

PS3.15

**DICOM PS3.15 ~~2019b~~2019c - Security and System
Management Profiles**

PS3.15: DICOM PS3.15 ~~2019b~~2019c - Security and System Management Profiles

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agement Profiles are generally addressed to the implementation, not to Application Entities. The same Profiles need to be supported by the different applications on the network.

signature from the entity that created the certificate. The content and format of a Certificate are defined by ITU-T Recommendation X.509.

3.11 DICOM Data Structures and Encoding

This Part of the Standard makes use of the following terms defined in PS3.5:

Data Set

Data Set.

4 Symbols and Abbreviations

The following symbols and abbreviations are used in this Part of the Standard.

ACR	American College of Radiology
AE	Application Entity
AES	Advanced Encryption Standard
ANSI	American National Standards Institute
CEN TC251	Comite European de Normalisation-Technical Committee 251-Medical Informatics
CBC	Cipher Block Chaining
CCIR	Consultative Committee, International Radio
CN	Common Name
DES	Data Encryption Standard
DHCP	Dynamic Host Configuration Protocol
DICOM	Digital Imaging and Communications in Medicine
DN	Distinguished Name
DNS	Domain Name System
DDNS	Dynamic Domain Name System
ECMA	European Computer Manufacturers Association
EDE	Encrypt-Decrypt-Encrypt
HL7	Health Level 7
IEC	International Electrical Commission
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
IOD	Information Object Definition
ISCL	Integrated Secure Communication Layer
ISO	International Standards Organization
JIRA	Japan Medical Imaging and Radiological Systems Industries Association
LDAP	Lightweight Directory Access Protocol
LDIF	LDAP Interchange Format
MAC	Message Authentication Code
MD-5	Message Digest - 5
MEDIS-DC	Medical Information System Development Center
MTU	Maximum Transmission Unit

NEMA	National Electrical Manufacturers Association
NTP	Network Time Protocol
OID	Object Identifier (analogous to UID)
PDU	Protocol Data Unit
RDN	Relative Distinguished Name
RFC	Request For Comment (used for standards issued by the IETF)
RR	Resource Record (when used in the context of DNS)
RSA	Rivest-Shamir-Adleman
SCP	Service Class Provider
SCU	Service Class User
SHA	Secure Hash Algorithm
SNTP	Simple Network Time Protocol
SOP	Service-Object Pair
SSH	Secure Shell
SSL	Secure Sockets Layer
TLS	Transport Layer Security
UID	Unique Identifier
UTC	Universal Coordinated Time

5 Conventions

Terms listed in Section 3 Definitions are capitalized throughout the document.

Application Configuration Management Profiles are specified in Annex H.

6.8 Audit Trail Profiles

An implementation may claim conformance to one or more Audit Trail Profiles. Such profiles outline the generation and transport of audit messages for security and privacy policy enforcement.

Audit Trail Profiles are specified in Annex A.

Table A.5.2-1. General Message Format

	Field Name	Opt.	Description	Additional Conditions on Field Format/Value
Event	EventID	M	Identifier for a specific audited event.	The identifier for the family of event. E.g., "User Authentication". DCID 400 "Audit Event ID"
	EventActionCode	U	Indicator for type of action performed during the event that generated the audit.	C Create a new database object, such as Placing an Order R Read/View/Print/Query Display or print data, such as a Doctor Census U Update data, such as Revise Patient Information D Delete items, such as a master file record E Perform a system or application function such as log-on, program execution, or use of an object's method
	EventDateTime	M	Universal coordinated time (UTC), i.e., a date/time specification that is unambiguous as to local time zones.	The time at which the audited event occurred. See Section A.5.2.5
	EventOutcomeIndicator	M	Indicates whether the event succeeded or failed.	0 Success 4 Minor failure; action restarted, e.g., invalid password with first retry 8 Serious failure; action terminated, e.g., invalid password with excess retries 12 Major failure; action made unavailable, e.g., user account disabled due to excessive invalid log-on attempts When a particular event has some aspects that succeeded and some that failed, then one message shall be generated for successful actions and one message for the failed actions (i.e., not a single message with mixed results).
	EventTypeCode	U	Identifier for the category of event.	The specific type(s) within the family applicable to the event, e.g., "User Login". DCID 401 "Audit Event Type Code"
Active Participant (multi-valued)	UserID	M	Unique identifier for the user actively participating in the event.	See Section A.5.2.1.
	AlternativeUserID	U	Alternative unique identifier for the user.	See Section A.5.2.2.
	UserName	U	The human-meaningful name for the user.	See Section A.5.2.3.

Attribute Name	Tag	Retd. (from PS3.6)	In Std. Comp. IOD (from PS3.3)	Basic Prof.	Rtn. Safe Priv. Opt.	Rtn. UIDs Opt.	Rtn. Dev. Id. Opt.	Rtn. Inst. Id. Opt.	Rtn. Pat. Chars. Opt.	Rtn. Long. Full Dates Opt.	Rtn. Long. Modif. Dates Opt.	Clean Desc. Opt.	Clean Struct. Cont. Opt.	Clean Graph. Opt.
Reason for Study	(0032,1030)	Y	N	X								C		
Reason for the Imaging Service Request	(0040,2001)	Y	N	X								C		
Reason for the Requested Procedure	(0040,1002)	N	Y	X								C		
Reason for Requested Procedure Code Sequence	(0040,100A)	N	Y	X								C		
Reason for Visit	(0032,1066)	N	Y	X								C		
Reason for Visit Code Sequence	(0032,1067)	N	Y	X								C		
Referenced Digital Signature Sequence	(0400,0402)	N	Y	X										
Referenced Dose Reference UID	(300A,0083)	N	Y	U		K								
Referenced Frame of Reference UID	(3006,0024)	N	Y	U		K								
Referenced General Purpose Scheduled Procedure Step Transaction UID	(0040,4023)	Y	N	U		K								
Referenced Image Sequence	(0008,1140)	N	Y	X/Z/U*		K								
Referenced Observation UID (Trial)	(0040,A172)	Y	N	U		K								
Referenced Patient Alias Sequence	(0038,0004)	N	N	X										
Referenced Patient Photo Sequence	(0010,1100)	N	Y	X										
Referenced Patient Sequence	(0008,1120)	N	Y	X		X								
Referenced Performed Procedure Step Sequence	(0008,1111)	N	Y	X/Z/D		K								
Referenced SOP Instance MAC Sequence	(0400,0403)	N	Y	X										
Referenced SOP Instance UID	(0008,1155)	N	Y	U		K								
Referenced SOP Instance UID in File	(0004,1511)	N	N	U		K								

Attribute Name	Tag	Retd. (from PS3.6)	In Std. Comp. IOD (from PS3.3)	Basic Prof.	Rtn. Safe Priv. Opt.	Rtn. UIDs Opt.	Rtn. Dev. Id. Opt.	Rtn. Inst. Id. Opt.	Rtn. Pat. Chars. Opt.	Rtn. Long. Full Dates Opt.	Rtn. Long. Modif. Dates Opt.	Clean Desc. Opt.	Clean Struct. Cont. Opt.	Clean Graph. Opt.
RT Plan Date	(300A,0006)	N	Y	X/D						K	C			
RT Plan Description	(300A,0004)	N	Y	X								C		
RT Plan Label	(300A,0002)	N	Y	D								C		
RT Plan Name	(300A,0003)	N	Y	X								C		
RT Plan Time	(300A,0007)	N	Y	X/D						K	C			
Scheduled Human Performers Sequence	(0040,4034)	N	N	X										
Scheduled Patient Institution Residence	(0038,001E)	Y	N	X										
Scheduled Performing Physician Identification Sequence	(0040,000B)	N	N	X										
Scheduled Performing Physician's Name	(0040,0006)	N	N	X										
Scheduled Procedure Step Description	(0040,0007)	N	Y	X								C		
Scheduled Procedure Step End Date	(0040,0004)	N	N	X						K	C			
Scheduled Procedure Step End Time	(0040,0005)	N	N	X						K	C			
Scheduled Procedure Step Expiration DateTime	(0040,4008)	N	N	X						K	C			
Scheduled Procedure Step Location	(0040,0011)	N	N	X			K							
Scheduled Procedure Step Modification DateTime	(0040,4010)	N	N	X						K	C			
Scheduled Procedure Step Start Date	(0040,0002)	N	N	X						K	C			
Scheduled Procedure Step Start DateTime	(0040,4005)	N	N	X						K	C			
Scheduled Procedure Step Start Time	(0040,0003)	N	N	X						K	C			
Scheduled Station AE Title	(0040,0001)	N	N	X			K							

