Paper for Consideration by S100TSM9

S-100 Part 15 UML diagram with class details

Submitted by:	PRIMAR
Executive Summary:	S-100 does not currently include a UML diagram with the class details for data protection. It is proposed a diagram should be created and added to S-100 part 15.
Related Documents:	S-100 5.0.0 Part 15
Related Projects:	

Introduction / Background

In S-100 Part 15 there is currently no UML diagram with the class details for data protection. In S-100 Part 17 we find figure 17-7:

Figure 17-7 - S-100 Exchange Set Catalogue - class details

The figure above gives a good overview of the different components in an Exchange Set Catalogue. their content, multiplicity and relationship between them. Something similar would have been an improvement to S-100 Part 15.

The UML Diagram with class details for data protection scheme should contain all the structural components and cover their relationships between the following elements currently found in part 15, examples and the part 15 XSD file:

- 100_SE_CertificateContainer (part15)
- StandaloneDigitalSignature (part15, XSD)
- StandaloneDigitalSignature (XSD; root element for CATALOG.SIGN and PERMIT.SIGN)
- DigitalSignature (part15)

- S100_SE_DigitalSignatureValue (part15)
- S100_SE_SignatureOnData (part15, XSD)
- S100_SE_SignatureOnSignature (part15, XSD)
- DataStatus (part15)
- S100_SE_DigitalSignatureReference (part15, XSD)
- PermitType (XSD)
- PermitHeaderType (XSD)
- DatasetPermitType (XSD)
- ProductsPermitType (XSD)
- S100_SE_DigitalSignature_PropertyType (XSD)
- S100_SE_DigitalSignatureReference_PropertyType (XSD)
- S100_SE_DigitalSignatureReference (XSD)
- Permit (XSD)
- S100_SE_CertificateType (XSD)
- S100_SE_CertificateContainerType (XSD)
- certificate (XSD)
- S100_SE_DigitalSignature (XSD)
- S100_SE_DigitalSignature (XSD)
- S100_SE_AdditionalSignature (XSD)
- signatureOnSignature (XSD)
- signatureOnData (XSD)

Analysis/Discussion

In order to provide a good overview for implementers of the S-100 Data Protection Scheme as described in S-100 Part 15, it is suggested to create a UML diagram containing the class details for data protection. The detailed protection UML scheme should be located in part 15, and a reference to it in the part 17 UML diagram.

Conclusions
- Instigate the creation of a UML diagram containing the class details for data protection.
- Discuss and decide the appropriate location of the UML diagram within S-100 Part 15.

Action Required of S100TSM9

The S100TSM is invited to:
Note the paper and discuss proposed changes.