nehta

When retrieving Medicare documents from the PCEHR system, why does the hash value in the metadata differ from the hash value of the CDA package?

Answer

When a CDA package is submitted to the PCEHR system (submitDocument – ITI-42: Provide and Register Document Set), the PCEHR System calculates a SHA1 hash of the CDA package and records it in the index. This allows anyone retrieving the package to check the hash and validate that the CDA package has not been tampered with.

When a Conformant Repository registers a document package, **only** the metadata is submitted to the PCEHR system (registerDocument – ITI-42: Register Document Set). The metadata includes these three additional fields:

- Size (size in bytes of the CDA package)
- Hash (SHA1 hash of the CDA package)
- Repository Id (Unique repository Id assigned to the repository by the PCEHR system)

Medicare CDA packages are created on demand, which means they are created every time they are requested. For this reason, the getDocumentList operation is unable to give the correct size and hash value.

For Medicare CDA packages:

- size = 0
- hash = da39a3ee5e6b4b0d3255bfef95601890afd80709
  (which translates to a 0 size file).

The PCEHR system has a special rule for Medicare CDA packages so they do not fail when submitted to the PCEHR system. This means that when a Medicare CDA package is downloaded, the hash will not match the calculated SHA1 hash that the receiver system generates.

Therefore, when Medicare documents (i.e. ACIR, AODR, DVA/MBS and PBS records) are retrieved, systems SHALL NOT validate the Medicare CDA package using the metadata HASH value.

Note that this metadata HASH value must not be confused with the HASH value that exists in the CDA_SIGN.XML file contained within the CDA package file. Details about checking this CDA_SIGN.XML HASH value are covered in the CDA Packaging specification.

The XDS metadata from a getDocumentList operation is shown on the next page.

XDS Metadata

XDS Metadata (not full soap message) from a getDocumentList operation

```
<soap:Envelope>
 <S:Body>
  <query:AdhocQueryResponse>
   <rim:RegistryObjectList >
    <ns1:ExtrinsicObject>
     …
      <ns1:Slot name="hash">
       <ns1:ValueList>
        <ns1:Value>da39a3ee5e6b4b0d3255bfef95601890afd80709 </ns1:Value>
       </ns1:ValueList>
      </ns1:Slot>
      <ns1:Slot name="size">
       <ns1:ValueList>
        <ns1:Value>0</ns1:Value>
       </ns1:ValueList>
      </ns1:Slot>
```

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