

VyOS Architecture Reference for Azure

VyOS is a software network router, which can be used to manage traffic flows between different Azure cloud elements and between Azure and Internet or on-site networks.

It supports a big set of protocols and features, which are available in other general-purpose routers and familiar to network engineers, which allows transparently transfer services into the cloud, keeping network topology and services set close to the on-site.

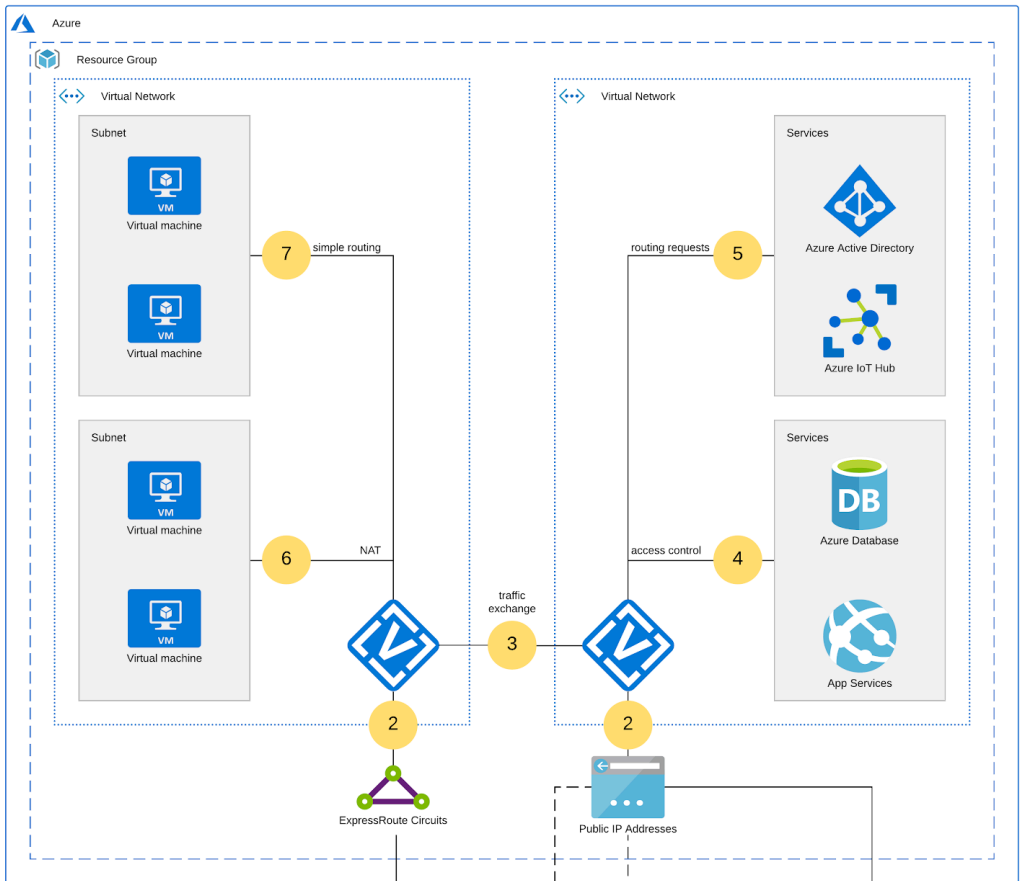
VyOS require the followed cloud services to work:

- [Virtual Machines](#) to host VyOS router;
- [Virtual Network](#) to provide network connectivity to all other services;
- [Azure ExpressRoute](#) if fast direct connection between on-site and cloud networks is required;
- [Traffic Manager](#) or/and [Load Balancer](#) if high availability and load-balancing if required.

[Network security group](#) may be used for additional control over traffic aside from VyOS.

VyOS can be deployed from Azure Marketplace manually and with automation tools and controlled in multiple ways: via SSH, Ansible, Terraform, SaltStack, or via Python library.

Full integration of services in on-premise network and Azure can be provided by exposing a Public IP address to a VyOS instance, via different tunnels and site-to-site connections, or with Azure ExpressRoute.



- 1 Requests from customers and devices
- 2 Incoming communications can be done via multiple connectivity services
- 3 Routing between virtual networks inside a cloud
- 4 Access to services can be limited according to VyOS configuration
- 5 Requests can be redirected to multiple services
- 6 Access to other subnets and Internet via NAT
- 7 Traffic can be routed to other subnets and services via VyOS

