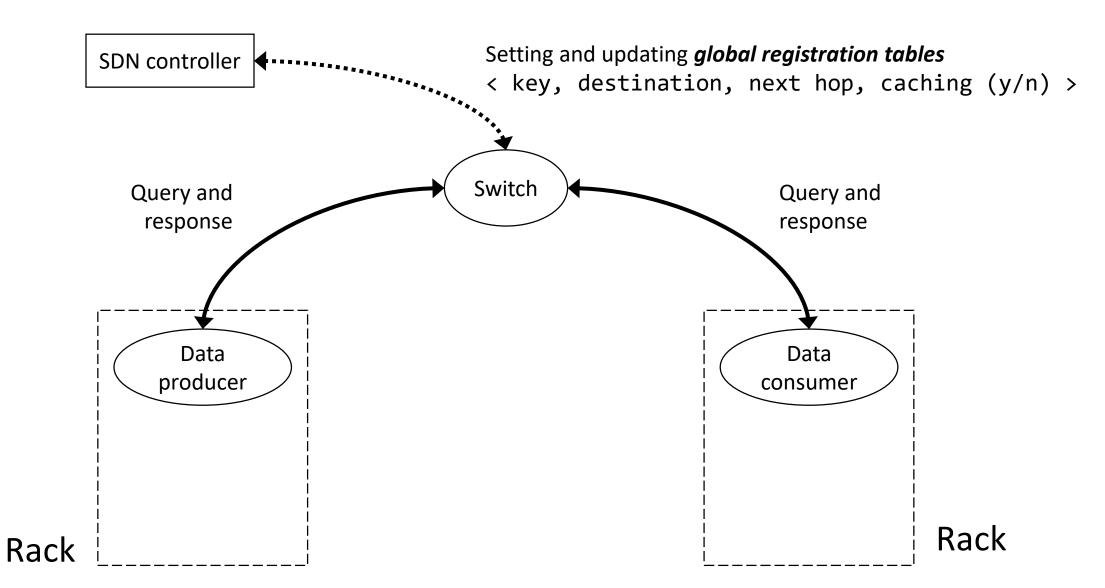
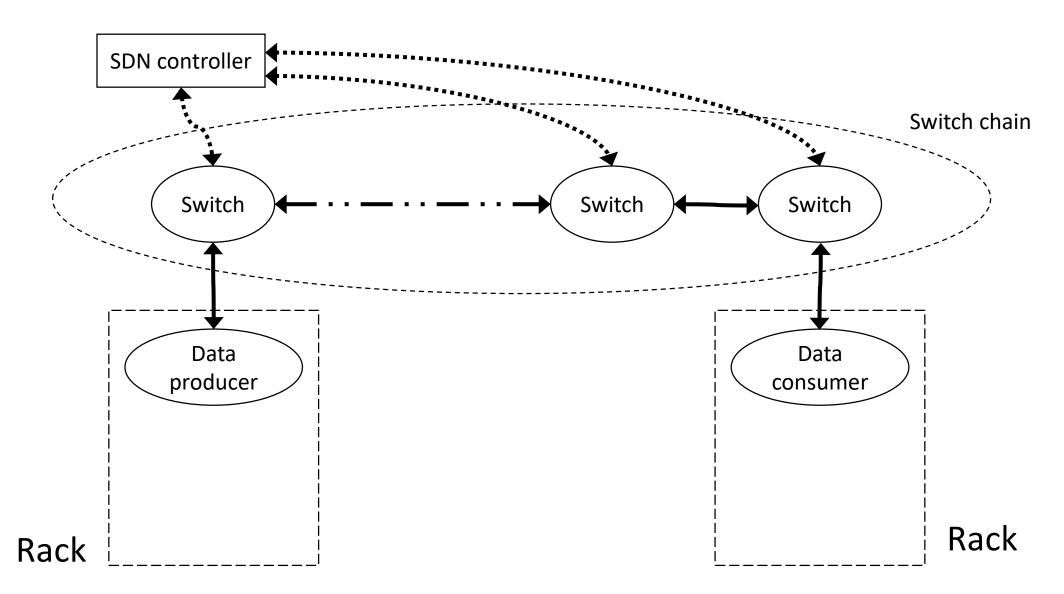
### IncBricks: basic topology and entities

*In-network caching system* 



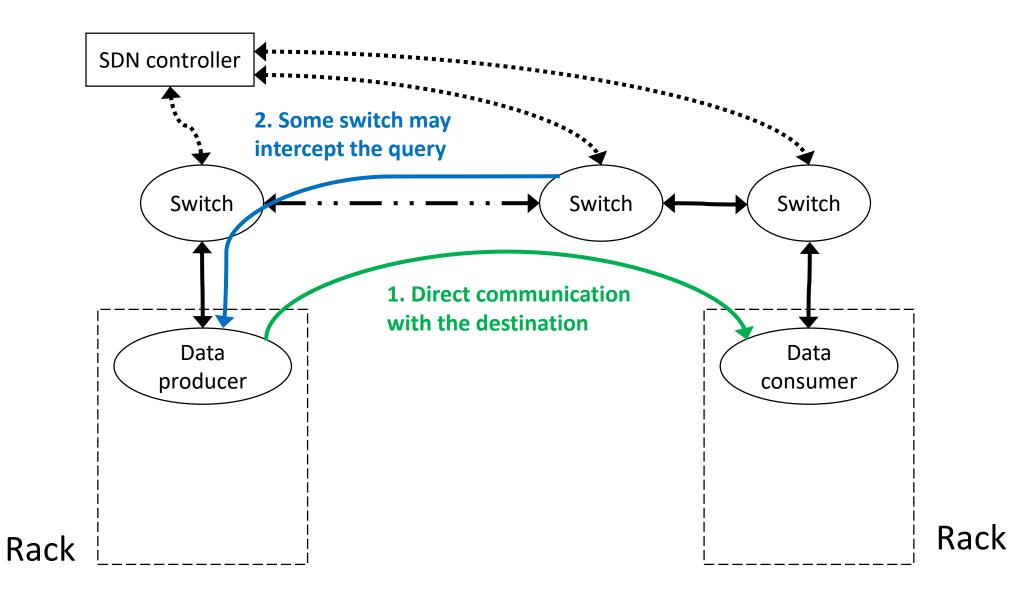
## IncBricks: extended topology

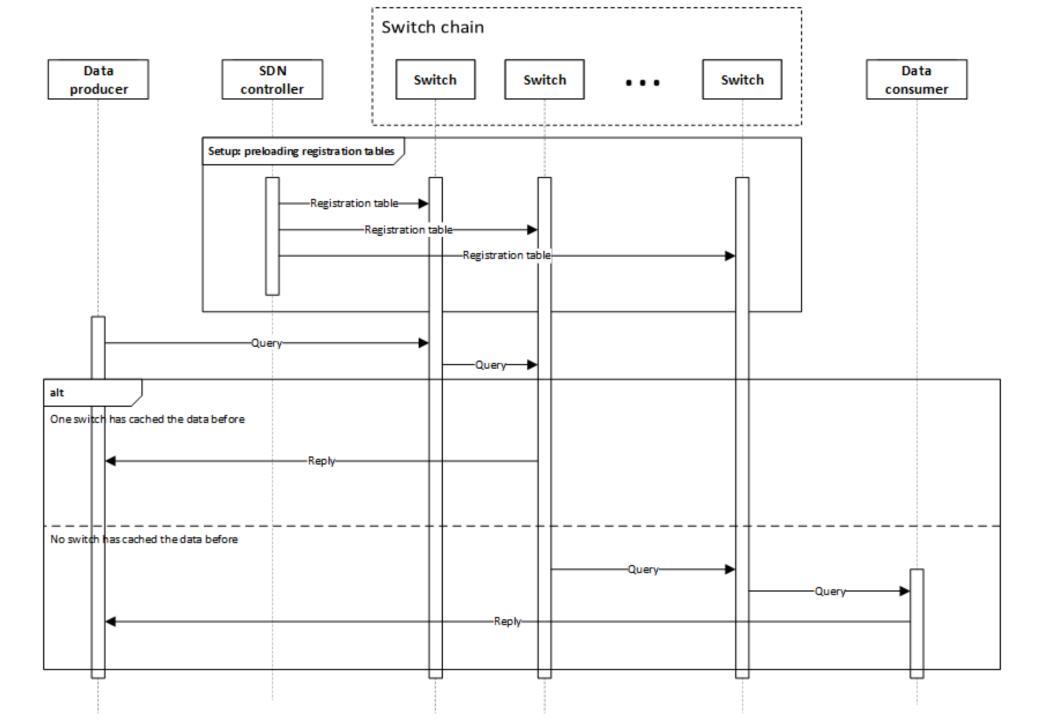
*In-network caching system* 



## IncBricks: logical communication pattern

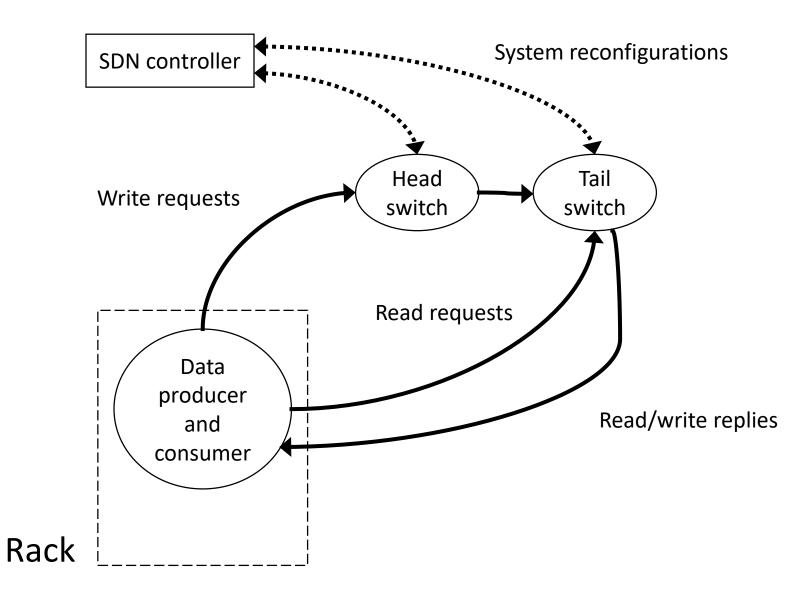
*In-network caching system* 





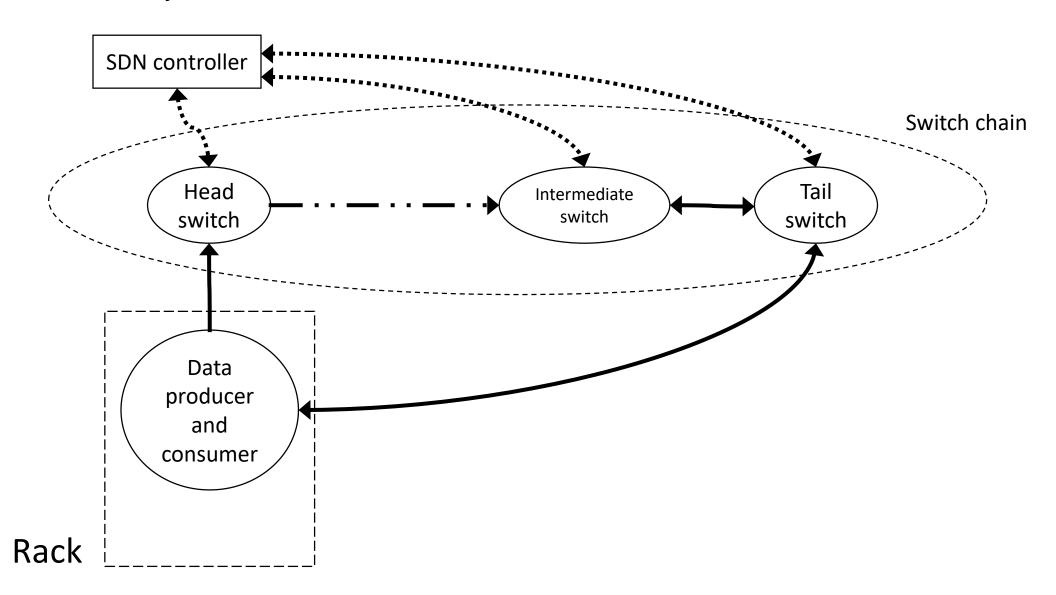
## NetChain: basic topology and entities

*In-network solution for coordination services* 



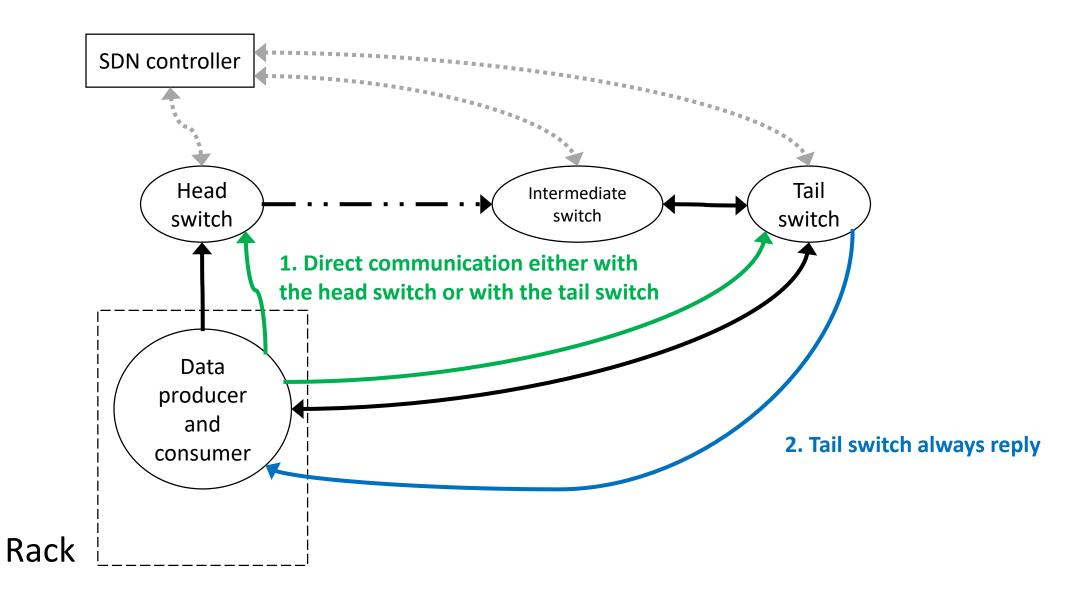
## NetChain: extended topology

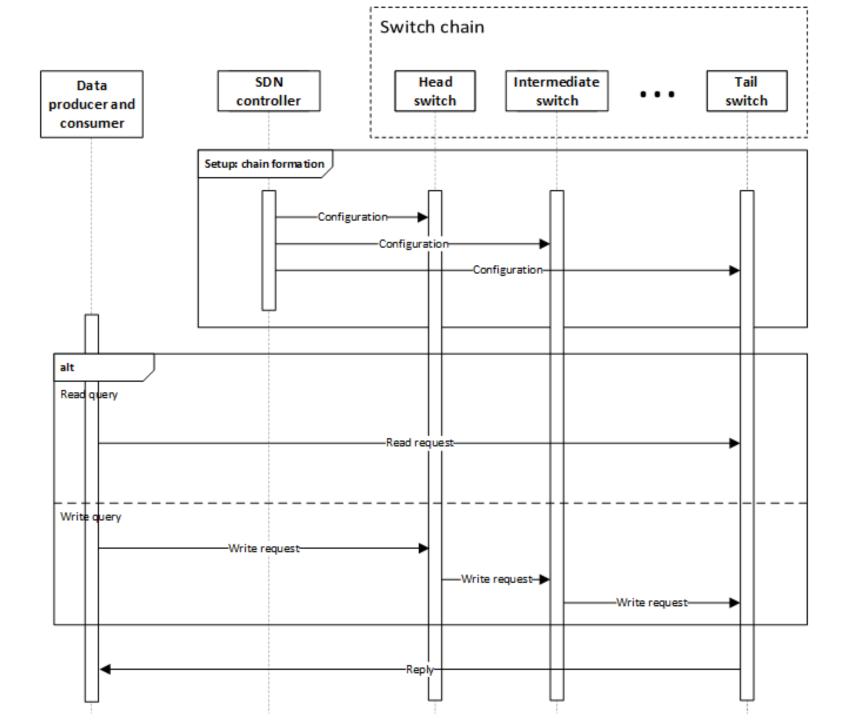
*In-network solution for coordination services* 



### NetChain: logical communication pattern

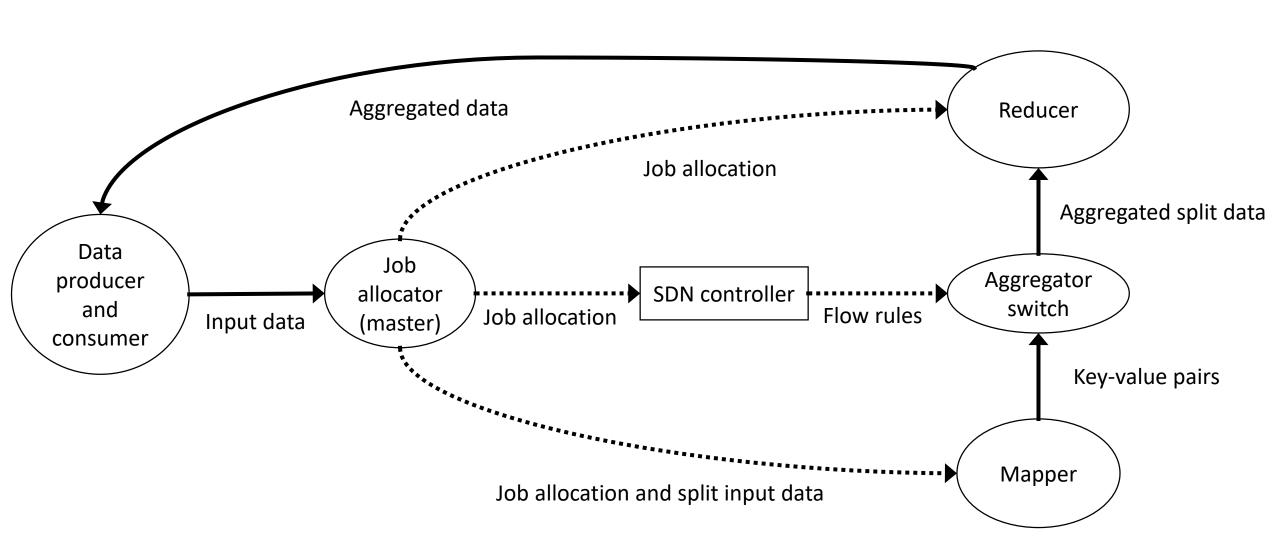
*In-network solution for coordination services* 





# Daiet: basic topology and entities

*In-network data aggregation* 

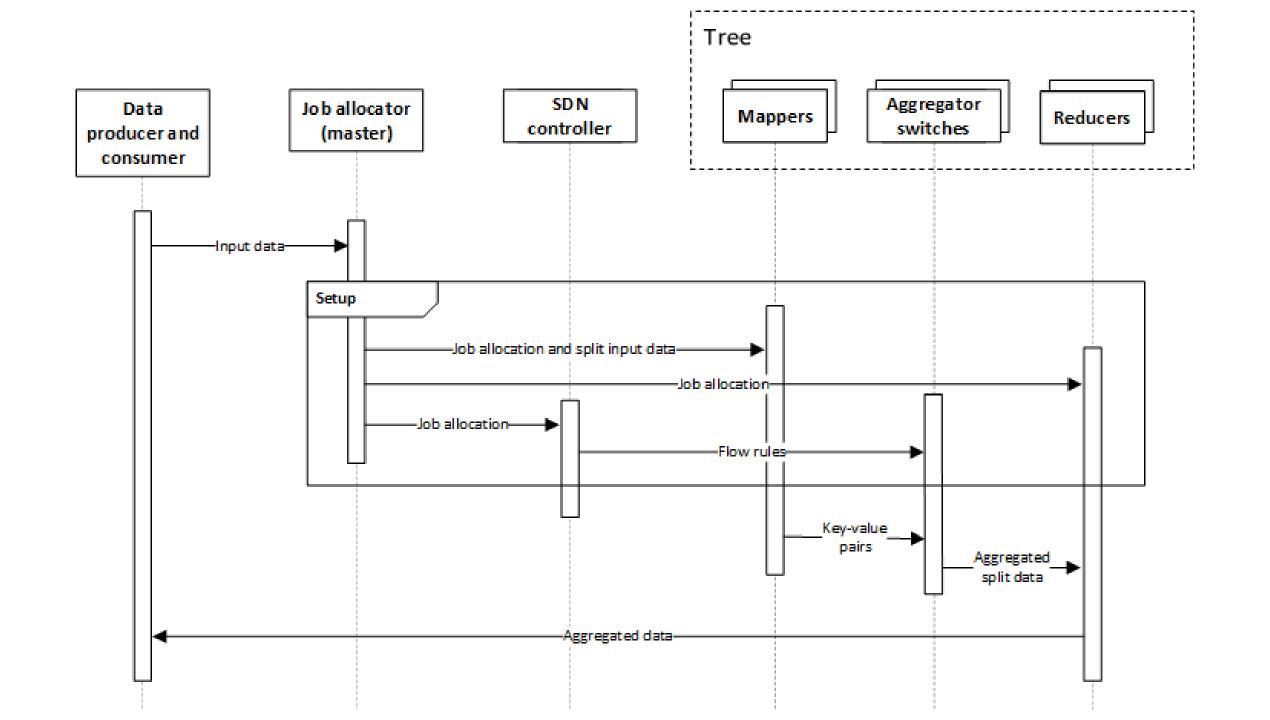


## Daiet: extended topology

*In-network data aggregation* Tree Mapper Aggregator Aggregator Reducer switch switch Mapper Mapper SDN controller Aggregator switch Data Mapper Job producer allocator and (master) consumer

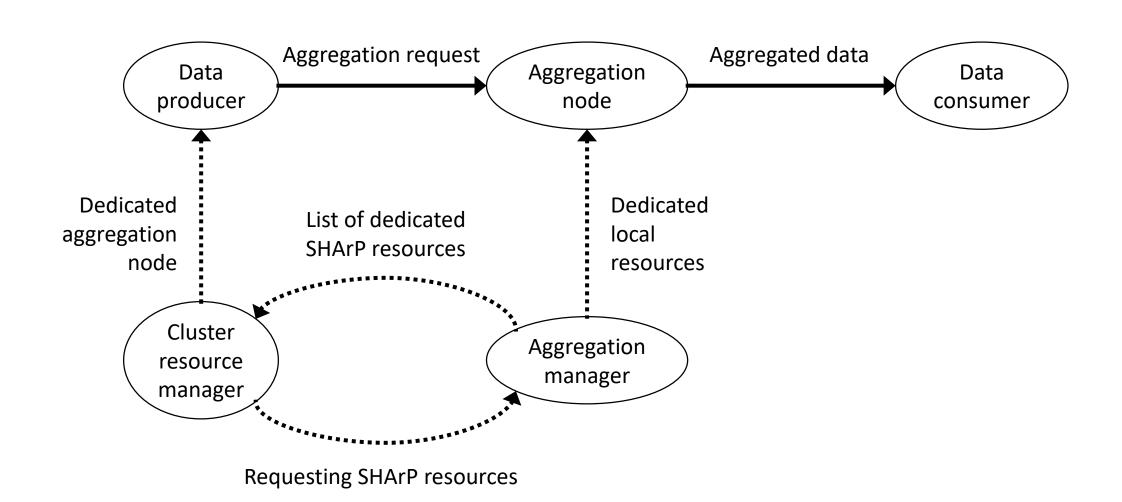
## Daiet: logical communication pattern

*In-network data aggregation* 3. Aggregated data is returned to the client 2. Data is partitioned and aggregated Mapper Aggregator Aggregator Reducer switch switch Mapper Mapper SDN controller Aggregator switch Data Mapper Job producer allocator and (master) consumer 1. Client sends data



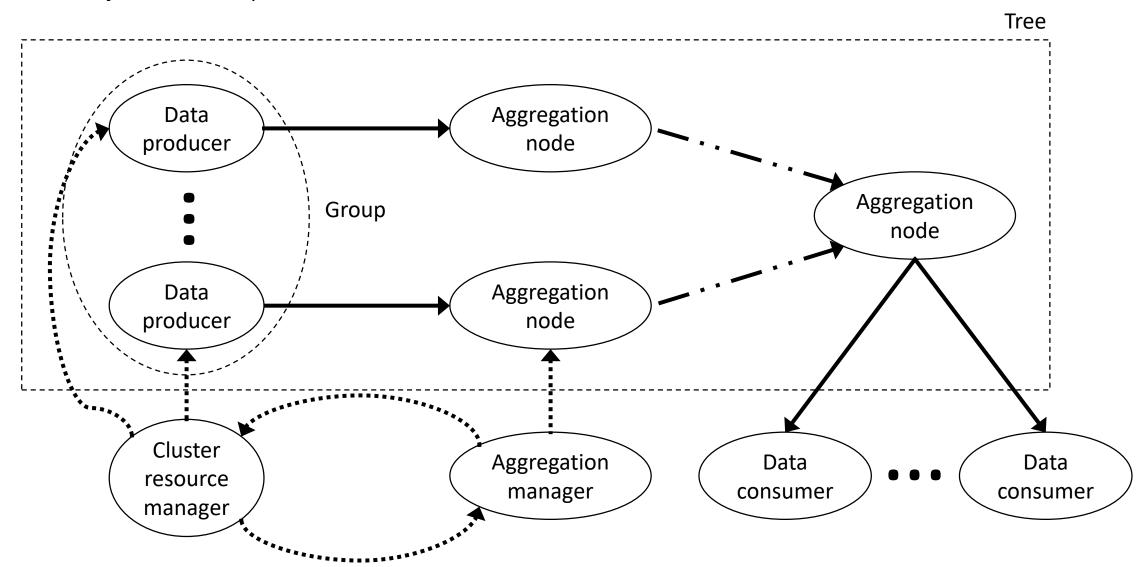
### SHArP: basic topology and entities

Protocol for reduction operations



### SHArP: extended topology

Protocol for reduction operations



### SHArP: logical communication pattern

Protocol for reduction operations

