

# Terminology for Agent~Hub-Related Identity Concepts

*This doc is a place to explore an aligned mental model and terminology that will let us begin to tell a coherent and consistent story about hubs and agents. We need this alignment and terminology for a global reference architecture for decentralized identity, and to help resolve confusion about the hub~agent distinction in identity circles.*

## Concepts that Need an Official Term

1. A masterless service instance that provides storage, data synchronization/replication, networking, and limited processing of messages to one or more entities wishing to manage identity and digital presence. (This concept is called **hub** by DIF.)
2. A service that has delegated authority in the form of keys to act as a fiduciary for exactly one specific [\[concept #8 "self"\]](#) in DIDComm-based interactions. (This concept is currently called **agent** by Indy, nodding to phrases like "talent agent" and "real estate agent." It is somewhat similar to the idea of "user agent" from browser terminology, but browser user agents often lack delegated keys and do not support DIDComm.) (This is what DIF would designate as a user's Wallet App/Mobile Agent or an organization's Enterprise Agent, which may have a CLI or dashboard interface)
3. A specialized container that provides crypto-based security guarantees, making it a safe repository for keys and other sensitive info. (This concept is currently [called identity wallet or just wallet by Indy developers due to HIPE 0013](#). Its meaning is close to that of "key chain" as used by platform vendors, except that it encompasses other sensitive info as well. Many in the community lack a term for this except for the informal phrase "wallet storage"; they apply the term "wallet" to [\[concept #4 industry "wallet"\]](#) instead. See next.) I wonder if we ought to rename this? Would be painful, given the amount of code that exists... (must manage keys/addresses/payment, DID relationships/contexts, and cred generation - maybe DID Manager, Secret Manager?)
4. An app (mobile, web, or native) that people or orgs use to manage secrets, including payment and identity info. This concept is currently called **wallet** by many in identity circles; Indy developers would call it "an app that has a wallet." An important nuance is that apps can be multitenant (multiple Netflix users or Xbox gamers in a single household; multiple Fitbit profiles on a single tablet), which makes this concept slightly misaligned with [\[concept #3 Indy "wallet"\]](#).
5. The physical and virtual space, behaviors, decisions, time, identity, and things over which a particular sovereign entity (identity owner) exercises control. This concept is called **sovereign domain** in the Sovrin glossary and in Indy HIPEs.
6. All storage in a sovereign domain, including both sensitive and non-sensitive things. This concept is called **vault** in Indy HIPEs but has been little explored in that community.
7. The subset of overall identity that is shared in a single constrained context, and that is identified by a DID. This context may be pairwise, n-wise, or anyway. Indy developers sometimes refer to this informally as **identity-with-a-lower-case-i**, because it is a single

manifestation of a larger identity. The Sovrin Glossary calls this a **Sovrin Identity**. The DID spec stipulates that a DID identifies a **DID subject**, which is roughly equivalent but which lacks the nuance that the subject is always contextualized. This is the unit of synchronization and config in hubs, and is the unit of routing in DID Communication. I suggest that we call this a **DID shard**, as in “the shard of an identity that maps to a particular DID”.

8. The unifying, gestalt identity known to an identity owner as **self**, but not known in its entirety to anyone other than its owner. It is composed of the union of all the [concept #7 “did shards”] that the identity owner manages. Indy developers sometimes informally call this **identity-with-a-capital-I**. This is the entity that acts as sovereign over [concept #5 “sovereign domain”]. I suggest that we formally adopt the term **self**.
9. The portion of a hub's storage, processing, and authorizations that encompasses or is dedicated to exactly one sovereign domain or exactly one identity-with-a-capital-I. This is exactly the scope of operation for [concept #2 Indy “agent”] and also exactly the scope of concern for [concept #3 Indy “wallet”]. It is deliberately hidden from some parts of the identity ecosystem, but it is an important unit of policy, portability, privacy, and vulnerability analysis. A person who uses a hub might want to say, “I want to take my [this concept] somewhere else.” [concept #1 DIF “hub”] = one or more of these things. **No term currently exists.** I suggest that we adopt the term **hub cell**.
10. A hub consisting of a single [concept #9 “hub cell”], and thus dedicated to a single [concept #8 “self”]. **No term currently exists.** I suggest that we adopt the term **dedicated hub** and that we use the term **shared hub** as the contrasting term for something like the Azure hub that's multitenant.
11. A particular server or endpoint exposing the service described in [concept #2 DIF “hub”]. Daniel B has used the term **hub instance** for this; is it formally defined?
12. The set of all [concept #11 “hub instance”] used by a particular [concept #8 “self”]. **No term currently exists.** I suggest that we adopt the term domain **hub instances**.
13. A fabric of many (perhaps all, worldwide) [concept #11 “hub nodes”]. Ecosystem of all **hub instances**.
14. A formally established DIDComm channel between two or more [concept #7 “did shards”]. Indy calls this a **connection**.
15. The portion of a hub's storage, processing, and authorizations that encompasses or is dedicated to exactly one [concept #7 “did shards”]. I suggest that we adopt the term **hub DID shard** for this.

## How Sovrin Explains Some of These Concepts

