DCMTK - Feature #947

Implement STOW-RS SCU

2020-09-08 16:36 - Marco Eichelberg

Status:	New	**Start date:**	2020-09-08
Priority:	Normal	**Due date:**	
Assignee:		**% Done:**	0%
Category:	Library and Apps	**Estimated time:**	0:00 hour
Target version:			
Module:	dcmnet, dcmdata	**Compiler:**	
Operating System:			

Description

Since DCMTK meanwhile supports writing both the DICOM XML native model and the DICOM JSON model, it should not be too difficult to implement a STOW-RS SCU that supports the three encoding options defined in DICOM Part 18:

- DICOM Part 10 (binary DICOM file format as MIME part)
- DICOM XML native model
- DICOM JSON model

What is mainly missing is:

- support for writing the HTTP header including the MIME multipart/related structure
- support for encoding Pixel Data, Encapsulated Documents and other large binary attributes as BulkDataURI that points to another MIME part in the same output stream (both in XML and JSON)
- Since the HTTP header will require the Content-Length field, we also need functionality that either performs the DICOM/XML/JSON export as a "dry run" and only counts bytes, or we must export to a temporary file, determine the file size, and then combine this with the HTTP header.
- Functionality that creates the TCP/TLS transport connection, delivers the HTTP request, and receives the HTTP result.