Userid translation with AUTH_SYS

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Thursday, February 17, 2011

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Problem statement

- Implementations were designed with authentication in mind
- user@domain was going to be easy
- AUTH_SYS is still king
- Users have a hard time with id mapping
  - "nobody" is confusing
  - Need for NIS or /etc/passwd entries on servers

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The spec

- The RECOMMENDED attributes "owner" and "owner_group" (and also users and groups within the "acl" attribute) are represented in terms of a UTF-8 string.

- the local representation is translated to a syntax of the form "user@dns_domain".

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Almost a way out

- Owner strings which are decimal numeric values with no leading zeros can be treated as 32-bit unsigned UIDs
- Server is not obligated to accept such a string.
- If there is a valid translation (user@domain), the server SHOULDreturn NFS4ERR_BADOWNER.
- I.e., do not allow for shortcut.

What do we want

- Easy migration path from NFSv3 to NFSv4
  - nobody is easily the number one FAQ entry
- Proposal 1: Allow numeric ids in only AUTH_SYS
- Proposal 2: Allow numeric ids at any time
- Servers accept UID/GIDs for which they have no mappings
- Clients are responsible for mapping to string names
- Always allow "user@domain"

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