ksqlDB & Confluent Cloud facts - *Know the limits!*

Dedicated Cluster CKU limits

https://docs.confluent.io/current/cloud/features/cluster-types.html#dedicated-cluster-ckus-and-limits

3000 simultaneous clients
80 connection attempt per second
15.000 requests per second

CKU

50 MB/s total → 5 MB/s *per partition* → up to 4500 topic-partitions, up to 250 GB / partition → 15 MB/s *per partition* → 150 MB/s total

10 TB

storage is "pre-replication" capacity
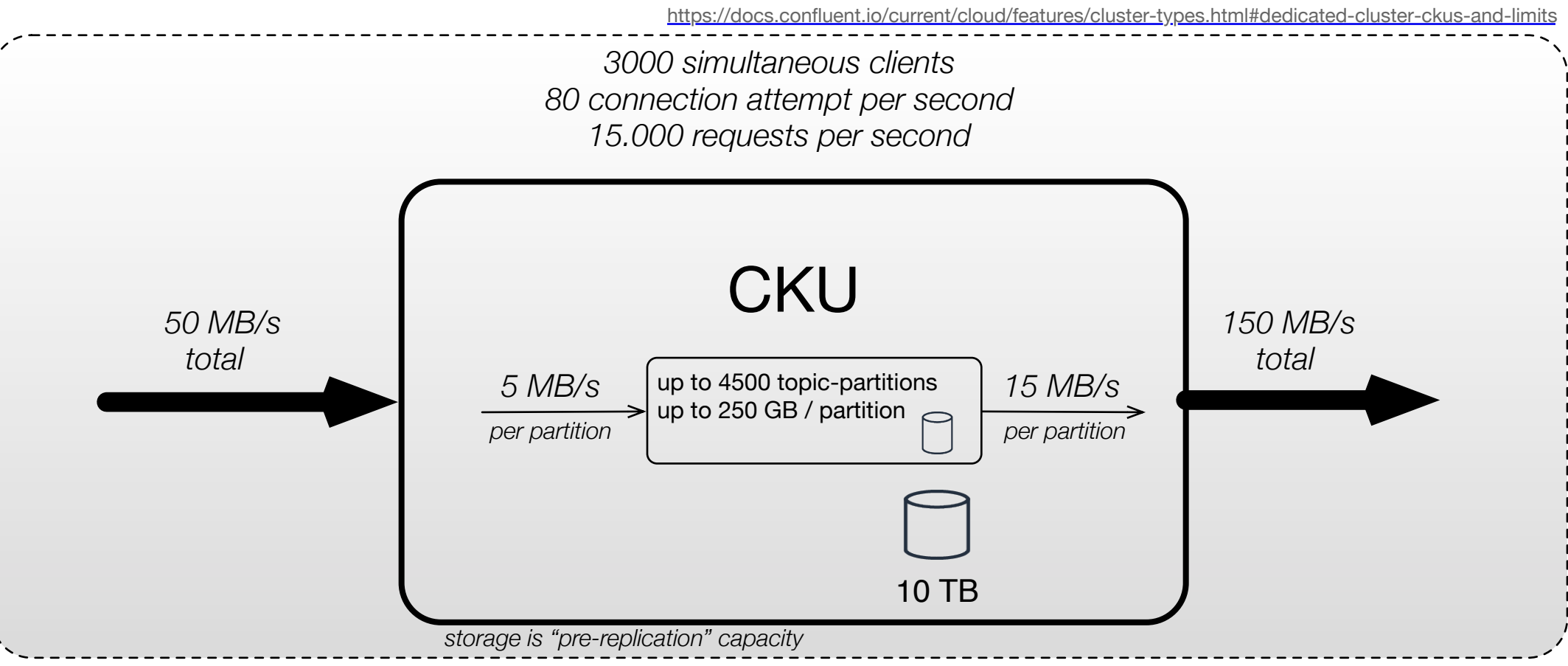
Dimension	Capability
Message size	Max 8 MB
Client version	Minimum 0.11.0
Request size	Max 100 MB
Fetch bytes	Max 55 MB
Partitions	Depends on number of CKUs, absolute max 100,000
API keys	Max 500
Networking options	Internet endpoints, VPC peering, AWS Transit Gateway
Multi-zone high availability	Available
Confluent Cloud Schema Registry schema versions	Max 1000

Dedicated clusters up to: *24 CKU*
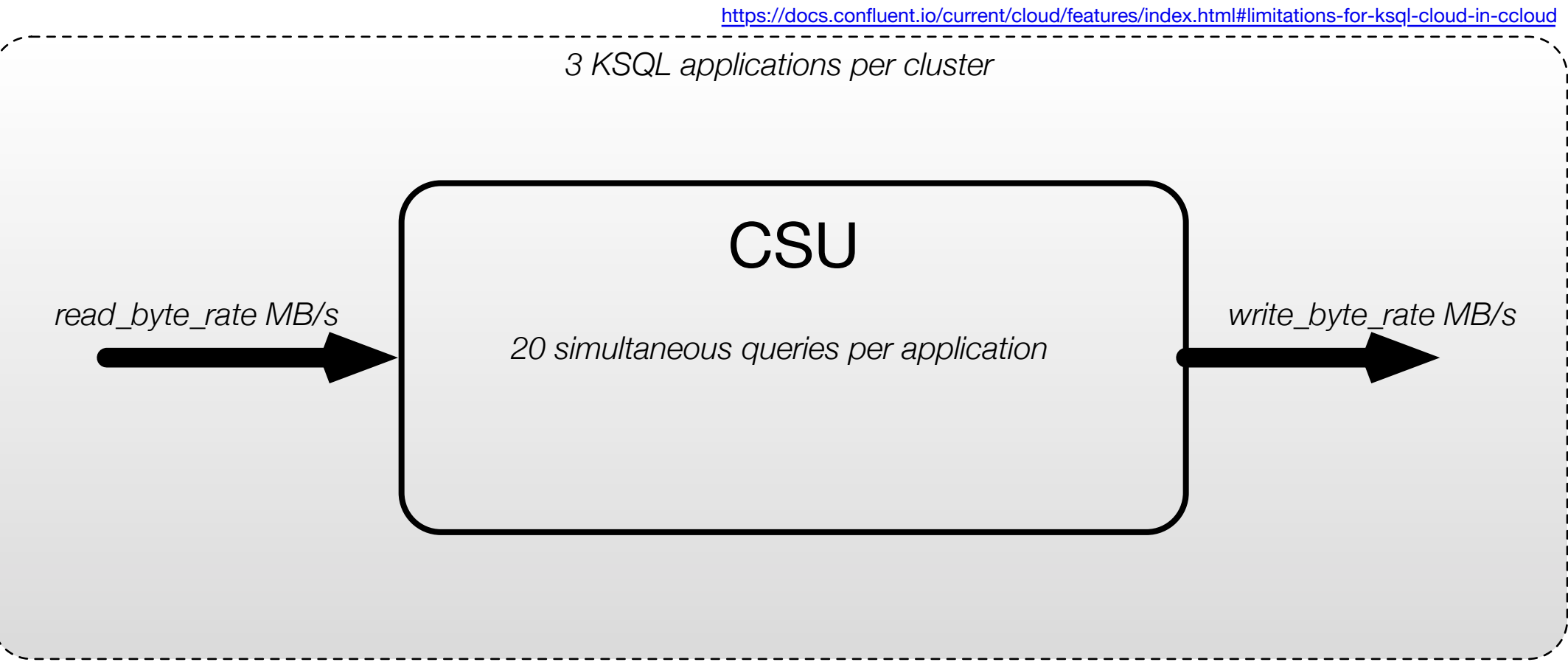**Multi-Zone clusters minimum: *2 CKU***

Other Cluster CKU limits

Basic cluster limits per cluster

Dimension	Capability
Ingress	Max 100 MBps
Egress	Max 100 MBps
Storage (pre-replication)	Max 5 TB
Partitions (pre-replication)	Max 2048
Total client connections	Max 1000
Connection attempts	Max 10 per second
Requests	Max 1500 per second
Message size	Max 2 MB
Client version	Minimum 0.11.0
Request size	Max 100 MB
Fetch bytes	Max 55 MB
API keys	Max 20
Networking options	Internet endpoints
Multi-zone high availability	Not available
Confluent Cloud Schema Registry schema versions	Max 1000
Tasks per Connector	Max 1

Standard cluster limits per cluster

Dimension	Capability
Ingress	Max 100 MBps
Egress	Max 100 MBps
Storage (pre-replication)	Max 5 TB
Partitions (pre-replication)	Max 2048
Total client connections	Max 1000
Connection attempts	Max 10 per second
Requests	Max 1500 per second
Message size	Max 2 MB
Client version	Minimum 0.11.0
Request size	Max 100 MB
Fetch bytes	Max 55 MB
API keys	Max 20
Networking options	Internet endpoints
Multi-zone high availability	Available
Confluent Cloud Schema Registry schema versions	Max 1000
Tasks per Connector	Unlimited

CSU limits

https://docs.confluent.io/current/cloud/features/index.html#limitations-for-ksql-cloud-in-ccloud

3 KSQL applications per cluster

CSU

20 simultaneous queries per application

read_byte_rate MB/s → → write_byte_rate MB/s

Limitations for KSQL in Confluent Cloud

- Currently, user-defined functions (UDFs, UDAFs, and UDTFs) aren't supported.
- You can have a maximum of 20 continuous queries per application.
- You can have a maximum of three KSQL applications.
- Pull queries aren't supported.
- Connect integration isn't supported.
- ccloud CLI version 0.198.0 or higher is required to create ksqlDB API keys for Confluent Cloud.