Introduction of CMCC Intelligent Network Open Innovation Platform

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Background-Introduction of Intelligent Networking

- What is Intelligent Networking?
  -A network empowered by AI technologies and systematic integration of AI and communication network on hardware, software, systems and processes to realize lower cost, higher efficiency and agile business.

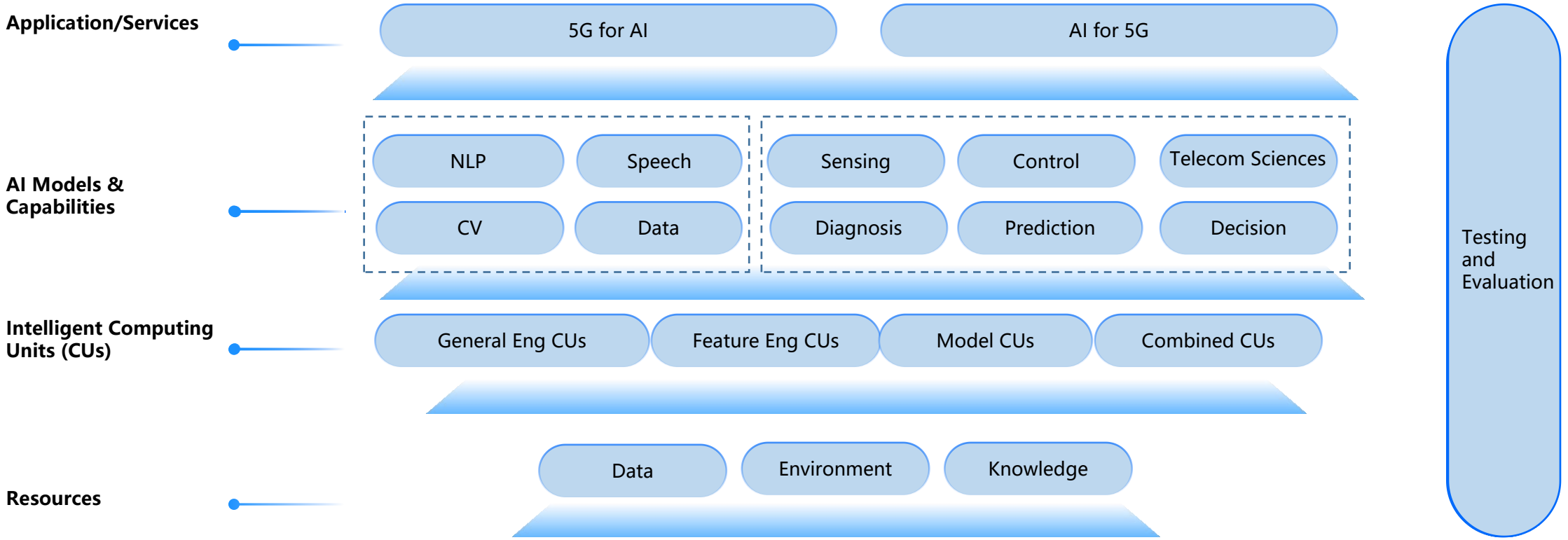
- What is Intelligent Networking Ecosystem?
  - Through open source and standards organizations, jointly build intelligent network ecosystem, share network intelligent R&D resources, define industry standards, and provide open source reference implementations.

Action for Building Intelligent Network Ecosystem

In order to solve the bottleneck problems of network intelligence and stimulate innovation vitality to build the open innovation platform for intelligent network

➢Provide the basic platform and innovation environment required for 5G+AI technology and application R&D

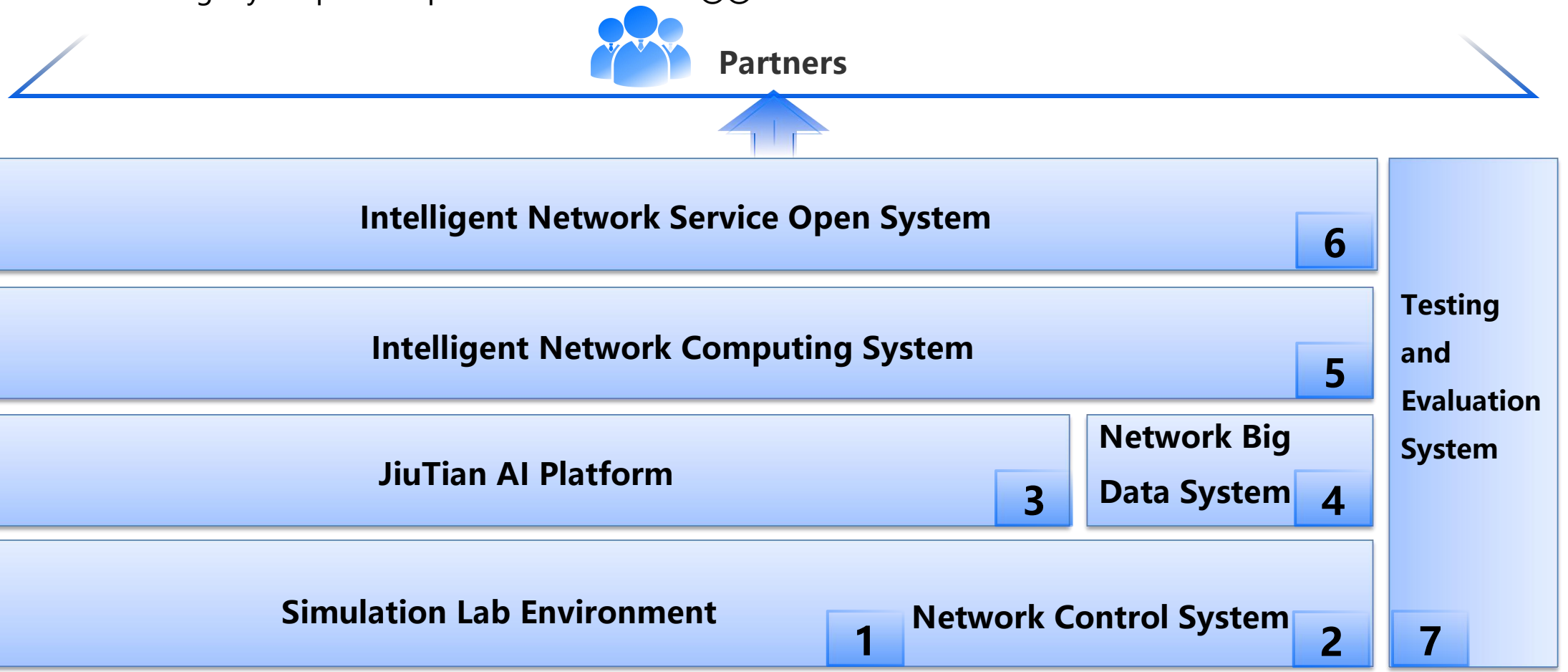
➢Form a tightly coupled industrial collaboration ecosystem with experimental environment and computing environment as the core



CMCC Intelligent Network Open Innovation Platform

In order to solve the main challenges in the advancement of network intelligence, we build open innovation platform-

- Provide a **flexible test environment** to support innovation, verification, and large-scale testing of network intelligence technologies → ①②
- Realize technical research and breakthrough for the systematic and intelligent communication network → ③④⑤
- Provide an industrial joint innovation platform, break through the original industrial chain collaboration mode, and build a platform-based ICT tightly coupled cooperation mode → ⑥⑦

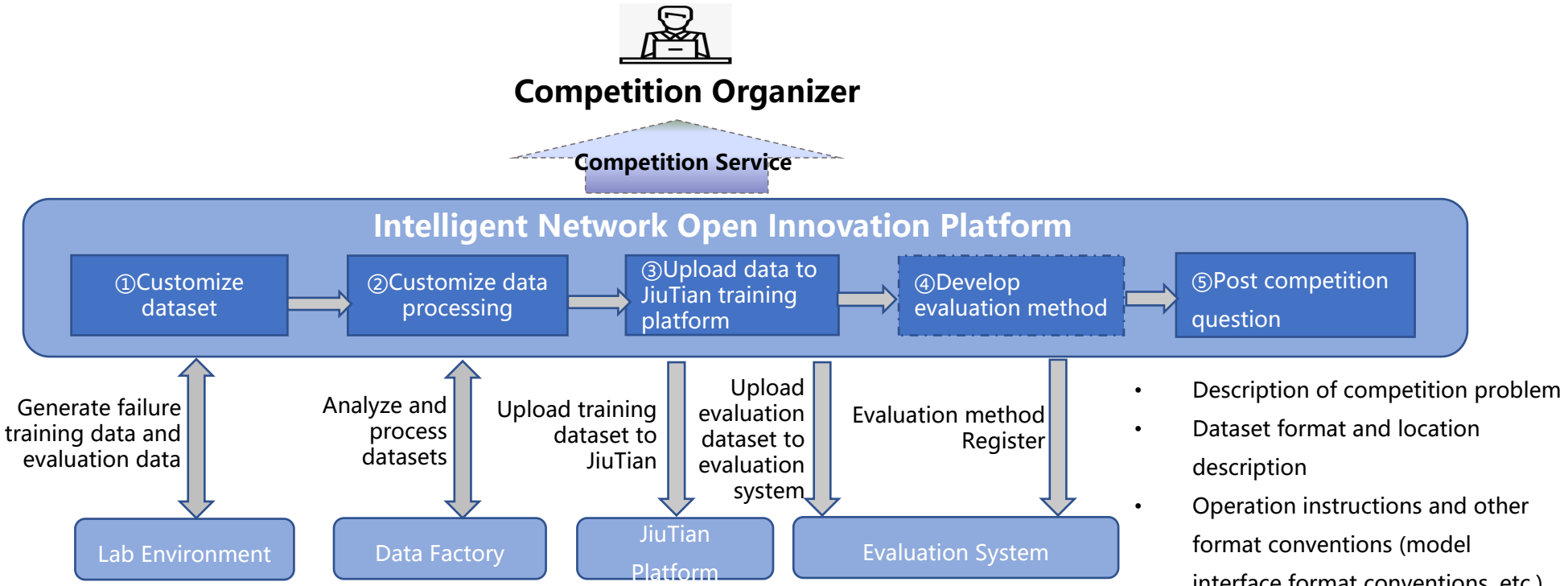


How does Open Innovation Platform supports AI competition

Ex: failure recognition

Competition stage: 1.Curation Phase → 2.Competition Phase → 3.Evaluation Phase

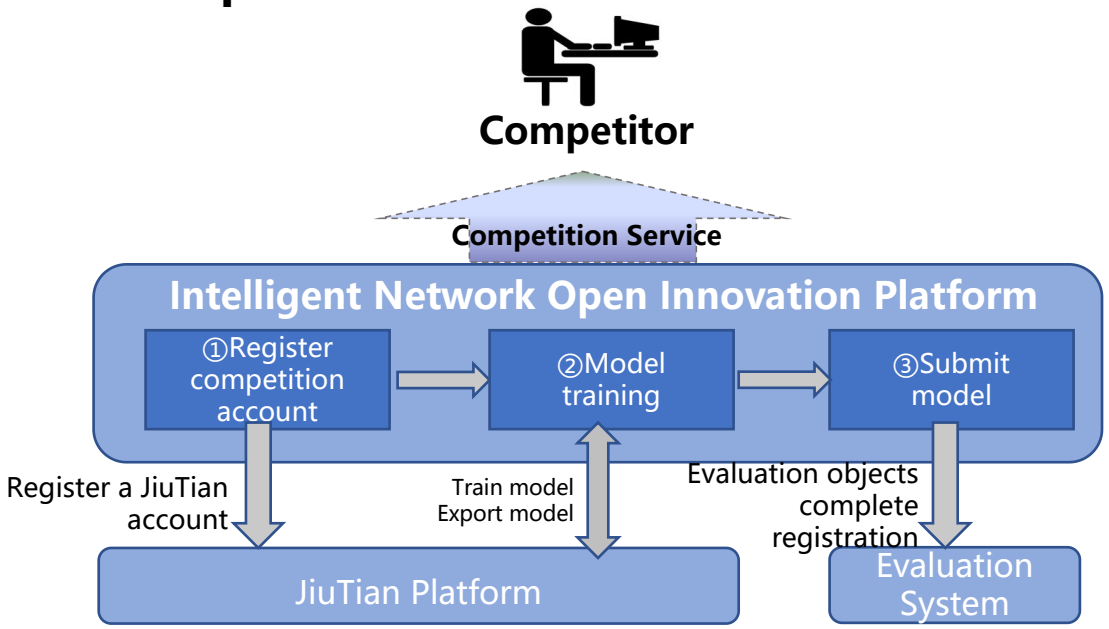
1. Curation Phase: prepare for the competition



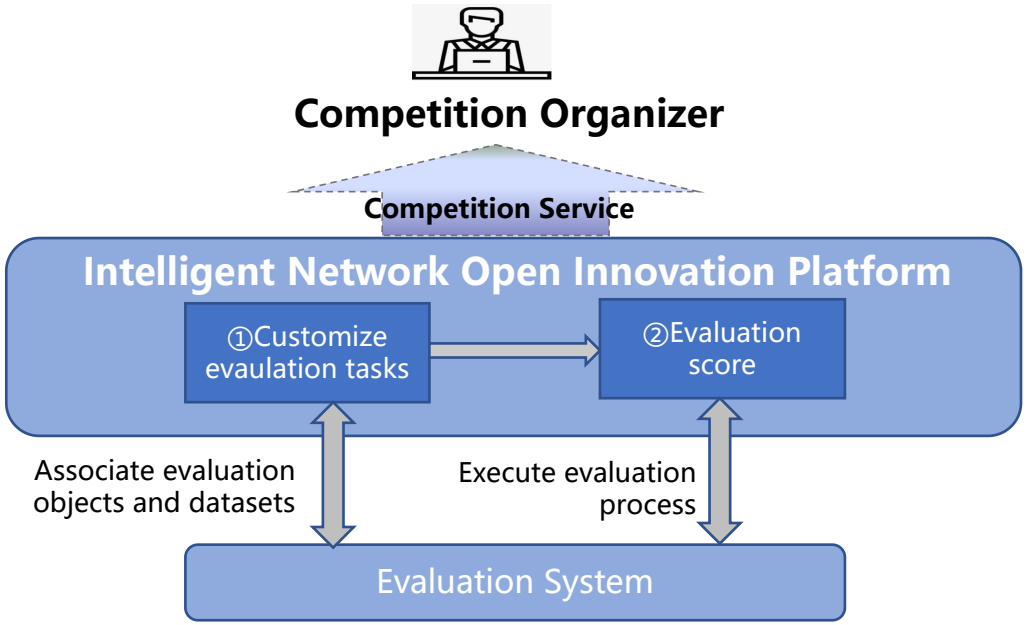
- Description of competition problem
- Dataset format and location description
- Operation instructions and other format conventions (model interface format conventions, etc.)
- Evaluation method of competition results

How does Open Innovation Platform supports AI competition

2. Competition Phase



3. Evaluation Phase



Process of executing evaluation system

Step1 Preparation for evaluation

Evaluation object provider

- According to the requirement of evaluation system, encapsulate the object to be evaluated
- Provide category tags, register to the evaluation system

Step2 Preparation of the evaluation environment

Evaluation environment provider

- Provide evaluation dataset or evaluation environment
- Provide category tags, register to the evaluation system

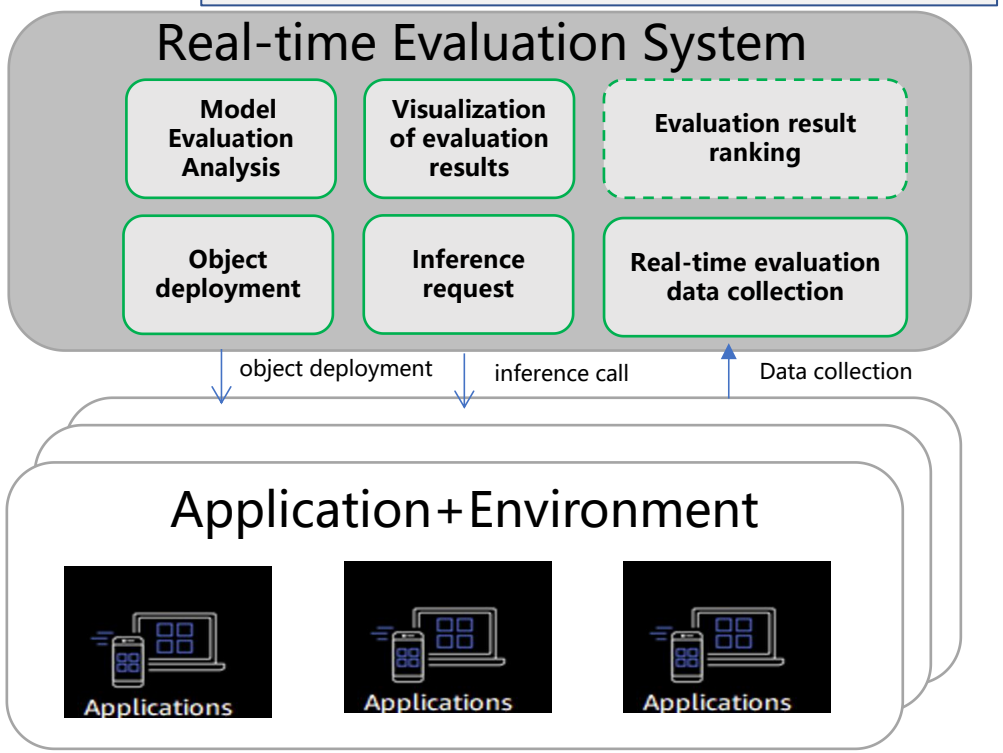
Model file or image

Evaluate environment information or dataset

Evaluation Executor

Step3 Execution of evaluation tasks

- Manually associate the evaluated object and evaluation environment according to category label, and define evaluation task
- Execute evaluation tasks and collect evaluation resultS



Collaboration Recommendations

- **First round of ITU competition:** CMCC generate and open data to competitors
- **Afterwards:** Consider connecting to JiuTian platform and evaluation system
- **Others…**