First question

- What is the purpose of allocating several randomly selected virtual nodes to each FAWN node?
First question

- What is the purpose of allocating several randomly selected virtual nodes to each FAWN node?

  - To spread the workload of a failed physical node among the successors of each virtual node.
Second question

- FAWN in-memory hash tables only contain 15 bits of each 160-bit key.
- What is the main advantage of this approach?
- What is its main disadvantage?
Second question

- FAWN in-memory hash tables only contain 15 bits of each 160-bit key.
- What is the *main advantage* of this approach?
  - *Hash tables occupy less RAM.*
- What is its *main disadvantage*?
  - *False matches will cause extra accesses to the data store.*
Third question

- How does FARSITE prevent a single malevolent user from destroying all replicas of someone else’s file?
Third question

- How does FARSITE prevent a single malevolent user from destroying all replicas of someone else’s file?

  - FARSITE ensures that file replicas are stored on computers controlled by all least two different users.
Fourth question

- What do the authors of Zyzyva mean when they state that their system uses *speculation*? (10 points)
Fourth question

What do the authors of Zyzyva mean when they state that their system uses *speculation*?

*Zyzyva performs some operations on the expectation they will soon be validated and can otherwise be undone.*
Fifth question

● How does the *paravirtualization* approach used by Xen differ from other virtualization approaches?

● According to Xen’s authors, what is the main advantage of the approach?

● What is its main disadvantage?
Fifth question

- *Xen exports a virtual machine interface that requires virtual machines not to contain instructions that can be executed in both privileged and user mode and produce different results*

- *It is much faster.*

- *It requires modifying the kernel of the guest OS.*
Sixth question

What is the purpose of dynamic subtree partitioning in the Ceph metadata cluster?
Sixth question

- What is the purpose of *dynamic subtree partitioning* in the Ceph metadata cluster?

- *Dynamic subtree partitioning* dynamically distributes the metadata workload among the metadata servers.
Seventh question

- How does FARSITE implement read access controls?
Seventh question

How does FARSITE implement read access controls?

- FARSITE encrypts all its data file with file-specific key.
- It controls read access by providing authorized users by the encryption key of the file they want to access.