Md Mashiur Rahman Chowdhury
CS 733-RF
mashiur@uab.edu

1. a) private cloud
- Need to deal with sensitive medical record.

b) public cloud

- One time computation cost.
- Need to hire resources for short period of time.

c) Hybrid Cloud
- Need to deal with both confidential and non-sensitive data.
- For confidential data they can use private cloud.
- For non-sensitive data they can use public cloud.

d) Community Cloud

- As per definition community cloud generally formed by like minded groups.
- So the astronomy departments collaborating with others may form this kind of community cloud.

2. State B
Reason :

a) Weather is cooler with respect to state A
b) Electricity cost low

3. a) storage cloud service provider.

The reasons are as follows :

1. The company need to store streaming data 1 GB/hour
2. Storage cost is 1/5 times than the local provider's storage
3. Don't need frequent data access.
4. Don't need to pay system administrator's salary.

b) They should use local (private) cloud

1. Security is the main concern as they are storing medical record.

2. Otherwise public cloud would have been the best option.
a) Storage cost is 5 times higher,
b) Need to pay system administrators salary,
c) Need frequent data access but data volume is not that much high, so cost of accessing data frequently is not that much significant.

PhD students Paper Review
Paper Link : https://dl.acm.org/citation.cfm?id=3128601

Distributed Computing Cluster Management is an overhead for even sophisticated users. Most of the users are comfortable with writing single threaded version rather than complex distributed systems code. Proposed Stateless functions in serverless execution model is a viable alternative to avoid this overhead. By Implementing the prototype Py-Wren authors have shown this model is general enough to solve different Distributed Computing problems. In this model function is deployed once, invoked repeatedly whenever new inputs arrive and scales with input size. The inputs are supplied from a shared remote storage system. Here users can dynamically inject code in those functions. The state management is done by a global scheduler and fast remote storage. Authors have shown that existing remote storage system is not a significant bottleneck. Prior works has also shown that hard disk locality does not provide significant performance benefit. That's why a major design goal of the previous systems "collocating computation and data" have diminished. Stateless functions allows simple fault tolerance semantics and makes parallel jobs easy to use.