

## iSCSI and Unicode

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# iSCSI Naming and Unicode



- iSCSI endpoints: initiators and targets
- Naming design rationale
  - Targets may share <IP address, TCP port (e.g., 3260)>
  - Initiators and targets may have multiple IP addresses
  - Unique names are important for third-party commands (EXTENDED COPY)
- iSCSI names: Globally unique
  - EUI-based (type of WWN)
    - eui.5006048dc7dfb1af
  - IQN: Reversed hostname (DNS) as naming authority
    - iqn.1999-06.com.example:StorageSystem48
  - NAA-based (more WWNs, including long WWNs)
    - naa.62004567BA64678D0123456789ABCDEF
- Unicode: UTF-8 support required (only used by IQN names)
  - All IQN names MUST be stringprep'ed before use
    - RFC 3722: iSCSI profile of stringprep
  - iSCSI protocol compares name strings for equality
    - No run-time stringprep processing

# Updating stringprep: iSCSI considerations



- My views (as a WG co-chair) ...
- Should do something: IQN names use domain names
  - Concern: stringprep may bar IQN usage of otherwise valid UTF-8 domain names ☹️
- Don't want to write an iSCSI-specific document from scratch
  - I'm not a Unicode expert and I like it that way 😊
- Future-resistant stringprep update desirable
  - There's no such thing as future-proof 😊
- Updating iSCSI use of stringprep (RFC 3722bis)
  - Storm WG provides a venue for this work
    - Update not currently in WG charter, but could be added.
  - Any update SHOULD be backwards-compatible with RFC 3722

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