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The "ai" URI Scheme for AI Internet Access
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Abstract

This document defines the "ai" Uniform Resource Identifier (URI) scheme. The "ai" scheme provides a mechanism to identify and access AI-native Internet resources using a blockchain-based registry and resolver instead of DNS. It enables digital twin domains (for example, ai://bank, ai://shop, ai://gov) used by an "AI Button" client.

Status of This Memo

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1. Introduction

The "ai" URI scheme defines a new entry point to the Internet that does not depend on DNS. Resources identified by ai:// are resolved by a smart-contract registry mapping names (for example, "bank") to a domain manifest stored in decentralized storage such as IPFS.

The general concept of URIs and their components follows the conventions defined in [RFC3986].

2. Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14 ([RFC2119] and [RFC8174]) when, and only when, they appear in all capitals, as shown here.

3. Syntax

The syntax of the ai-scheme URI follows [RFC3986]:

```
ai://<name>[/path][?query][#fragment]
```

<name> is a registered AI Internet label (letters, digits, hyphen).
/path, ?query, and #fragment are optional.

4. Security Considerations

All ai:// interactions MUST be gated by explicit user consent.
Registry uniqueness is by hash of the normalized name. Resolver
content identifiers SHOULD be content-addressed (for example, IPFS
CIDs). Anti-phishing controls such as homoglyph filtering and
reserved names are RECOMMENDED.

5. IANA Considerations

This document requests the registration of the "ai" URI scheme in the
IANA URI Schemes Registry with the following template:

```
URI Scheme Name: ai
Status: Provisional
Applications or protocols: AI Button; blockchain registry and resolver
Contact: Aram Sogomonian, Waterbottling@icloud.com
Change controller: MyConcept / AI Internet Project
```

6. Normative References

- [RFC3986] Berners-Lee, T., Fielding, R., and L. Masinter, "Uniform
Resource Identifier (URI): Generic Syntax", STD 66, RFC
3986, January 2005.
- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate
Requirement Levels", BCP 14, RFC 2119, March 1997.
- [RFC8174] Leiba, B., "Ambiguity of Uppercase vs Lowercase in RFC 2119
Key Words", BCP 14, RFC 8174, May 2017.

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