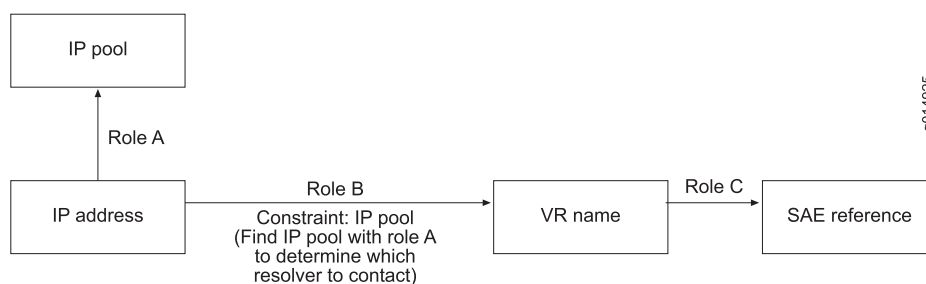


## OnePopSharedIp Scenario

This scenario illustrates a configuration that is very similar to the OnePop scenario. However, the realm for this configuration accommodates the situation in which IP address pools are shared by VRs in the same POP. The resolution process takes a subscriber's IP address as the key and returns a reference to the SAE managing this subscriber as the value.

Figure 1 on page 1 shows the resolution graph for this realm.

**Figure 1: Resolution Process for sharedIp Realm**



The following agents interact with resolvers in this realm:

- SAE plug-in agent IpVr collects and publishes information about the mappings of IP addresses to VRs.
- Directory agent PoolVr collects and publishes information about the IP address pools used by the VRs in a POP. Because the IP address pools are shared between VRs, this agent discards information about VRs.
- Directory agent VrSaeld collects and publishes information about the mappings of VRs to SAEs.

The OnePopSharedIP scenario provides two host configurations: a centralized configuration and a distributed configuration.

### Centralized Configuration

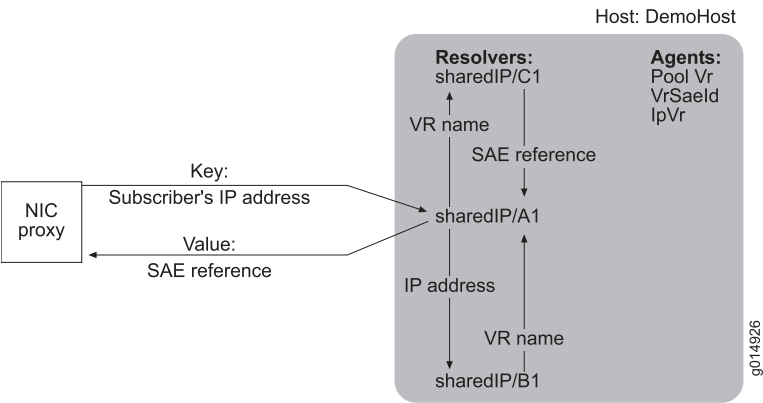
In this configuration, single host DemoHost supports all agents and resolvers. When the NIC proxy sends a subscriber's IP address to host DemoHost, the following sequence of events occurs:

1. The host passes the IP address to resolver A1.
2. Resolver A1 obtains an IP pool for the IP address.
3. Resolver A1 forwards the IP address and the IP pool to resolver B1.
4. Resolver B1 obtains a VR name for the IP address and returns the VR name to resolver A1.
5. Resolver A1 forwards the VR name to resolver C1.
6. Resolver C1 obtains an SAE reference for the VR and returns the SAE reference to resolver A1.

- 7. Resolver A1 passes the SAE reference to its host.
- 8. The host returns the SAE reference to the NIC proxy.

Figure 2 on page 2 shows the interactions of the NIC components for this realm.

**Figure 2: OnePopSharedIP Centralized Configuration**



**Distributed Configuration**

In this configuration, the agents and resolvers are distributed among several hosts. When the NIC proxy sends a subscriber's IP address to the host OnePopBO, the resolvers execute the same actions as they do in the centralized configuration. Figure 3 on page 2 illustrates the interactions of the NIC components for this realm.

**Figure 3: OnePopSharedIP Distributed Configuration**

