Registration authorities in the field of RFID

ISO/IEC 15459 and ISO/IEC 15961

Registration Authority

- When an ISO/IEC standard has been developed that includes registration provisions, a registration authority is required.
- The Registration Authority is responsible for registering objects in accordance with the technical standard and its associated procedure standard.
- 2 of the ISO/IEC registration activities that are relevant in the field of RFID are ISO/IEC 15459 and ISO/IEC 15961

ISO/IEC 15459 Unique Identifiers

- Background:
  - Unique identification can occur at many different levels in the supply chain, at the transport unit, at the item level, and elsewhere.
  - Such distinct entities are often handled by several parties: the sender, the receiver, one or more carriers, customs authorities, etc. Each of these parties must be able to identify and trace the item so that reference can be made to associated information such as address, order number, contents of the item, weight, sender, batch or lot number, etc.

Benefits if the identity of the item is represented in bar code format or other AIDC (Automatic Identification and Data Capture) media:

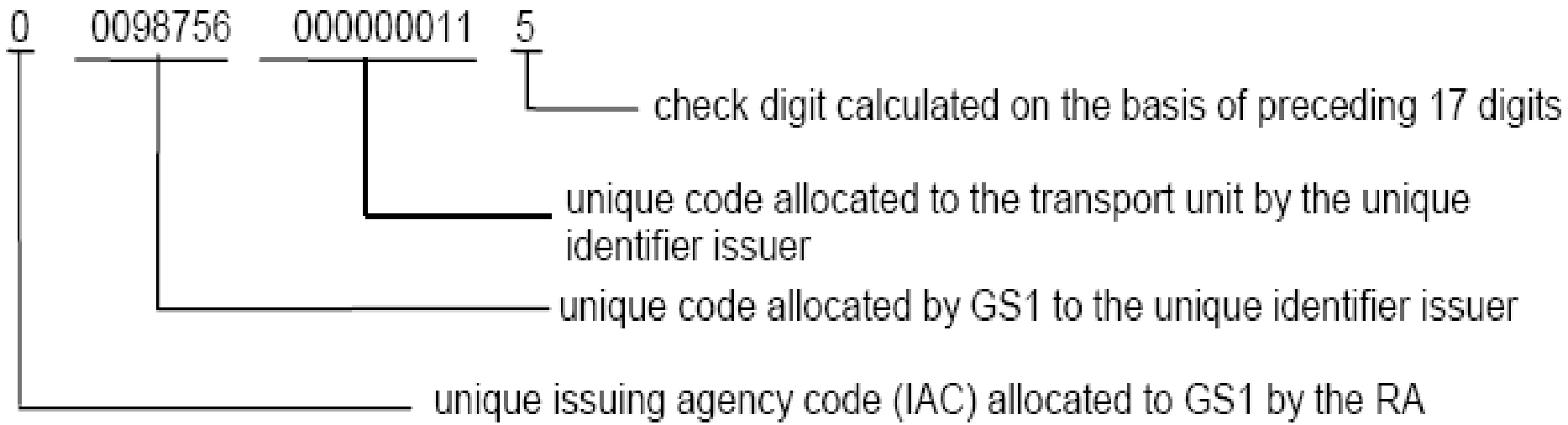
- it can be read electronically, thus minimising errors;
- one identifier can be used by all parties;
- each party can use the identifier to look up its computer files to find the data associated with the item;
- the identifier is unique within the class and cannot appear on any other item of the class during the lifetime of the item.

Description ISO/IEC 15459

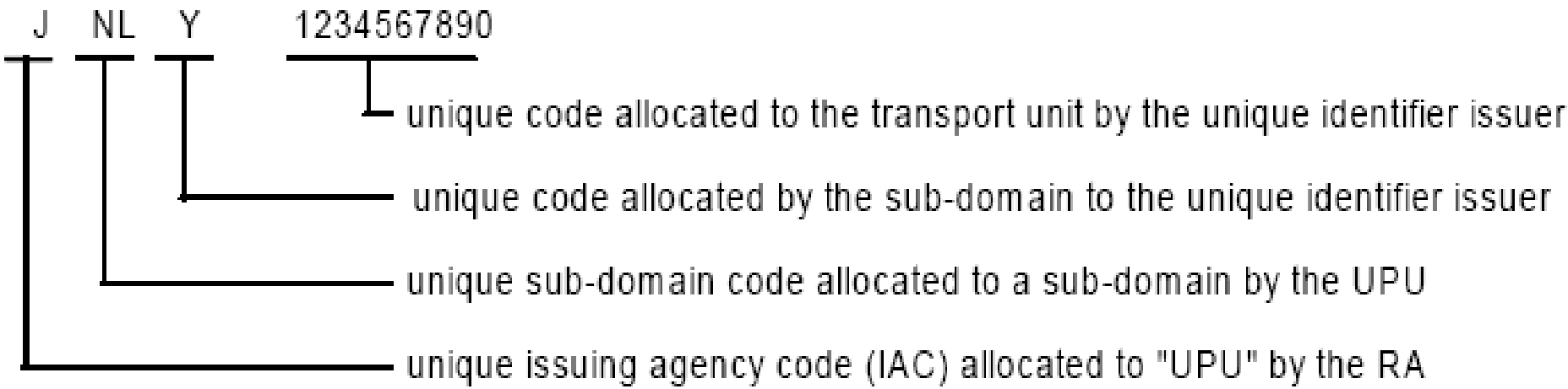
- ISO/IEC 15459 specifies a unique, non-significant string of characters for the identification of transport units.
- The character string is intended to be represented in a bar code label or other AIDC media attached to the item to meet item management needs.
- A unique identifier is assigned to an individual transport unit by a unique identifier issuer. This shall be done in accordance with the rules established by an authorised Issuing Agency.

Example (1)

The example below shows a GS1 unique identifier (SSCC) for transport units



Example (2)

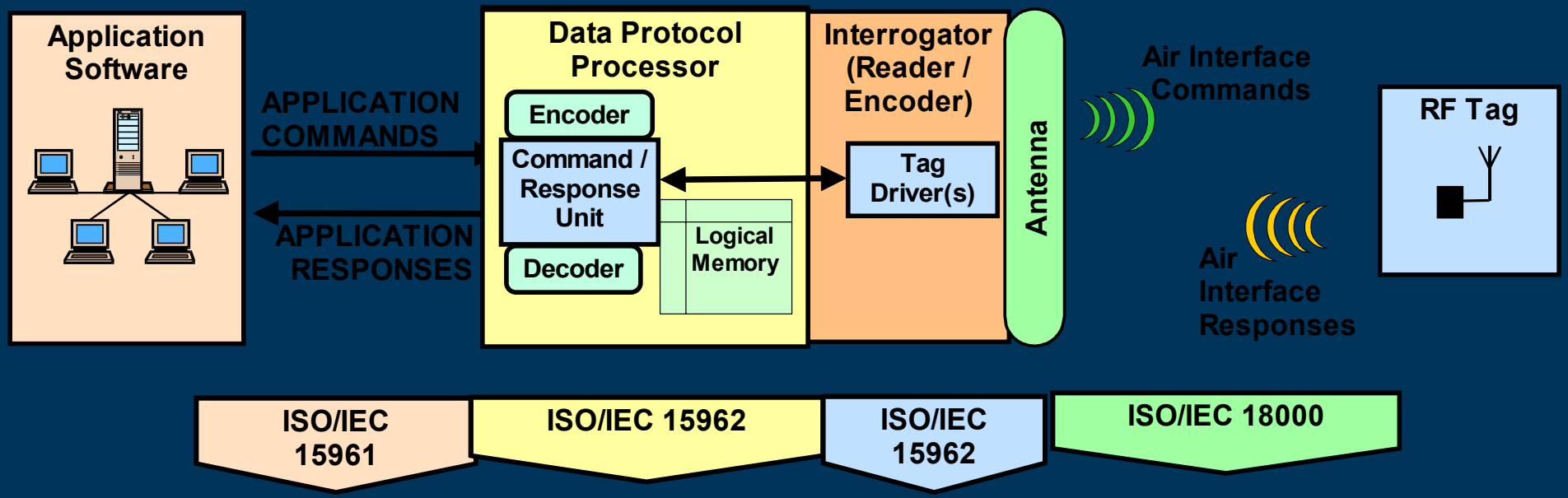

J NL Y 1234567890
unique code allocated to the transport unit by the unique identifier issuer
unique code allocated by the sub-domain to the unique identifier issuer
unique sub-domain code allocated to a sub-domain by the UPU
unique issuing agency code (IAC) allocated to "UPU" by the RA

More information

- Registration Authority: NEN
- http://iso15459.nen.nl

ISO/IEC 15961 Radio frequency identification (RFID) for item management: Data protocol

- defines the application commands and responses
- uses object identifiers to define all data types

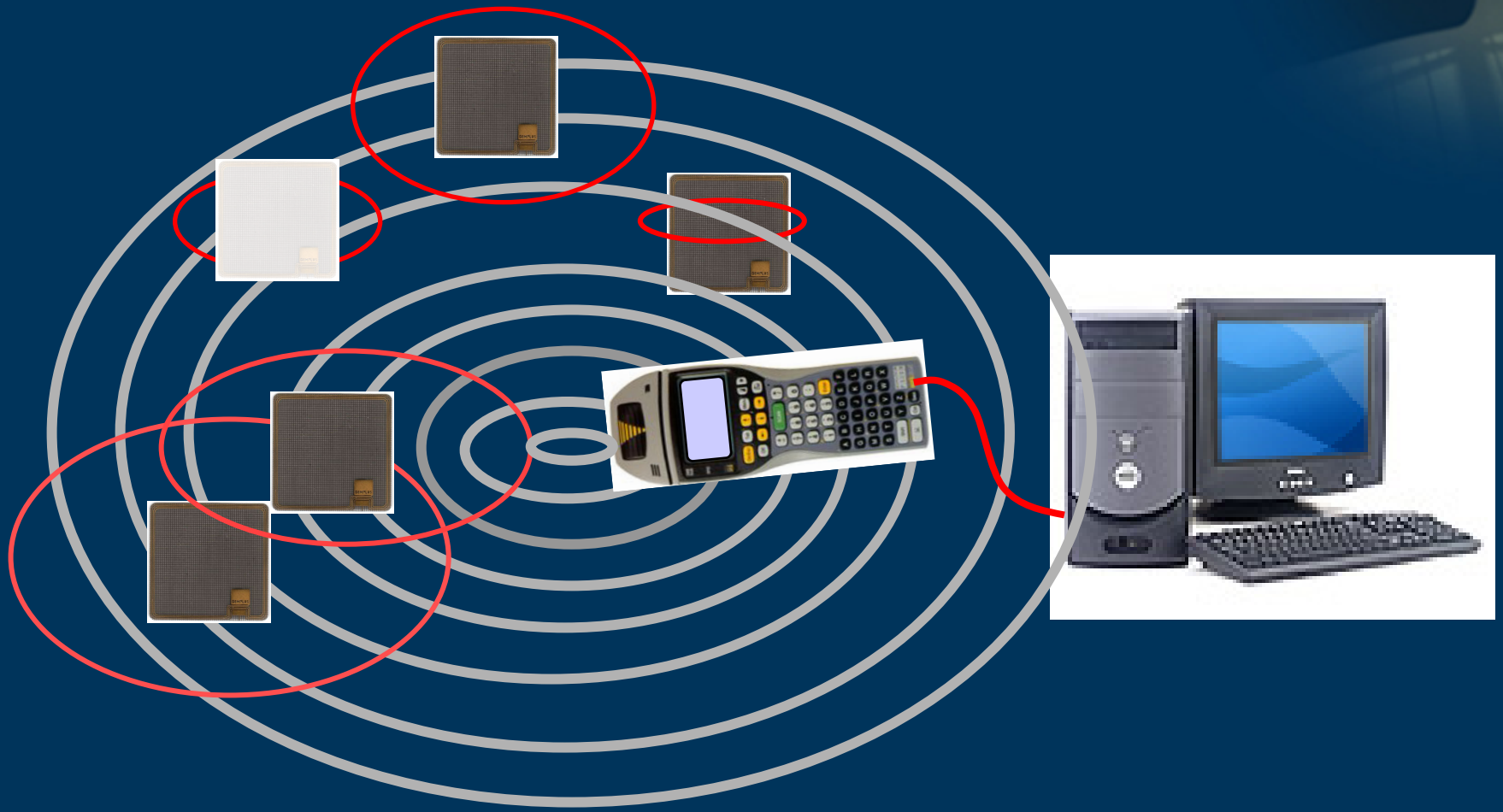


4 elements

- Application Family Identifier (AFI): Used to manage selection across air interface
- Data Format: A “shorthand” code to truncate the encoding of long Object Identifiers
- Object Identifier for UII - Register of key traceability codes
- Object Identifier for other item-attendant data - Register of OID structure for other data

Application Family Identifier (AFI)

- The purpose of the AFI is to ensure that RFID tags carrying data highly relevant for one application do not overlap, or clash, with those of another application.



Status

- Standard under development.
- EDItEUR, representing the European book industry and library sector, was the first to make the initiative to apply for data constructs
- Registration Authority: NEN
- http://iso15961.nen.nl

Thank you

More information:
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