

## IAAS-11: Protect a virtual cluster by creating a bastion host

A **researcher** or **educator** wants to protect a virtual cluster on a cloud resource by using a prepared image to create a bastion host for the virtual cluster. We assume the researcher already has a virtual cluster on the resource.

In most cases, the researcher wants to experience it as follows.

1. First, the researcher visits the community's website, locates the cloud resource documentation (terminology may vary), and finds a guide for building a virtual cluster with a bastion host.
2. Then, the researcher reviews the guide and verifies that a bastion host is compatible with the uses envisioned for the virtual cluster.
3. Then, the researcher creates a new VM on the resource using a bastion host VM image.
4. Then, the researcher follows the instructions in the guide to configure the bastion host VM, establish connectivity with the virtual cluster, and disable external access to the virtual cluster.
5. Finally, the researcher confirms that the virtual cluster can be used via the bastion host and confirms that the virtual cluster cannot be accessed otherwise.
6. If the builder encounters any issues, the builder files a support ticket with the community's support service.

We'll take any solution, as long as...

1. In Step 1, the builder doesn't need to login to access the guide.
2. In Step 3, the VM image for the bastion host is ideally available as an option on the cloud resource without importing from another system, but this isn't strictly required as long as the guide provides instructions for importing the VM image.
3. In Step 5, the community ideally provides a vulnerability scanning tool as described in use case SPI-09 that can be used to confirm that the virtual cluster cannot be accessed without using the bastion host, but this isn't strictly required as long as the guide provides instructions for this step.
4. In Step 6, the community's support personnel coordinate with the cloud resource's support personnel to resolve the issue.