University of New Hampshire

College of Engineering and Physical Sciences

Background:

This March, UNH hosted the annual New England Collegiate Cyber Defense Competition. Ten competing Universities sent student teams of cybersecurity experts to complete a series of computer security challenges.

Ansible:

It is an automation platform that deploys configurations to multiple computers simultaneously. Specific sets of instructions called Playbooks are sent from a host computer to multiple computers to be executed. Northeast Collegiate Cyber Defense Competition (NECCDC) Black Team Department of Computer Science/Information Technology Project Team Members: Ben Leland & Methodius Kpan Project Advisor: Ken Graf

Project Goals:

The purpose of this project was to facilitate the deployment and to monitor each team's PC clusters, as well as to introduce exploits for the competing teams to overcome.

Notes:

In order to promote a host to a domain controller, it must have a local administrator password set that meets # password complexity requirements (typically, 8 chars, 1 lowercase, 1 uppercase, 1 num/special char) # cmd: net user administrator *

 hosts: windows-clients remote_user: admin gather_facts: no

tasks:

- name: Join Domain script: ../scripts/Join-Domain.ps1 {{ domainname }} {{ domaincontrollerip }} {{ username }} {{ password }}

Conclusion:

Tremendous amount of time was saved by changing the configuration of 80 separate computers simultaneously by using Ansible playbooks rather than physically configuring each individual computers. Also by hosting all services in the cloud, using Amazon Web Services, costs was greatly cut down.



aws

Raytheon

ANSIBLE

