Digital Emblem Use Cases and Requirements

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Goals

- Use cases that illustrate a representative subset of requirements for digital emblem
- Arrive at a set of requirements identified across use cases (i.e. union) BEFORE we start defining structure
    - Include cases beyond initial charter scope
    - Aim for completeness
- Consensus on use cases and requirements document structure

Outline

1. Representative Use Cases
2. Requirements Overview
3. Use Cases and Requirements Document Structure

Representative Use Cases

Initial scope:

“The DIEM WG will develop an initial DNS-based discovery mechanism and associated validation procedure for digital emblems that explicitly identify their bearer by a Fully Qualified Domain Name (FQDN).”

We do not revisit this!

Red Crescent, Cross, and Crystal

- Signal asset serves medical purpose and should be respected and protected
  - Should not be disrupted or attacked
  - Legal protection under IHL

Requirements

- Label network-connected assets (servers, sets of assets as networks)
- Removable
- Authenticity
- Decentralized Authorization
- Accountability of Illicit Display
- Undetectable Validation

Blue Shield

- Signal asset has cultural significance and should be respected and protected
  - Should not be disrupted or attacked
  - Legal protection under IHL

Requirements

- Label network-connected assets (servers, sets of assets as networks)
- Removable
- Authenticity
- Decentralized Authorization
- Accountability of Illicit Display
- Undetectable Validation

Press

- Identify individual, equipment or digital infrastructure as independent member of the press
  - Non-combatant in conflicts and entitled to legal protections

Press Potential Requirements

- Characteristics of entity
  - Type
    - Person
    - Equipment
    - Network infrastructure
  - Organization
- Bearer ability to selectively enable and disable emblem

Organization for the prohibition of Chemical Weapons (OPCW)

- Protection of Schedule 1 chemicals in transit
  - Research
  - Medical
  - Pharmaceutical
  - Protective

OPCW Identified Requirements

- Contain description of subject/bearer’s characteristics
  - Location:
    - Dynamically - e.g. Items in transit/motion
  - Textual description
  - Quantity

- Selective disclosure of characteristics information

- Support tracking, verification of chain of custody for emblem issuance and authorization

Ramsar Wetlands

"provides the framework for intergovernmental cooperation on wetland issues[1]"

Country:	Bulgaria
Site number:	1230
Area:	2,900.0 ha
Designation date:	11-11-2002
Coordinates:	42°29'49"N 27°23'44"E

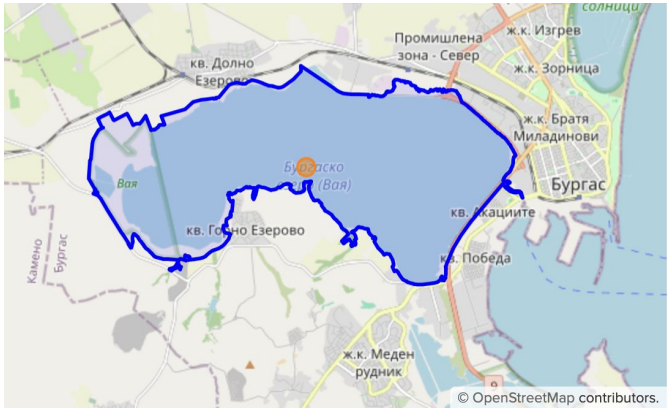
National legal designation:

- Protected Site - Vaya

Regional (international) legal designations:

- EU Natura 2000

Last publication date: 20-01-2020



[1] Ramsar. The Convention on Wetlands. https://www.ramsar.org/

Ramsar Identified Requirements

- Support querying by location
  - Geographic shape/point
  - Wetland identifier
- Information on wetland characteristics
  - Textual description
    - Habitat information
  - Global designation
  - National legal designation
  - Geographic location
    - Coordinates
    - Area boundaries

Requirements Overview - Illustrative Example

		Red Cr*	Blue Shield	Ramsar	Press	OPCW
Authenticity		X	X	X	X	X
Authorization		X	X	X	X	X
Undetectable Validation		X	X		X	
Removable		X	X		X	
Selective Disclosure						X
Mark “Digital” Asset		X	X		X	
Mark "Physical” Asset	**Place**			X		X
	Person				X	
	Object				X	X

Requirements Overview - Illustrative Example

		Red Cr*	Blue Shield	Ramsar	Press	OPCW
Authenticity		X	X	X	X	X
Authorization		X	X	X	X	X
Undetectable Validation		X	X			
Removable		X	X			
Selective Disclosure						
Mark “Digital” Asset		X	X			
Mark “Physical” Asset	**Place**			X		X
	Person				X	
	Object				X	X

- Initial scope above the line
- May move up or down
- List not exhaustive!

Use Cases and Requirements Document

Goals

- Document should be usable for future WG work
- Highlight what is in-scope
- Highlight which use cases has which requirements
- Clearly label requirements

Use Cases and Requirements Document

Structure

- Terminology
- Use Case Descriptions (extensive)
- Requirements clearly labeled
- Table showing requirements per use case (including RFC 2119 terms)
- Other sections such as security and privacy considerations
- Appendix - Use Case Descriptions (references)

Summary

You saw…

- Representative use cases and requirements
- Structure of use cases and requirements document
- Standards can address individual use cases and requirements

Discussion…

- Did we misrepresent any use cases?
- Do the document structure and goals make sense?
- Anything else?