Risks of Cloud Multitenancy

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Introduction:

Migrating to a Cloud comes up with many advantages, such as pay per use, elasticity, Initial savings in capital expenses and so on. However, it comes up with risks as well since the same resources will be shared by different tenants which is termed as "Multi Tenancy".

This essay will discuss in detail about the risks of Cloud - Multi Tenancy.

Risks of data exposure:

The data from tenants will be stored in a shared resource data store and there is a potential risk that one tenant may gain access to another tenant's data.

Tenant Interference:

Since resources are shared in a Multi-Tenant environment, the system and resource overload of one tenant may bring down the performance of another tenant's services.

Uncoordinated change controls and misconfigurations:

A configuration change or system upgrade by a single tenant may cause unexpected behavior for another tenant in a Multi-Tenant environment.

Data Recovery:

In case of any incidents and data loss, recovering the data completely on a multi-tenant environment is a challenge, since finding out the data partition in a distributed data store is a hard task.

Compliance risks:

In a distributed multi-tenant environment there is a risk that the data might get stored in a geographically distant location and hence may violate data compliance.

Data deletion risks:

If a tenant moves or deletes his data from a multi-tenant cloud environment there are risks that they may delete the data of another tenant.

Single point of Failure:

The common services provided by the cloud provider if not designed with proper security measures may put tenants in jeopardy if someone misuse the service.

Conclusion:

As discussed, the multi-tenancy comes up with risks. But by architecting the applications with best practices, these risks can be mitigated.

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