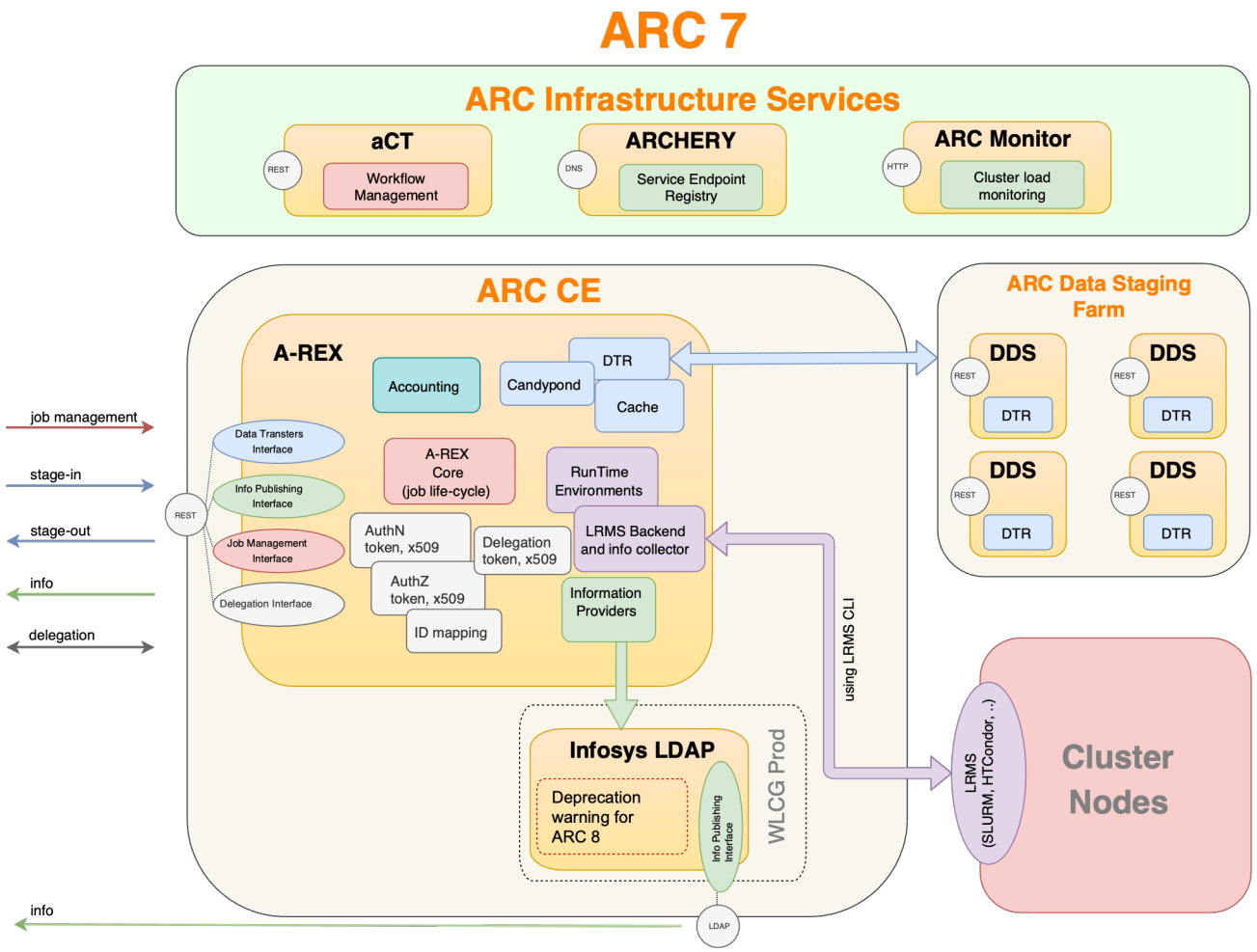
ARC 7 overview

Topics

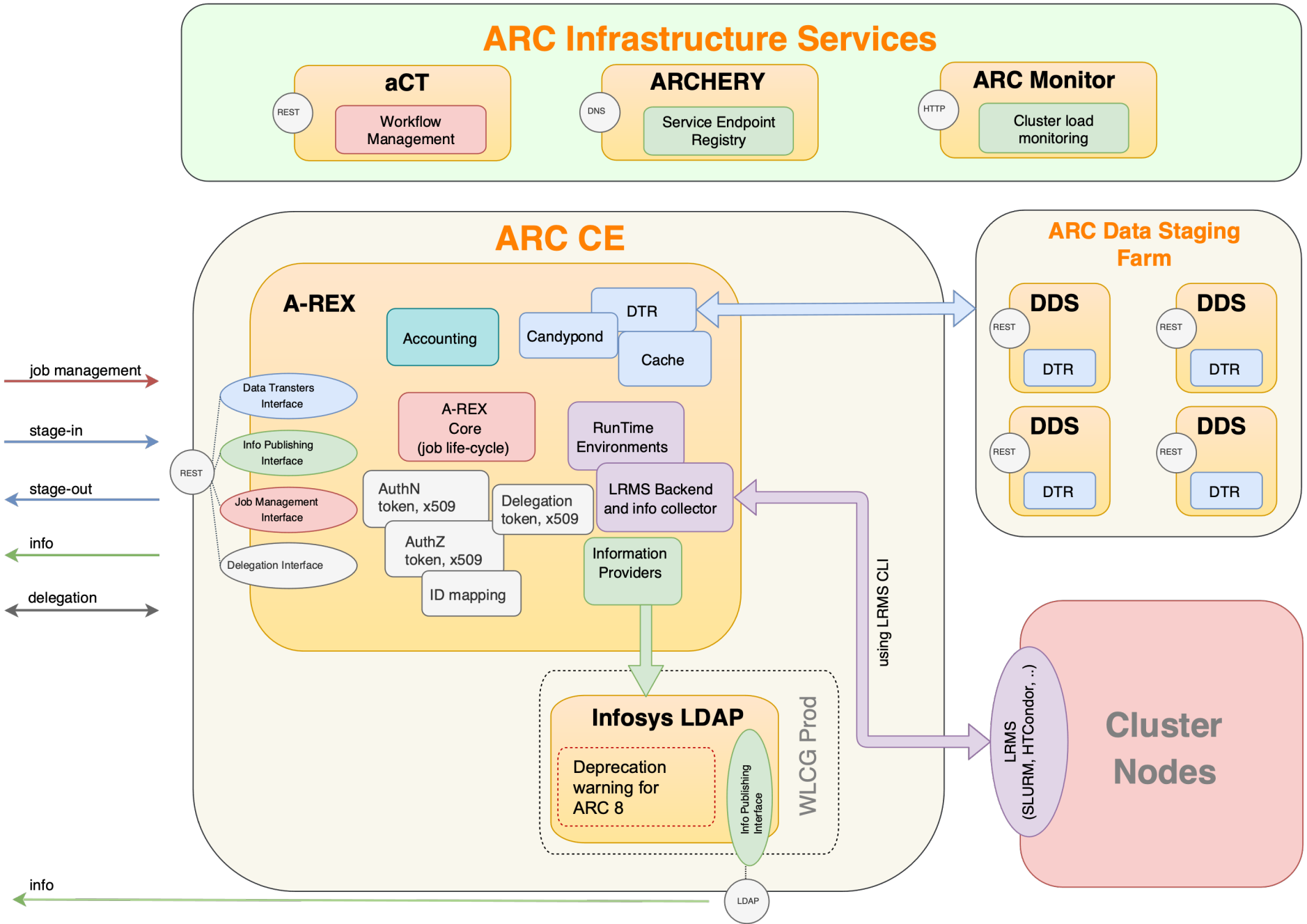
- Overview of ARC7 components and services
- Authentication and Authorization
- Datastaging and cache
- ARC modes

ARC specs

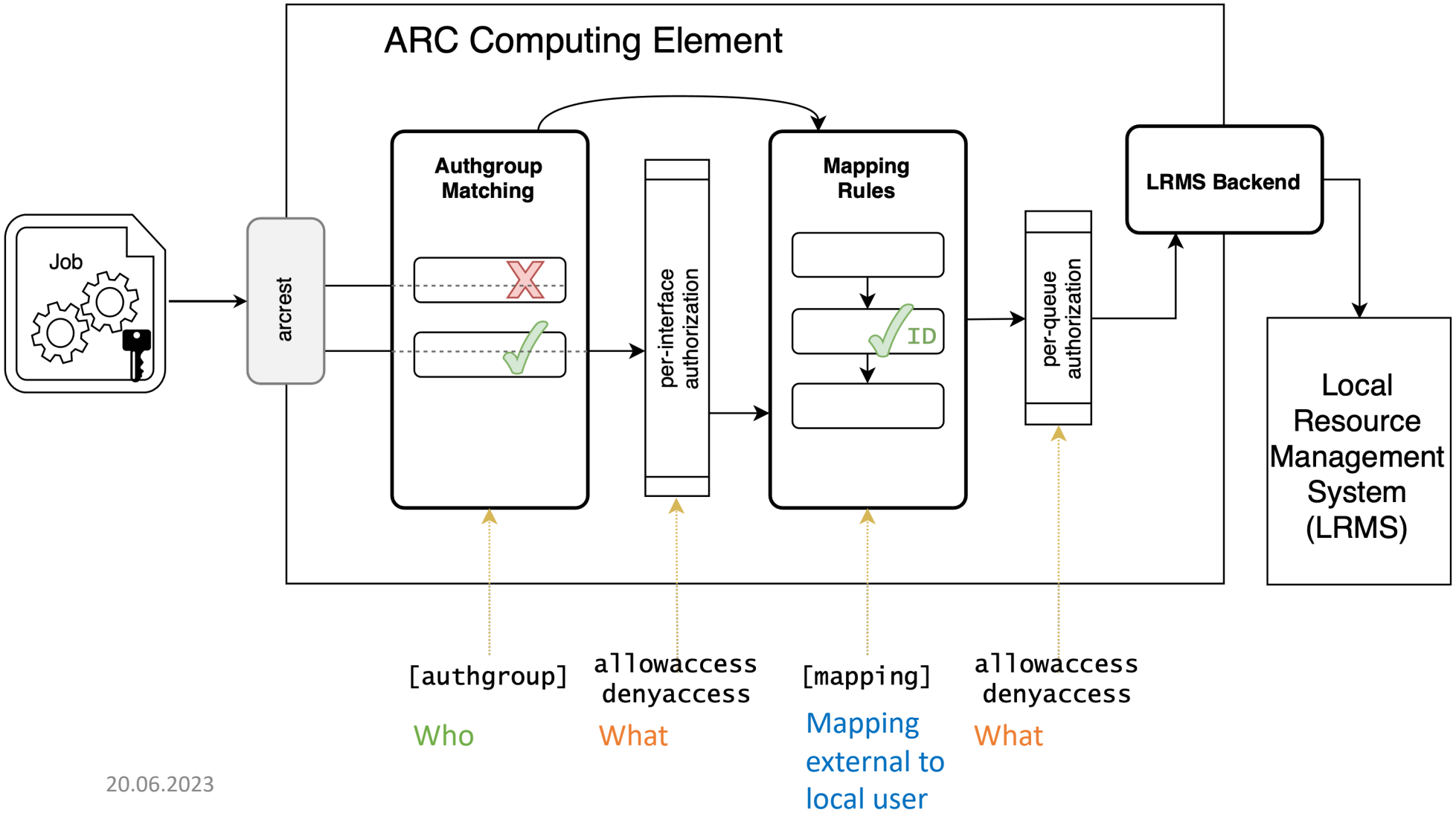
- Authentication, authorization
  - tokens
  - x509
- Job submission
  - ARC REST interface
- Information exchange
  - REST interface
  - Ldap interface (will be deprecated in ARC 8)
- File access
  - Protocols:
    - file, HTTP(s/g), GridFTP, SRM, Xrootd, LDAP, Rucio, S3, RFIO/DCAP/LFC (through GFAL2 plugins)



ARC 7


ARC Infrastructure Services
aCT
REST
Workflow Management
ARCHERY
DNS
Service Endpoint Registry
ARC Monitor
HTTP
Cluster load monitoring
ARC CE
A-REX
Accounting
Candypond
DTR
Cache
Data Transfers Interface
Info Publishing Interface
Job Management Interface
Delegation Interface
REST
A-REX Core (job life-cycle)
RunTime Environments
AuthN token, x509
Delegation token, x509
LRMS Backend and info collector
AuthZ token, x509
ID mapping
Information Providers
Infosys LDAP
Deprecation warning for ARC 8
Info Publishing Interface
WLCG Prod
LDAP
using LRMS CLI
ARC Data Staging Farm
DDS
REST
DTR
LRMS (SLURM, HTCondor, ..)
Cluster Nodes
job management
stage-in
stage-out
info
delegation
info

Powerful and transparent authentication and authorization functionality



Powerful and transparent authentication and authorization functionality

```
...

[authgroup:testers]
file = /etc/grid-security/testCA.allowed-subjects

[authgroup: wlcg_iam]
authtokens = * https://wlcg.cloud.cnaf.infn.it/ * compute.* *

[authgroup:atlas]
subject=/DC=ch/DC=cern/OU=Organic Units/OU=Users/CN=ddmadmin/CN=531497/CN=Robot: ATLAS Data Management
voms=atlas * *  *

[authgroup:wlcg]
authgroup = atlas
authgroup = wlcg_iam
```

Who

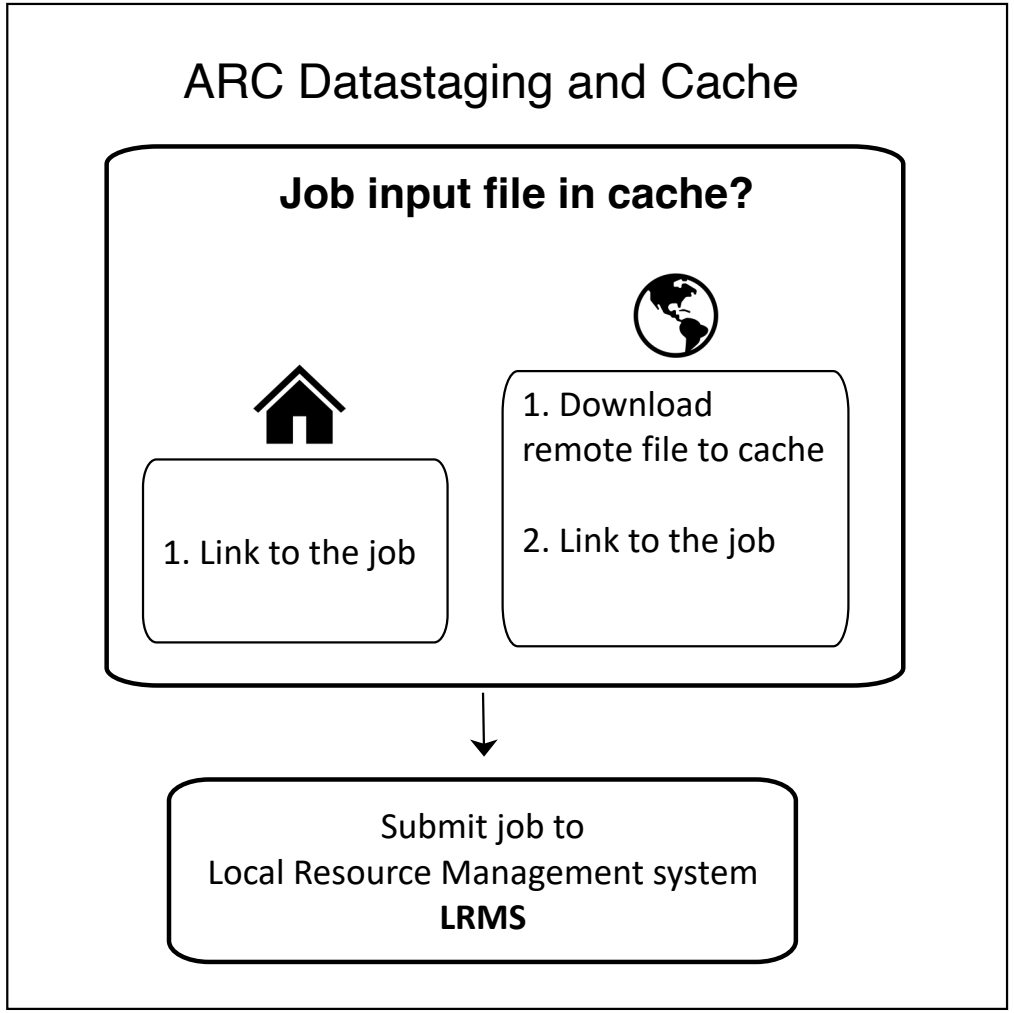
```
[mapping]
map_to_user = testers gridadm:gridadm
map_to_user = wlcg grid:grid
```

Mapping external to local user

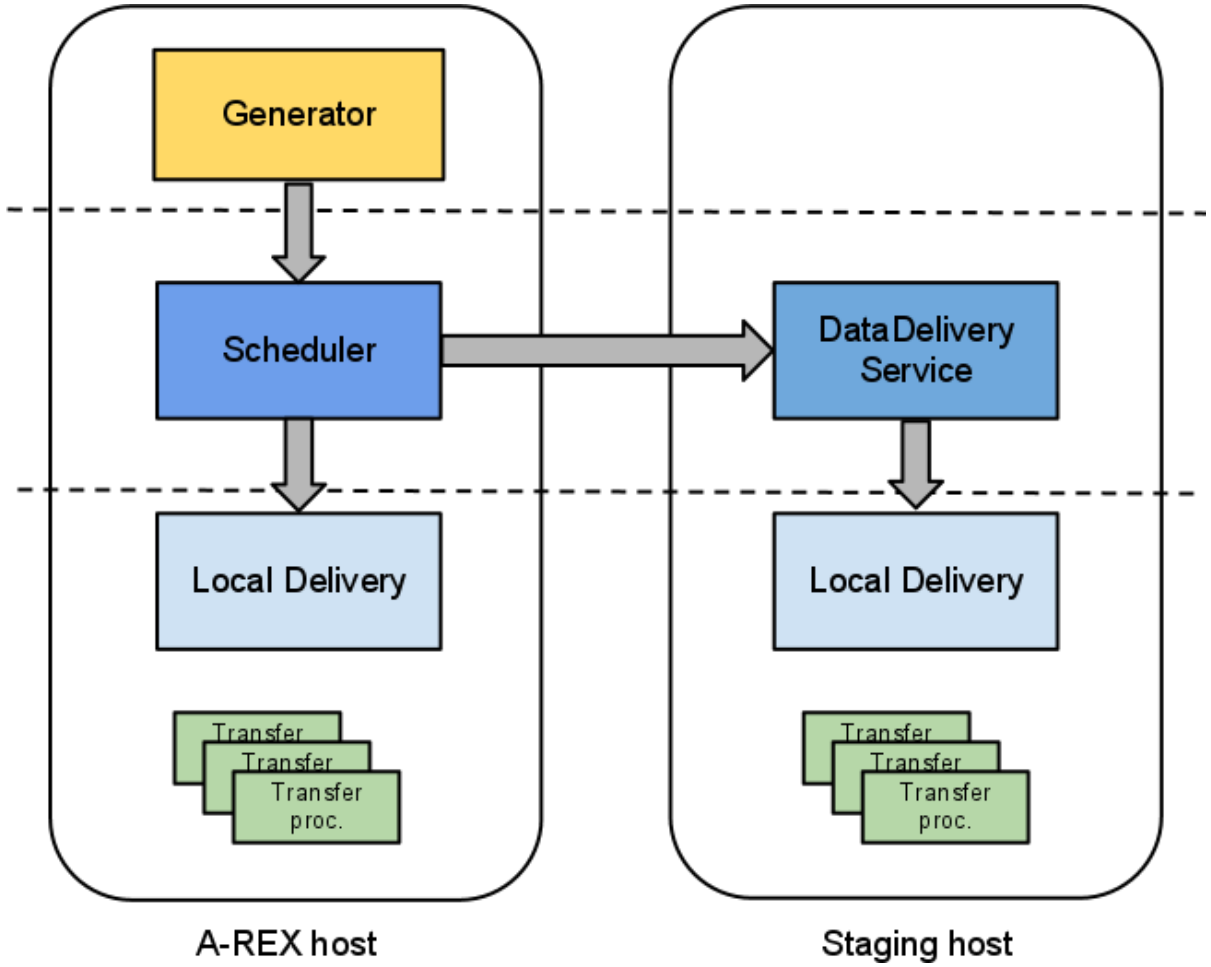
```
...

[arex/ws/jobs]
allowaccess = testers
allowaccess = wlcg

...

[queue:main]
allowaccess = wlcg
```

What

ARC Datastaging and cache

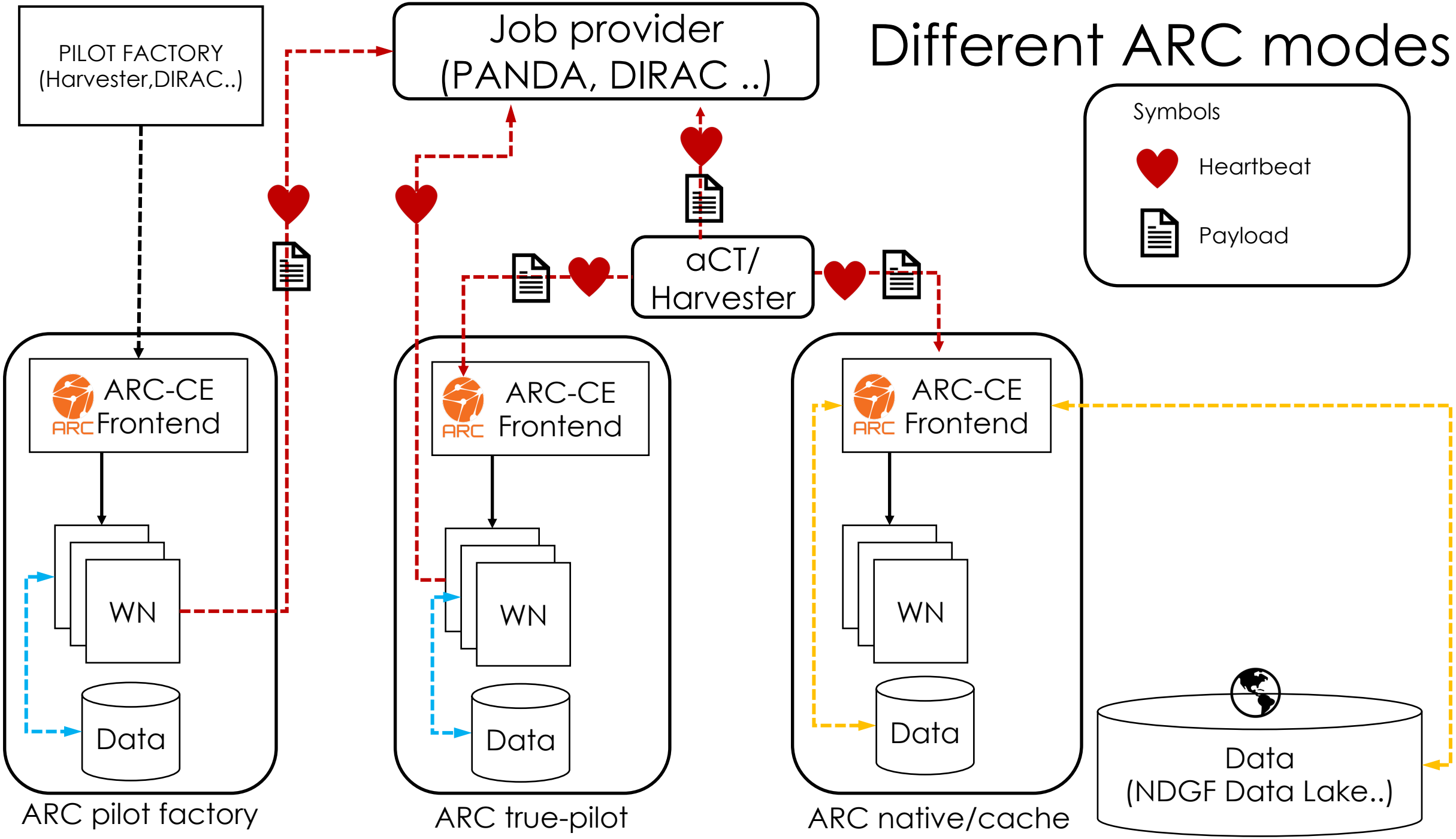


Optional remote multihost datastaging

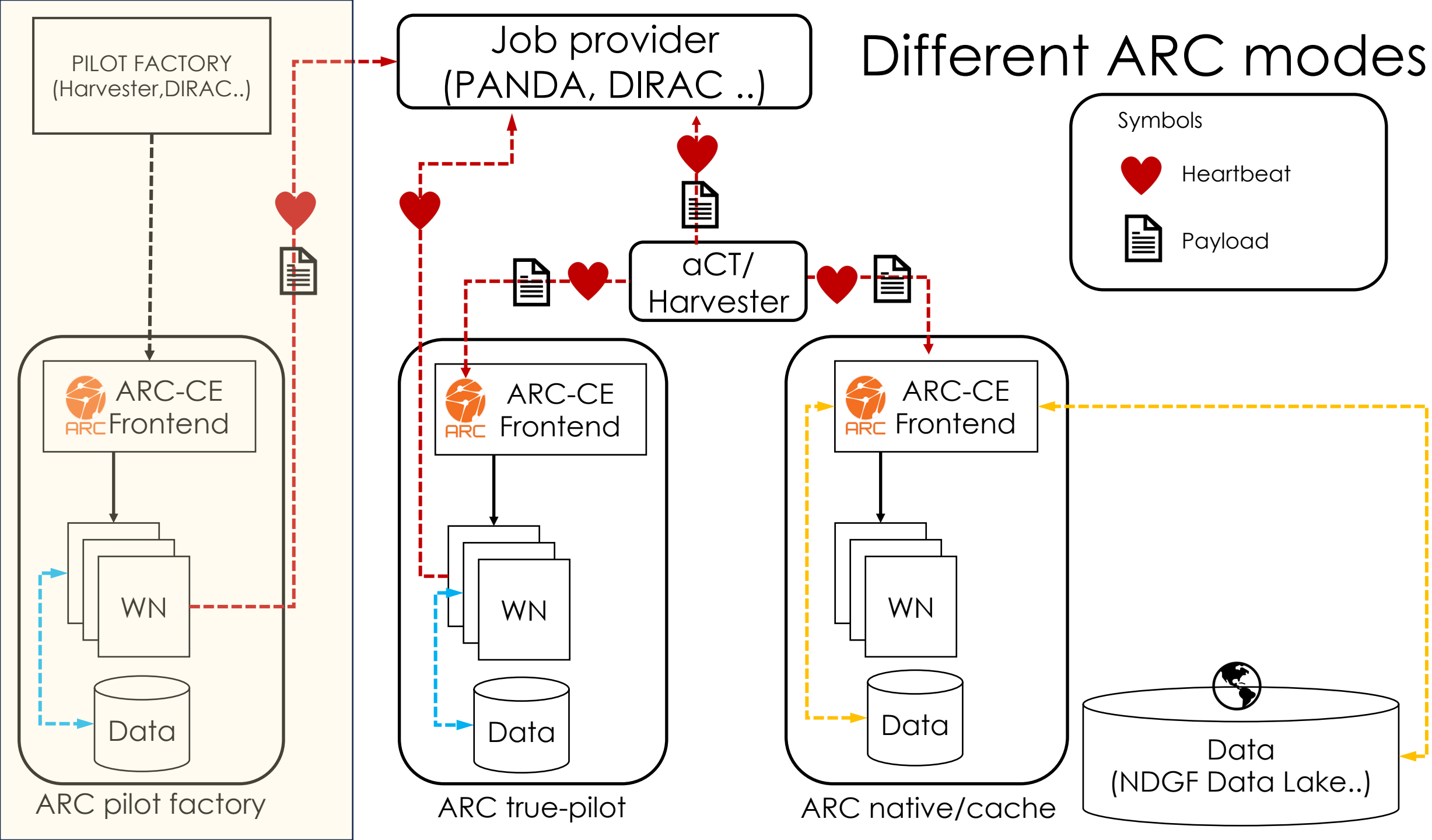


Configure with shared or local cache storage

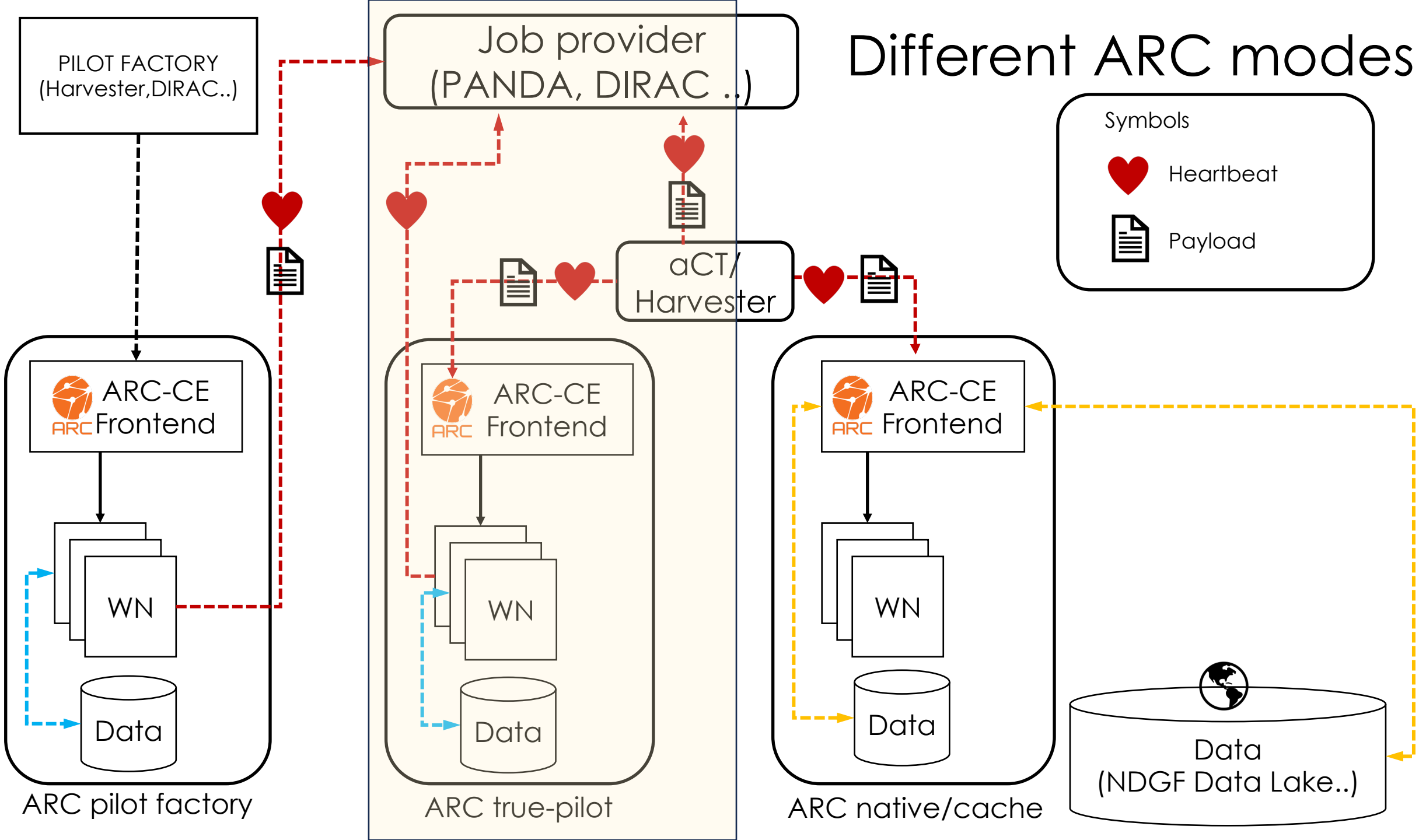
Different ARC modes



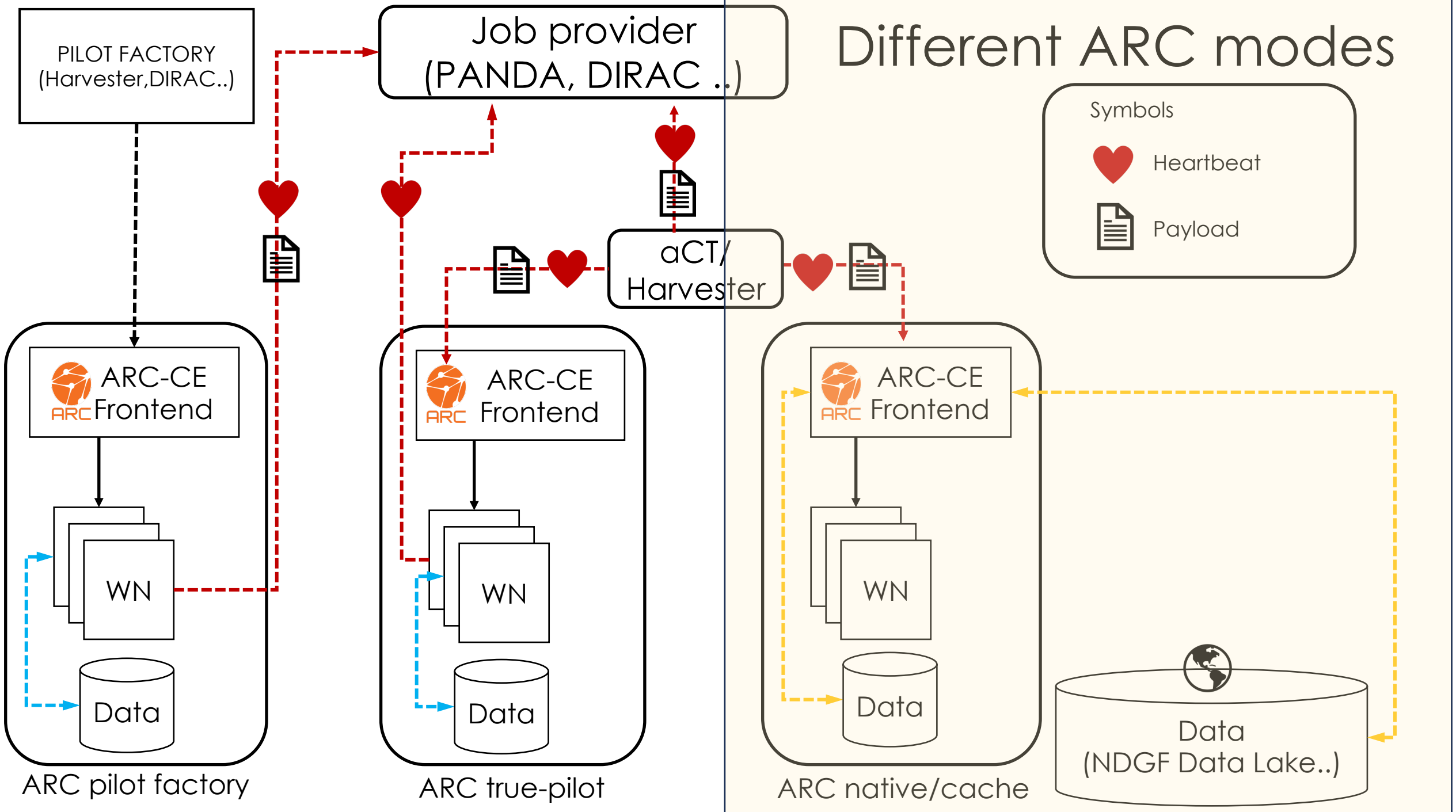
Different ARC modes



Different ARC modes



Different ARC modes



Get in touch and links

- Email: nordugrid-discuss@nordugrid.org (Subscribe)
- Skype channel dedicated to ARC support
- Documentation: http://www.nordugrid.org/arc/arc6

  - ARC 7 documentation – WIP!Many things still not updated http://www.nordugrid.org/arc/arc7
  - This tutorial: http://www.nordugrid.org/arc/arc7/admins/tutorial/tutorial.html