INTERACTIVE BATCH JOBS & AFS TOKEN HANDLING MECHANISM

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Overview of talk

- ***DESY-Zeuthen computing services***
- ***Interactive Batch jobs***
- ***AFS token handling mechanism***

DESY-Zeuthen computing services

PC Farm

PC Cluster

Massive parallel Computer
APE

Backup, Archive
Data Exchange, dCache
(Tape Robot)

Login Service

File Service

World

NetworkingServices

Desktop Support

...

Linux, Solaris services
Network Services: AFS, NFS
DNS, WWW, LDAP,E-mail, ...

Print services

PhotoInjector
PITZ

WindowsNT/2000/XP
Central Service

Videoconferencing,
Telephone network

DESY-Zeuthen computing services

PC Batch farm:

- *~ 100 hosts*
- *Linux: based on SuSE 7.2*
- *PC hosts: cpu from single Pentium II to double Pentium IV, memory from 256 MB to 2 GB, hd from 10 GB to 80 GB per host*
- *Batch system: SGEEE 5.3p2*
- *LAN: fast/gigabit ethernet*
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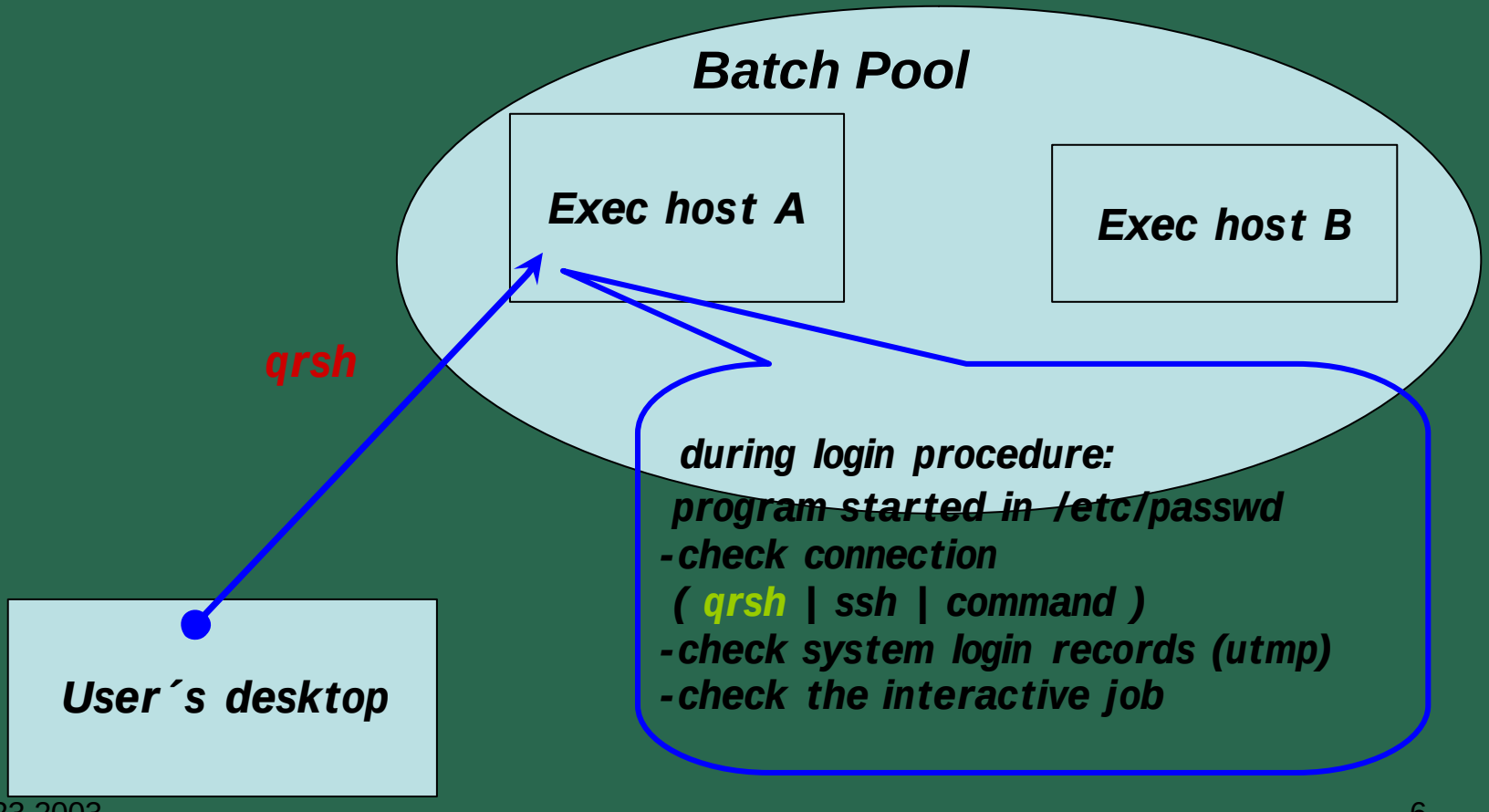
Interactive Batch Jobs

Interactive work fully managed by Batch system

- ***Allows to login only via batch system. Direct login is forbidden !***
- ***Batch configuration:*** *ssh implementation (http://gridengine.sunsource.net/project/gridengine/howto/qrsh_ssh.html), interactive queues*
- ***Host configuration:*** *detection of the batch job, verification of request (qrsh, ssh, requested command), detection of background processes (started by users)*

Interactive Batch Jobs



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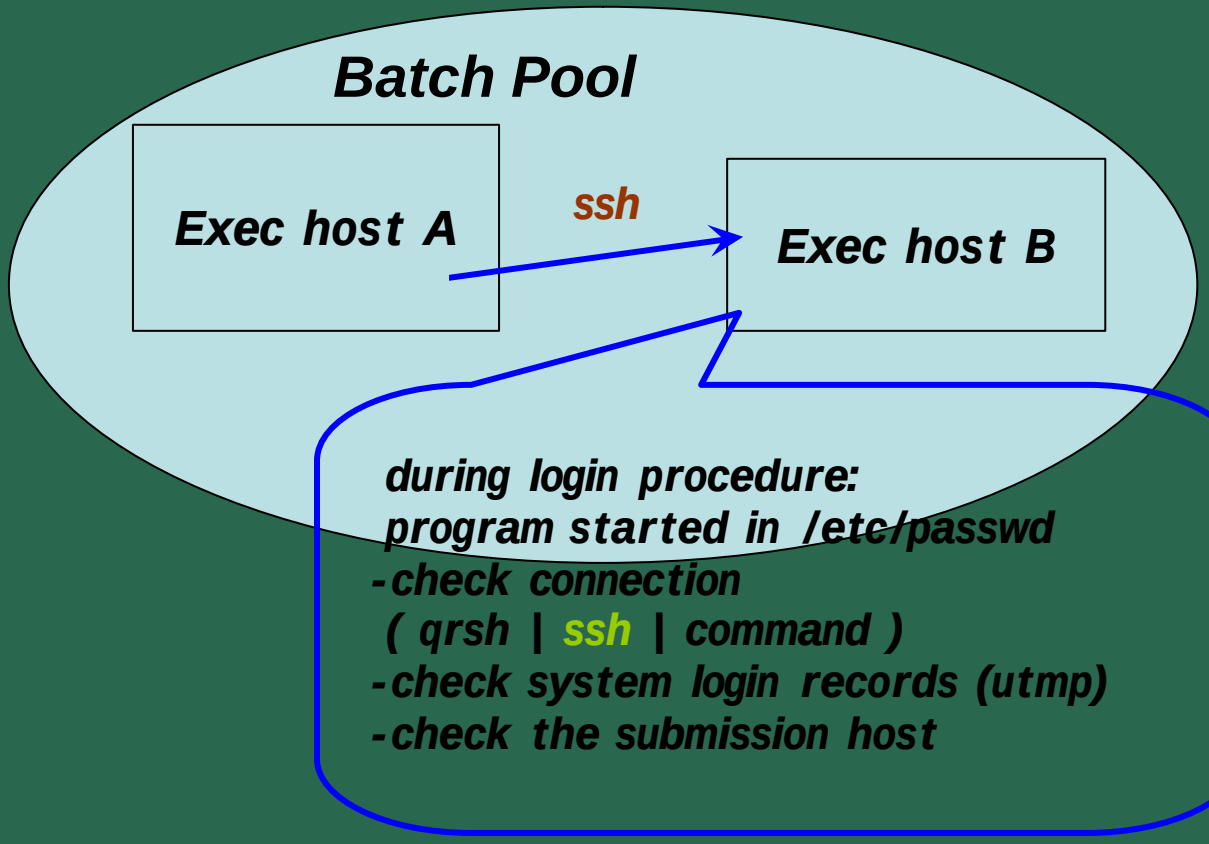

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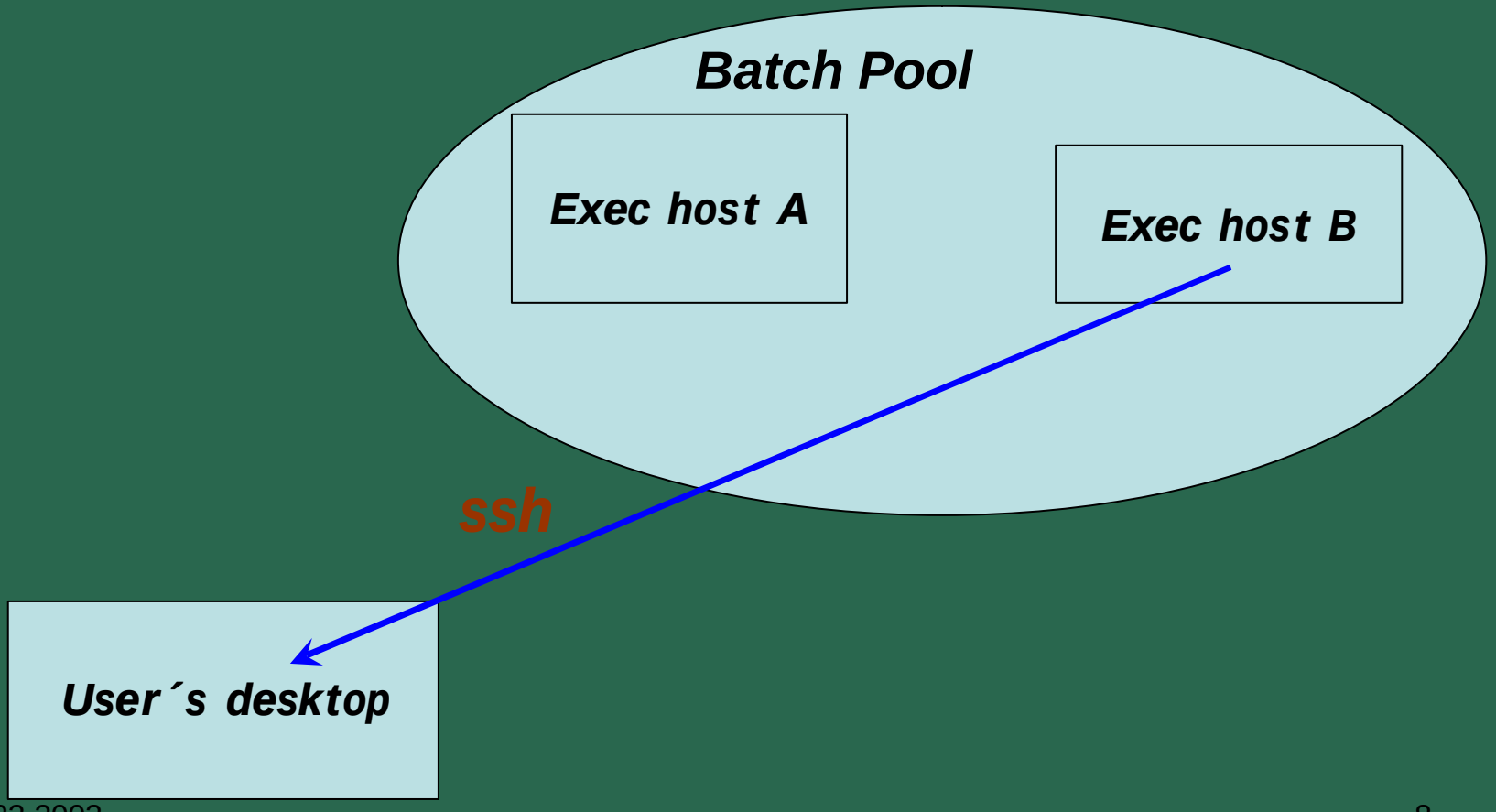
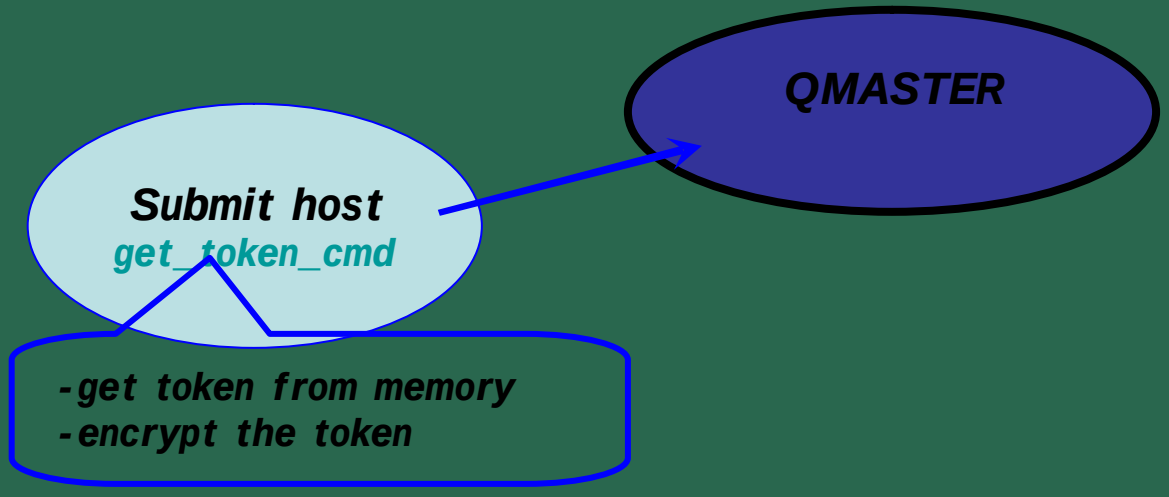


AFS token handling mechanism

Current solution:



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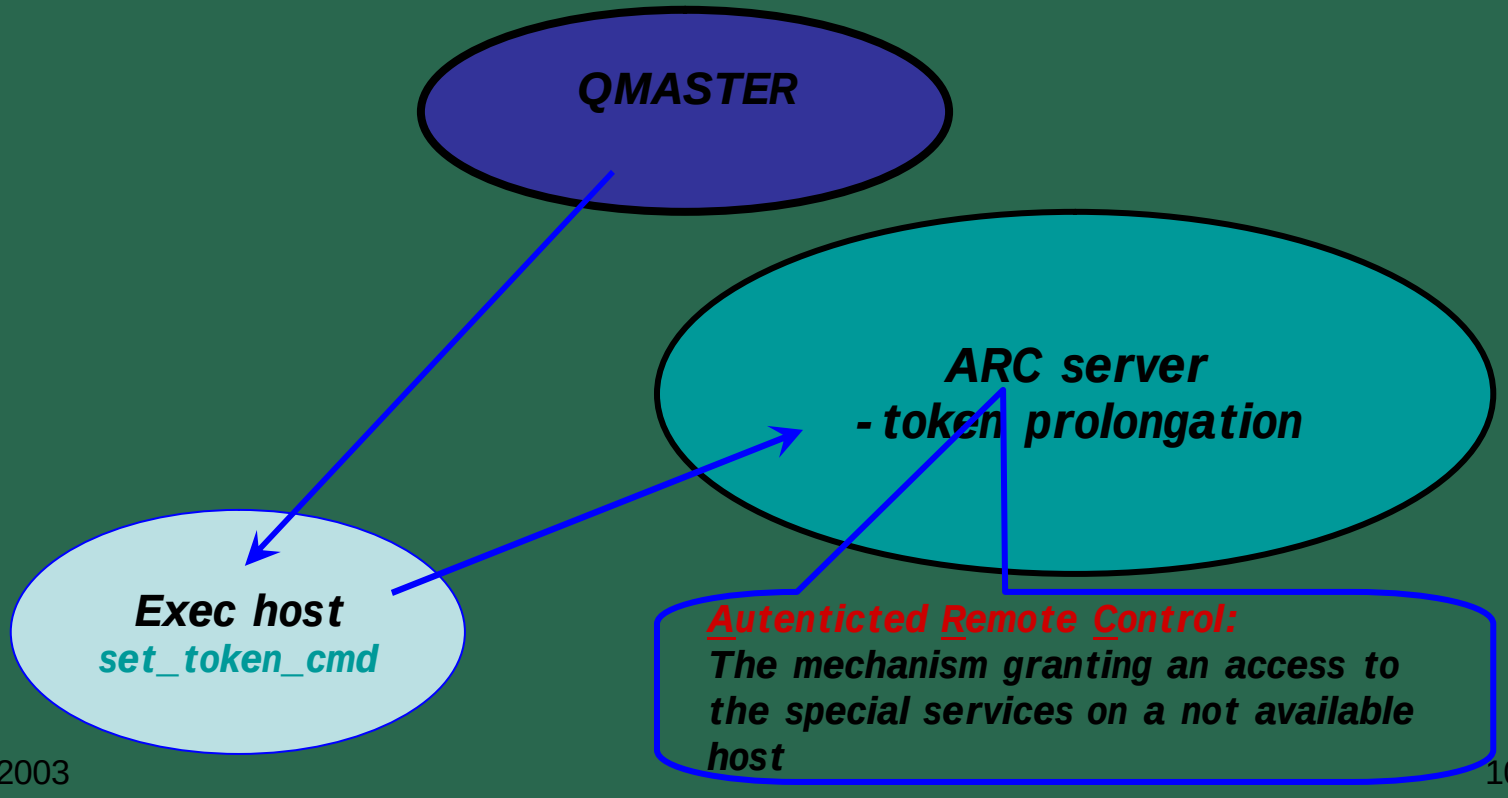

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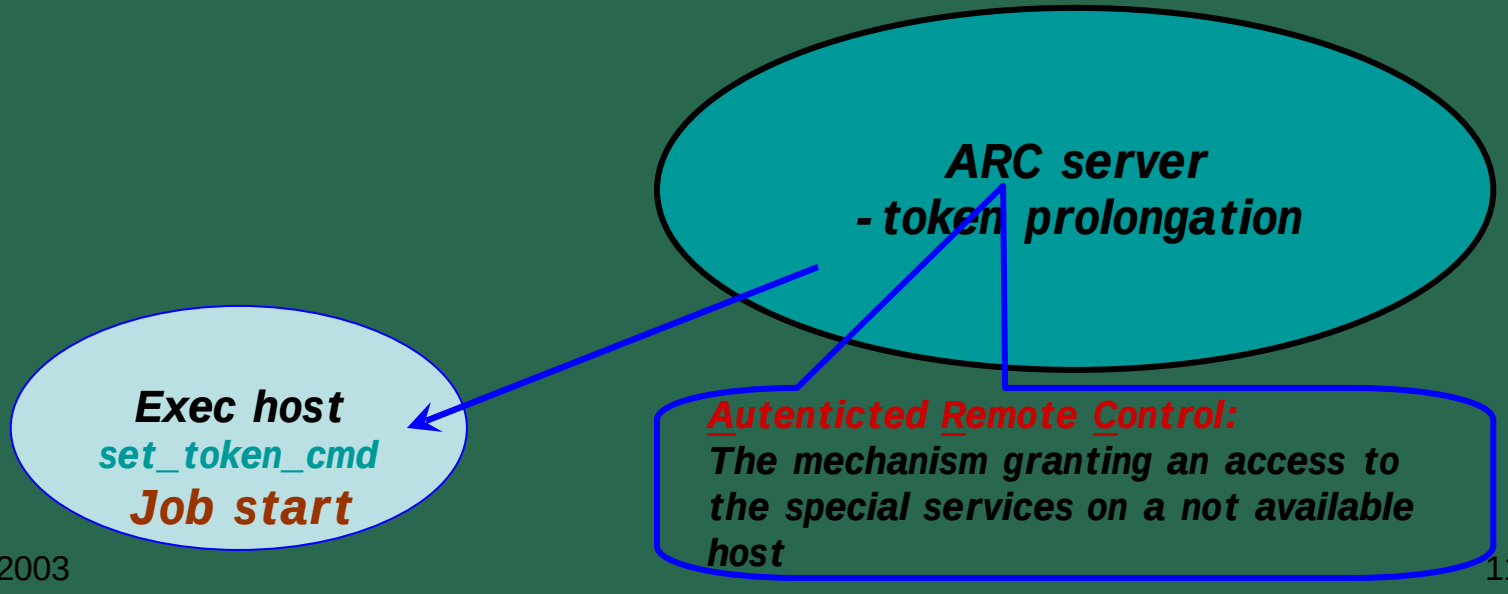


AFS token handling mechanism

Bad features:

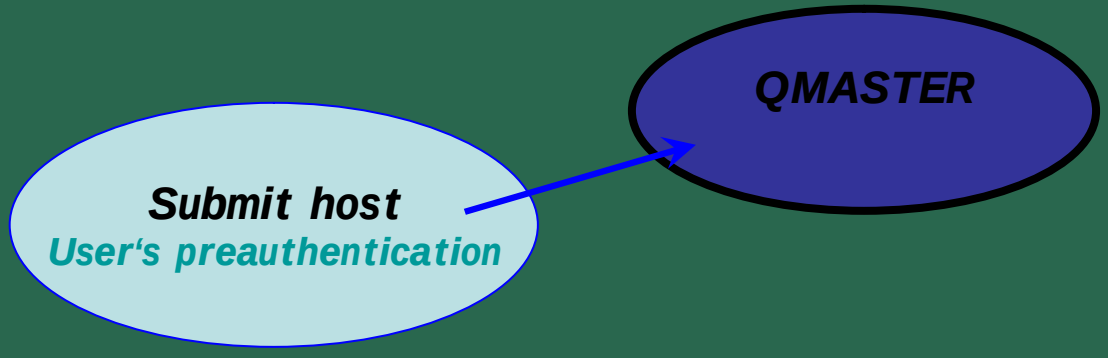
- Fractions of jobs fail when ARC server is overloaded
- Requests to ARC server are coming from untrusted hosts

Better central managing:

- AFS token is created on the master host only once and moved to the execution host (gssklog service)
- no requests from untrusted hosts

AFS token handling mechanism

Developed solution:



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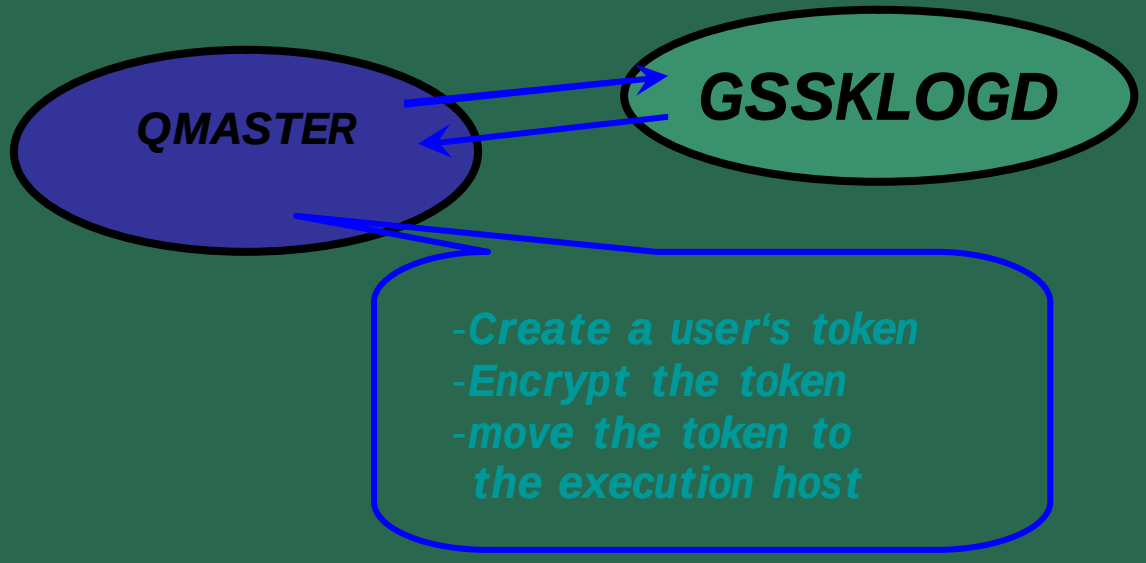

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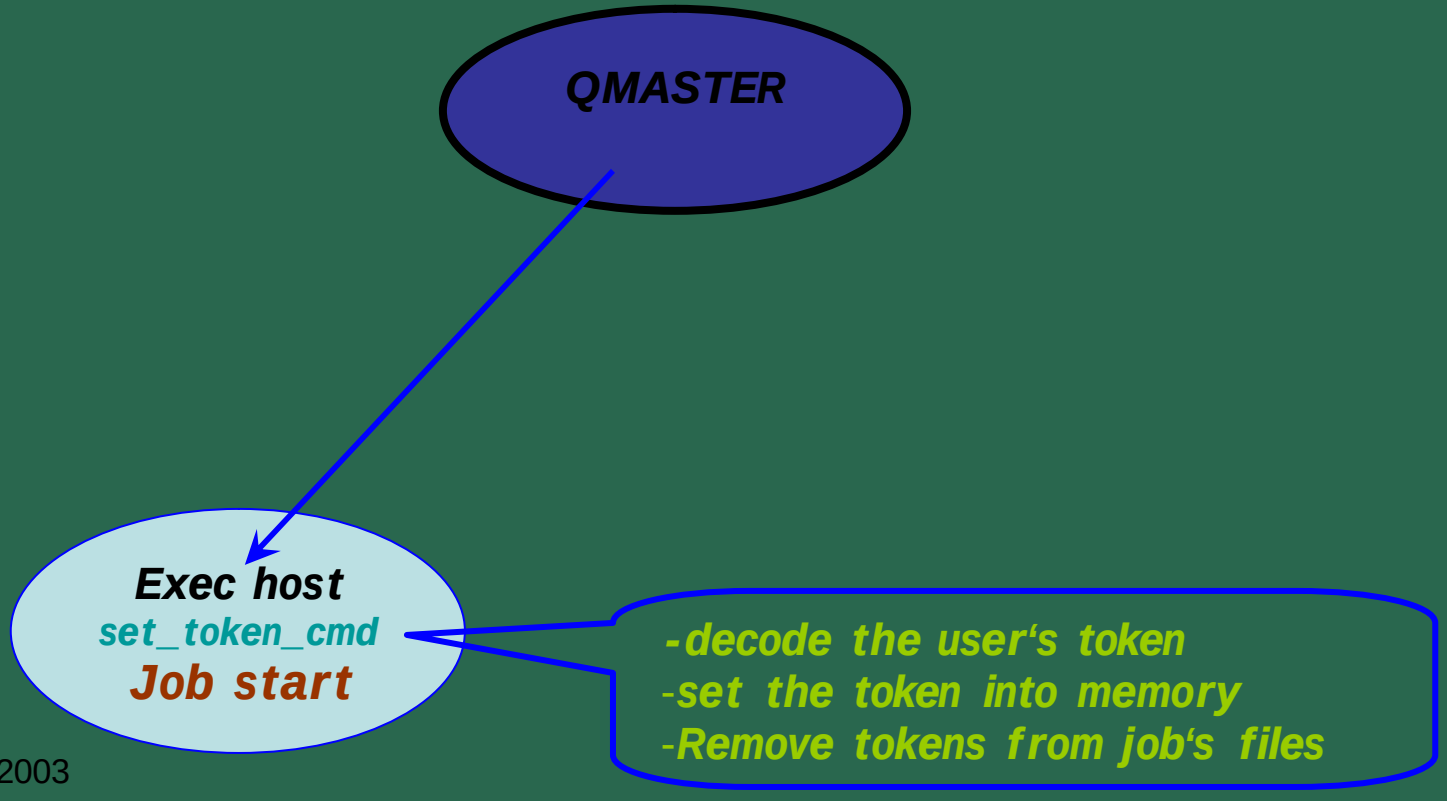
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