



ETICS
The Grid Quality Process

Performing tests using several machines: Coscheduling

ETICS Project, CERN

www.eu-etics.org



- **Goal:** show how can the new coscheduling feature of ETICS can be used to run tests over several machines (nodes)
- **Summary**
 - DICOM
 - Test scenario
 - Test methodology for coscheduling
 - Synchronisation
 - Demo

- **What's DICOM**
 - DICOM is an international standard for communication of biomedical diagnostic and therapeutic information between imaging systems and other information systems in healthcare environments

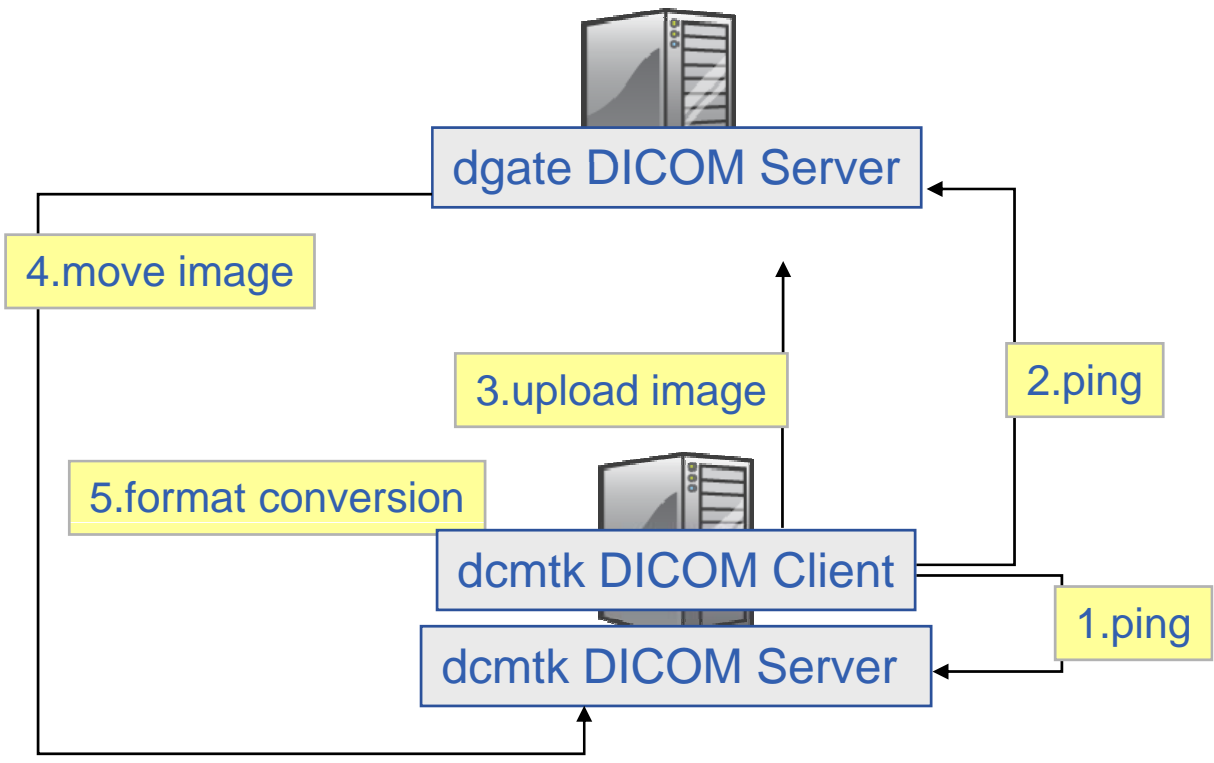
- **DICOM implementations**

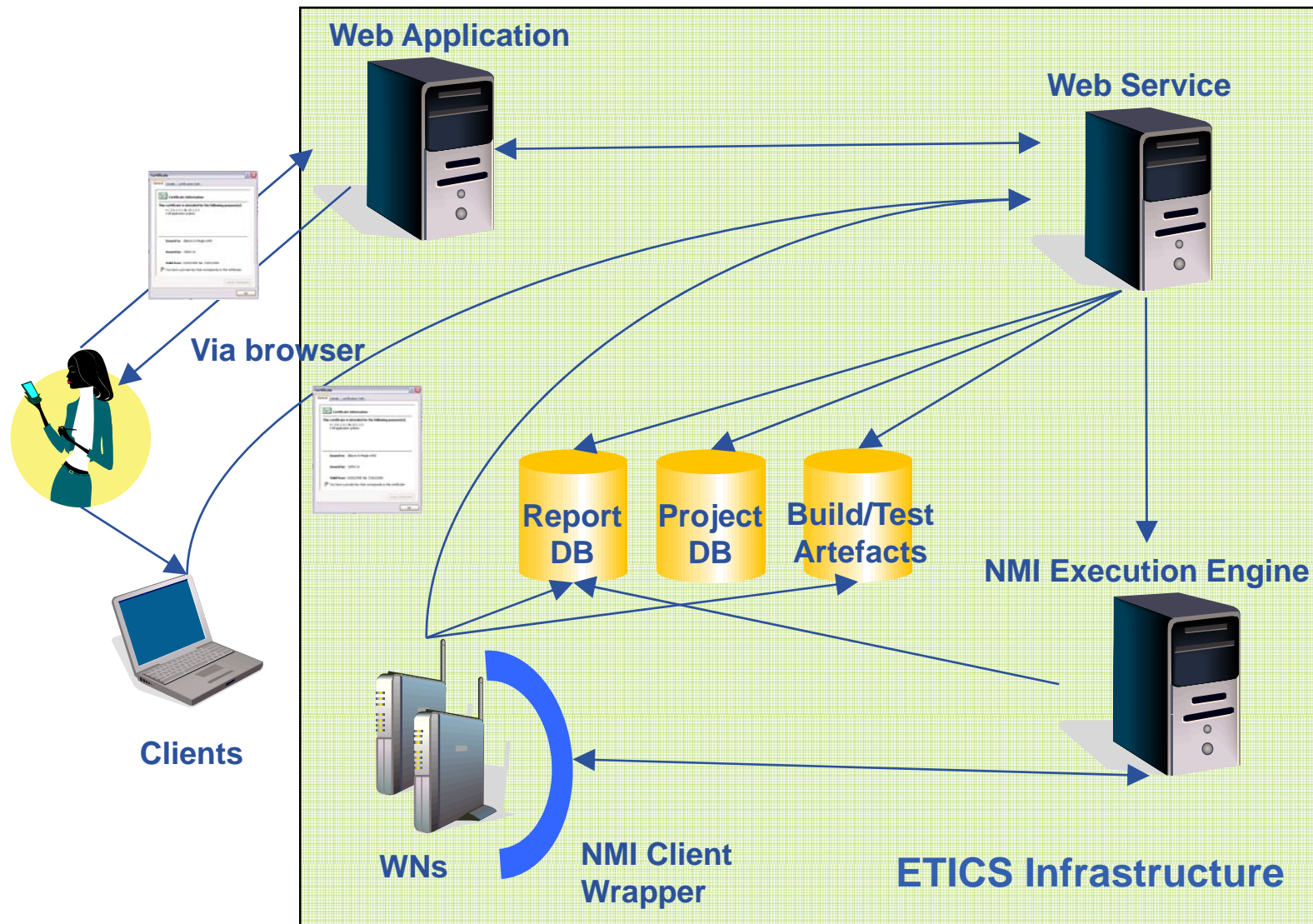
- DCMTK (from OFFIS)

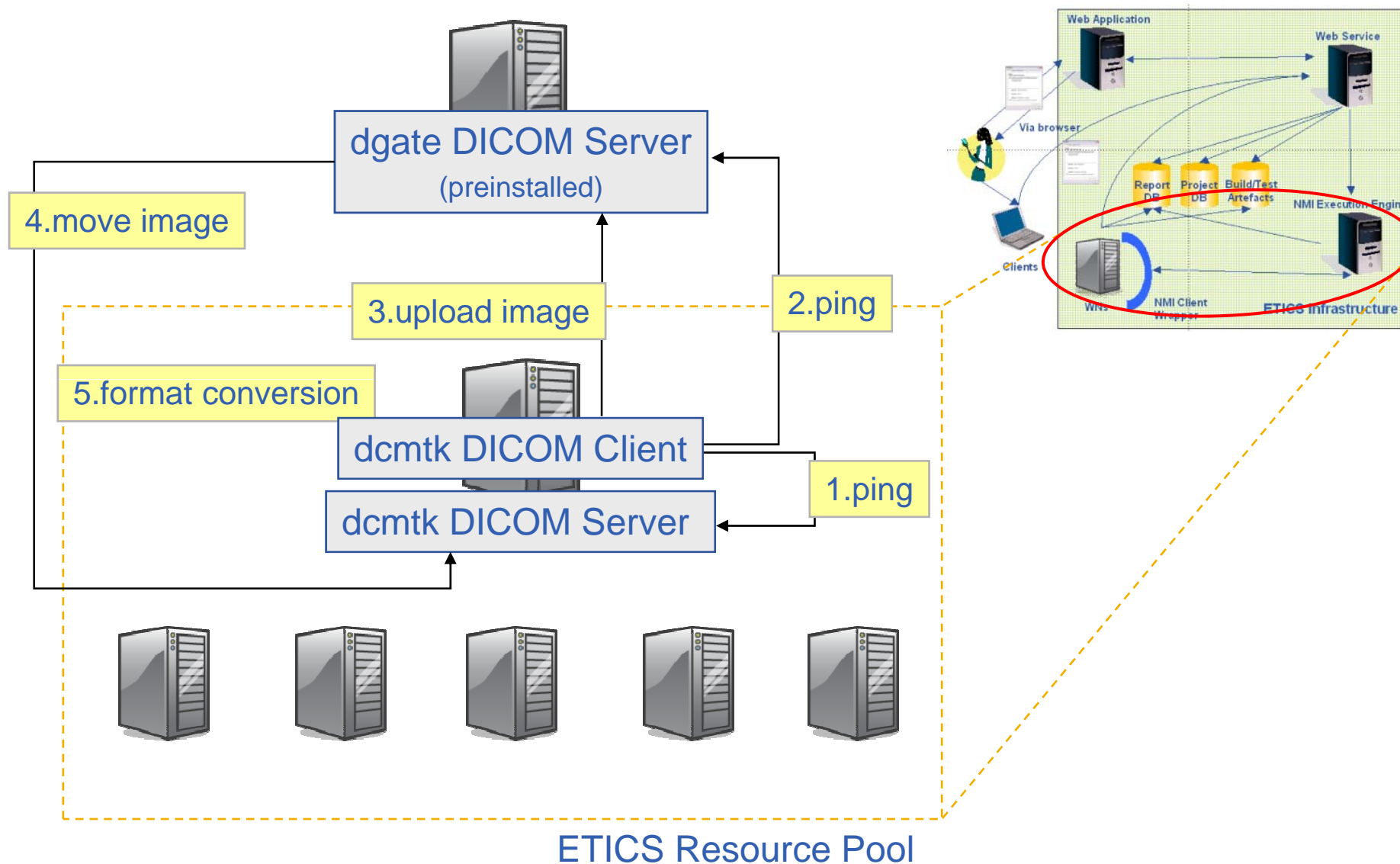
- *“DCMTK is a collection of libraries and applications implementing DICOM. It includes software for examining, constructing and converting DICOM image files, handling offline media, sending and receiving images over a network connection. DCMTK is written in a mixture of ANSI C and C++.”*

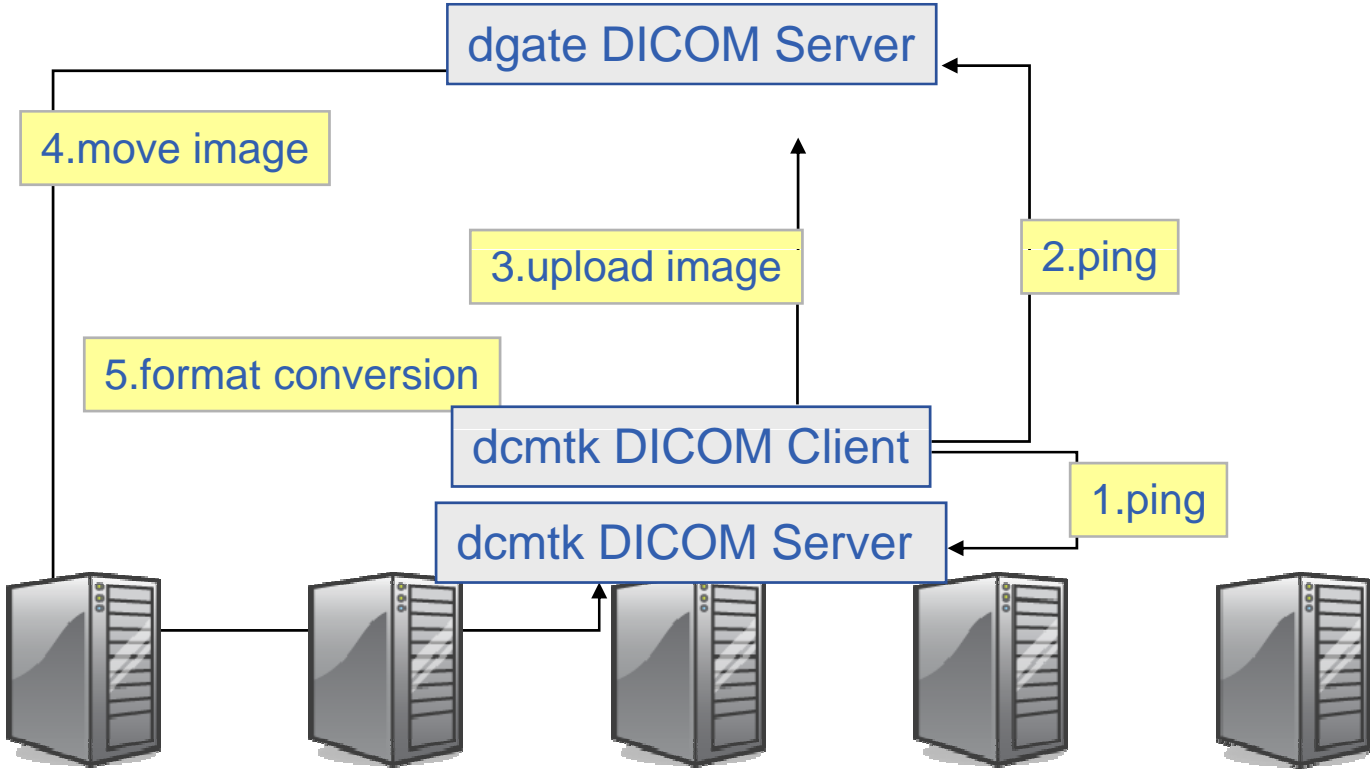
- dgate server (from Conquest EC Project)

- *“fully featured DICOM server heavily extending the public domain UCDDMC DICOM software”*









- **Following same philosophy as for building: “*Start with a successful local test*”**
- **An extra level of complication that multi-node testing brings is the need for synchronisation during setup and execution -> can cause deadlocks!!**
- **ETICS v1.2 provides a new set of commands and an API for synchronisation**
- **Local multi-node tests can take different forms:**
 - Several workspaces on the same local machine (if your services can cohabitate)
 - Several local machines with one workspace each
 - Combination of the above

- **Accessors:**
 - `etics-get [options] <key>`
 - `etics-set [options] <key> <value>`
 - To help local debugging, the option `--uuid <uuid>` can be used to query the coscheduling information system
 - Using option `-b/--block` the getter can block until a timeout is reached or a value is set
- **Setup:**
 - `etics-coschedule-local-setup [options] <no-of-nodes>`
 - The option `-o <file>` can be used to share the uuid between workspaces
- **Aborting:** when an error occurs, the '*abort*' flag is set, instructing all tasks to terminate in a controlled fashion

- **Local coscheduling will be available in v1.2**
- **Remote coscheduling will be available in v1.3**
- **Preview remote coscheduling should be available during August**

- **Now let's look at all this in action**



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