CDNI Request Routing:
Footprint and Capabilities Semantics Draft
(draft-ietf-cdni-footprint-capabilities-semantics-01)

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Background & Goals

- **Objectives of draft-ietf-cdni-footprint-capabilities-semantics**
  - Captures the semantics of the CDNI Request Routing FCI interface
    - i.e. the desired meaning and what "Footprint and Capabilities Advertisement" is expected to offer within CDNI
  - Defines mandatory types of footprint and capabilities to be supported by protocol solutions for the CDNI FCI
  - Defines procedure for registering new (otional) types of footprint and capabilities in the future

Changes since -00 version

- Replaced Section on "CDNI FCI in existing CDNI Documents" with short summary in introduction

- Removed Section on "Open Issues and Questions"

- Added Section on "Negotiation of Support for Optional Types of Footprint/Capabilities"

- Added Section on "IANA Considerations"

Negotiation of Support for Optional Types of Footprint/Capabilities

- Any FCI solution protocol must define how the support for optional types of footprint/capabilities will be negotiated between a uCDN and a dCDN that use the particular FCI protocol

- In particular, any FCI solution protocol needs to specify how to handle failure cases or non-supported types of footprint/ capabilities

- Optional types of footprints must use footprint types defined in the CDNI Metadata Footprint Types Registry created by the Metadata RFC

IANA Considerations

- IANA registries are to be used for mandatory and optional types of footprint and capabilities
- A new IANA registry is requested for the "CDNI Capabilities" namespace
  - The namespace shall be split into two partitions: "standard" and "vendor defined"
  - New "standard" capabilities require an RFC
  - The "vendor defined" partition is split by vendor name
  - Per-vendor sub-partitions require Expert Review
  - Vendors may freely add capabilities to their partition

IANA Considerations

- Standard Capabilities defined in this RFC
  - Delivery Protocol
    - Uses protocols defined in the CDNI Metadata Protocols Registry created by the Metadata RFC
  - Acquisition Protocol
    - Uses protocols defined in the CDNI Metadata Protocols Registry created by the Metadata RFC
  - Redirection Mode
    - Redirection Mode Registry defined in this RFC, with initial values: Iterative DNS, Recursive DNS, Iterative HTTP, Recursive HTTP

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