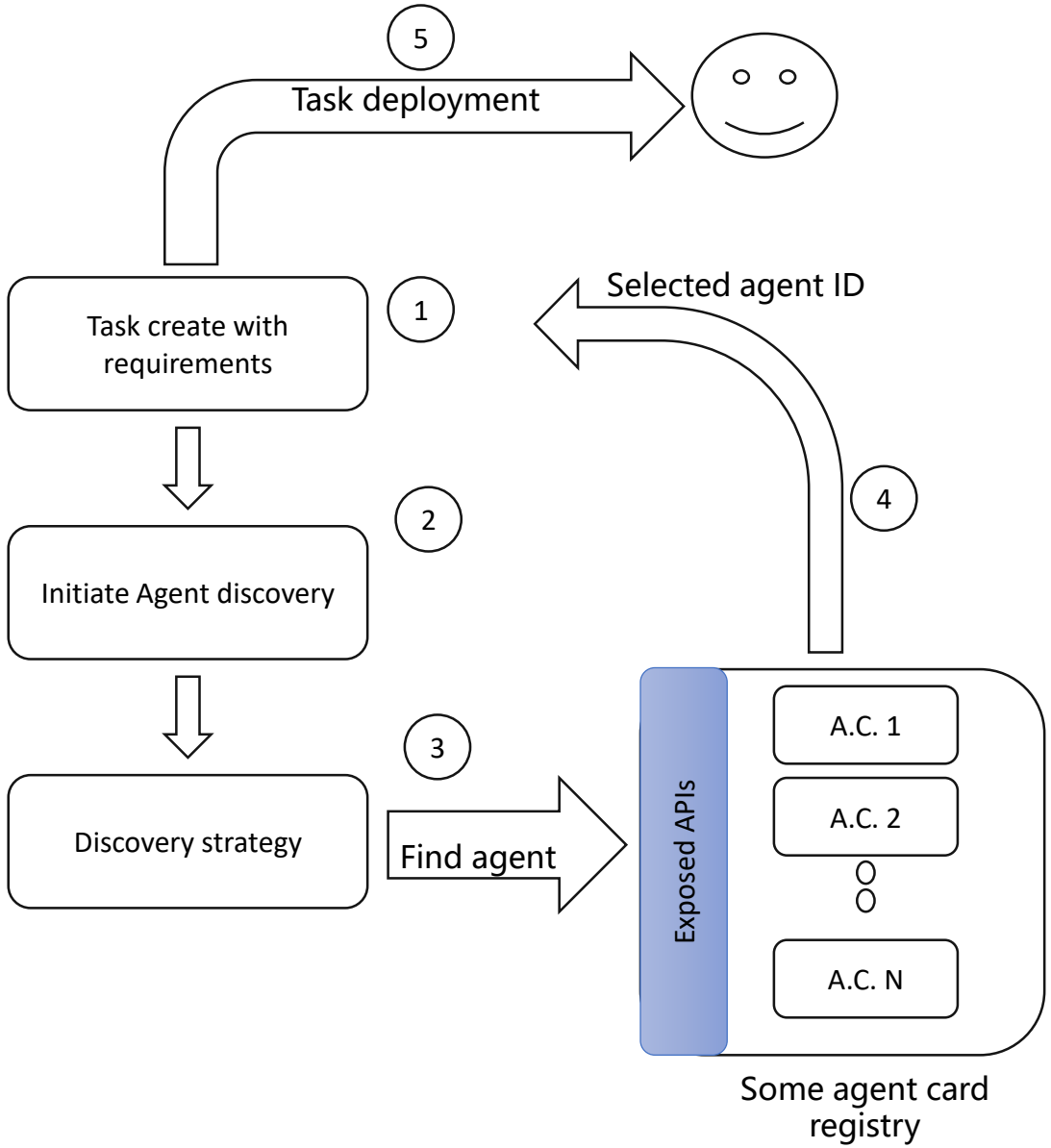
Task Discovery in AI Network

Hesham Moussa, Arashmid Akhavain

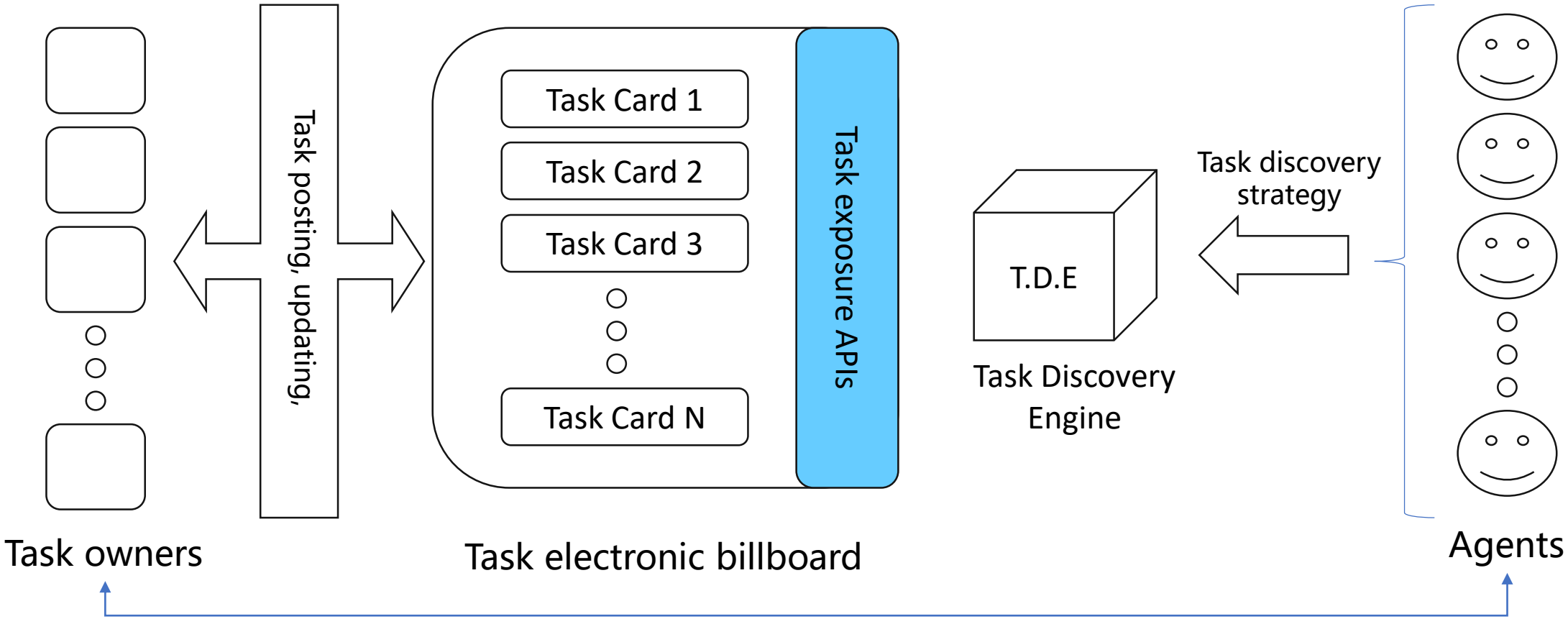
Huawei Technologies Canada

Background – Traditional Agent Discovery Framework

- Well-Known URI (DNS-like)
  - Hosted at /.well-known/agent-card.json.
  - Easy, standardized, automated discovery.
  - Best for public/domain-controlled agents.
- Curated Registries (search engine)
  - Central repository of Agent Cards.
  - Query by skills, tags, provider.
  - Supports governance, trust frameworks.
  - Requires registry deployment/maintenance.
- Direct Configuration/Private Discovery (fixed connection)
  - Hardcoded details, config files, proprietary APIs.
  - Simple for static relationships.
  - Inflexible for dynamic discovery.

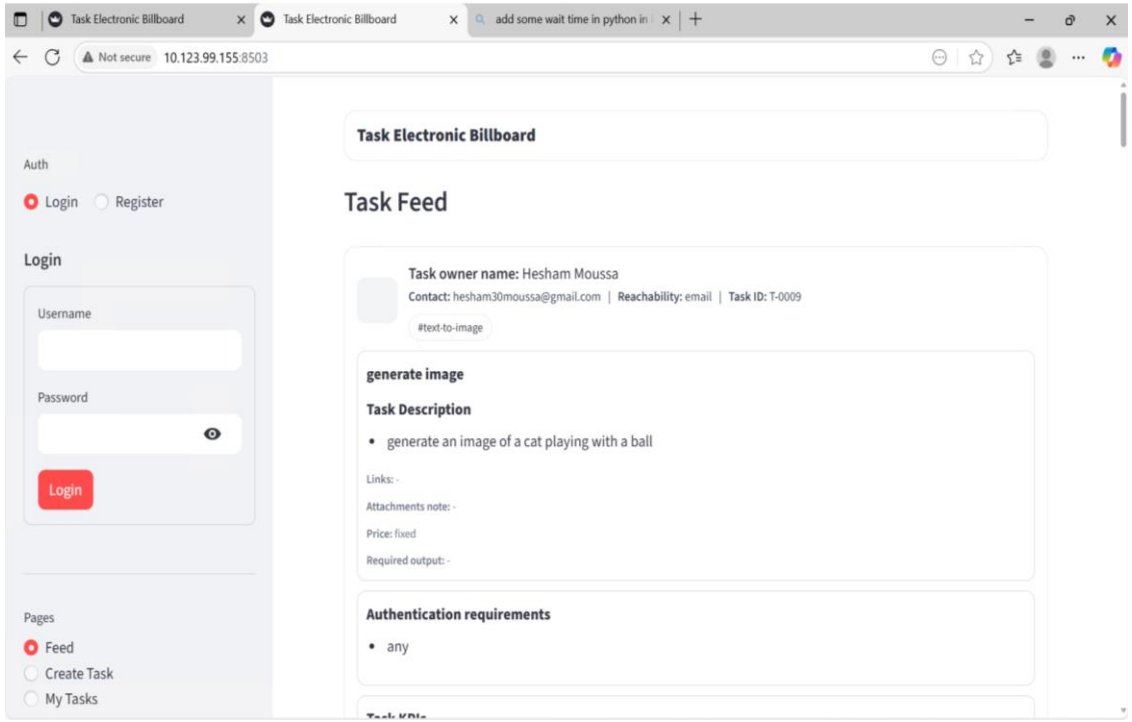


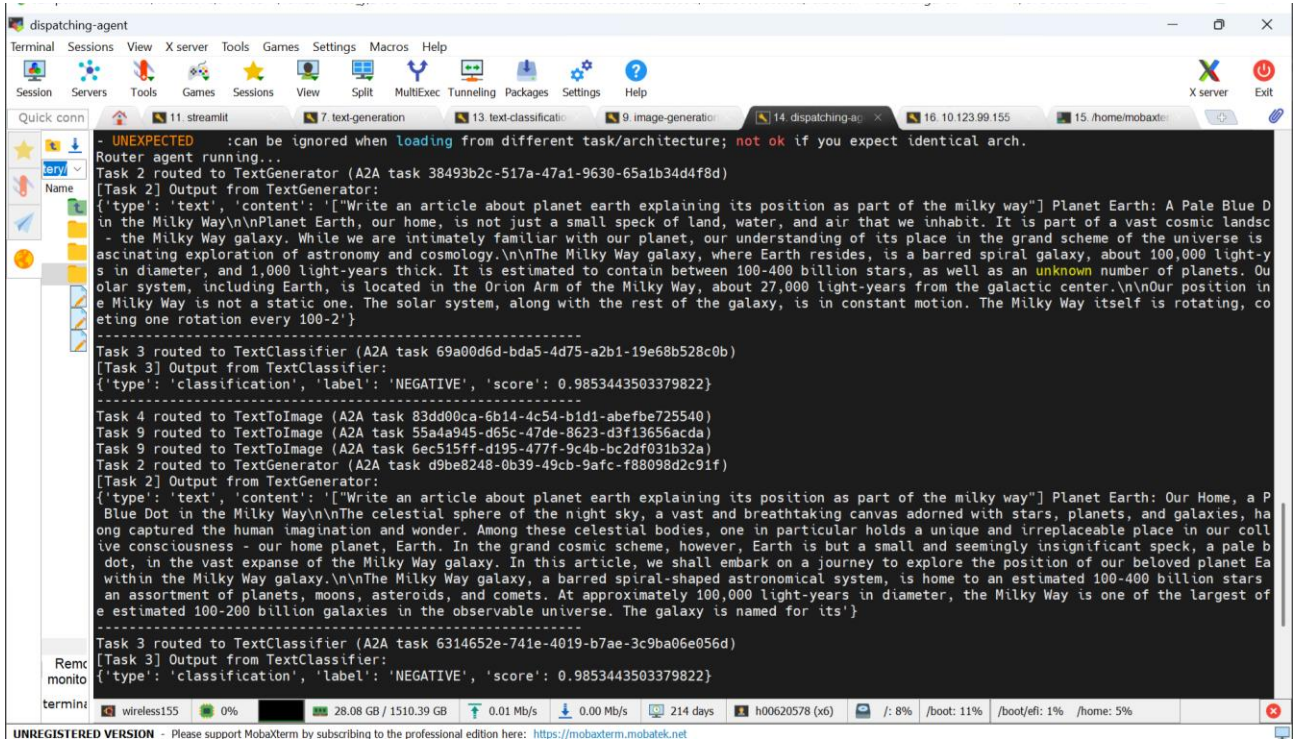
What we propose: Task Discovery Architecture



Agent to task owner communication link

What we achieve: First version of task discovery (working demo)

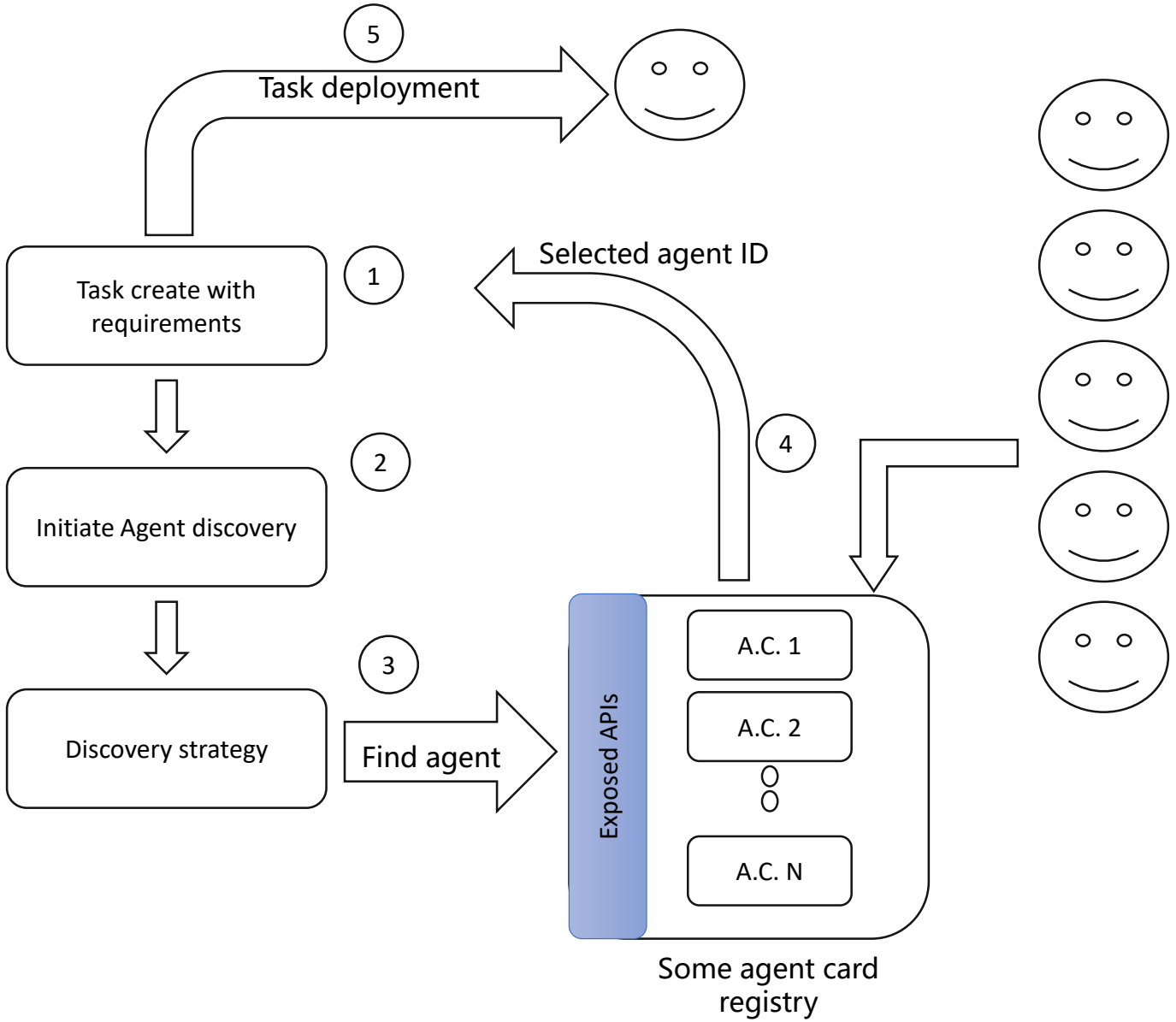




- Platform to authenticate users and allow them to post there task cards

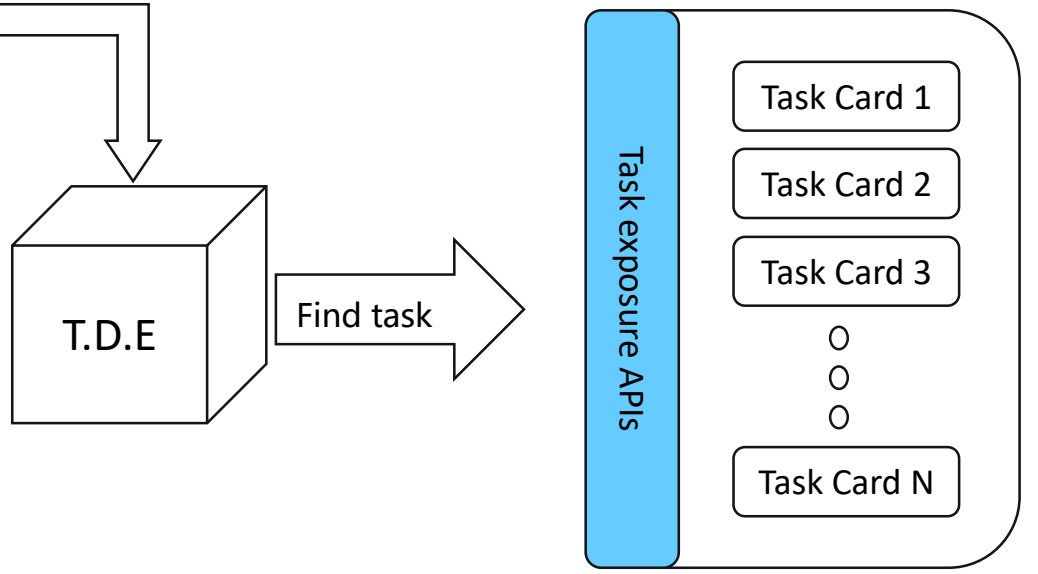
- Agents are able to discover posted task cards, pick the tasks that fit their skills, and complete the task
- They rely on their onboard LLM to understand if a task is a good fit

Next phase: Task Discovery as a Complimentary Architecture



Can be thought of as:

- A2A is a **recruitment like model** where task owners recruit agents
- Task discovery is **agents applying for job postings**



Final notes

- Objectives:
  - Shed light on other potential discoverable objects besides agent cards (i.e., task cards)
  - Discoverable objects should be separate from the discovery vehicle
  - We want to explore establishing a dedicated working group within IETF for AI discovery

- Related IETF work:
  - Drafts:
    - draft-mapmw-task-discovery-00
    - draft-ma-layered-ai-discovery-architecture-00
  - Side meeting: AI Ecosystem and Discovery (Monday 14:30 -16:00)

Thank you

- Contributors:
  - Hesham Moussa (Hesham.moussa@huawei.com)
  - Arashmid Akhavain (Arashmid.Akhavain@huawei.com)