This page describes how to deprovision an existing Shared VPC configuration, disconnecting all service projects from a Shared VPC host project. Deprovisioning is a one-way process. Please make sure you are familiar with the Shared VPC Overview (/vpc/docs/shared-vpc) and Provisioning Shared VPC (/vpc/docs/provisioning-shared-vpc) pages first.

Shared VPC is also referred to as "XPN" in the API and command-line interface.

n: Deleting a Shared VPC host project without following the processes described here will cause an outage for instar vice projects attached to the host project. The directions for provisioning a Shared VPC explain how to create an zation-level policy to limit IAM members who can remove the lien that prevents deletion of host projects /docs/provisioning-shared-vpc#protectsharedvpc). If you have that policy in place, then you limit the risk of deleting t without properly deprovisioning it.

In each service project attached to the Shared VPC host project, a Service Project Admin (/vpc/docs/shared-vpc#iam_in_shared_vpc) must remove all dependencies on the host project. Dependencies include instances, instance groups, instance templates, and forwarding rules for Internal TCP/UDP Load Balancing (/load-balancing/docs/internal/).

To identify resources that depend on the Shared VPC host project, a Service Project Admin can list its shared subnets (/vpc/docs/provisioning-shared-vpc#discovering_subnets_that_can_be_used). When the service project is detached from the host project, these subnets will no longer be available to it; thus, any resources that depend on them will be affected.

Once a Service Project Admin has identified the resources that will be affected by the deprovisioning process, those resources will need to be deleted:

- Delete instances (/compute/docs/instances/stopping-or-deleting-an-instance#delete_an_instance) that use subnets in the host project.
- Delete managed instance groups (/sdk/gcloud/reference/compute/instance-groups/managed/delete) and unmanaged instance groups (/sdk/gcloud/reference/compute/instance-groups/unmanaged/delete) that use subnets in the host project.
- Delete instance templates (/compute/docs/instance-templates/get-list-delete-instance-templates#deleting_an_instance_template) whose definitions depend on the host project.
- Delete internal forwarding rules for internal TCP/UDP load balancers (/load-balancing/docs/internal/#forwarding_rule) that reference a subnet in a Shared VPC network of the host project.

n: If a service project should eventually be shut down (deleted), it must first be detached from the host project ach_service_projects). **Do not simply delete it.** For details about why detaching must be done first, refer to the delete projects section (#deleting_shared_vpc_service_project).

All tasks in this section must be performed by a Shared VPC Admin (/vpc/docs/shared-vpc#iam_in_shared_vpc).

Repeat these steps for each service project you need to detach from the Shared VPC host project.

n: Detaching a service project can only be done after the Service Project Admins have:
ed all service project resources that depend on the host project, or
rmined that the service project should be deleted after being detached.
sure Service Project Admins have completed their tasks (#deleting_all_resources_associated_with_shared_vpc_netw

Disabling Shared VPC for the host project is only possible after all service projects have been detached (#detach_service_projects). When disabled, the lien that prevents it from being easily deleted is removed automatically.

This section discusses deleting projects that are no longer used; for example, you may have service projects that need to be deleted after they have been detached from a host project, or you may no longer need the host project after it has been disabled.

You may choose to keep it as a normal project or shut it down (/resource-manager/docs/creating-managing-projects#shutting_down_projects). Shutting down a project

deletes it.

Any IAM member defined in your organization can delete the host project if the member has the `resourcemanager.projectDeleter` role (/iam/docs/understanding-roles#resource-manager-roles) for your organization or if the member is the owner of the host project. Shared VPC Admins may be able to delete host projects if they have the correct role or ownership.

ant: If you have not first detached all service projects from the host project (#detach_service_projects) and disabled d VPC (#disable_host_project), a lien will prevent the host project from being deleted. If you need to forcibly delete a h t, refer to this section. (#removelien).

You may choose to shut down each service project (/resource-manager/docs/creating-managing-projects#shutting_down_projects) if you no longer need them. Before doing so, make sure that the service project has been detached from the host project (#detach_service_projects).

Any IAM member defined in your organization can delete a service project if the member has the `resourcemanager.projectDeleter` role (/iam/docs/understanding-roles#resource-manager-roles) for your organization or if the member is the owner of the service project. Service Project Admins may be able to delete service projects if they have the correct role or ownership.

n: If you shut down a service project without first detaching it from the host project, you will be unable to destroy its ment (and the host project cannot be disabled). This happens because GCP considers the service project attachmer duration of the service project's recoverable period (30 days). If this happens, you must first restore the deleted serv t (https://support.google.com/cloud/answer/6251787) or wait for its recoverable period to expire, detach it from the t (#detach_service_projects), then shut down the service project again. For more information, refer to this page urce-manager/docs/creating-managing-projects#shutting_down_projects).

While Shared VPC is active for a host project, a lien is placed on the project to prevent it from being accidentally deleted. Because this lien can be removed by a project owner, the guidelines for provisioning a Shared VPC (/vpc/docs/provisioning-shared-vpc#protectsharedvpc) include steps to define an organizational policy that limits which IAM members have the ability to remove a project lien.

Normally, a host project should be deleted *after* the following tasks have been completed in this order:

- All service projects have been detached (#detach_service_projects) from the host project, and
- Shared VPC has been disabled (#disable_host_project).

When Shared VPC has been disabled, the lien that protects the host project is automatically removed.

This section details how to forcibly shut down a host project. You should only consider this option under these circumstances:

- You cannot follow the normal steps of detaching service projects and disabling Shared VPC.
- There are additional liens protecting the host project beyond the one that is added automatically.

If you forcibly shut down a host project and you have resources in service projects that use the Shared VPC network, the following events occur:

- All Shared VPC networks, their subnets, routes, firewall rules, and all networking resources in the host project are deleted.
- Resources, such as running instances in the service projects attached to the host project, are stopped.
- Internal TCP/UDP load balancers are disabled if their forwarding rules depend on the Shared VPC network.

The host project can be restored (https://support.google.com/cloud/answer/6251787) within 30 days of being shut
If restored, resources in service projects attached to it can be restarted.

- See the Shared VPC Overview (/vpc/docs/shared-vpc) for more information on Shared VPC.
- See Provisioning Shared VPC (/vpc/docs/provisioning-shared-vpc) for instructions on setting up Shared VPC.
- See Setting up Clusters with Shared VPC (/kubernetes-engine/docs/how-to/cluster-shared-vpc) for instructions on setting up Kubernetes Engine clusters with Shared VPC.