Correction Number CP-1568

Log Summary: Remove arbitrary default value for limit in QIDO result set

Name of Standard

PS3.18 2016c

Rationale for Correction:

CP 1506 rewrote the handling of subsets of results in QIDO responses and in the process specified an default arbitrary limit of 50 results when none is specified in the request. There is no means to specify when no limit is desired (i.e., all results are wanted in a single response), quite apart from it being inappropriate to specify such arbitrary limits. Change the default limit from 50 to no limit.

Correction Wording:
Amend DICOM PS3.18 as follows:

6.7.1 QIDO-RS - Search

6.7.1.1 Request

The specific resources to be used for the search actions shall be as follows:

- ...
- fuzzymatching=true | false
- limit={limit}

The "limit" parameter value is an unsigned integer, which specifies the maximum number of results the origin server shall return. If the "limit" parameter is not present, its value is 50.

- offset={offset}

The "offset" parameter value is an unsigned integer, which specifies the number of results the origin server shall skip before the first returned result. If the "offset" query parameter is not present, its value is 0.

6.7.1.2 Response

The origin server shall perform the query indicated in the request.

The search requests shall be idempotent, that is, two separate search requests with the same target resource, query parameters, and header fields shall return the same ordered list of results, if the set of matching results on the origin server has not changed.

The results returned in the response are determined as follows:

- \( M \) is the number of matches resulting from the search.
- \( smax \) is the maximum number of results the origin server allows in a single response.
- \( offset \) is the value of the "offset" query parameter. It is the index of the first element in results.
- \( R \) is the length of the returned results. It is equal to the minimum of:
  - \( M-offset \) the length of available matches starting at offset,
  - \( smax-offset \) the length before reaching \( smax \), and
  - \( limit \) the value of the "limit" query parameter.
- \( remaining \) is the number of remaining matches. It is equal to: \( M-(offset+R) \).

The response is determined as follows:

- If \( R<=0 \) then there were no matches, and a 204 (No Content) response shall be returned with an empty payload.
- Otherwise, a 200 (OK) response shall be returned with a payload containing results.
- If \( remaining > 0 \) the response shall include a Warning header field (see RFC7230, Section 14.46) containing the following:
  - Warning: 299 (+service): There are \( <remaining> \) additional results that can be requested.

If the set of matching results has changed due to changes in the origin server contents, then the ordered list of results may be different for subsequent transactions with identical requests, and the results of using the "limit" and "offset" parameters may be inconsistent.

The response will be in an Acceptable Media Type.