

[VPC Service Controls](https://cloud.google.com/vpc-service-controls/) (https://cloud.google.com/vpc-service-controls/)

[Documentation](https://cloud.google.com/vpc-service-controls/docs/) (https://cloud.google.com/vpc-service-controls/docs/) [Guides](#)

# Allowing access to protected resources from outside a perimeter

You can use **access levels** to grant controlled access to protected Google Cloud resources in service perimeters from outside a perimeter.

An access level defines a set of attributes that must be met before a request is honored. Access levels can consider various criteria, such as IP address and user identity.

**Note:** Some attributes, such as device policy attributes, are not currently supported by [VPC Service Controls](#).

For a detailed overview of access levels, read the [Access Context Manager overview](https://cloud.google.com/access-context-manager/docs/overview) (https://cloud.google.com/access-context-manager/docs/overview).

## Limitations of using access levels with VPC Service Controls

When using access levels with [VPC Service Controls](#), certain limitations apply:

- Access levels only allow requests from *outside* a perimeter for the resources of a protected service *inside* a perimeter.

You cannot use access levels to allow requests from a protected service *inside* a perimeter for resources *outside* the perimeter. If you need a protected service to make requests for resources outside the perimeter, try using [perimeter bridges](https://cloud.google.com/vpc-service-controls/docs/share-across-perimeters) (https://cloud.google.com/vpc-service-controls/docs/share-across-perimeters).

- Requests for a protected resource in a perimeter that originate from *another* perimeter will always be denied, even if an access level would normally allow the external request. For

more information, read about [requests between perimeters](#)

(<https://cloud.google.com/vpc-service-controls/docs/troubleshooting#requests-between-perimeters>)

## Using access levels

Access levels are created and managed using Access Context Manager.

### Creating an access level

To create an access level, read about [creating an access level](#)

(<https://cloud.google.com/access-context-manager/docs/create-access-level>) in the Access Context Manager documentation.

The following examples explain how to create an access level using different conditions:

- [IP address](#)  
(<https://cloud.google.com/access-context-manager/docs/create-access-level#corporate-network-example>)
- [User and service accounts](#)  
(<https://cloud.google.com/access-context-manager/docs/create-access-level#members-example>)  
(members)

### Adding access levels to service perimeters

You can add access levels to a service perimeter when creating the perimeter, or to an existing perimeter:

- Read about [adding access levels when you create a perimeter](#)  
(<https://cloud.google.com/vpc-service-controls/docs/create-service-perimeters#external-access>)
- Read about [adding access levels to an existing perimeter](#)  
(<https://cloud.google.com/vpc-service-controls/docs/manage-service-perimeters#add-access-level>)

### Managing access levels

To manage your access levels, read about [managing access levels](https://cloud.google.com/access-context-manager/docs/managing-access-levels) (<https://cloud.google.com/access-context-manager/docs/managing-access-levels>). This documentation explains how to list, modify, and delete existing access levels.

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