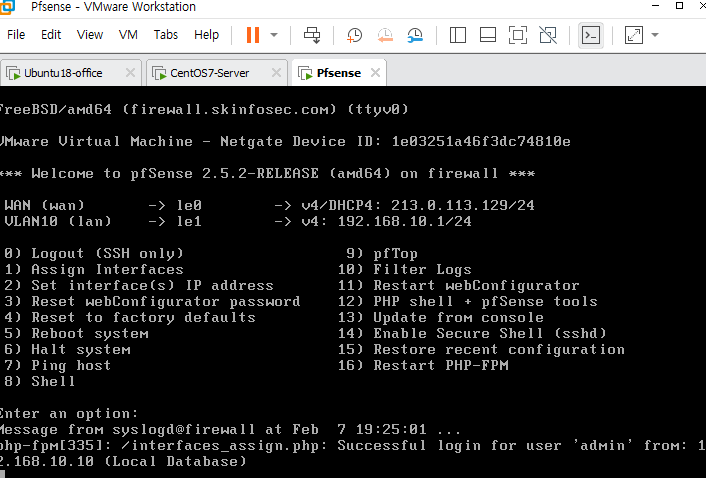
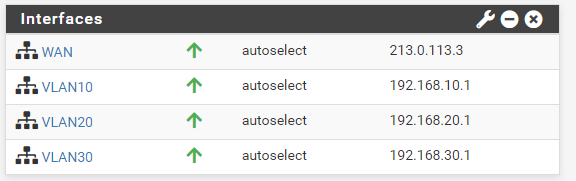
**LAB 요청사항**

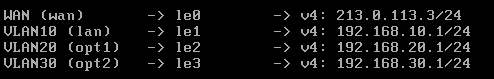
**고해준**

1. Pfsense-2.5를 firewall로 설치

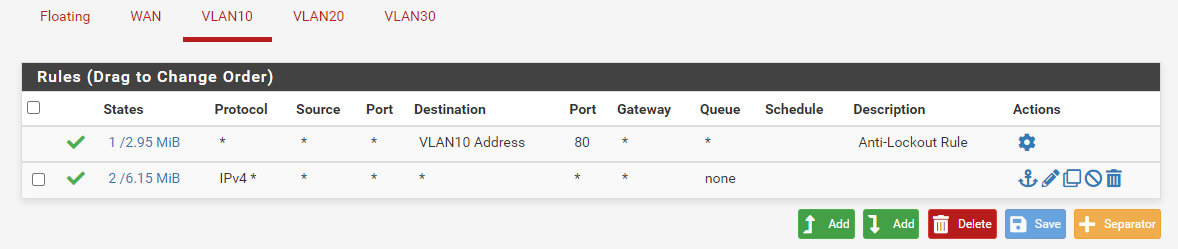


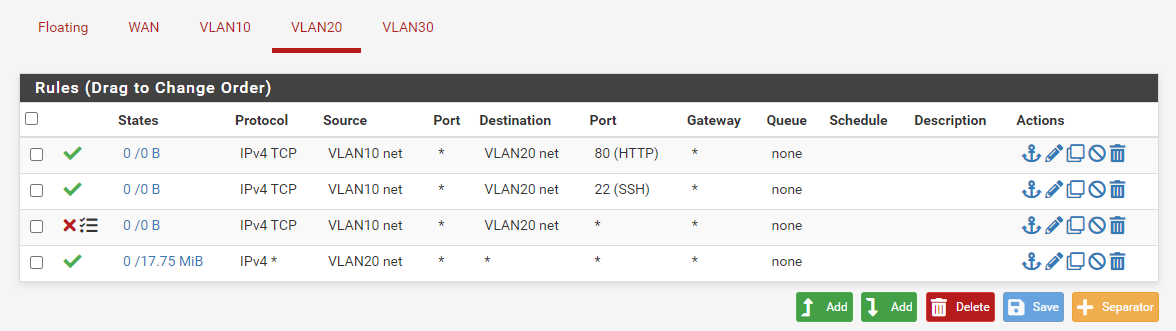
1. 네트워크 정보





1. Firewall Rules
2. Server는 내부 및 외부에서 80번 포트로 접근 가능, 외부로의 접근도 가능
3. Office는 Server로 80, 22 포트로 접근 가능, 외부로의 접근 가능

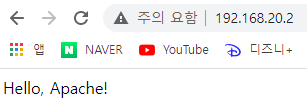




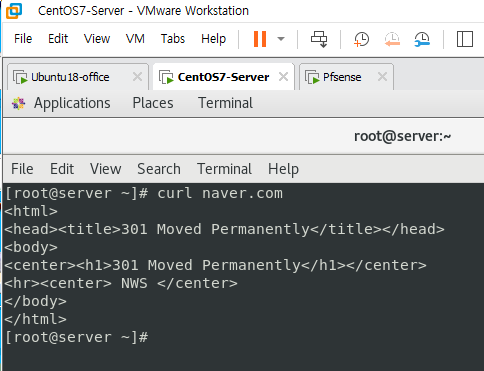
Rules



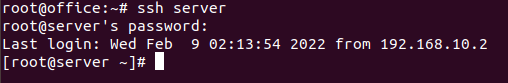
Office(내부)에서 Server의 80번 포트로 접근



외부에서 Server의 80번 포트로 접근

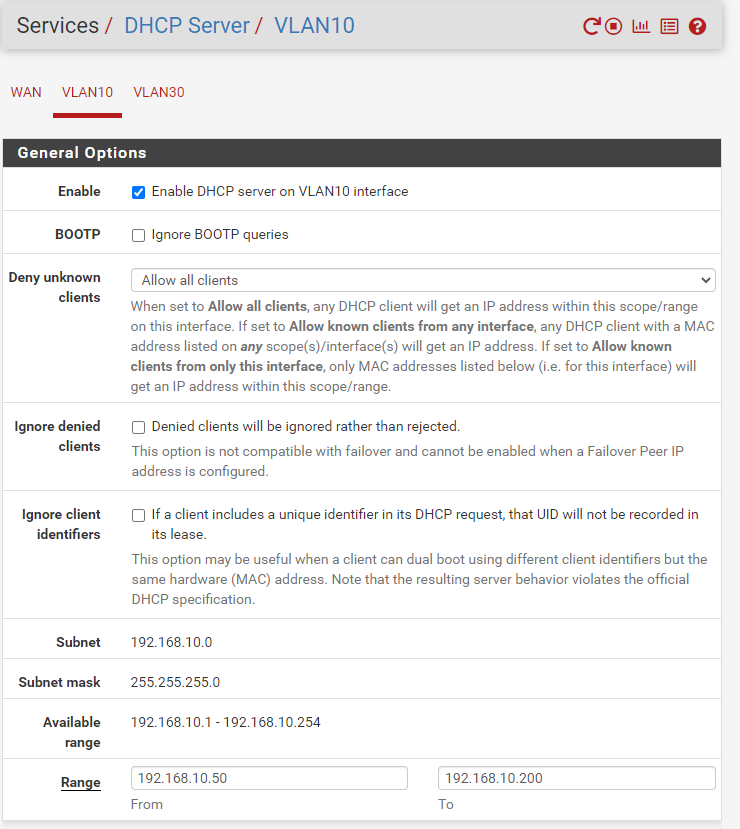


Server 내에서 외부의 80번 포트 접근

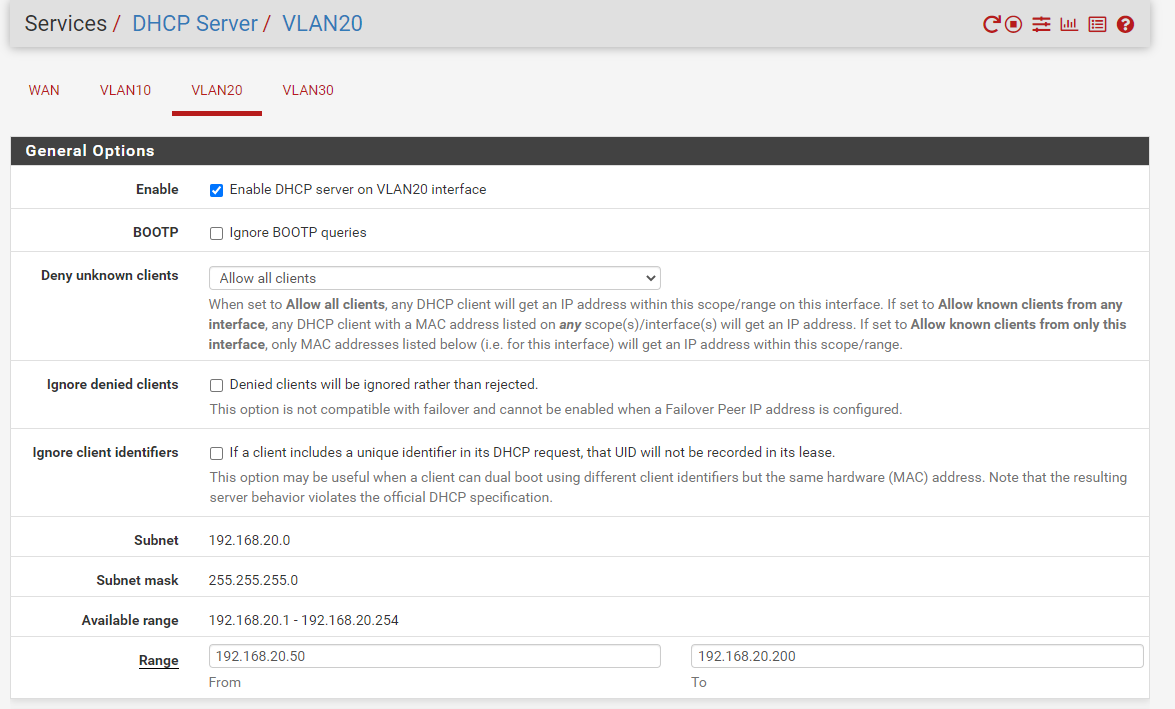


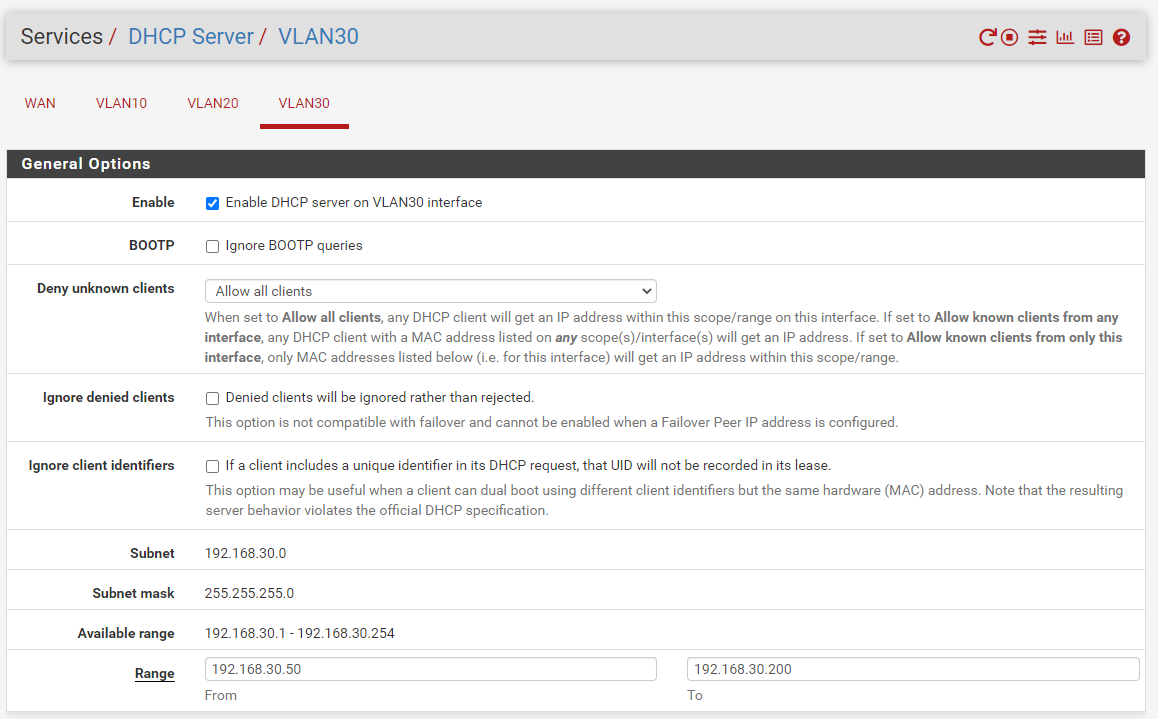
Office에서 Server로 22번 포트 접근

1. 각 VLAN에서 DHCP 서버 활성화, Squid Proxy 이용 Office에서 nexon.com 접근 금지

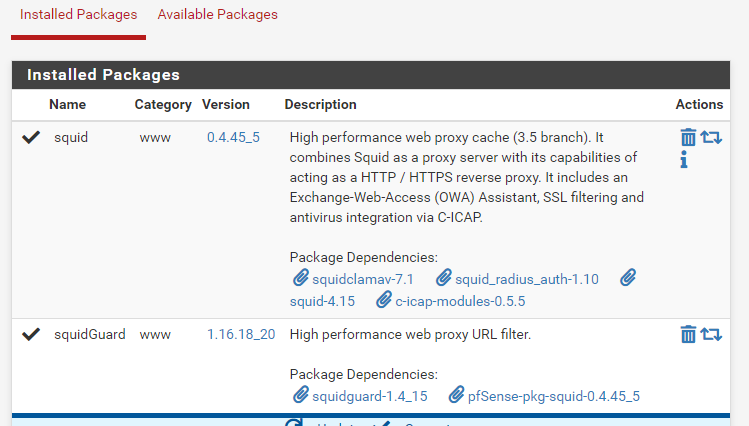


VLAN10

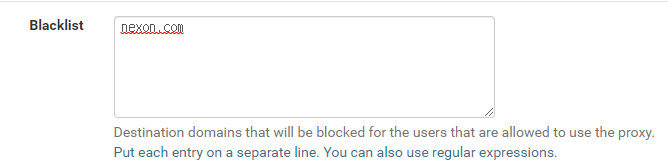


VLAN20

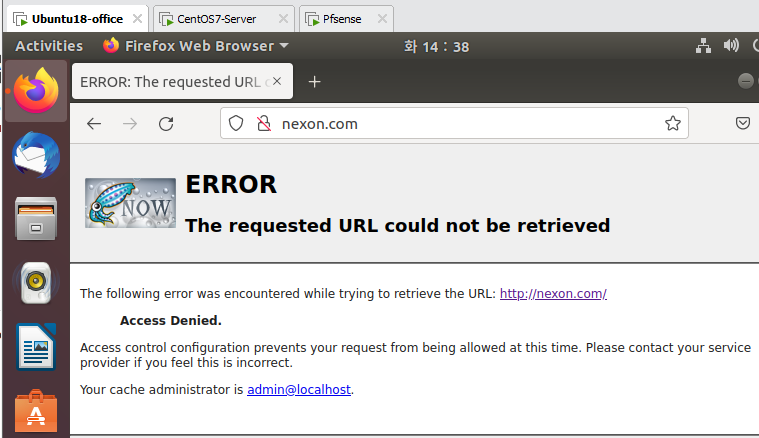
VLAN30



Squid 설치 완료

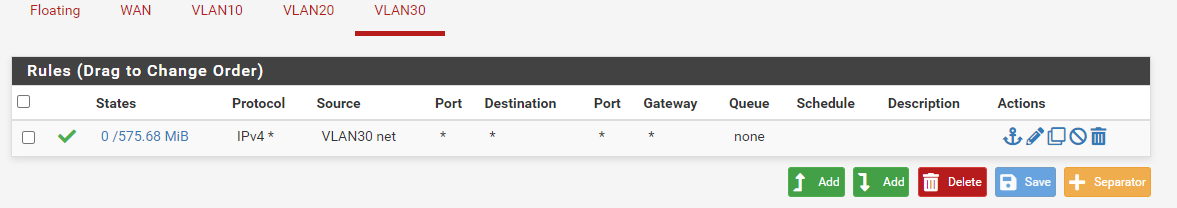


nexon.com 접근 금지 추가



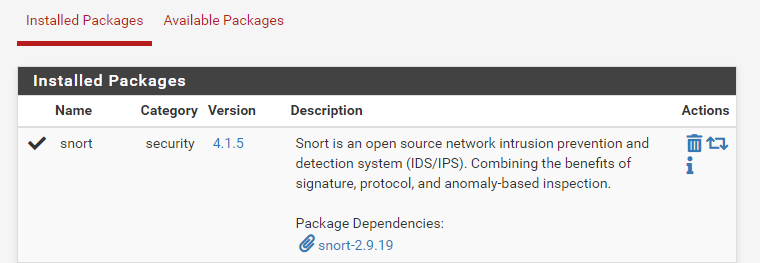
Office에서 nexon.com 접속 금지 확인

1. VLAN30은 모두 외부로의 통신이 가능해야 한다.

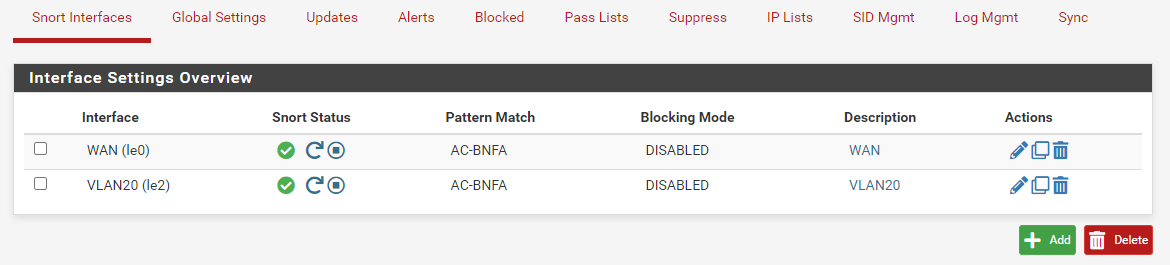


VLAN30의 Rules

1. InlineIPS를 WAN과 VLAN20에 설정

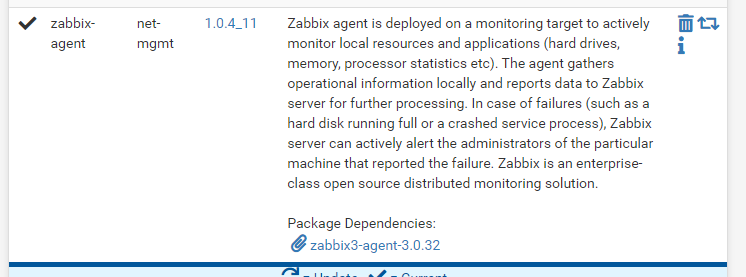


Snort 다운로드



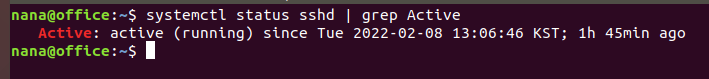
Snort 설정

1. zabbix-agent 설치

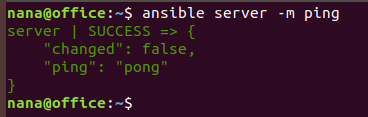


설치 완료

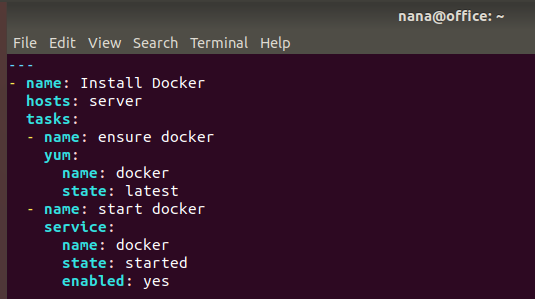
1. Ubuntu 18 – Office, ssh 서버 설치 사용자 nana 생성



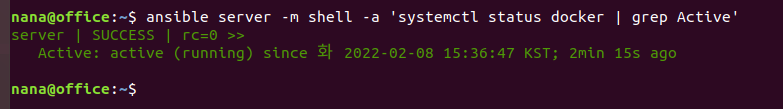
1. Ansible 이용 Server에 docker 설치, nginx 이용 8080 포트로 웹서버 컨테이너 생성



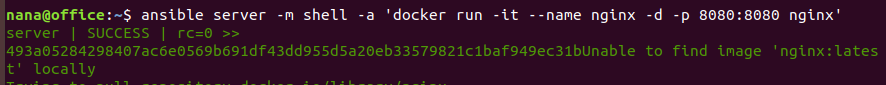
Server로 Ansible ping 테스트



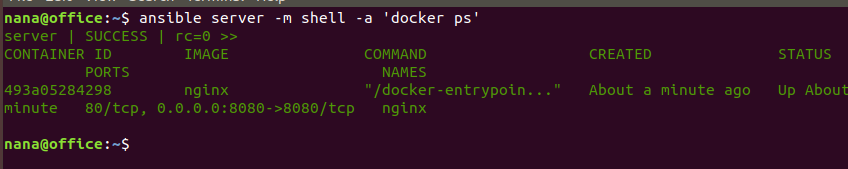
Playbook 파일



Docker 실행 확인

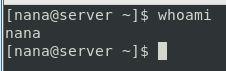


Ansible로 컨테이너 생성

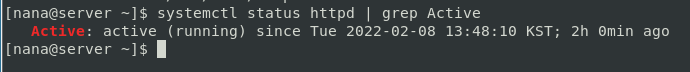


Ansible로 컨테이너 확인

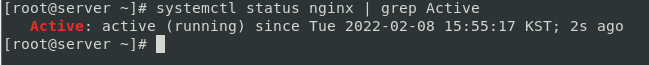
1. CentOS 7 – Server, 사용자 nana 생성



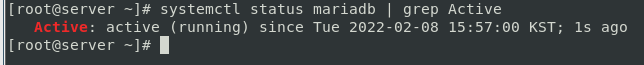
1. 서버 설치 목록: httpd, nginx, mariadb, vsftpd, sshd, nfs, postfix, imap & pop3 server



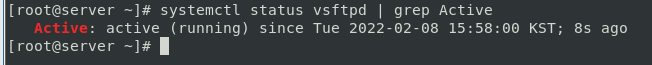
httpd



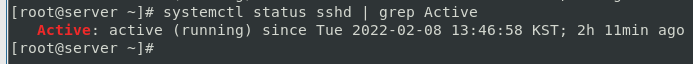
nginx



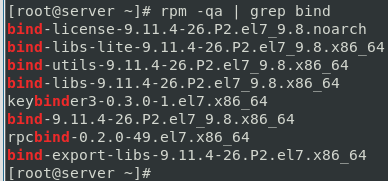
mariadb



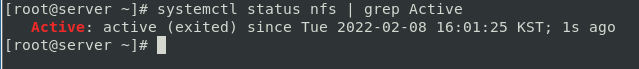
vsftpd



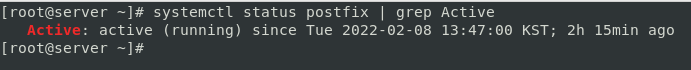
sshd



bind



nfs

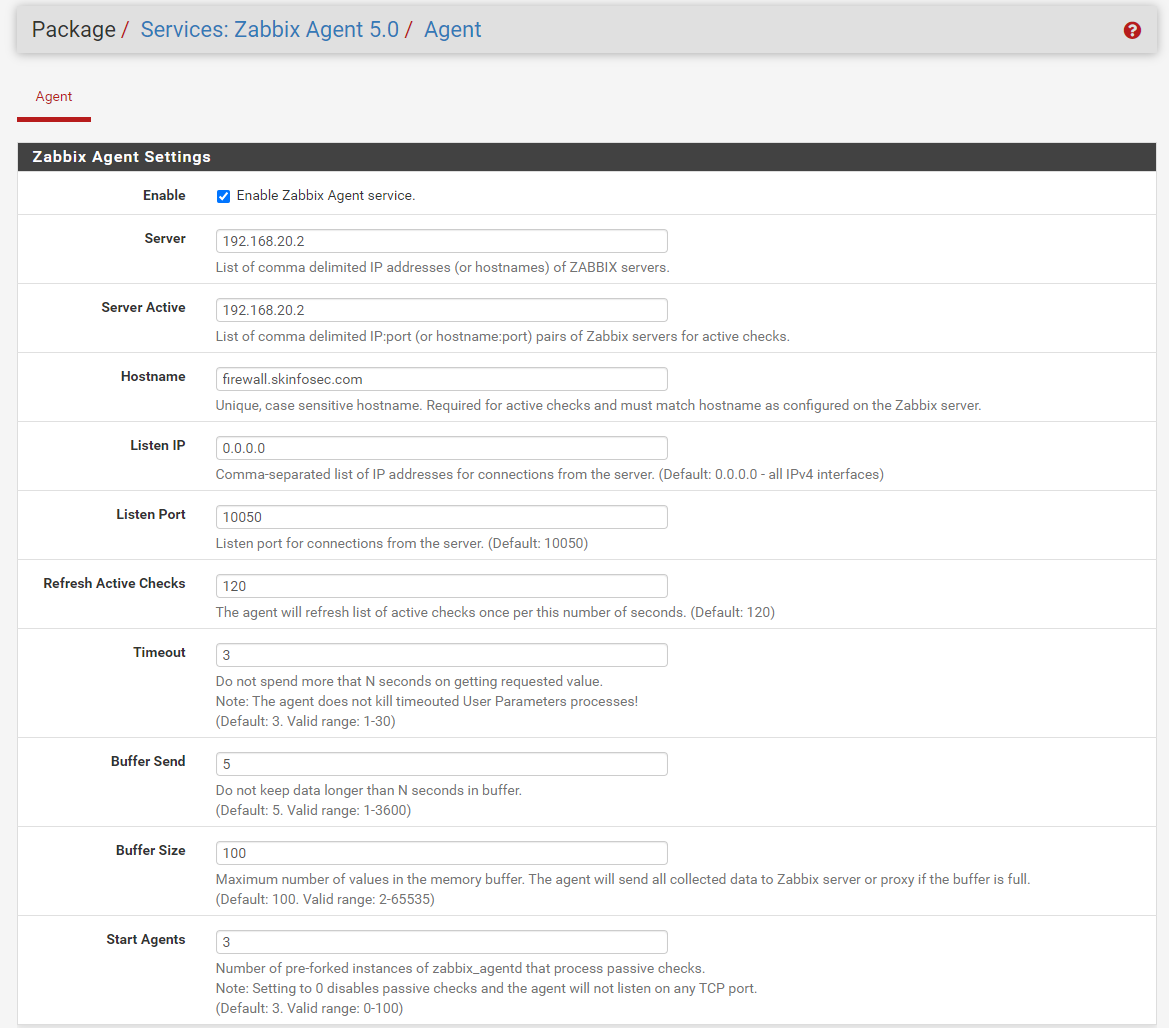


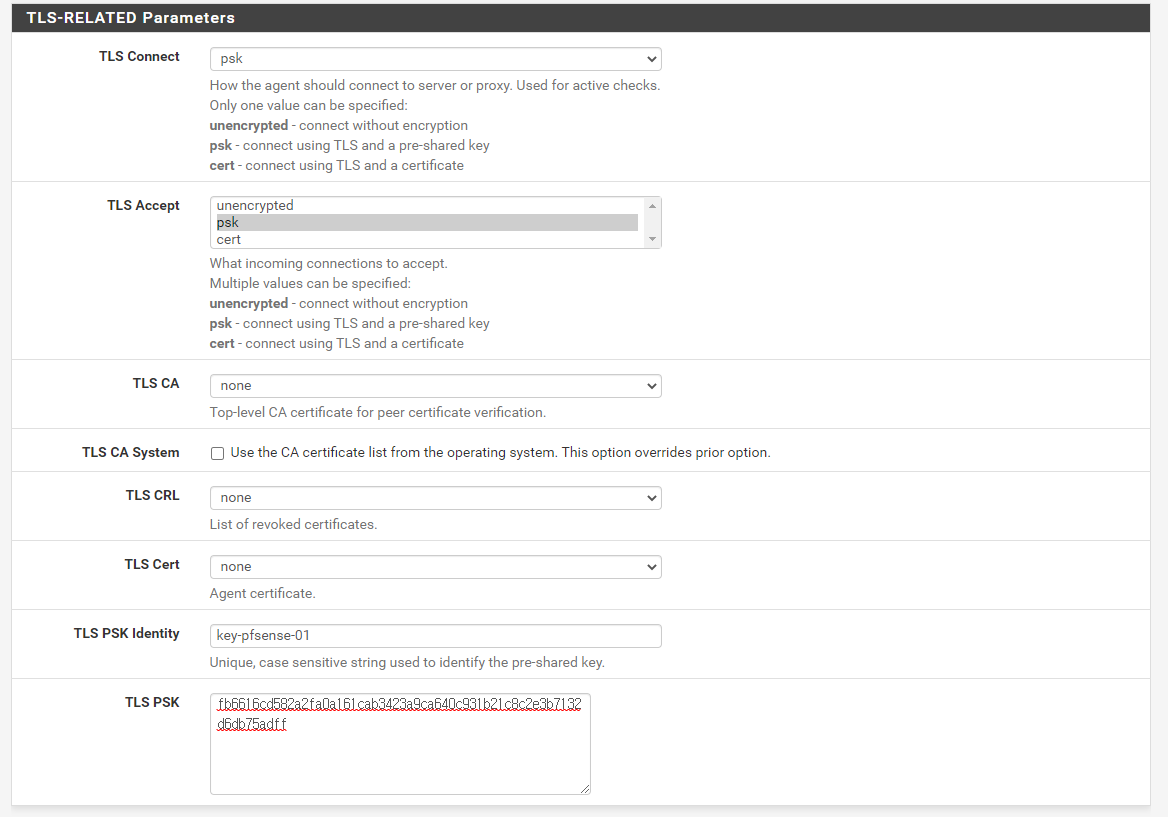
postfix



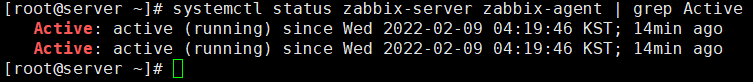
Imap & pop3

1. Zabbix 서버 설치 및 Pfsense 모니터링 시작

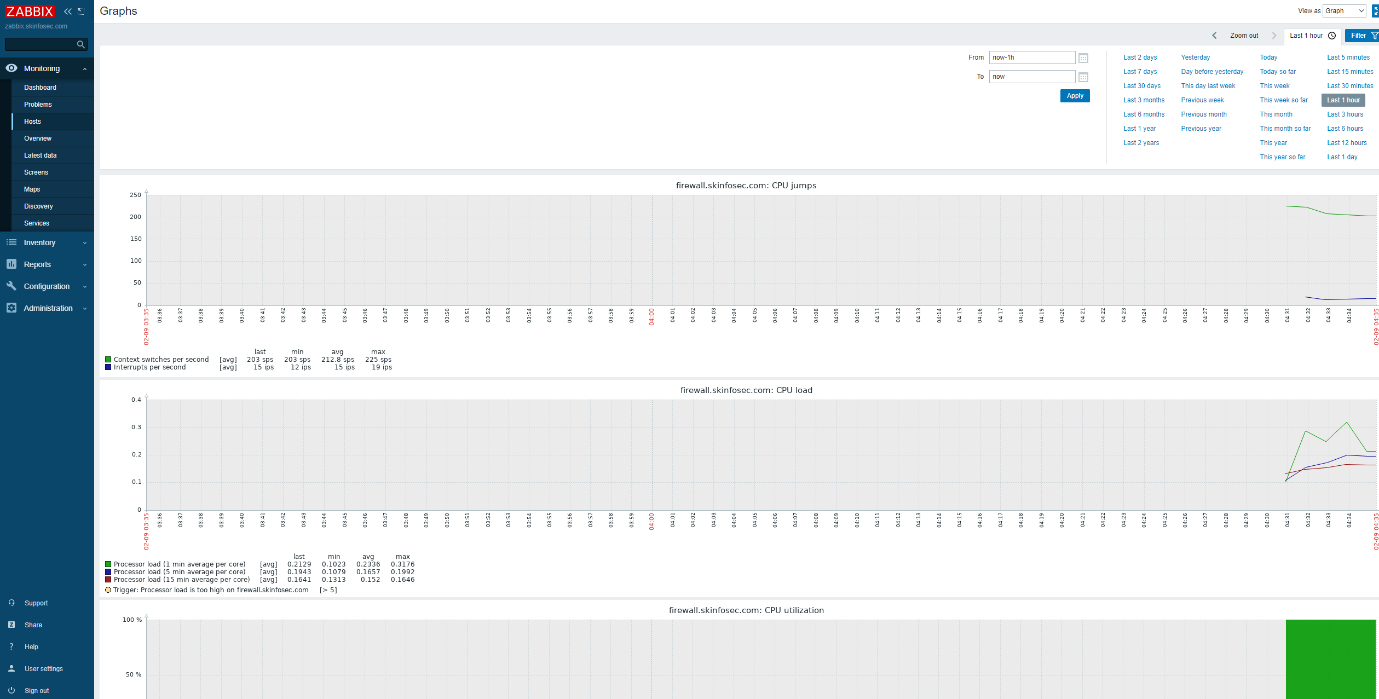




Zabbix 패키지 설정



Zabbix 서버 설치 완료



Zabbix로 Pfsense 모니터링

1. firewall, selinux 비활성화

