Identifier generation and reservation

Clients may need a mechanism to generate GUIDs before they build various types of documents in which the GUIDs are embedded, and they need to be sure these GUIDs will not be used before they are inserted. Add to the CN architecture a new method:

reserveIdentifier(scope?, format?) -> GUID
format = UUID, DOI, Handle, etc

Be sure that only the client reserving the GUID can use it after it has been reserved (which might be hard).

Subtasks:

<table>
<thead>
<tr>
<th>Task #</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1597</td>
<td>Stub out CNRead.reserveIdentifier</td>
<td>Closed</td>
</tr>
<tr>
<td>1598</td>
<td>Design replicated store for reserved identifiers</td>
<td>Closed</td>
</tr>
<tr>
<td>1599</td>
<td>Generate pid when not provided in CNCore.generateIdentifier</td>
<td>Closed</td>
</tr>
<tr>
<td>1679</td>
<td>Define and implement mechanism for checking if an ID is reserved</td>
<td>Closed</td>
</tr>
<tr>
<td>1680</td>
<td>create CNCore.hasReservation(session, pid)</td>
<td>Closed</td>
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<tr>
<td>2232</td>
<td>Check equivalent identities when making/checking reservations</td>
<td>Closed</td>
</tr>
<tr>
<td>2233</td>
<td>reserveIdentifier should use MMP file for the input {pid} param</td>
<td>Closed</td>
</tr>
<tr>
<td>2243</td>
<td>hasReservation: use new SubjectInfo parameter</td>
<td>Closed</td>
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<tr>
<td>2247</td>
<td>use Subject as the hasReservation param</td>
<td>Closed</td>
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</tbody>
</table>

History

#1 - 2010-03-09 00:32 - Matthew Jones
I defined the reservedId() format for the CN service and added it to CN_APIs.txt. Clients that reserve GUIDs must use the existing session to utilize the GUID, which could have potential ramifications on denial of service and other issues we should consider. The alternative is to reserve it from any session from the logged-in user. The concept of a reserved ID can't be tracked without identifying who is reserving it somehow.

Need to modify CN and MN crud ops to throw an exception if someone tries to use a reserved API who didn't reserve it.

#2 - 2010-10-06 19:56 - Matthew Jones
- Tracker changed from Feature to Story
- Category changed from Documentation to d1_cn_service
- Assignee deleted (Matthew Jones)
- Start date set to 2010-10-06
- Milestone set to CCI-1.0

#3 - 2011-02-01 18:33 - Dave Vieglais
- Position set to 1
- Target version set to Sprint-2011.09-Block.2

#4 - 2011-03-01 17:54 - Dave Vieglais
#5 - 2011-03-16 17:43 - Robert Waltz
- Milestone deleted (CCI-1.0)
Should be PID instead of GUID

#6 - 2011-04-25 16:00 - Dave Vieglais
- Position set to 2
- Target version set to Sprint-2011.19-Block.3

#7 - 2011-05-16 18:01 - Dave Vieglais
- Position changed from 1 to 193
- Target version changed from Sprint-2011.19-Block.3 to Sprint-2011.20-Block.3
- Position deleted (13)
- Position set to 1

#8 - 2011-05-25 15:44 - Dave Vieglais
- Target version changed from Sprint-2011.20-Block.3 to Sprint-2011.22-Block.3
- Position deleted (195)
- Position set to 1

#9 - 2011-05-31 15:20 - Dave Vieglais
- Target version changed from Sprint-2011.22-Block.3 to Sprint-2011.23-Block.3
- Position set to 8

#10 - 2011-06-10 16:04 - Ben Leinfelder
- Subject changed from add new CN.reserveGUID() method to add new CNCore.reserveIdentifier() method

#11 - 2011-06-22 04:03 - Ben Leinfelder
- Assignee set to Ben Leinfelder

#12 - 2011-06-27 01:17 - Dave Vieglais
- Position deleted (23)
- Position set to 12
- Target version changed from Sprint-2011.23-Block.3 to Sprint-2011.26-Block.4

#13 - 2011-07-13 21:03 - Ben Leinfelder
- Subject changed from add new CNCore.reserveIdentifier() method to Identifier generation and reservation
- Milestone set to CCI-0.6.2

#14 - 2011-08-30 01:27 - Dave Vieglais
- Position deleted (36)
- Position set to 1
- Target version deleted (Sprint-2011.26-Block.4)
Current docs indicate a separate method for generating IDs:
http://mule1.dataone.org/ArchitectureDocs-current/apis/CN_APIs.html#CNCore.generateIdentifier
I think minting DOIs was considered against EZID's best interests -- MNs should probably be responsible for this. But it seems we keep going back and forth on this.
#25 - 2012-01-17 18:31 - Matthew Jones
- Position set to 4
- Position deleted (54)
- Target version changed from Sprint-2012.01-Block.1.1 to Sprint-2012.03-Block.1.2

#26 - 2012-02-06 18:00 - Matthew Jones
- Status changed from New to Closed

All tasks completed in story.