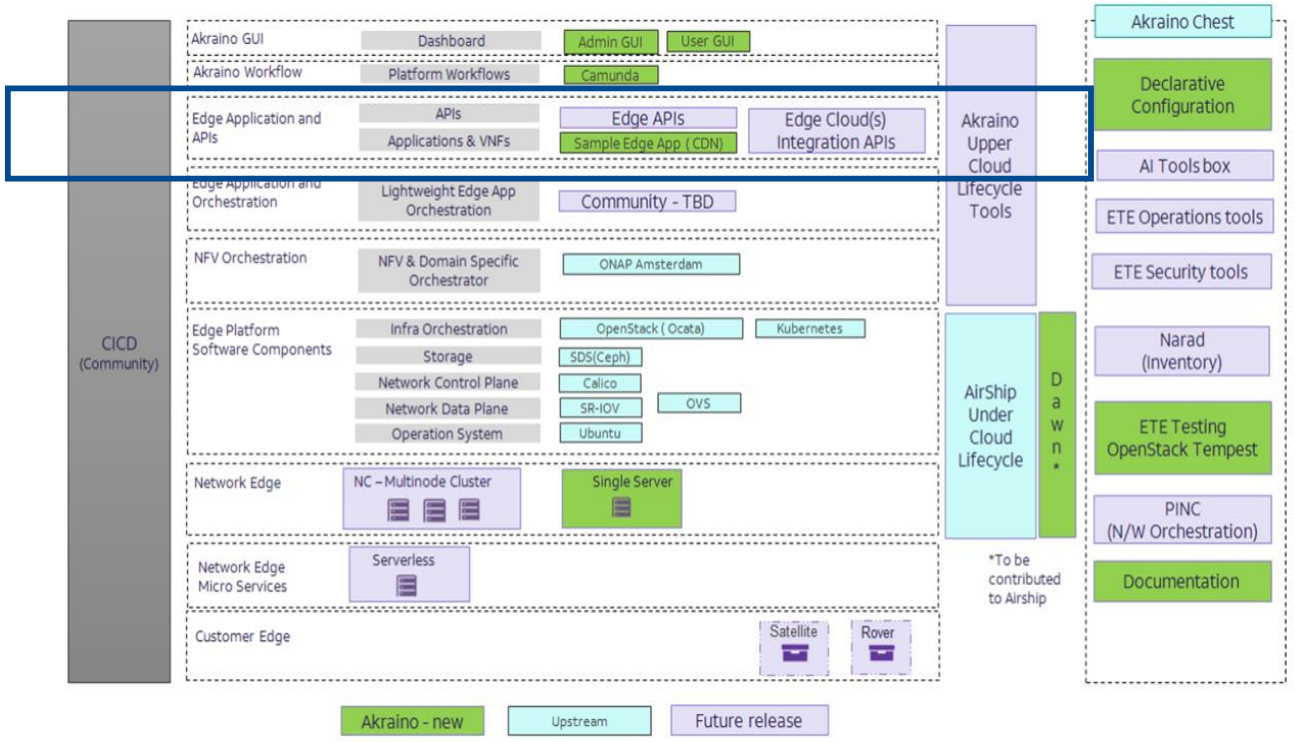
API framework

API Framework is a collection of mechanisms to enable applications in distributed cloud. The framework offers services that bring applications and services together by allowing application to offer or consume services either locally or remotely. The basic functionalities of API framework are **service registration, services discovery, new service notifications and service availability notifications.** The services can be offered by a platform that provides this API framework or applications that are associated with this framework, and with these functionalities a microservices environment can be created.

The basic communications protocol is over RESTful Http, but for services that require more powerful or one to many communications, **the API framework supports discovery for alternative transports such as MQTT, AMQP, Kafka or other transports.**

The API framework in scope of the work, is built on OpenAPI2.0/3.0 definitions of ETSI MEC available at forge.etsi.org



Akraino Telco Cloud Reference Arch

Building blocks to enable Apps in Distributed Cloud

Application Enablement (API Framework)

A framework for delivering services which may be consumed or offered by (***locally hosted or remote***) authorized applications. It enables:

- registration, announcement, discovery and notification of services;
- communication support for services (query/response and notifications).

API Principles

A set of API principles and guidance for developing and documenting APIs inside or outside ETSI which ***ensures that a consistent set of APIs*** are used by developers.

The work was inspired by the TMF and OMA best practices.

The APIs are designed to be ***application-developer friendly*** and easy to implement so as to ***stimulate innovation*** and foster the development of applications.

Specific service-related APIs

Services ***expose network and context information*** via specific service-related APIs.

A different set of services may be applicable at different locations

Management and Orchestration related APIs

Facilitate the running of applications ***at the correct location at the right time***, based on technical and business parameters

Enables a myriad of new use cases across multiple sectors as well as innovative business opportunities

Examples of service-related APIs (ETSI MEC)

Flexible framework to allow services ecosystem in distributed clouds