

STANDARDS RELATED DOCUMENT

AUDP-1 SRD-1

UNIQUE IDENTIFICATION -UID

**EDITION A VERSION 1
MAY 2016**



NORTH ATLANTIC TREATY ORGANIZATION

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18 May 2016

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Major General, LTUAF
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Unique Identification UID

Prepared by:
AC/327 Working Group 5
December 2014

NATO GUIDANCE ON UNIQUE IDENTIFICATION of ITEM (UII) FOR NATIONS AND MULTINATIONAL ARMAMENT PROGRAMMES

AUIDP-1

TRAINING

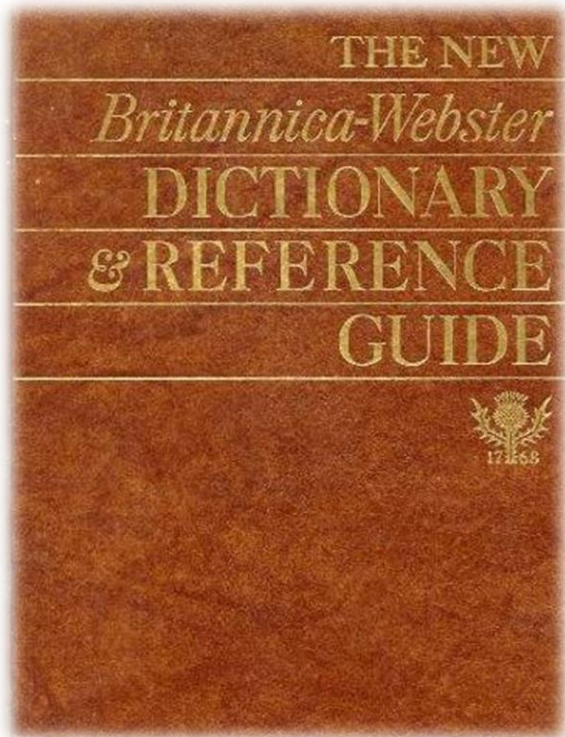
Purpose of this Training

- Promote the usage of Unique Identification of Items
 - Provide an overview on identifications
 - Describe identifications in NATO
 - Increase the awareness of the NATO community on permanent UID of Items
 - Stress the importance of UID and Data Management implementation, in the context of System Life Cycle Management of Items and data traceability
 - Give information about UII implementation

Generalities about Identification

ADOPTE RD-1

What is “To Identify” ?



From **New Britannica-Webster dictionary & reference guide, 1768** (Ed 1988)

1.1 To regard as **identical** (*identifies* democracy with capitalism)

1.2 To think of as **united** (as in principle) (groups that are *identified* with conservation)

2 To establish the **identity of** (*identified* the dog as my lost pet.)

→ Two main meanings for two different needs

- Classification of aggregates in classes
- Traceability of Asset (mainly Item)

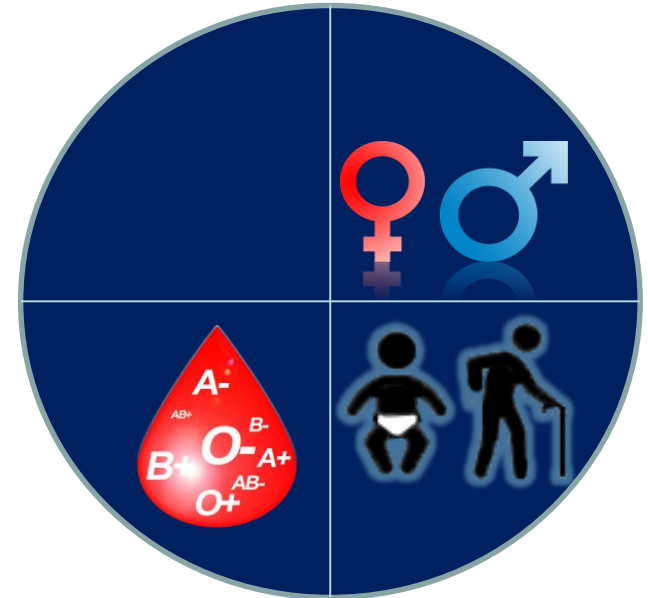
In each case, identification is mandatory for the data linked to the identified class or item

Generalities about Identification

ASMP/CRD-1

Identification of classes

- **Size's number:** for instance, class of trousers.
 - Classes are different for Women and men
 - A same number means a different size , according you are in USA, Germany, Italy, Great-Britain...
- **Number of blood group,**
 - Identifications linked to classes are internationally recognized
- **ZIP code...**
 - All houses in a defined perimeter are linked to this identification
 - The ZIP code is a national one



**Theses identifications define classes,
for specific purposes in each case.**

Generalities about Identification AUIDP-1 SRD-1

Unique identification (of asset)

- Identification is linked to one and only one item in its field of implementation.
 - In each Country, number of Welfare (Social Security)
 - Internationally, passport number
 - For an airplane company, the ticket number of your travel.
- **Unique identification define one specific item/asset, for traceability reasons.**



Serial number

Federal reserve district number

Plate serial number

Series date

Edition A Version 1

NATO needs for Identification

7/10/01 SRD-1

Through NATO engagements vision ...

Rapid troops movements in a multinational context:

- *Better information on assets state,*
- *Optimization and knowledge of resource positioning,*
- *Bette Interoperability and interdependency*



How to ensure assets tracking process continuity?



Ambition :

- *To reinforce mutual trust*
Methodology, technologies, standardization
- *To allow*
The compatibility of assets tracking processes with various information tools

NATO needs for Identification

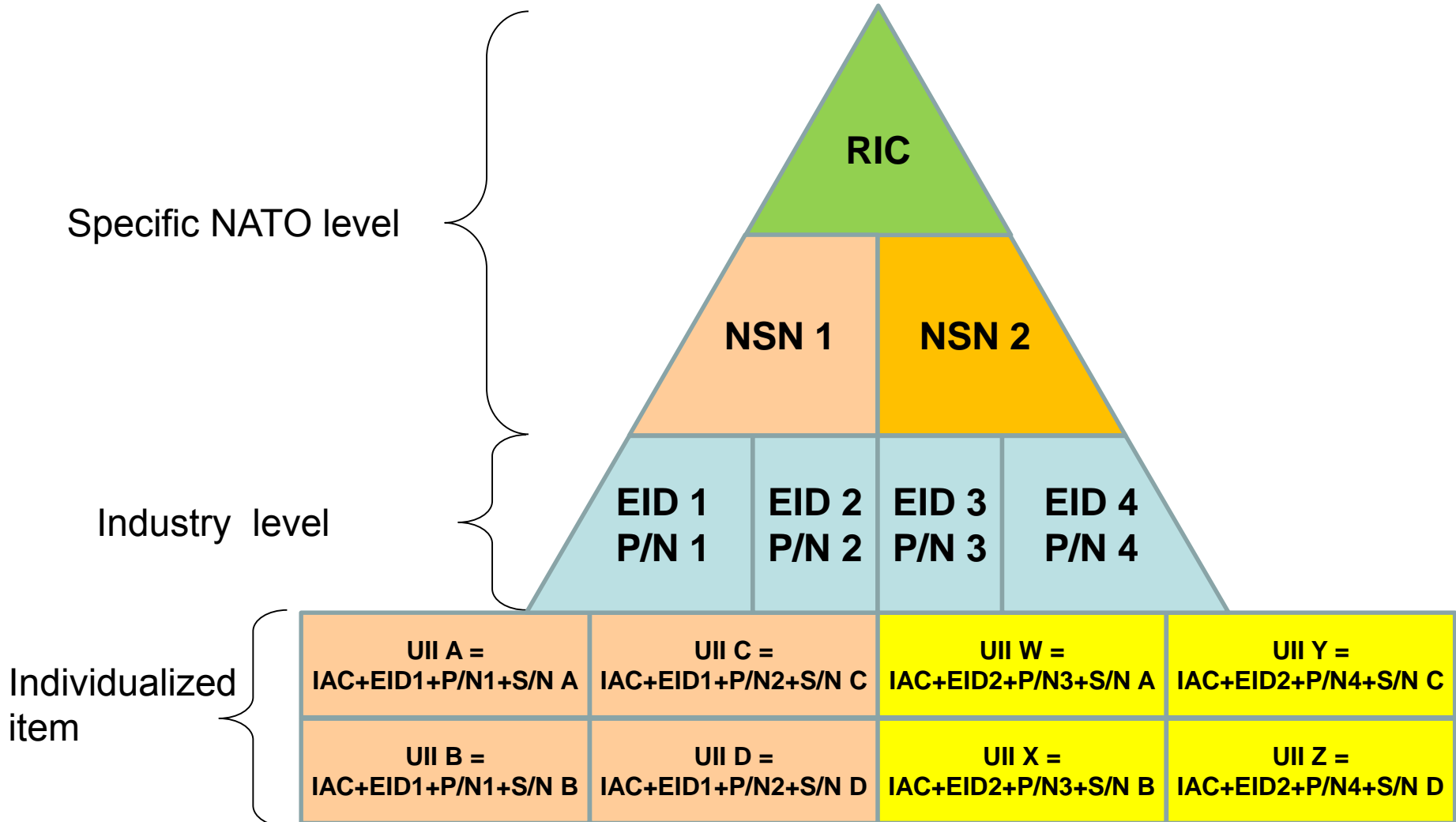
- Identification of an operational capacity on the field
 - ➔ Reportable Item Code RIC
 - Applies mainly to end items which have the same purpose
 - Very well adapted to report the military capacities to the command on the field.
- Identification of Item of Supply :
 - ➔ Nato stock Number NCN
 - Linked to a formal description of the item
 - Each item with the same number is fully interchangeable with the others (fit , form and function).

NATO needs for Identification

- Identification of item of production
 - ➔ Part Number: P/N
 - Linked to the definition of the product.
 - Allow the producer to manage its item. *Also used for provisioning.*
- Identification of an unique item
 - ➔ UID of Item: UII
 - Allow management to link the specific item to its data without any possible mistake.

NATO Identifications: RIC, NSN, P/N & UII

AUIP 1, SRI-1



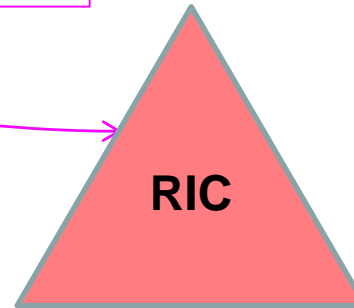
NATO Identifications: RIC, NSN, P/N & UII

UID: A, SRD: 1

Reportable Item Code (RIC) :

Identify an operational capability in the same way for all the forces in a joined operation.

RIC level
Capability

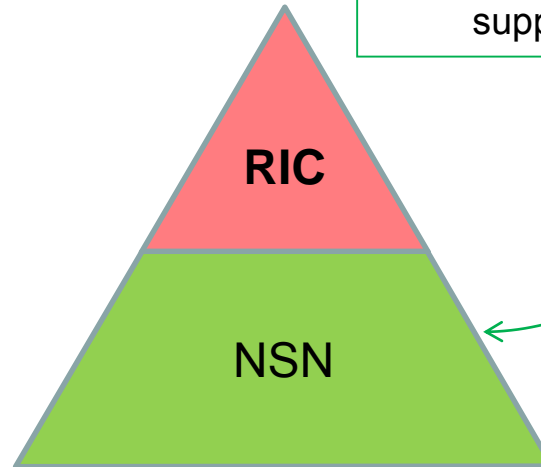


NATO Identifications: RIC, NSN, P/N & UII

UID, SRD 1

RIC level
Capability

NATO Stock Number (NSN)
level
Item of Supply



Item of supply: NSN (NNO) :
Gives a standardized way to describe and a unique identification number for an Item of supply (same fit, form and function) .

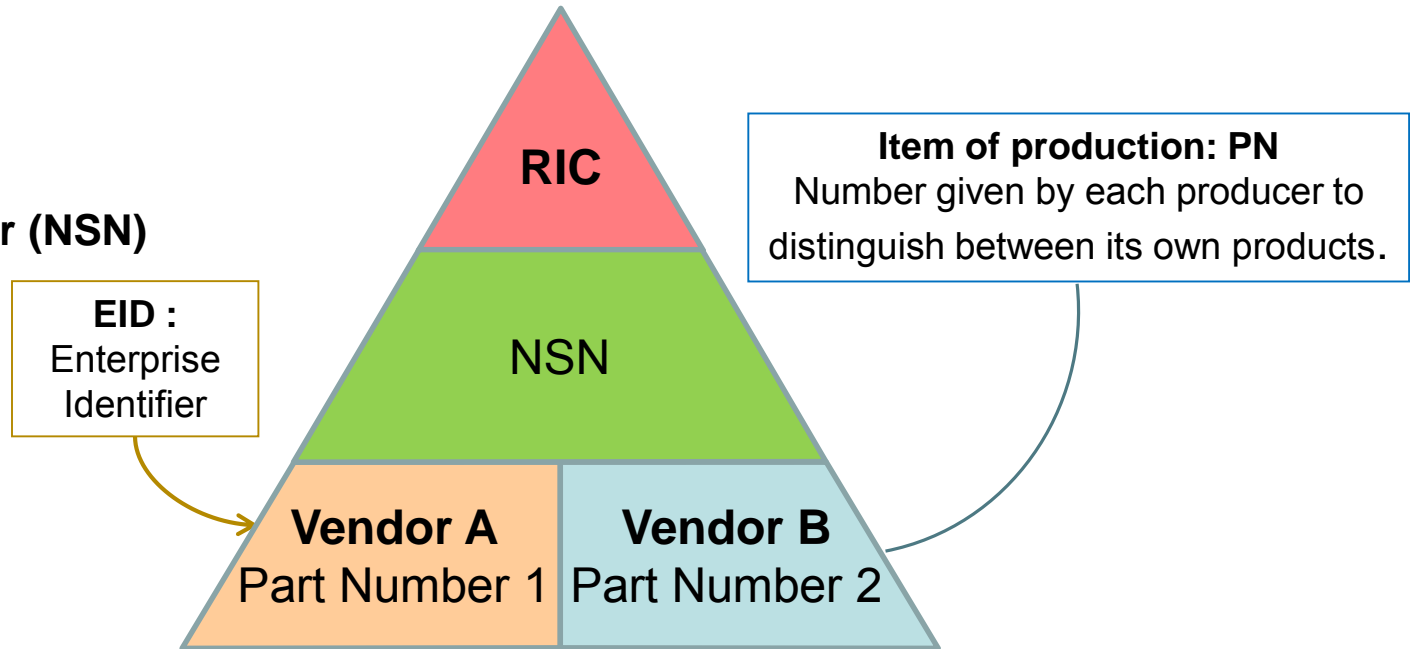
NATO Identifications: RIC, NSN, P/N & UII

ALP-1 SID-

RIC level
Capability

NATO Stock Number (NSN)
level
Item of Supply

Part Number level
Item of Production



NATO Identifications: RIC, NSN, P/N & UII

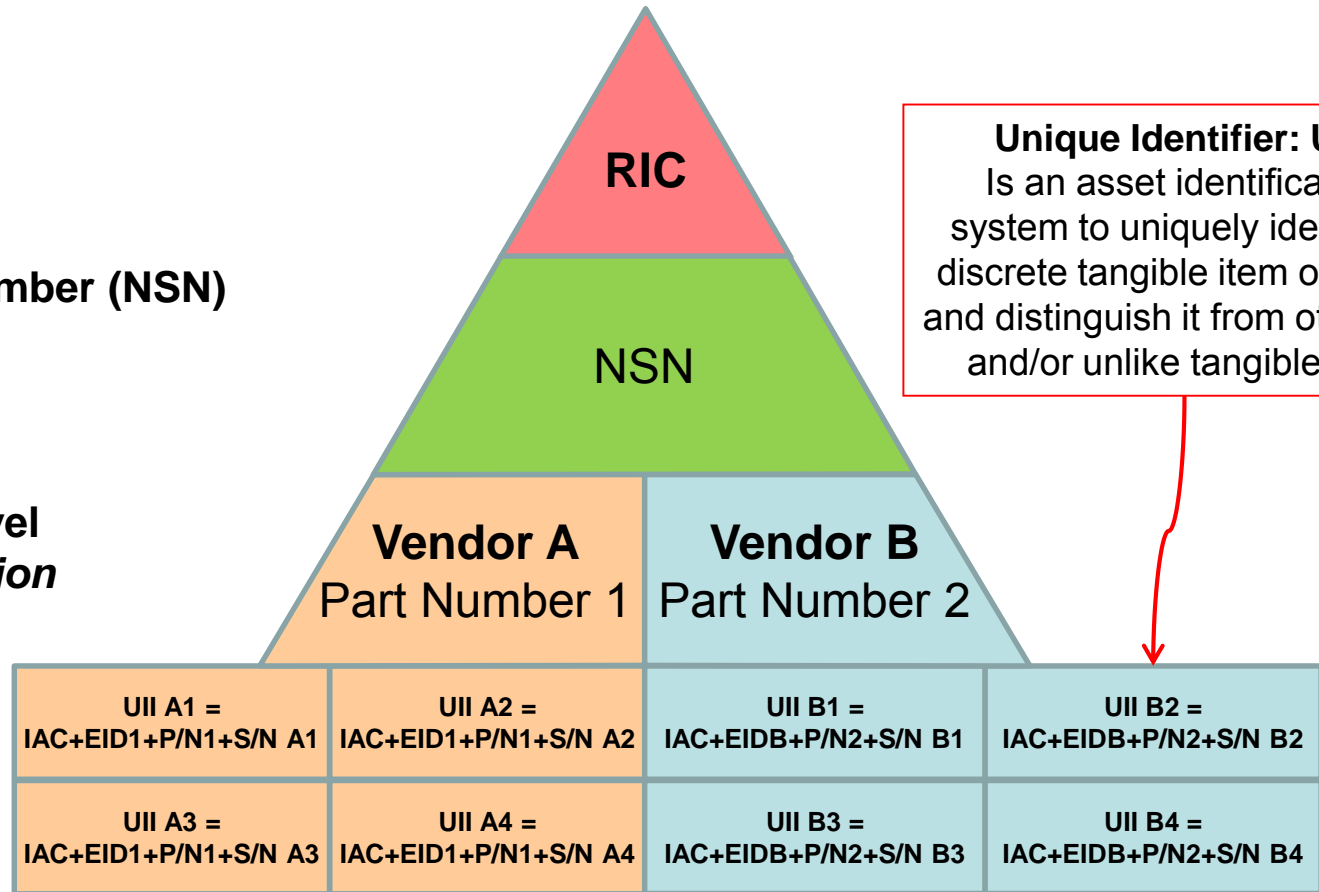
UIDF SRD

RIC level
Capability

NATO Stock Number (NSN) level
Item of Supply

Part Number level
Item of Production

Unique Identification (UID) of Items level
Item of Usage



Unique Identifier: UID
Is an asset identification system to uniquely identify a discrete tangible item or asset and distinguish it from other like and/or unlike tangible item

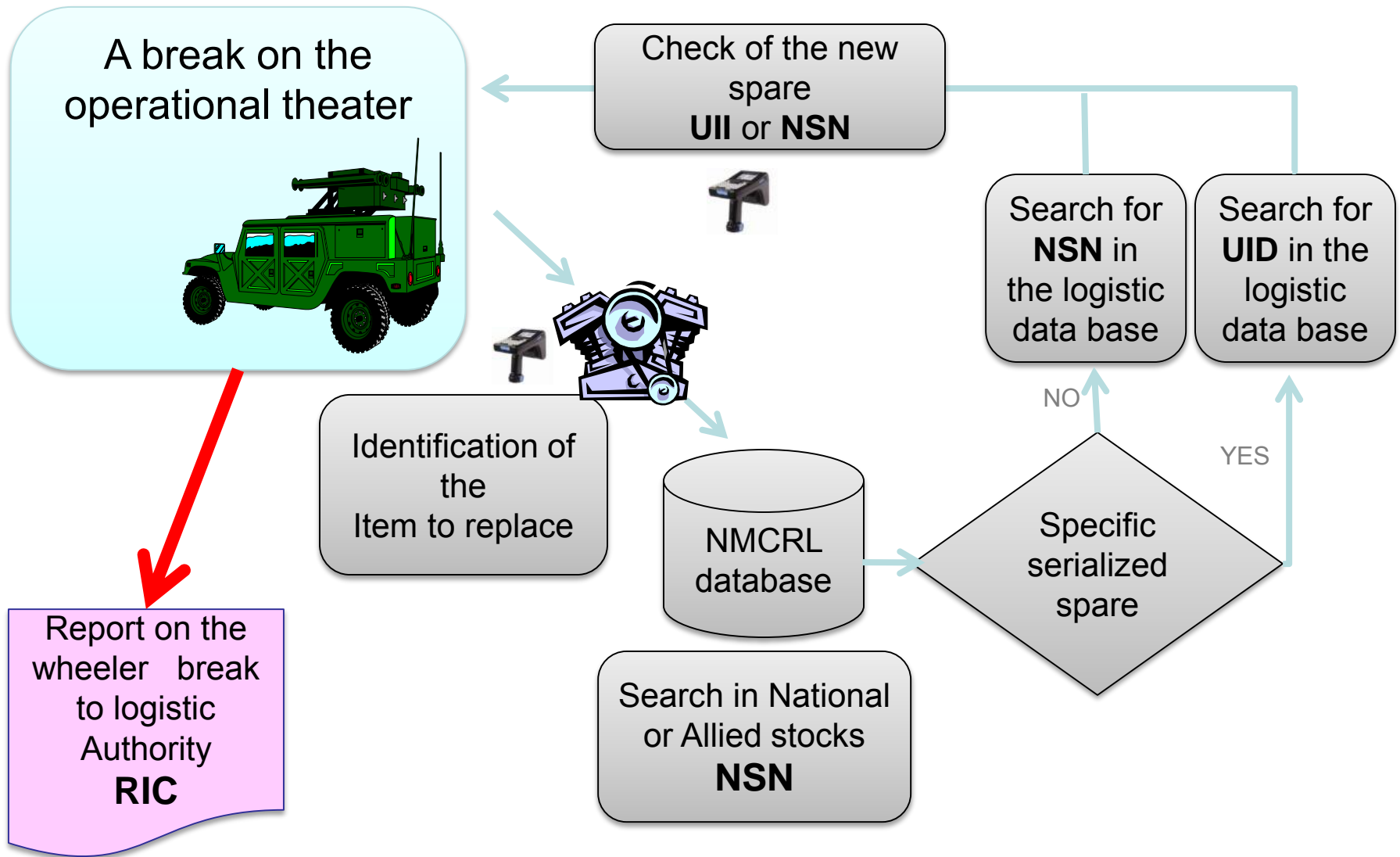
IAC :
Issuing Agency code

EID :
Enterprise Identifier

P/N :
Part Number

S/N :
Serial Number

NATO Identifications: RIC, UID and NSN

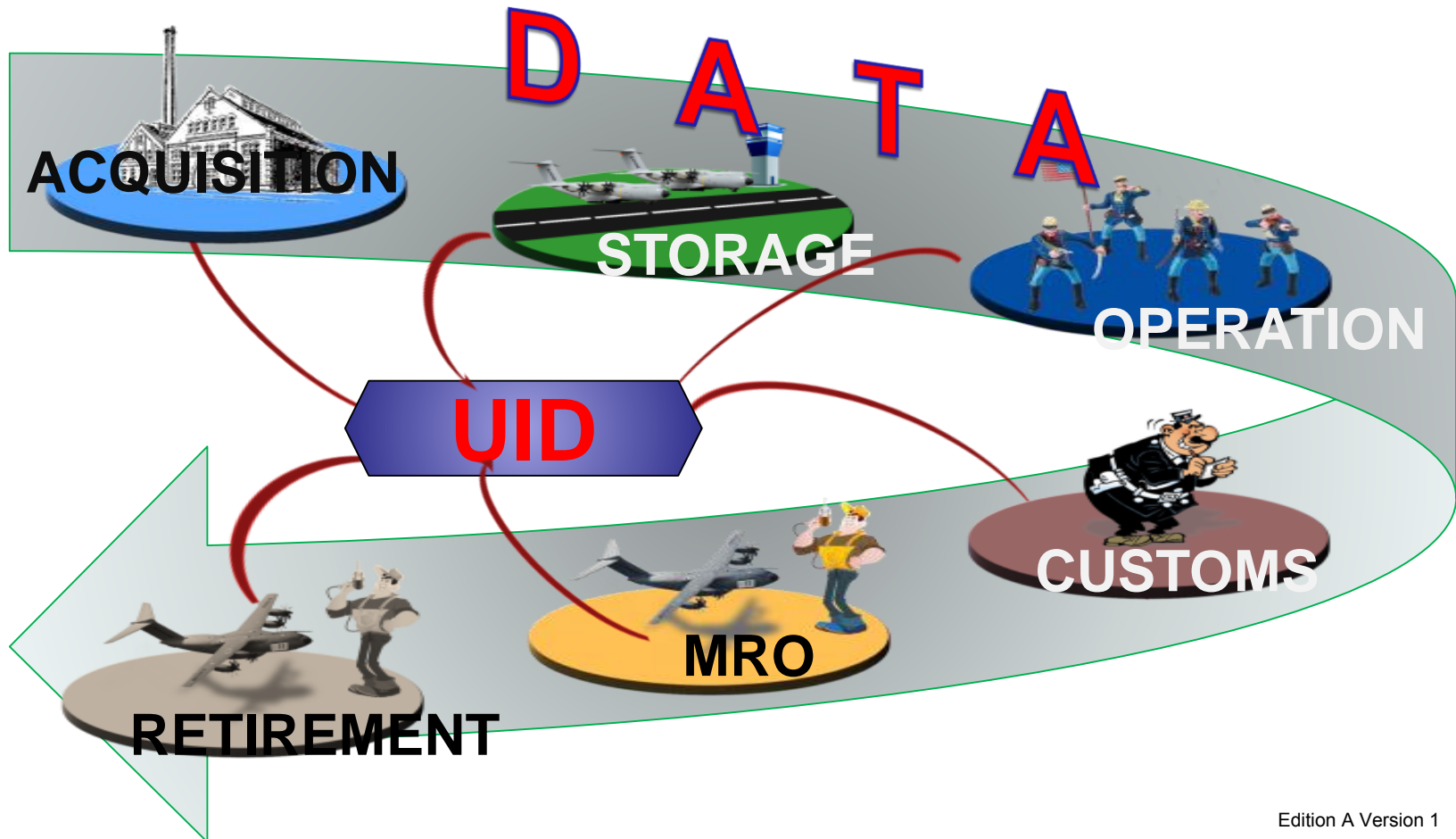


Identification in NATO UID of Items – The NATO Item-Level Traceability Enabler

Prepared by:
AC/327 Working Group 5
December 2014

Unique identification of Item

Unique identification of Item is the answer to **traceability needs** for data following the Item during all its life cycle



Do you need Item-Level Traceability?

AIIDP-1 SRD-1

1. Do you not export and re-import of equipment?
 - You are very likely to pay excise taxes or duties if you can't document the item that was export is the exact item that is re-imported
2. Do you have item-level controls for export control item reporting (e.g. ITAR, DTC)?
 - Many defense organizations have quantity on hand, but not item-level controls
3. Given the increase in CLS and PBL contracts, could you document the defense owned material in the hands of contractors?
 - One US audit agency found a large defense organization could trace less than 20% of its Government Furnished Property representing billions of \$'s in "lost" equipment

Do you need Item-Level Traceability?

AIIDP-1 SRD-1

1. If a few serialized items from a single company needed to be recalled, could you do it?
 - Recent experience indicates that property records are only about 65% accurate at the item level so standard practice has to be a broadcast message
 - What about items in inventory or maintenance? It is unlikely that those systems use the same item-level data keys?
2. Can you financially track from program expenditure through sustainment, maintenance, operations and disposal for Through-Life Traceability*?
 - If not, life cycle management at the item and even commodity level is impossible.

IF YOUR ANSWER TO ANY OF THE ABOVE IS “NO” THEN YOU ARE MAKING DECISIONS WITH BAD OR NO DATA AND YOU NEED TO IMPLEMENT UID OF ITEMS!

* Allied Publication AAP-48 defines the “NATO Through-Life Traceability Management Process”

Unique identification of Item

Unique identification of Item is the answer to **traceability needs for data following the Item during its whole life cycle.**

- **Identification number is linked to one and only one item :**
 - **Whatever the producer of the item is (main contractor, manufacturer, co-manufacturers, suppliers...; American, Italian, British...)**
 - **For its whole life cycle**
 - Independent from any configuration change (even if the item P/N changes)
 - Independent from any support operation
 - Independent from any operational activity.
 - Not transferrable or reused, even if the original item is disposed
- **Ull allows all stakeholders (industry, operational forces, logistician, government offices...)**
 - **To speak about the same item without mistake**
 - **To exchange data linked to this item and not another one**
- **Ull is part of the answer to:**
 - **Requirements about accurate, stringent data on working order of Items (and in a quick time with Automatic Identification and Data Capture (AIDC))**
 - **Needs on visibility about assets, to optimize their usage.**

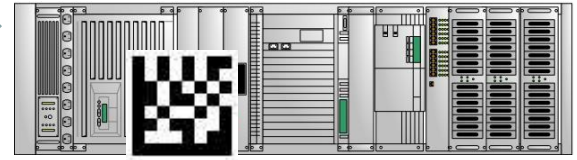
NATO Identifications - UID: The Process

APR 19 2009

1. Develop the Unique Item Identifier



2. Register UII in Registry



3. Print UII



4. Attach Mark



Through-Life (Life Cycle) Management
Warranty
Configuration Management



5. Use UII

Asset Tracking
Inventory Accountability
Maintenance

How to improve **traceability** through UII?

Take it as a program:

1. Identify and validate requirements on **traceability**

- Needs of localization (in storage/operation/RTO... ?)
- Needs about item features (expensive/long provisioning/mission critical/under ITAR regulation/life limited...?)
- Needs about feedback (level of dependability/ of residual potential ...?)
- Needs of links with others stakeholders outside MOD (financial reports/custom reports...)
- Evaluation of possible increasing changes (International cooperation, HUMS usage...)

2. Assess what is done now on **traceability**

- How traceability is done to-day ? With what assets ?
- What are the gaps with the requirements ?
- ...

How to improve traceability through UII?

3. Evaluate the need for improving **traceability through UII**

- What are the risks taken doing anything ? What are the costs ?
- What are the assets needed to implement UII on items (upgrade of ILS database, of data exchange process, of marking process...)?
- What field of implementation (new items, all items?)
- Are opportunities available (upgrade of support database, big new program...)
- What are the cost estimations between the solutions/ planning ...?

4. Take a decision on **traceability through UII**

5. **Apply UII** : improve processes when needed

- Codification for UII
- Registry for UII codification
- Marking of items

Unique Identification of Items in NATO

UID of Items is a system of establishing unique identifiers to an item distinguishing it from other like and unlike items.



NATO STANAG 2290 , “UID of Items”, Jan 2009
AUIDP-1 “NATO Guidance on Unique Identification of Items”, July 2010
AAP-48, “NATO System Lifecycle Processes” Mar 2013



Host of the NATO UID Registry, Shareable Operational Resources Tool (SORT) and NMCRL



US DoD - Mandate 2004, for all qualifying new items and inventory



Netherlands - Policy issued



UK MoD - Policy implements by specific items in inventory



Canada Directive, Instructions and Contract Clause

Scope of the UII

A UII Is	A UII Is Not
<ul style="list-style-type: none">➤ A Data Element➤ A Unique Identifier for an Item➤ Globally Unique➤ Unambiguous➤ Marked Permanently on an Item➤ Created by Concatenating Specific Data Elements➤ The enabler for business intelligence	<ul style="list-style-type: none">➤ A Device for Communicating Data, such as Radio Frequency Identification (RFID) Tags, Contact Memory Buttons, Linear Bar Codes, or 2-D Data Matrices➤ A Replacement for the National Stock Number➤ Intelligent Data that Yields Information About the Item➤ Transferable from one item to another

What is on the horizon?

AUIDP-1 SRD-1

- UII as “the” data key
 - Information on the item is backup to master data sources
 - Information from master data sources used to inform intelligent agents and/or decision makers
 - Reduction on “form” mindset (i.e. information supports the operation versus data to fill form)
- Automatic data capture becomes the norm
 - Speed of data capture
 - Confidence in data quality yields confidence in decisions
- Data delivered in non-proprietary International standards based data formats for data exchange
 - ISO 10303, S1000D,.....
- Data translation services for legacy data formats and legacy information systems