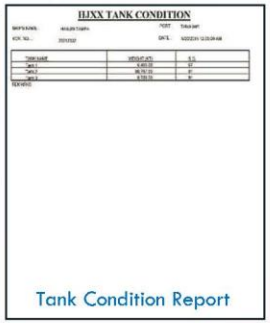
Ship Security Report

Waste Information Report

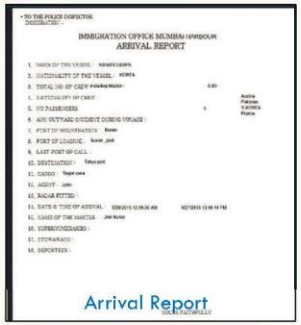
Ship's Arrival Report

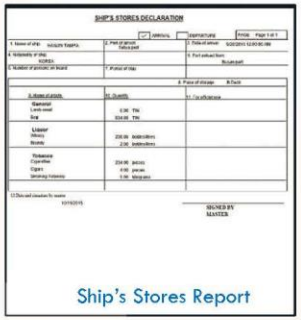

Crew's Baggage's Report

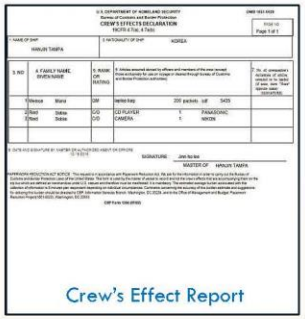
Crew Manifest Report


Tank Condition Report

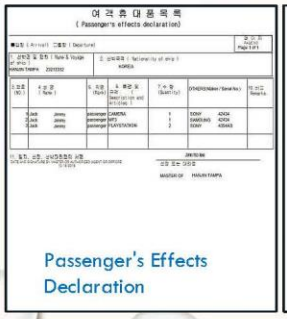
Ship's Certificate Report

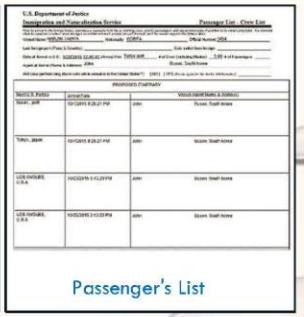

Arrival Report


Ship's Stores Report


Crew's Effect Report

Certificate of Disembarkation Report

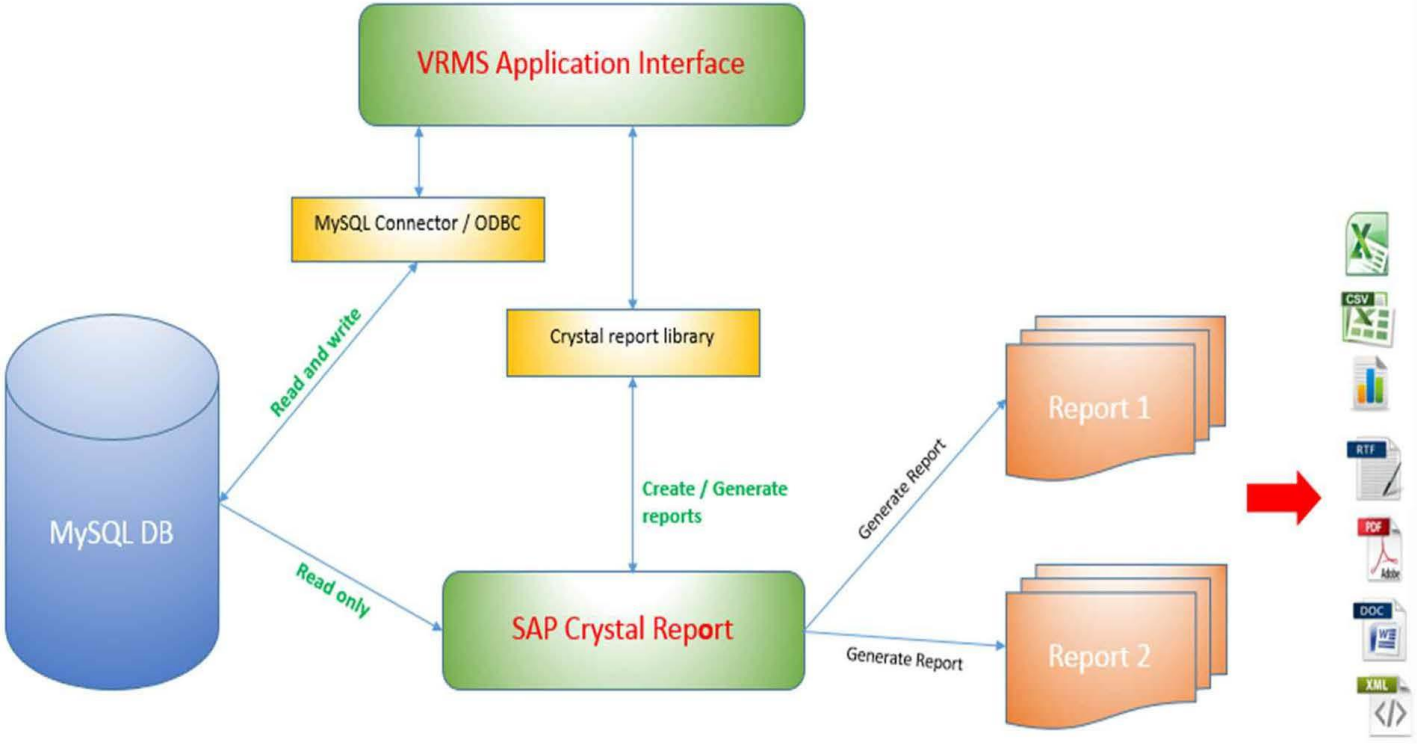

Passenger's Effects Declaration


Passenger's List

한국해양대학교
KOREA MARITIME AND OCEAN UNIVERSITY

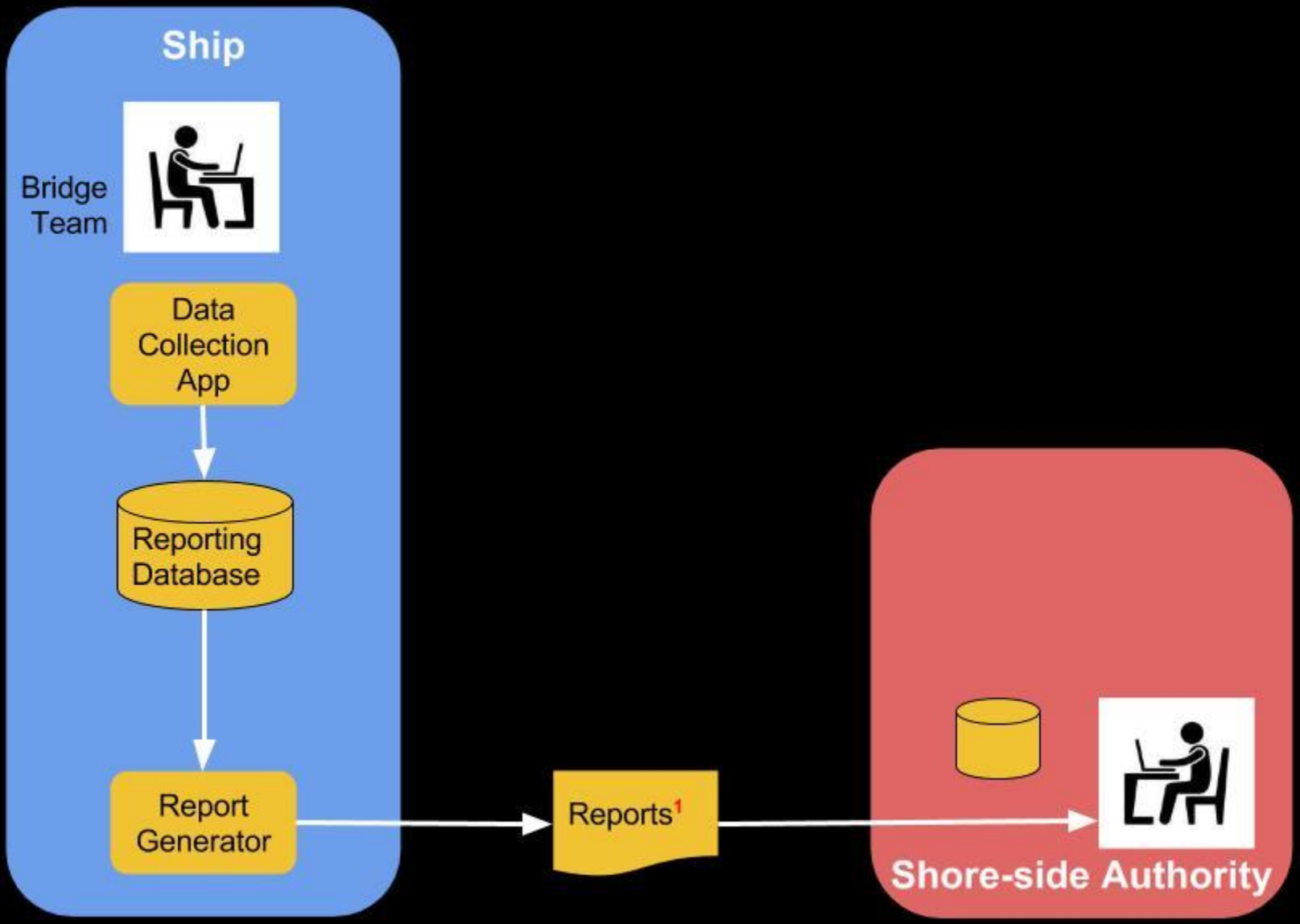
Some Generated Reports of Different nation ports by VSRMS

SYSTEM OVERVIEW



Architectural Design of VSRMS

Scenario 1



[1] Hard copy, FAX, PDF, XML, CSV, XLS, RTF, MS Word, etc.

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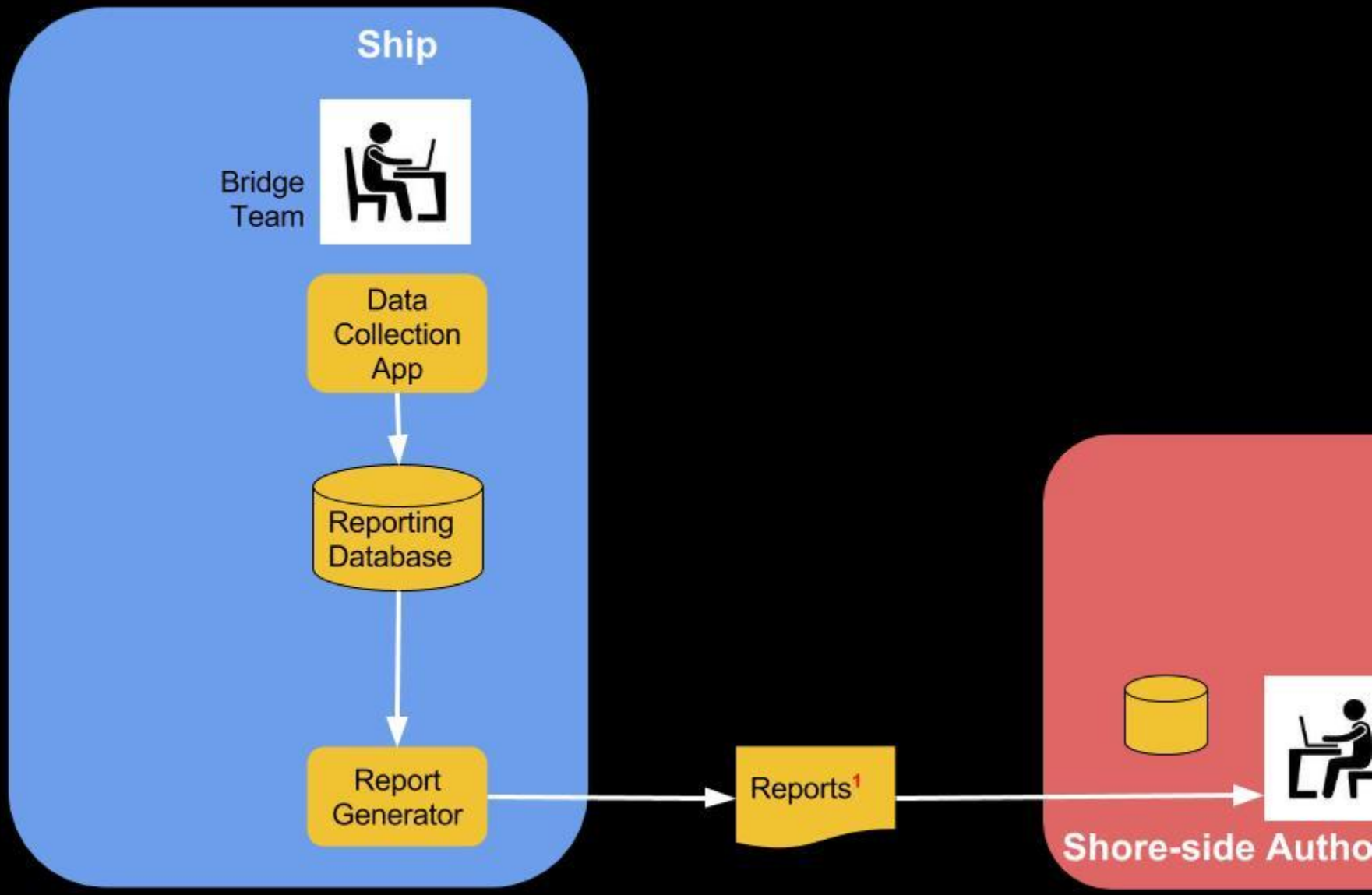

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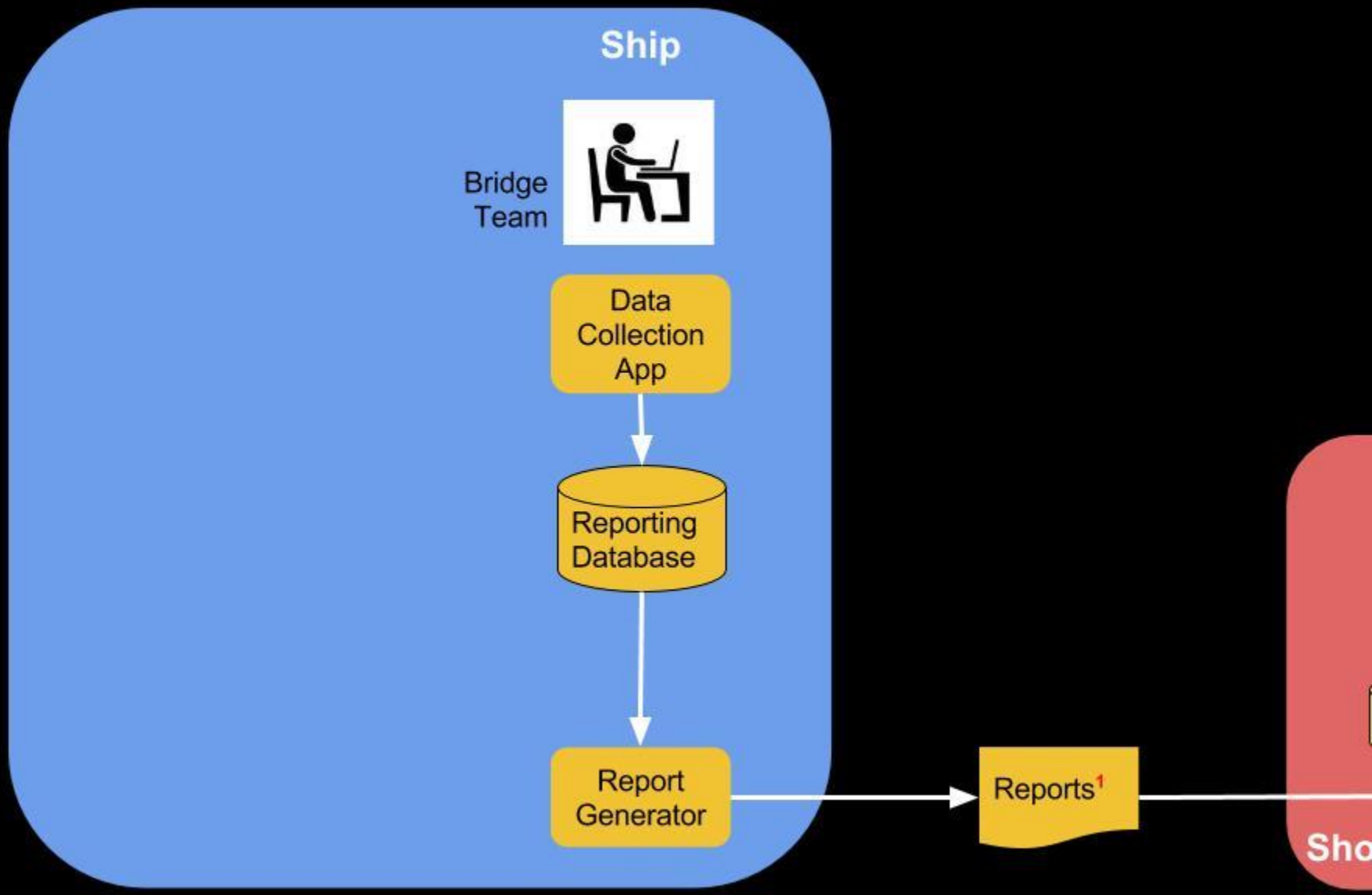

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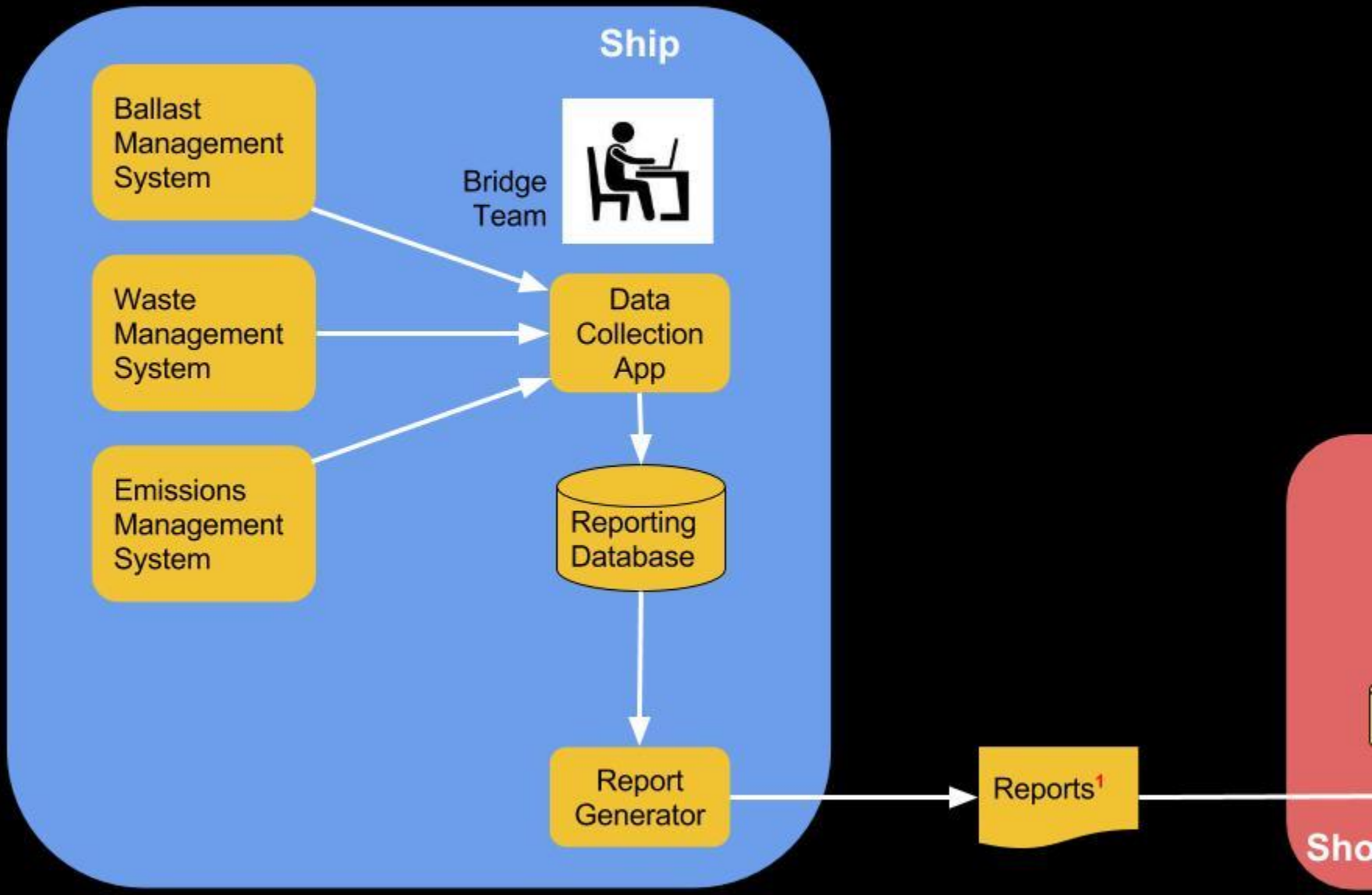

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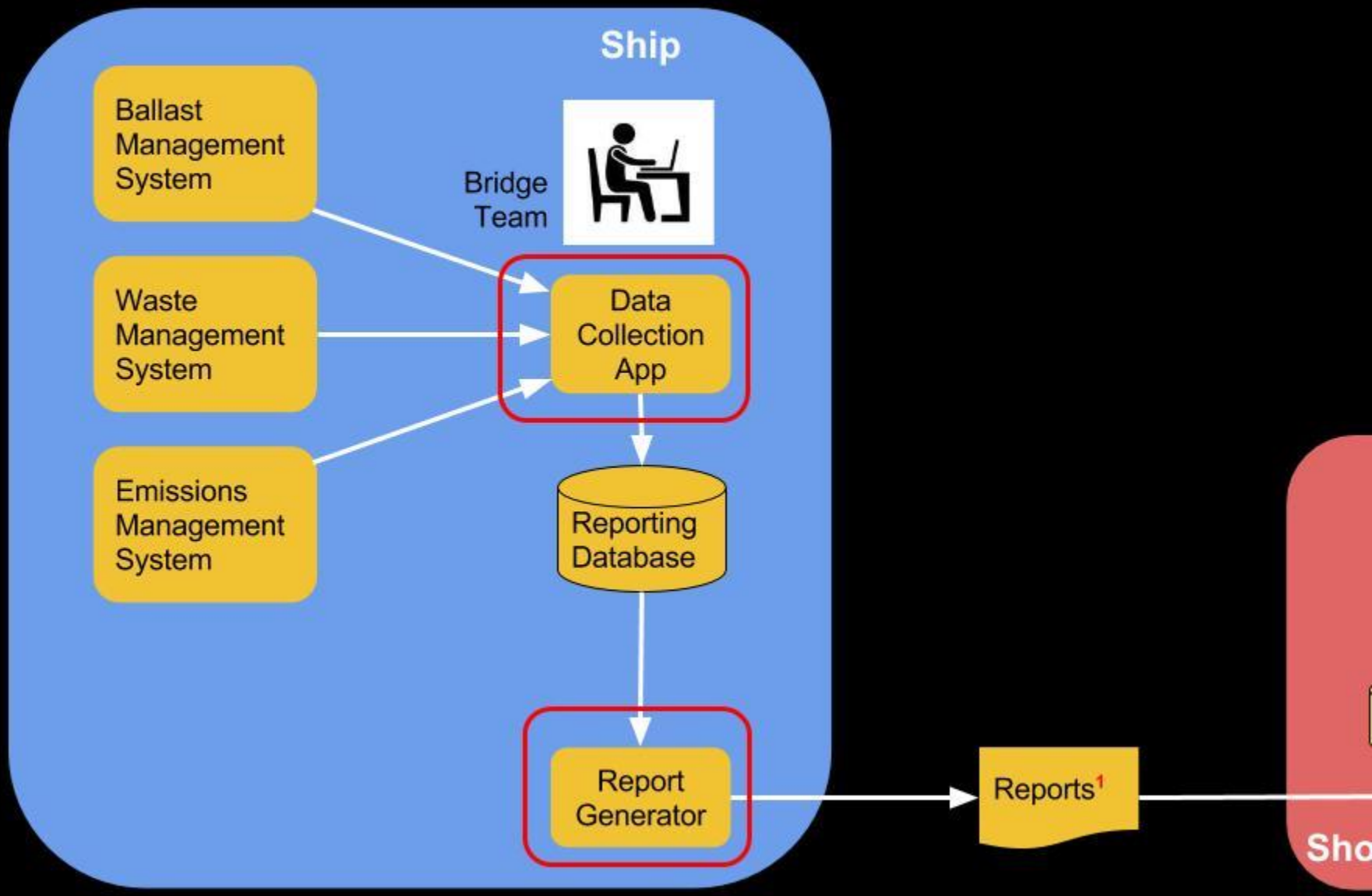

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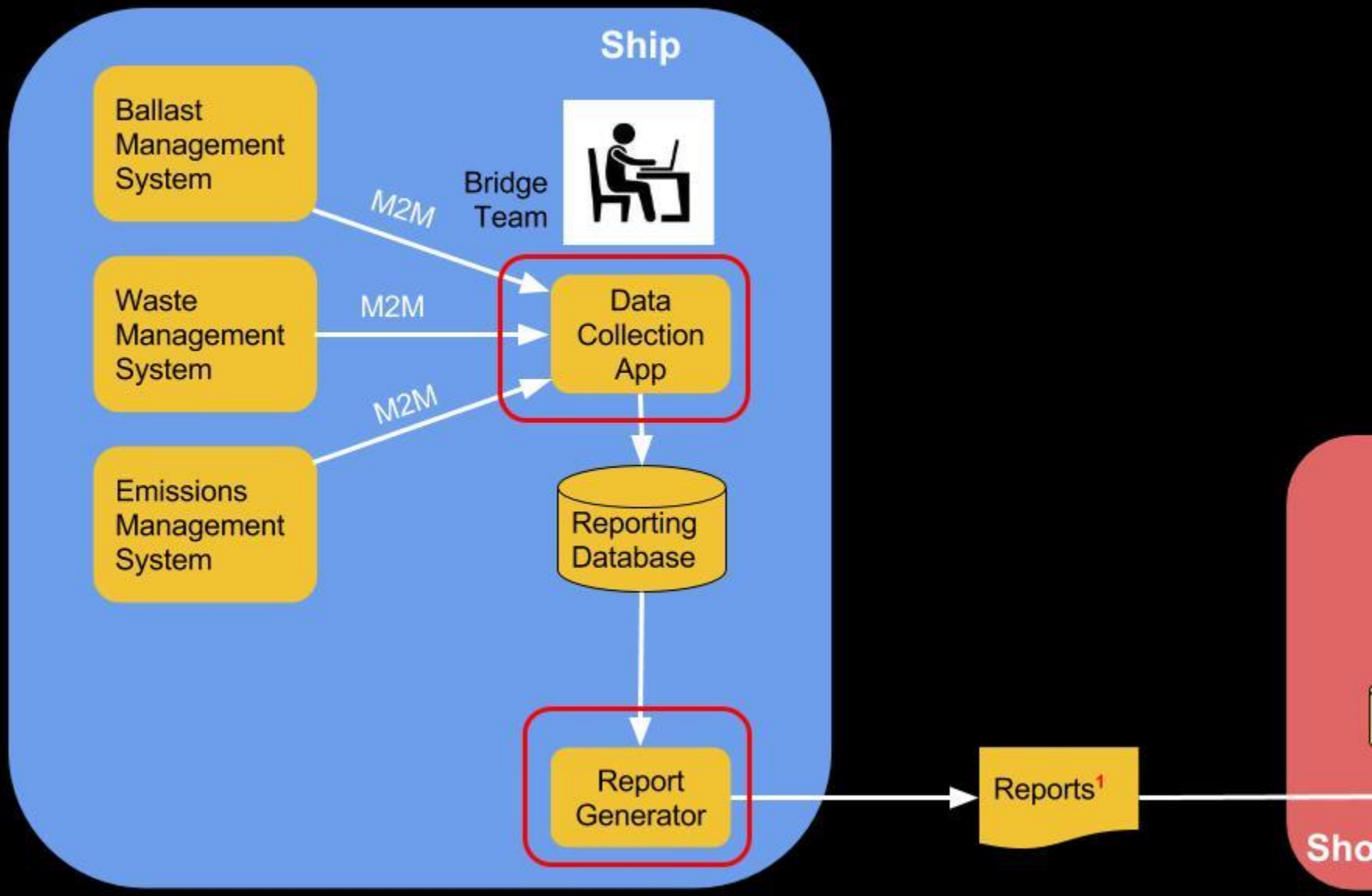

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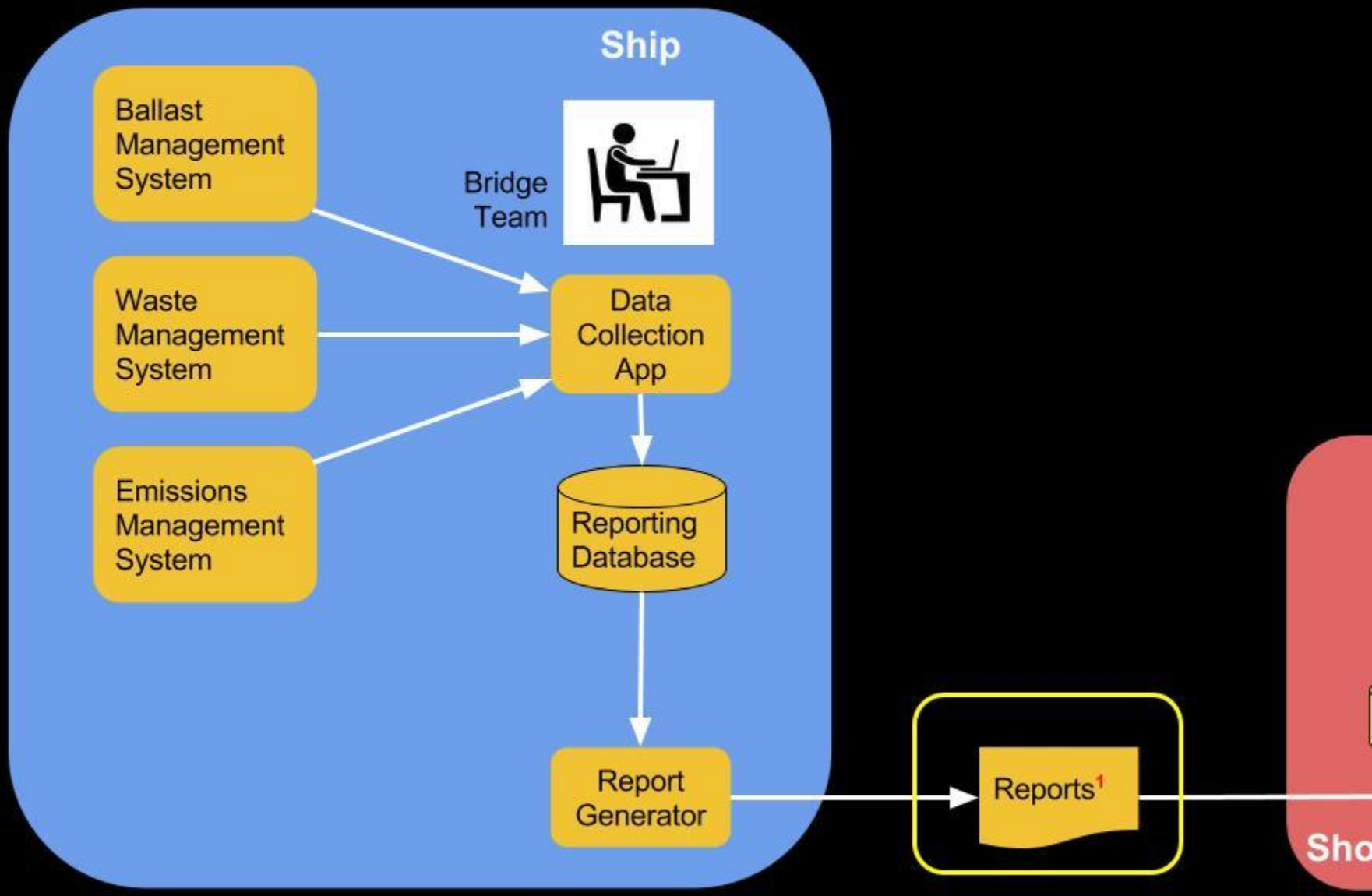

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Ship Report Library

urn:mrn:iala:sr:igr:us:wa:sea:12345

- iala = the international organization that owns the register of reports
- sr = ship report register
- igr = inter governmental region code (i.e. Schengen)
- us = country code
- wa = state/province code
- sea = port code
- 12345 = report id

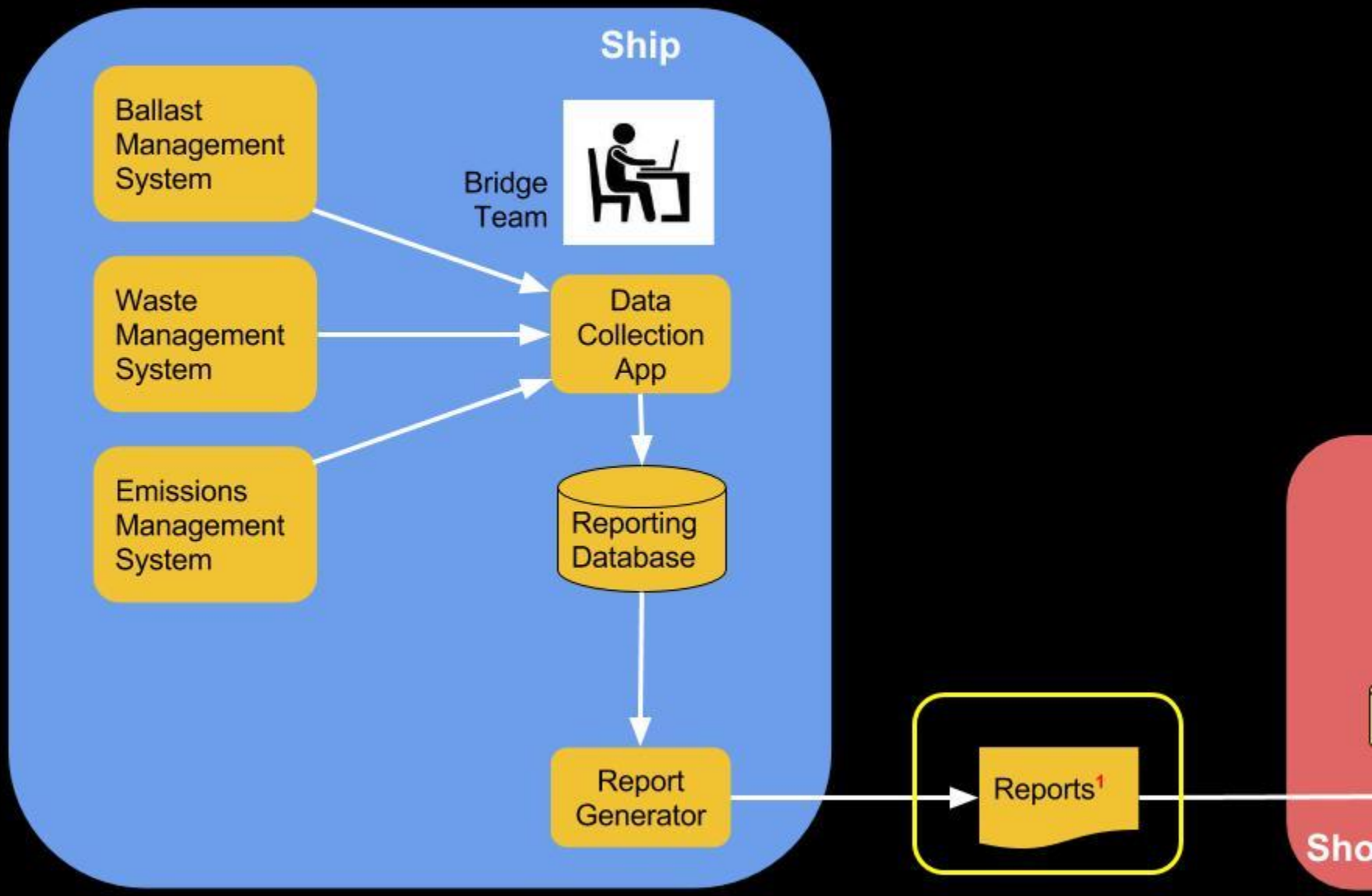
Notes:

- Country code, State/Province, Port code would be 99:99:999 in case of the report is owned by an inter governmental region
- Note: igr would be 999 if the report is not owned by an inter governmental region
- Note: if the report is owned by a country then state/province, port code would be 99:999

Report Properties

- Type (Single Window, Customs, Health, etc.)
- Submission Criteria (Who?, When?, Where?, How?)
- Format (Hard Copy, Fax, PDF, XML, etc.)
- Languages (i.e. Korean & English)
- Form Layout Template
- Fields (Vessel Name, Arrival Port, etc.)
- Report Database Sources (Table name, Field name)

Scenario 1



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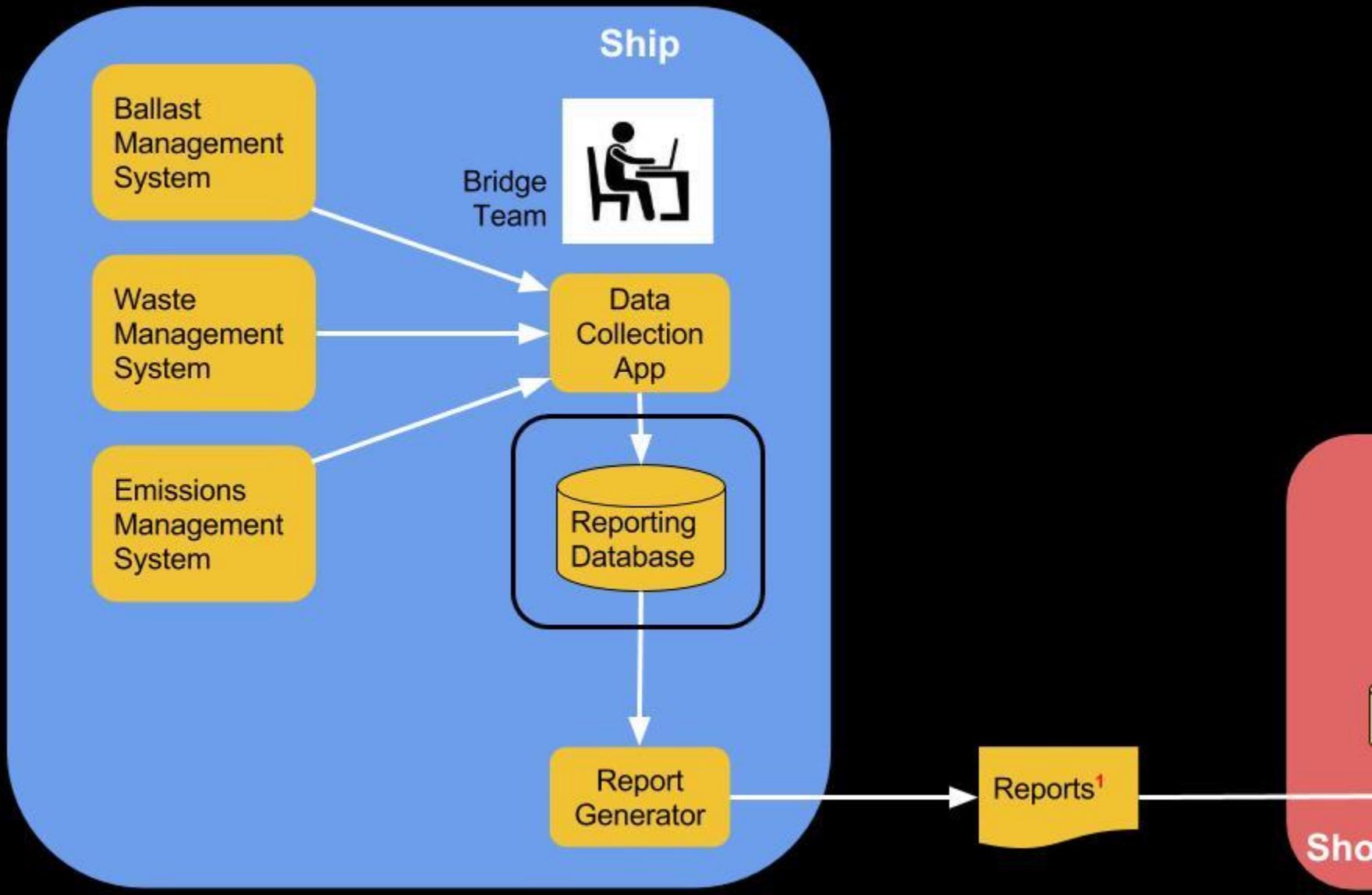

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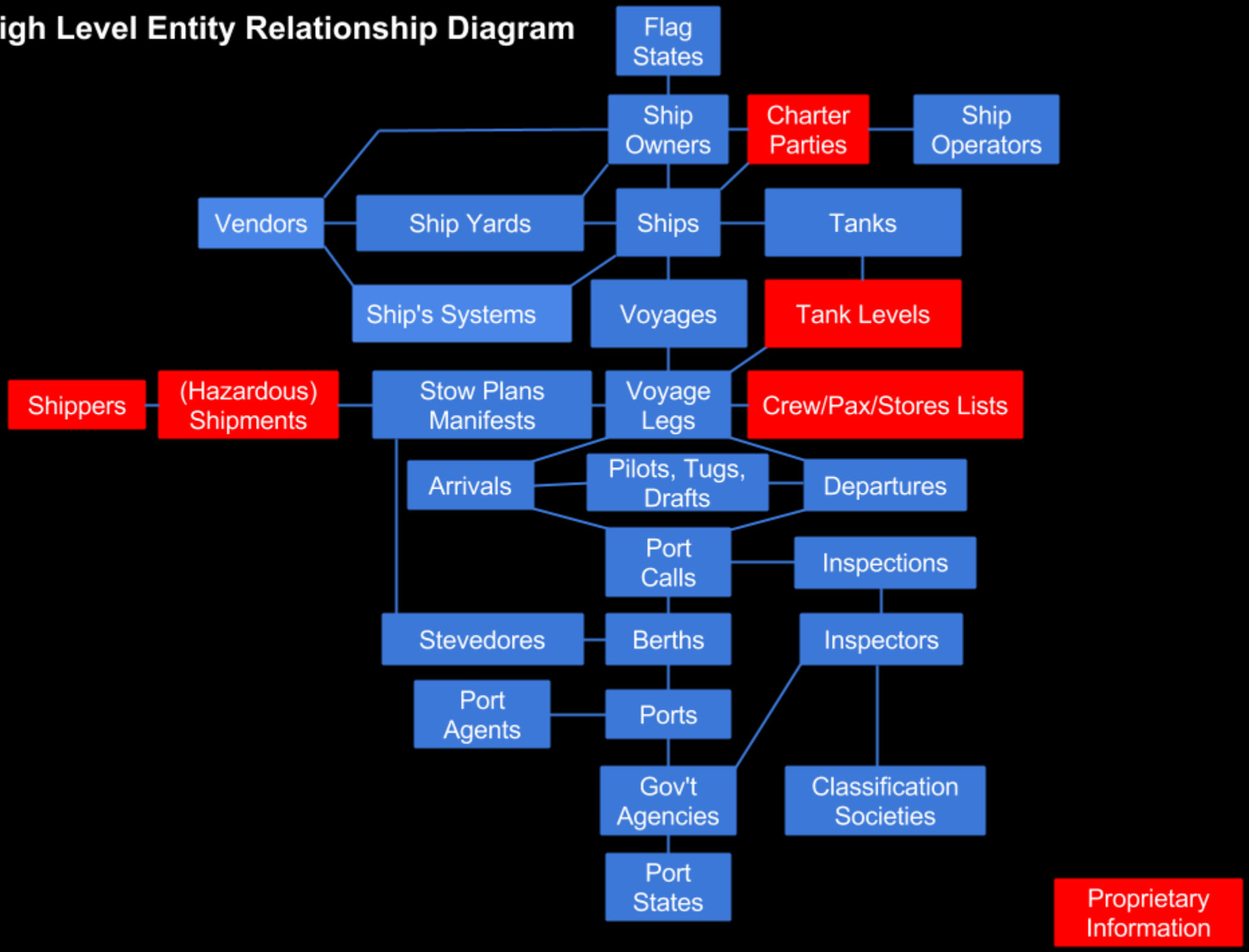
High Level Entity Relationship Diagram



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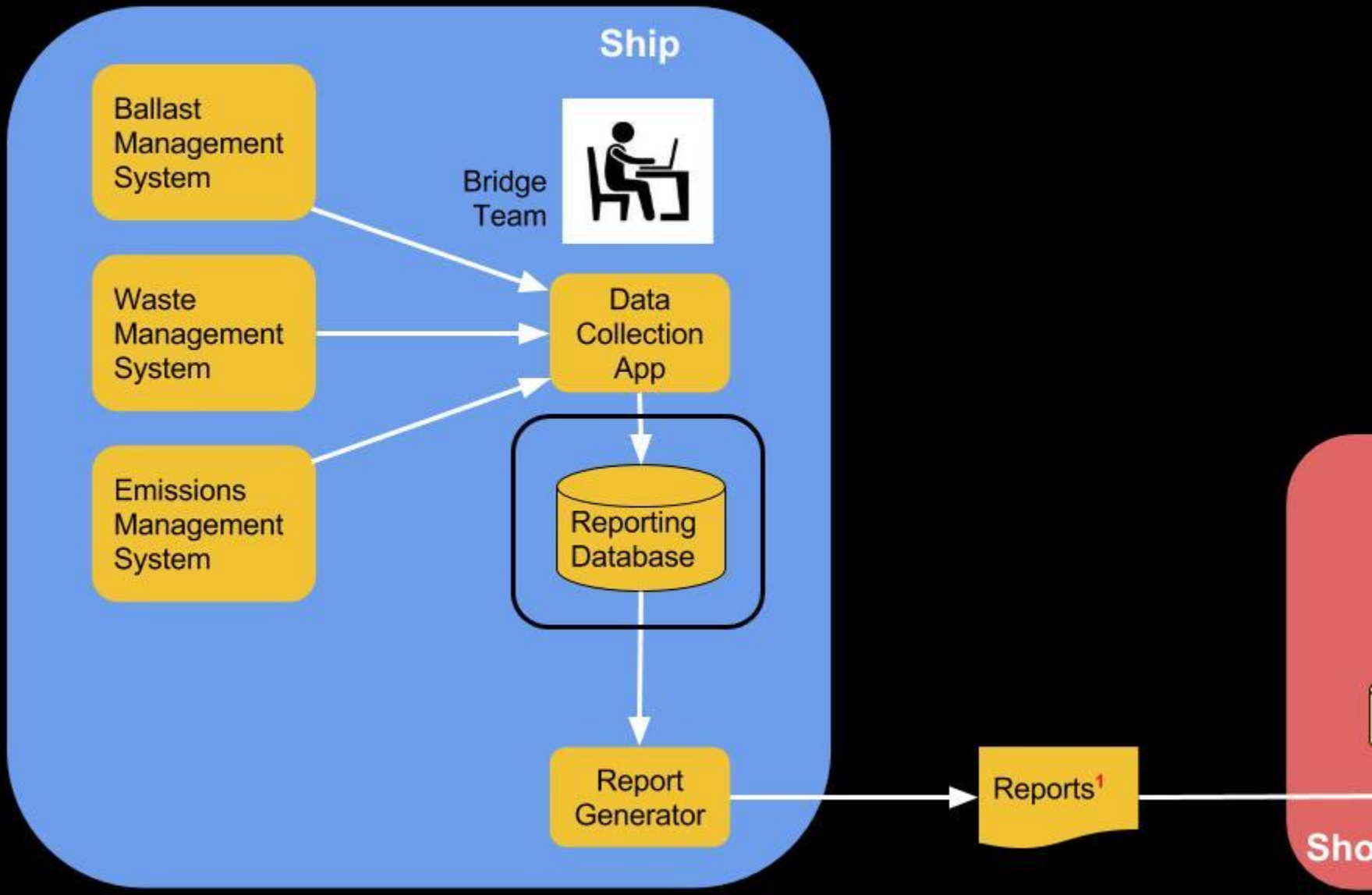

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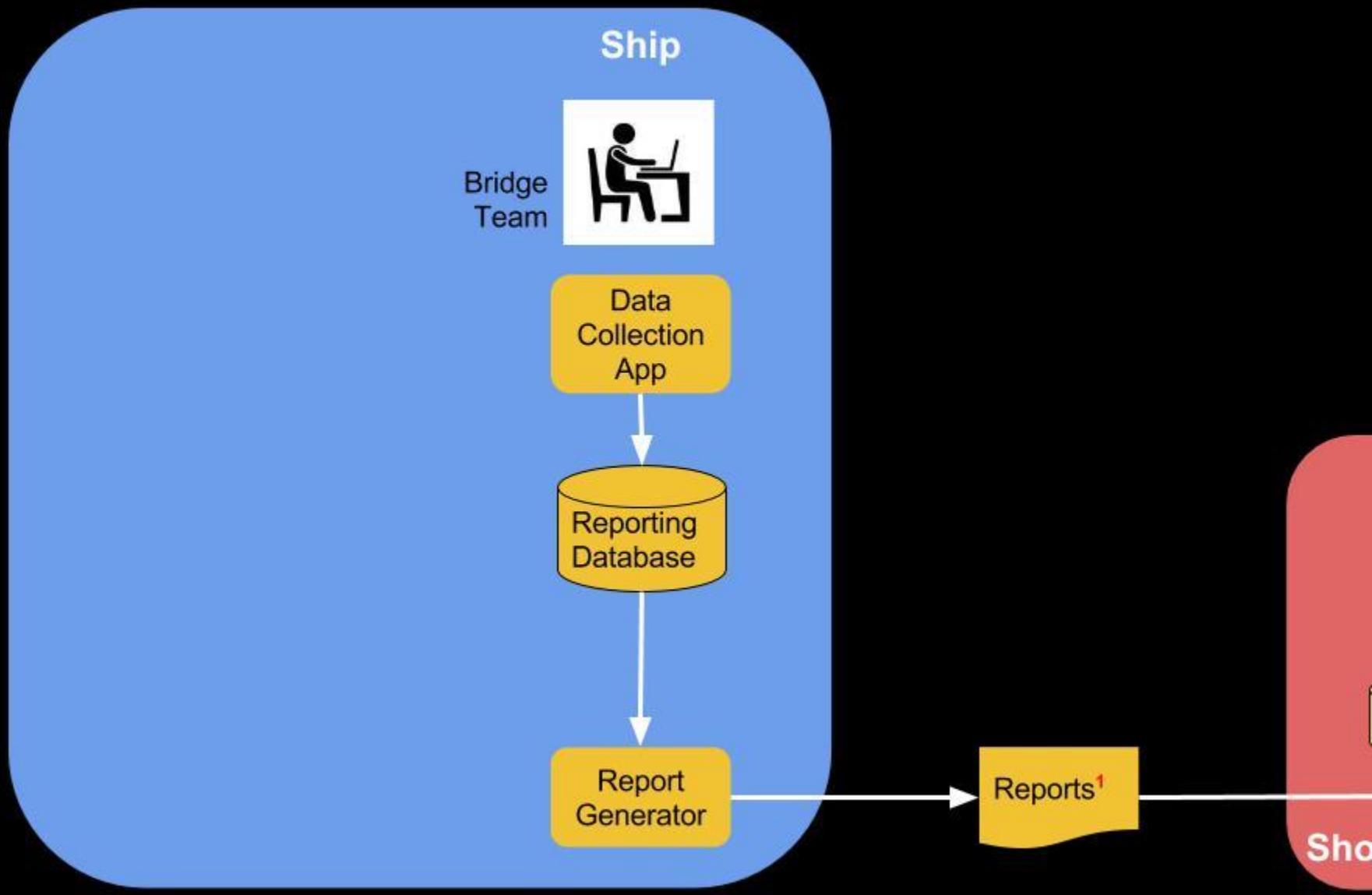

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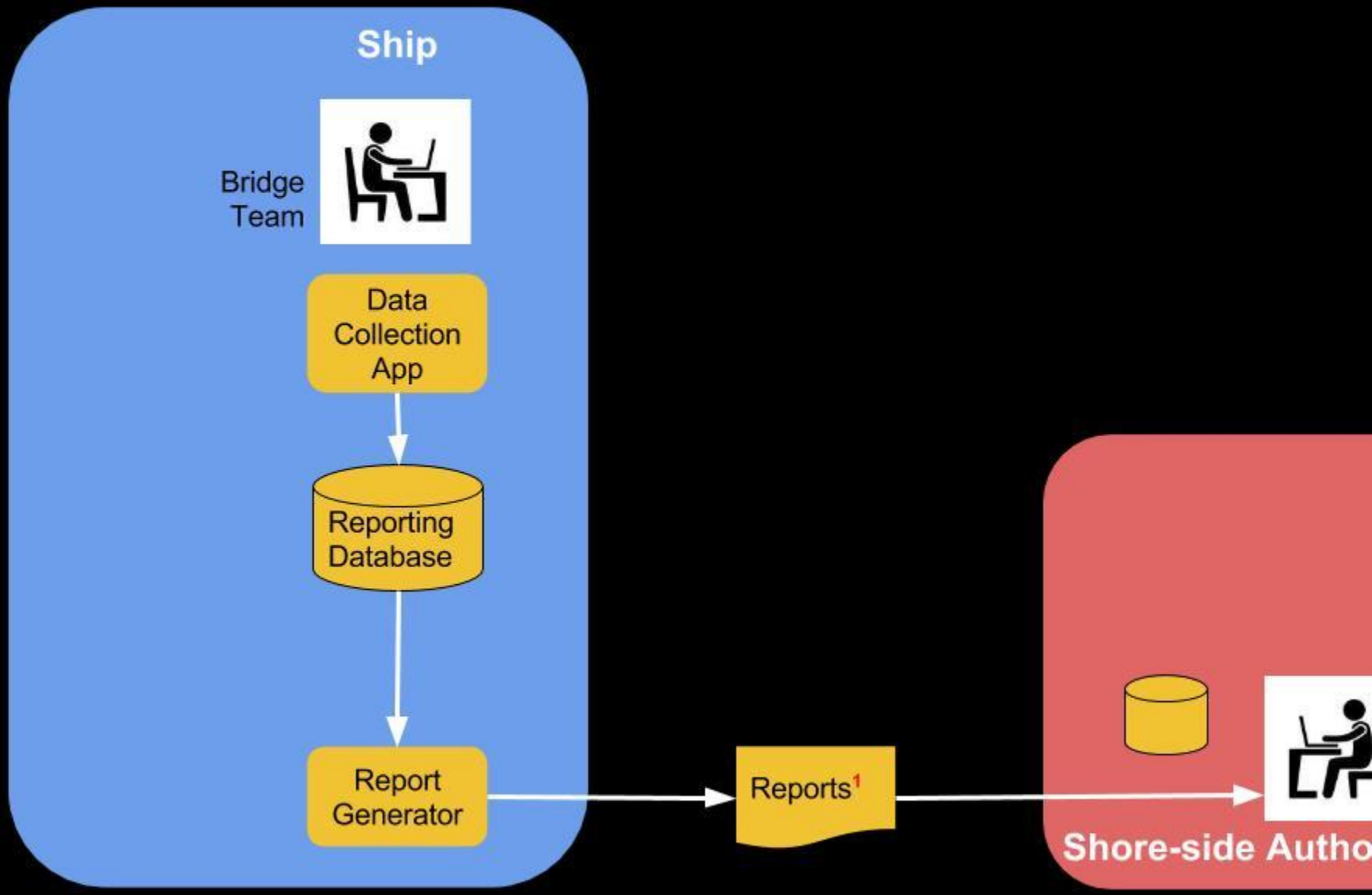

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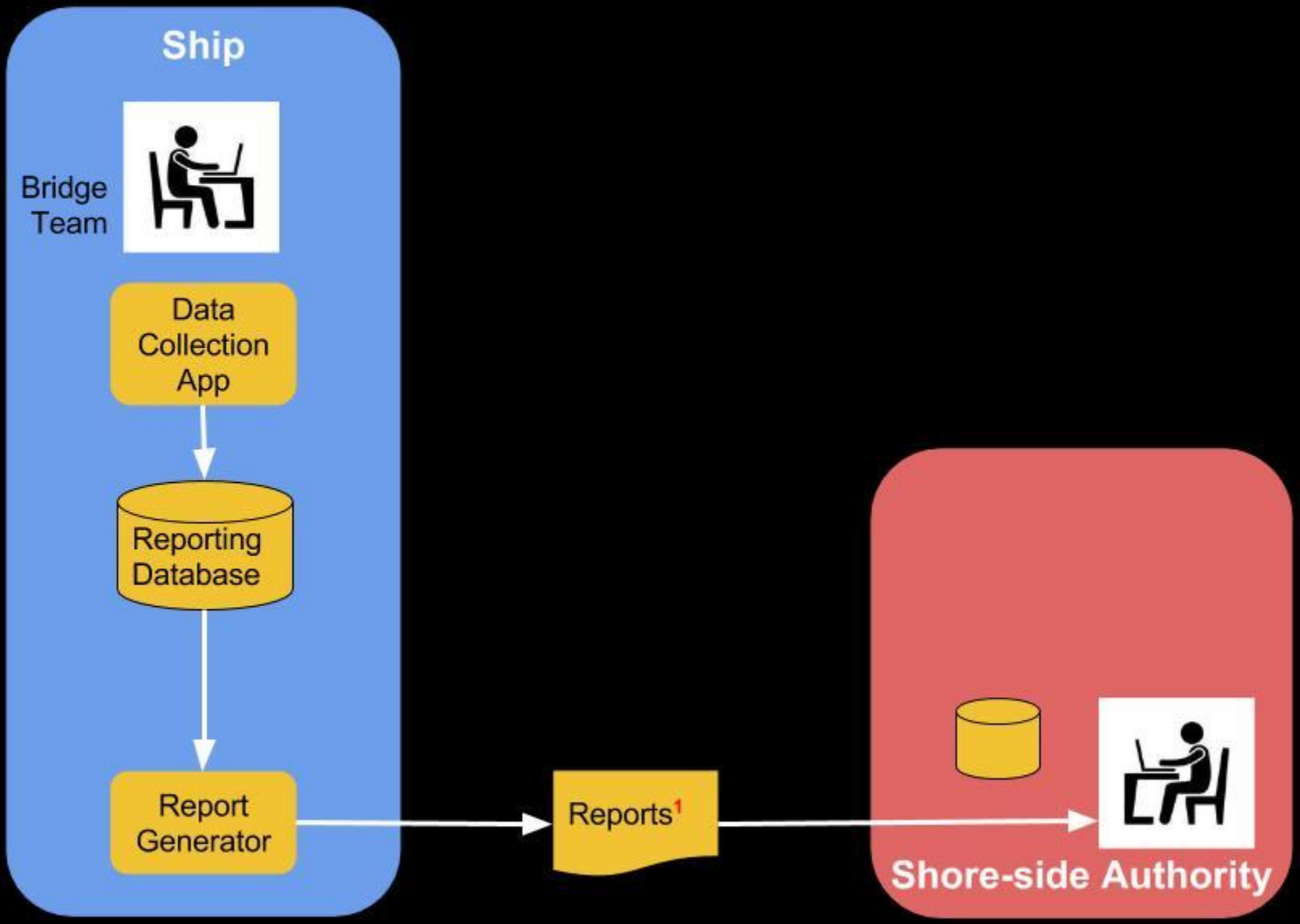

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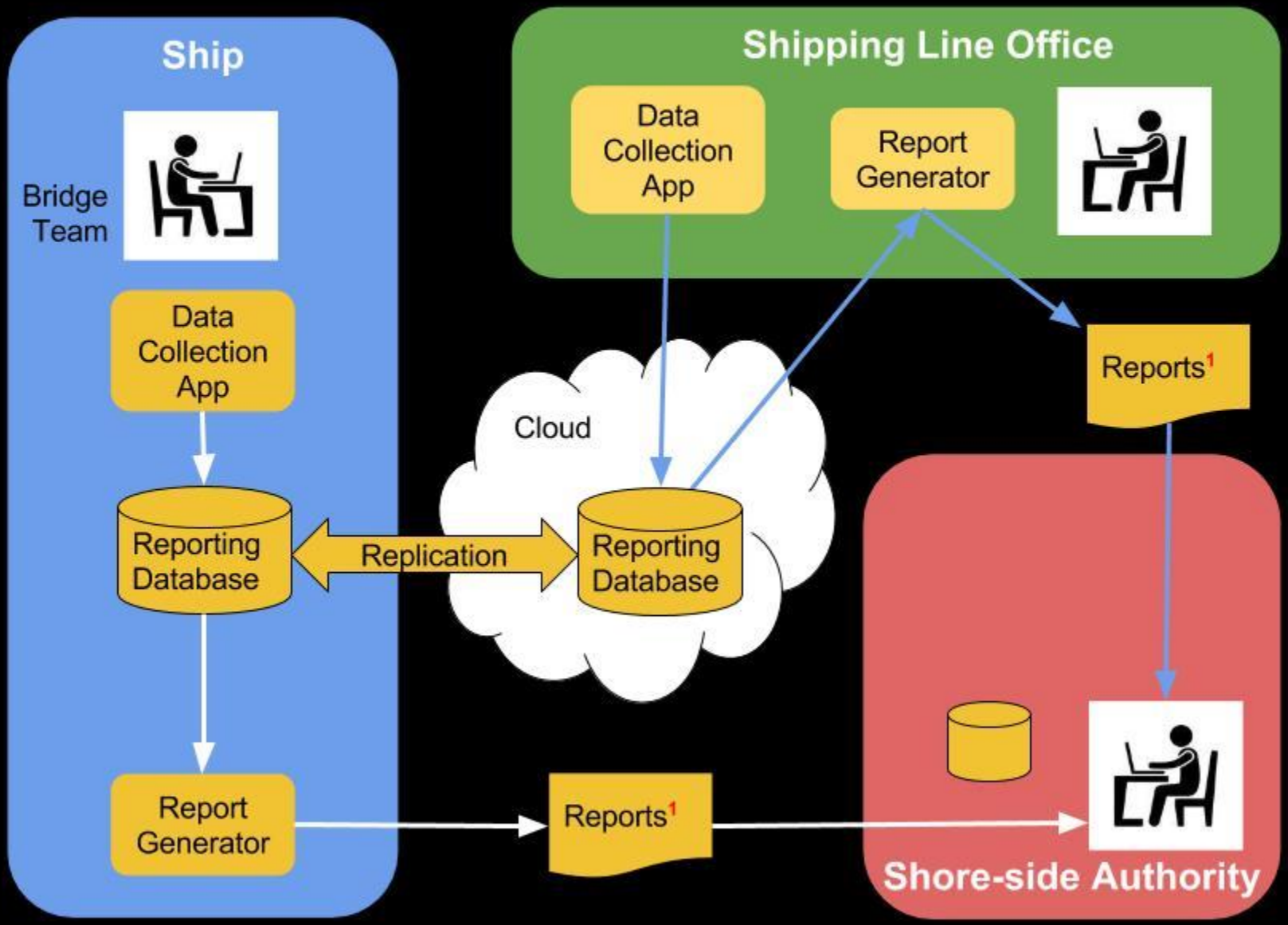
Scenario 2



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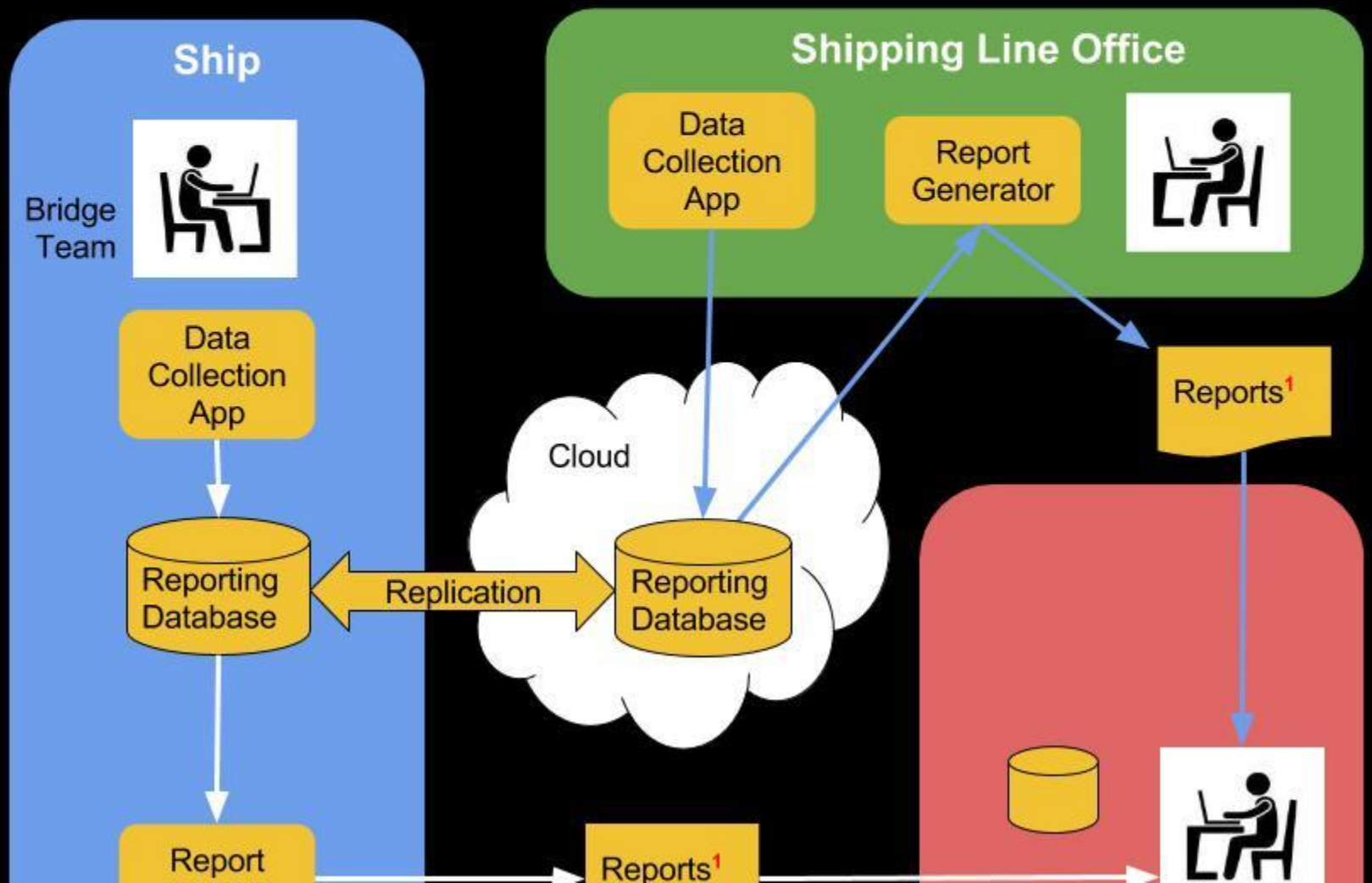
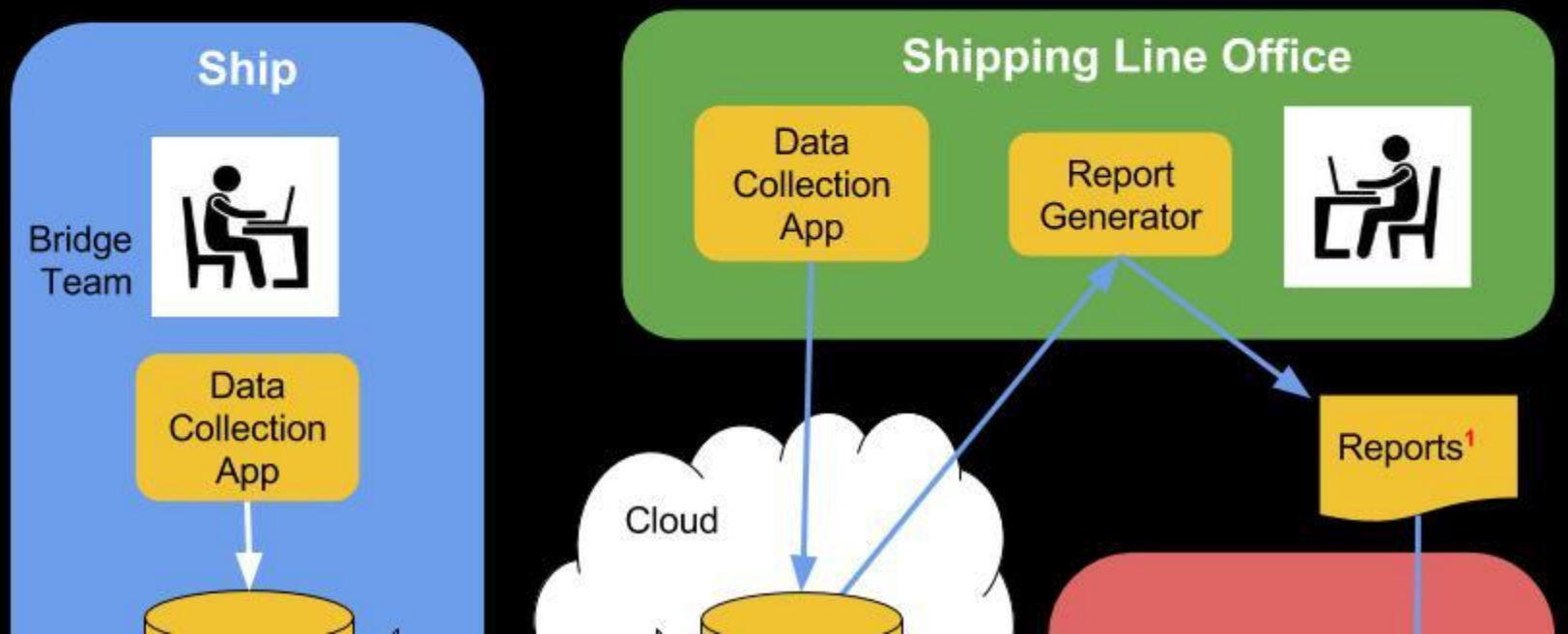

Ship
Bridge Team
Data Collection App
Reporting Database
Report
Shipping Line Office
Data Collection App
Report Generator
Reports[1]
Cloud
Replication
Reporting Database
Reports[1]

Scenario 2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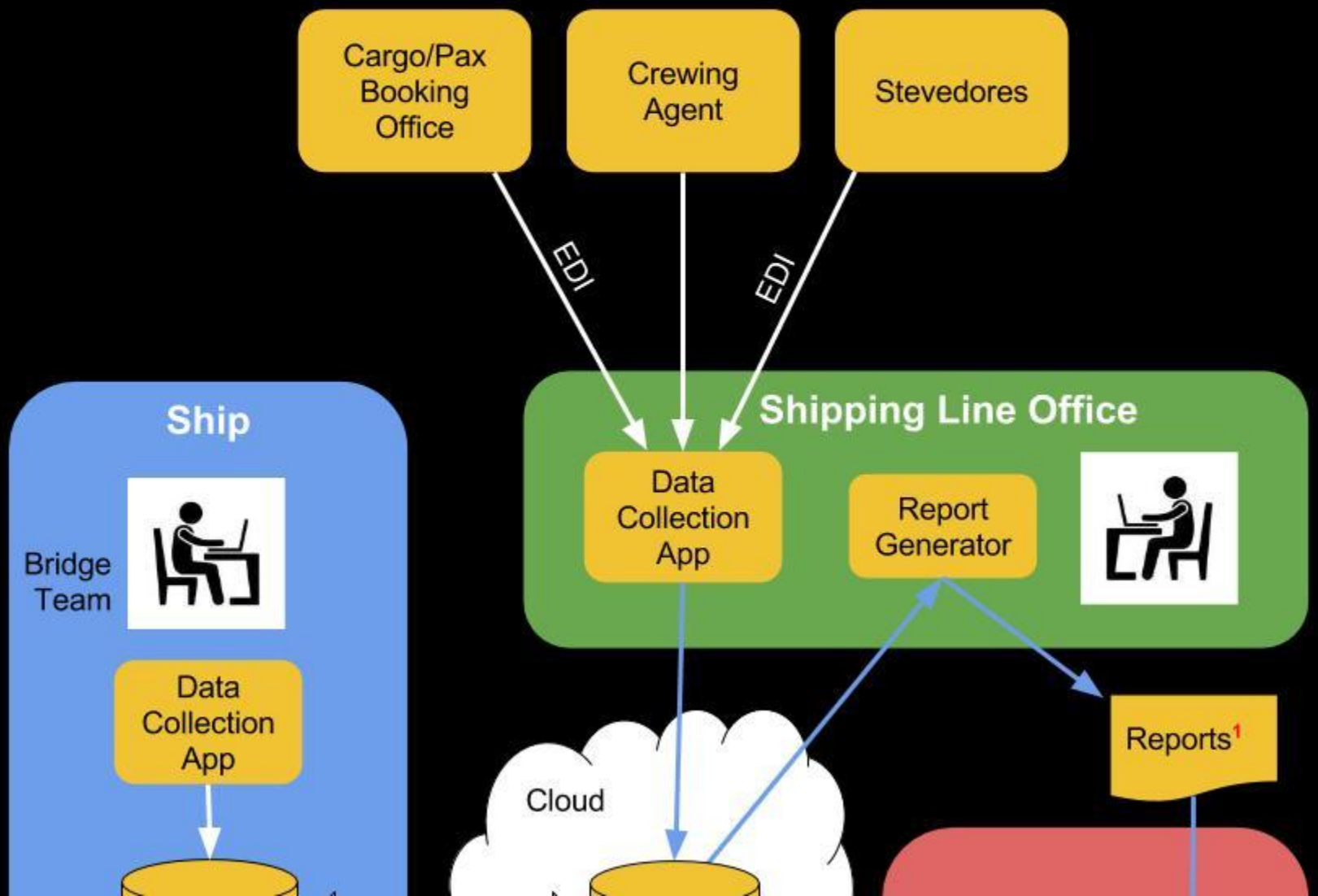
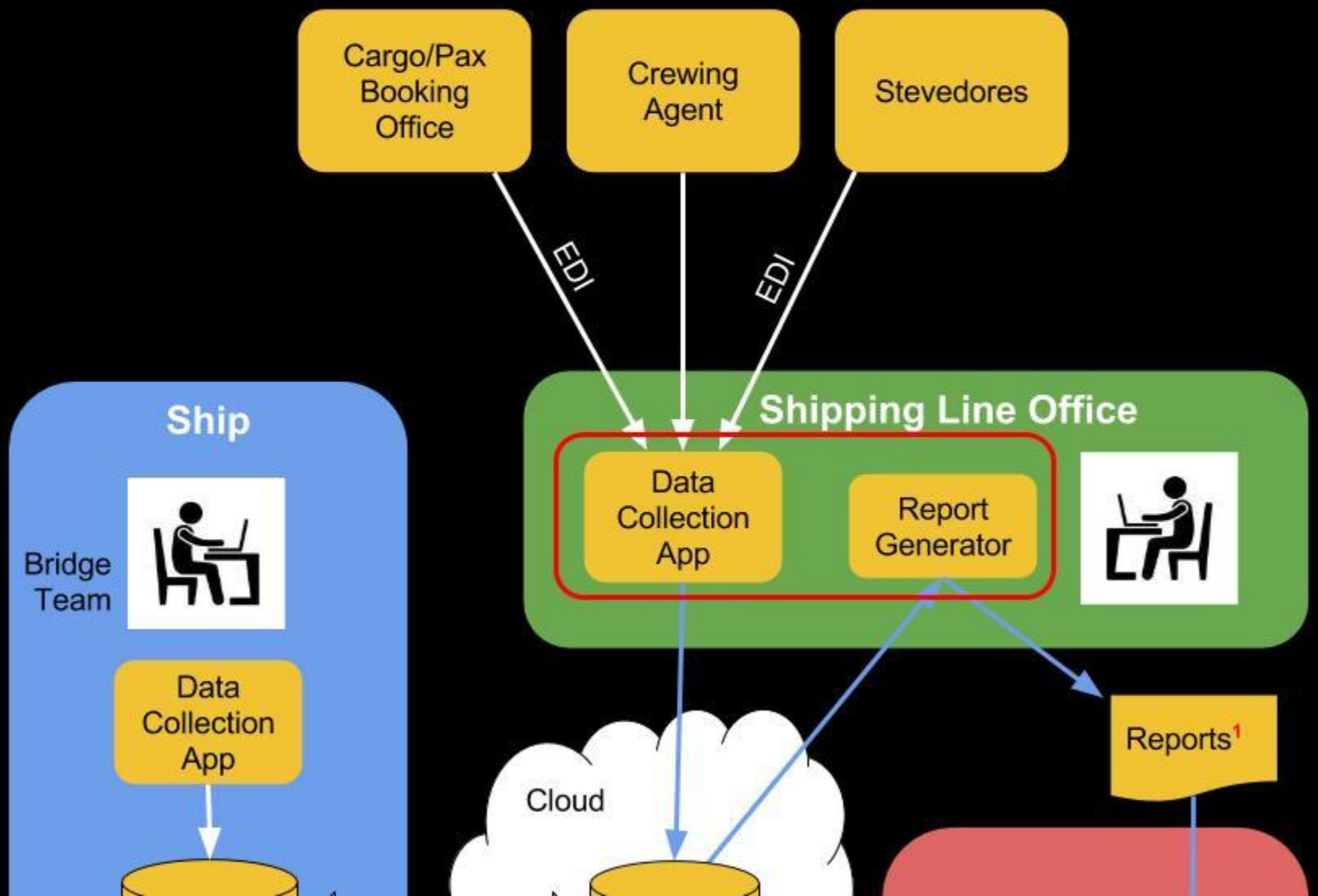

Cargo/Pax Booking Office
Crewing Agent
Stevedores
EDI
EDI
Ship
Bridge Team
Data Collection App
Shipping Line Office
Data Collection App
Report Generator
Reports[1]
Cloud

Scenario 2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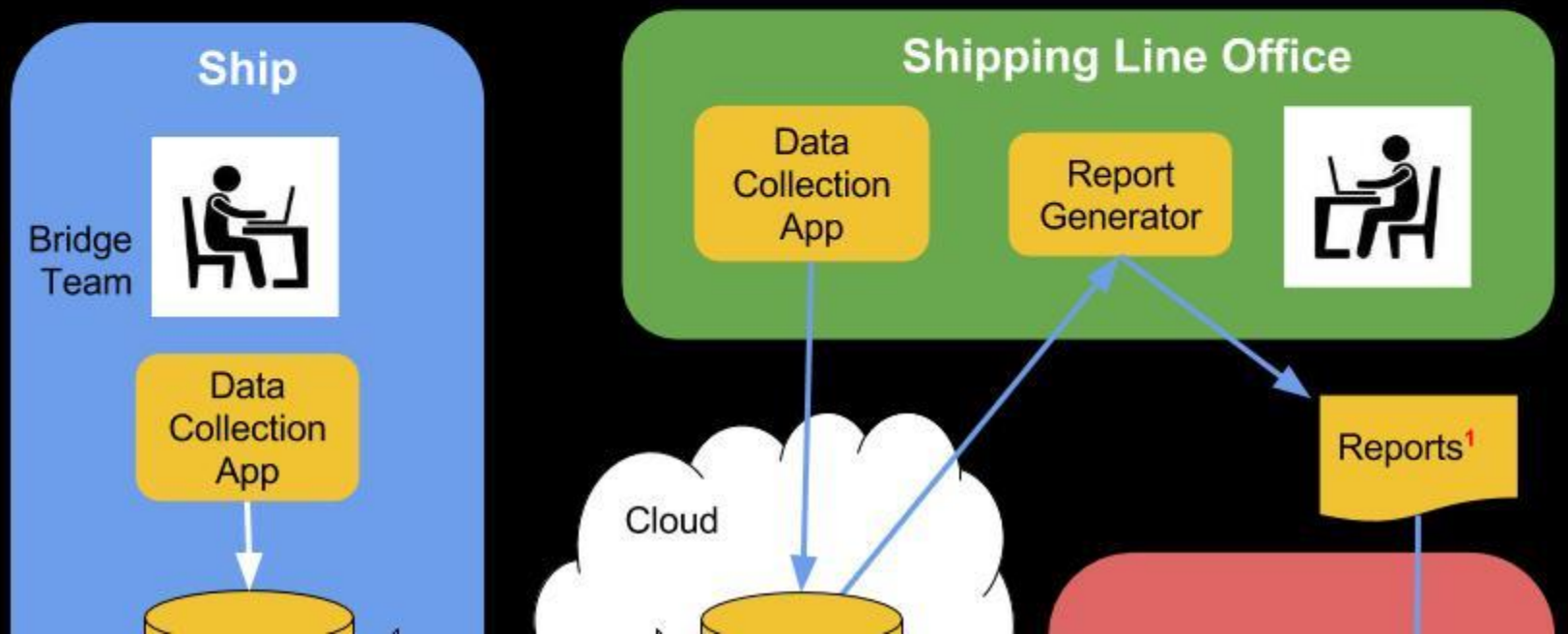
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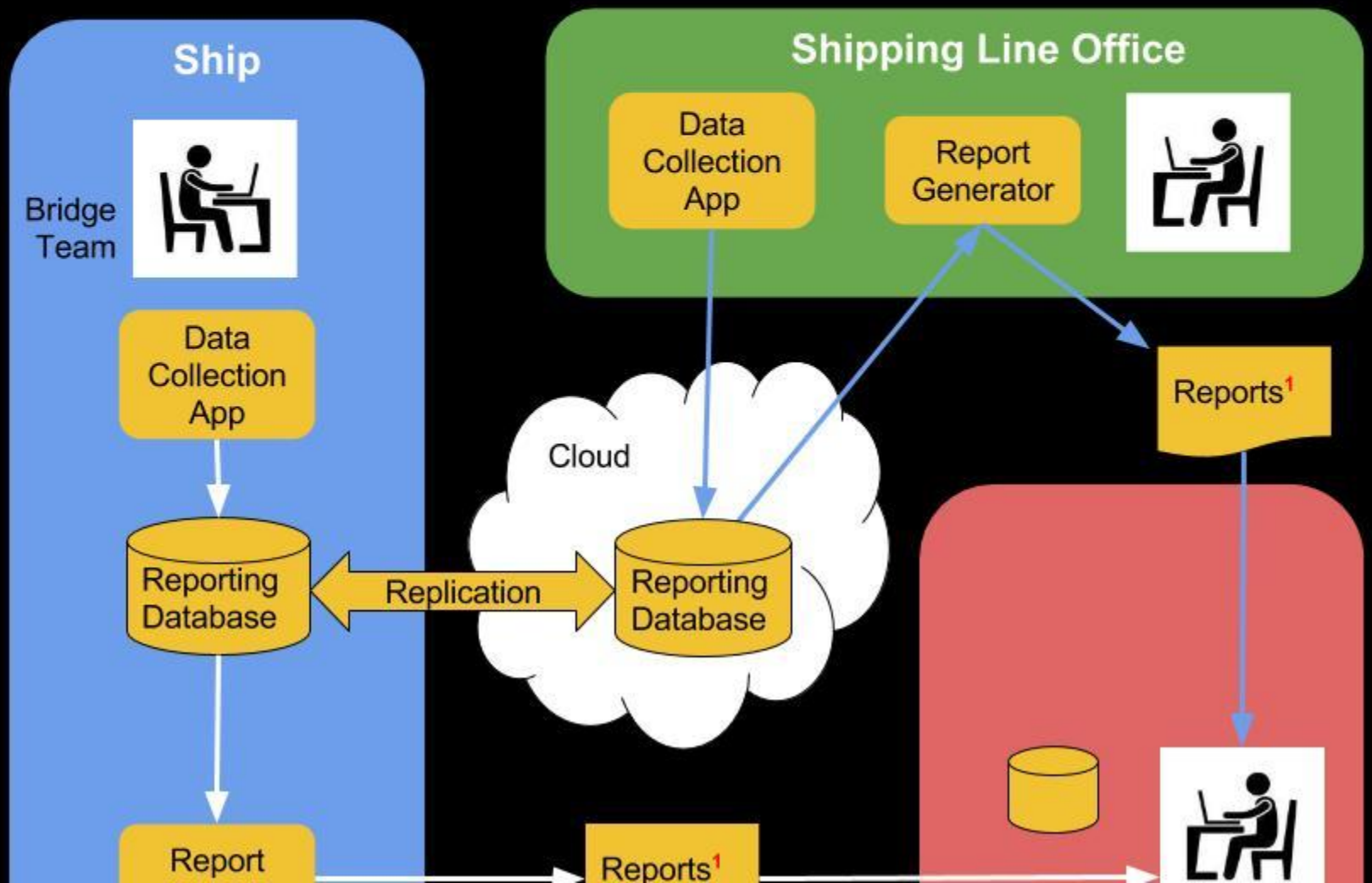
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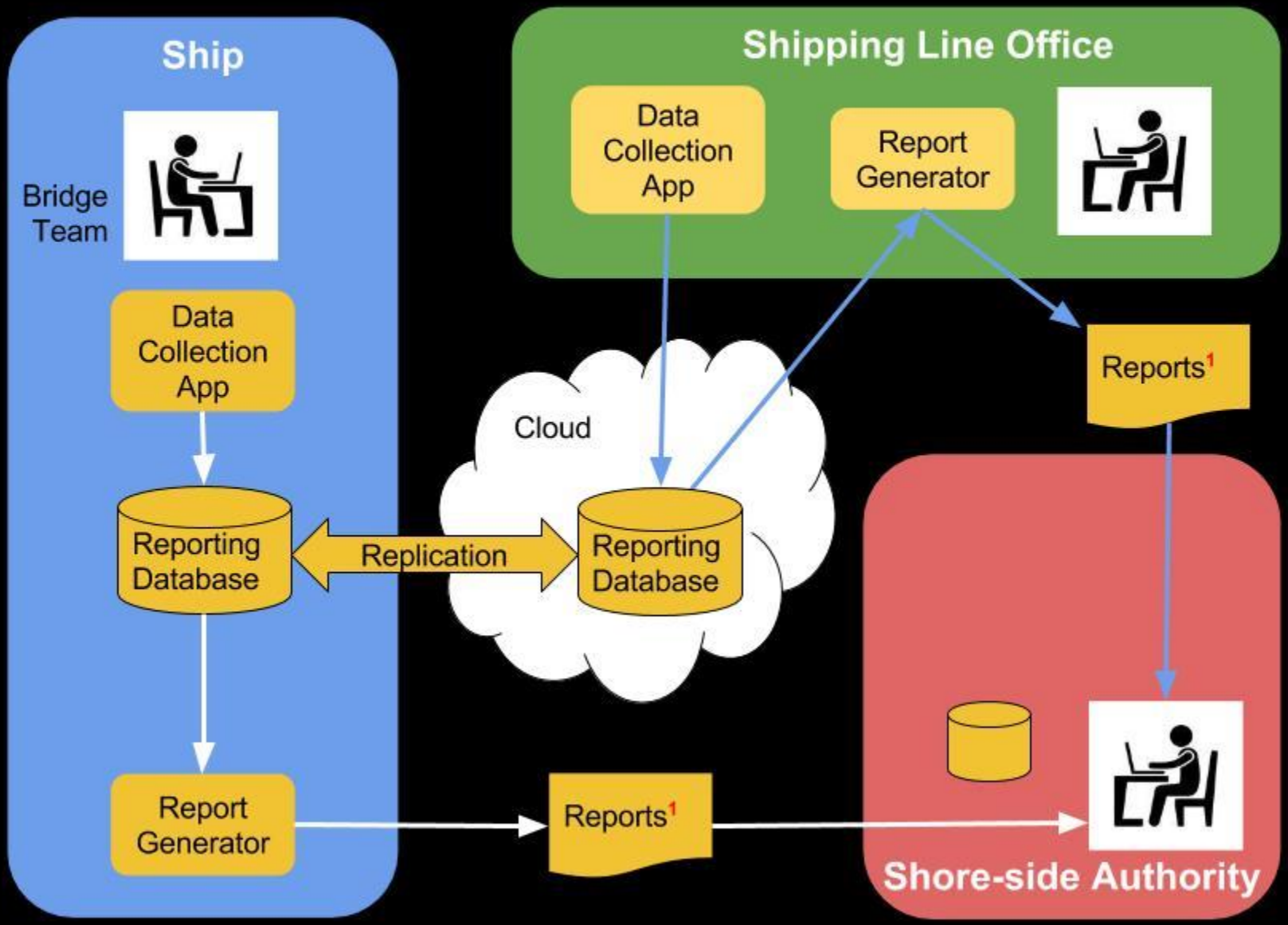

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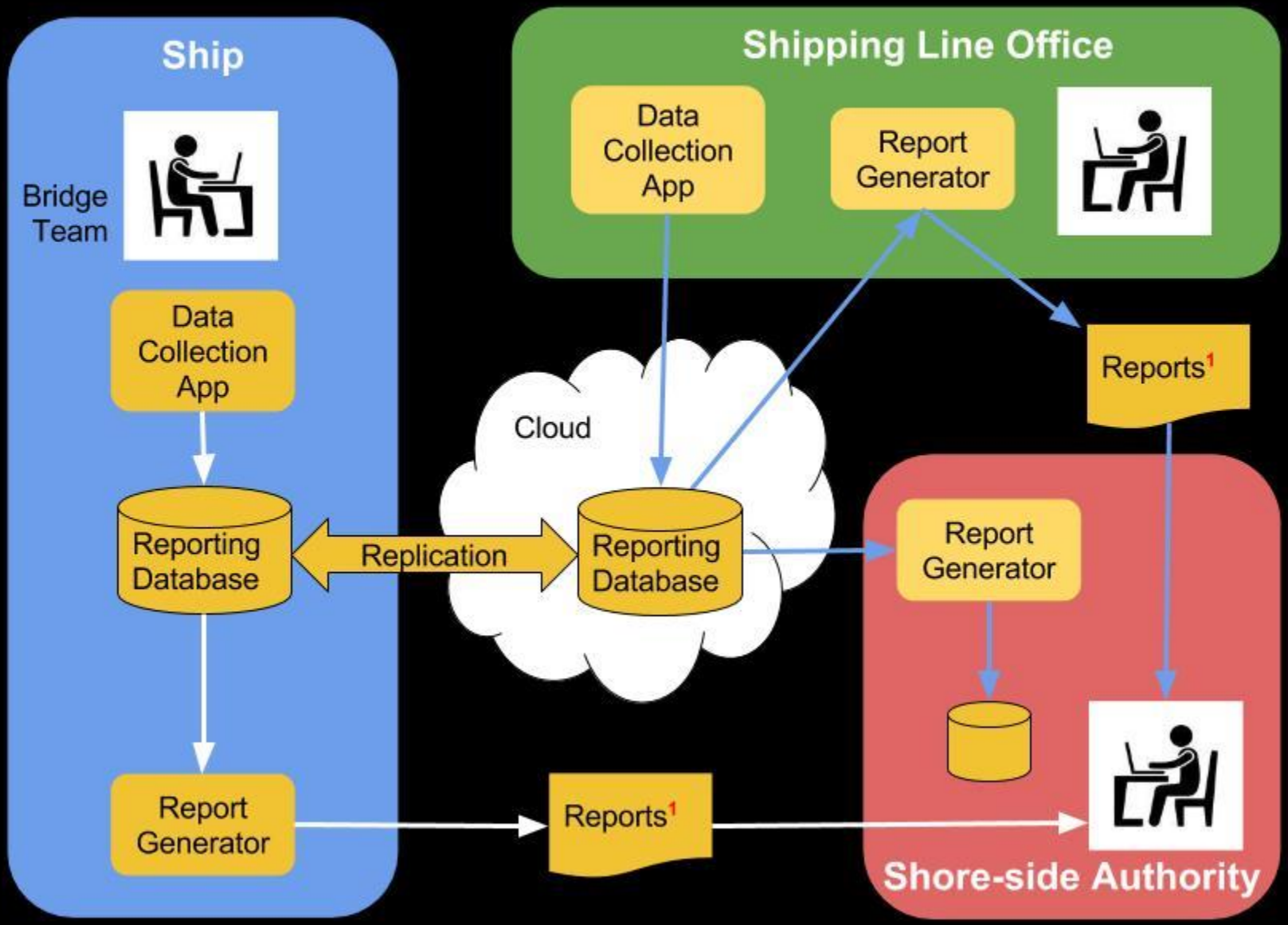
Scenario 3



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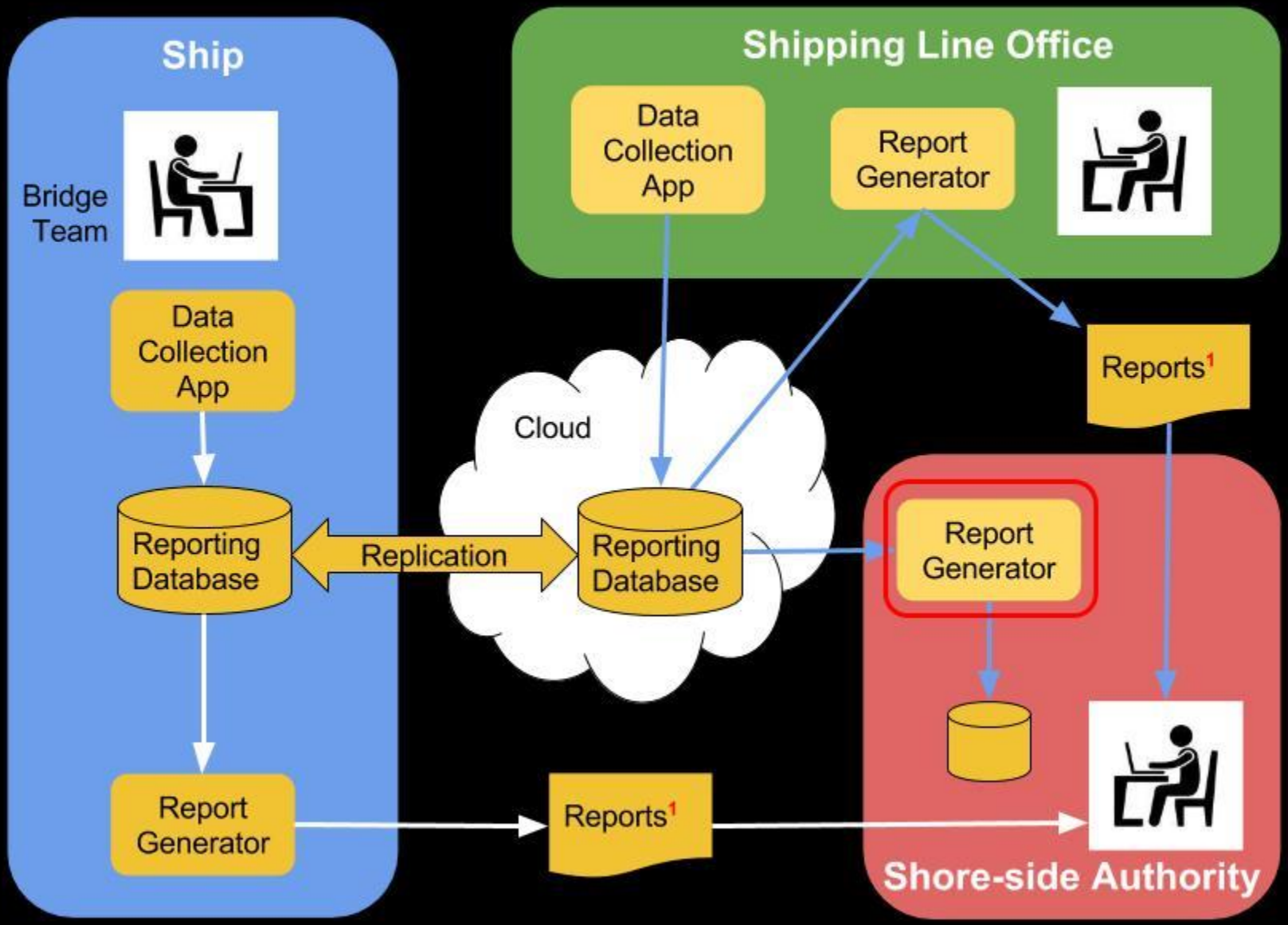
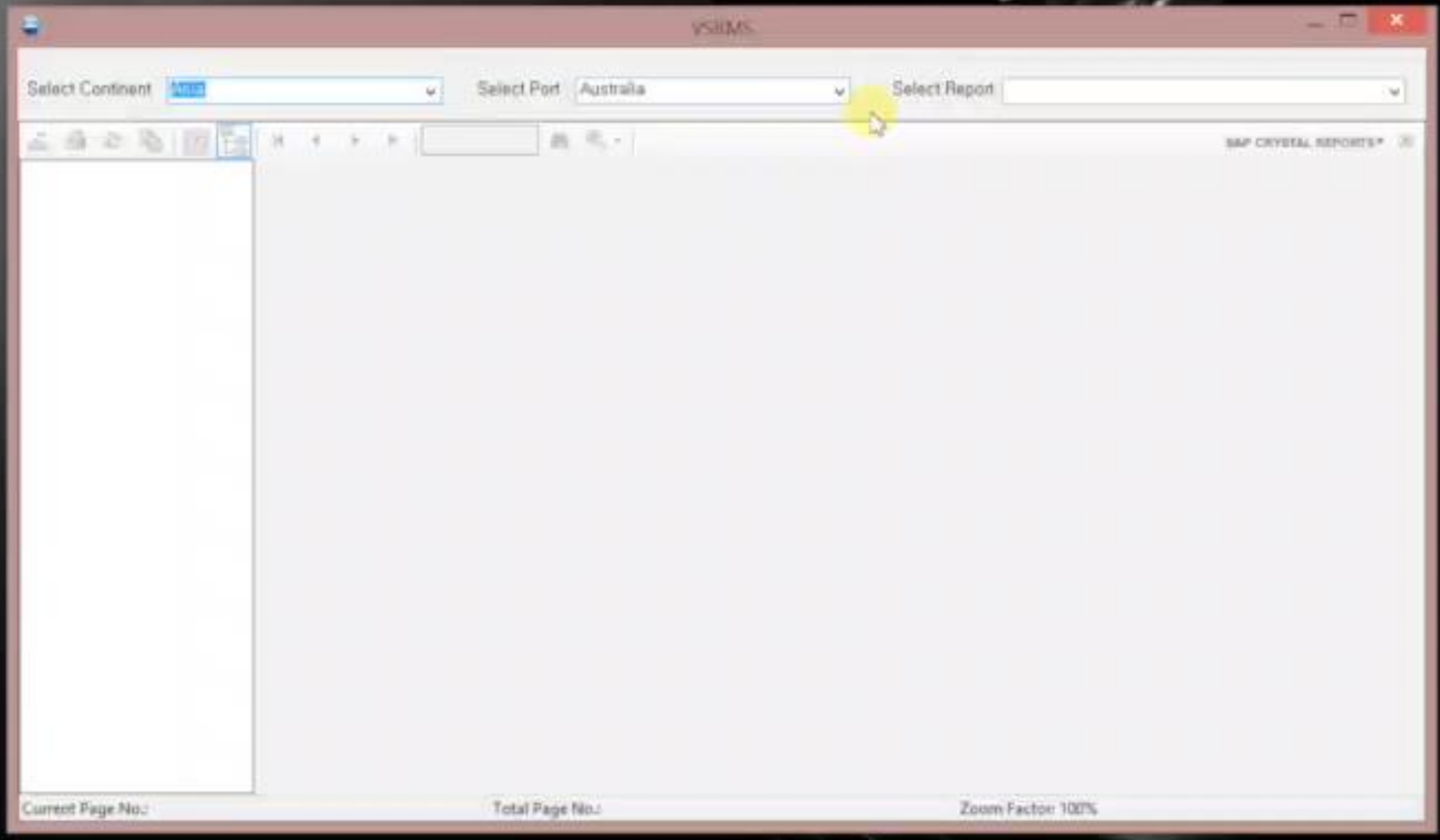
Scenario 3



[1] Hard copy, FAX, PDF, XML, CSV, XLS, RTF, MS Word, etc.

Proposed Roadmap for roll-out of Automated Ship Reporting

1. IMO FAL Committee asks IALA & IEC to develop Ship Reporting Standards to create a viable "eco" system for reporting app developers
2. IALA identifies and categorizes Ship Reports in an open library with bi-annual updates
3. IALA designs and publishes the Reporting Database S-200 PS with bi-annual updates
4. IEC adopts emerging Internet of Things (IoT) standards for ship-board M2M interfaces
5. ICS/BIMCO set-up and administer access to the Reporting Database by authenticated users at the direction of individual shipping lines
6. ICS/BIMCO develops and publishes software that enable reporting app developers to "self-test" compliance with Ship Reporting Standards
7. Shipping Lines and 3rd party vendors develop and maintain reporting apps
8. Shore-side Authorities develop and maintain Reporting Database query tools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Select Port
Australia
Select Report
SAP CRYSTAL REPORTS
Current Page No.:
Total Page No.:
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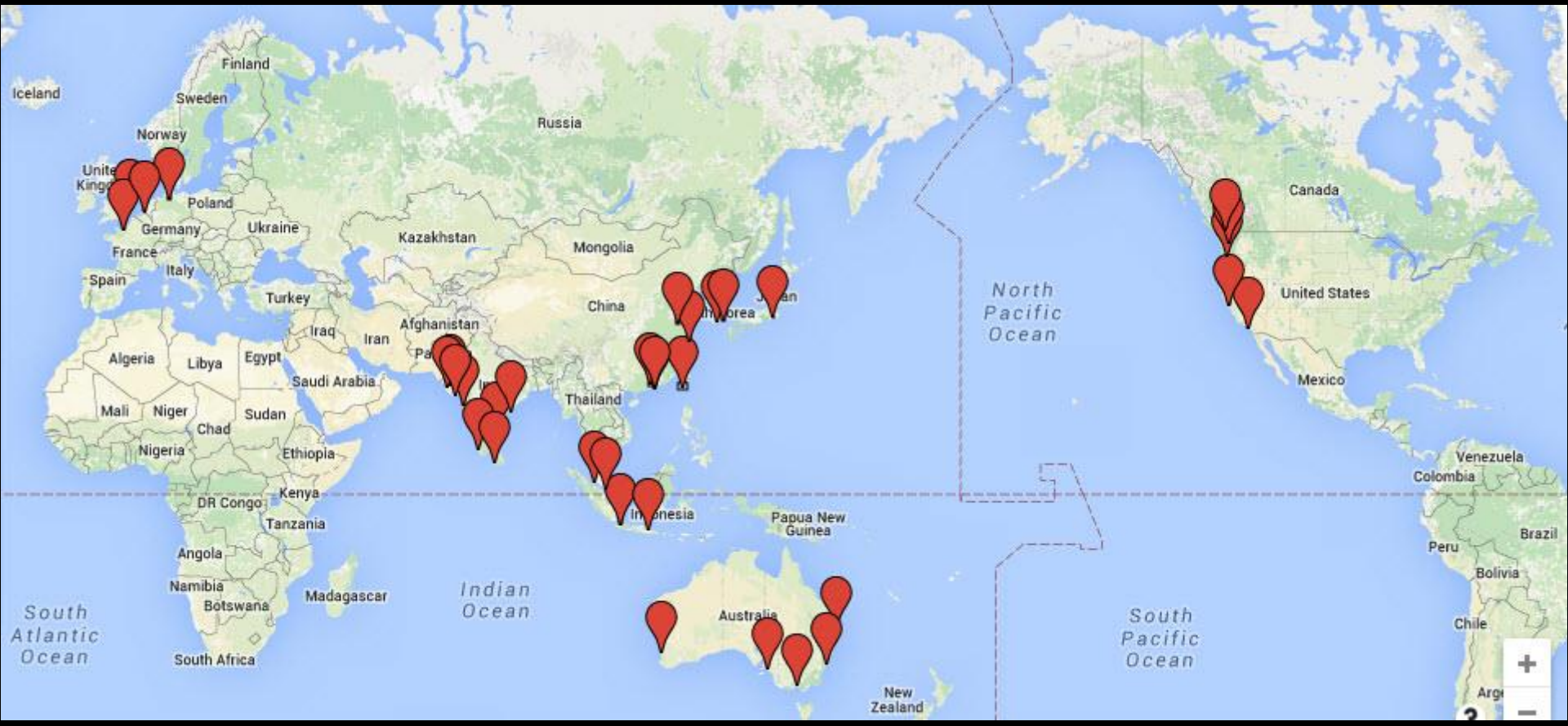
VSRMS

Vessel Register	Person Register	Ship's Particulars	Ship's Certificate
Voyage	Port Of Call	CARGO	Crew/ Passenger Voyage
Articles	Ship's Store	Health	Vaccination
Waste	Security	Currency	NILL List
Ballast Water	Ballast Water Details	Ship's Repair	Disembark

Generate Reports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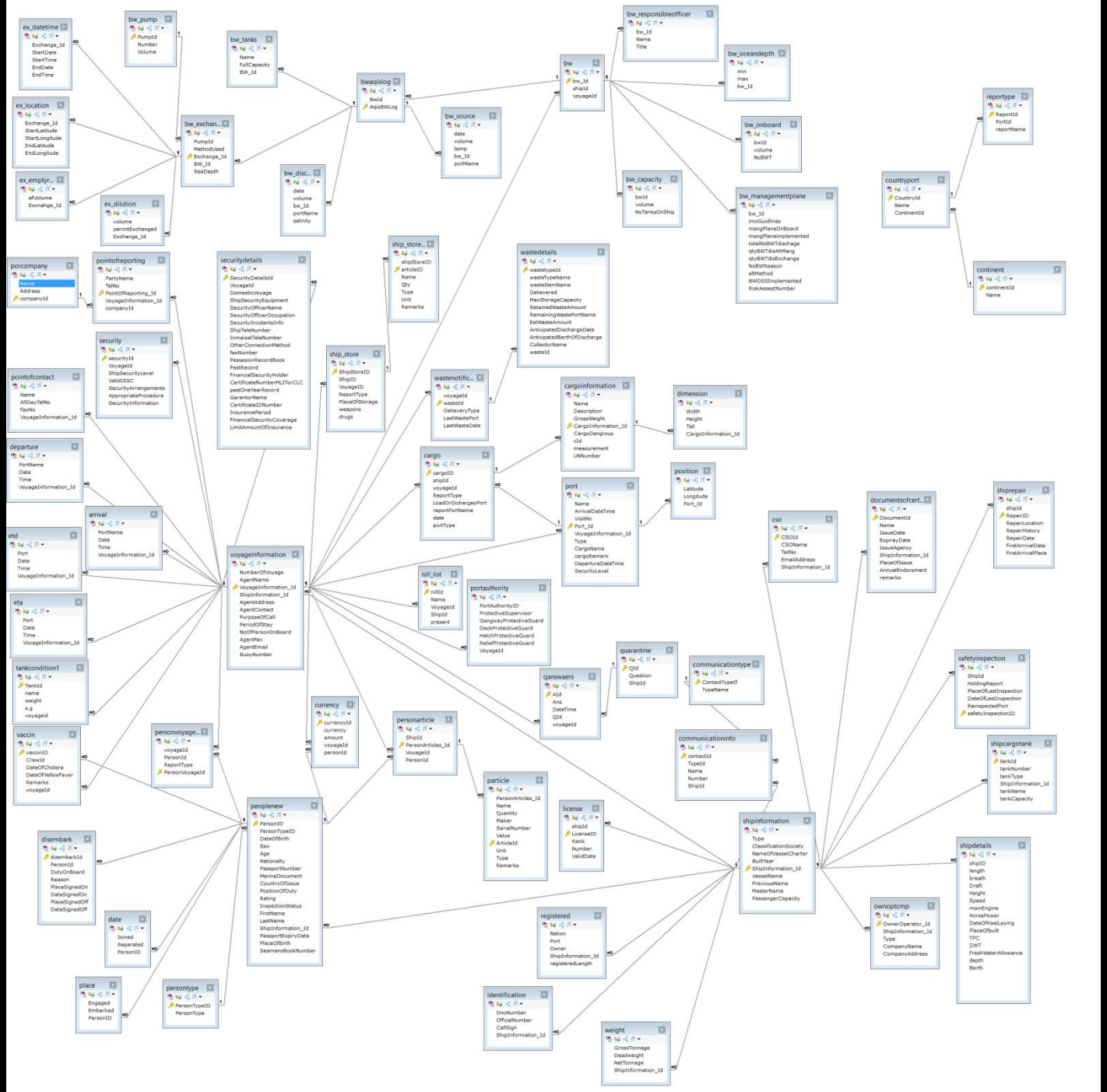
Indian Ocean
South Atlantic Ocean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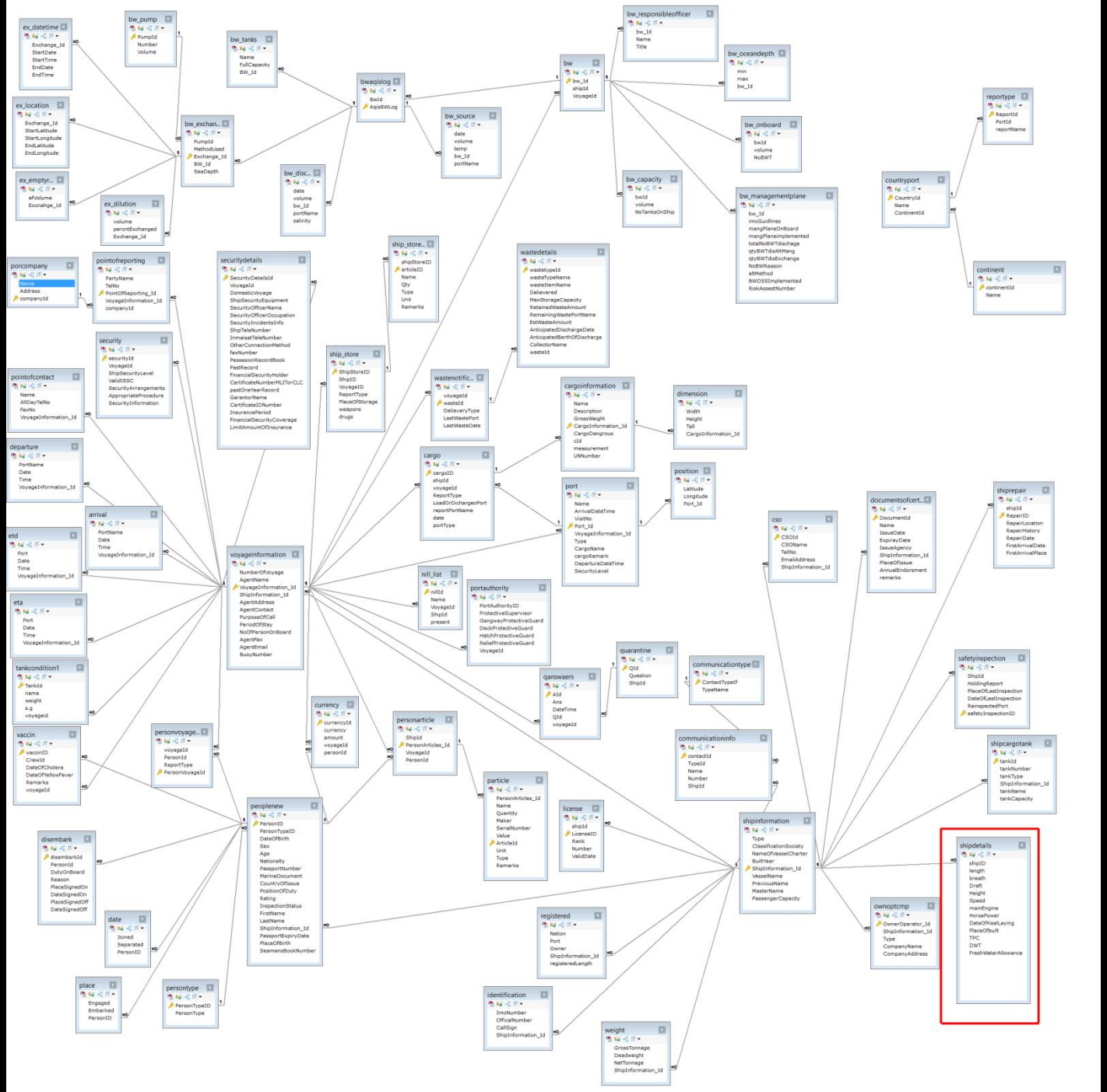
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shipdetails

8

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- breath
- Draft
- Height
- Speed
- mainEngine
- HorsePower
- DateOfKeelLaying
- PlaceOfbuilt
- TPC
- DWT
- FreshWaterAllowance

Thank you!

Questions?

VSRMS

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Ship Reporting Architecture Road Map

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