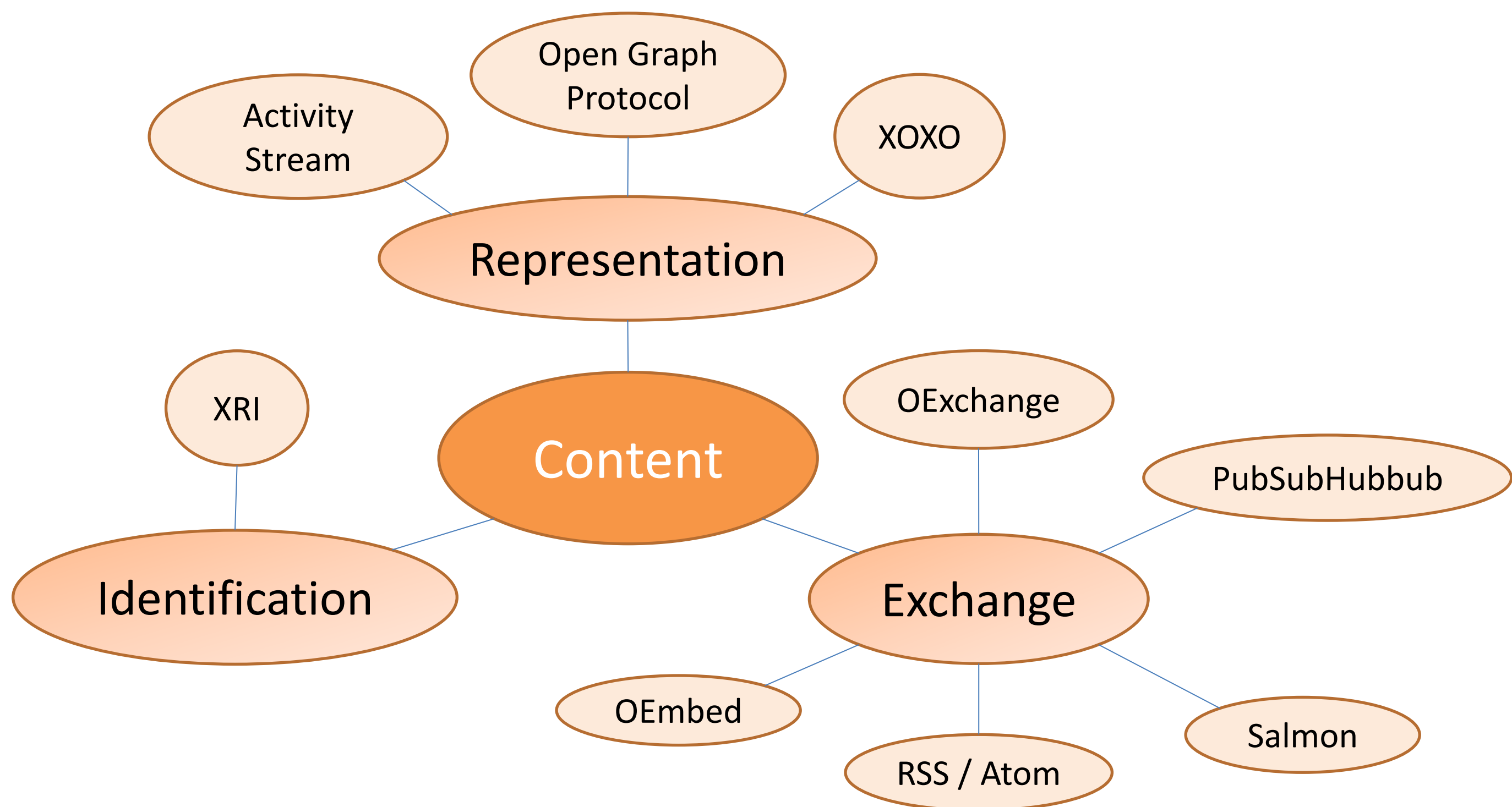


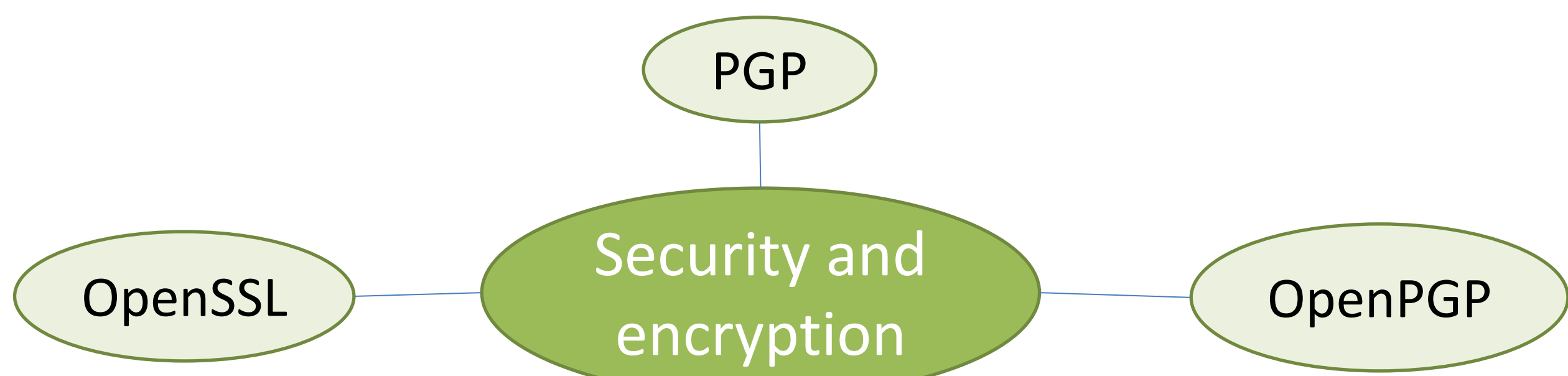
Decentralized Social Networking Platforms: Current Status and Trends

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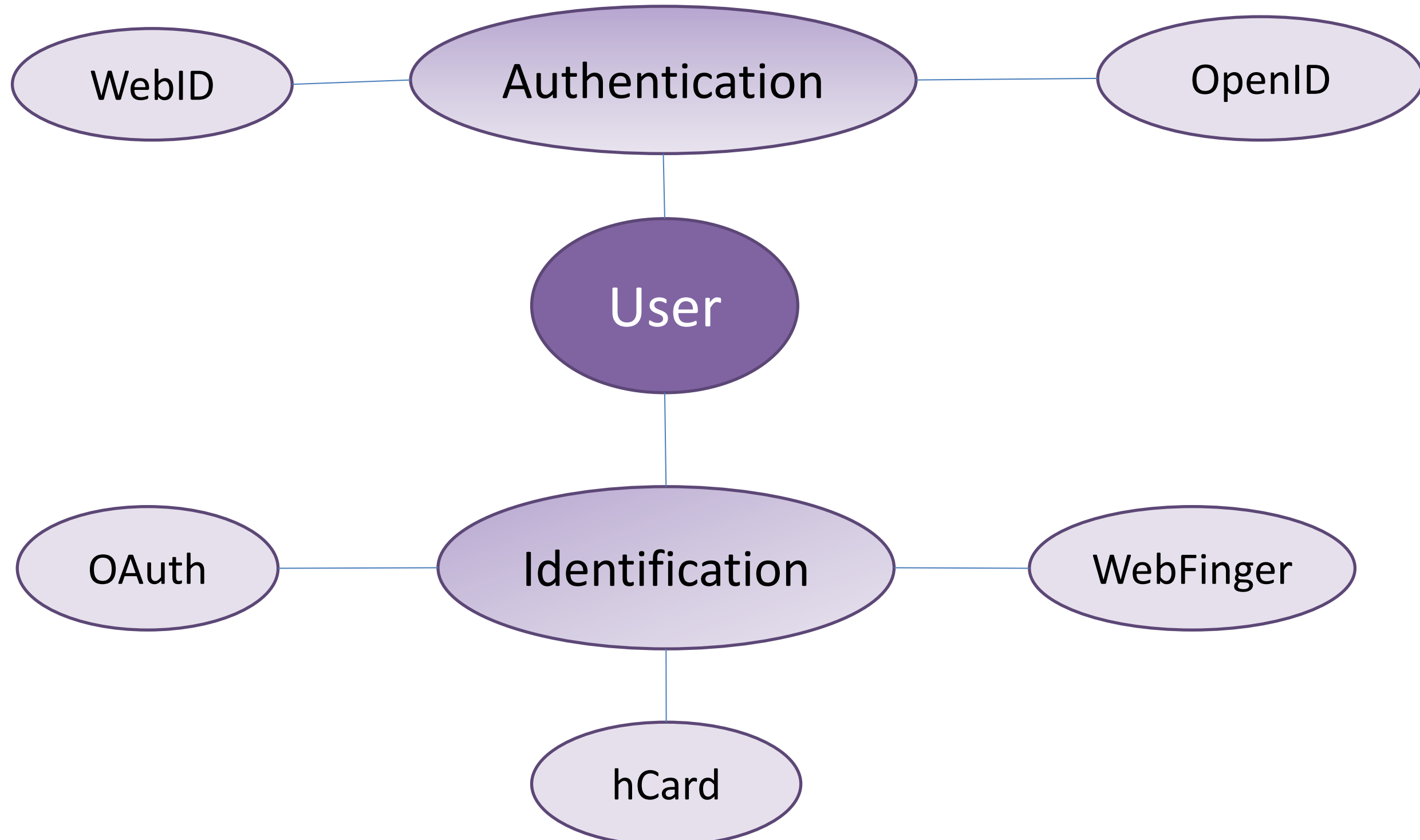
Protocols Used by Existing DOSN Platforms



Content protocols identify, represent and exchange social content (e.g. posts, likes and comments) in DOSNs.



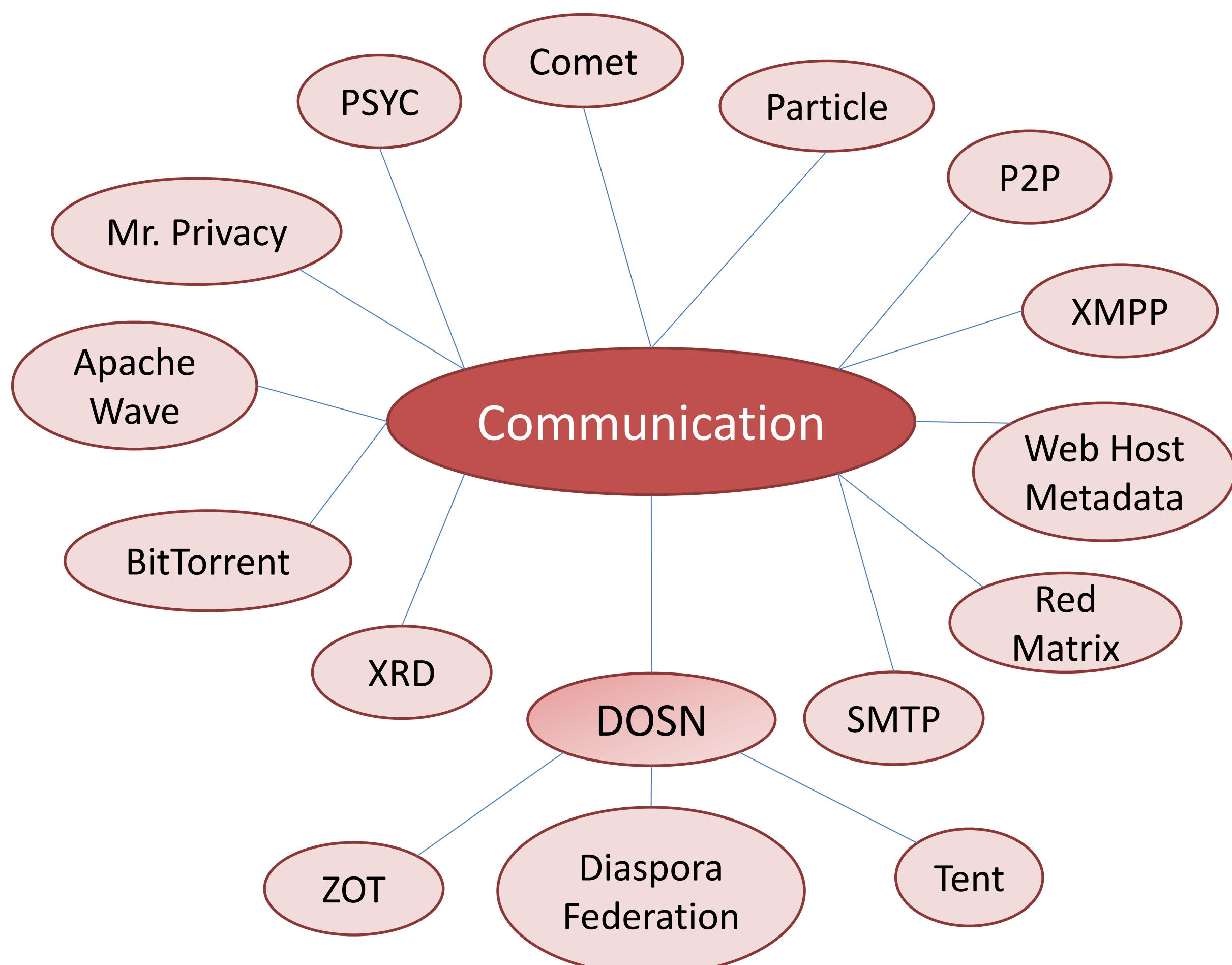
DOSN rely on protocols to make the communication as private and secure as possible.



User Protocols deal with authentication and identification. User authentication across services is an essential part of DOSNs. User identification provides limited and controlled user data to service and application without giving up privacy.

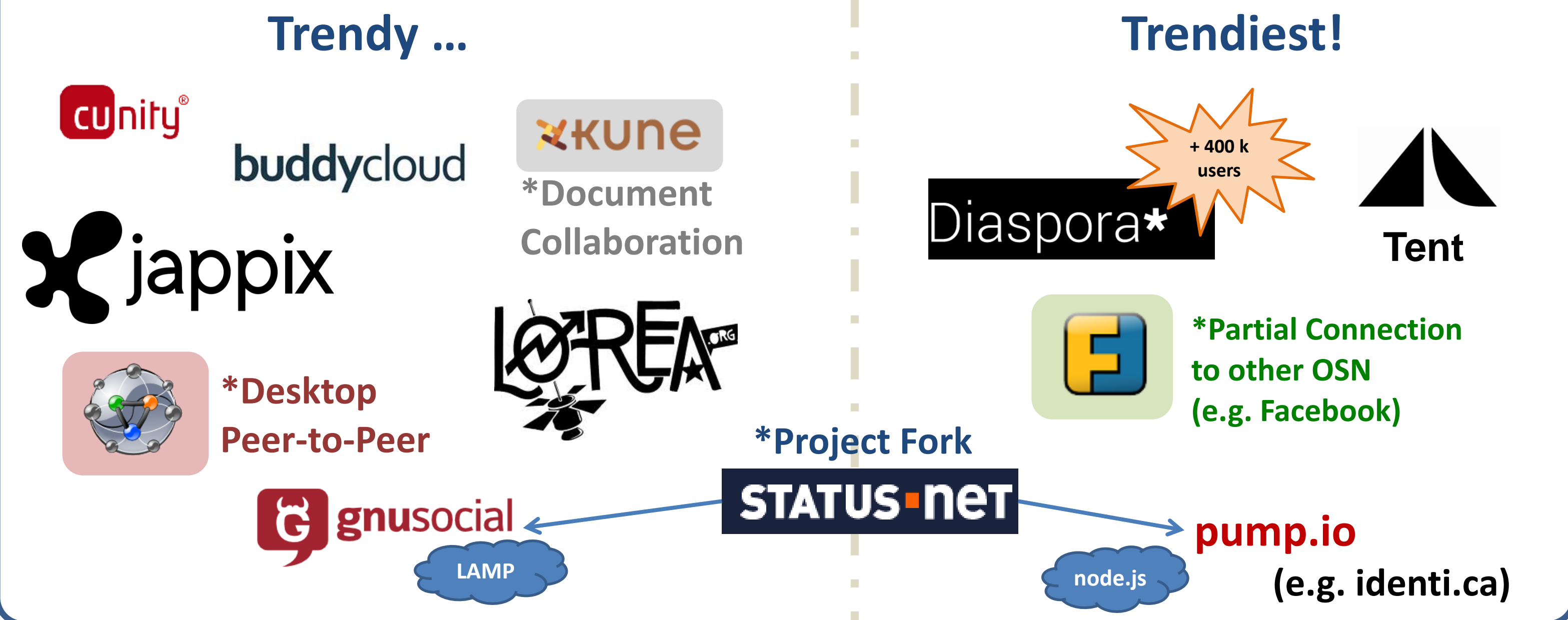


Social representation refers to protocols that express the social graph.



Communication protocols provide the overlay of the DOSN. Some protocols have been developed focusing specifically on DOSN communication.

DOSN Platforms

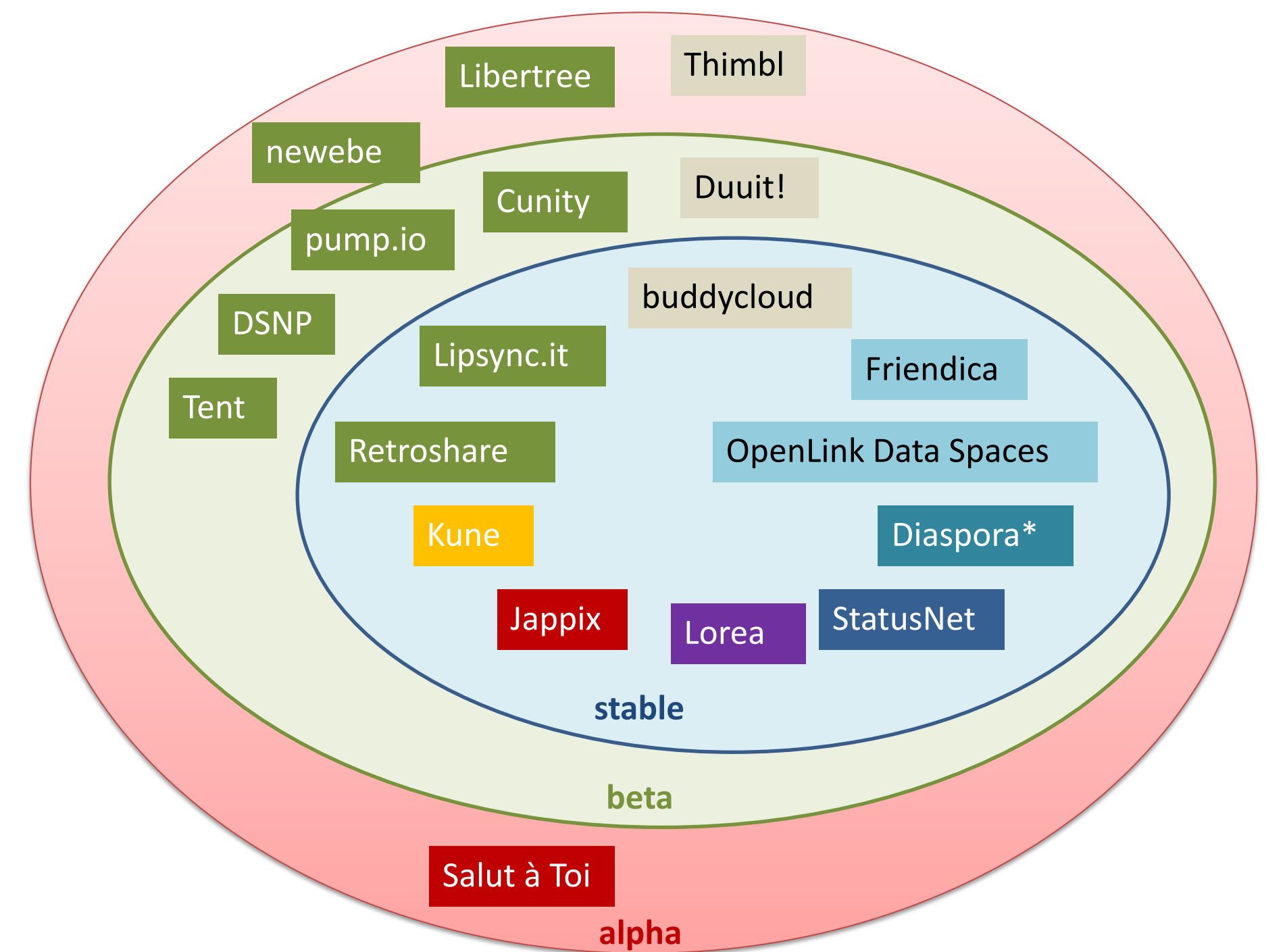


Taxonomy by Protocols and Release Stage

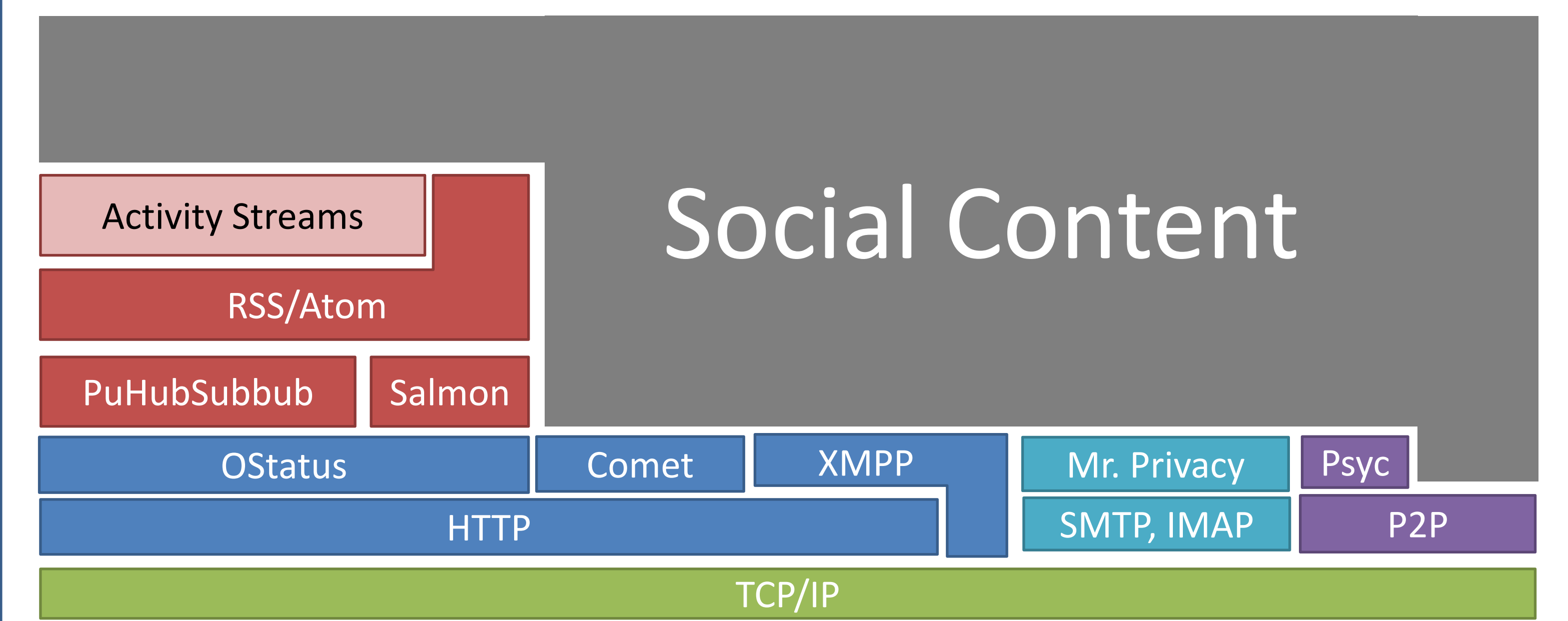
The three circles represent the release stage of the platform (i.e. the maturity of the platform).

Protocols used:

- XMPP
- XMPP + Others
- All
- XMPP + Ostatus
- Ostatus + Others
- Partial Ostatus + Others
- Ostatus
- Others



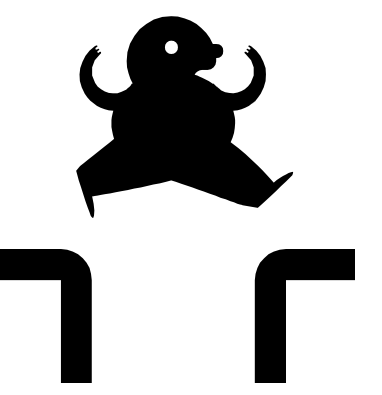
Layered Overview



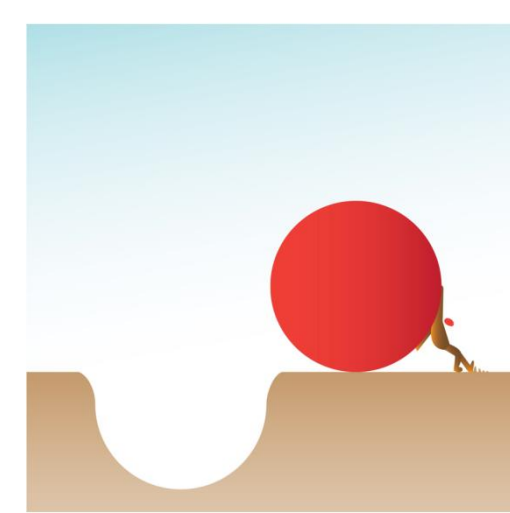
Food for thought...

Limitations

- Current federated DOSN (e.g. Diaspora*, Tent and Friendica) platforms have not been widely adopted mostly because the users require technical skills to install their own server. Otherwise they have to "trust" an administrator to host their profiles.
- Peer to Peer applications (e.g. RetroShare) have not been widely adopted because the user interface is different from widely used OSNs (mostly Facebook and Twitter) and also because an installation process is required.



Challenges



- DOSN platforms must provide their services via a web browser and through well-defined APIs (for mobile applications).
- Users should not be required to set up their own server nor "trust" system administrators to host their profiles.
- There should be mechanisms in place so that the users can host their profiles in any server without running the risk of having their data compromised.

Research

After taking a look at the existing DOSN platforms and protocols, we spotted their limitations and elaborated on how to overcome them.

➤ How to provide a user-friendly DOSN service that overcomes the limitations of the current platforms?

