Leading Principles and Definitions NSW Germany

Structure
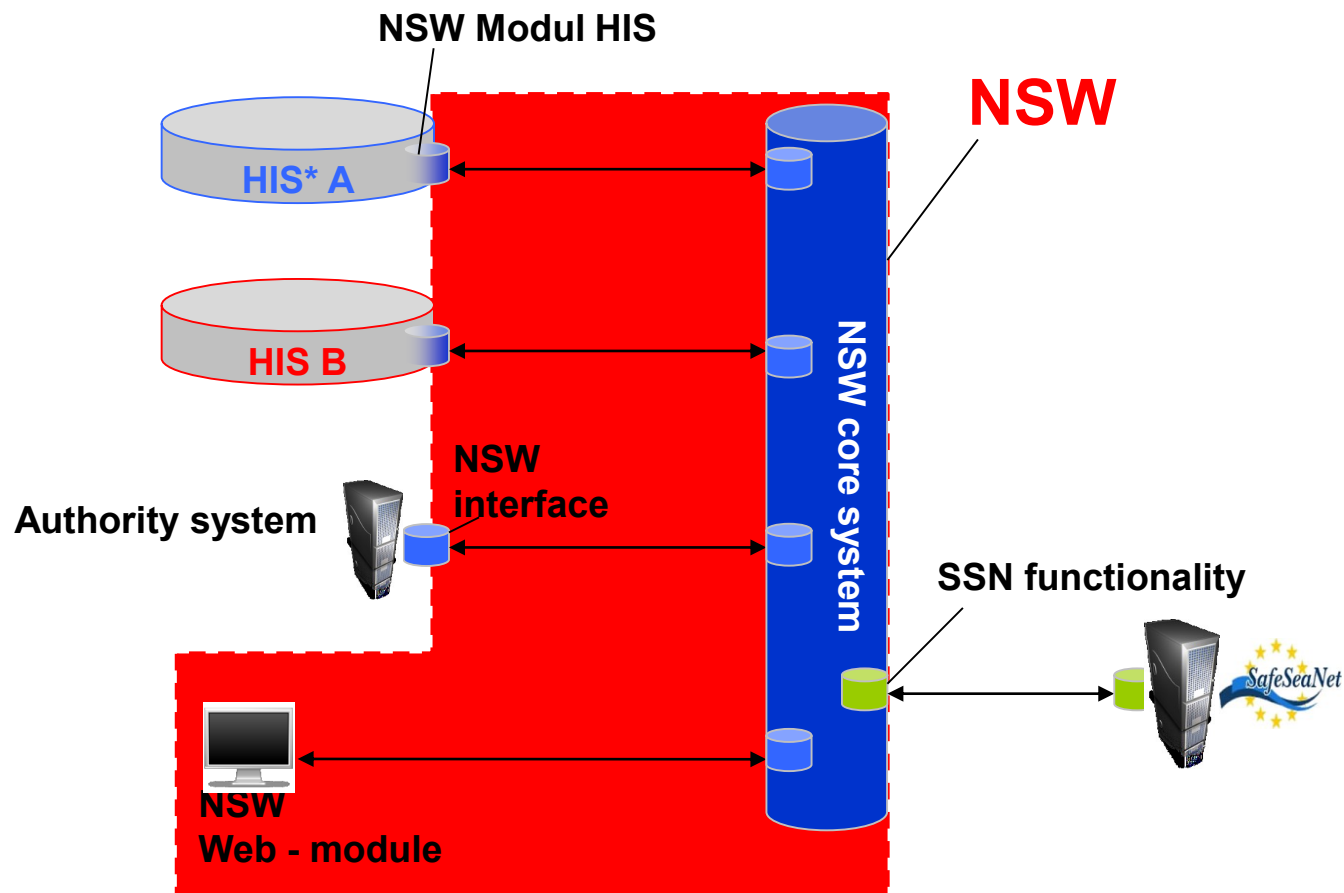
Structure

Definition (D1)   The NSW is the technical implementation of the requirements of Dir. 2010/65 in Germany. The national and European IT-security guidelines are the basis of the system and apply to all NSW modules.

Definition (D2)

The NSW is defined by the NSW core system, the NSW interfaces at various HIS (HIS means the combination of an existing PCS environment and the new NSW interface) and the NSW web module. The data exchange is bi-directional.
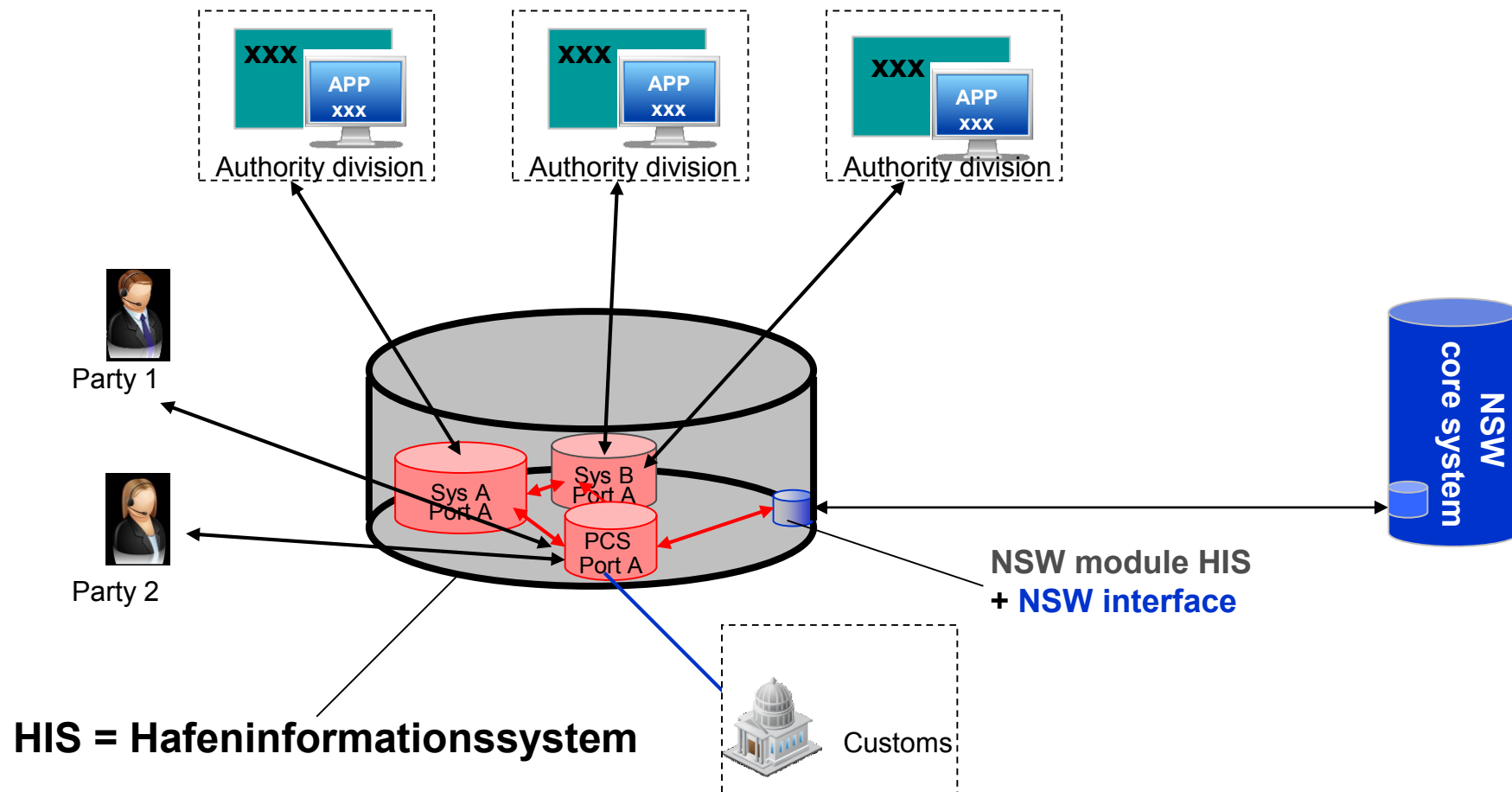The NSW core system contains also the functionality of data exchange with SSN.

NSW Modul HIS

HIS* A

HIS B

Authority system

NSW interface

NSW core system

NSW

SSN functionality

SafeSeaNet

NSW Web - module

* HIS = Hafeninformationssystem

Structure

Definition (D3) — A **PCS environment** consists of several integrated systems where the individual authorities and the shipping industry ("parties") are linked to.
Data exchange between PCS and NSW core is to be ensured through the NSW interface.
The PCS enables also the interconnection between shipping industry parties and between industry and customs.

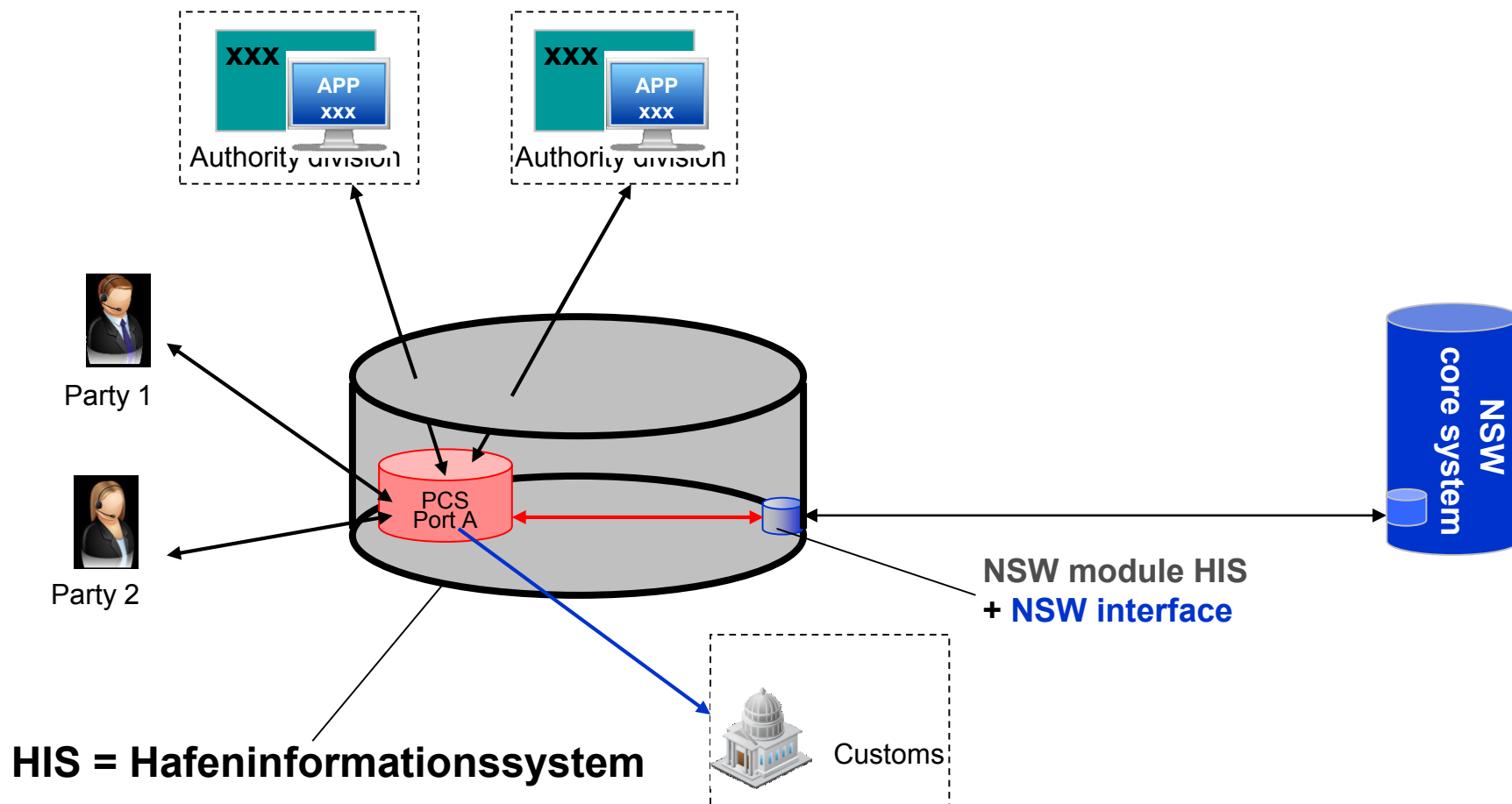**Variation 1: authority divisions are connected to the PCS via own systems**

XXX
APP
xxx
Authority division

XXX
APP
xxx
Authority division

XXX
APP
xxx
Authority division

Party 1

Party 2

Sys A
Port A

Sys B
Port A

PCS
Port A

NSW core system

NSW module HIS
+ NSW interface

Customs

HIS = Hafeninformationssystem

Structure

Definition (D4)   A **PCS** is one system, where the individual authorities in the port and the shipping industry ("parties") are linked to.
Data exchange between PCS and NSW core is to be ensured through the NSW interface.
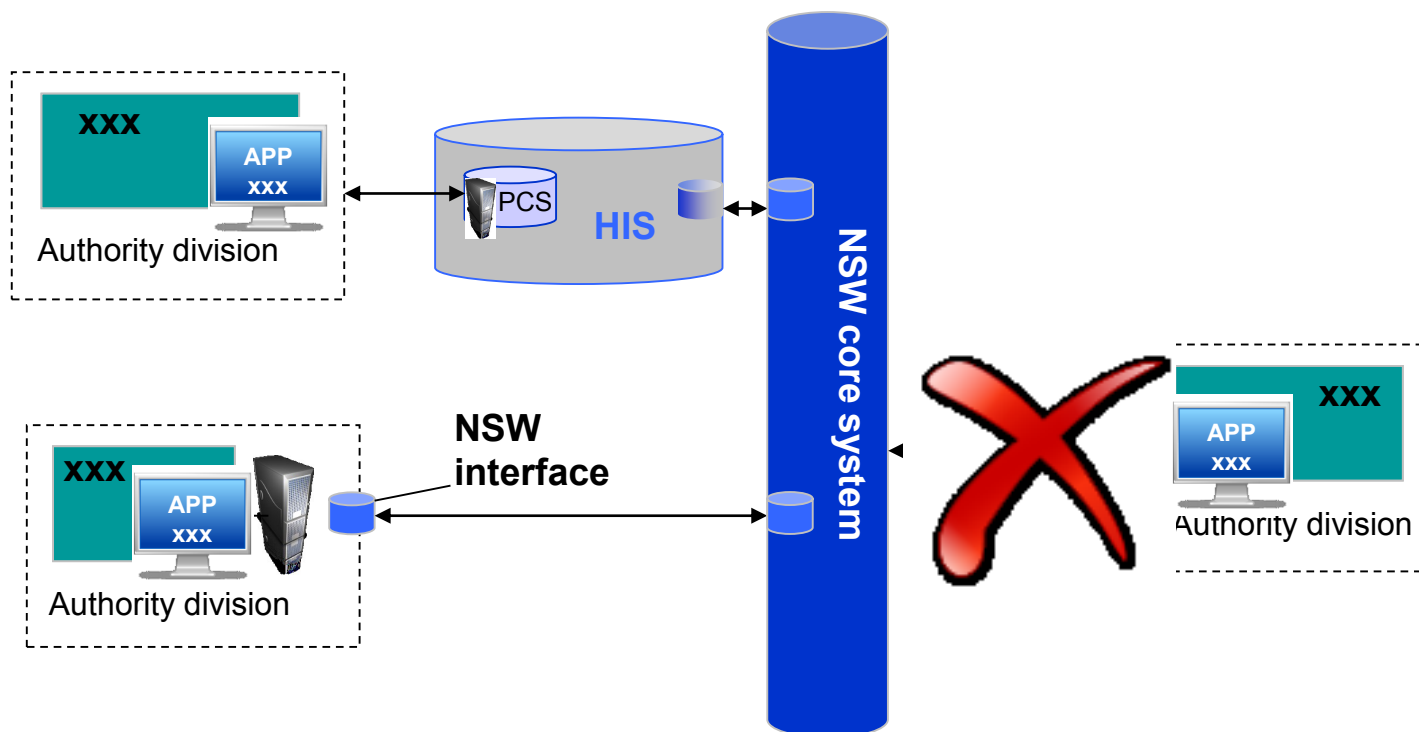The PCS enables also the interconnection between shipping industry parties and between industry and customs.

Variation 2: authority divisions are connected directly to a PCS

XXX
APP xxx
Authority division

XXX
APP xxx
Authority division

Party 1

Party 2

PCS Port A

NSW core system

NSW module HIS + NSW interface

Customs

HIS = Hafeninformationssystem

Structure

Principle (L1)   The access to data in the NSW core system is only possible by means of NSW interface (machine – machine - communication).
The NSW core system does not provide a user surface with direct access to the data.
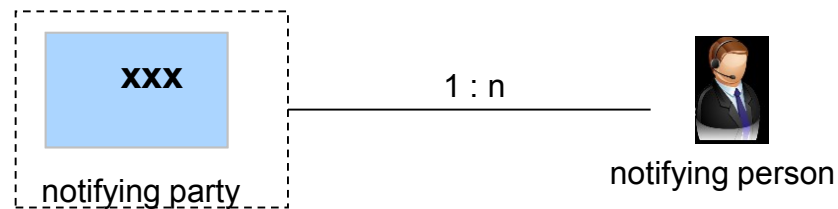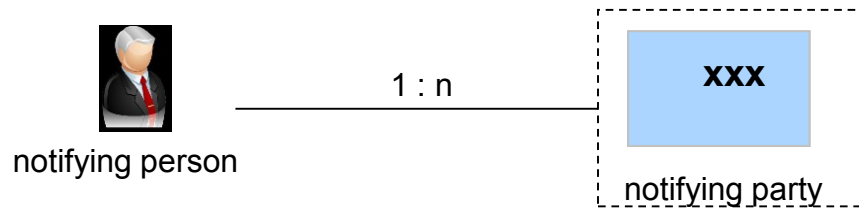
Rights and rolls

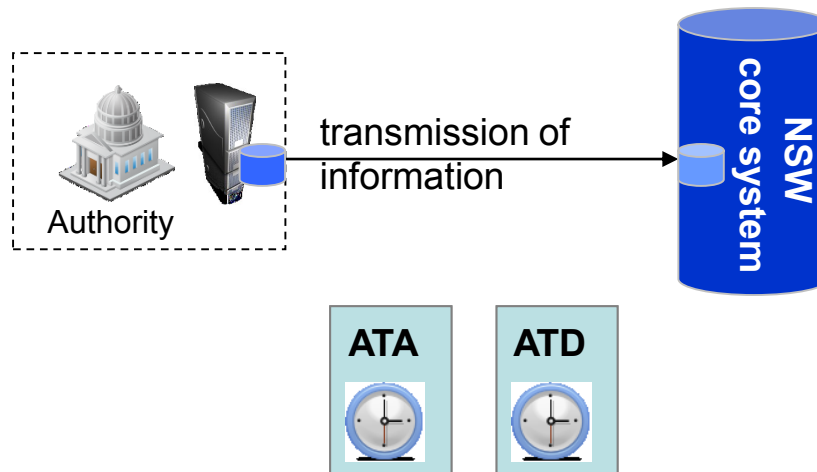
Rights and rolls

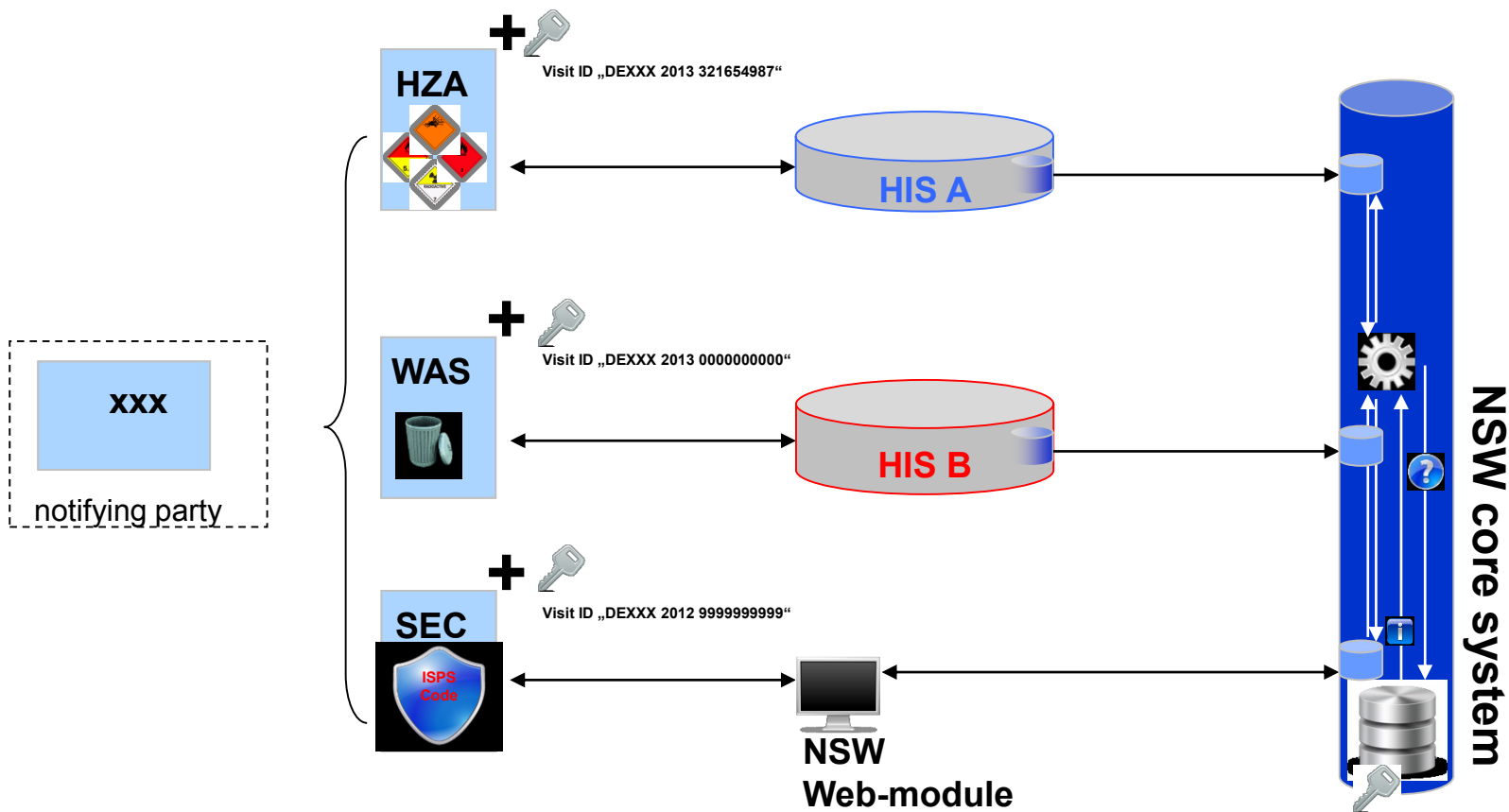**Definition (D6)**   An authority may have one or more competent divisions.
An authority may be entrusted to submit certain notifications (e.g. ATA and ATD).

Authority   1 : n   **xxx**   Authority division

Authority   transmission of information   **NSW core system**

ATA   **ATD**

Rights and rolls

| Principle (L2) | The notifying party owns the notified data. |
| | Only the respective notifying party has the right to amend or to cancel data. |

HZA

Visit ID „DEXXX 2013 321654987"

HIS A

WAS

Visit ID „DEXXX 2013 0000000000"

HIS B

SEC

Visit ID „DEXXX 2012 9999999999"

xxx

notifying party

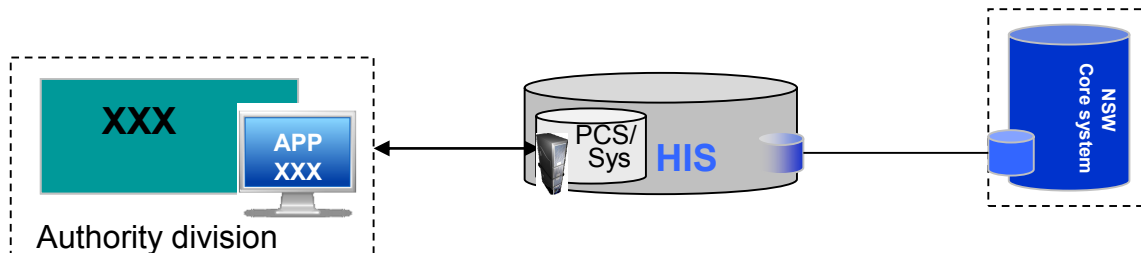**NSW Web-module**

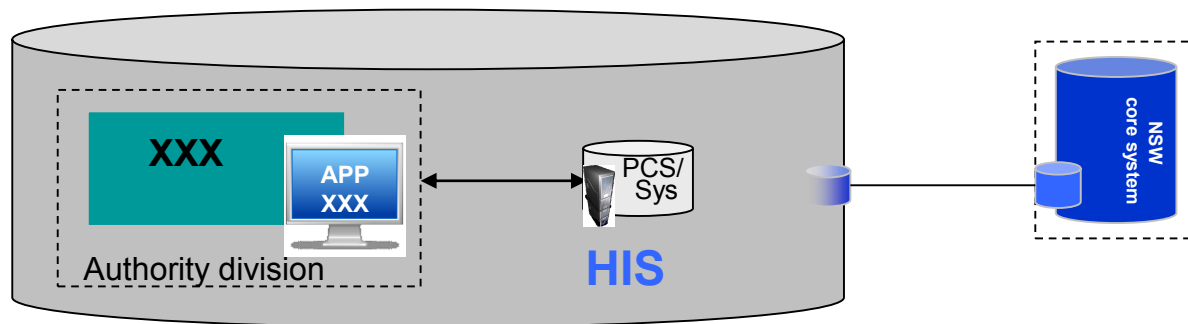**NSW core system**

Rights and rolls

Principle (L3) A competent authority is connected through **one** HIS (PCS/Sys) **or** through the NSW interface to the NSW core system (one defined unique access).

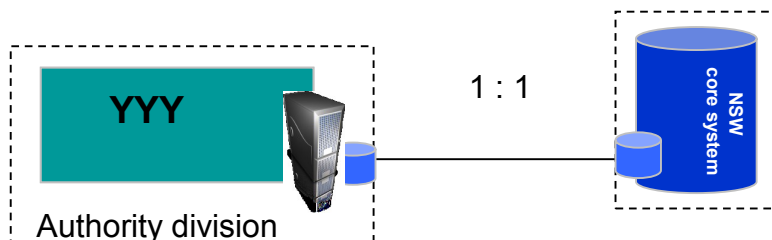**Variation 1: authority division outside HIS**

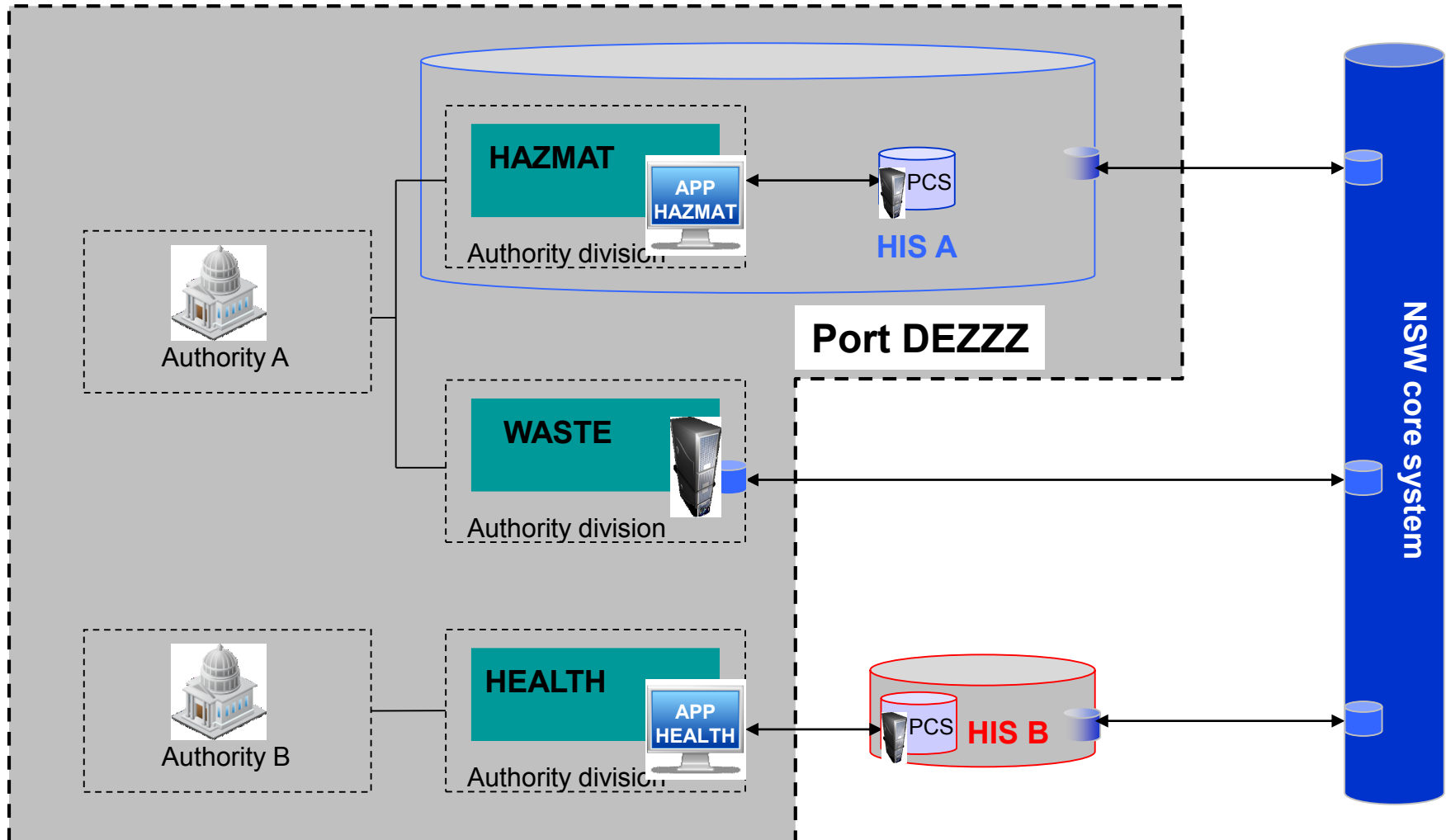**Variation 2: authority division part of HIS**

or

Variation 3: authority division without PCS

Rights and rolls

Principle (L4)
In one port DEZZZ various authorities may have various ways of access to the NSW core system. However, for each authority the access is unique (see L3).

Rights and rolls

Principle (L5)	The NSW core system registers the means of unique access for each individual authority.

Port (UNLoCode)	**Domäne** Port	HAZMAT	WASTE	IMMIGRATION	………
DEBRE	Hafenamt BRE via dbh	Hafenamt BRE via dbh	Hafenamt BRE via dbh	BPOL via NSW interface	
DEBRV	Hafenamt BRV via dbh	Hafenamt BRV via dbh	Hafenamt BRV via dbh	BPOL via NSW interface	
DEHAM	HPA (HH) via DV Elbe	WSP (HH) via GEGIS (Dakosy)	Umweltamt (HH) via NSW Schnittstelle	BPOL via NSW interface WSP HH via NSW interface	
DECUX	Hafenamt CUX via dbh	Hafenamt CUX via dbh	Hafenamt CUX via D+D	BPOL via NSW interface	

Rights and rolls

Principle (L6)   Data access by competent authorities is obtained by cyclic data requests to the core system with synchronous response via the NSW interface.

Notification process

Definition   (D7)   The various types and time frames of notifications are defined in the Notification Ordinance (legal act for the implementation of Dir. 2010/65), including the request for a VisitID.

PoB

BKR

New 18.12.2013 **PoB + Bunker**

§

NOA

HZA

WAS

SEC

MHD

CAN

PAX

REG

Request for VisitID

72 h

ATA

HZD

NOD

ATD

Message types as from 01.Juni 2015

Definition   (D8)   All information is assigned consistently to the appropriate message type.

Example:

PoB
Arr

HZA

PoB

Attribute:
Persons on board – on arrival

Notification process
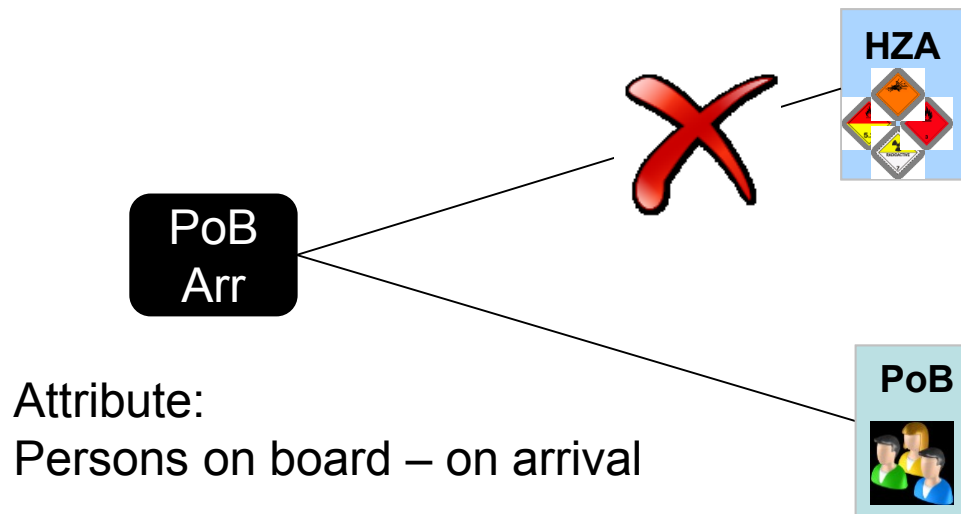
Principle (L7)   The submission of information is effected by notifications.
Different notifications are connected by means of the VisitID.
For validation, the LoCode of the port is transmitted as an attribute.
The individual notifications do not contain redundant information

messages contain:

- header (metadata)
- voyage data (in NOA)
  (reused for other information)
- specific data per message type

Metadata
VisitID

**Port of call
[LoCode]**

message type

Notification items (attributes) are defined per message type.
In each message type, coherent attributes are encapsulated.

Notification process

Different time frames apply for the various message types.
The time frames are established by the relevant EU directives
and are implemented by the Notification Ordinance.

REG   request for "Visit-Id"

before first notification

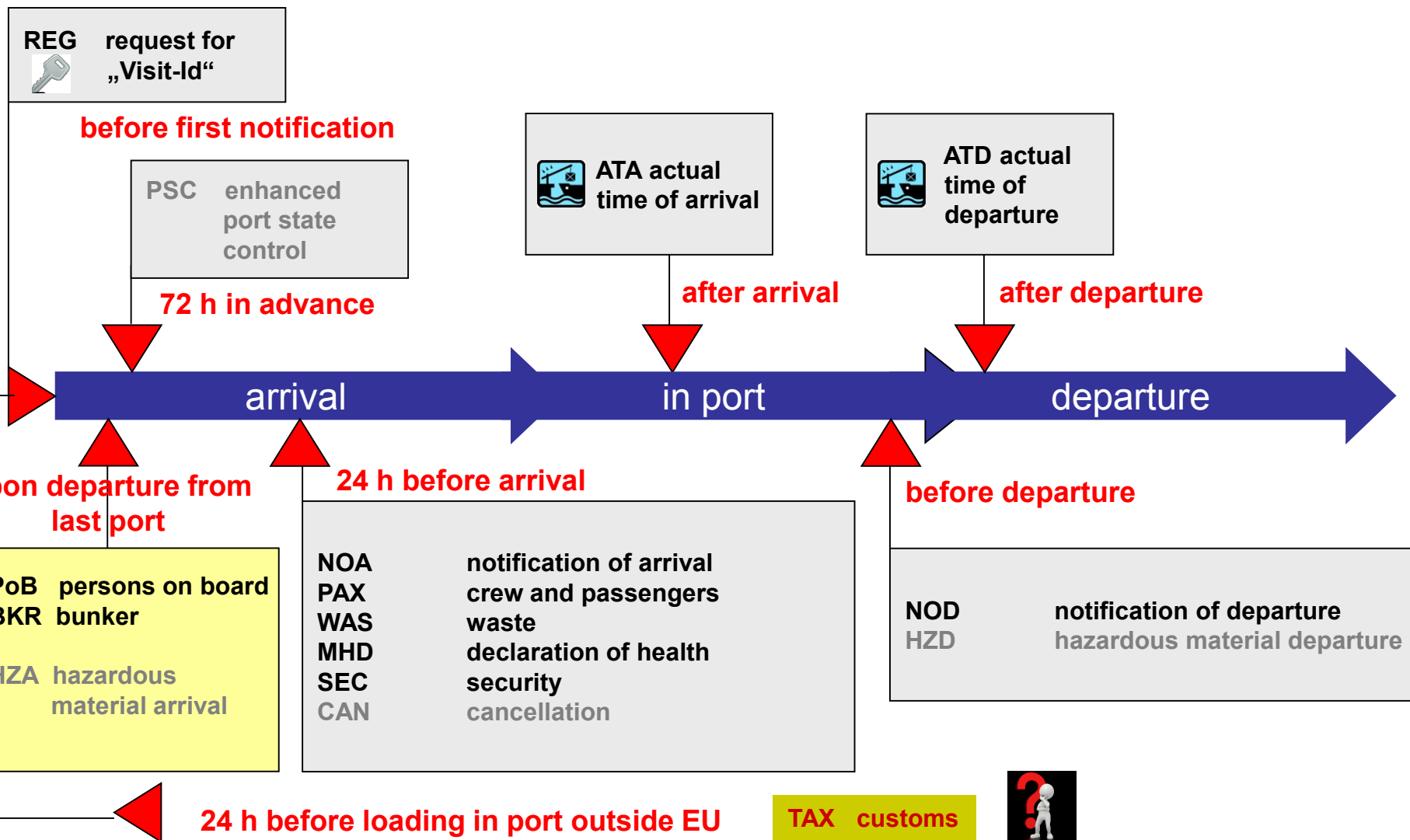PSC   enhanced port state control

72 h in advance

ATA actual time of arrival

ATD actual time of departure

after arrival

after departure

arrival   in port   departure

Upon departure from last port

24 h before arrival

before departure

PoB   persons on board
BKR   bunker

HZA   hazardous material arrival

NOA	notification of arrival
PAX	crew and passengers
WAS	waste
MHD	declaration of health
SEC	security
CAN	cancellation

NOD	notification of departure
HZD	hazardous material departure

24 h before loading in port outside EU
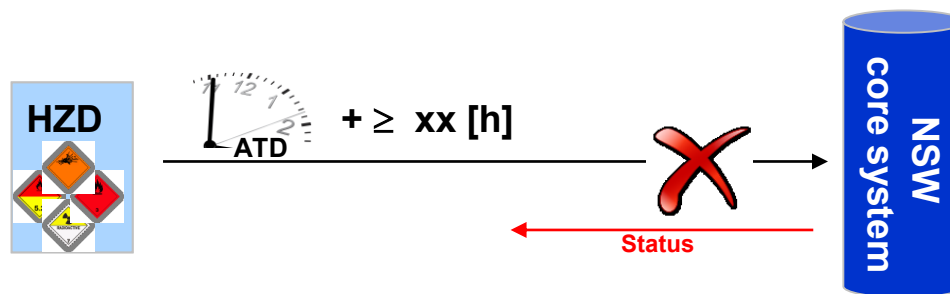
TAX   customs

Notification process

Principle (L9)

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The NSW core system checks messages according to the specifications of competent authorities and rejects messages which are not compliant.
In such case the status „rejected" is transmitted to the sender of the message.

Example: time frame for delayed notification
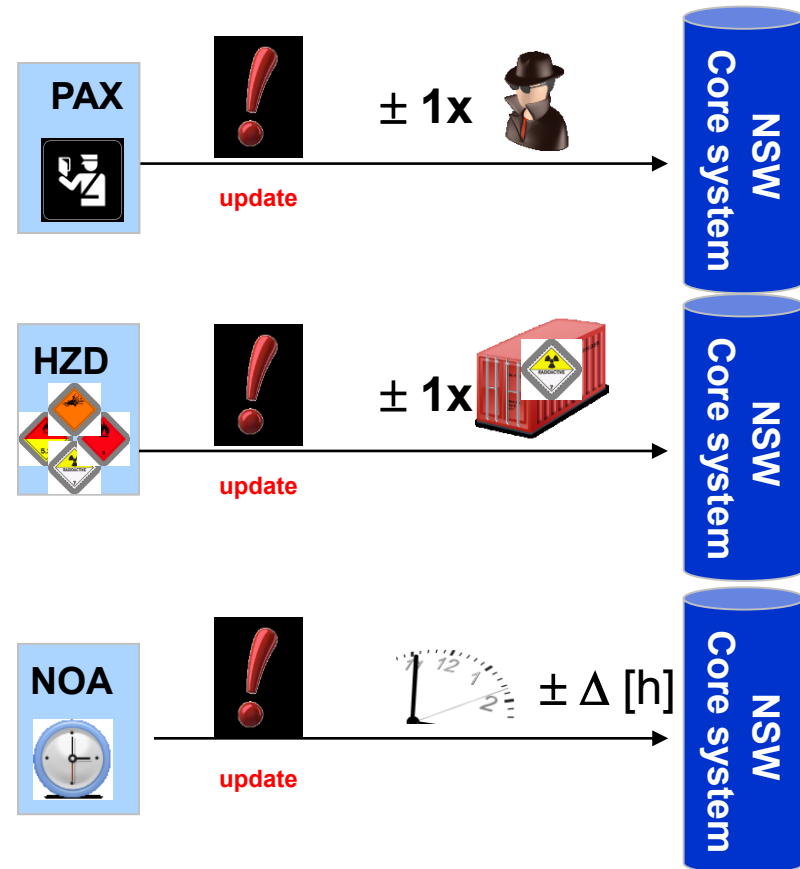
Notification process

Principle (L10)   The competent authorities define criteria for update messages

§

Criteria such as

- Amendment of attribute
  (e.g. persons on board, quantity of
  dangerous goods)

PAX
update   ± **1x**   NSW Core system

HZD
update   ± **1x**   NSW Core system

- Amendment of arrival or departure
  time

NOA
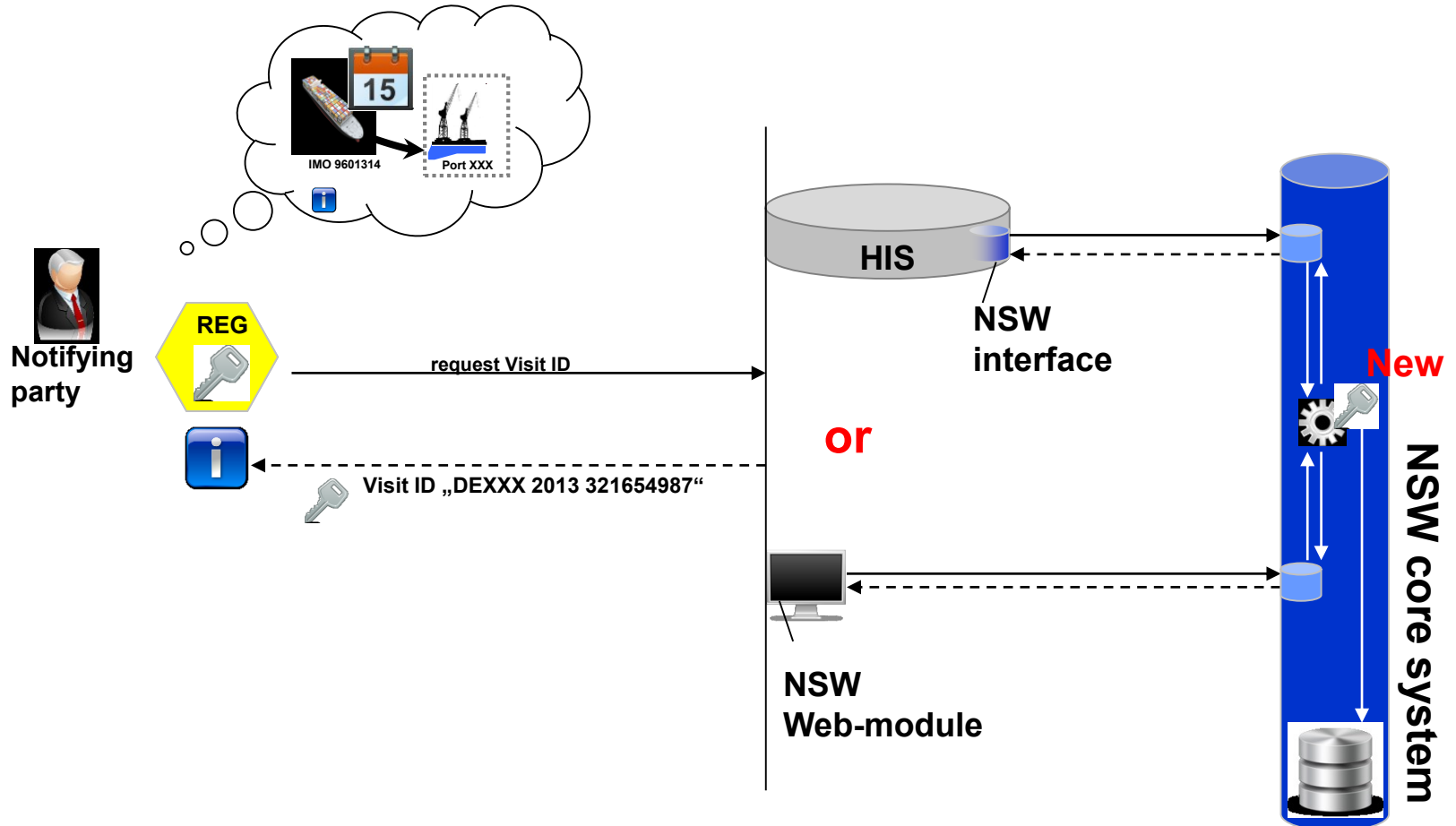update   ± Δ [h]   NSW Core system

Notification process

Principle (L11)

The notification process for a „visit of port" must be initiated by an **unique** request and assignment of an **unambiguous** „Visit-ID" (request VisitID). A later amendment of the attributes „ship" and „port" is not possible throughout the whole notification process.

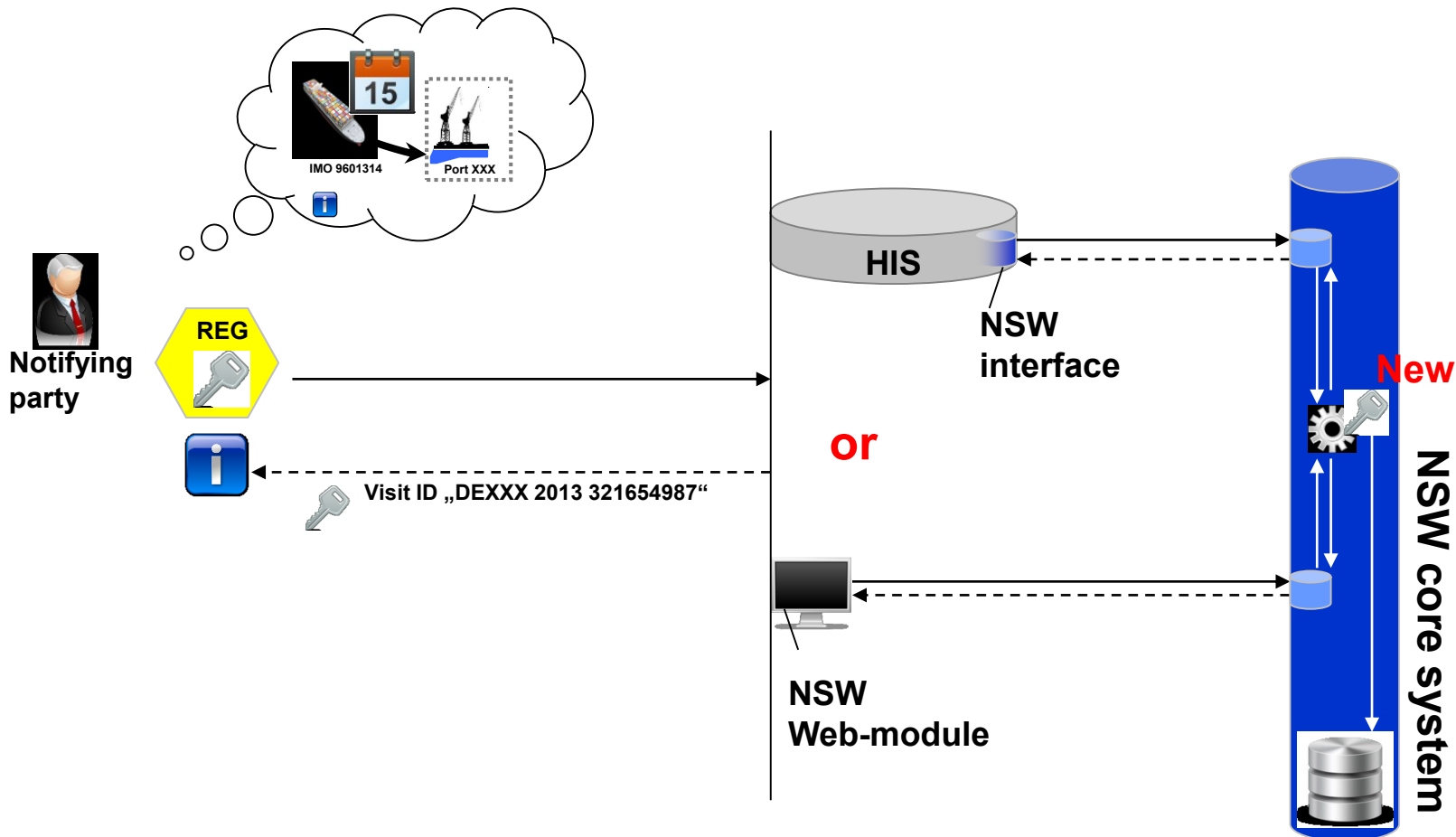**Notifying party**

REG

request Visit ID

Visit ID „DEXXX 2013 321654987"

or

HIS

NSW interface

NSW Web-module

New

NSW core system

≡ **Visit ID**

„visit of port" is defined as arrival, stay and departure of the ship in a port

Notification process

Principle (L12) The unambiguous „Visit-ID" is assigned by the NSW core system.
The core system stores this Visit-ID for subsequent notifications by the same or other notifying parties

§

IMO 9601314   **Port XXX**

Notifying party

REG

or

HIS

NSW interface

New

NSW core system

Visit ID „DEXXX 2013 321654987"
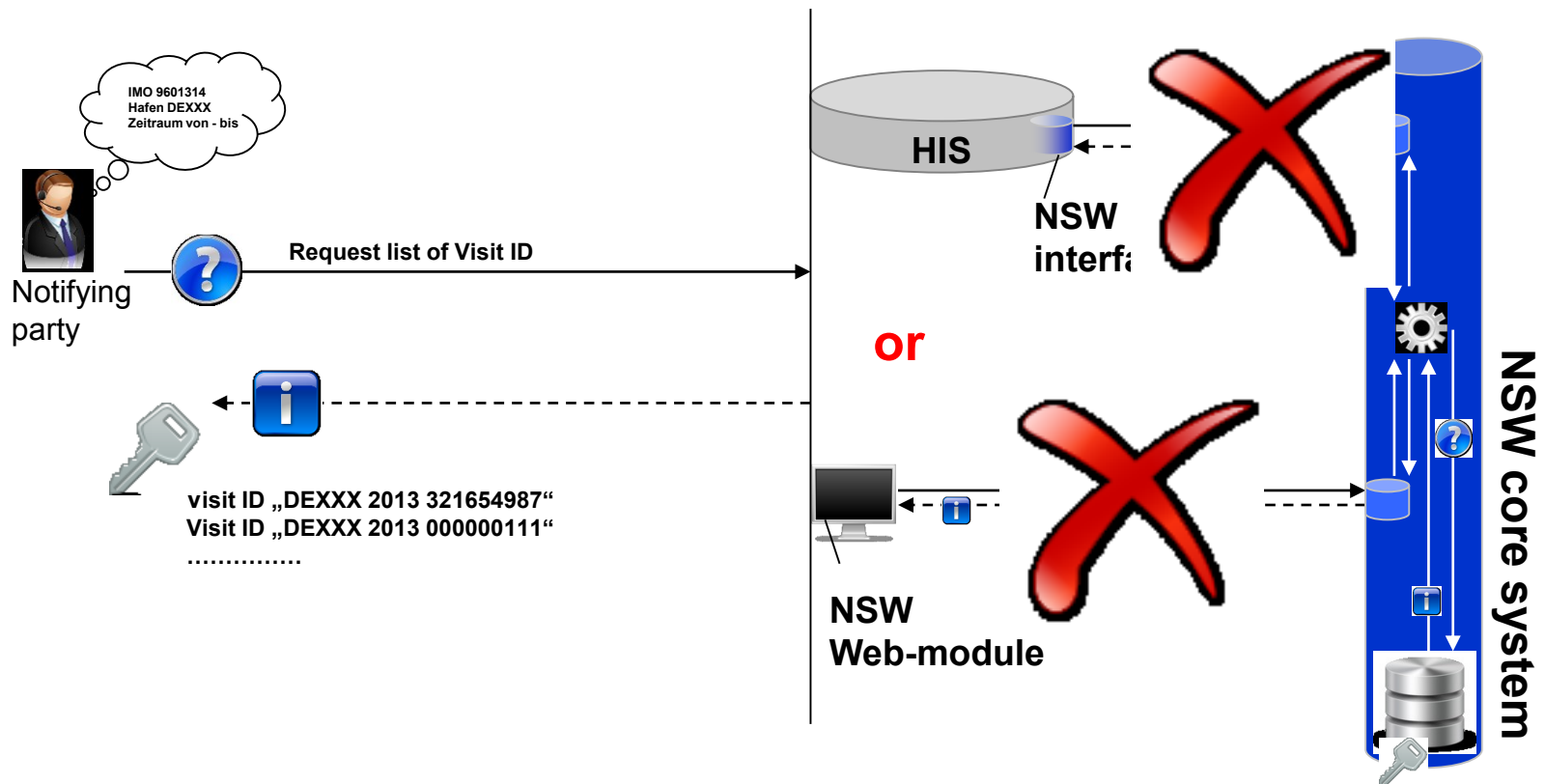
NSW Web-module

≡ **Visit ID**

„visit of port" is defined as arrival, stay and departure of the ship in a port

Notification process

Principle (L13)   A request to provide a list of Visit-IDs is not processed by the core system (data security).
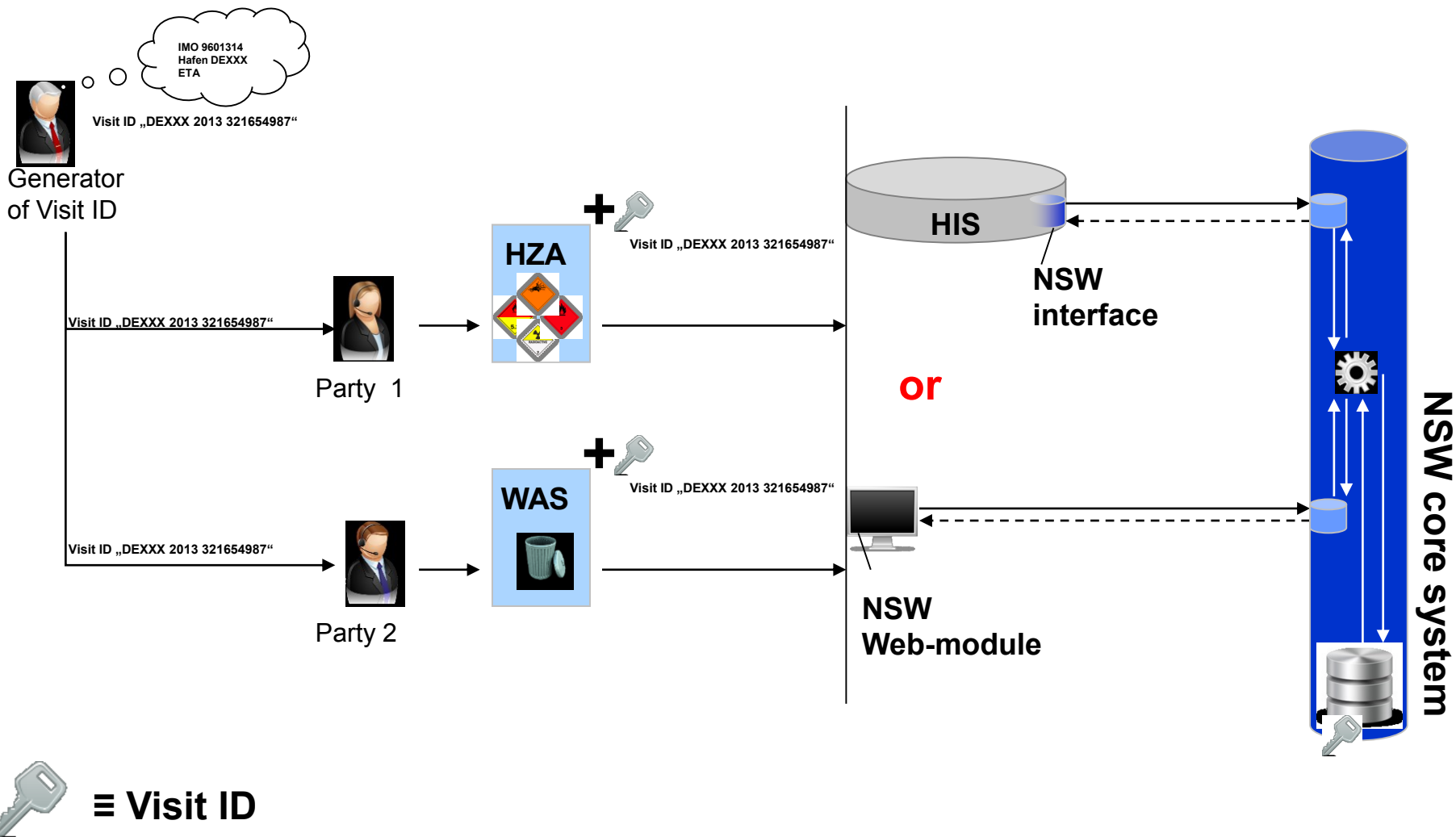

≡ Visit ID

Notification process

Principle (L14)

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The dissemination of the Visit ID to the various notifying parties shall be effected by the generator of the Visit ID.

IMO 9601314
Hafen DEXXX
ETA

Visit ID „DEXXX 2013 321654987"

Generator
of Visit ID

Visit ID „DEXXX 2013 321654987"

Party 1

HZA

+ Visit ID „DEXXX 2013 321654987"

HIS

NSW interface

or

Visit ID „DEXXX 2013 321654987"

Party 2

WAS

+ Visit ID „DEXXX 2013 321654987"

NSW Web-module

NSW core system

≡ **Visit ID**

Notification process

Principle (L15)   Every massage type shall be submitted under the Visit ID of the individual port call.

Party 1

Party 2

HZA

WAS

Visit ID „DEXXX 2013 321654987"

Visit ID „DEXXX 2013 321654987"

HIS

NSW
interface

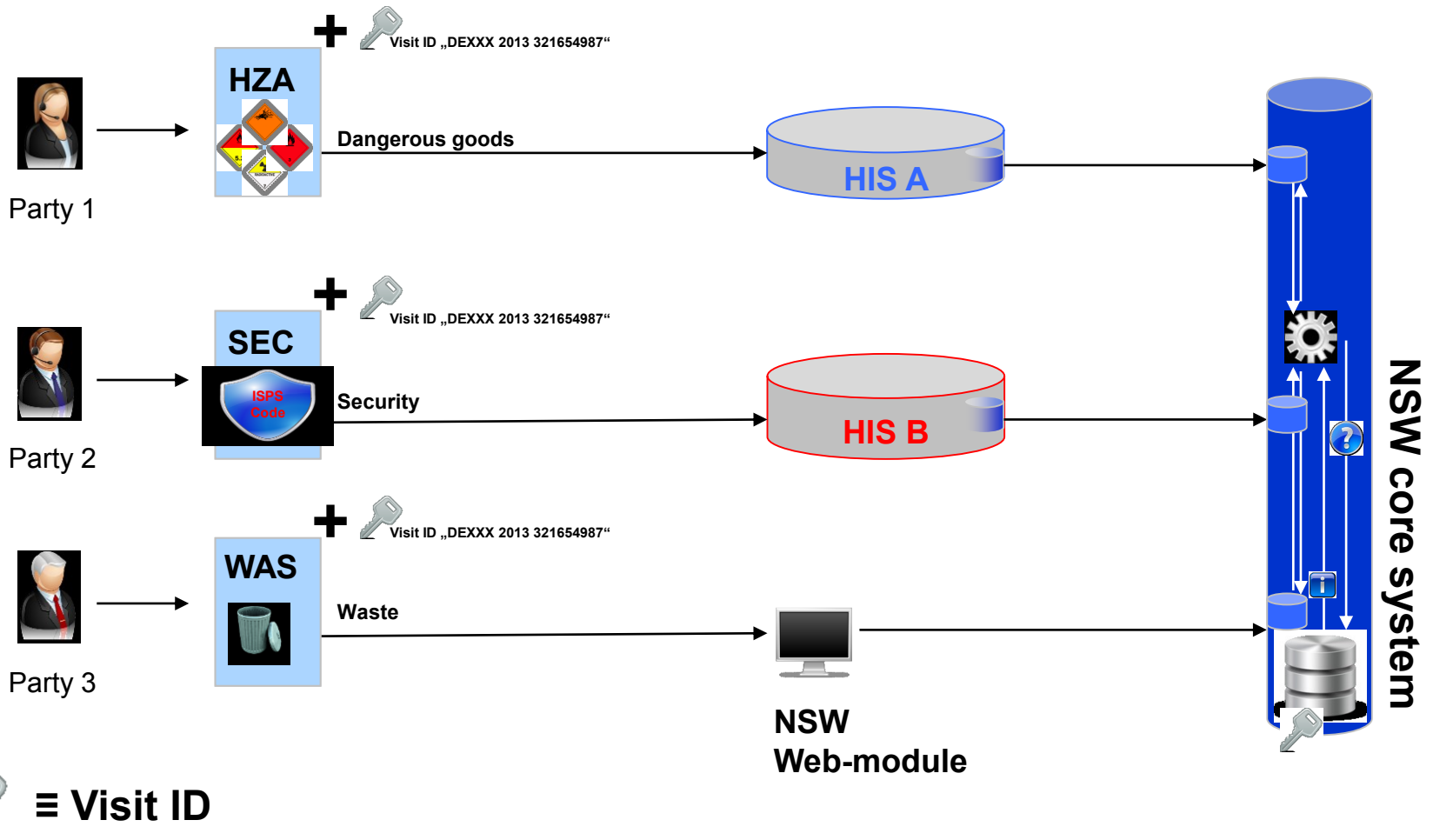**or**

NSW
Web-module

NSW core system

⚷ ≡ **Visit ID**

Notification process

Principle (L16)

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Initial messages related to the same Visit ID may be submitted to the NSW core system through different HIS or through the web-module.
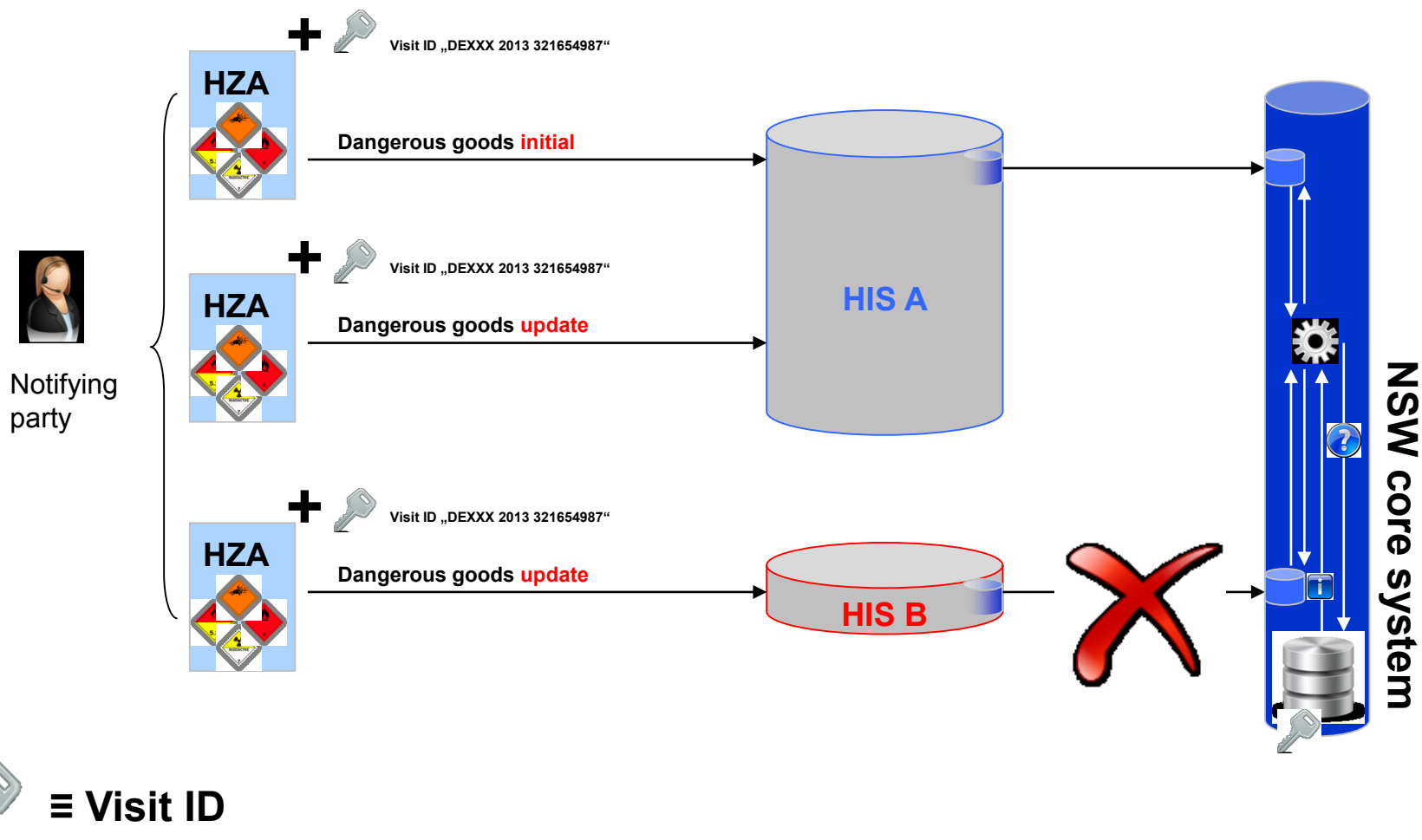

Party 1

+ Visit ID „DEXXX 2013 321654987"
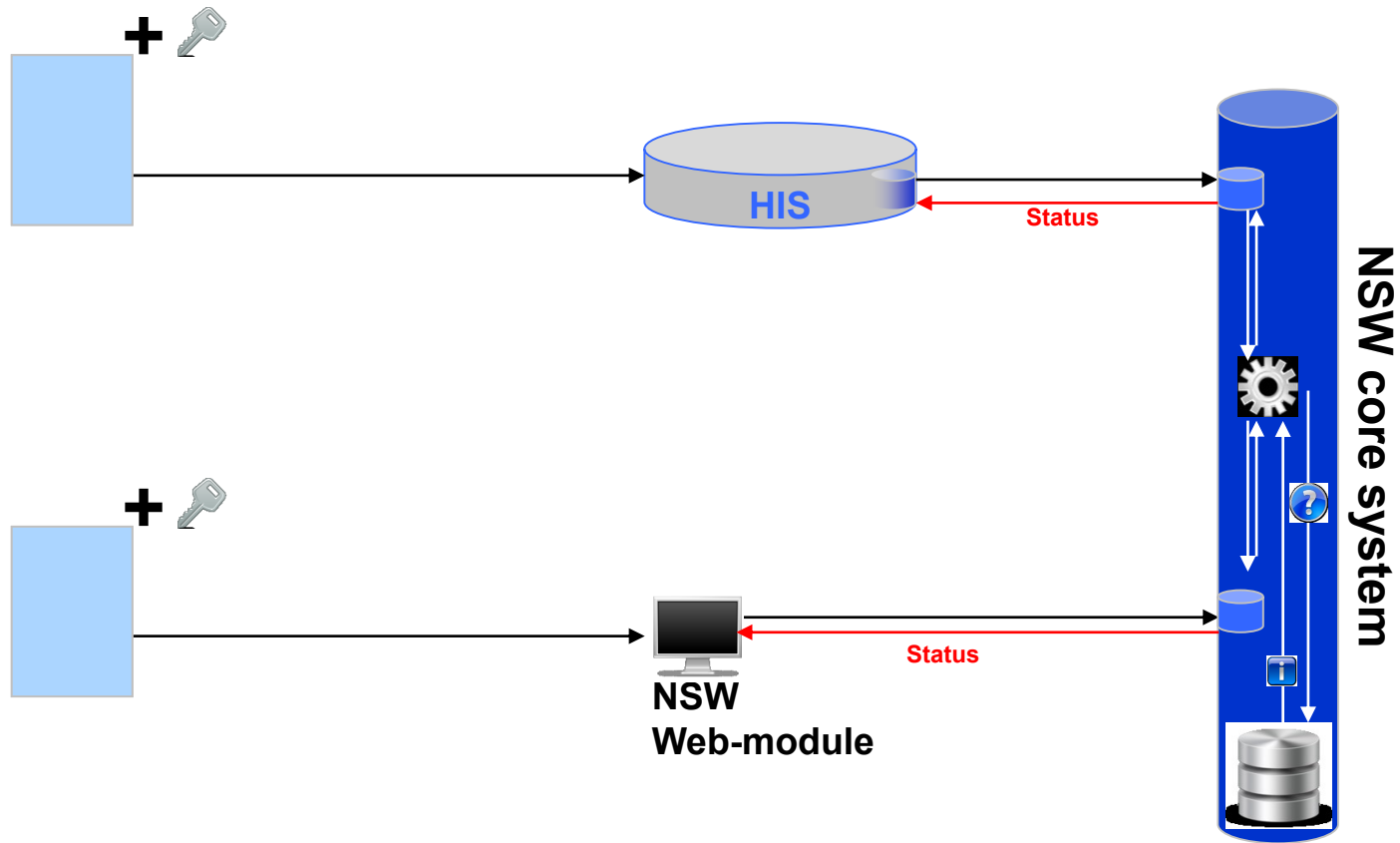
HZA

Dangerous goods

HIS A

Party 2

+ Visit ID „DEXXX 2013 321654987"

SEC

Security

HIS B

Party 3

+ Visit ID „DEXXX 2013 321654987"

WAS

Waste

NSW Web-module

NSW core system

≡ **Visit ID**

Notification process

Principle (L17)

§

Update messages shall be submitted through the same module through which the initial message was sent.

Visit ID „DEXXX 2013 321654987"

HZA

Dangerous goods initial

Visit ID „DEXXX 2013 321654987"

HZA

Dangerous goods update

Notifying party

Visit ID „DEXXX 2013 321654987"

HZA

Dangerous goods update

HIS A

HIS B

NSW core system

🗝 ≡ **Visit ID**

Notification process

Principle (L18)   For every message received in the NSW core system a status is returned.
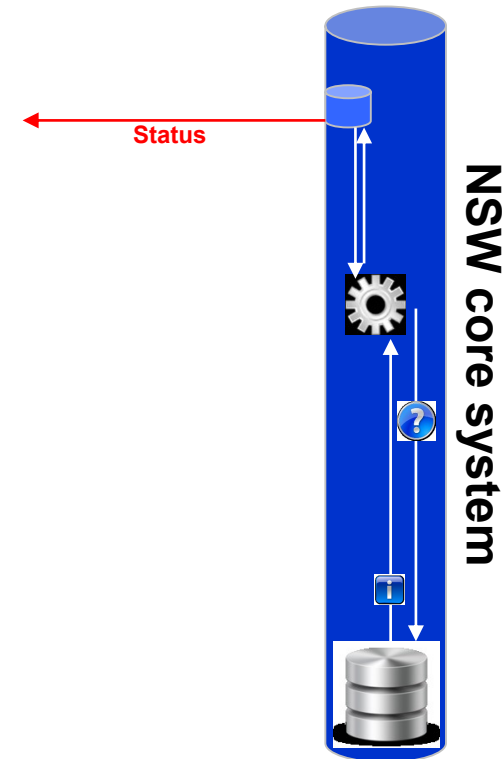
Notification process

Principle (L19)   The status „received", "received with warnings" and „rejected" are defined and returned by the core system as appropriate.

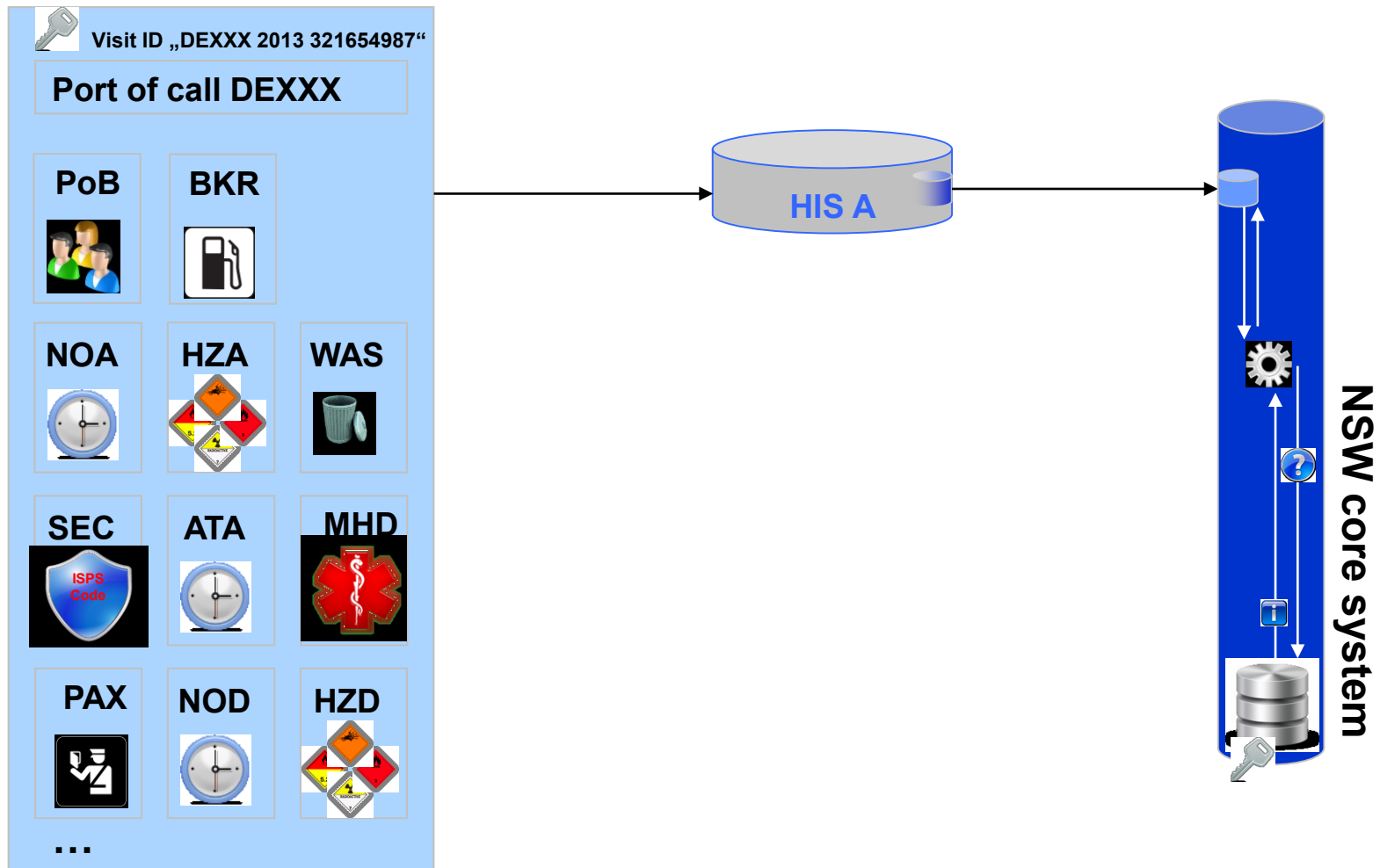The following status massages are envisaged:

- status „received"
  when the incoming message
  shows no inconsistencies

- status „received with warnings"
  when the incoming message can be processed
  but when its contents is incomplete or inconsistent
  (the warning specifies the inconsistencies)

- status „rejected"
  when the incoming message cannot be processed
  due to syntax errors

Status

NSW core system

Notification process
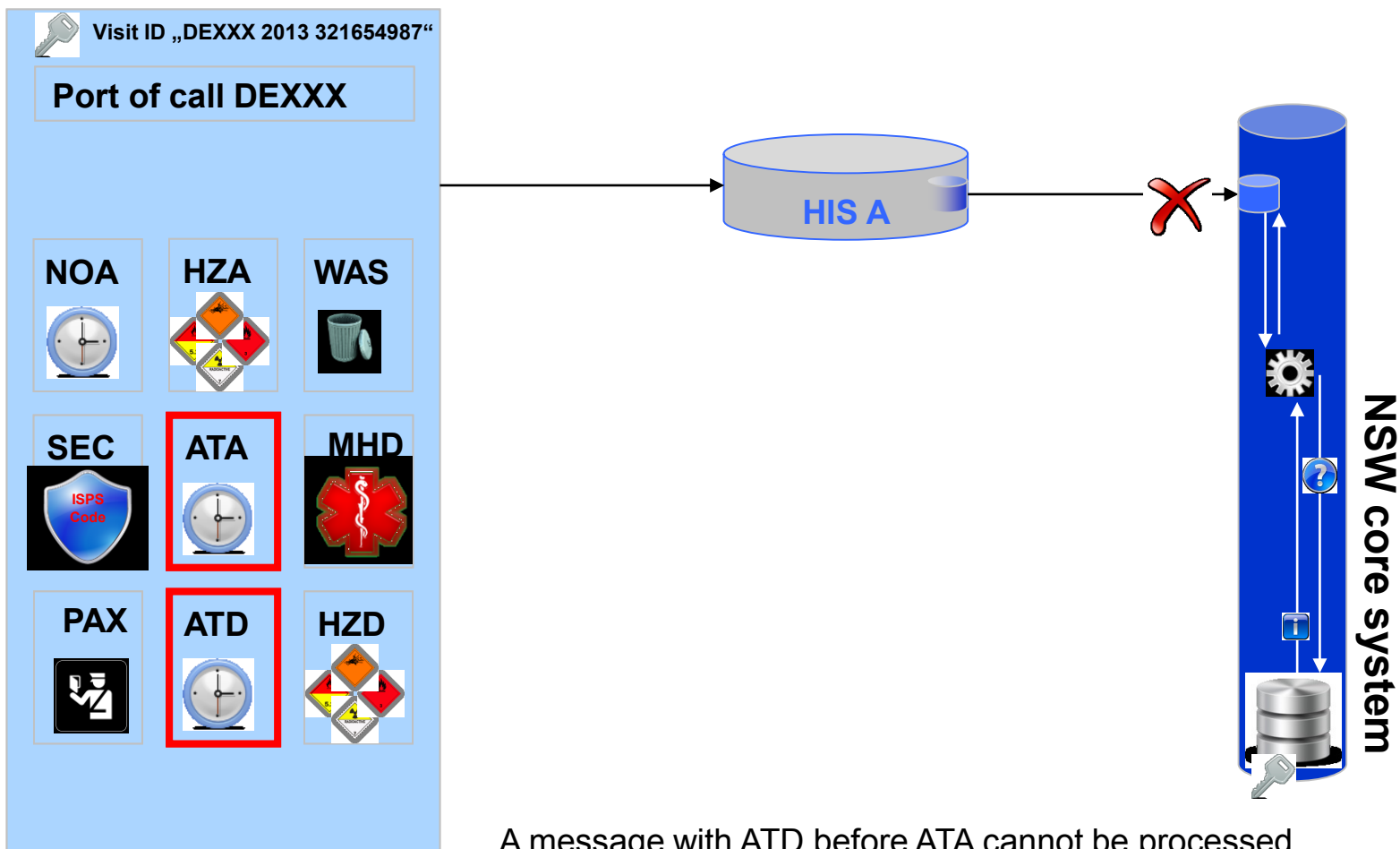
Principle (L20)   All required data may be but need not be contained in one message.
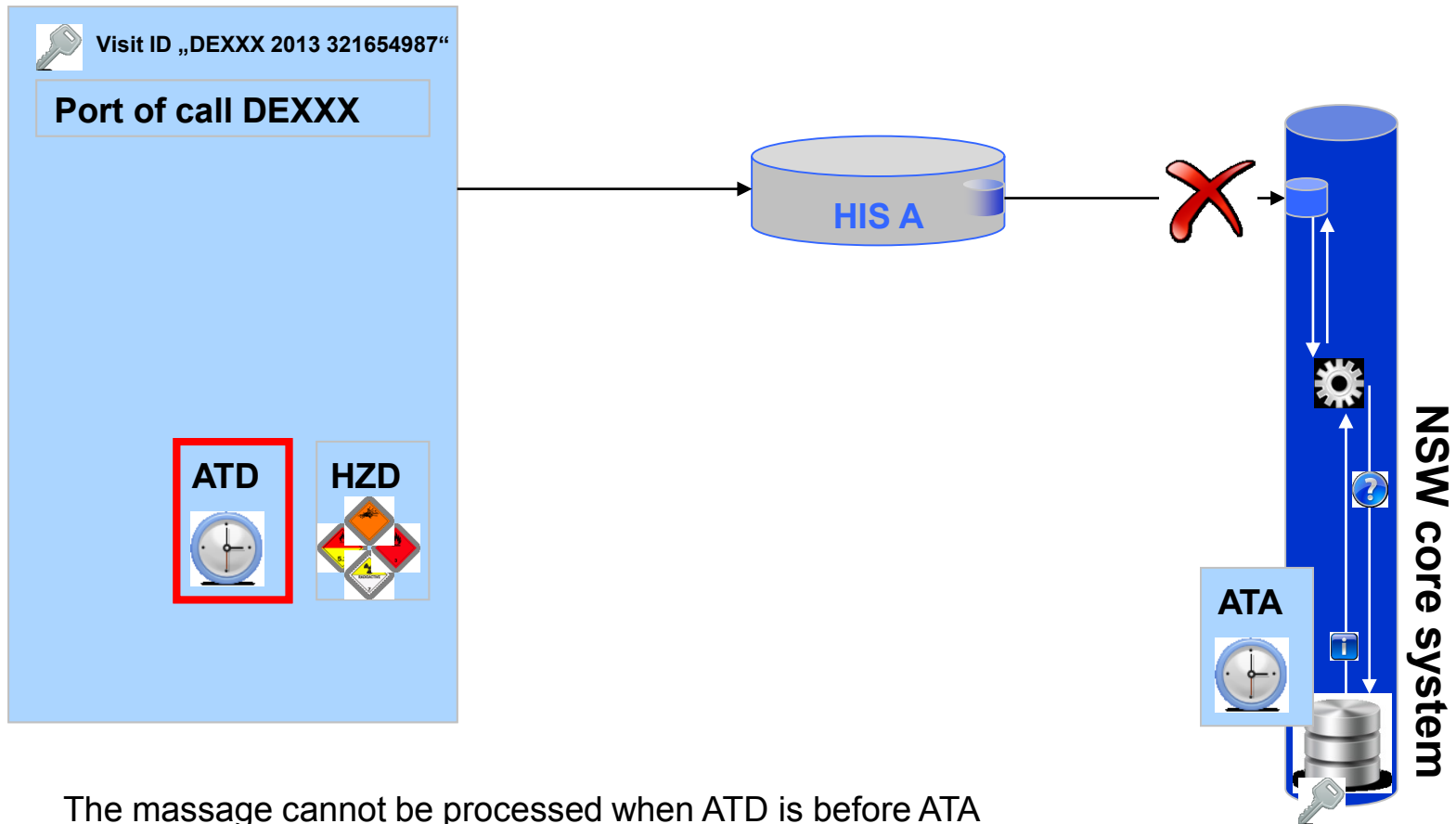
Notification process

Principle (L21)	A message with severe inconsistencies affecting the proper processing by the NSW core system will be completely rejected.

Visit ID „DEXXX 2013 321654987"

Port of call DEXXX

NOA　HZA　WAS

SEC　ATA　MHD

PAX　ATD　HZD

HIS A

NSW core system

A message with ATD before ATA cannot be processed

Notification process

Principle(L22)   A message will be completely rejected when part of the message is in conflict with other notification items received before.

🔑 **Visit ID „DEXXX 2013 321654987"**

Port of call DEXXX

HIS A

ATD

HZD

ATA

NSW core system

The massage cannot be processed when ATD is before ATA