RDP (:3389)

Virtual Network Gateway

SSH (:22)

vHUB VNet

Default subnet

Ubuntu VM

Datadisk

APPS API (Nodejs)

STORAGE API (Nodejs)

FEEDS API (Nodejs)

API (Nodejs)

DATABASE Adapter (ORM)

Apache

Control Center (Web Interface)

Private Link

MySQL Server

Windows VM

VMWORKER (Nodejs)

3D Converter

HTTPS over TCP (:443)

Web Browser

vSTAGE Client

API:
A REST API using Nodejs and Swagger. Used for reading/writing data from and to the database. The authentication uses username and password, the API sends the auth token back to use for further API calls.

STORAGE API:
A REST API using Nodejs and Swagger. Used for reading/writing files from and to the datadisk.

APPS API:
A REST API using Nodejs and Swagger. Deploys visually customized Vuejs-Apps to the storage which then can be called like this:
https://apps.vhub.ch/myAppSlug
The apps go over the public REST API, not directly over localhost.

FEEDS API:
A REST API using Nodejs and Swagger. The feeds api receives IoT data for example the temperature data of a machine. It can either be received by a call to the REST API or through an azure event hub.

Control Center:
The control center is the interface (what you see on https://vhub.ch). It gets its data from the public REST API, not directly over localhost. The frontend is based on Vue.js

vSTAGE Client:
The vSTAGE client is an application (Windows, Android, OSx, iOS), although it is currently mostly used on Windows.

VMWORKER:
The vmWorker receives the 3D data from the API, saves them on the machine and triggers the 3D conversion process. It updates the progress via the REST API and sends the data back to the API, which then transfers the files to the storage and creates also some database entries.
The authentication is based on JWT, if there are multiple Windows VM's, each machine gets their own private key to authenticate.