



NetropyCE

AWS CONSOLE

INSTALLATION GUIDE



APPOSITE
— TECHNOLOGIES

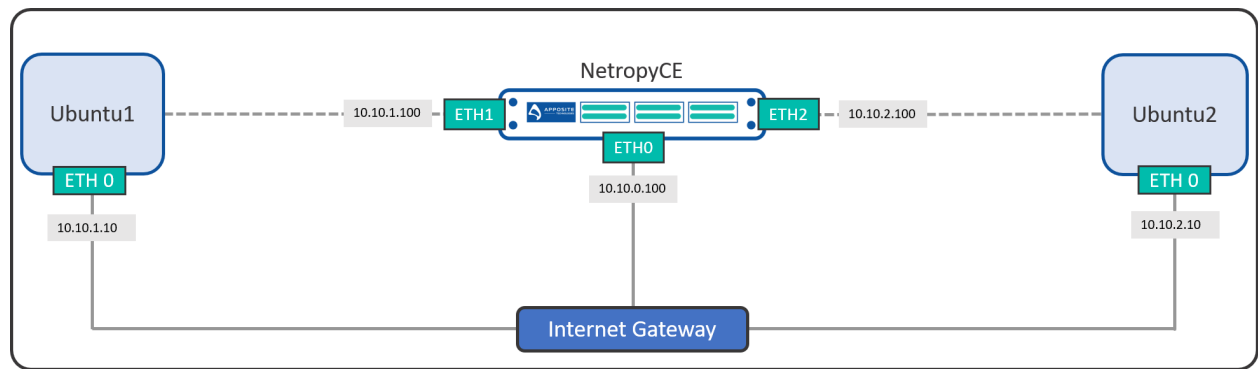
1 OVERVIEW

Objective: To install the Apposite NetropyCE product into an AWS VPC (Virtual Private Cloud) using the AWS graphical console. (<https://console.aws.amazon.com>)

Assumptions: The reader of the document is familiar with using the Netropy product. Reader should be familiar with configuring and creating VPCs, Instances, Security groups, Internet Gateways, Networking, and other services within AWS. Keypairs should already be generated and working with EC2.

This Example: This document will walk your through creating a new VPC, installing NetropyCE into the VPC as well as adding two Ubuntu instances to run tests through the NetropyCE.

VPC Diagram:



AWS VPC
10.10.0.0/16

2 VPC CREATION & CONFIGURATION

Login to your AWS VPC console <https://console.aws.amazon.com/vpc>

- On left margin click "Your VPCs"
 - Create a VPC
 - Name: Apposite-VPC
 - IPv4 CIDR Block: 10.10.0.0/16
 - Create
 - Close

- On the left margin click "Subnets"
 - Create Subnet
 - Name tag: Apposite-Management
 - VPC: Apposite-VPC
 - IPv4 CIDR: 10.10.0.0/24
 - Create
 - Create Subnet
 - Name tag: Apposite-LAN1
 - VPC: Apposite-VPC
 - IPv4 CIDR: 10.10.1.0/24
 - Create
 - Create Subnet
 - Name tag: Apposite-LAN2
 - VPC: Apposite-VPC
 - IPv4 CIDR: 10.10.2.0/24
 - Create

- On left margin click "Security Groups"
 - Create New Security Group
 - Security group name: Apposite-Security-Group
 - Description: Apposite-Wan-Emulation
 - VPC: Apposite-VPC
 - Create
 - Close
 - Highlight "Apposite-Security-Group" at the bottom click "Inbound Rules"
 - Edit Rules
 - Add Rule
 - Type: All Traffic
 - Source: Anywhere
 - Save Rules

- On the left margin click "Internet Gateways"
 - Create Internet Gateway
 - Name: Apposite-Internet-Gateway
 - Create
 - Close
 - Choose "Apposite-Internet-Gateway"
 - At the top under the "Actions" drop down menu choose "Attach to VPC"
 - VPC: Apposite-VPC
 - Attach

- On the left margin click "Route Tables"
 - Create route table
 - Name: Apposite-Route
 - VPC: Apposite-VPC
 - Create
 - Choose Apposite-Route
 - Down at the bottom click the "Routes" tab
 - Edit routes
 - Add route
 - Destination: 0.0.0.0/0
 - Target: Internet Gateway
 - Apposite-Internet-Gateway
 - Save routes
 - Select the route
 - On the actions drop down menu choose
 - Set main route table
 - Select OK

Your VPC is Now Configured!

3 NETROPYCE INSTANCE CREATION & CONFIGURATION

Login to your AWS EC2 console <http://console.aws.amazon.com/ec2>

- On the left margin under Images choose "AMIs"
 - Choose Public Images and search: **Netropy**
 - Click on the NetropyCE AMI and click "Launch"
 - Choose c5.xlarge images
 - Next: Configure Instance Details
 - Network: Apposite-VPC
 - Subnet: Apposite-Management
 - Network Interfaces
 - Eth0
 - Primary IP: 10.10.0.100
 - Add Device
 - Eth1
 - Subnet: Apposite-LAN1
 - Primary IP: 10.10.1.100
 - Next: Add Storage
 - Size: 8 GiB
 - Next: Add Tags
 - Add Tag
 - Key: Name
 - Value: NetropyCE
 - Next: Configure Security Group
 - Select an existing security group
 - Choose Apposite-Security-Group
 - Review and Launch
 - Launch
 - Choose your keypair
 - Acknowledge by clicking the checkbox
 - Launch Instances
 - View Instances
 - Highlight the instance you just created and give it a name
 - Name: NetropyCE
 - On the "Actions" dropdown at the top
 - Instance state
 - Stop
 - Yes stop

**Note *NetropyCE requires 3 network interfaces the instance creation wizard only allows for two network interfaces. To add the 3rd network interface you need to stop the instance and then add the network interface to the NetropyCE instance. Please wait for the "Instance State" to say "Stopped" before moving on in the walkthrough.*

- On the left margin click "Network Interfaces"
 - Create Network Interface
 - Description: NetropyCE-Eth2
 - Subnet: Apposite-LAN2
 - IPv4 IP
 - Custom: 10.10.2.100
 - Security groups: Check Apposite-Security-Group
 - Create
 - Highlight the Network Interface you just created choose the "Actions" dropdown at the top
 - Attach
 - Instance ID: NetropyCE
 - Attach

If you see "No instances were found for this VPC." This means your NetropyCE instance has not stopped yet. Verify your NetropyCE is fully stopped and try again.

- Highlight NetropyCE Eth1 interface (Primary Private IPv4 address: 10.10.1.100)
 - In the "Actions" drop down menu choose
 - Change source/dest.check
 - Disabled
 - Save
- Highlight NetropyCE Eth2 interface (Primary Private IPv4 address: 10.10.2.100)
 - In the "Actions" drop down menu choose
 - Change source/dest.check
 - Disabled
 - Save
- On the left margin choose "Instances"
 - Choose NetropyCE
 - Using the "Actions" menu at the top
 - Instance state
 - Start
 - Yes, Start
- On the left choose "Elastic IPs"
 - Allocate new address
 - Amazon Pool
 - Allocate
 - Close
 - Name the new address: NetropyCE-eth0
 - Using the "Actions" Dropdown
 - Associate address
 - Choose Network Interface
 - Network Interface: NetropyCE-Eth0
 - Associate
 - Close

- Name the new address select the address
 - In the “Actions” drop down menu
 - View details
 - Manage tags
 - Key: Name
 - Value: NetropyCE-eth0
 - save

**Note NetropyCE should now have a public IP address. Make a note of the address you will use it soon.*

In a web browser got to [http://\(Elastic IP set above\)](http://(Elastic IP set above)).

Login

- username: admin
- password: (your instance ID)

Accept the end user license agreement.

- Click “Administration” in the upper right corner of the NetropyCE GUI



- Bridge/Route
 - Forwarding mode: Routing
 - Port 1 Interface: 10.10.1.100 / 255.255.255.0
 - Port 2 Interface: 10.10.2.100 / 255.255.255.0
 - Apply Changes

Engine 1

Forwarding Mode:

Port 1 Interface:	10.10.1.100 ✓	255.255.255.0 ✓
Port 2 Interface:	10.10.2.100 ✓	255.255.255.0 ✓

The NetropyCE is now configured. Let move on to configuring some instances to use the NetropyCE. In this example we will use Ubuntu

4 UBUNTU INSTANCES CREATION & CONFIGURATION

Login to your AWS EC2 console <http://console.aws.amazon.com/ec2>

Create Ubuntu-1 Instance

- On the left margin under Images choose "AMIs"
 - Choose Public Images and search: Ubuntu-16
 - Choose the Ubuntu 16 server and click "Launch"
 - Image type: c5.xlarge
 - Next: Configure Instance Details
 - Network: apposite-vpc
 - Subnet: Apposite-LAN1
 - Auto Assign public IP: Enable
 - Network Interfaces
 - Primary IP: 10.10.1.10
 - Next: Add Storage
 - Size: 8 GiB
 - Next: Add Tags
 - Add tags
 - Key: Name
 - Value: Ubuntu-1
 - Next: Configure Security Group
 - Select an existing security group
 - Check: Apposite-Security-Group
 - Review and Launch
 - Launch
 - Choose your keypair and "Launch Instances"

Create Ubuntu-2 Instance

- On the left margin under Images choose "AMIs"
 - Choose Public Images and search: Ubuntu-16
 - Chose the Ubuntu 16 server image and click "Launch"
 - Image type: c5.xlarge
 - Next: Configure Instance Details
 - Network: apposite-vpc
 - Subnet: Apposite-LAN2
 - Auto Assign public IP: Enable
 - Network Interfaces

- Primary IP: 10.10.2.10
- Next: Add Storage
 - Size: 8 GiB
- Next: Add Tags
 - Add tags
 - Key: Name
 - Value: Ubuntu-2
- Next: Configure Security Group
 - Select an existing security group
 - Check: Apposite-Security-Group
- Review and Launch
- Launch
- Choose your keypair and "Launch Instances"

Turn off "Source/Dest. Check" on Ubuntu interfaces

- On the left margin choose "Network Interfaces"
 - Choose Ubuntu-1 Eth0 interface (Primary private IPv4 IP: 10.10.1.10)
 - At the top "Actions" dropdown choose "Change Source/Dest. Check"
 - Disabled
 - Save
 - Choose Ubuntu-2 Eth0 interface (Primary private IPv4 IP: 10.10.2.10)
 - At the top "Actions" dropdown choose "Change Source/Dest. Check"
 - Disabled
 - Save

Configuring the Ubuntu instances 2nd interfaces

- SSH into your Ubuntu-1 and issue the following commands
 - `sudo su -`
 - `route add -net 10.10.2.0 netmask 255.255.255.0 gw 10.10.1.100`
- SSH into your Ubuntu-2 and issue the following commands
 - `sudo su -`
 - `route add -net 10.10.1.0 netmask 255.255.255.0 gw 10.10.2.100`

Apposite® Technologies LLC

17835 Ventura Blvd., Suite 211

Los Angeles, CA 91316 USA

1.310.477.9955

info@apposite-tech.com

www.apposite-tech.com