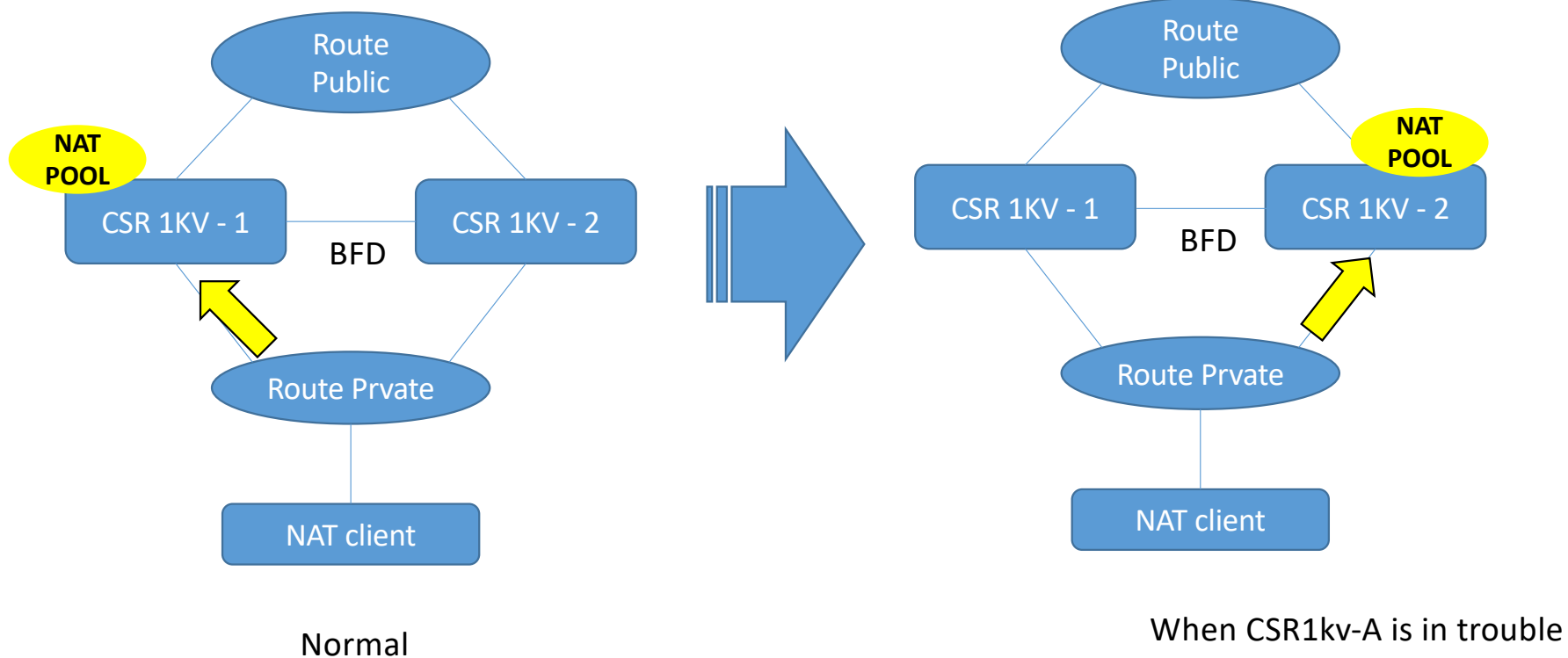# AWS CSR1KV NAT HA
- No Session Disconnect

2020. 10

Wansoo Kim
Dennis Sangwon Lee
Myoung Kee Min

Problem

- Samsung requested this feature.

- AWS CSR1kv supports HA different NAT pool.

- Therefore, the NAT sessions are lost.

- Because the multicast is not supported, it's beyond CSR1kv job.

- So, this project is started…

Solution Diagram

Normal

When CSR1kv-A is in trouble

- When CSR1kv-1 (active) is down, by BFD, CSR1kv-2 detects it and activates the python script on guestshell.
- The script changes the default (0.0.0.0) route of AWS private route as the CSR1kv-2.
- Also, the NAT pool is changed into CSR1kv-2.

Software Architecture

- EEM detects the log of CSR1kv and activates the python script.

- Guestshell, linux container on CSR1kv is used for run the script.

- Python and BOTO3 (AWS python SDK) are used.

How It Works

(1) When the active CSR1kv-1 has the proble, the standby CSR1kv-2 detects using BFD.

(2) CSR1kv-2 activates the python code using EEM.

(3) Code changes two routing table of AWS both private side.

(4) The NAT pool is also transferred at AWS from active to standby.

(5) Telnet was no problem while FTP and web have the issue. Now in troubleshooting.