

Community Glossary Group Report-Out

May 2020

Context

- Companies struggle to agree on shared definitions for key terms, and discrepancies contribute to market confusion.
- The Community Glossary Group emerged from definition discussions at the last IIW.
 - Chaired by Kaliya Young, Margo Johnson, and Drummond Reed

Community Glossary Group Report-Out

How might we build shared understanding in the emergent DID/VC market?

Goals

- Create alignment for market engagement, invite convergence
- Maximize ability to inform and engage business audience interested in adopting/purchasing this technology.
- Test a collaborative research process for learning from our community



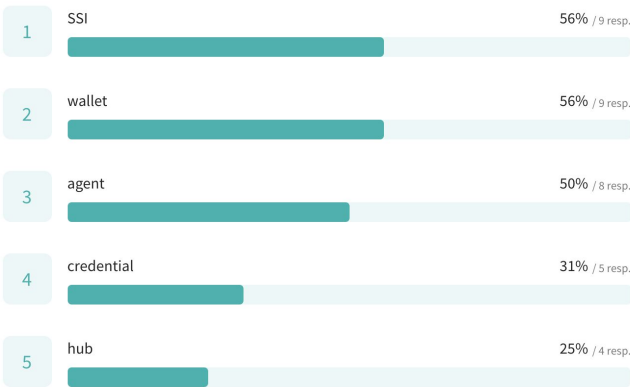
Survey #1: Voting on Key Terms

DIF Glossary Group Key Terms

16 responses

Vote for the top three terms that you would like to see common definitions developed for first

16 out of 16 answered



▼ Show more (6)

Are there any other terms you would like to nominate as a top priority for us to define that are not on this list?

10 out of 16 answered

Survey #1: Voting on Key Terms

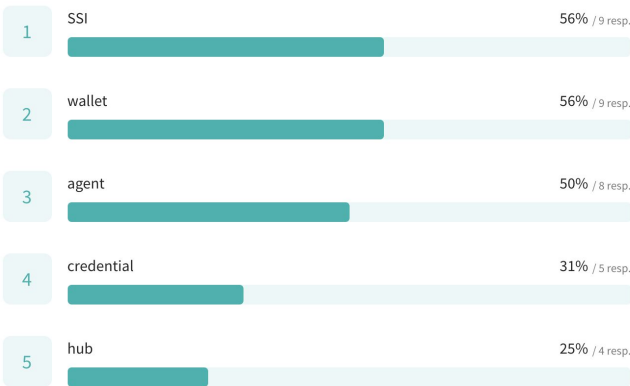
- Wallet
- Agent
- Credential

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Survey #2: Define the Top 3 Terms

“This survey is intended to help the Glossary Group identify the diversity of uses of key terms in the decentralized identity ecosystem. These terms and questions came out of an initial survey of the broader DIF community. The group will explore more terms in the future.

We are optionally gathering your name, email address, and organization/group name for the purpose of follow-up from the glossary project. If you prefer to submit this survey anonymously you do not have to include any of this information. If you do include your name as a part of your response it will only be seen by the glossary project team and will not be shared in public reports. ("Chatham House rules")

As a reminder, the goal of the Glossary Project is to facilitate the emergence of contextualized vocabulary that is widely accepted across the decentralized identity community/industry. Together we will be working across the whole range of projects and efforts to understand what language is currently being used and to invite understanding and support convergence on some core definitions. We will do this in an open and transparent manner that is as inclusive as possible. We are not (re)creating a comprehensive taxonomy but rather are focusing on a few key terms that are especially critical for wider adoption."

Survey #2: Describe the Top 3 Terms & Their Relationships

What are your current working descriptions for the following terms? (Note: feel free to use them in some example sentences)

Description (optional)

"agent"

Long answer text

"wallet"

Long answer text

"credential"

Long answer text

How do the terms relate to each other (if at all) in your work?

Description (optional)

"agent" <--> "wallet"

Long answer text

"agent" <--> "credential"

Long answer text

"wallet" <--> "credential"

Long answer text

Survey #2: Business Models of Respondents

- Shared with different mailing lists and community groups
 - DIF, Sovrin, CCG, etc.
- 27 respondents in total representing different companies and individual perspectives

In the context of you answers to the question above, please check the boxes for all of the following that generally describe your business model:

23 responses



Survey #2 Raw Results

Glossary Project Terms Survey (Responses) ☆

File Edit View Insert Format Data Tools Form Add-ons Help Last edit was made 7 days ago by Margo johnson

A	D	E	F	G	H	I	J
Timestamp	On whose behalf are you	"agent"	"wallet"	"credential"	"agent" <--> "wallet"	"agent" <--> "credential"	"wallet" <--> "credential"
12/9/2019 23:07:17	HIE of One	cloud service delegate of	edge agent able to secure	a kind of attribute for one	same functionality but wallet is at the edge and can have local biometrics	agent accepts or presents wa	
12/10/2019 20:37:22	CTO @ Transmute / Chai	An agent is a software sy	A wallet is a service that p	A credential is something	An agent may have a wallet; an agent may store keys for a did subject. A wallet is sometimes an agent; some wallet apps offer user experience that supports identity and identity related activities. An agent may store data or credentials in a wallet.	An agent can be used to c	A
12/12/2019 23:14:41	Sovrin Foundation (comm	A software program or prc	A software module, and o	A digital assertion contain	Per the definitions above, agents are the software process that "wrap" a wallet in order to perform secure, cryptographic operations (such as generating a DID, issuing or presenting a verifiable credential, or sending/receiving secure messages). Agents and wallets are always paired together. Just as physical wallets require a human to use them, digital wallets require a software agent to use them (the human always interacts with the agent).	To use the analogy with a All	
12/13/2019 6:31:06	Company (Evernym)	Piece of code/software th	Secure and encrypted sto	digital document that has	agent usually has a wallet / access to a wallet to be able to represent someone's identity	agent can but doesn't hav wa	
12/16/2019 19:25:46	myself	A natural person or software routine empowered (au	Information used to authentic	Information used to authenticate a natural person, a device, or software routine.		An agent will need some for	
12/16/2019 20:25:41	Kantara Initiative Identity	a person whose job is to e	a small, flat, folding case	An object to be verified w	Doesn't	Doesn't	Dc
12/17/2019 4:44:13	individual	is an entity authorized to e	is an electronic device an	A Credential is a claim (or	A software agent may be used to interact with a Digital Wallet	A software agent may be	A
12/20/2019 11:21:48	IAM	The "agent" vetted the ne	I store my secrets in a sec	I had to share my "creden	N/A	I might share my credenti	I
12/27/2019 20:17:14	Secours.io	software that works on be	An encrypted data store th	A data structure based on	Our service stores connection data for each member who holds a digital wallet (today, that is Connect.me).	Once a connection is avail	Me
12/27/2019 20:28:46	ID Lynx Ltd.	(This term is consistently	An app that is enabled to	A W3C verifiable credenti	Agent may have a wallet.	Agent may hold, issue or W	W
12/28/2019 14:17:13		A piece of software and/o	An application or a softwa	A digital file that matches	Agents need a wallet to hold the material they use to prove they are legitimate delegates of an identity controller. Agents for more than one identity should not share the same wallet.	Agents are used to speak W	W
				Universal Digital Credential A set of Claims is called a A minimal Credential is a DID Credential A DID Credential is a spe			

Categorization of Responses:

- Digital ethnography meets service design
- Inductive sorting process with chairs and community contributors
 - Create groups from responses
 - Rank groups from highest to lowest number of responses
 - Gather insights from breadth and depth of groups

	A	B	C	D	E	F	G	H	I	J	K
1	"credential"										
2		Group 1		Group 2		Group 3		Group 4		Group 5	
3		Structure & Standards		Access capability		Cryptography		Identity Data		Roles	
5		a kind of attribute for one subject formatted as a signed document		A credential is something grants some ability in some system.		A credential is some data that is cryptographically protected, and which has some ability to be verified.		Credentials are a subset of Identity Data.		The Entity described by the Claims is called the Subject of the Credential. The Entity creating the Credential is called the Issuer. The Entity holding the issued Credential is called the Holder.	
6		A digital assertion containing a set of Claims made by an Entity about itself or another Entity.		In the case of username and password, credentials enable a use to authenticate.						If the Credential supports Zero Knowledge Proofs, the Holder is also called the Prover. The Entity to whom a Credential is presented is generally called the Relying Party, and specifically called the Verifier if the Credential is a Verifiable Credential. Once issued, a Credential is typically stored by an Agent.	
7		A Credential is based on a Credential Definition.		In the case of a JSON Web Token, a credential is a bearer token which is signed by an issuer and has claims about a subject, and which when properly protected can be used to support authentication.				digital document that has attestations about someone's identity		Issuers can offer a credential to an identity owner.	
8		A data structure based on a schema and generated from a credential definition.		or it can be a bearer credential.				A credential can be bound in some way to the individual to whom it was issued		They are normally issued by a central authority who also govern the terms and quality (often called a level of assurance) of the credentials they issue.	
9		A W3C verifiable credential which contains one or more claims.		An object to be verified when presented in an authentication transaction.				Electronic credentials are digital documents that bind an identity or an attribute to a subscriber's token. (Kantara IAF Glossary)		The Entity described by the Claims is called the Subject of the Credential. The Entity creating the Credential is called the Issuer. The Entity holding the issued Credential is called the Holder. For historical purposes the Entity to whom a Credential is presented is also called the Relying Party but the preferred term is "Verifier". Once issued, a Credential is typically stored by an Agent.	
10		A digital file that matches the W3C verifiable credential spec. NOT to be confused with a presentation.		Electronic credentials are digital documents that bind an identity or an attribute to a subscriber's token. (Kantara IAF Glossary)				A Credential is a claim (or a set of claims) made by an entity about a Digital Identity. (https://dapwiki.com/wiki/Credential)		a set of facts issues and signed by an issuer, specifying a subject, issuer and subject could be the same thing (a self-attested credentials)	
11		Universal Digital Credential (Credential) A set of Claims is called a Universal Credential A minimal Credential is a Credential A DID Credential is a specialization of a Credential		A piece of information that is used to authenticate and grant users access to a system, application, or service.				I had to share my "credentials" with the agent to prove my identity.			
12		The W3C definition of the term - a collection of claims issued as a document from an Issuer to a Holder.						A credential is a collection of attributes or claims that verify something or somethings about an entity (individual, organisation or thing).			
..								An item or items that defines who a person is, what they			

Analysis using a cluster "post it note" process

Credential

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
Structure & Standards	Access capability	Cryptography	Identity Data	Roles	Proof/ Presentation	Examples
14	7	1	10	6	2	6

Wallet

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9
Agent Controlled	Key & secret storage	Credential Storage	KMS API / Key Mgmt	DLT	Objections / Editorial	Hardware/ Device	Wallet Application / Product	Portability
6	12	8	5	1	2	3	5	1

Agent

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10	Group 11	Group 12
Clouds	Edge/ Local	Representative of Subject	Controls the wallet	People	Not relevant / Unclear	Messaging & Interaction	Rules or Policy-based	Fees/ Money	Multi-device	DLT	Ownership
6	3	21	6	6	2	5	2	2	1	1	1

Aggregated Descriptions (Agent, Wallet, Credentials)

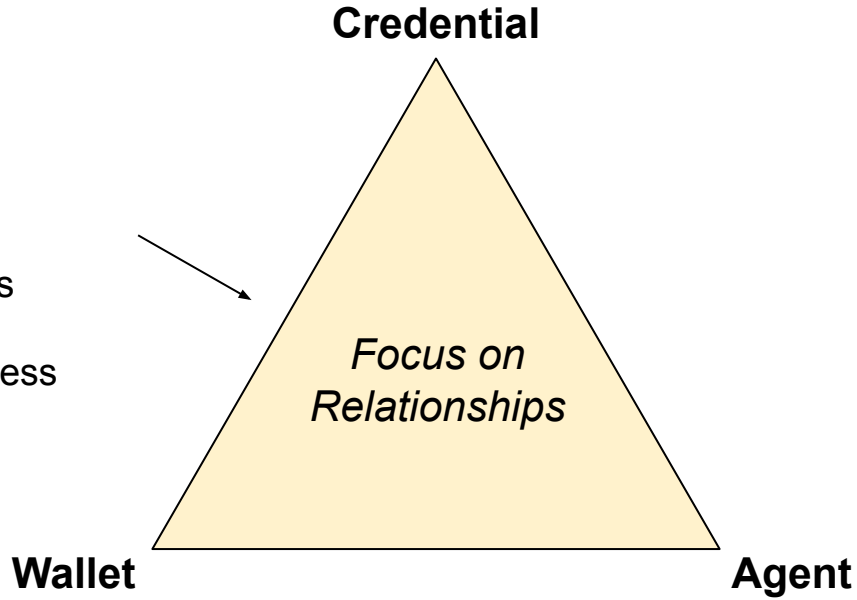
- Credentials:
 - Credentials provide structured standards for accessing identity data
- Wallets:
 - Provide storage of keys, credentials, and secrets, often facilitated or controlled by an agent.
- Agent:
 - SIMPLE: Dictionary definition: "a person or thing that takes an active role or produces a specified effect"
 - NUANCED: An agent is a software representative of a subject (most often a person) that controls access to a wallet and other storage, can live in different locations on a network (cloud vs. local), and can facilitate or perform messaging or interactions with other subjects.

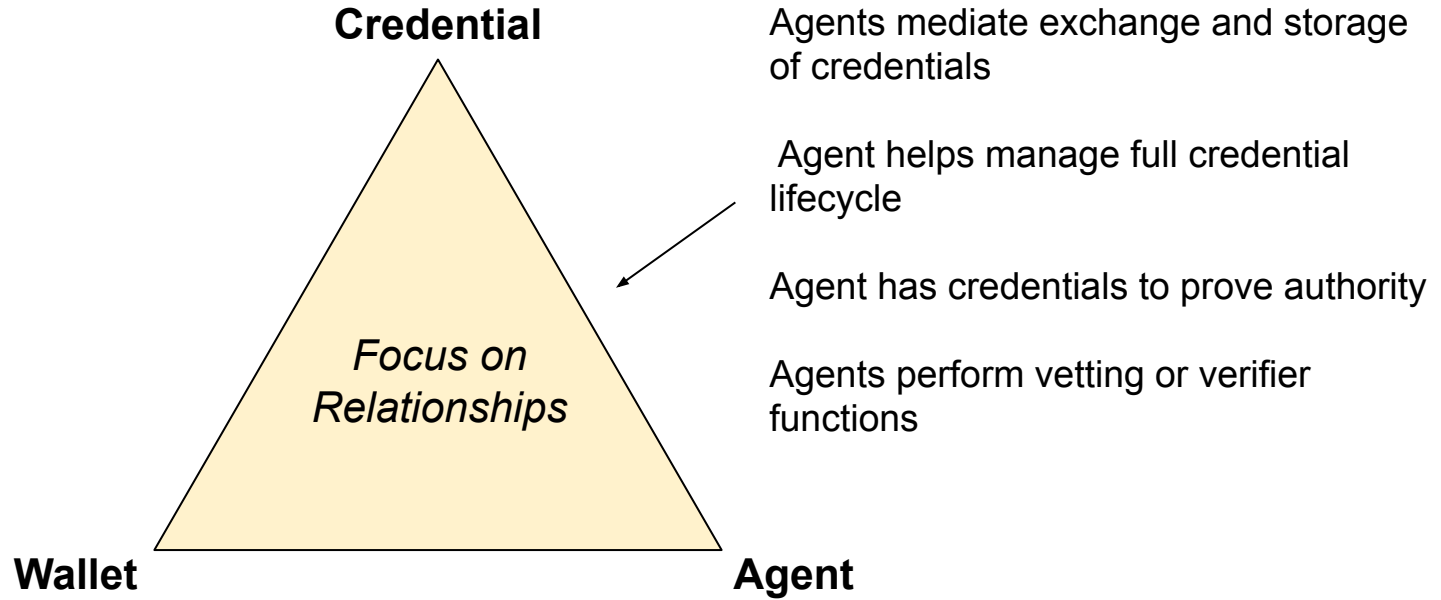
Wallet accepts and/or
presents credential

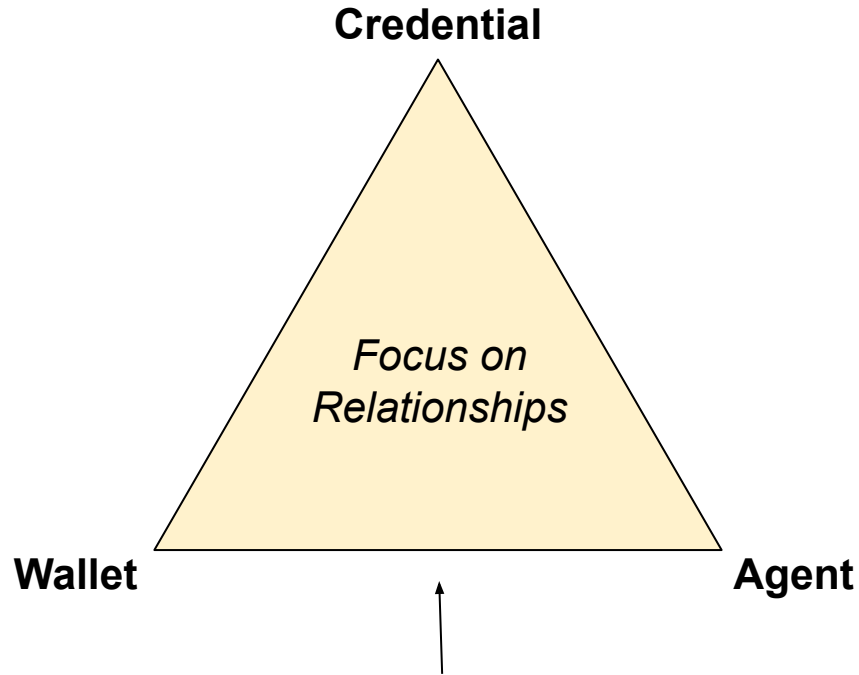
Wallet stores keys &
cryptographic materials

Wallet stores credentials

Credentials used to access
wallets







Agents may have wallets

Wallets can be agents

Agent stores credentials, keys, and /or messages in wallet

Agents let you work with and connect to wallets

Agents support delegation

Agents backup wallets

Wallet accepts and/or presents credential

Wallet stores keys & cryptographic materials

Wallet stores credentials

Credentials used to access wallets

Credential

Agents mediate exchange and storage of credentials

Agent helps manage full credential lifecycle

Agent has credentials to prove authority

Agents perform vetting or verifier functions

Focus on Relationships

Wallet

Agent

Agents may have wallets

Wallets can be agents

Agent stores credentials, keys, and /or messages in wallet

Agents let you work with and connect to wallets

Agents support delegation

Agents backup wallets

Outliers/ variance

- Key issues/notes:
 - The term Agent had the greater degree of variance in the core descriptions
 - This is reflected in the more complex end result
 - The term wallet often includes agent functionality
 - Other terms are more separate and distinct
 - Wallet already is a shared design pattern outside of the SSI space, agent is abstracted inside of the wallet

Discussion

How does this ecosystem understanding relate to how your technology/business works?

What do we do next with this work?

- Publish them
- Present to DIF and CCG

Glossary next steps

If you want to join the next cycle of work.

[SIGN UP TO GET](#) CALENDAR INVITES TO
MEETINGS Monday's 2pm-3pm pacific time

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-Do it again with more terms?

-Which terms?

-Who will lead?

-Possibly have parallel teams covering more ground?