

Integrated Report Distribution

System Interface Guide

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Document History

Version	Date	Changes	Prepared	Approved
0.1	15/05/2020	Initial version	Cloud Computing	xxx
0.2	27/05/2020	EMSA revision	EMSA	
1.0	01/06/2020	Removed status element from ISRReceipt	CloudComputing	
2.0	09/11/2020	Included system interfaces for services: Receive MRS/VTs Report, Push and Receive Authority Responses	CloudComputing	

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1. Introduction

1.1 Document Overview

This document describes the system to system interface of the Integrated Report Distribution (IRD) system. It serves as a reference for all technical aspects related to the implementation of this interface.

1.2 Scope

This document provides a detailed description of the system interface between external systems and IRD. The system interface uses the following messages:

- ISR_Request
- ISR_Receipt
- ISR_Push
- MRS_VTS_ReportReceive
- MRS_VTS_ReportReceipt
- AuthorityResponse
- AuthorityReponseReceipt
- PushAuthorityResponse
- PushAuthorityReceipt

1.3 Applicable IRD release

This document is compliant with IRD version 1.2.

2. System Interfaces

2.1 Services Overview

The IRD is a system operated by EMSA and available to Member State applications and to VDES ground station.

The IRD system monitors ships sailing in areas of interest and sends Integrated Ship Report (ISR) messages to users (via e.g. system interface, email, user interface) when specific events occur, such as: entry of a ship in the area, exit of a ship from the area, call of a ship in a port in the area, departure from a port in the area, reception of an MRS report regarding a ship in the area, reception of an Incident Report regarding a ship in the area, changes to ships particulars, etc. This is done by configuring a “distribution service” for a specific area of interest and a specific Member State system. In addition, the IRD allows exchange of MRS/VTs reports between ship and shore either by using VDES or Internet connection.

The ISR is composed of information related to the ship from EMSA maritime applications (e.g. STAR-TRACKING, SSN-EIS, OVR) and from the Voyage Information Service (VIS) of the STM (Sea Traffic Management) project.

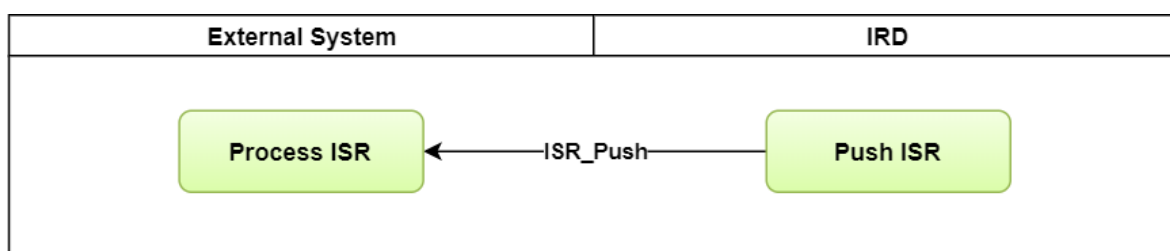
The IRD offers the following services:

- **Push ISR:** This service is used by the IRD to “push” to a Member State system or to Ground Station, which has been configured under a distribution service of IRD, ISR messages when certain events occur (e.g. entry into area). The trigger for this service is an event or list of events previously configured under the distribution service.
- **ISR Request / Response:** This service is used to request an ISR for a specific ship and a specific distribution service. The trigger for this service is an ISR Request message submitted by an external system. The resulting ISR is communicated through the Push ISR service.
- **Receive MRS/VTs:** This service is used to receive an MRS/VTs report from a specific ship.
- **Receive Authority Response:** This is service is used to receive an Authority Response to previously received MRS/VTs report.
- **Push Authority Response:** This is service is used to push an Authority Response. The trigger for this service is the reception of an Authority Response and at the condition that the ship is listed in IRD as using VDE-SAT.

2.2 Message flows

2.2.1 Push ISR service

The “Push” service requires the previous configuration of a distribution service with an area of interest, the identification of the external system’s end-point (i.e. the MS system) and a list of events that will trigger the generation of ISR. The Push ISR service involves the following flow of messages:

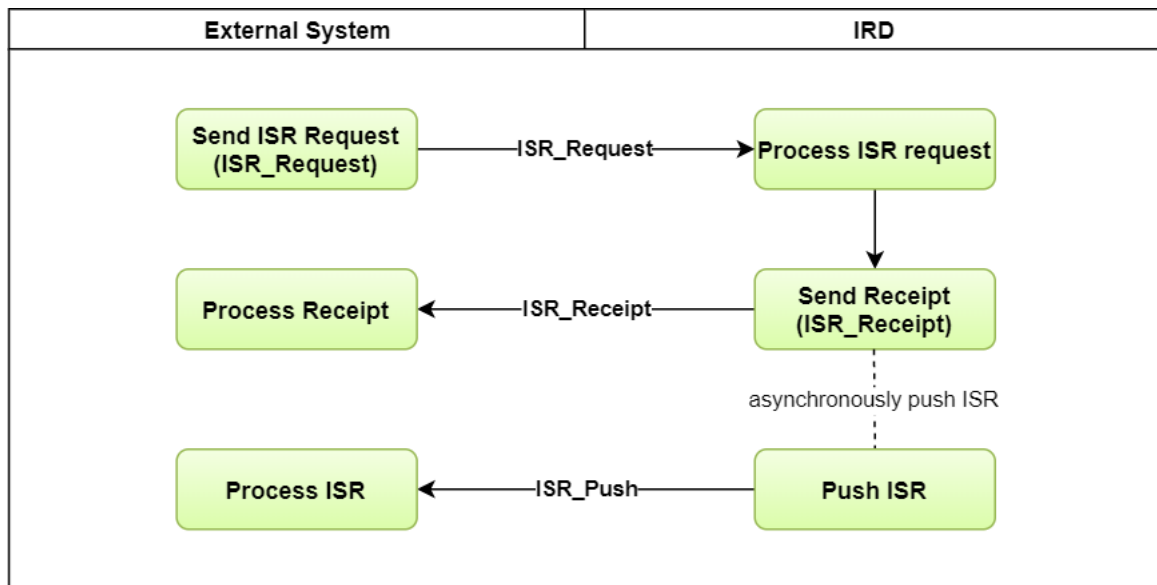


The message exchange flow is described in the following table.

Step	Action
1	An ISR_Push message is sent by the IRD to the external system – one-way messages without SOAP response. The HTTP response should be a 204 (No content) status code and an empty HTTP body – no SOAP envelope.
2	Upon receipt of the ISR_Push message, the external system should log and process it.

2.2.2 ISR Request / Response service

The request/response service involves the following flow of messages:



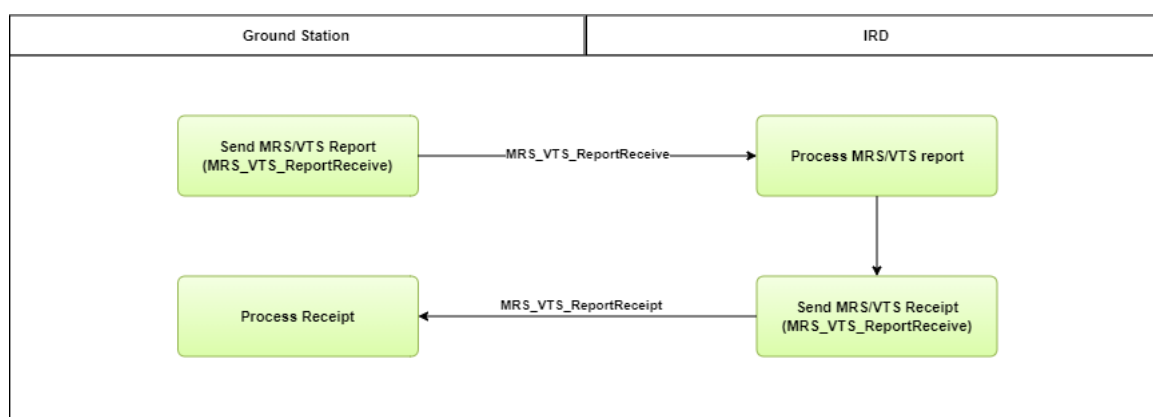
The message exchange flow is described in the following table.

Step	Action
1	An ISR_Request message is sent by the external system to IRD to request an ISR for a specific ship and a specific distribution service.
2	<p>Message Processing:</p> <ul style="list-style-type: none"> • IRD logs and validate the received ISR_Request message. • If the request is not successfully authenticated, an IRD_Receipt message with StatusCode='Unauthorized' is sent synchronously to the external system. • If the ISR_Request message is not well-formatted (not XML/JSON complaint) or not valid (not compliant with the corresponding schema), an IRD_Receipt message with StatusCode='BadRequest' is sent synchronously to the external system. • If the user requesting the ISR does not belong to the Distribution Service specified, an IRD_Receipt message with StatusCode='AccessDenied' is sent synchronously to the external system. • If the distribution service or vessel specified in request does not exist, an IRD_Receipt message with StatusCode='NotFound' is sent synchronously to the external system. • If the IRD_Receipt message is valid, StatusCode='OK' is sent synchronously to the external system.

Step	Action
3	For the valid IRD_Request , the IRD system creates and ISR and sends it asynchronously to the external system using an ISR_Push message using the Push ISR service. The HTTP response should be a 204 (No content) status code and an empty HTTP body – no SOAP envelope.
4	Upon receipt of the ISR_Push message, the external system should log and process it.

2.2.3 Receive MRS/VTs service

The receive MRS/VTs service involves the following flow of messages:

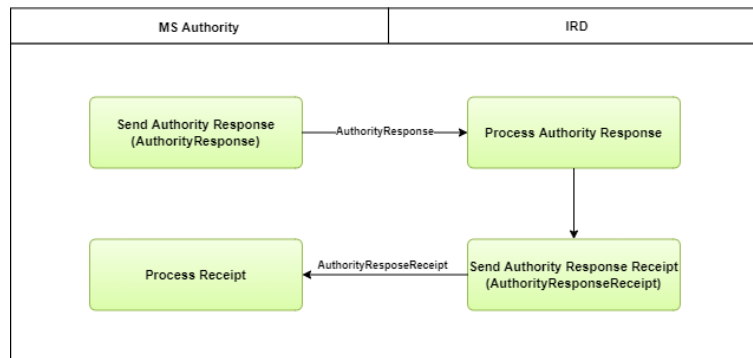


The message exchange flow is described in the following table.

Step	Action
1	An MRS_VTS_ReportReceive message is sent by the Ground Station to IRD to send an MRS/VTs Report from a specific MRS system.
2	<p>Message Processing:</p> <ul style="list-style-type: none"> • IRD logs and validate the received MRS_VTS_ReportReceive message. • If the request is not successfully authenticated, an MRS_VTS_ReportReceipt message with StatusCode='Unauthorized' is sent synchronously to the Ground Station. • If the MRS_VTS_ReportReceive message is not well-formatted (not XML/JSON complaint) or not valid (not compliant with the corresponding schema), an MRS_VTS_ReportReceipt message with StatusCode='BadRequest' is sent synchronously to the Ground Station. • If the ship within MRS/VTs report does not belong to the VDE-SAT ships list, an MRS_VTS_ReportReceipt message with StatusCode='AccessDenied' is sent synchronously to the Ground Station. • If the MRS_VTS_ReportReceive message is valid, StatusCode='OK' is sent synchronously to the Ground Station.

2.2.4 Receive Authority Response service

The Receive Authority Response service involves the following flow of messages:

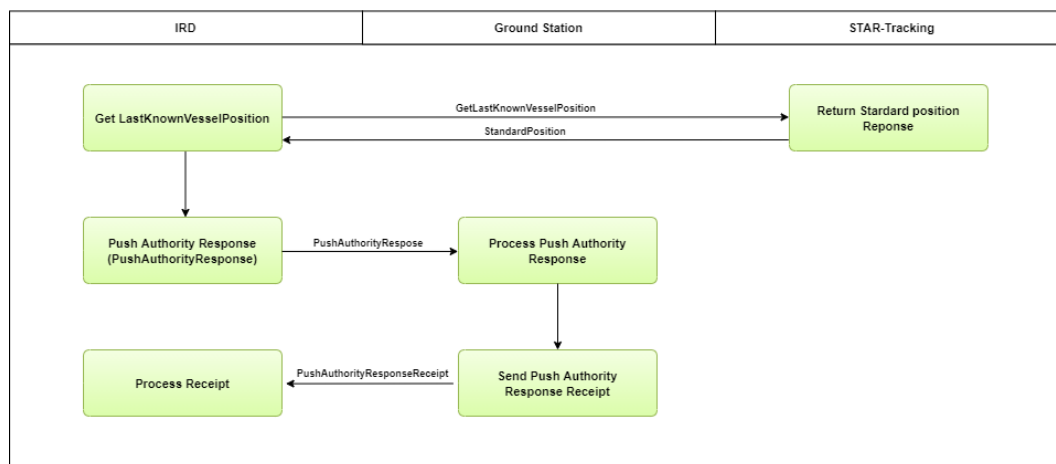


The message exchange flow is described in the following table.

Step	Action
1	An AuthorityResponse message is sent by the MS Authority to IRD to send an Authority Response from a specific MRS/VTS.
2	<p>Message Processing:</p> <ul style="list-style-type: none"> • IRD logs and validate the received AuthorityResponse message. • If the request is not successfully authenticated, an AuthorityResponseReceipt message with StatusCode='Unauthorized' is sent synchronously to the MS Authority. • If the AuthorityResponse message is not well-formatted (not XML/JSON complaint) or not valid (not compliant with the corresponding schema), an AuthorityResponseReceipt message with StatusCode='BadRequest' is sent synchronously to the MS Authority. • If the ReportIdentification in request does not exist, an AuthorityResponseReceipt message with StatusCode='NotFound' is sent synchronously to the MS Authority. • If the AuthorityResponse message is valid, StatusCode='OK' is sent synchronously to the MS Authority.

2.2.5 Push Authority Response service

The Push Authority Response service involves the following flow of messages:



The message exchange flow is described in the following table.

Step	Action
1	As soon as the valid AuthorityResponse is received by the “Receive Authority Response” service, for the valid AuthorityResponse , the IRD system retrieves the latest position of the ship to which response is applicable by calling the STAR TRACKING service (getLastKnownVesselsPosition)
2	The IRD system creates and PushAuthorityResponse and sends it asynchronously to the Ground Station using a PushAuthorityResponse message using the Push Authority Response service.
3	Upon receipt of the PushAuthorityResponse message, the Ground Station should log and process it.
4	The Ground Station sends a PushAuthorityResponseReceipt synchronously to the IRD.

2.3 Data exchange mechanism – clarifications

2.3.1 Data Provider Interface

Both ends act as nodes capable of processing SOAP or REST messages. For GS only REST messages will be exchanged. The message types used are as follows:

- ISR_Push
- PushAuthorityResponse
- PushAuthorityReceipt

For every push notification, a request/response exchange pattern is used between each SOAP or REST node where the SOAP/REST response message is delivered as HTTP response, using the same connection as the inbound request.

2.3.2 Data Requestor Interface

Both ends act as nodes capable of processing SOAP or REST messages. The message types used are as follows:

- ISR_Request
- ISR_Receipt
- ISR_Push
- MRS_VTS_ReportReceive
- MRS_VTS_ReportReceipt
- AuthorityResponse
- AuthorityReceipt

For every request–response communication, a request/response exchange pattern is used between each SOAP/REST node where the SOAP/REST response message is delivered as HTTP response, using synchronous connection to the inbound request.

The **ISR_Push** message is sent asynchronously to the end-point configured under the Distribution service.

3. Messages Structures and Business rules

3.1 ISR_Push message

3.1.1 Message structure

The **ISR_Push** message only includes the blocks of data that are configured under the corresponding distribution service.

SOAP Message:

Entities		Occ
Body		0-1
	ReceiptId (xsd:int)	0-1
	Blocks	1
	Header	1
	ReportId (xsd:int)	1
	SentAt (xsd:dateTime)	1
	VesselIdentification	1
	CSDID (xsd:long)	0-1
	IMO (xsd:long)	0-1
	MMSI (xsd:long)	0-1
	CallSign (xsd:string)	0-1
	ShipName (xsd:string)	0-1
	IRNumber (xsd:string)	0-1
	Flag (xsd:string)	0-1
	ShipType (xsd:string)	0-1
	PositionReport	0-1
	Source (xsd:string)	1-1
	Originator (xsd:string)	1-1
	DateAndTime (xsd:dateTime)	0-1
	Latitude (xsd:string)	0-1
	Longitude (xsd:string)	0-1
	TrueHeading (xsd:decimal)	0-1
	Heading (xsd:decimal)	0-1
	Speed (xsd:decimal)	0-1
	NavigationalStatus (xsd:string)	0-1
	Length (xsd:decimal)	0-1
	Breadth (xsd:decimal)	0-1
	VoyageInformation	0-1
	ProviderOfLastUpdate (xsd:string)	1
	LastUpdateOn (xsd:dateTime)	1
	ShipCallIDDeparture (xsd:string)	0-1
	ShipCallIDArrival (xsd:string)	0-1
	CallPurposeCode	0-1
	BriefCargoDescription (xsd:string)	0-1
	PreviousPortOfCall (xsd:string)	0-1
	ATDFromPreviousPortOfCall (xsd:string)	0-1
	ETDFromPreviousPortOfCall (xsd:string)	0-1
	PortOfCall (xsd:string)	1
	PositionInPortOfCall (xsd:string)	0-1

Entities		Occ
	ETAToPortOfCall (xsd:string)	0-1
	ATAToPortOfCall (xsd:dateTime)	0-1
	ETDFromPortOfCall (xsd:string)	0-1
	ATDFromPortOfCall (xsd:string)	0-1
	NumberOfPersonsOnBoard (xsd:int)	0-1
	HazmatOnBoard (xsd:string)	0-1
	WasteDeliveryStatus (xsd:string)	0-1
	CurrentShipSecurityLevel (xsd:string)	0-1
	BunkersDetailsProvided (xsd:string)	0-1
	SubsequentPortOfCall (xsd:string)	0-1
	ETAToSubsequentPortOfCall (xsd:string)	0-1
	IncidentReport (ird:IncidentReportType)	0-1
	IRDateTime (xsd:dateTime)	1
	IncidentID (xsd:string)	1
	TypeOfIR (xsd:string)	1
	LatestMRSReport (ird:MRSReportType)	0-1
	DateAndTimeOfMRSReport (xsd:dateTime)	1
	MRSIdentification (xsd:string)	1
	CoastalStateName (xsd:string)	0-1
	PortOfCall (xsd:string)	1
	ETAToPortOfCall (xsd:string)	0-1
	NumberOfPersonsOnBoard (xsd:string)	1
	Latitude (xsd:string)	1
	Longitude (xsd:string)	1
	HazmatOnBoard (xsd:string)	1
	ActiveExemptions	0-1
	ExemptionDetails	1-n
	ExemptionType (xsd:string)	0-1
	CompanyName (xsd:string)	0-1
	ValidFrom (xsd:dateTime)	0-1
	ValidTo (xsd:dateTime)	0-1
	Route	1-n
	Port (xsd:string)	1
	ExemptedWasteTypes	0-n
	WasteCode (xsd:string)	1
	WasteDescription (xsd:string)	0-1
	ExemptionAppliesTo	0-n
	Port (xsd:string)	1
	ExemptedPortFacilities	0-n
	PortFacilityLocode (xsd:string)	1
	PortFacilityNumber (xsd:string)	1
	Authority	1
	Country (xsd:string)	1
	AuthorityType (xsd:string)	1
	AuthorityName (xsd:string)	1
	Contact247	1
	FirstName (xsd:string)	0-1
	LastName (xsd:string)	0-1
	Locode (xsd:string)	0-1

Entities		Occ
	Phone (xsd:string)	0-1
	Fax (xsd:string)	0-1
	Email (xsd:string)	0-1
	Last5MRS	0-1
	MRS (ird:MRSReportType)	1-5
	DateAndTimeOfMRSReport (xsd:dateTime)	1
	MRSIdentification (xsd:string)	1
	CoastalStateName (xsd:string)	0-1
	PortOfCall (xsd:string)	1
	ETAToPortOfCall (xsd:string)	0-1
	NumberOfPersonsOnBoard (xsd:int)	1
	Latitude (xsd:string)	1
	Longitude (xsd:string)	1
	HazmatOnBoard (xsd:string)	1
	Last12MIncidents	0-1
	Incidents (ird:IncidentReportType)	1-n
	IRDateTime (xsd:dateTime)	1
	IncidentID (xsd:string)	1
	TypeOfIR (xsd:string)	1
	VoyagePlan	0-1
	RouteName (xsd:string)	1
	VoyageID (xsd:string)	1
	VesselMaxSpeed (xsd:string)	0-1
	RouteStatus (xsd:string)	0-1
	PortOfDeparture (xsd:string)	0-1
	PortOfArrival (xsd:string)	0-1
	NumberOfPersonsOnBoard (xsd:int)	0-1
	Waypoints	2-n
	WaypointID (xsd:int)	1
	Revision (xsd:int)	0-1
	WaypointName (xsd:string)	0-1
	Latitude (xsd:string)	1
	Longitude (xsd:string)	1
	GeometryType (xsd:string)	0-1
	ETA (xsd:dateTime)	0-1
	Speed (xsd:decimal)	0-1
	DraughtForward (xsd:decimal)	0-1
	DraughtAt (xsd:decimal)	0-1
	MRSVTS	0-1
	Ship	1
	ShipName (xsd:string)	0-1
	IMO (xsd:string)	0-1
	MMSI (xsd:string)	0-1
	CallSign (xsd:string)	0-1
	Flag (xsd:token)	1
	Comment (xsd:string)	0-1
	DateAndTimeOfEvent	0-1
	SentAt (xsd:dateTime)	1
	ReportingPosition	0-1

Entities		Occ
	Latitude (xsd:decimal)	1
	Longitude (xsd:decimal)	1
	TrueCourse	0-1
	Course (xsd:decimal)	1
	Speed	0-1
	Speed (xsd:decimal)	1
	PortOfDeparture	0-1
	LastPortOfCall	1
	CountryCode (xsd:token)	1
	UNLoCode (xsd:token)	1
	EntryIntoSystem	0-1
	Latitude (xsd:decimal)	1
	Longitude (xsd:decimal)	1
	EntryTime (xsd:dateTime)	1
	DestinationAndExpectedTimeOfArrival	0-1
	PortOfArrival	1
	CountryCode (xsd:token)	1
	UNLoCode (xsd:token)	1
	ArrivalDateTime (xsd:dateTime)	1
	Pilot	0-1
	PilotOnBoard (xsd:boolean)	1
	ExitFromSystemOrArrivalAtDestination	0-1
	Latitude (xsd:decimal)	1
	Longitude (xsd:decimal)	1
	ExitTime (xsd:dateTime)	1
	Route	0-1
	Waypoint	1-n
	WaypointID (xsd:int)	1
	WaypointName (xsd:string)	0-1
	Latitude (xsd:decimal)	1
	Longitude (xsd:decimal)	1
	ETA (xsd:dateTime)	0-1
	ETD (xsd:dateTime)	0-1
	RadioCommunications	0-1
	RadioComunications (xsd:string)	1
	NextReportTime	0-1
	NextReportTime (xsd:dateTime)	1
	MaximumPresentStaticDraught	0-1
	PresentDraught (xsd:decimal)	1
	CargoOnBoard	0-1
	CargoOverview (xsd:string)	0-1
	DGInfoType	0-n
	ProperShippingName (xsd:string)	0-1
	UNNumber (xsd:token)	0-1
	DGClassification (xsd: token)	0-1
	HazardClass (xsd: token)	1
	MARPOLCode (xsd: token)	0-1
	Quantity (xsd:decimal)	1
	UnitOfMeasurement (xsd:token)	1

Entities		Occ
	Defects	0-1
	HullIntegrity (xsd:string)	0-1
	Manoeuvrability (xsd:string)	0-1
	Mooring (xsd:string)	0-1
	CargoHandling (xsd:string)	0-1
	Communication (xsd:string)	0-1
	Navigation (xsd:string)	0-1
	Other (xsd:string)	0-1
	AbilityToTransferCargoBallastFuel (xsd:boolean)	0-1
	PollutionOrDangerousGoodsLost	0-1
	Remarks (xsd:string)	0-1
	CauseOfLoss (xsd:string)	0-1
	EstimatedArea (xsd:string)	0-1
	EstimatedMovement (xsd:string)	0-1
	GoodsCondition (xsd:string)	0-1
	LossContinuing (xsd:boolean)	0-1
	LostGoodsStatus (xsd:token)	0-1
	EstimatedGoodsLost	0-1
	Quantity (xsd:decimal)	1
	UnitOfMeasurement (xsd:token)	1
	Weather	0-1
	Wind (xsd:decimal)	0-1
	WindDirection (xsd:decimal)	0-1
	SeaState (xsd:decimal)	0-1
	SeaStateDirection (xsd:decimal)	0-1
	Swell (xsd:decimal)	0-1
	SwellDirection (xsd:decimal)	0-1
	Remarks (xsd:string)	0-1
	ShipsRepresentativeOwner	0-1
	Name (xsd:string)	0-1
	BuisnessTelephone (xsd:string)	0-1
	Email (xsd:anyURL)	0-1
	StreetName (xsd:string)	0-1
	StreetNumber (xsd:string)	0-1
	PostCode (xsd:string)	0-1
	CityName (xsd:string)	0-1
	CountryCode (xsd:token)	0-1
	ShipSizeAndType	0-1
	Beam (xsd:decimal)	0-1
	GrossTonnage (xsd:decimal)	0-1
	NetTonnage (xsd:decimal)	0-1
	DeadWeight (xsd:decimal)	0-1
	LengthOverall (xsd:decimal)	0-1
	ShipType (xsd:token)	0-1
	AirDraught (xsd:decimal)	0-1
	MedicalPersonnel	0-1
	NumberOfMedicalPersonsOnboard (xsd:int)	1
	NumberOfPersonsOnBoard	0-1
	PassengersNumber (xsd:int)	0-1

Entities		Occ
	CrewNumber (xsd:int)	0-1
	NumberOfPersonsOnboard (xsd: int)	0-1
	Miscellaneous	0-1
	Remarks (xsd:string)	0-1
	NavigationalStatus (xsd:token)	0-1
	ROBBunkers	0-n
	Name (epc:token)	1
	Quantity (xsd:decimal)	1
	UnitOfMeasurement (epc:token)	1
	RequestToRelayReport	0-1
	RelayToReportingSystems (xsd:string)	1-n

REST Message:

Attributes		Occ
	receiptID (integer)	0-1
	Blocks	1
	Header	1
	ReportId (integer)	1
	SentAt (string)	1
	VesselIdentification	1
	CSDID (long)	0-1
	IMO (long)	0-1
	MMSI (long)	0-1
	CallSign (string)	0-1
	ShipName (string)	0-1
	IRNumber (string)	0-1
	Flag (string)	0-1
	ShipType (string)	0-1
	PositionReport	0-1
	Source (string)	1-1
	Originator (string)	1-1
	DateAndTime (string)	0-1
	Latitude (string)	0-1
	Longitude (string)	0-1
	TrueHeading (float)	0-1
	Heading (float)	0-1
	Speed (float)	0-1
	NavigationalStatus (string)	0-1
	Length (float)	0-1
	Breadth (float)	0-1
	VoyageInformation	0-1
	ProviderOfLastUpdate (string)	1
	LastUpdateOn (string)	1
	ShipCallIDDeparture (string)	0-1
	ShipCallIDArrival (string)	0-1
	CallPurposeCode	0-1
	BriefCargoDescription (string)	0-1
	PreviousPortOfCall (string)	0-1
	ATDFromPreviousPortOfCall (string)	0-1

Attributes		Occ
	ETDFromPreviousPortOfCall (string)	0-1
	PortOfCall (string)	1
	PositionInPortOfCall (string)	0-1
	ETAToPortOfCall (string)	0-1
	ATAToPortOfCall (string)	0-1
	ETDFromPortOfCall (string)	0-1
	ATDFromPortOfCall (string)	0-1
	NumberOfPersonsOnBoard (integer)	0-1
	HazmatOnBoard (string)	0-1
	WasteDeliveryStatus (string)	0-1
	CurrentShipSecurityLevel (string)	0-1
	BunkersDetailsProvided (string)	0-1
	SubsequentPortOfCall (string)	0-1
	ETAToSubsequentPortOfCall (string)	0-1
	IncidentReport	0-1
	IRDateTime (string)	1
	IncidentID (string)	1
	TypeOfIR (string)	1
	LatestMRSReport	0-1
	DateAndTimeOfMRSReport (string)	1
	MRSIdentification (string)	1
	CoastalStateName (string)	0-1
	PortOfCall (string)	1
	ETAToPortOfCall (string)	0-1
	NumberOfPersonsOnBoard (integer)	1
	Latitude (string)	1
	Longitude (string)	1
	HazmatOnBoard (string)	1
	ActiveExemptions	0-1
	ExemptionDetails	1-n
	ExemptionType (string)	0-1
	CompanyName (string)	0-1
	ValidFrom (string)	0-1
	ValidTo (string)	0-1
	Route	1-n
	Port (string)	1
	ExemptedWasteTypes	0-n
	WasteCode (string)	1
	WasteDescription (string)	0-1
	ExemptionAppliesTo	0-n
	Port (string)	1
	ExemptedPortFacilities	0-n
	PortFacilityLocode (string)	1
	PortFacilityNumber (string)	1
	Authority	1
	Country (string)	1
	AuthorityType (string)	1
	AuthorityName (string)	1
	Contact247	1

Attributes		Occ
	FirstName (string)	0-1
	LastName (string)	0-1
	Locode (string)	0-1
	Phone (string)	0-1
	Fax (string)	0-1
	Email (string)	0-1
	Last5MRS	0-1
	MRS	1-5
	DateAndTimeOfMRSReport (string)	1
	MRSIdentification (string)	1
	CoastalStateName (string)	0-1
	PortOfCall (string)	1
	ETAToPortOfCall (string)	0-1
	NumberOfPersonsOnBoard (integer)	1
	Latitude (string)	1
	Longitude (string)	1
	HazmatOnBoard (string)	1
	Last12MIncidents	0-1
	Incidents	1-n
	IRDateTime (string)	1
	IncidentID (string)	1
	TypeOfIR (string)	1
	VoyagePlan	0-1
	RouteName (string)	1
	VoyageID (string)	1
	VesselMaxSpeed (string)	0-1
	RouteStatus (string)	0-1
	DeparturePort (string)	0-1
	ArrivalPort (string)	0-1
	NumberOfPersonsOnBoard (integer)	0-1
	Waypoints	2-n
	WaypointID (integer)	1
	Revision (integer)	0-1
	WaypointName (string)	0-1
	Latitude (string)	1
	Longitude (string)	1
	GeometryType (string)	0-1
	ETA (string)	0-1
	Speed (float)	0-1
	DraughtForward (float)	0-1
	DraughtAt (float)	0-1
	MRSVTS	0-1
	Ship	0-1
	ShipName (string)	0-1
	IMO (string)	0-1
	MMSI (string)	0-1
	CallSign (string)	0-1
	Flag (token)	1

Attributes		Occ
	Comment (string)	0-1
	DateAndTimeOfEvent	0-1
	SentAt (dateTime)	1
	ReportingPosition	0-1
	Latitude (decimal)	1
	Longitude (decimal)	1
	TrueCourse	0-1
	Course (decimal)	1
	Speed	0-1
	Speed (decimal)	1
	PortOfDeparture	0-1
	LastPortOfCall	1-1
	CountryCode (token)	1
	UNLoCode (token)	1
	EntryIntoSystem	0-1
	Latitude (decimal)	1
	Longitude (decimal)	1
	EntryTime (dateTime)	1
	DestinationAndExpectedTimeOfArrival	0-1
	PortOfArrival	1
	CountryCode (token)	1
	UNLoCode (token)	1
	ArrivalDateTime (dateTime)	1
	Pilot	0-1
	PilotOnBoard (boolean)	1
	ExitFromSystemOrArrivalAtDestination	0-1
	Latitude (decimal)	1
	Longitude (decimal)	1
	ExitTime (dateTime)	1
	Route	0-1
	Waypoint	0-1
	WaypointID (integer)	1
	WaypointName (string)	0-1
	Latitude (decimal)	1
	Longitude (decimal)	1
	ETA (dateTime)	0-1
	ETD (dateTime)	0-1
	RadioCommunications	0-1
	RadioCommunications (string)	1
	NextReportTime	0-1
	NextReportTime (dateTime)	1
	MaximumPresentStaticDraught	0-1
	PresentDraught (decimal)	1
	CargoOnBoard	0-1
	CargoOverview (string)	0-1
	DGInfoType	0-n
	ProperShippingName (string)	0-1
	UNNumber (string)	0-1
	DGClassification (string)	0-1

Attributes		Occ
	HazardClass (string)	1
	MARPOLCode (string)	0-1
	Quantity (decimal)	1
	UnitOfMeasurement (string)	1
	Defects	0-1
	HullIntegrity (string)	0-1
	Manoeuvrability (string)	0-1
	Mooring (string)	0-1
	CargoHandling (string)	0-1
	Communication (string)	0-1
	Navigation (string)	0-1
	Other (string)	0-1
	AbilityToTransferCargoBallastFuel (boolean)	0-1
	PollutionOrDangerousGoodsLost	0-1
	Remarks (string)	0-1
	CauseOfLoss (string)	0-1
	EstimatedArea (string)	0-1
	EstimatedMovement (string)	0-1
	GoodsCondition (string)	0-1
	LossContinuing (boolean)	0-1
	LostGoodsStatus (string)	0-1
	EstimatedGoodsLost	0-1
	Quantity (decimal)	1
	UnitOfMeasurement (string)	1
	Weather	0-1
	Wind (decimal)	0-1
	WindDirection (decimal)	0-1
	SeaState (decimal)	0-1
	SeaStateDirection (decimal)	0-1
	Swell (decimal)	0-1
	SwellDirection (decimal)	0-1
	Remarks (string)	0-1
	ShipsRepresentativeOwner	0-1
	Name (string)	0-1
	BuisnessTelephone (string)	0-1
	Email (string)	0-1
	StreetName (string)	0-1
	StreetNumber (string)	0-1
	PostCode (string)	0-1
	CityName (string)	0-1
	CountryCode (string)	0-1
	ShipSizeAndType	0-1
	Beam (float)	0-1
	GrossTonnage (decimal)	0-1
	NetTonnage (decimal)	0-1
	DeadWeight (decimal)	0-1
	LengthOverall (decimal)	0-1
	ShipType (string)	0-1
	AirDraught (decimal)	0-1

Attributes		Occ
	MedicalPersonnel	0-1
	NumberOfMedicalPersonsOnboard (integer)	1
	NumberOfPersonsOnBoard	0-1
	PassengersNumber (integer)	0-1
	CrewNumber (integer)	0-1
	NumberOfPersonsOnboard (integer)	0-1
	Miscellaneous	0-1
	Remarks (string)	0-1
	NavigationalStatus (token)	0-1
	ROBBunkers	0-n
	Name (string)	1
	Quantity (decimal)	1
	UnitOfMeasurement (string)	1
	RequestToRelayReport	0-1
	RelayToReportingSystems (string)	1-n

3.1.2 Business rules

The detailed definition of the attributes/ simple types as well as business rules concerning the syntax and business validation of simple types/ attributes is provided in Appendix A. The following table provides additional business rules concerning data elements/ attributes included in the message

No	Push_ISR attribute	Description
1	receiptId	<p>If the ISR_Push message is sent following an ISR_Request, this element contains the value of the receiptID attribute from the ISR_Receipt message.</p> <p>If the ISR_Push message is sent following an automatic trigger (e.g. entry into an area), this attribute is not present.</p>

3.1.3 Example

Example of an **ISR_Push** message in SOAP:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ird="http://ird.emsa.europa.eu/">
  <soapenv:Header/>
  <soapenv:Body>
    <ird:ISR>
      <ird:ReceiptID>21</ird:ReceiptID>
      <ird:Blocks>
        <ird:Header>
          <ird:ReportID>7823</ird:ReportID>
          <ird:SentAt>2020-02-13 14:04:41.852</ird:SentAt>
        </ird:Header>
        <ird:VesselIdentification>
          <ird:CSDID>123</ird:CSDID>
          <ird:IMO>5424990</ird:IMO>
          <ird:MMSI>4582</ird:MMSI>
        </ird:VesselIdentification>
        <ird:PositionReport>
          <ird:Source>T-AIS</ird:Source>
          <ird:DateAndTime>2020-02-13T14:04:40Z</ird:DateAndTime>
        </ird:PositionReport>
      </ird:Blocks>
    </ird:ISR>
  </soapenv:Body>
</soapenv:Envelope>
```

```

<ird:Latitude>71.02069</ird:Latitude>
<ird:Longitude>23.8686</ird:Longitude>
<ird:TrueHeading>0</ird:TrueHeading>
<ird:Heading>193.4</ird:Heading>
<ird:Speed>8</ird:Speed>
<ird:NavigationalStatus>0</ird:NavigationalStatus>
</ird:PositionReport>
</ird:Blocks>
</ird:ISR>
</soapenv:Body>
</soapenv:Envelope>

```

Example of an **ISR_Push** message in REST:

```

{
  "ISRRequestID": "21",
  "Blocks": [{
    "Header": {
      "ReceiptID": "7823",
      "SentAt": "2020-02-13 14:04:41.852"
    },
    "VesselIdentification": {
      "CSDID": "123",
      "IMO": "5424990",
      "MMSI": "4582"
    },
    "PositionReport": {
      "Source": "T-AIS",
      "DateAndTime": "2020-02-13T14:04:40Z",
      "Latitude": "71.02069",
      "Longitude": "23.8686",
      "TrueHeading": "0",
      "Heading": "193.4",
      "Speed": "8",
      "NavigationalStatus": "0"
    }
  ]
}

```

3.2 ISR_Request message

3.2.1 Message structure

SOAP Message:

Entities		Occ
Body		1
	<i>distributionServiceId (xsd:int)</i>	1
	<i>vesselId (xsd:string)</i>	1
	<i>vesselIdType (xsd:string)</i>	1

REST Message:

Attributes		Occ
	<i>distributionServiceId (integer)</i>	1
	<i>vesselId (string)</i>	1
	<i>vesselIdType (string)</i>	1

3.2.2 Business rules

The following table describes the applicable business rules.

No	ISR_Request attribute	Description
1	distributionServiceId	Unique identifier for a Distribution Service configured in the IRD
2	vesselId	Value of the vessel identifier
3	vesselIdType	Type of vessel identifier used in attribute VesselId. It must correspond to one of the following options: <ul style="list-style-type: none"> - IMO - MMSI - Call sign - CSDID - IR

3.2.3 Example

Example of an **ISR_Request** message in SOAP:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ird="http://ird.emsa.europa.eu/">
  <soapenv:Header/>
  <soapenv:Body>
    <ird:ISR_Request>
      <ird:distributionServiceId>123</ird:distributionServiceId>
      <ird:vesselId>5424990</ird:vesselId>
      <ird:vesselIdType>IMO</ird:vesselIdType>
    </ird:ISR_Request>
  </soapenv:Body>
</soapenv:Envelope>
```

Example of an **ISR_Request** message in REST:

```
{
  "distributionServiceId": 123,
  "vesselId": "5424990",
  "vesselIdType": "IMO"
}
```

3.3 ISR_Receipt message

The **ISR_Receipt** message is sent by the IRD to an external system to confirm the receipt and validation of an **ISR_Request** message.

3.3.1 Message structure

SOAP Message:

Entities		Occ
Header		1
	statusCode (xsd:string)	1
	statusMessage (xsd:string)	0-1
Body		0-1

Entities		Occ
	<i>receiptId (xsd:int)</i>	1

REST Message:

Attributes		Occ
	<i>result (array)</i>	0-1
	<i>receiptId (integer)</i>	1
	<i>statusCode (string)</i>	1
	<i>statusMessage (string)</i>	0-1

3.3.2 Business rules

The following table describes the applicable business rules.

No	ISR_Receipt attribute	Description
1	receiptId	Unique identifier generated for each ISR request message with statusCode=OK
2	statusCode	A Code representing the status of the request. Please refer to section 3.9.1 below.
3	statusMessage	Textual additional details regarding the status code

3.3.3 Example

Example of an **ISR_Receipt** message in SOAP:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:ird="http://ird.emsa.europa.eu/">
  <soapenv:Header/>
  <soapenv:Body>
    <ird:ISR_Receipt>
      <ird:Header>
        <ird:statusCode>OK</ird:statusCode>
      </ird:Header>
      <ird:Body>
        <ird:receiptId>21</ird:receiptId>
      </ird:Body>
    </ird:ISR_Receipt >
  </soapenv:Body>
</soapenv:Envelope>
```

Example of an **ISR_Receipt** message in REST:

```
{
  "result": [
    {
      "receiptId": 21
    }
  ],
  "statusCode": "OK"
}
```


3.4 MRS_VTS_ReportReceive message

The MRS_VTS_ReportReceive message is sent by the GS to IRD system to submit an MRS/VTS Report message.

3.4.1 Message structure

Due to compression requirements, the MRS_VTS message only contains one JSON Element called “message” and the value is a base64 encoded string which contains an MRS/VTS Report in JSON format. The decompressed **MRS_VTS** message only includes the MRS / VTS designators configured under the corresponding MRS / VTS Area.

REST Message:

Attribute	Occ
<i>message</i> (base64 string)	1

3.4.2 Business rules

The following table describes the applicable business rules.

No	MRS_VTS_ReportReceive attribute	Description
1	message	Should receive a base64 encoded JSON object

3.4.3 Example

Example of a JSON **MRS_VTS_ReportReceive** message:

```
{ "message":
"ewoJlk1SU0FyZWFOYW1lIjogIiNhbXBsZSBBcmVhliwKCSJNUINBdXRob3JpdHkiOiAiU2FtcGxllEF1dGhvcml0eSI
sCgkiRGVzaWduYXRvcnMiOiB7CgkJlIlnNoaXAiOiB7CgkJCSJNTVNIjogIjEyMzQ1Njc4OSIsCgkJCSJGbgGFnljogIiB
UliwKCQkJlNvbW1lbnQiOiAiTG9yZW0gaXBzdW0gZG9sb3lhc2l0IGFtZXQsIGNvbnNlY3RldHVylGFkaXBpc2Npb
mcgZWxpdCIkCQI9LAoJCSJUcnViQ291cnNlIjogewoJCQkiQ291cnNlIjogMjU0CgkJCSJGbgGFnljogIiB7CgkJCSJG
bG9yZW0gaXBzdW0gZG9sb3lhc2l0IGFtZXQsIGNvbnNlY3RldHVylGFkaXBpc2NpbmcgZWxpdCIsCgkiQXR0YWN0
bWVudHMiOiBbCgkJewoJCQkiRmlsZW5hbWUiOiAiZmIsZTEuanBnliwKCSQkJlNvbNRIbnQiOiAiZlZlcwS0NTSk5uU
kpSQ0k2SUNJeU1TSXNEUW9KSWsxU1UxWlVVMepzYjJOcmN5STZJRiIKCQI9LAoJCXsKCQkJlKZpbGVuYW1lIj
ogImZpbGUyLmpwZyIsCgkJCSJDb250ZW50IjogImxkbG9uTnZibTVsYkNlNkllc05DZ2tKQ1NKUWFXeHhZKRT1W
W05aGnUWlPaUFlPzEhKMVoiCgkJfQoJXQp9"
```

IRD expects to parse a valid JSON message after decode the message. The previous message will decode to the following JSON message:

```
{
  "MRSAreaName": "Sample Area",
  "MRSAuthority": "Sample Authority",
  "Designators": {
    "Ship": {
      "MMSI": "123456789",
      "Flag": "PT",
      "Comment": "Lorem ipsum dolor sit amet, consectetur adipiscing elit"
    },
    "TrueCourse": {
      "Course": 25
    }
  },
  "Comment": "Lorem ipsum dolor sit amet, consectetur adipiscing elit",
  "Attachments": [
    {
      "Name": "Sample Attachment",
      "URL": "http://example.com/sample-attachment.pdf",
      "Type": "Image"
    }
  ]
}
```

```

    "Filename": "file1.jpg",
    "Content": "ew0KCSJNnRJRCI6IClyMSIsDQoJlk1SU1ZUU0Jsb2Nrcyl6IF"
  },
  {
    "Filename": "file2.jpg",
    "Content": "IBlcnNvbm5lbCI6IHsNCgkJCSJQaWxvdE9uYm9hcmQiOiAidHJ1Z"
  }
]
}

```

The uncompressed JSON message representing an MRS/VTs report should obey to the following REST specification:

Attribute		Occ
	MRSAreaName	1
	MRSAuthority	1
	Designators	1
	Ship	1
	ShipName	0-1
	IMO	0-1
	MMSI	0-1
	CallSign	0-1
	Flag	1
	Comment	0-1
	DateAndTimeOfEvent	0-1
	SentAt	1
	ReportingPosition	0-1
	Latitude	1
	Longitude	1
	TrueCourse	0-1
	Course	1
	Speed	0-1
	Speed	1
	PortOfDeparture	0-1
	LastPortOfCall	1
	CountryCode	1
	UNLoCode	1
	EntryIntoSystem	0-1
	Latitude	1
	Longitude	1
	EntryTime	1
	DestinationAndExpectedTimeOfArrival	0-1
	PortOfArrival	1
	CountryCode (xsd:token)	1
	UNLoCode (xsd:token)	1
	ArrivalDateTime	1
	Pilot	0-1
	PilotOnboard	1
	ExitFromSystemOrArrivalAtDestination	0-1
	Latitude	1
	Longitude	1
	ExitTime	1

Attribute		Occ
	Route	0-1
	Waypoint	1-n
	WaypointID	1
	WaypointName	0-1
	Latitude	1
	Longitude	1
	ETA	0-1
	ETD	0-1
	RadioCommunications	0-1
	RadioComunications	1
	NextReportTime	0-1
	NextReportTime	1
	MaximumPresentStaticDraught	0-1
	PresentDraught	1
	CargoOnBoard	0-1
	CargoOverview	0-1
	DGInfoType	0-n
	ProperShippingName	0-1
	UNNumber	0-1
	DGClassification	0-1
	HazardClass	1
	MARPOLCode	0-1
	Quantity	1
	UnitOfMeasurement	1
	Defects	0-1
	HullIntegrity	0-1
	Manoeuvrability	0-1
	Mooring	0-1
	CargoHandling	0-1
	Communication	0-1
	Navigation	0-1
	Other	0-1
	AbilityToTransferCargoBallastFuel	0-1
	PollutionOrDangerousGoodsLost	0-1
	Remarks	0-1
	CauseOfLoss	0-1
	EstimatedArea	0-1
	EstimatedMovement	0-1
	GoodsCondition	0-1
	LossContinuing	0-1
	LostGoodsStatus	0-1
	EstimatedGoodsLost	0-1
	Quantity	1
	UnitOfMeasurement	1
	Weather	0-1
	Wind	0-1
	WindDirection	0-1
	SeaState	0-1
	SeaStateDirection	0-1

Attribute		Occ
	Swell	0-1
	SwellDirection	0-1
	Remarks	0-1
	ShipsRepresentativeOwner	0-1
	Name	0-1
	BuisnessTelephone	0-1
	Email	0-1
	StreetName	0-1
	StreetNumber	0-1
	PostCode	0-1
	CityName	0-1
	CountryCode	0-1
	ShipSizeAndType	0-1
	Beam	0-1
	GrossTonnage	0-1
	NetTonnage	0-1
	DeadWeight	0-1
	LengthOverall	0-1
	ShipTypeContent	0-1
	AirDraught	0-1
	MedicalPersonnel	0-1
	NumberOfMedicalPersonsOnboard	1
	NumberOfPersonsOnBoard	0-1
	PassengersNumber	0-1
	CrewNumber	0-1
	NumberOfPersonsOnboard	0-1
	Miscellaneous	0-1
	Remarks	0-1
	NavigationalStatus	0-1
	ROBBunkers	0-n
	Name	1
	Quantity	1
	UnitOfMeasurement	1
	RequestToRelayReport	0-1
	RelayToReportingSystems	1-n
	Comment	0-1
	Attachments (array)	0-n
	Filename	1
	Content	1

3.5 MRS_VTS_ReportReceipt message

The MRS_VTS_ReportReceipt message is sent by the IRD to Ground Station to confirm the receipt and validation of an MRS_VTS_ReportReceive message.

3.5.1 Message structure

REST Message:

Attributes	Occ
------------	-----

Attributes		Occ
	result (array)	0-1
	reportId (integer)	1
	statusCode (string)	1
	statusMessage (string)	0-1

3.5.2 Business rules

The following table describes the applicable business rules.

No	MRS_VTS_ReportReceipt attribute	Description
1	reportId	Unique identifier generated for each MRS Report message with statusCode=OK
2	statusCode	A Code representing the status of the request. Please refer to section 3.9.1 below.
3	statusMessage	Textual additional details regarding the status code

3.5.3 Example

Example of an **MRS_VTS_ReportReceipt** message in REST:

```
{
  "result": [
    {
      "receiptId": 21
    }
  ],
  "statusCode": "OK"
}
```

3.6 AuthorityResponse message

The **AuthorityResponse** message only includes the Authority Response fields that are configured under the corresponding MRS / VTS Area.

3.6.1 Message structure

SOAP Message:

Entities		Occ
Body		1
	Header	0-1
	AuthorityIdentification (xsd:string)	1
	ReportIdentification (xsd:string)	1
	Status (xsd:string)	0-1
	Comment (xsd:string)	0-1
	Attachments	0-N
	Filename (xsd:string)	1
	Content (xsd:byte)	1

REST Message:

Attributes		Occ
	Header	0-1
	AuthorityIdentification (xsd:string)	0-1
	ReportIdentification (xsd:string)	1
	Status (xsd:string)	1
	Comment (xsd:string)	0-1
	Attachments (array)	0-1
	Filename (xsd:string)	0-N
	Content (xsd:byte)	1

3.6.2 Business rules

The following table describes the applicable business rules.

No	AuthorityResponse attribute	Description
1	ReportIdentification	Unique identifier of MRS/VTs Report which corresponds this AuthorityResponse

3.6.3 Example

Example of an AuthorityResponse message in SOAP:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ird="http://ird.emsa.europa.eu">
  <soapenv:Header/>
  <soapenv:Body>
    <ird:AuthorityResponse>
      <ird:Header/>
      <ird:AuthorityIdentification>Authority A</ird:AuthorityIdentification>
      <ird:ReportIdentification>Report1</ird:ReportIdentification>
      <ird:Status>OK</ird:Status>
      <ird:Comment>MyComment</ird:Comment>
      <ird:Attachments>
        <ird:Attachment>
          <ird:Filename>file1.jpg</ird:Filename>
          <ird:Content>ew0KCSJNnRJRCI6IClyMSIsDQoJlK1SU1ZUU0Jsb2Nrcyl6IF</ird:Filename>
        </ird:Attachment>
        <ird:Attachment>
          <ird:Filename>file2.jpg</ird:Filename>
          <ird:Content>IBlcnNvbW5lbCI6IHsNCgkJCSJQaWxvdE9uYm9hcmQiOiAidHJ1Z</ird:Filename>
        </ird:Attachment>
      </ird:Attachments>
    </ird:AuthorityResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

Example of an **AuthorityResponse** message in REST:

```
{
  "Header": {
  },
  "AuthorityIdentification": "AuthorityA",
  "ReportIdentification": "Report1",
  "Status": "OK",
  "Comment": "MyComment",
}
```

```

"Attachments": [
  {
    "Filename": "file1.jpg",
    "Content": "ew0KCSJNnRJRCI6IClyMSIsDQoJlk1SU1ZUU0Jsb2Nrcyl6IF"
  },
  {
    "Filename": "file2.jpg",
    "Content": "lBlcnNvbm5lbCI6IHsNCgkJCSJQaWxvdE9uYm9hcmQiOiAidHJ1Z"
  }
]
}

```

3.7 AuthorityReceipt message

The AuthorityReceipt message is sent by the IRD to an external system to confirm the receipt and validation of an AuthorityResponse message.

3.7.1 Message structure

SOAP Message:

Entities		Occ
Header		1
	statusCode (xsd:string)	1
	statusMessage (xsd:string)	0-1
Body		
	receiptId (xsd:integer)	1

REST Message:

Attributes		Occ
	result (array)	0-1
	receiptId (integer)	1
	statusCode (string)	1
	statusMessage (string)	0-1

3.7.2 Business rules

The following table describes the applicable business rules.

No	AuthorityReceipt attribute	Description
1	receiptId	Unique identifier generated for each AuthorityResponse request message with statusCode=OK
2	statusCode	A Code representing the status of the request. Please refer to section 3.9.1 below.
3	statusMessage	Textual additional details regarding the status code

3.7.3 Example

Example of an **AuthorityReceipt** message in SOAP:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ird="http://ird.emsa.europa.eu/">
  <soapenv:Header/>
  <soapenv:Body>
    <ird:AuthorityReceipt>
      <ird:Header>
        <ird:statusCode>OK</ird:statusCode>
      </ird:Header>
      <ird:Body>
        <ird:receiptId>21</ird:receiptId>
      </ird:Body>
    </ird:AuthorityReceipt>
  </soapenv:Body>
</soapenv:Envelope>
```

Example of an **AuthorityReceipt** message in REST:

```
{
  "result": [
    {
      "receiptId": 21
    }
  ],
  "statusCode": "OK"
}
```

3.8 PushAuthorityResponse message

The **PushAuthorityResponse** message only includes initial content of the Authority Response and the latest position of the ship.

3.8.1 Message structure

REST Message:

Attributes		Occ
	Header	1
	VesselPosition	1
	Latitude	1
	Longitude	1
	AuthorityIdentification (xsd:string)	0-1
	ReportIdentification (xsd:string)	1
	Status (xsd:string)	1
	Comment (xsd:string)	0-1
	Attachments (array)	0-1
	Filename (xsd:string)	0-N
	Content (xsd:byte)	1

3.8.2 Business rules

The following table describes the applicable business rules.

No	PushAuthorityResponse attribute	Description
1	ReportIdentification	Unique identifier of MRS/VTs Report which corresponds this AuthorityResponse

2	VesselPosition	The Latitude and Longitude obtained from STAR TRACKING
---	-----------------------	--

3.8.3 Example

Example of an **PushAuthorityResponse** message in REST:

```
{
  "Header": {
  },
  "VesselPosition": {
    "Latitude": "069° 00' 28\"",
    "Longitude": "033° 03' 25\""
  },
  "AuthorityIdentification": "AuthorityA",
  "ReportIdentification": "Report1",
  "Status": "OK",
  "Comment": "MyComment",
  "Attachments": [
    {
      "Filename": "file1.jpg",
      "Content": "ew0KCSJNnRJRCI6IClyMSIsDQoJlk1SU1ZUU0Jsb2Nrcyl6IF"
    },
    {
      "Filename": "file2.jpg",
      "Content": "IBlcnNvbm5lbCI6IHsNCgkJCSJQaWxvdE9uYm9hcmQiOiAidHJ1Z"
    }
  ]
}
```

3.9 Status Codes and Status Messages

Every response message includes a status code with an optional status message. They are used to provide the result of the processing of a message by IRD or by the External system.

3.9.1 Status codes

A status code is provided in every response or receipt message in the *StatusCode* attribute of the *Header* element (in case of SOAP message) or in the response body (in case of REST message). It may have one of the following values:

Status code	Description
BadRequest	The message is not valid.
ServerError	The message has not been successfully processed due to a server problem (e.g. connection problem, database problem, application problem).
OK	The message has been successfully received or the information requested in the corresponding request message has been found (response messages).
NotFound	The information requested in the request message does not exist. This value may only be used by IRD in a response message – distribution services or vessel does not exist.
AccessDenied	The user account is not allowed to send the message or does not exist.
Unauthorized	The user account was not successfully authenticated

3.9.2 Status messages

Next to the *StatusCode* attribute, a corresponding *StatusMessage* attribute may be provided and used to give additional details regarding the status code.

As it is used for debugging, the status message should be provided in the English language.

Appendix A Attributes and simple type definitions

Element / Attribute	Data type	Length	Description	Messages(s) that include this element / attribute
AbilityToTransferCargoBallastFuel	Boolean			ISR_Push MRS_VTS_ReportReceive
AftDraught	Decimal		Aft-ship draught at arrival in metres	ISR_Push MRS_VTS_ReportReceive
ArrivalDateTime	DT		This is the estimated time and date of arrival. Note that local time offset from UTC is required.	ISR_Push MRS_VTS_ReportReceive
ATAToPortOfCall	DT		Actual date and time of arrival at the port of call. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
ATDFromPortOfCall	DT		Actual date and time of departure from the port of call. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
ATDFromPreviousPortOfCall	DT		Actual date and time of departure from the previous port of call. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
AuthorityIdentification	Text		Authority Identifier	MRS_VTS_ReportReceive AuthorityResponse
AuthorityName	Text	1-100	Name of the reporting Authority or Authority granting the exemption	ISR_Push
AuthorityType	ENUM		Type of the Authority granting the exemption. Possible value: <ul style="list-style-type: none"> • NCA – National Competent Authority • POR – Port Authority • OTH - Other 	ISR_Push
Beam	Decimal		This is the width of the vessel at its widest point or at the midpoint. It does not cover cargo that extends over the ship's fixed beam. Measured in metres.	ISR_Push MRS_VTS_ReportReceive
Breadth	Decimal		Ship width in metres	ISR_Push
BriefCargoDescription	Text		This is a short text giving an overview of cargo carried on board	ISR_Push

BunkersDetailsProvided	ENUM		Indication if information on the bunkers on board in the voyage to the port of call is available. Possible values: • YES • NO	ISR_Push
BusinessTelephone	Text		Business telephone	ISR_Push MRS_VTS_ReportReceive
CallPurposeCode	ENUM		Primary purpose of the call defined using the EDIFACT codes (8025)	ISR_Push
CallSign	Text		Ship's call sign	ISR_Push MRS_VTS_ReportReceive
CargoHandling	Text		Problems that may impact loading or unloading performance.	ISR_Push MRS_VTS_ReportReceive
CargoOverview	Text		This is a free text for human consumption. The text may include special characters such as new line.	ISR_Push MRS_VTS_ReportReceive
CauseOfLoss	Text			ISR_Push MRS_VTS_ReportReceive
CityName	Text		City name	ISR_Push MRS_VTS_ReportReceive
CoastalStateName	Text		Identification of coastal station receiving the report	ISR_Push
Comment	Text		Any other information related to ship identity. This could, e.g., be used if an identity field is requested by a certain receiver, but is not available for this ship.	ISR_Push MRS_VTS_ReportReceive AuthorityResponse PushAuthorityResponse
Communication	Text		Problems in communication systems.	ISR_Push MRS_VTS_ReportReceive
CompanyName	Text	1-70	Name of ship's operating company as defined in the ISM code	ISR_Push
ContactInfo	Text		Contains contact information for a company such as address, contact number and name.	ISR_Push MRS_VTS_ReportReceive
Content	Byte		Binary file content	MRS_VTS_ReportReceive AuthorityResponse PushAuthorityResponse
Country	Text		Country name	ISR_Push
CountryCode	Enum	2	ISO 3166 alpha-2 Country Code	ISR_Push MRS_VTS_ReportReceive
Course	Decimal		True course as decimal degree angle in the range 0 (zero) to 360, inclusive	ISR_Push MRS_VTS_ReportReceive
CrewNumber	Int		The number of crew members onboard.	ISR_Push MRS_VTS_ReportReceive
CSDID	Int		Unique identifier of the ship	ISR_Push

			in EMSA's Central Ship Database	
CurrentShipSecurityLevel	ENUM		Ship's current security level according to the ISPS code. Possible values: <ul style="list-style-type: none"> • SL1 • SL2 • SL3 	ISR_Push
DateAndTime	DT		Timestamp of the voyage information. Format "YYYY-MM-DDThh:mm:ssTZD" Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
DateAndTimeOfMRSReport	DT		Date and time when vessel reported to MRS. Format "YYYY-MM-DDThh:mm:ssTZD" Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
DeadWeight	Decimal		Dead Weight	ISR_Push MRS_VTS_ReportReceive
DGClassification	ENUM		Possible values: IBC, IGC, IMDG, IMSBC, MARPOL_ANNEX1	ISR_Push MRS_VTS_ReportReceive
distributionServiceId	Int		Distribution Service Identifier as defined by the IRD system	ISR_Request
DraughtAt	Decimal		Static aft draught in meters	ISR_Push
DraughtForward	Decimal		Static forward draught in metres	ISR_Push
Email	Text		Email address of the contact person	ISR_Push MRS_VTS_ReportReceive
EntryPosition	Text		The position when the ship is expected to enter a ship reporting or other area.	ISR_Push MRS_VTS_ReportReceive
EntryTime	DT		The time when the ship is expected to enter a ship reporting or other area. Format "YYYY-MM-DDThh:mm:ssTZD" Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push MRS_VTS_ReportReceive
EstimatedArea	Text			ISR_Push MRS_VTS_ReportReceive
EstimatedMovement	Text			ISR_Push MRS_VTS_ReportReceive
ETA	DT		Estimated date and time of arrival at the port of call. Format "YYYY-MM-DDThh:mm:ssTZD"	ISR_Push MRS_VTS_ReportReceive

			Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	
ETAToPortOfCall	DT		Estimated date and time of arrival at the port of call. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
ETAToSubsequentPortOfCall	DT		Estimated date and time of arrival to the subsequent port of call. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
ETD	DT		Estimated date and time of arrival to the subsequent port of call. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push MRS_VTS_ReportReceive
ETDFromPortOfCall	DT		Estimated date and time of departure from the port of call. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
ETDFromPreviousPortOfCall	DT		Estimated date and time of departure time from the previous port of call. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
ExemptionType	ENUM		Type of exemption granted to the ship. Possible value: <ul style="list-style-type: none"> • Pre-Arrival • Hazmat • Security • Waste • WasteNotification • WasteDeliveryWasteFees) 	ISR_Push
ExitPosition	Text		The position when the ship is expected to enter a ship reporting or other area.	ISR_Push MRS_VTS_ReportReceive
ExitTime	DT		The time when the ship is expected to enter a ship reporting or other area. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone	ISR_Push MRS_VTS_ReportReceive

			designator (Z or +hh:mm or -hh:mm)	
Fax	Text	1-20	Fax number (country code included) of the contact person	ISR_Push
Filename	Text		Filename	MRS_VTS_ReportReceive AuthorityResponse PushAuthorityResponse
FirstName	Text	0-50	First name of the contact person	ISR_Push
Flag	Text	2	Flag of the ship recorded in the OVR	ISR_Push MRS_VTS_ReportReceive
GeneralDescription	Text		Shall contain a list of all dangerous goods onboard the ship. Each element of the list shall contain the UN hazard class, the MARPOL code or a Description entry as well as the total amount of the material onboard (Measure).	ISR_Push MRS_VTS_ReportReceive
GeometryType	ENUM		RL/GC indicator. Possible values: Loxodrome Orthodrome	ISR_Push
GoodsCondition	Text			MRS_VTS_ReportReceive
GrossTonnage	Decimal		Gross tonnage as defined by The International Convention on Tonnage Measurement of Ships.	ISR_Push MRS_VTS_ReportReceive
HazardClass	ENUM		Hazard class according hazard class table	ISR_Push MRS_VTS_ReportReceive
HazmatOnBoard	ENUM		Status code which indicates whether the ship carries dangerous or polluting goods. Possible value: <ul style="list-style-type: none"> Y – Yes N – No 	ISR_Push
Heading	Decimal		Position heading	ISR_Push
HullIntegrity	Text		Any problems with hull or superstructure that may cause operational problems.	ISR_Push MRS_VTS_ReportReceive
IMO	Int		IMO number of the ship	ISR_Push MRS_VTS_ReportReceive
IMOCompanyId	Text		IMO Company Id	ISR_Push MRS_VTS_ReportReceive
IncidentID	Text	1-20	Identification number of the Incident Report. Format: Country code +15 characters Country code: Alpha-2 (two-letters) in accordance with standard ISO 3166-1. Country code of the	ISR_Push

			member state providing the Incident Report.	
IRDateTime	DT		Date and time when the Incident Report was sent. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
IRNumber	Text		Identification number of fishing vessel	ISR_Push
LastName	Text		Last name of the contact person	ISR_Push
LastPortOfCall	Text		Name of last port of call	ISR_Push MRS_VTS_ReportReceive
LastUpdateOn	DT		Date and time when information was updated. Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
Latitude	Text		Latitude in DMS format	ISR_Push
Latitude	Decimal		Latitude in degrees	MRS_VTS_ReportReceive PushAuthorityResponse
Length	Decimal		Ship’s length in metres	ISR_Push
LengthOverall	Decimal		Length overall, i.e. maximum length of a vessel from the two points on the hull most distant from each other, measured perpendicular to the waterline.	ISR_Push MRS_VTS_ReportReceive
LocationName	Text		This is normally the location from which a report is given.	ISR_Push MRS_VTS_ReportReceive
LocationPosition	Text		Allows the user to specify a named location.	ISR_Push MRS_VTS_ReportReceive
Locode	Text		Location code of the contact person or company	ISR_Push
Longitude	Text		Longitude in DMS format	ISR_Push
Longitude	Decimal		Longitude in degrees	MRS_VTS_ReportReceive PushAuthorityResponse
LossContinuing	Boolean			ISR_Push MRS_VTS_ReportReceive
LostGoodsStatus	ENUM		Possible values: <ul style="list-style-type: none"> • Floated • Sank 	ISR_Push MRS_VTS_ReportReceive
Manoeuvrability	Text		Defects in hull, steering or propulsion systems that affect manoeuvrability.	ISR_Push MRS_VTS_ReportReceive
MARPOLCode	ENUM		Possible values: <ul style="list-style-type: none"> • O • P • X 	ISR_Push MRS_VTS_ReportReceive

			<ul style="list-style-type: none"> • Y • Z 	
MedicalPersonnel	Text		This is a human-readable general remark.	ISR_Push MRS_VTS_ReportReceive
MidShipDraught	Decimal		Mid ship's draught at arrival in metres	ISR_Push MRS_VTS_ReportReceive
MMSI	Int		MMSI number of the ship	ISR_Push MRS_VTS_ReportReceive
Mooring	Text		Anchor or mooring systems problems	ISR_Push MRS_VTS_ReportReceive
MRSIdentification	ENUM	1-15	Identification of the MRS. Possible values: <ul style="list-style-type: none"> • ADRIREP • BELTREP • BONIFREP • CALDOVREP • CANREP • COPREP • FINREP • GDANREP • GIBREP • GOFREP • GREENPOS • MANCHREP • OUESSREP • SOUNDREP • TRANSREP • WETREP • BAREP 	ISR_Push
MRSSystemId	Integer		MRS System Identifier (area)	MRS_VTS_ReportReceive
Name	Text		Ship Representative Name	ISR_Push MRS_VTS_ReportReceive
Navigation	Text		Problems with bridge and/or navigation systems	ISR_Push MRS_VTS_ReportReceive
NavigationalStatus	ENUM		Navigational status provided by the AIS. Possible values: <ul style="list-style-type: none"> • Underway by engines • At anchor • Not under command • Restricted in ability to manoeuvre • Moored • Constrained by draught • Aground • Engaged in fishing • Underway by sail 	ISR_Push MRS_VTS_ReportReceive
NetTonnage	Decimal		Net tonnage as defined by The International Convention on Tonnage Measurement of Ship	ISR_Push MRS_VTS_ReportReceive
NextReportTime	DT		The time when the receiver can expect the next report.	ISR_Push MRS_VTS_ReportReceive

			Format “YYYY-MM-DDThh:mm:ssTZD” Where TZD = time zone designator (Z or +hh:mm or -hh:mm)	
NumberOfMedicalPersonsOn board	Int		Number of medical persons on board	ISR_Push MRS_VTS_ReportReceive
NumberOfPersonsOnBoard	Int		Number of persons on board the ship in the voyage to the port of call	ISR_Push MRS_VTS_ReportReceive
Organisation	Text		The details are official name of organization, country of registration, date of registration and tax identification code [e.g. value added tax (VAT)]. The specification allows any or all fields to be omitted.	ISR_Push MRS_VTS_ReportReceive
Originator	Text		Identification of country providing T-AIS data or service provider for S-AIS	ISR_Push
Other	Text		Other systems	ISR_Push MRS_VTS_ReportReceive
PassengersNumber	Int		The number of passengers on board	ISR_Push MRS_VTS_ReportReceive
Phone	Text		Phone number (country code included) of the contact person	ISR_Push
PilotOnBoard	Boolean		True if a pilot is onboard, false otherwise.	ISR_Push MRS_VTS_ReportReceive
Port	Text	1-5	Location code of port of the ship's last calls or scheduled route or exempted port	ISR_Push
PortFacilityLocode	Text		UN/LOCODE of the port facility	ISR_Push
PortFacilityNumber	Text	1-4	The last 4 digits of the port facility's code as in the IMO GISIS maritime security database	ISR_Push
PortOfArrival	Text		Route's arrival Port	ISR_Push
PortOfCall	Text		Port that the ship is heading to	ISR_Push MRS_VTS_ReportReceive
PortOfDeparture	Text		Route's departure Port	ISR_Push
PositionInPortOfCall	Text		Identification of position in port	ISR_Push
PostCode	Text		The postal address for a person or organization	ISR_Push MRS_VTS_ReportReceive
PresentDraught	Decimal		Present ship's draught at arrival in metres	ISR_Push MRS_VTS_ReportReceive
PreviousPortOfCall	Text		Port where the ship is coming from	ISR_Push
ProperShippingName	Text			ISR_Push MRS_VTS_ReportReceive
ProviderOfLastUpdate	Text	3-32	Identification of the user providing the latest update	ISR_Push
Quantity	Int			ISR_Push

				MRS_VTS_ReportReceive
RadioCommunications	Text		State in full names of stations/frequencies guarded	ISR_Push MRS_VTS_ReportReceive
receiptId	Int		Unique identifier generated for each receipt message with statusCode=OK	ISR_Receive ISR_Push AuthorityReceipt
RegistrationPort	Text		Country code and port code for the port of registration. The port name in human-readable format may also be included	ISR_Push MRS_VTS_ReportReceive
RelayToReportingSystems	Text			ISR_Push MRS_VTS_ReportReceive
Remarks	Text		Remarks field	ISR_Push MRS_VTS_ReportReceive
Report	Text		Request to relayreport to anothersystem, e.g.,AMVER, AUSREP ,JASREP, MAREP, etc	ISR_Push MRS_VTS_ReportReceive
ReportId	Int		Unique identifier of the ISR provided by the IRD when creating the ISR. The updates to ISR (if any) will include the same ID	ISR_Push
ReportIdentification	Text		Unique identifier of the MRS/VTs report provided by the IRD when allocate an ID to the received MRS/VTs report. The Authority Response will include the same ID	MRS_VTS_ReportReceipt AuthorityResponse PushAuthorityReponse
Revision	Int		Allows to determine modification of waypoint since the entry of the data	ISR_Push
RouteName	Text		Name of the route	ISR_Push
RouteStatus	ENUM		Status of the route 1 – Original 2 - Planned_for_voyage 3 - Optimized 4 - Cross_Checked 5 - Safety_Checked 6 - Approved 7 - Used_for_monitoring 8 - Inactive	ISR_Push
SeaState	Decimal		Sea state in World Metrological Organization (WMO) code, zero (0) to 9, inclusive.	ISR_Push MRS_VTS_ReportReceive
SeaStateDirection	Decimal		Direction in true degrees, zero (0) to 360, inclusive	ISR_Push MRS_VTS_ReportReceive
SentAt	DT		Date and time when the report is generated and sent. Format “YYYY-MM-DDThh:mm:ssTZD” where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push MRS_VTS_ReportReceive

ShipCallIDArrival	Text		ShipCallID of the port of call	ISR_Push
ShipCallIDDeparture	Text		ShipCallID of the previous port call	ISR_Push
ShipName	Text		Ship Name	ISR_Push MRS_VTS_ReportReceive
ShipType	ENUM		Ship type as used for Port State Control (check ISO A.851(20))	ISR_Push MRS_VTS_ReportReceive
Source	ENUM		T-AIS or S-AIS	ISR_Push
Speed	Decimal		Ship speed reported in AIS	ISR_Push MRS_VTS_ReportReceive
Status	Text		A description the ISR request status.	ISR_Receipt
Status	Text		A description of the AuthorityResponse	AuthorityResponse PushAuthorityResponse
statusCode	Text		Global status code. Refer to Status Codes and Status Messages	ISR_Receipt
StreetName	Text			ISR_Push MRS_VTS_ReportReceive
StreetNumber	Text			ISR_Push MRS_VTS_ReportReceive
SubsequentPortOfCall	Text		Subsequent port that the vessel is going to after the port of call	ISR_Push
Swell	Decimal		Swell in Douglas Scale, zero (0) to 9, inclusive	ISR_Push MRS_VTS_ReportReceive
SwellDirection	Decimal		Direction in true degrees, zero (0) to 360, inclusive	ISR_Push MRS_VTS_ReportReceive
TrueHeading	Decimal		Ship heading reported in AIS	ISR_Push
TypeOfIR	ENUM		Type of the Incident Report. Possible values: <ul style="list-style-type: none"> • SITREP • POLREP • Waste • LostFoundContainers • Others • FailedNotification • VTSRulesInfringement • BannedShip • InsuranceFailure • PilotOrPortReport 	ISR_Push
ValidFrom	DT		Date since the exemption is valid. Format “YYYY-MM-DDThh:mm:ssTZD” where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
ValidTo	DT		Date until which the exemption is valid. Format “YYYY-MM-DDThh:mm:ssTZD” where TZD = time zone designator (Z or +hh:mm or -hh:mm)	ISR_Push
vesselId	Text		Ship identifier value. It	ISR_Request

			should be coupled with vesselTypeId to identify uniquely a vessel	
vesselIdType	ENUM		Type of ship identifier. Possible values: <ul style="list-style-type: none"> • IMO • MMSI • CallSign • CSDID • IR 	ISR_Request
VesselMaxSpeed	Decimal		Ship's maximum speed in knots	ISR_Push
VoyageID	Text		Identification number of a voyage in a voyage plan	ISR_Push
UnitOfMeasurement	Token		Unit of Measurement value according to ISO A.851(20)	ISR_Push MRS_VTS_ReportReceive
UNLoCode	Token		3-character code for the location	MRS_VTS_ReportReceive
UNNumber	ENUM		4-digit number that identifies hazardous materials	ISR_Push MRS_VTS_ReportReceive
WasteCode	Text	1-4	Code identifying the type of waste. For the code list, please refer to the SafeSeaNet Messaging Reference Guide	ISR_Push
WasteDeliveryStatus	ENUM		Indication if ship intends to deliver all, some or none of its waste in the port of call. Possible Values: <ul style="list-style-type: none"> • All • SomeNone 	ISR_Push
WasteDescription	Text		Optional free text description of the waste type.	ISR_Push
WaypointID	Int		Unique waypoint identifier	ISR_Push MRS_VTS_ReportReceive
WaypointName	Text		Waypoint name	ISR_Push MRS_VTS_ReportReceive
Wind	Decimal		Wind strength in Beaufort scale, from zero (0) to 17, inclusive	ISR_Push MRS_VTS_ReportReceive
WindDirection	Decimal		Direction in true degrees, zero (0) to 360, inclusive	ISR_Push MRS_VTS_ReportReceive

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