GovCloud Architecture Simulation

Built with CloudFormation | Diagrammed | Deployable

Purpose

Simulate a real-world AWS GovCloud environment modeled after COSMOS infrastructure patterns used by SBS, using only CloudFormation.

Architecture Overview

- Segmented VPCs: Dev / Shared / Prod
- Centralized AWS Transit Gateway
- Single TGW Route Table
- Route propagation by attachment
- Optional On-Premise via Direct Connect

What Was Built

- vpc-dev.yaml - Dev VPC (10.0.0.0/16)
- vpc-shared.yaml - Shared Services VPC (10.10.0.0/16)
- vpc-prod.yaml - Prod VPC (10.20.0.0/16)
- tgw-create.yaml - Transit Gateway
- tgw-attach-*.yaml - Attach VPCs to TGW
- tgw-route-*.yaml - Route table creation and propagation

Deployment

```
./deploy.sh
```

```
Then update the script with VPC/Subnet/TGW IDs to attach and propagate.
```

Tools Used

- AWS CloudFormation
- VS Code
- Git + GitHub

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- Draw.io
- Shell scripting

Time Spent

~6.5 hours total - planning, building, testing, diagramming, documenting.

Why This Matters

- Demonstrates CloudFormation fluency
- Mirrors COSMOS segmentation and routing patterns
- Shows initiative and fast execution based on real guidance
- Packaged for clarity and reuse by others

GitHub Link

https://github.com/serversorcerer/aws-govcloud-cosmos-project