

# TESTING WITH AWSPEC & INSPEC

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# WHY TEST OUR RESOURCES?

# INFRASTRUCTURE CAN GET COMPLICATED

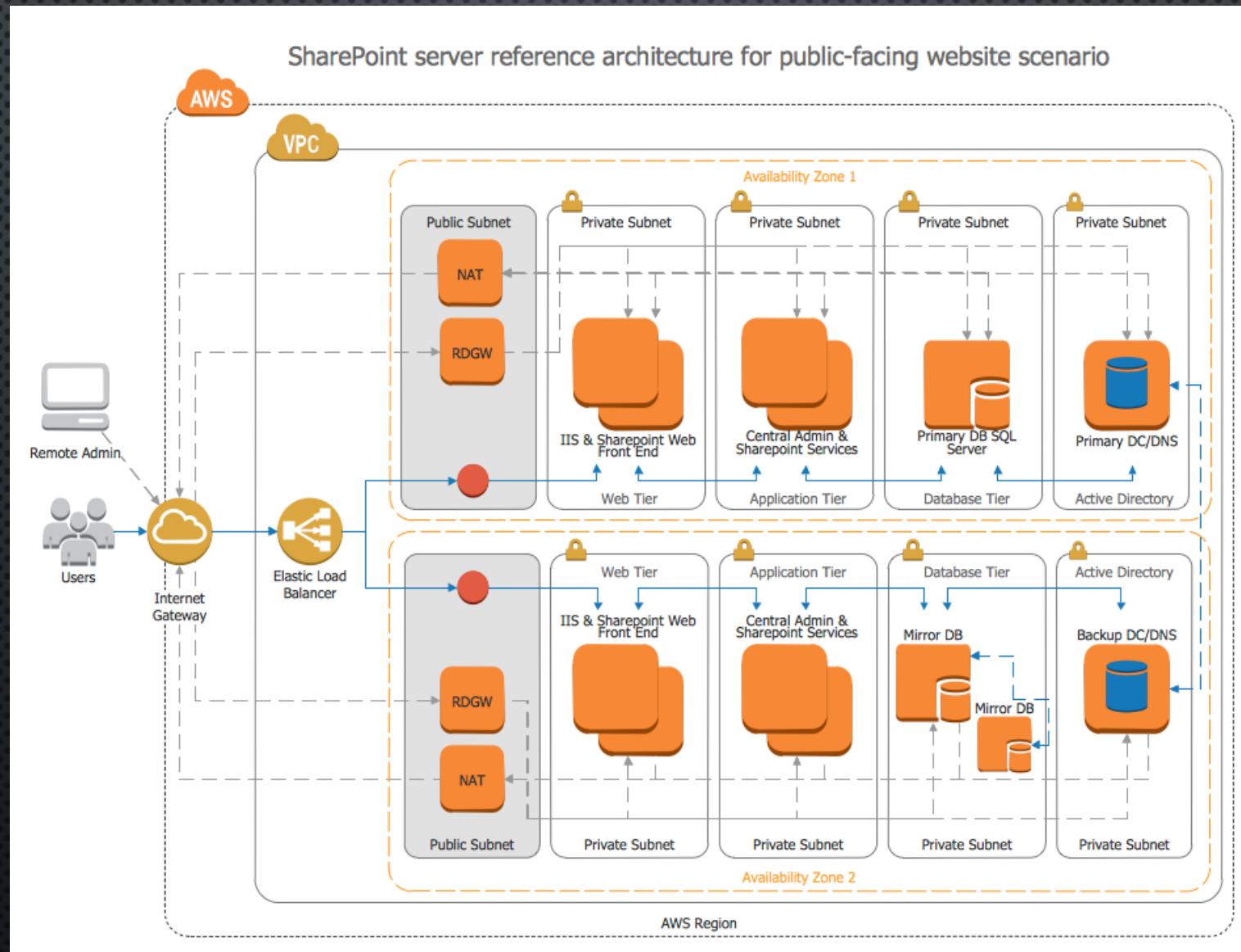


Image taken from <http://www.conceptdraw.com/examples/amazon-web-services>

# COMPLIANCE AS CODE

- MANUAL VERIFICATION OF SECURITY GUIDELINES IS TIME CONSUMING
- SOME OF THE RESOURCES THAT CAN BE VERIFIED INCLUDE:
  - CLOUDWATCH ALARMS
  - INSTANCE TYPE & SIZE
  - ENCRYPTED VOLUMES
  - CORRECT TAGGING SCHEMA
  - SECURITY GROUPS (INBOUND AND OUTBOUND RULES)
  - NETWORKING CONFIGURATIONS

# INDEPENDENT VERIFICATION

- ACTS AS A BUSINESS CONTRACT
- AUTOMATED VERIFICATION FROM CICD TOOLS
- BUT WHAT ABOUT DECLARATIVE LANGUAGES? (TERRAFORM, CHEF, AND ANSIBLE)

# AWSPEC

- [HTTPS://GITHUB.COM/K1LOW/AWSPEC](https://github.com/k1low/awspec)
- LIBRARY OF RESOURCES AND MATCHERS BUILT ON TOP OF THE RSPEC (RUBY) TESTING FRAMEWORK
  - YOU WILL NEED TO DOWNLOAD RUBY DEPENDENCIES
  - USE RVM OR CHEFDK TO MANAGE RUBY VERSION
- BASED ON SERVERSPEC
- VERIFIES AWS RESOURCES USING THE AWS APIs
  - EC2, ECS, ASG, S3, CLOUDWATCH, ETC.

# INSPEC / SERVERSPEC

- [HTTPS://INSPEC.IO/](https://inspec.io/)
- [HTTP://SERVERSPEC.ORG/](http://serverspec.org/)
- VERY SIMILAR FRAMEWORKS THAT TEST SERVER CONFIGURATION
- BOTH WORK IN TEST KITCHEN
- TESTING CAPABILITIES ARE NEARLY LIMITLESS.
- SOME RESOURCES WE'VE TRIED
  - PACKAGE
  - SERVICE
  - FILE
  - PORT
  - DOCKER

# DEMO

Code available at:

<https://github.com/adamscharf/devops-rva>

QUESTIONS?

# REFERENCES

- [HTTP://DOCS.AWS.AMAZON.COM/AMAZONECS/LATEST/DEVELOPERGUIDE/ECS-  
OPTIMIZED\\_AMI.HTML](HTTP://DOCS.AWS.AMAZON.COM/AMAZONECS/LATEST/DEVELOPERGUIDE/ECS-OPTIMIZED_AMI.HTML)
- <HTTP://DOCS.AWS.AMAZON.COM/CLI/LATEST/USERGUIDE/CLI-CHAP-GETTING-STARTED.HTML>
- <HTTPS://RVM.IO/RVM/INSTALL>
- <HTTPS://DOWNLOADS.CHEF.IO/CHEFDK>
- <HTTPS://GITHUB.COM/k1LoW/AWSPEC>
- <HTTPS://WWW.INSPEC.IO/DOCS/REFERENCE/RESOURCES/>
- [HTTP://SERVERSPEC.ORG/RESOURCE\\_TYPES.HTML](HTTP://SERVERSPEC.ORG/RESOURCE_TYPES.HTML)
- <HTTP://KITCHEN.CI/>
- <HTTPS://GITHUB.COM/TEST-KITCHEN/KITCHEN-EC2>