Condor-C Readiness
CEMon in the VDT

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Two Goals

- Discuss the state of Condor-C
  - Where is it at?
  - Is it ready for OSG?
- Plans for CEMon in the VDT

- Why these two disparate topics in one talk?
  - Because Ruth asked for it. ☺

Assumptions

- I assume that you understand what Condor-C is
- If you don't, we can talk a quick detour to slide #11, and explain what Condor-C is

EGEE is Using Condor-C in gLite

- Summary: It works well
- EGEE is using Condor-C's matchmaking heavily, but only in testing so far
- EGEE is using Condor-C's matchmaking
  - Matchmaking works fine
  - Advertising (to allow matchmaking) requires some extra setup
  - Today: Matchmaking to find sites that are available.
  - Soon: Matchmaking to discriminate among available sites
- Close collaboration to quickly resolve bugs and problems found

Active Development on Condor-C

- We have four developers whose top priority is Condor-C.
- Last two weeks of May: we sent one person to EGEE in Italy to quickly resolve issues with Condor-C.
- We have a Condor-C testbed…

Condor-C Testbed

- Current Setup:
  - 1 local submission node
  - 200 remote nodes (running condor_schedd)
- Continually test with GridExerciser
  - Submit jobs that sleep in remote scheduler universe
    (That is, they run directly on the remote computer)
  - Run 10 jobs per remote node
  - Today: Only using 20 remote nodes
    Because current local submission node is weak
  - Very soon: Will use all 200 remote nodes

Results of Testing

- EGEE gLite testing: 5-10% failure rate
  - Not bad for a grid environment
  - We are working hard to make this as small as possible
- GridExerciser testing: 25% failure rate
  - Extra high failure rate induced by testing environment
  - One major bug causing most failures. It's apparently specific to our testing environment, but will be fixed soon

Release Status

- Condor-C is a subset of Condor and is not versioned separately
- Available today in Condor 6.7.7.
  - This is in VDT 1.3.6, which is in OSG deployment
- Condor 6.7.8 fixes several Condor-C bugs
  - Will be released within about a week
  - Will be in VDT 1.3.7

CEMon in the VDT

- WARNING: I am not yet an expert
- What is CEMon?
  - Monitoring software from EGEE
  - A web service that conceptually replaces the GRIS
  - Generic Information Provider (GIP) plugs into CEMon
  - Users can poll CEMon
  - CEMon can push data from CEMon
- Plans for CEMon in the VDT
  - There has been a request to add CEMon to the VDT
  - Currently under evaluation
  - Probably easy to add
  - Will people use it?

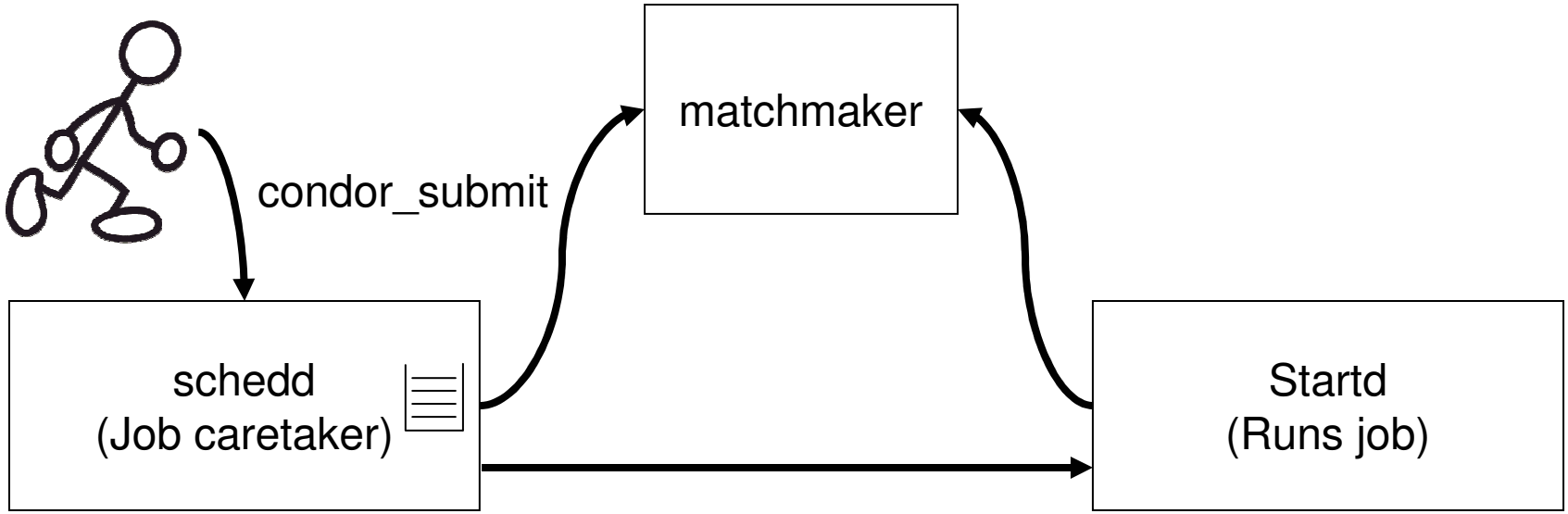
Questions?

Extra Slides: How Condor-C Works

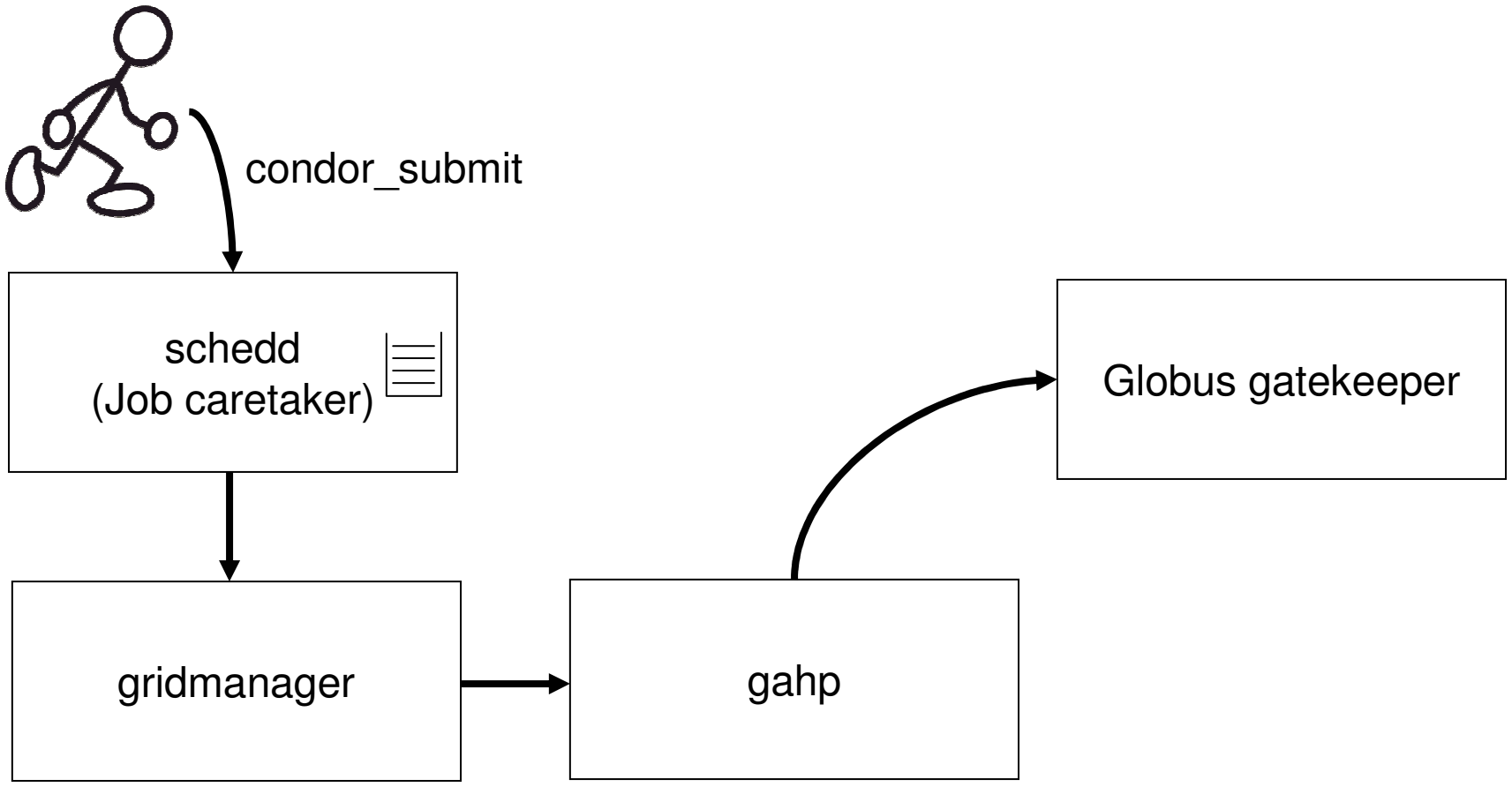
What is Condor-C?

- Condor-C is a way for Condor to run grid jobs
- Condor-C works through job delegation
  - The *condor_schedd* manages the job queue
  - User submits job to local condor_schedd, referred to as "schedd A".
  - Schedd A delegates job to remote condor_schedd, referred to as "schedd B".
  - Delegation continues, either to batch system or to another schedd.

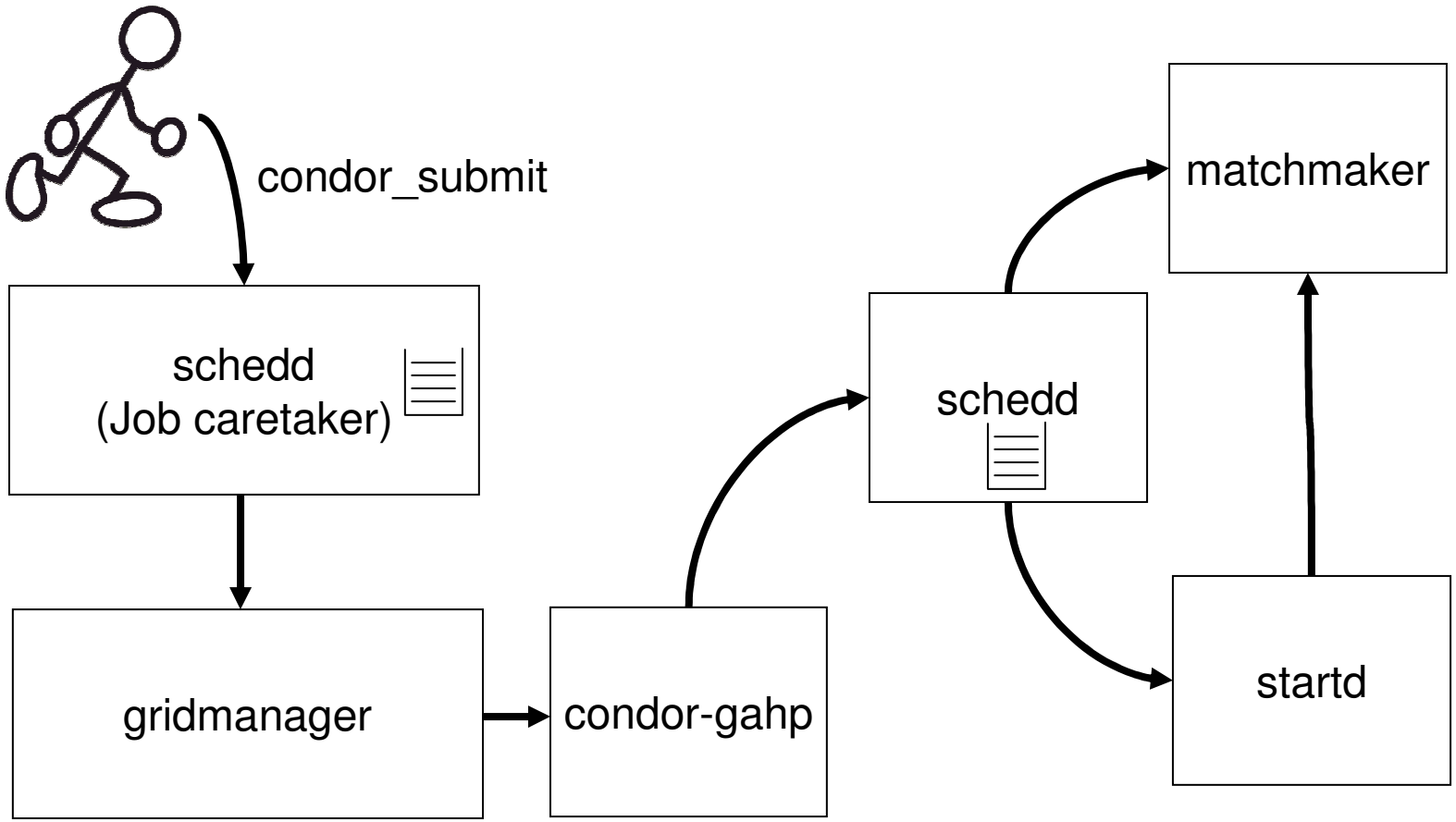
The Route to Condor-C: Condor



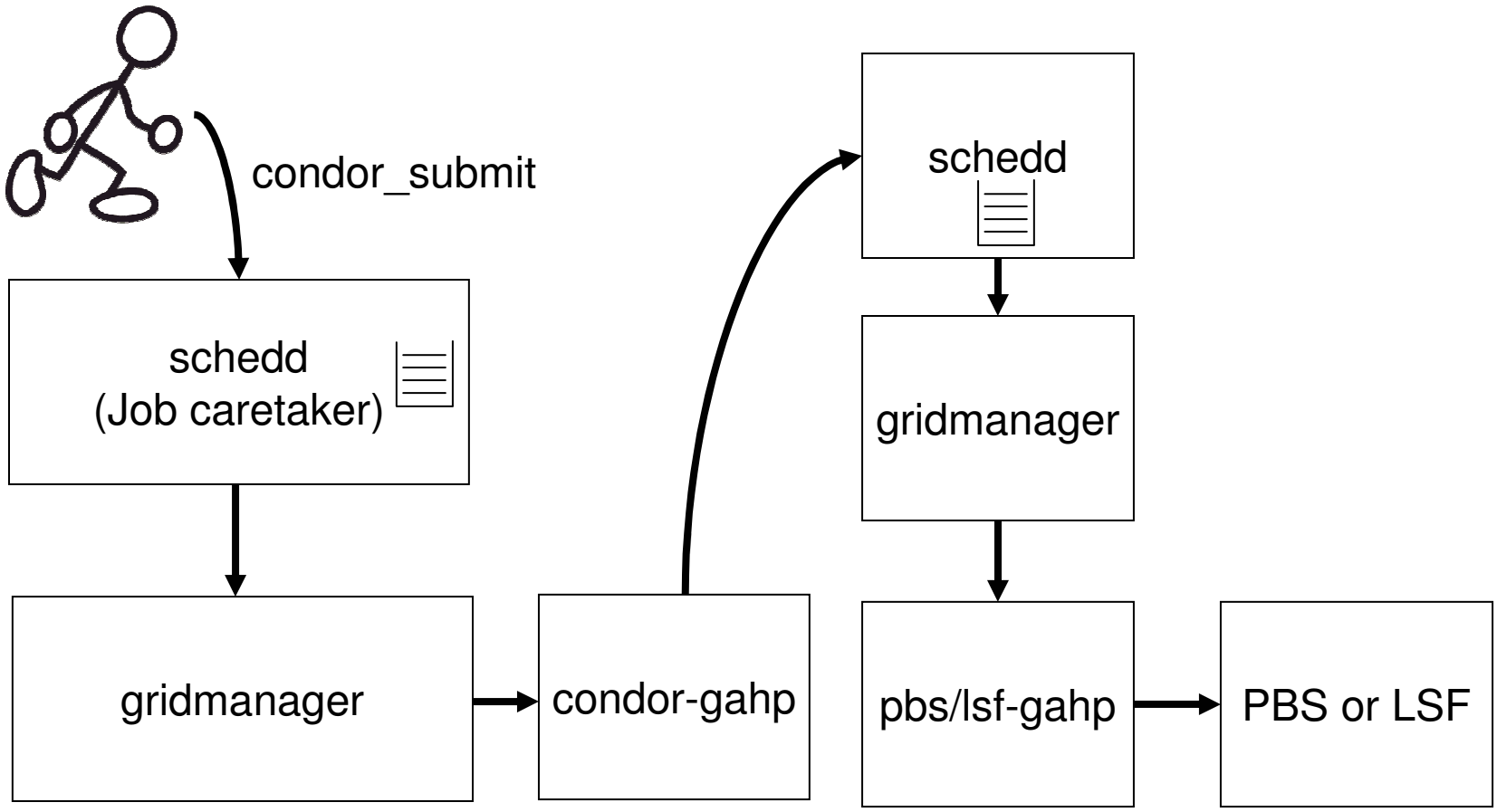
The Route to Condor-C: Condor-G



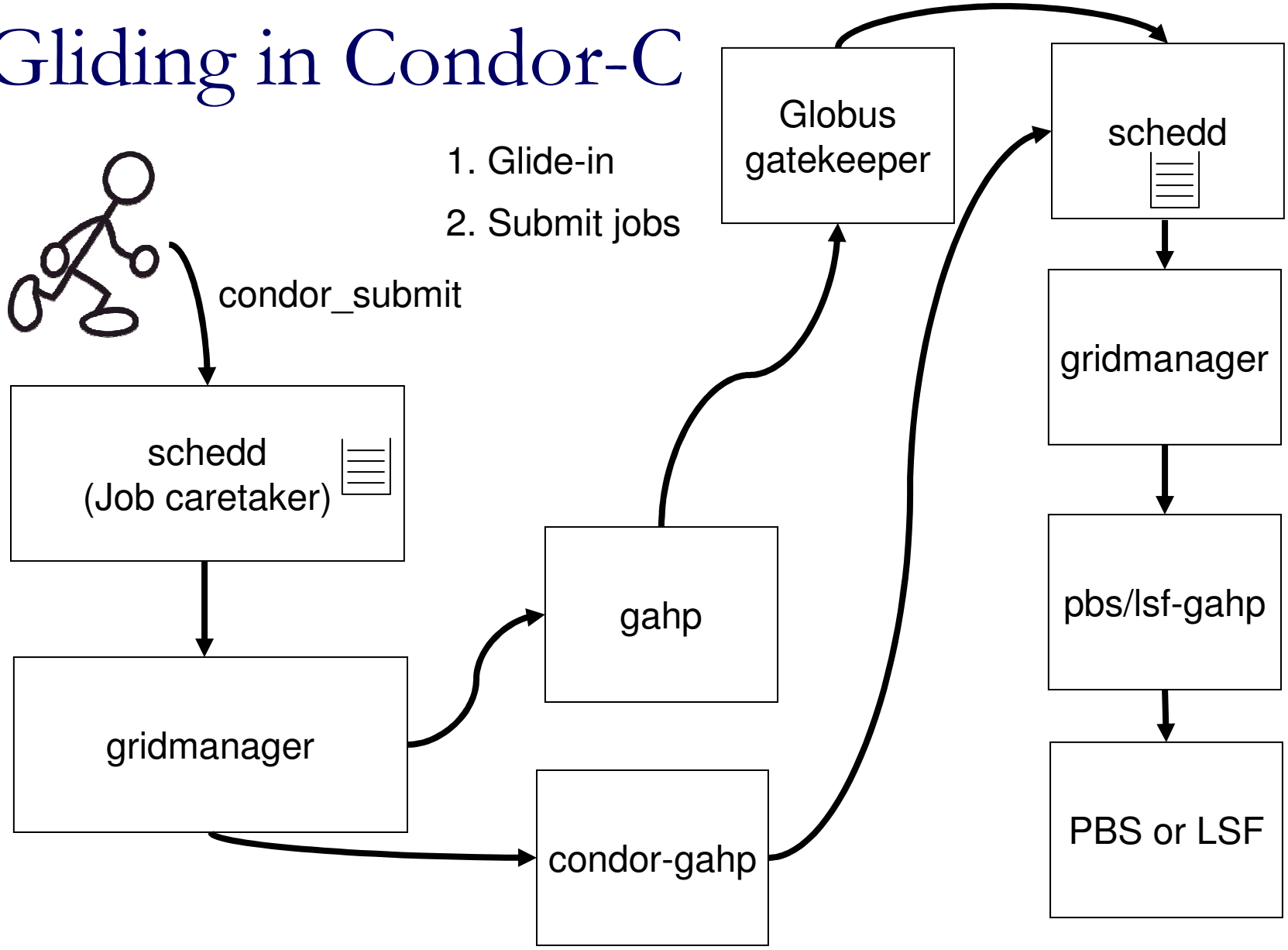
Condor-C


condor_submit
schedd
(Job caretaker)
gridmanager
condor-gahp
schedd
matchmaker
startd

Condor-C to non-Condor



Gliding in Condor-C



Matchmaking with Condor-C

- In all of these examples, Condor-C went to a specific remote schedd
- This is not required: you can do matchmaking

Matchmaking with Condor-C