



# MDS 2.1

## Configuration for Testbed 1

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## Summary

- ◆ New features of MDS 2.1
- ◆ Hierarchical GIIS and Virtual Organizations
- ◆ MDS EDG Distribution: configuring /etc/globus.conf
- ◆ Querying MDS
- ◆ TODO
- ◆ Documentation



## New features of MDS 2.1

- ◆ Faster GIIS/GRIS backends with memory caching and new information providers.
- ◆ A new DN concept and a flexible registration process to build Virtual Organizations.
- ◆ An integrated slapd server for GIIS and GRIS.
- ◆ New version of Openldap with ldap protocol V3.
- ◆ GSI authentication.



## Hierarchical GIIS and VOs (1)

- ◆ The GIIS and GRIS now work with a new DN:

**GIIS:** "Mds-Vo-Name=**VO\_NAME**, o=Grid"

**GRIS:** "Mds-Vo-Name=**local**, o=Grid"

- ◆ But the DN of an entry resulting from a query to a GIIS could be:

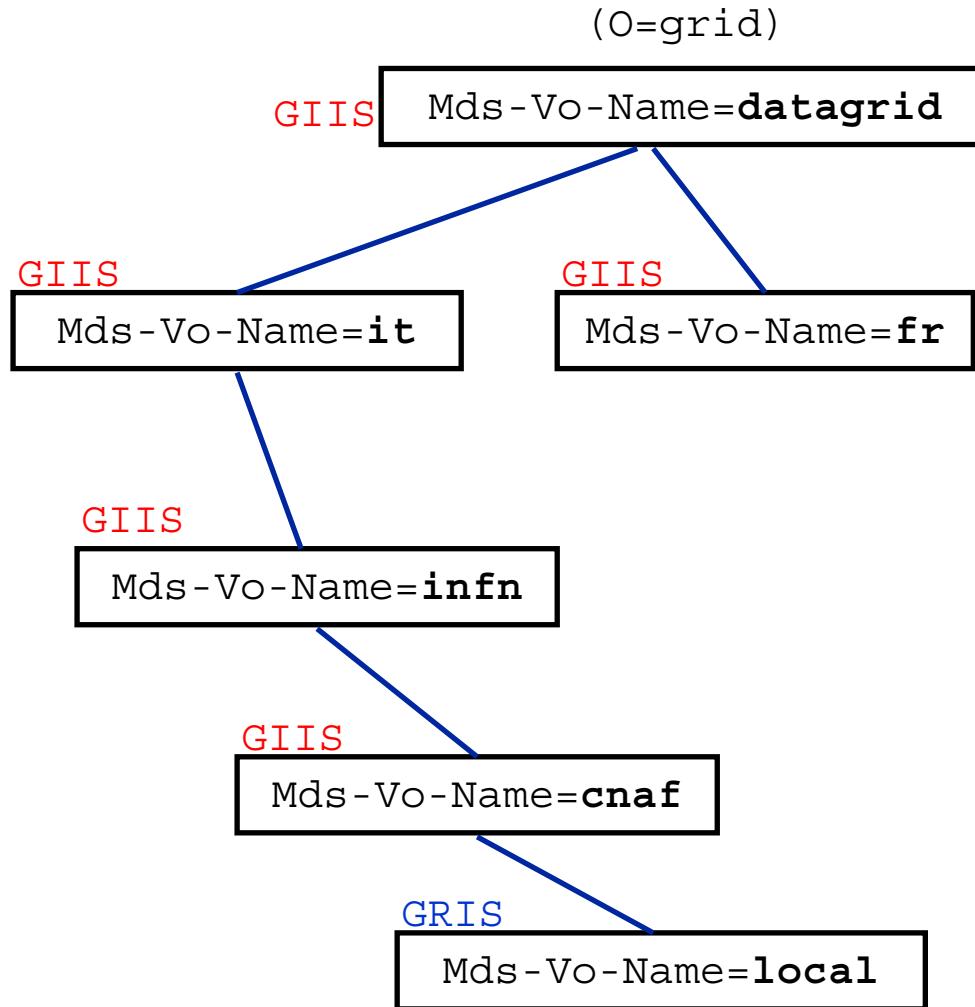
dn: Mds-Host-hn=**hostname**, Mds-Vo-Name=**VO\_NAME**, o=Grid

objectClass: MdsComputer

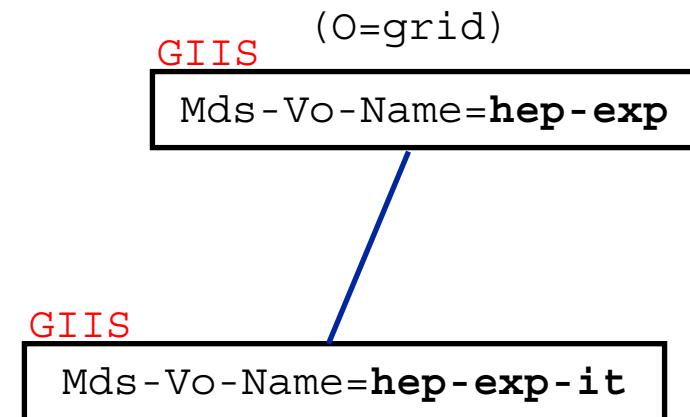
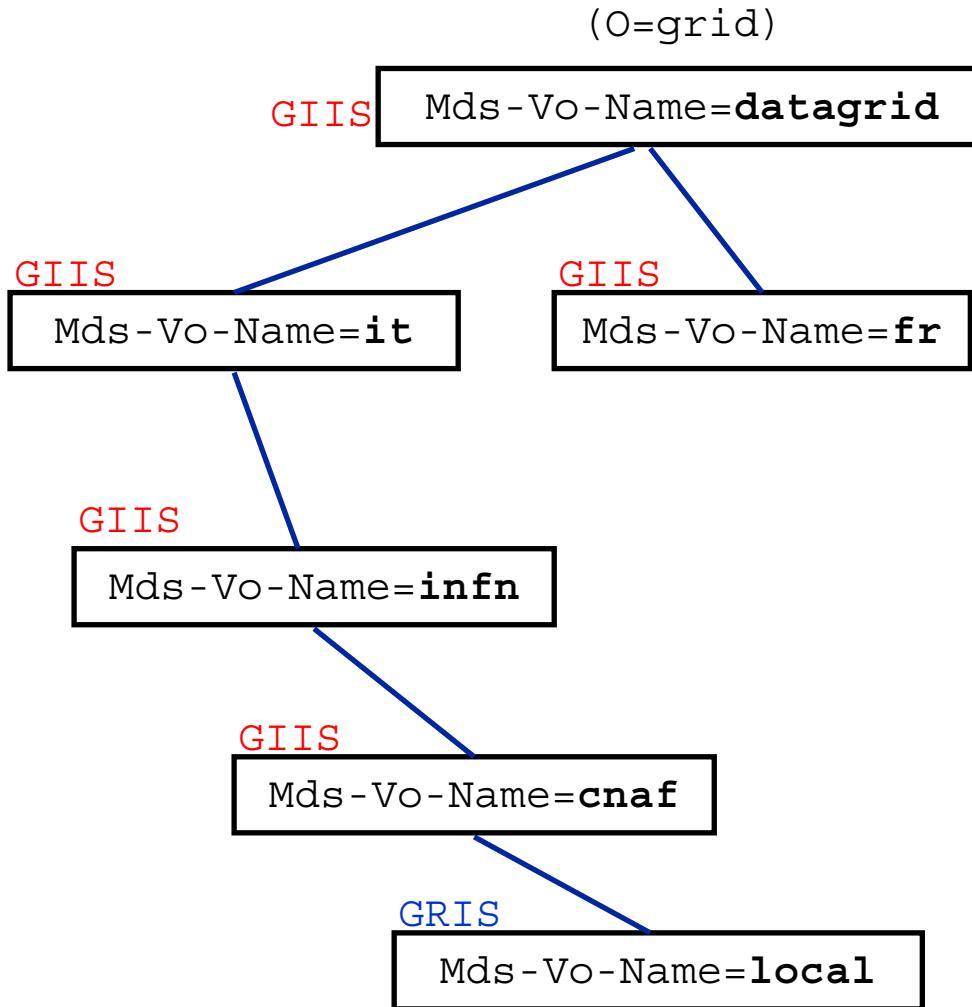
objectClass: MdsCpu

etc...

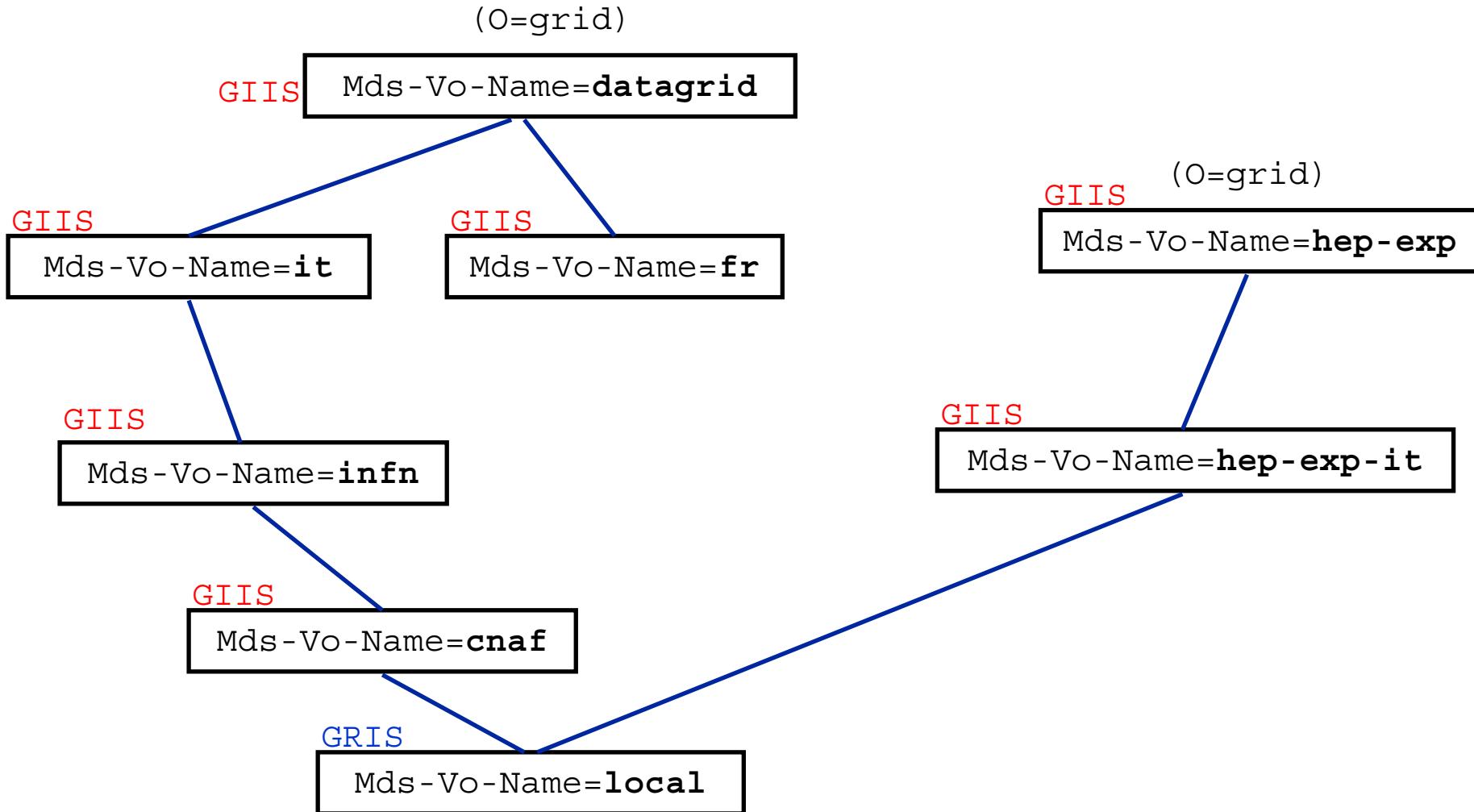
## Hierarchical GIIS and VOs (2)



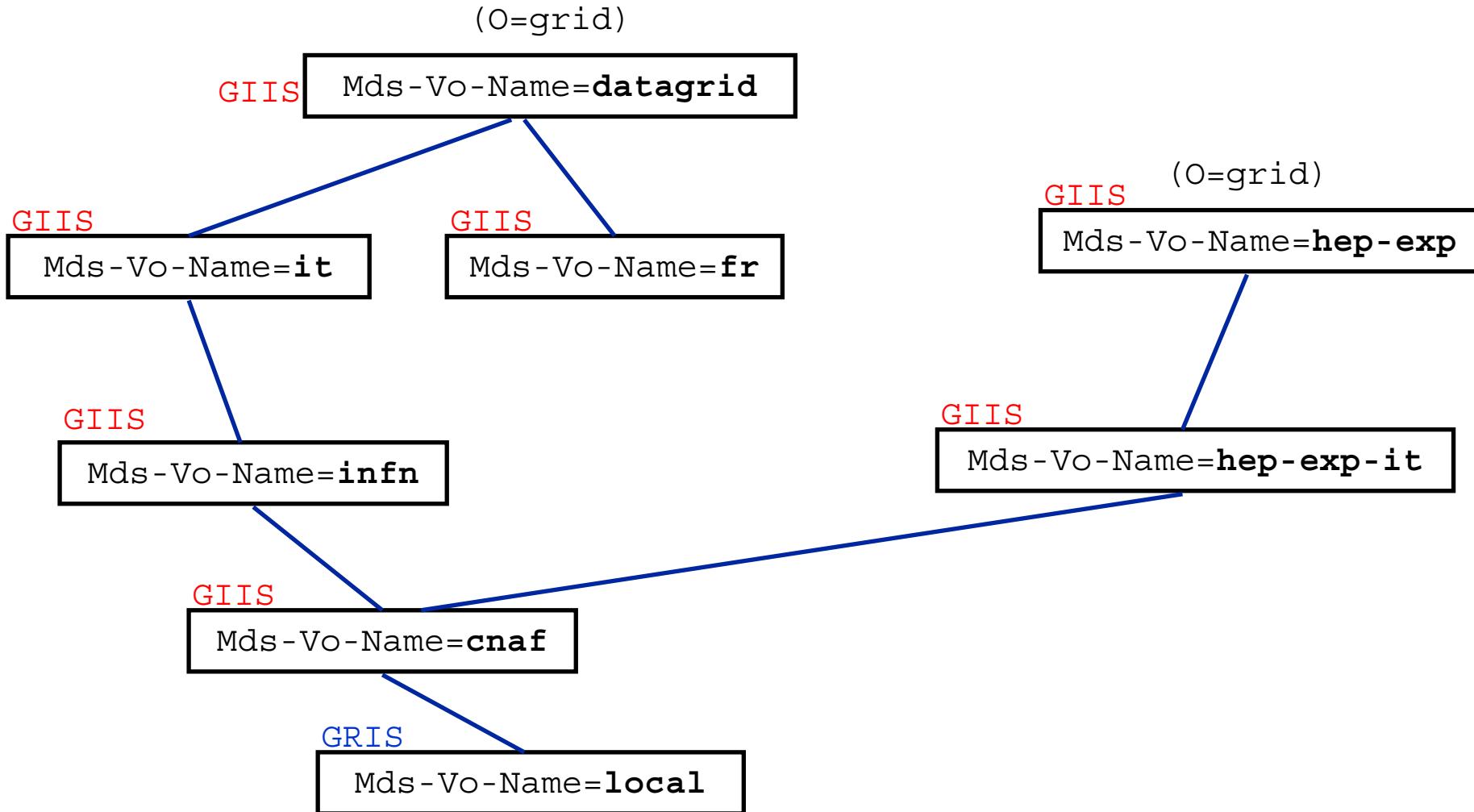
## Hierarchical GIIS and VOs (2)



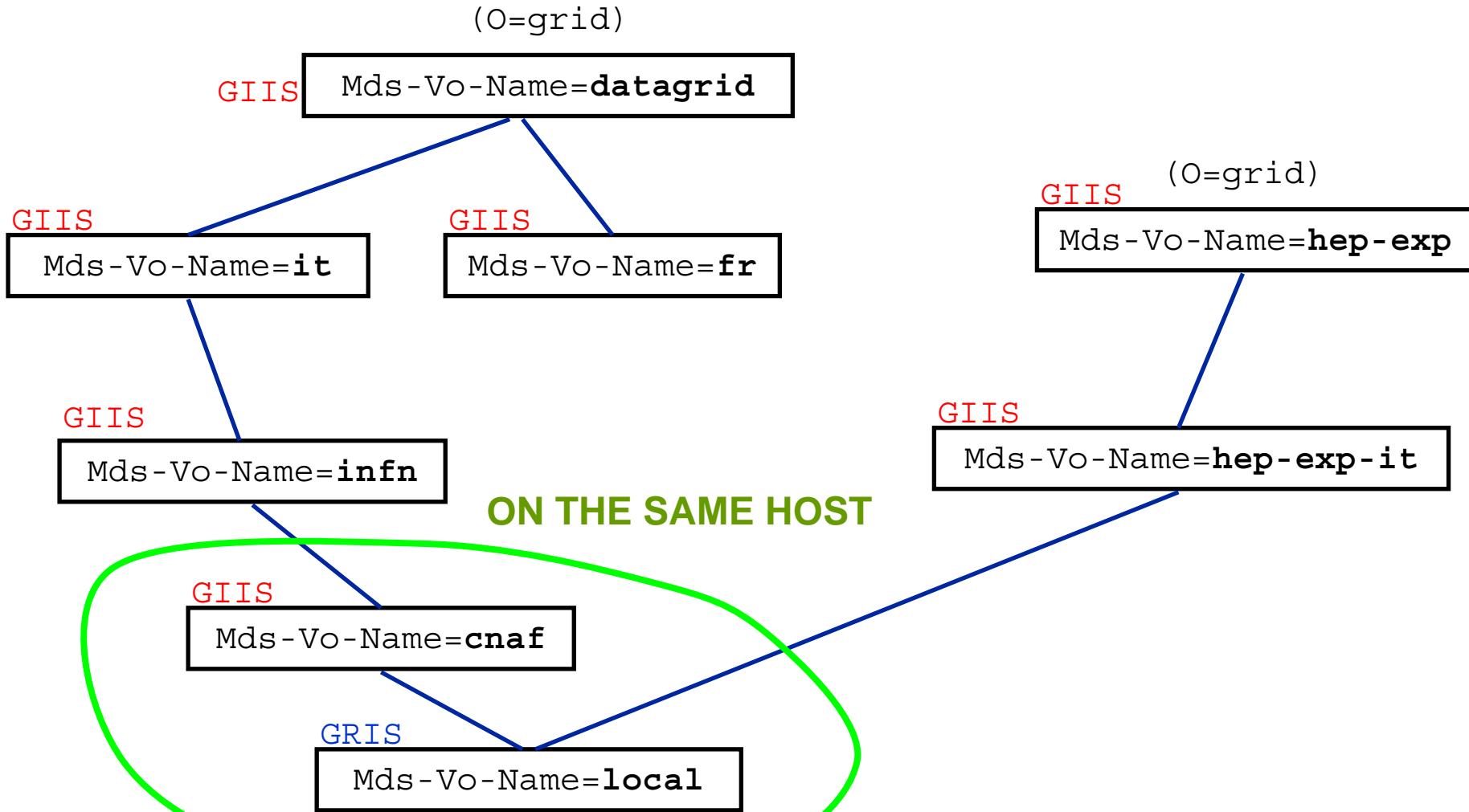
## Hierarchical GIIS and VOs (2)



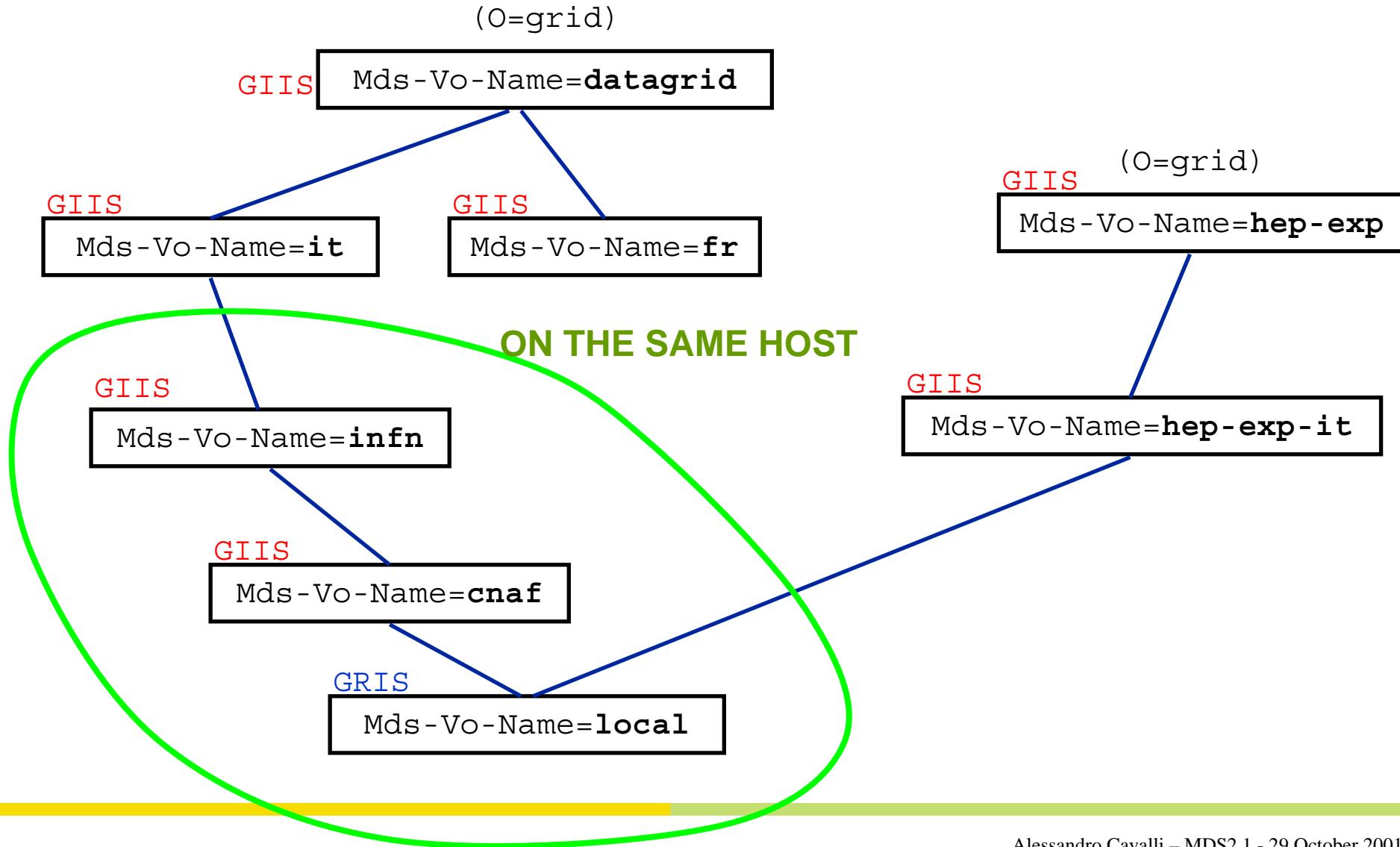
## Hierarchical GIIS and VOs (2)



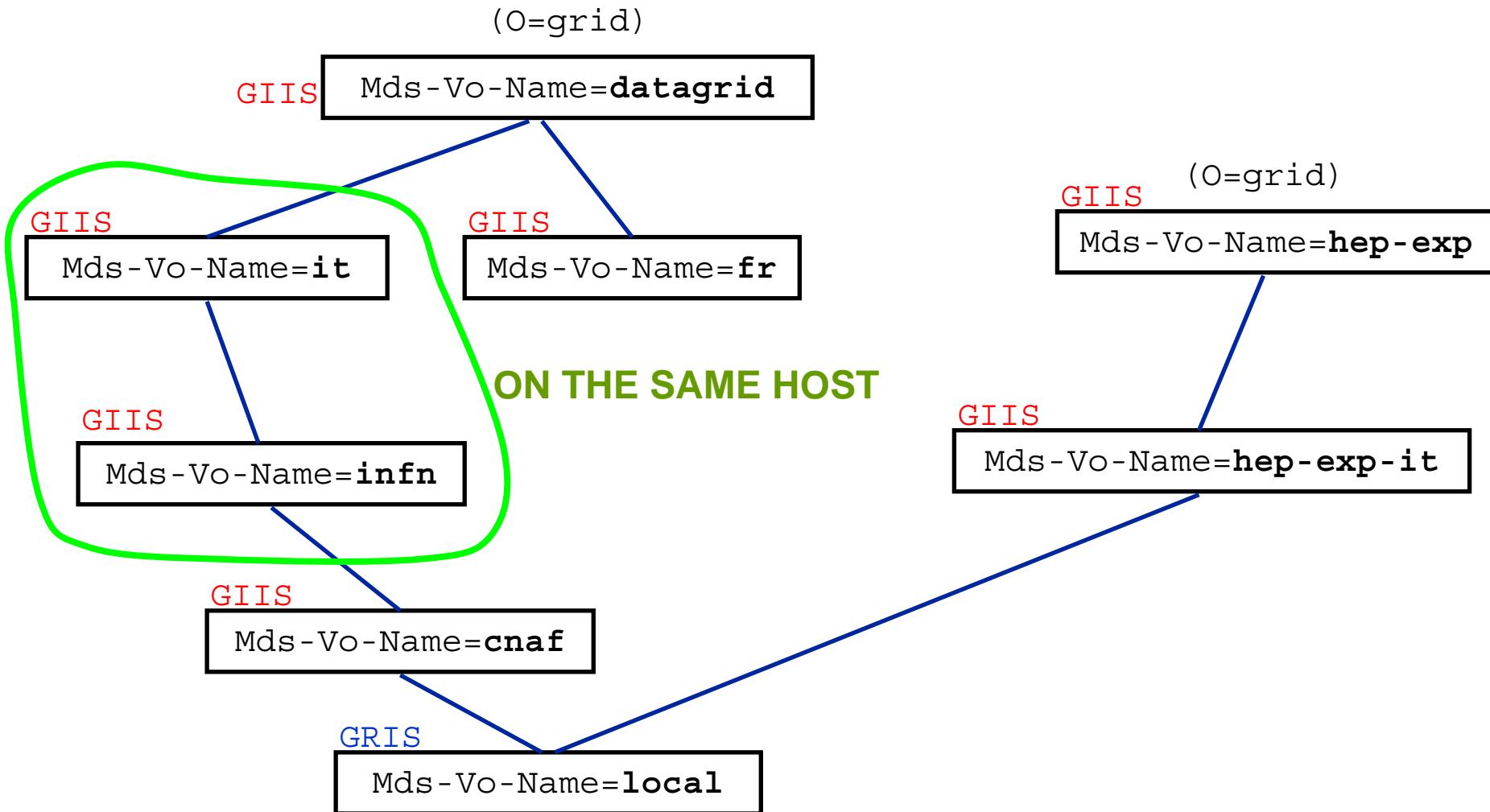
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## Configuring */etc/globus.conf*

- ◆ To start MDS we have written the sysV-style init script  
`/etc/rc.d/init.d/globus-mds`  
so that it can be invoked by  
`service globus-mds {start|stop|restart|condrestart|status}`  
and configured for automatic startup with:  
`chkconfig globus-mds on`
- ◆ The script looks for parameters in `/etc/globus.conf`, used also, for the gatekeeper.
- ◆ `globus.conf` is not installed at its place, but as template in a doc dir.
- ◆ If the mds part of "globus.conf" is missing the script "globus-mds" can start a stand-alone gris by default.



## Configuring /etc/globus.conf (cont.)

### General parameters:

GRID\_INFO\_HOST = <default host for grid-info-search>

GRID\_INFO\_PORT = <port for local slapd and default for grid-info-search>

GRID\_INFO\_DEFAULT\_VO = <default Vo-Name for grid-info-search>

GRID\_INFO\_TIMEOUT = <def. timeout for grid-info-search>



## Configuring /etc/globus.conf (cont.)

### Some examples:

#### 1. A GRIS-only which registers on an external GIIS

GRID\_INFO\_GRIS\_ACTIVE = y

GRID\_INFO\_GRIS\_REG\_HN = <hostname of the site giis>

GRID\_INFO\_GRIS\_REG\_PORT = <port of the site giis>

GRID\_INFO\_GRIS\_REG\_PERIOD = <default is 600 seconds>

GRID\_INFO\_VO\_NAME\_1 = <name of the vo>



## Configuring /etc/globus.conf (cont.)

### 2. A local GRIS+GIIS, the second regs on upper GIIS

GRID\_INFO\_GRIS\_ACTIVE = y

GRID\_INFO\_GIIS\_N = 1

GRID\_INFO\_VO\_NAME\_1 = <name of the **local** vo>

GRID\_INFO\_VO\_REG\_HOST\_1 = <upper giis hostname>

GRID\_INFO\_VO\_REG\_PORT\_1 = <upper giis port>

GRID\_INFO\_VO\_NAME\_2 = <name of the **upper** vo>



## Configuring /etc/globus.conf (cont.)

### 3. A couple of cascaded GIIS, which regs on an upper GIIS

GRID\_INFO\_GRIS\_ACTIVE = y

GRID\_INFO\_GIIS\_N = 1

GRID\_INFO\_VO\_NAME\_1 = <name of the 1st local vo>

GRID\_INFO\_VO\_REG\_HOST\_1 = <upper giis hostname>

GRID\_INFO\_VO\_REG\_PORT\_1 = <upper giis port>

GRID\_INFO\_VO\_NAME\_2 = <name of the 2<sup>nd</sup> local vo>

GRID\_INFO\_VO\_REG\_HOST\_2 = <upper giis hostname>

GRID\_INFO\_VO\_REG\_PORT\_2 = <upper giis port>

GRID\_INFO\_VO\_NAME\_3 = <name of the upper vo>



## Querying MDS

**GIIS:**

```
grid-info-search -b "mds-vo-name=infn, o=grid" -x
```

**GRIS:**

```
grid-info-search -b "mds-vo-name=local, o=grid" -x
```



## TODO

- ◆ implement the resource's multiple registration (it works but the startup script cannot set it yet)
- ◆ activate the non-anonymous binding with X509 certs (it works: we need just a quick improvement to the startup script)
- ◆ support the giis policy (waiting for a fix from Globus)
- ◆ be able to choose which information-providers must be activated (automate adding them?)
- ◆ integrate Information Providers and schemas from the WPs
- ◆ test this MDS in parallel with WP3 MDS



## Documentation

- ◆ For the installation guide, the same location of the other components

<http://marianne.in2p3.fr/datagrid/documentation/index.html>

MDS guide is under construction, but it will be ready soon.