# RESCALE deployment at EMOTORS

14/10/2020
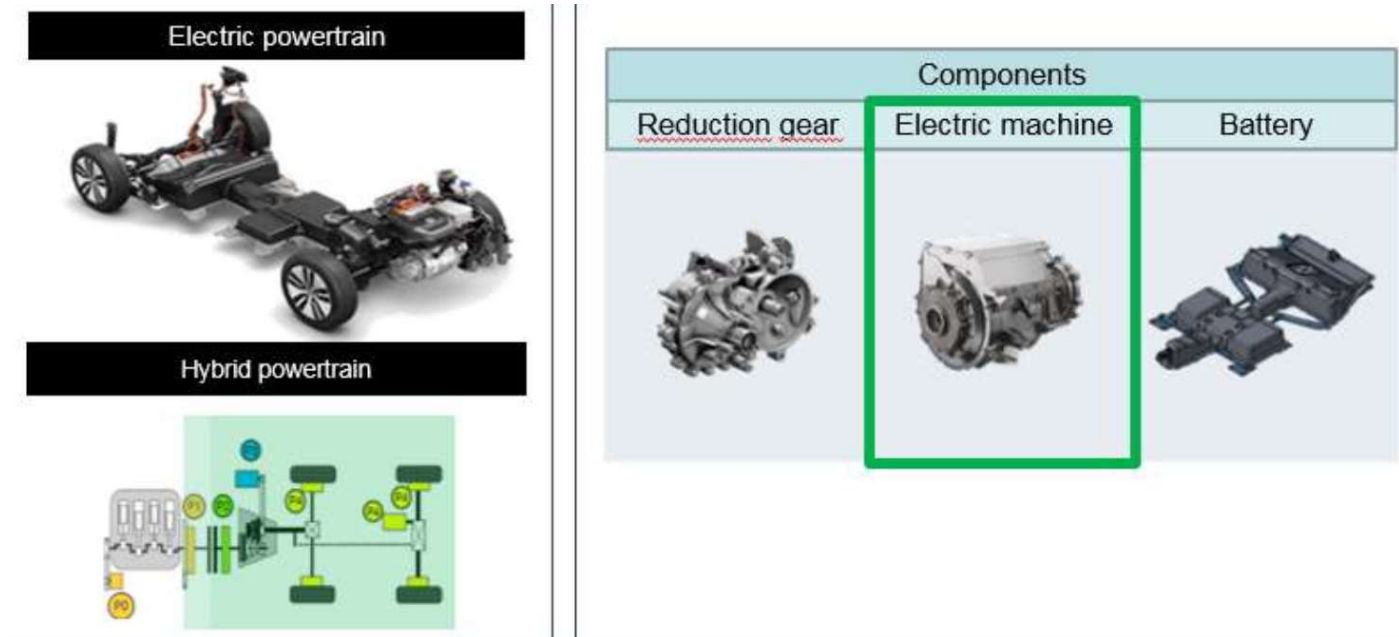
PHILIPPE PERON

philippe.peron@emotors.com

- **PSA Groupe and Nidec Corp. (through its subsidiary Leroy-Somer) have decided to join forces to create a leader in electric powertrain, specializing in electric machines (engine + inverter): The Nidec PSA eMotors Joint Venture, a newly created entity 50/50 owned by both groups.**

- **R&D need more powerful solutions for CFD, NVH and Electro-Magnetic simulations**

- **Need (estimate)**
  - CFD : 20h/week on 128 cores
  - Electro-Magnetic : 20h/week on 16 cores
  - NVH : 20h/week on 64 cores

- **Constraints**
  - On premise solution not possible
  - No IT team (only IT Leader)
  - Rapid deployment
  - Number of hearts to validate
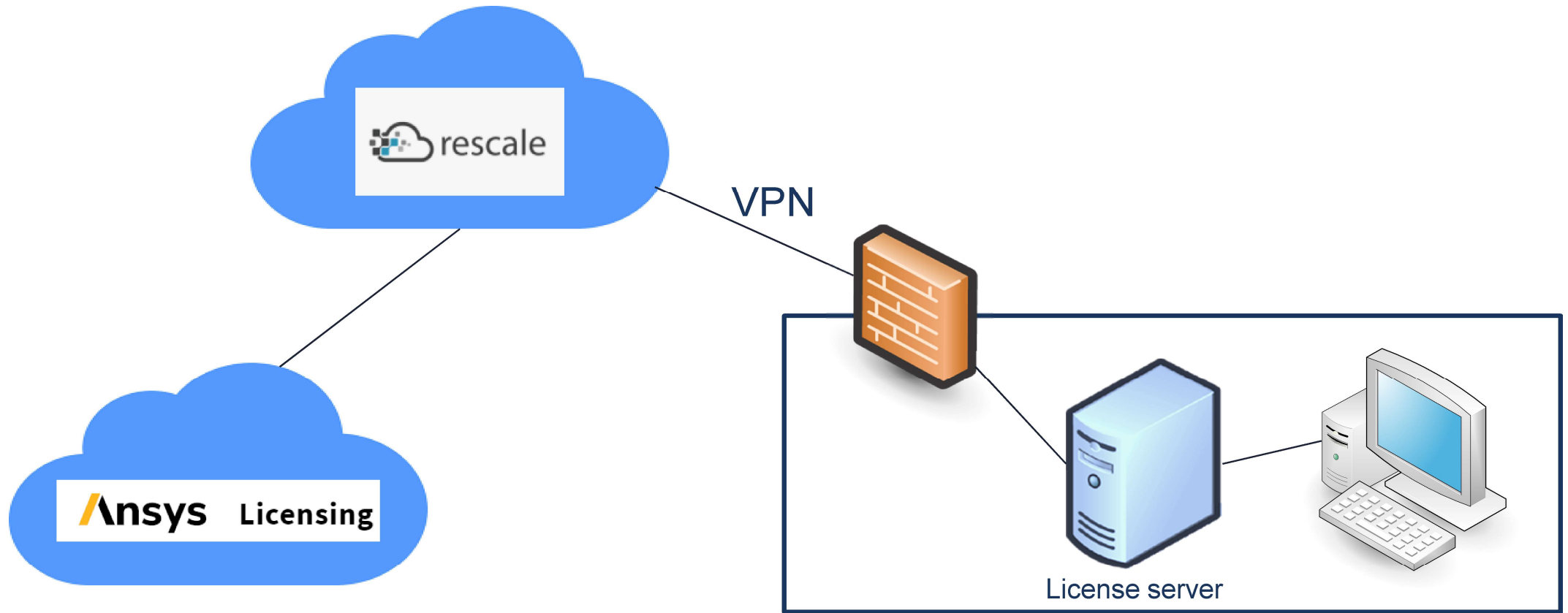  - License server on site (legal constraint)

# 03 – Project steps

- **Pre-Study**
  - Paas : POC mandatory, schedule, RUN organization to be define
  - Saas (like RESCALE) : rapid deployment, adjustable power, RUN manage by the provider

- **Step 1 (09/2019)**
  - RESCALE subscription for 3 months
  - Lease ANSYS Elastic license (license store on ANSYS) Cloud

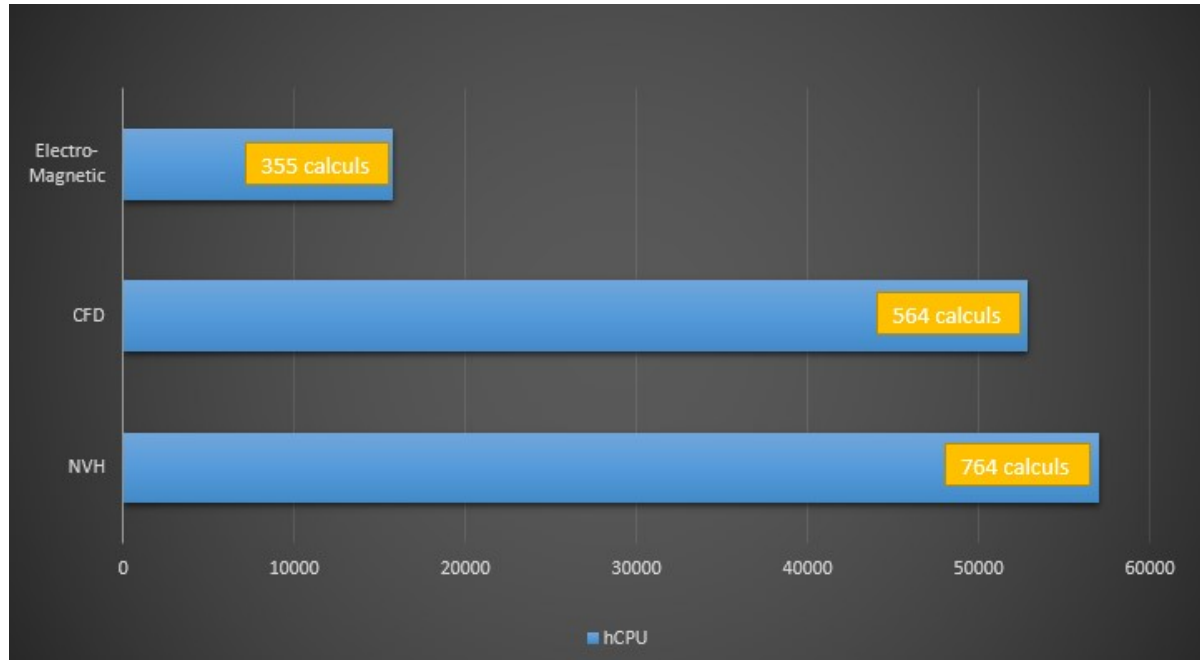- **Step 2 (12/2019)**
  - Tests JMAG with temporary license

- **Step 3 (01/2020)**
  - VPN connection between license server and RESCALE
  - Open NVH and Electro-Magnetic access

VPN

License server

- **Feedback**



- **Next step**
  - Storage output simulation file on the Cloud (link between simulation result and our PLM on Cloud)
  - MATLAB runtime calculation (POC ongoing)