## Getting Started

The reTHINK Framework is built around [Hyperlinked Entities (hyperties)](hyperty.md) that leverages the protocol-on-the-fly (ProtoFly) concept to avoid creating or modifying standard network protocols, but moving instead towards an API based flat service architecture. The reTHINK project envisages a global network of interconnected hyperties that are executed in web runtime environment on endpoints or edge-network servers. The reTHINK Framework functions are based on a series of such hyperties that are generated by the service provider, and are downloaded to the users’ endpoints. The hyperty modules represent a set of services that are stored in a Catalogue. The instantiated versions of these hyperties are registered in a Registry, which represents authenticated users who are available for in-coming connectivity service. Therefore, the Registry serves as a location manager and is used for user discovery. A user can be a human being, a group or, a connected object (e.g. building room with sensors). Users have independent identities that are maintained by Identity Providers (IdPs) that are independent organizations. On enquiry, these IdPs vouch for users’ authenticity and return the URL of the users’ domain, which enables finding destination users. The users’ identities are based on their personal and confidential data, which is verified by other solicited data, but such private information is only divulged under user-controlled privacy rules.

In order to setup your own reTHINK Framework, you should install the following components (docker images available):

* the [Hyperty Catalogue](https://github.com/reTHINK-project/dev-catalogue)
* the [Hyperty Domain Registry](https://github.com/reTHINK-project/dev-registry-domain)
* the [Vertx Message Node](https://github.com/reTHINK-project/dev-msg-node-vertx). Other Message Nodes will be available including for [Matrix](https://matrix.org/) and for [NodeJS](https://nodejs.org/en/).

Very soon a live public reTHINK environment will be provided, to let you publish and try your Hyperties or Apps without the need to install anything.

### How to contribute

This section provides guidelines on how to contribute to reTHINK Service Framework. Contributions to other reTHINK components should follow its own guidelines:

* [Hyperty Core Runtime Development guidelines](https://github.com/reTHINK-project/dev-runtime-core/blob/master/readme.md#developer-view);
* [Hyperty Browser Runtime Development guidelines](https://github.com/reTHINK-project/dev-runtime-browser);
* [Hyperty Nodejs Runtime Development guidelines](https://github.com/reTHINK-project/dev-runtime-nodejs);
* [Development guidelines for new Hyperty Runtime Platforms](https://github.com/reTHINK-project/dev-runtime-core/blob/d3.2-working-docs/readme.md#browser-runtime);
* [Vertx Message Node Development guidelines](https://github.com/reTHINK-project/dev-msg-node-vertx);
* [Matrix Message Node Development guidelines](https://github.com/reTHINK-project/dev-msg-node-matrix);
* [NodeJS Message Node Development guidelines](https://github.com/reTHINK-project/dev-msg-node-nodejs);
* [Development guidelines for new Message Nodes](docs/manuals/development-of-protostubs-and-msg-nodes.md); -