CLARIN
Common Language Resources and Technology Infrastructure

Dynamic web services deployment
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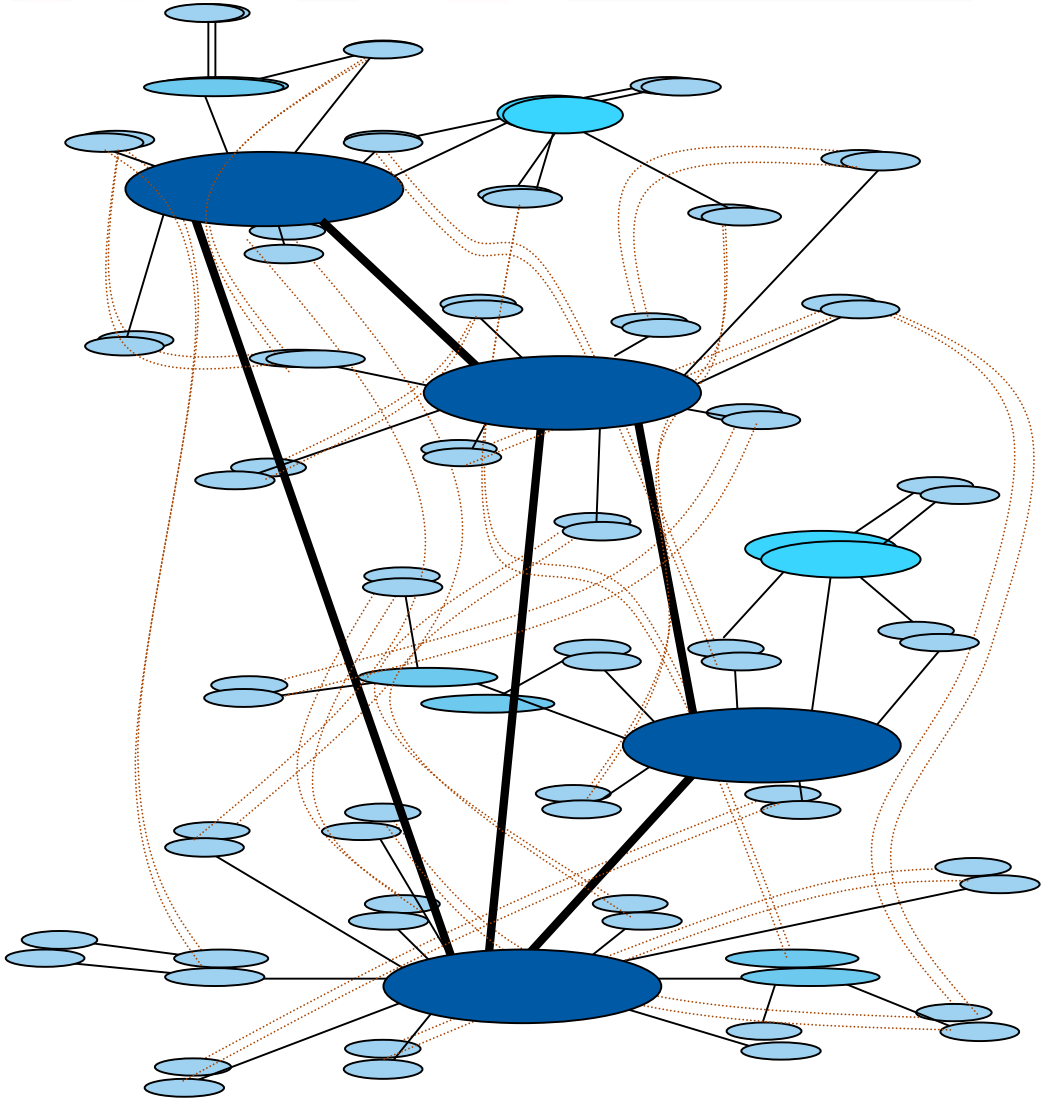
CLARIN Mission

- Mission:
  - create an infrastructure which makes language resources (annotated recordings, texts, lexica, ontologies) and technology (speech recognizers, lemmatizers, parsers, summarizers, information extractors) available and readily usable to scholars of all disciplines, in particular the Humanities and Social Sciences.

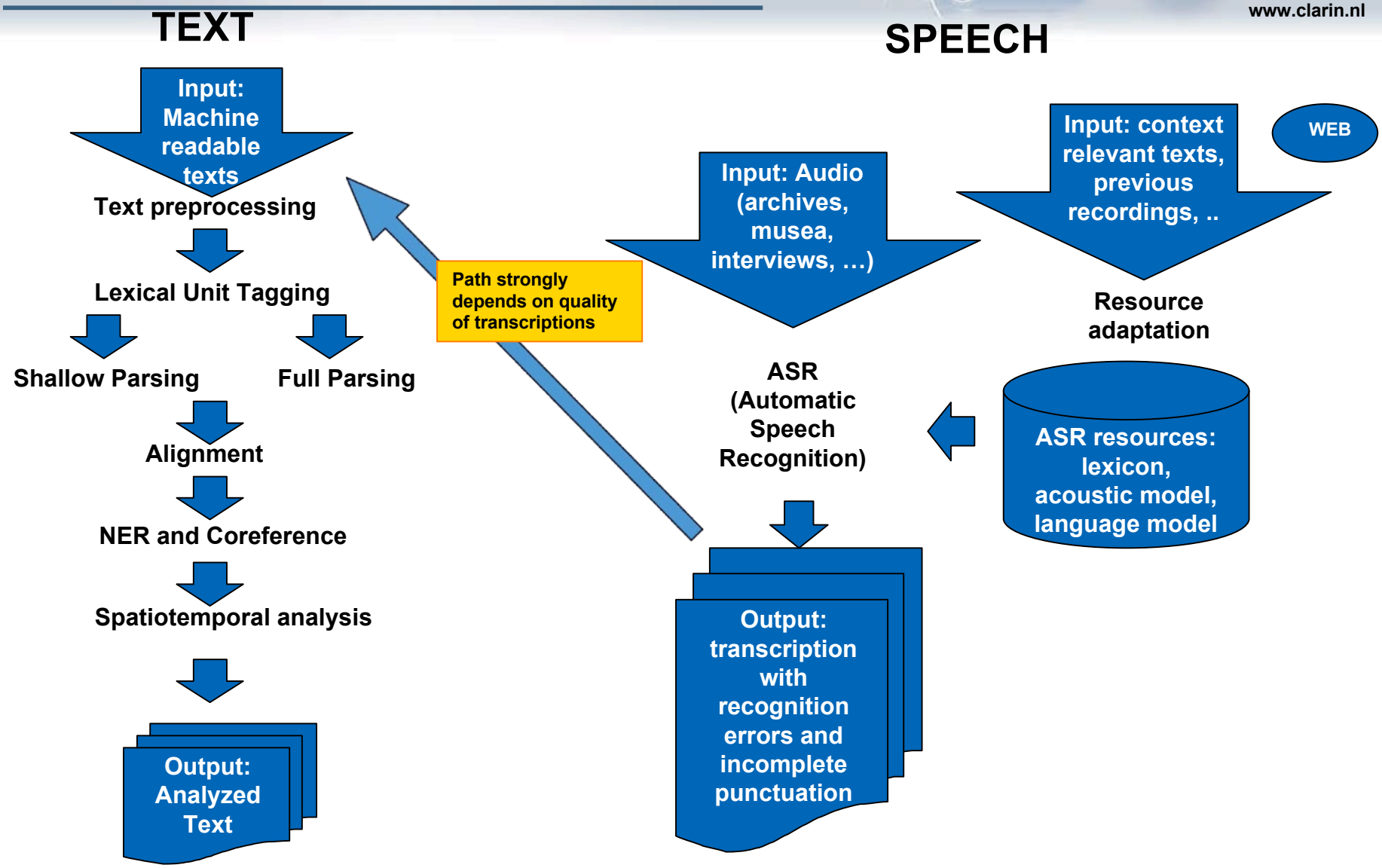
CLARIN Centres



Scenario where dedicated services centres of new type interact in a stable way and give persistent and easy-to-use services to the community. Researchers must be able to rely on the services offered

Scenario characterized mainly by accidental and temporary interactions

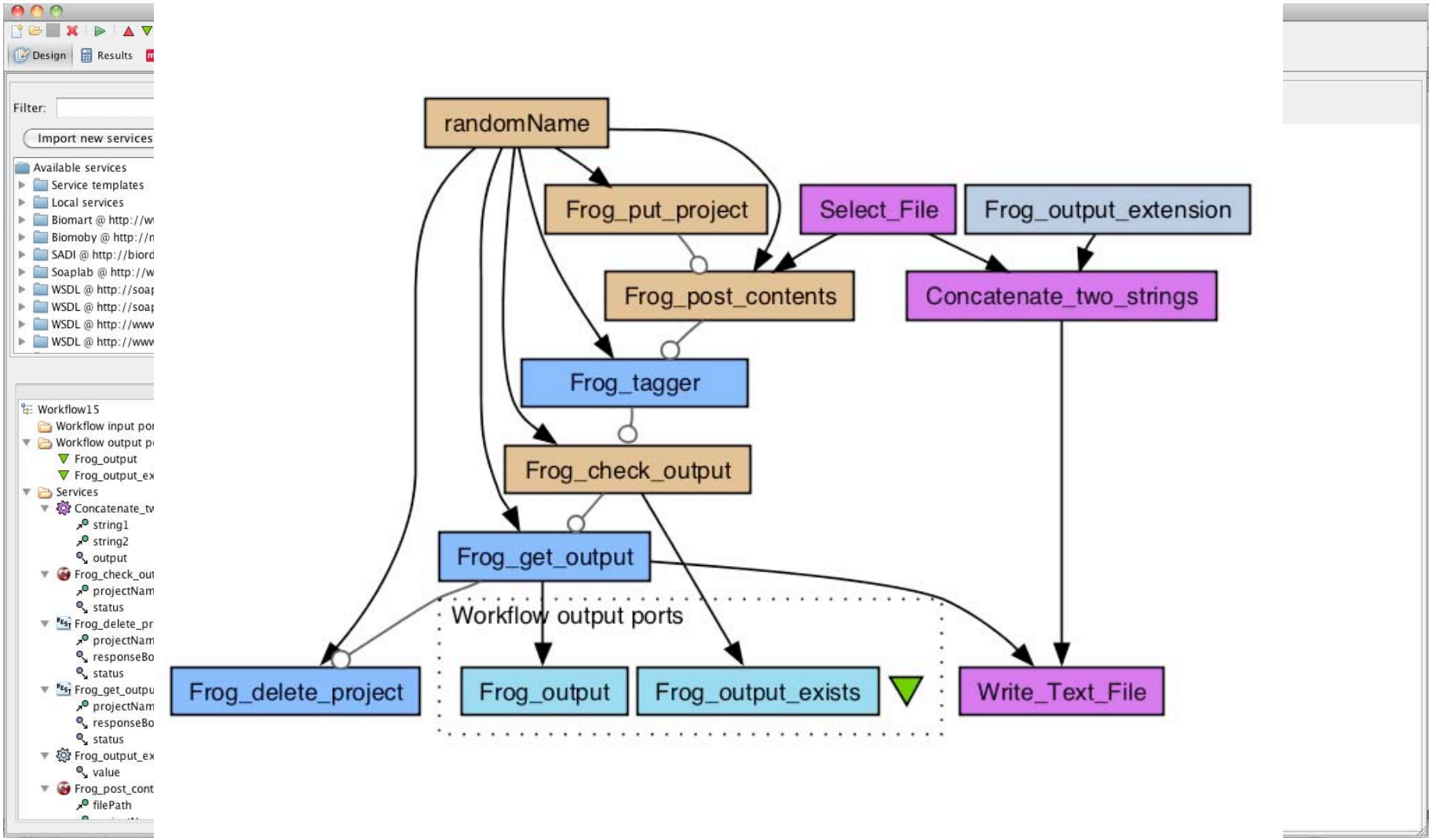
TTNWW workflow (simplified)



Questions

- How to make these services available?
  - Services are SOAP or REST web services
    - Tilburg University provides easy to use CLAM wrapper to make existing functionality available as a REST web service
    - Installation often requires significant effort
- How to construct workflows from these services?
  - Services are combined in a workflow and executed using Taverna
- How to handle different usage scenarios?
  - Infrequent use during initial project phase
  - Some large jobs
- How to provide a stable platform for delivering these services?

Taverna workbench workflow design



Cloud advantages

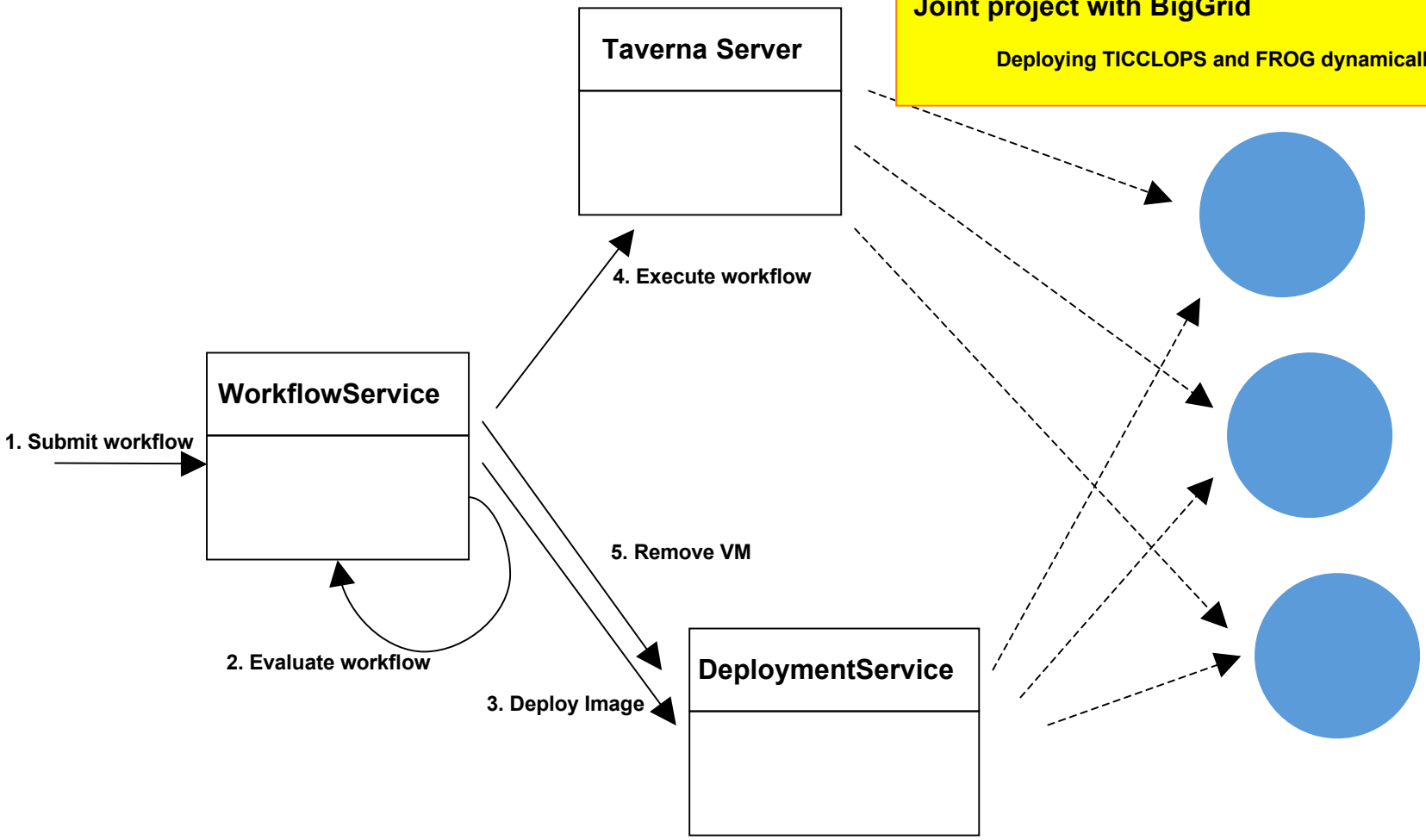
Why use cloud ?

- Services images are stored on disk (number of running virtual machines is reduced)
- Images/services are only deployed when a workflow is executed using one of the services on disk (on demand deployment)
- Manual interface of HPC Cloud can be replaced by automatic deployment module

Dynamic deployment of web services

Joint project with BigGrid

Deploying TICCLOPS and FROG dynamically in the cloud



Experiences

- Quick startup
  - Developers up to speed after first session (1 afternoon)
  - All essentials present
- Responsive helpdesk
  - Requests and issues are handled quickly
  - One node failure, all deployed images were stored and notification was sent immediately
- Provides secure test environment
  - Firewall settings only allow selected IP addresses to work with cloud environment

- We will start incorporating more services very soon.
- We will start testing some bigger jobs.

Thank you for your attention

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