



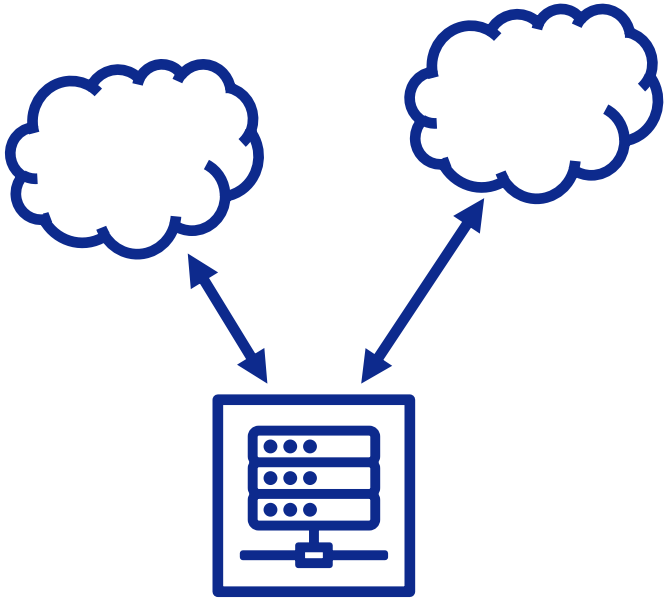
STAC Update: Cloud Communications

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President, STAC

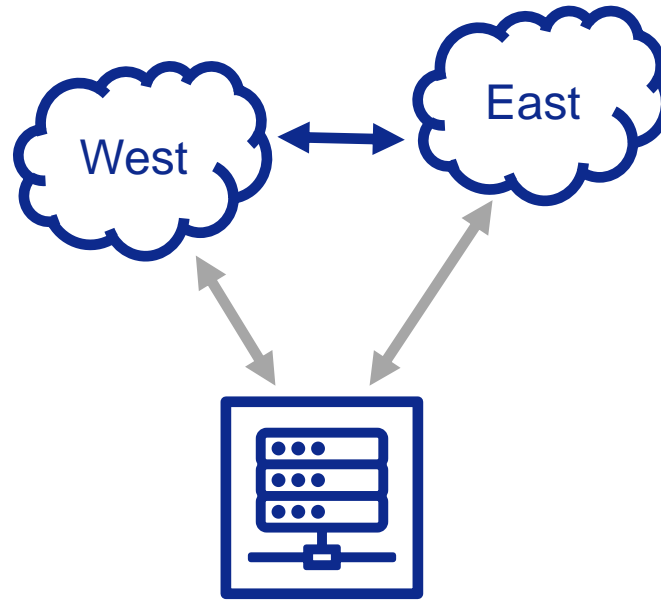
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Cloud connectivity latencies

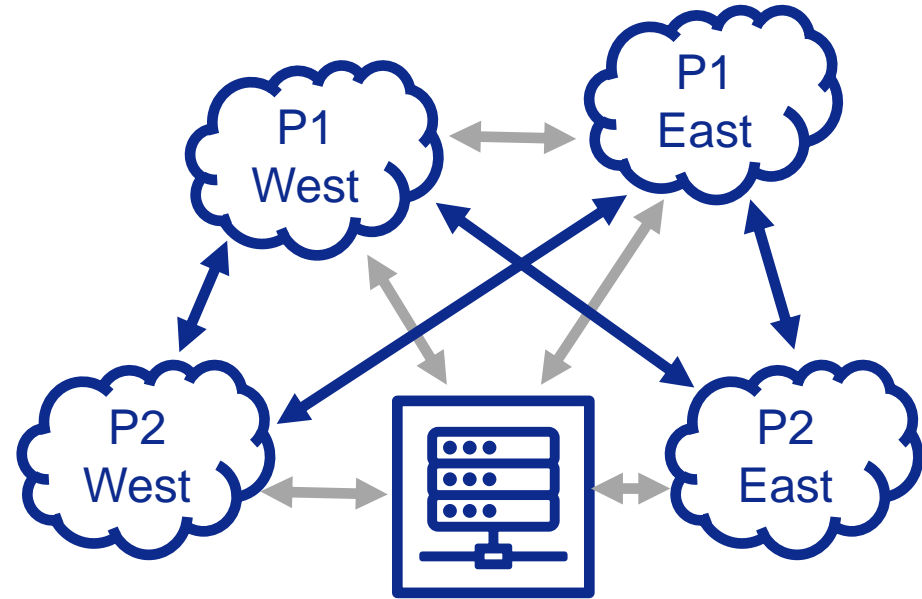
- For a given link, need to know:
 - Latency
 - Determinism



**On-prem
to Cloud**

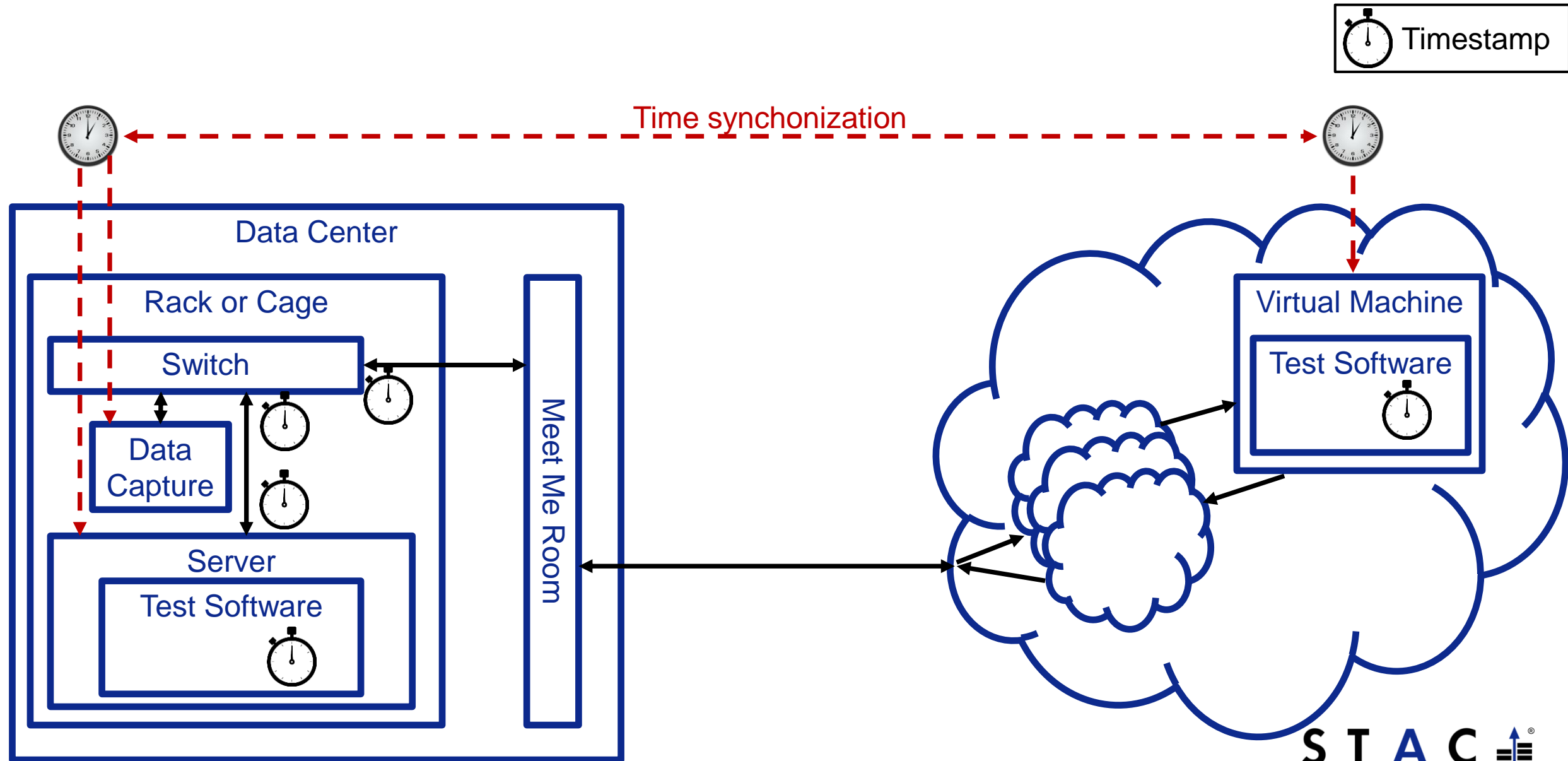


**Cloud Region
to Cloud Region**



**Cloud Provider
to Cloud Provider**

High-level diagram: on-prem to cloud

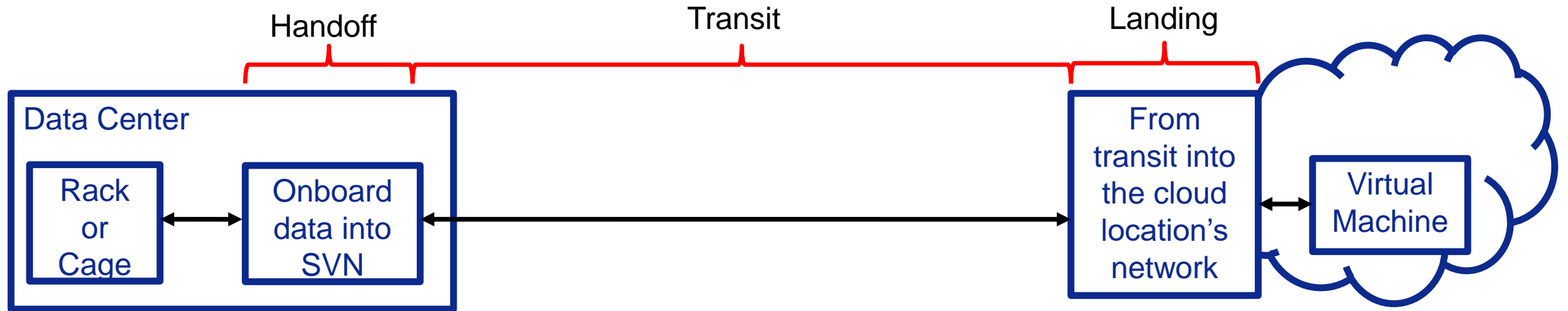


 Timestamp

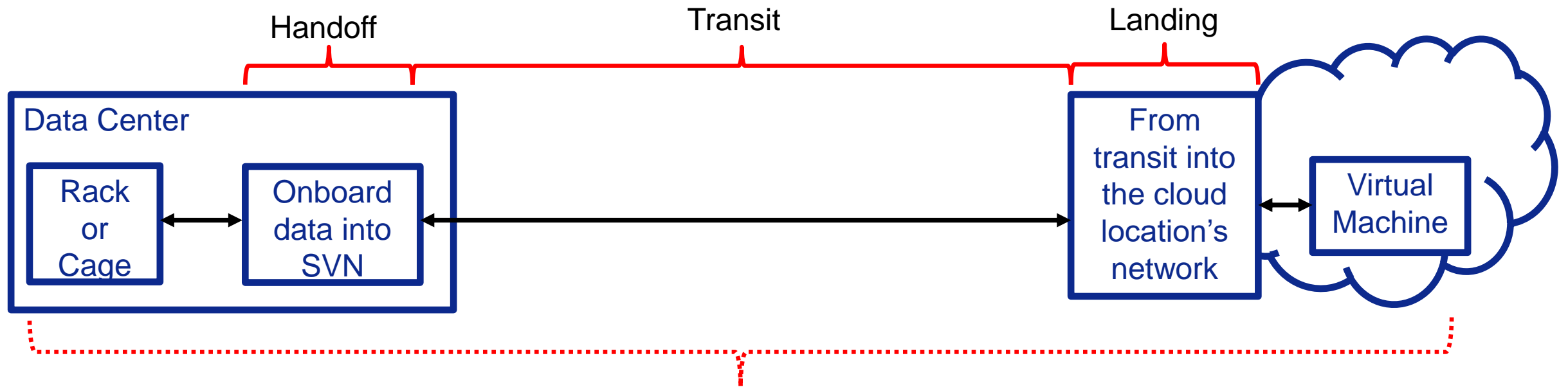
Breaks into three separate measurements of importance

- Handoff from physical network to SDN (“handoff”)
 - At on-prem data center
 - Ex: handing cloud provider has a pop at the data center
 - At cloud
 - Ex: non-cloud provider network provider handing off at the cloud
- Landing zone (“landing”)
 - At the cloud provider, where the data comes in from the long haul and gets into the cloud’s data center
- Transit (“transit”)
 - The communication from the data center to the landing zone
 - Complication:
 - Where is the handoff? How does that change?

Measurements: on-prem to cloud



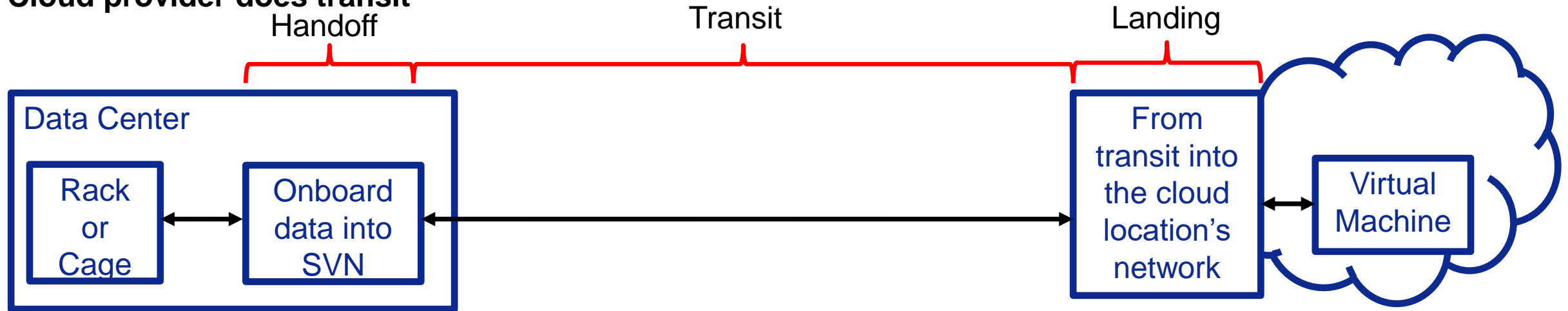
Measurements: on-prem to cloud



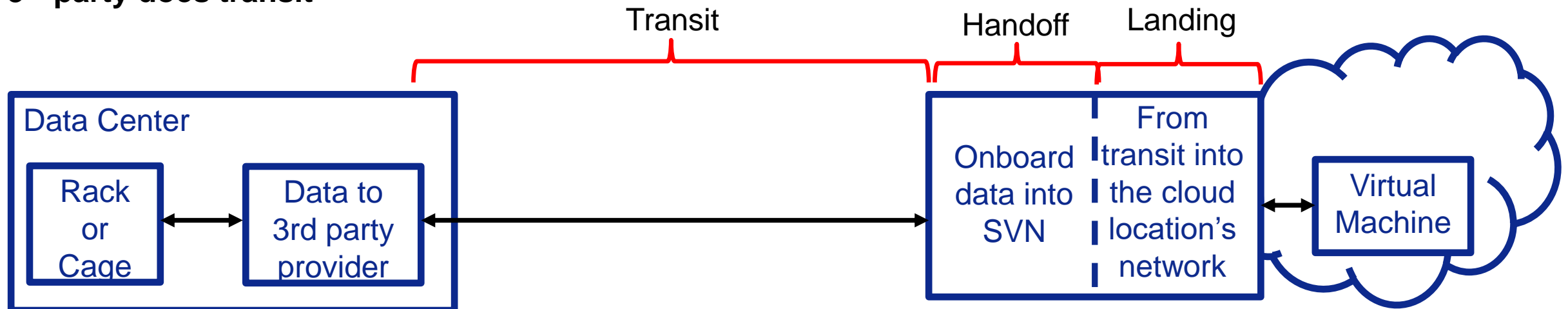
But what about full path?

The challenge of the moving handoff

Cloud provider does transit

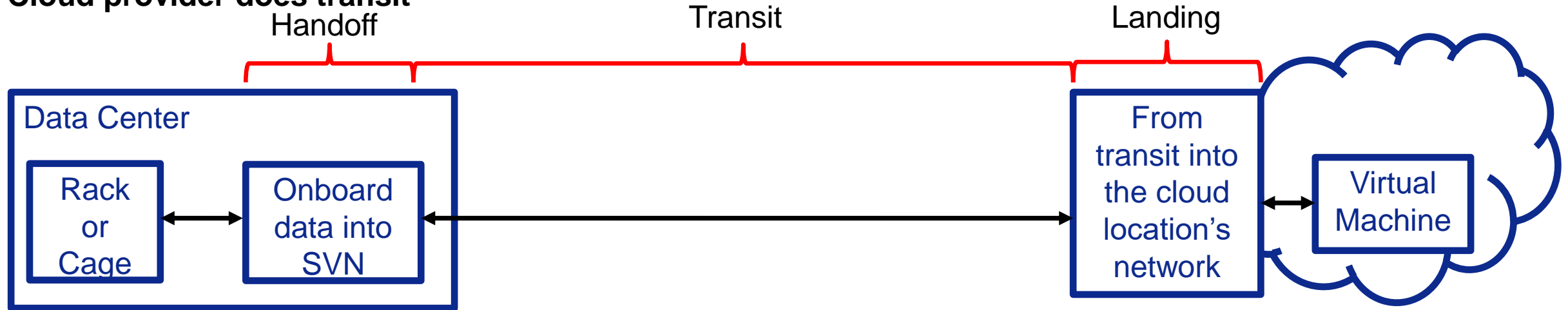


3rd party does transit

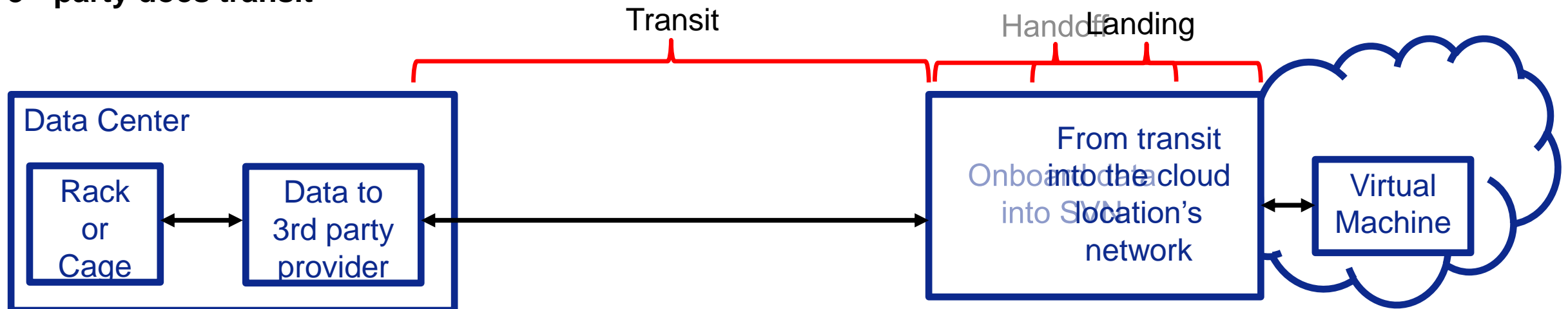


The challenge of the moving handoff & getting cloudier

Cloud provider does transit



3rd party does transit



Next & future steps

- Next meeting second half of May
 - Refine the three different measurements
 - Define what time stamping is possible and break down into required and optional
 - While still allowing for apples-to-apples comparison
- Many requirements under discussion, including
 - Time sync, accurate time stamps
 - Hypervisor vs containers vs bare metal
 - How long to measure
 - How many measurements
 - Include getting to the VM? If so, how many VMs?

If you are interested in helping define specifications...

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