CDNI Metadata Interface
draft-ma-cdni-metadata-03

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Metadata Model Requirements

• META-9: association of Metadata to individual objects
  – support for non-wildcard URIs
• META-10: association of Metadata to sets of objects
  – support for wildcard URIs
• META-11/12: deterministic inheritance with precedence
  – longest prefix match (w/ file extension)
  – hierarchical and/or ordered lists of full regex patterns
• META-13: Metadata rejection
  – capabilities advertisement of Metadata support
  – upstream trigger for denied delegated requests
• META-16: opaque Metadata
  – mandatory to enforce vs. ignorable
  – distribution of unsupported Metadata in cascaded CDNs
Proposed Metadata Model

• Flat structure with Metadata objects that contain:
  – **URI**: URI (prefix + extension) to which the object matches
  – **Name**: identifying the type of Metadata object it is
  – **Value**: an object with semantics specific to the Name
  – **MustEnforce**: flag indicating that if the CDN does not support this Metadata, it must not deliver content for which this Metadata is defined
  – **Priority**: field used to create explicit orderings for lists
  – **TTL**: field use to set the cacheability of this Metadata

• Metadata objects are atomic and override other metadata objects with the same name
  – Metadata are selected by longest URI prefix + extension match
  – Duplicates with the same URI are ordered by priority.
Next Steps

• Work with merged draft authors to address open issues with Metadata protocol and data model:
  – Better define object override rules
  – Better define Metadata extension rules.
  – Evaluate Metadata object optimizations
  – Define best practices for object hierarchies
  – Define pass-through rules for opaque Metadata
  – Articulate trade-offs between TTL pull and triggered push implementations for Metadata refresh
  – Document expected operating environments and scenarios (number of domains, metadata, dCDNs, updates, etc.)