



# Electronic Reporting

Context System, applications, and applied messages

(aug 2014)





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# 1 Introduction

This document provides a global system overview of the Electronic Reporting System(s) and the related message traffic.

With the BICS system Voyage and Cargo information from a departing inland ship will be sent to or notify the Fairway Authority be sent / notified.

Standardized EDIFACT and/or XML messages are used for the exchange of information. In the next following paragraphs you will see are schematic overviews of the systems and their context. Also elaborate on the kind of messages which has been used.

For any additional information please contact [helpdesk@bics.nl](mailto:helpdesk@bics.nl)

## 1.1 The BICS Reporting Application (build-up and main functions)

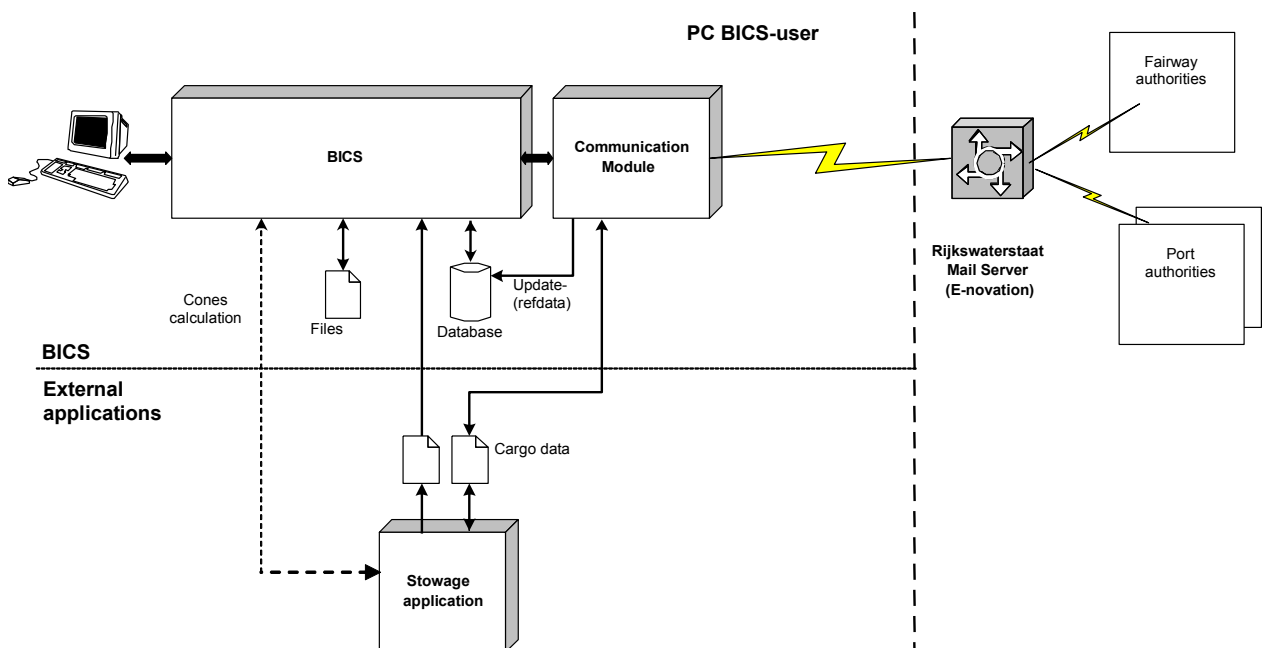


Figure 1 Schematic view of the BICS application

Generally speaking, BICS consist of a BICS user interface and a BICS communication module. The interface provides an interactive contact with the user and the creation and processing messages concerning cargo. The communications module provides the dial, sending, receiving and tracking of messages to and from EDIFACT format. The communication module can be used independent of the interface for sending and receiving messages from other applications (e.g. loading data for a stowage application, e-mail).

External applications, such as stowage applications, can exchange data regarding (reporting) cargo with BICS. The so-called Import interface is defined and able to exchange data in Ascii and XML file format.

## 1.2 Receiving Systems & Applications

The receiving systems are connected/linked with couplings (e.g. X400, Internet) with the RWS messaging service. With these links they receive messages from Users or other systems. They can receive messages (push) or retrieve them their selves (pull) for further processing.

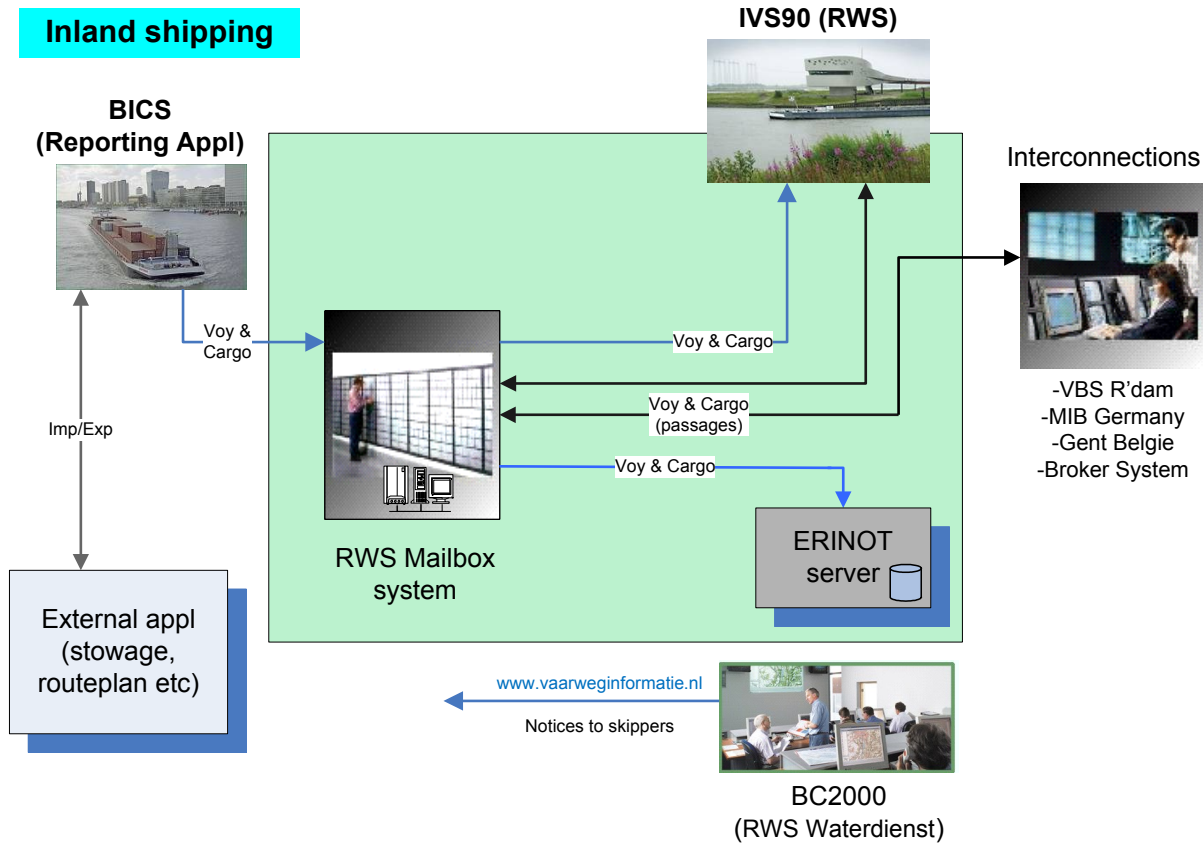
At this moment the following receiving systems play a role:



*Inland shipping related systems:*

- IVS90; Dutch IVS of RWS for navigation on the main waterways in the Netherlands. This system can receive travel and cargo information (Edifact messages) from BICS, ERI-Net.
- CBS Heerlen: Statistics Netherlands in Heerlen receive copies of the messages from BICS Dutch barges for monthly statistics on transportation in the inland.
- MIB II: The IVS90 equivalent in Germany.
- VNF2000: The IVS90 equivalent in France.
- Locks in Austria: Through a (1) mailing list the various locks in Austria receive electronic notifications, which then can be processed and displayed by a host application developed in Austria.
- HBR: Paired Port Information for the Rotterdam port.
- Enigma (Ghent): Paired Port Information in the port of Ghent.
- MCCD (Hasselt): Linked navigation system in Hasselt.
- Gina (Wallonia): Linked navigation system in Wallonia.
- CBS Zeeland: The Central Broker System in use in the Zeeland region for the various maritime authorities in the region (Netherlands and Belgium).

## 2 Electronic Reporting for Inland Shipping (BICS/ERI-Net)



### 2.1 Inland Shipping Messages

To exchange information we use standardized messages, namely:

- Travel & cargo:** These messages contain information about the journey, the hazardous and/or non-dangerous cargo (possible in or not in containers) which are on board and should be reported to the authorities. Therefore the so-called ERI 5, 6, ERINOT 1.2 (EDIFACT, XML) messages are used.
- Navigation Messages:** These are Notices to Skippers regarding issues/details of the fairways (restrictions etc.), water level and frost alert. If enlisted, skippers receive these messages and can read them through the so-called BOS-application. Therefore the Notices to Skippers Press (XML) messages are used.
- Imp / exp messages:** These are messages for the reporting applications (BICS, ERI-Net) with travel and cargo information can be exchanged with other applications (e.g. stowage planning software). This is known as Ascii and XML import and export messages used.

At present, the following messages (versions) apply:

- ERI 5, 6 EDIFact (IFTDGN 95A Protect 0.5)
- ERINOT 1.0 EDIFact (IFTDGN 98B Protect 1.0)
- ERINOT 1.0 XML (incl EDI<->XML mapping)
- ERINOT 1.2 EDIFact (EU164/2010, IFTDGN 98B ERI12)
- ERINOT 1.2 XML (incl EDI<->XML mapping)



- PAXLST 1.0 EDIFact (EU164/2010 PAXLST 05A ERI10)
- BERMAN 2.0 EDIFact (EU164/2010 BERMAN 05B ERI20)
- ERIVOIY 1.0 EDIFact (IFTSAI 04B ERI10)

BICS/ERI-Net Import/export messages:

- ~~BICS/ERI-Net ASCII Import / export interface V4.01~~
- ~~BICS/ERI-Net ASCII Import / export interface V4.02~~
- BICS ASCII Import / export interface V5.01
- ERI-Net XML Import / export interface V1.0

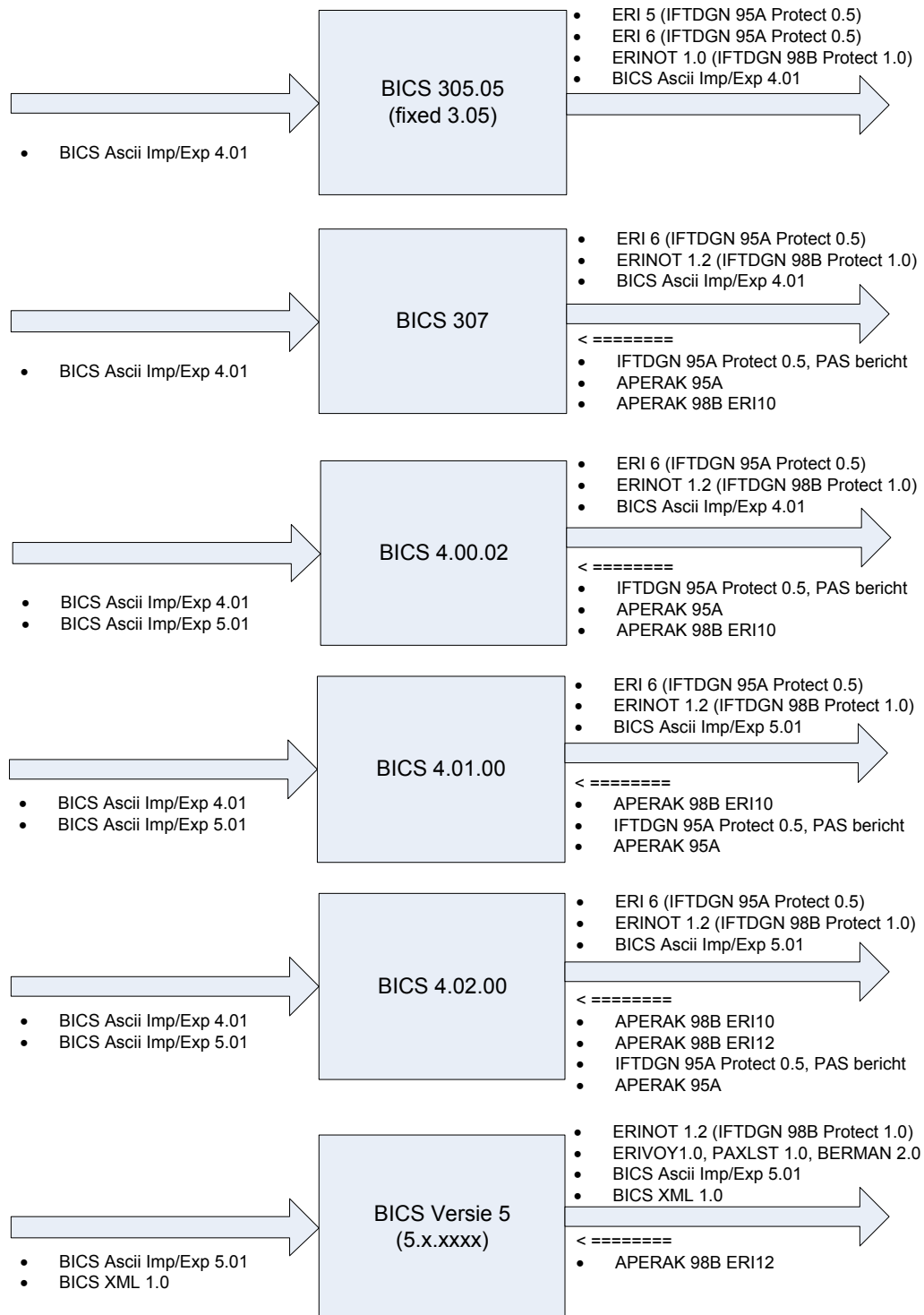
The specifications of these messages can be found at [www.bics.nl](http://www.bics.nl) (section Documents).

### 3 Message exchange per system/application

In this chapter import/export possibilities and possible versions of messages are described (Oct. 2007).

#### 3.1 BICS Application

BICS (Classic) application and associated versions of messages:





### 3.2 Other receiving systems/applications

#### IVS90

- Incoming
  - ERI 5, 6 (IFTDGN 95A Prot 0.5)
  - ERINOT 1.2 (IFTDGN 98B)
- Outgoing
  - ERI 5, 6 (IFTDGN 95A Prot 0.5)
  - ERINOT 1.2 (IFTDGN 98B)
  - APERAK 95A Prot 10
  - APERAK 98B ERI12

#### MIB

- Incoming
  - ERINOT 1.2 (IFTDGN 98B)
- Outgoing
  - ERINOT 1.2 (IFTDGN 98B)

#### VNF

- Incoming
  - ERI 6 (IFTDGN 95A Prot 0.5)
  - ERINOT 1.2 (IFTDGN 98B)
- Outgoing
  - N.a.

#### HBR

- Incoming
  - ERI 6 (IFTDGN 95A Prot 0.5)
  - ERINOT 1.2 (IFTDGN 98B)
- Outgoing
  - ERI 6 (IFTDGN 95A Prot 0.5)
  - ERINOT 1.2 (IFTDGN 98B)

### 3.3 Message specifications of applied messages

Beneath descriptions and references to specification of messages such as mentioned in the overview.

**Table 1**

Message	Message type	Message specification
ERI 5	EDIFACT IFTDGN95A PROT 0.5	see ref [5]
ERI 6	EDIFACT IFTDGN95A PROT 0.5	see ref [4]
ERI 6 APERAK	EDIFACT APERAK PROT 0.5	see ref [4]
ERINOT 1.0 <sup>1</sup>	EDIFACT IFTDGN98B PROT 1.0	see ref [2]
ERINOT XML 1.0	XML variant of ERINOT 1.0	see ref [3]
ERINOT 1.2	EDIFACT IFTDGN98B ERI 1.2	see ref [9]
ERINOT 1.2 APERAK	EDIFACT APERAK98B ERI 1.2	see ref [9]
ERIVOY 1.0	EDIFACT IFTSAI 04B ERI10	see ref [10]
BERMAN 2.0	EDIFACT BERMAN 05B ERI20	see ref [9]
PAXLST 1.0	EDIFACT PAXLST 05A ERI10	see ref [9]
ERINOT XML 1.2	XML variant of ERINOT 1.2	see ref [1]

<sup>1</sup> ERINOT 1.0 also known as SRS 1.0 (precedent system of ERINOT 1.2, accorded and registered by the CCR).





Imp/exp 4.01	Ascii Imp/exp V4.01	see ref [6]
Imp/exp 5.01	Ascii Imp/exp V5.01 cfrm ERINOT 1.2	See ref [7]
Imp/exp XML 1.0	XML Imp/exp V1.0f	see ref [8]

The reference documents mentioned in Table 1 are:

- [1] ERI Guide 2.0 d.d. 31 aug 2006 (replaced by EU164/2010 standard)
- [2] SRS 1.0 (EDI) Message specification d.d. 22 feb 2005: International ERI/BICS (IFTDGN98B) msg specification.
- [3] SRS 1.0 (ERINOT XML) Message specification d.d 4 aug 2004: ERINOT XML specification.
- [4] ERI 6 Message Specification V6d d.d. 1 nov 2006: BICS (IFTDGN95A) msg specification.
- [5] ERI 5 Message Specification V5 (N(4)) d.d. 14 maart 2002: BICS (IFTDGN95A) msg specification.
- [6] BICS (Ascii) Import export Interface specification V4.01 (J) d.d. 12 apr 2003.
- [7] BICS (Ascii) Import export Interface specification V5.01 d.d. sep 2009.
- [8] BICS/ERI-Net (XML) Import export Interface specification V1.0f d.d. 4 juni 2007.
- [9] EU regulation nr. EU164/2010
- [10] ERIGUIDE Part III Annex 4 (ERIVVOY / IFTSAI) v1.03 nov 2011.

The messages mainly contain travel and cargo-oriented information. Below a brief description of these messages:

- ERI 5: The 1st version of the travel and cargo message for the inland waterways, based on IFTDGN 95A message as used in the so-called Protect understanding in Shipping as well as by a.o. the Port of Rotterdam. In first instance it was only applied in the Netherlands (BICS -> IVS90), later it was also used for the 1st links like with the MIB.
- ERI 6: An improved version of the ERI 5 message (syntax and structure equal), and includes a new Standardized reference (other code sets), as UNLocode and HS codes of goods (instead of the older CBS location codes and NSTR codes of goods).
- ERINOT 1.0: The successor of the ERI 6 message (modified structure based on a newer version of the message IFTDGN version 98B). The 1st message adopted as a standard in International understanding (via the CCR). Major changes including a.o. the change to the ISRS location code (based on so called RIS index) and other IFTDGN frame work.
- ERINOT 1.2: The improved version of the ERINOT 1.0 message (syntax and structure equal). This ERINOT 1.2 message is *the* specified message from the CCR on which the Electronic reporting is required, and now introduced. Compared to ERINOT 1.0 there are some improvements and small adjustments added.
- Imp /Exp 4.01: The Export/ Import message, which can import/export travel data and load data into or out the BICS system. External applications (e.g. a container stowage application) can use this message to exchange information with BICS.



- Imp /Exp 5.01: The improved Import /Export message (following ERINOT 1.2). Main change is that it meets the requirements for the ISRS location code.
- Imp / Exp XML 1.0: The Export/Import message, which can import/export travel, cargo, and additional data in or out of the ERI-Net. External applications can use this message to exchange information with the ERI-Net (conform ERINOT 1.2).