Thoth work plan in next step
- for Anuket TSC Review

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Thoth Work Plan- For TSC Review

- Last week, Thoth project team has discussed work plan for this year, including Network Intelligent Collaborative Innovation Project and other works in Moselle Release. Please refer to the appendix for detailed content.

- As newly established project, the goal and works of Network Intelligent Collaborative Innovation Project include:

  - **Goal:** Gather operators, vendors, research institutions, etc. to share model scenarios and data/R&D resources according to common network intelligence requirements of industry, jointly construct network intelligence algorithm models, then create network intelligence collaborative innovation ecosystem.

  - **Project Works:**

    (1) **Platform:** Used to submit, store and maintain network intelligence scenario description files, data, and models

    (2) **Use case scenario:** Collect and review network intelligence scenario requirements

    (3) **Model:** Network intelligence scenario model R&D

    (4) **Data:** Network intelligence dataset construction

    (5) **Evaluation:** Network intelligence scenario model evaluation and ranking

Request Input/Decision from TSC

Network Intelligent Collaborative Innovation Project request input/decision from TSC in three aspects: technical review, resources storage, and project publicity.

1. Technical Committee

Background: The quality of collected network intelligence scenario reqs would be uneven, currently there is no special organization to control the quality of scenario reqs before release.

Requirements: Recommend to recruit and set up a special technical committee to conduct pre-release review of network intelligence scenario requirements. Optional method for recruiting experts to bulid technical committee-

- Recruit experts through Thoth
- Recruit experts through Anuket TSC
- Recruit experts through LFN TAC, EUAG
- Recruit experts through LFN and LF AI jointly

Request Input/Decision from TSC

2. Resources Storage

Background: The amount of data required for network intelligence scenario model training is huge (such as unstructured datasets,like network device pictures,etc.), and Git cannot support large-scale data resources storage requirements. A public repository needs to be established to store network intelligence scenario datasets.

Requirements: Request TSC's help to provide advice on the solution of public storage , which storage capacity for unstructured data should be at least GB level.

Request Input/Decision from TSC

3. Project Publicity

Background: The network intelligent collaborative innovation project is a newly established project, which urgently needs large-scale external publicity to attract scenario reqs and resources contributors.

Requirements: Request TSC's support for project publicity, including-

- Contact LFN MAC to sort out the project publicity plan
- Organize DTF, Webinar, etc. meetings to publicize the project
- Others

Thank You

Thoth work plan in next step

- **Network Intelligent Collaborative Innovation Project**
- Other works in Moselle Release

Background-Introduction of Intelligent Networking

- **What is Intelligent Networking?**

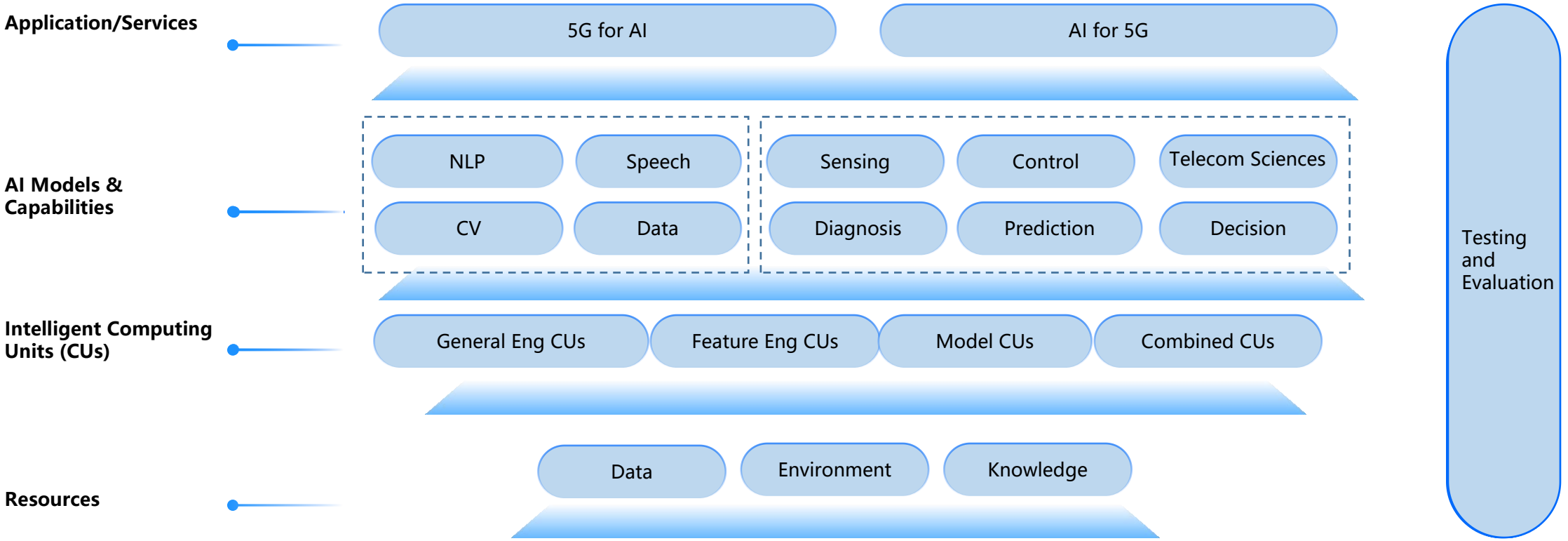
  -A network empowered by AI technologies and systematic integration of AI and communication network on hardware, software, systems and processes to realize lower cost, higher efficiency and agile business.

- **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

- The current bottleneck problems of network intelligence technology include data, algorithms, etc.
- In order to solve these problems, LFN Board Chair -Dr. Junlan Feng proposed at LFN ONEEF that it is better to connect industry organizations in LFN, establish joint working group for open source network innovation.



Action for Building Intelligent Network Ecosystem-Network Intelligent Collaborative Innovation Project

- **Goal:** Gather operators, vendors, research institutions, etc. to share model scenarios and data/R&D resources according to common network intelligence requirements of industry, jointly construct network intelligence algorithm models, then create network intelligence collaborative innovation ecosystem.

- **Project Works:**

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Network Intelligent Collaborative Innovation Project Platform

- According to reqs of algorithm model co-construction of the network intelligent collaborative innovation project, develop and open Git platform (repo) .

(*Plan to open in July*)

- **Platform capabilities**
  - Scenario requirements description submission and storage
  - Scenario resources storage (include data, evaluation programs, etc.)
  - Model submission and storage
  - Model evaluation result ranking
  - Review and open scenarios, resources, evaluation results
- **Call for contribution**：Responsible for building project platform on GitHub or GitLab, daily manage and maintain the platform
- **Contributors**：**?**

Network Intelligence Scenario Requirements Management

- Collect network intelligence scenario requirements from operators, and organize scenario reqs review, submission and launch (the first round of reqs launch will be completed in July).
- **Call for contribution:**

(1) Responsible for regularly collecting operators' network intelligence scenario requirements.

(2) Review whether the resources required for the development of scenario models are sufficient.

(3) Organize the scenario requirements online and lauch at the platform.

- **Contributors:** Lei Huang、Sridhar、Others?

Network Intelligence Scenario Model R&D

- According to the AI technologies researchers are good at, develop and submit models to the platform repo
- **Call for contribution：**

（1）Moselle release scenario model development, including Failure Prediction, Log Analysis

（2）Model R&D for network intelligent collaborative innovation project scenario requirements

- **Contributors：** Rohit、Girish、others?

Network intelligence dataset construction

- According to the reqs of network intelligence scenarios, realize the construction of network intelligent data set
- **Call for contribution：** Scenario requirements bring data, and jointly build network intelligent scenario dataset
- **Contributors：** ?

Network Intelligence Scenario Model Evaluation

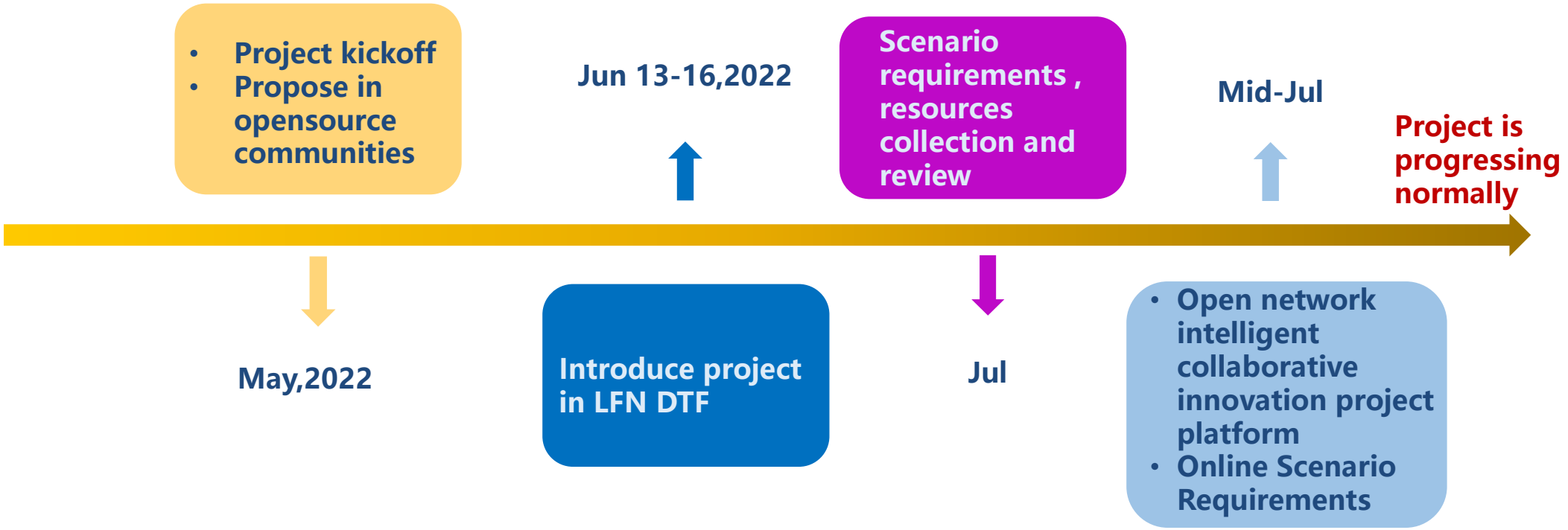
- Responsible for model evaluation and ranking based on network intelligent scenario model results
- **Call for contribution：**

  （1）Call profile scripts periodically

  （2）According to the results of the evaluation script, publish model effect ranking result

- **Contributors：**？

Project Timeline



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- Network Intelligent Collaborative Innovation Project
- **Other works in Moselle Release**

Data Generation- Using GANs

- Data generation model exploration：ITU competition - GANs algorithm
- **Status and plan：** Sample data has been generated, plan to check with ITU in mid-May
- **Contributors：** Kai Lu、Lei Huang、Sridhar

Development of Tools

- Data anonymizer and other tools research and development work
- **Contributor：** Sridhar