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Change Request #:	221
Assigned OGC Document #:	12-072
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Document Name/Version:	*Sensor Observation Service / 1.0.0
OGC Project Document:	*06-009r6

If this is a revision of a previous submission and you have a Change Request Number, then check here: ☐

Enter the CR number here: [   ]

Enter the Revsion Number that you are revising here: [   ]

Title: ⑨	* SOS Changes to support Video
Source: ⑨	*OWS-8 Observation Fusion (Tracking) Thread
Work item code: ⑨	
Category: ⑨	* C (Functional modification of feature) ⬍

Reason for change: ⑨	* Video and similar data perceived as a continous stream over time is sampled by sensors in many application domains. Yet these streams are composed of discrete samples. Direct download of the stream data bound by time range and other criteria should be possible using a KVP GetObservation URL. This differs from the 2 step approach of requesting OnlineResource pointers in O&M results and then using the pointers to download the data from another source. A method for retrieving continuous streamed Â binary data such as video/audio from an SOS should be defined. This method should take into account :

1) Direct referencing of binary data using GetObservation Request
URLs.

2) The need to retrieve sub-segments of streamed offerings based on a
time range.
A standardized response behaviour for requested time constraints that
do not intersect sample points such as video frames would need to be
defined.

3) The implications of spatial/property filter querying against such
streams e.g. search polygons/volumes that only intersect parts of the
registered stream at disjunct times. The effect of this is that there
would be multiple "clips". Are they directly conjoined, do
we put filler between clips?

4) Advertising of appropriate formats to return the data.

5) Data integrity - sub-segments in particular can be re-encoded and
not present the same as the original source. Re-encoding
methods/codecs etc. would be advertised as part of the server
capabilities.

6) The implications of time instant sample requests. Some time
instants will not fall directly on a real sample.

Summary of change:	* SOS interface changes to support video
Consequences if not approved:	poor handling of video and other data perceived as a continous stream over time in the OGC web services architecture

Clauses affected:	* Not sure
Additional Documents affected:	Not sure
Supporting Documentation:	OWS-8 Observation Fusion (Tracking) Thread Engineering Reports: OWS-8 Information Model for Moving Target Indicators and Moving Object Bookmarks ER (https://portal.opengeospatial.org/files/?artifact_id=46171) OWS-8 Tracking: Analysis of OGC Standards for Supporting Mobile Object Processing Implementation ER (https://portal.opengeospatial.org/files/?artifact_id=46170) OWS-8 Tracking: Moving Target Indicator Process, Workflows and Implementation Results ER (https://portal.opengeospatial.org/files/?artifact_id=46372)
Comments:	

Status: Assigned

Assigned To: SOS SWG

Disposition: Referred