

Best Practices of Multi-tenant SaaS Architecture



Multi-tenant architecture is an ecosystem or model in which a single environment can serve multiple tenants utilizing a scalable, available, and resilient architecture.





Here are the best practices of Multi-tenant SaaS Architecture





Code Deployments with CI/CD

You will need a CI/CD process to streamline your code releases across all environments and tenants.

It would help if you embraced these **CI/CD tools**, Jenkins, CircleCi, or AWS Code pipelines (along with Codebuild and CodeDeploy).





DevOps Automation

You need to trigger a script to launch or attach the new Multi-tenant environment to your existing Multi-tenant architecture, meaning to automate the setup of new tenants.

Automation tools recommended:



Terraform



Amazon CloudFormation





Siloed compute and siloed storage

Every layer of the SaaS application needs to be isolated. The customer workflow touches multiple layers, pages, backend, networking, front-end, storage, and more.

Take in mind the next aspect:

- 1 IAM Roles per function or microservices.
- 2 Amazon S3 security policies.
- **3** VPC isolation.
- 4 Amazon ECS / Kubernetes Namespace isolation.
- 5 Database isolation (tenant per table/schema/silo database)





Tenant clean-up

What are you doing with the tenants that are idle or not used anymore? It would help if you had a process or automation script.





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