TechZone Asset: simulated Veeam backup to IBM Cloud shared VMware environment and Disaster Recovery

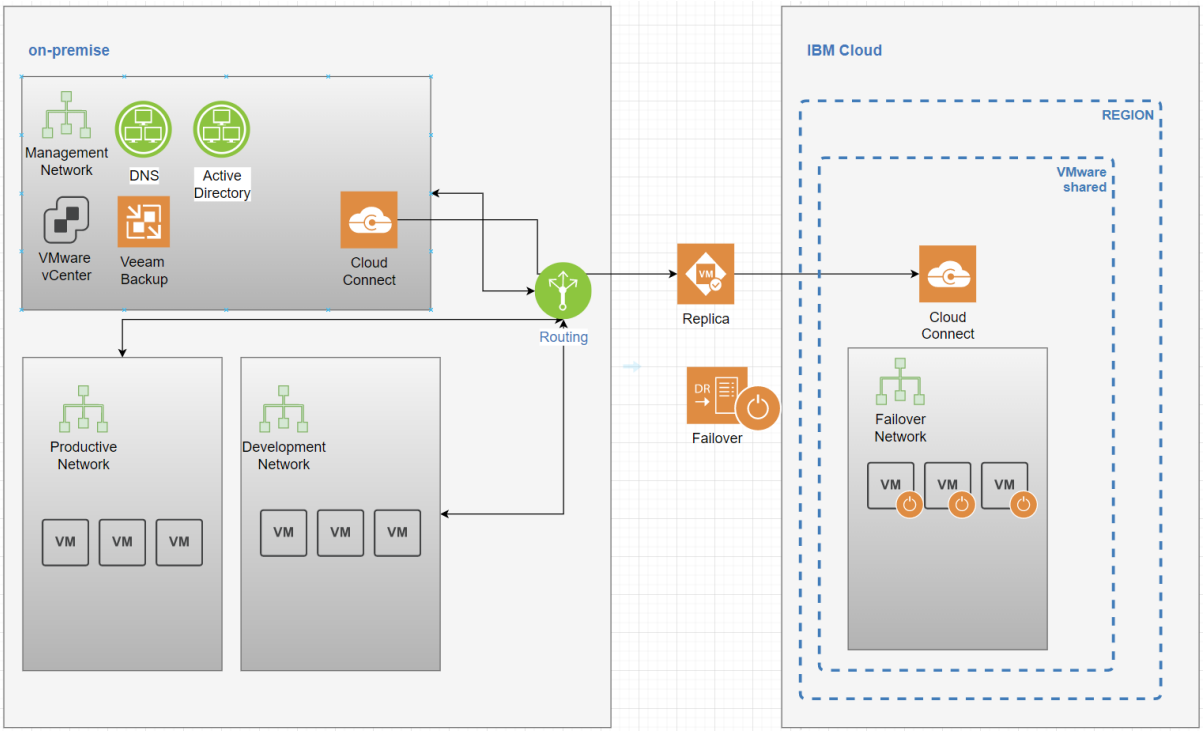
Scenario description:

An on-site VMware environment should be synchronized to the IBM Cloud VMware shared environment, to provide a Disaster Recovery possibility.

In this scenario, we only will cover the Veeam synchronization and failover process.

Precondition: A site2site VPN between on-premise and the IBM Cloud is already established, to get access to the IBM Cloud VMware shared environment. Also there is a configured environment with networks that are required for the migrated on-premise virtual machines.

Your initial environment could look like this.



Based on Veeam Cloud Connect, we will show how a virtual machine, from the on-site VMware datacenter, will be available on the Veeam Cloud Connect Portal in the IBM Cloud VMware shared environment.

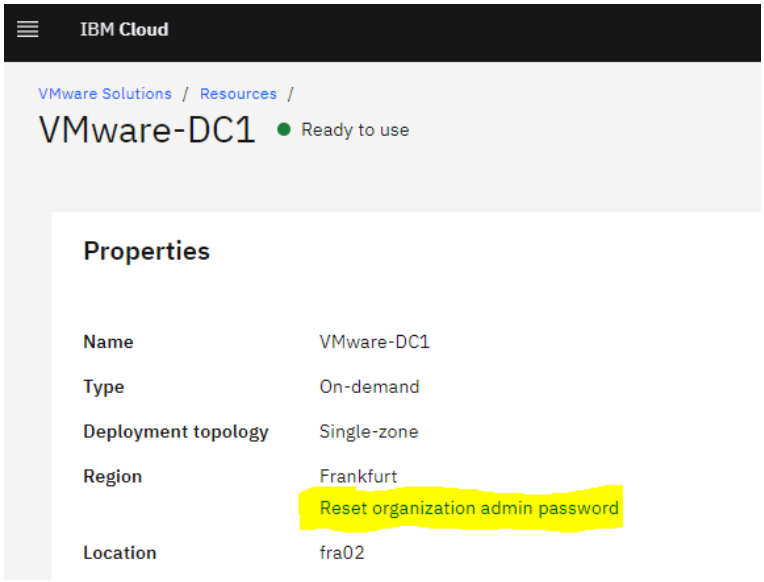
Preparation

To create a Veeam Failover Plan, a Replication Task needs to be created. Only VM's that are successfully replicated to the destination can be used for a Failover Plan.

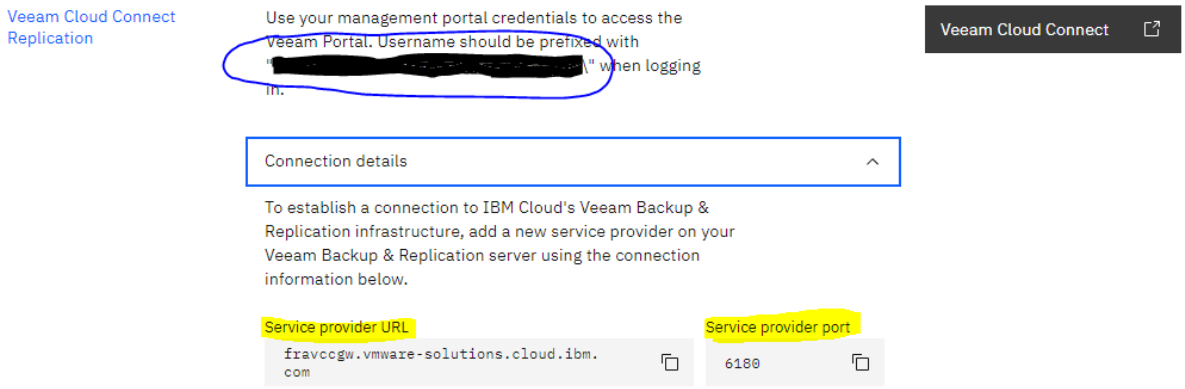
As destination we have two locations

IBM Cloud data center location	DNS name	Port
Dallas	dalvccgw.vmware-solutions.cloud.ibm.com	6180
Frankfurt	fravccgw.vmware-solutions.cloud.ibm.com	6180

For the connection authentication you need to use the IBM Cloud VMware shared management portal credentials. This information you can find in the IBM Cloud Portal.

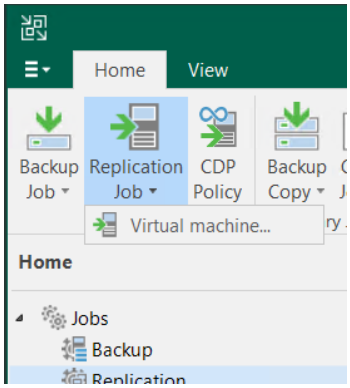


Also you need the prefix and the connection information, which are shown in the “Veeam Cloud Connect Replication” section.

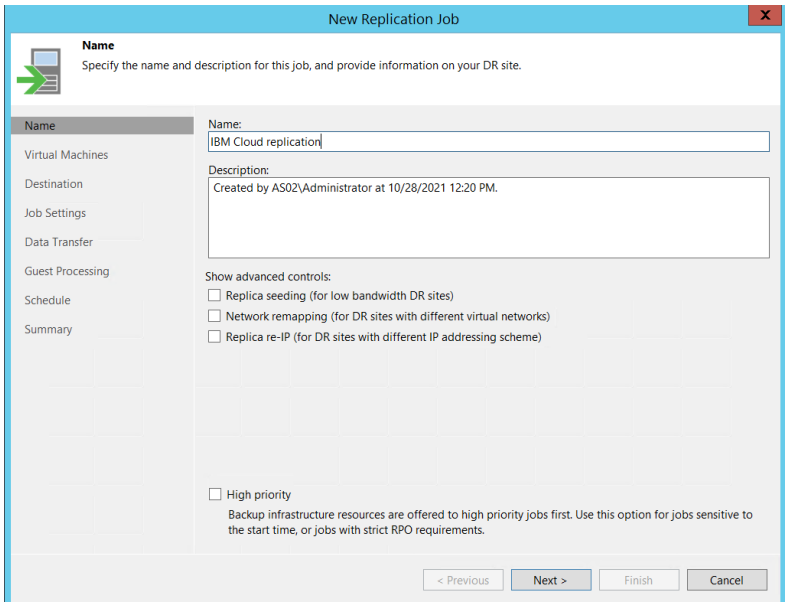


On-premise configuration

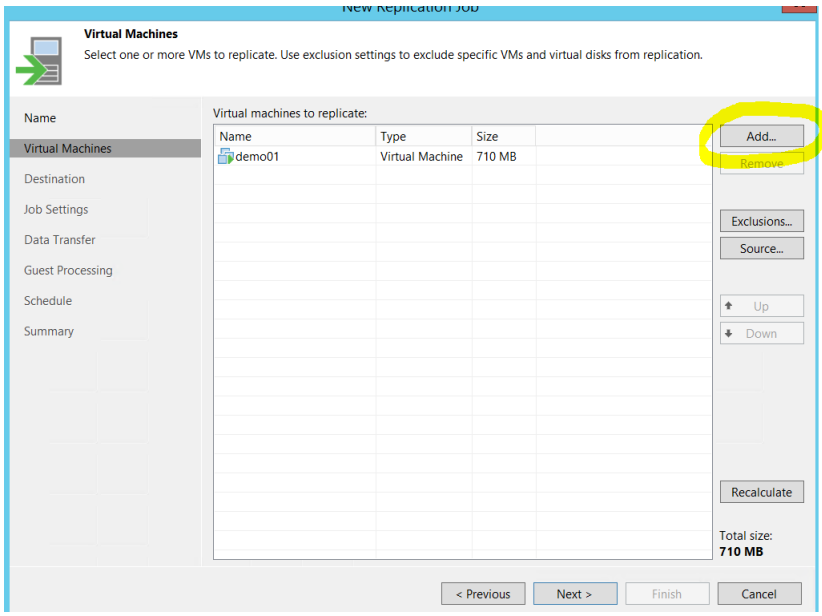
In your on-premise Veeam installation, click on “Replication Job” -> “Virtual machine”



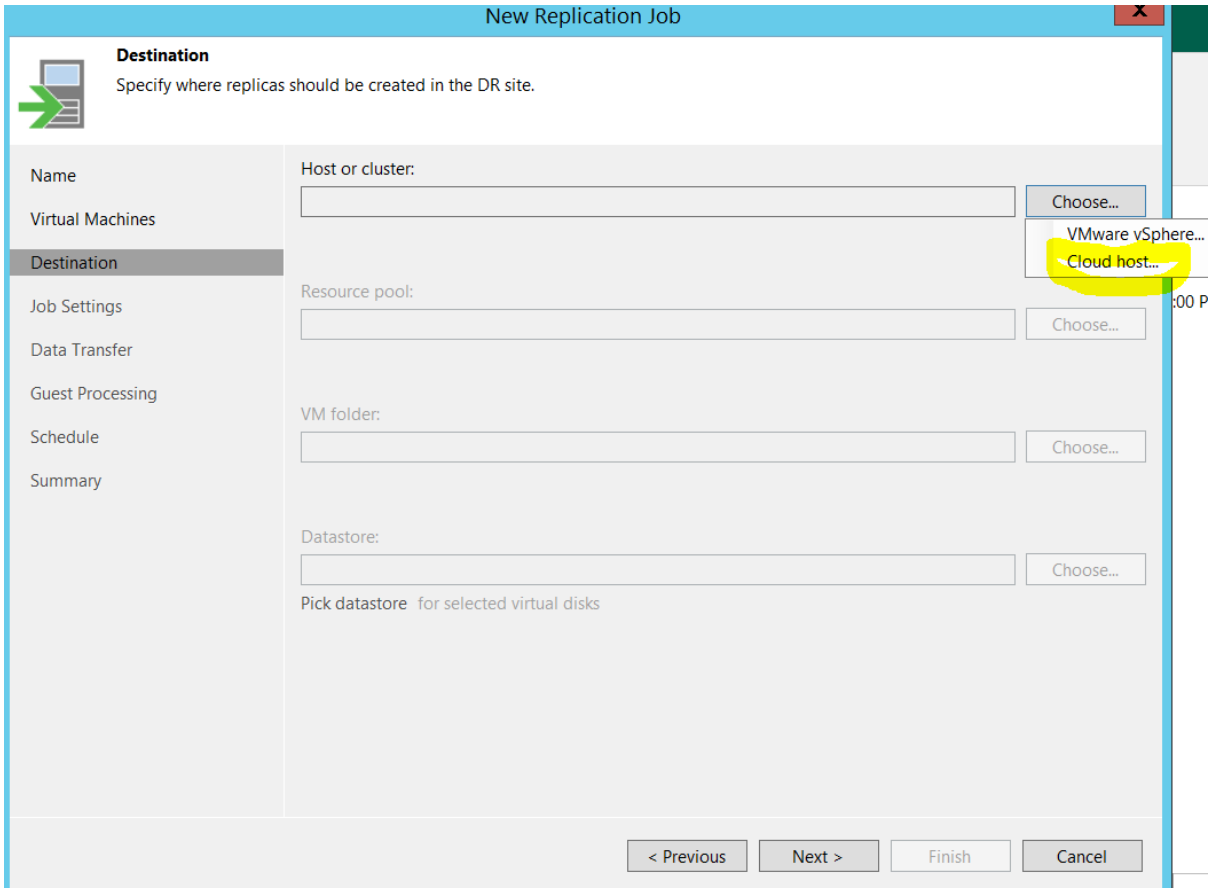
Type in a name and choose options that may apply for your environment.



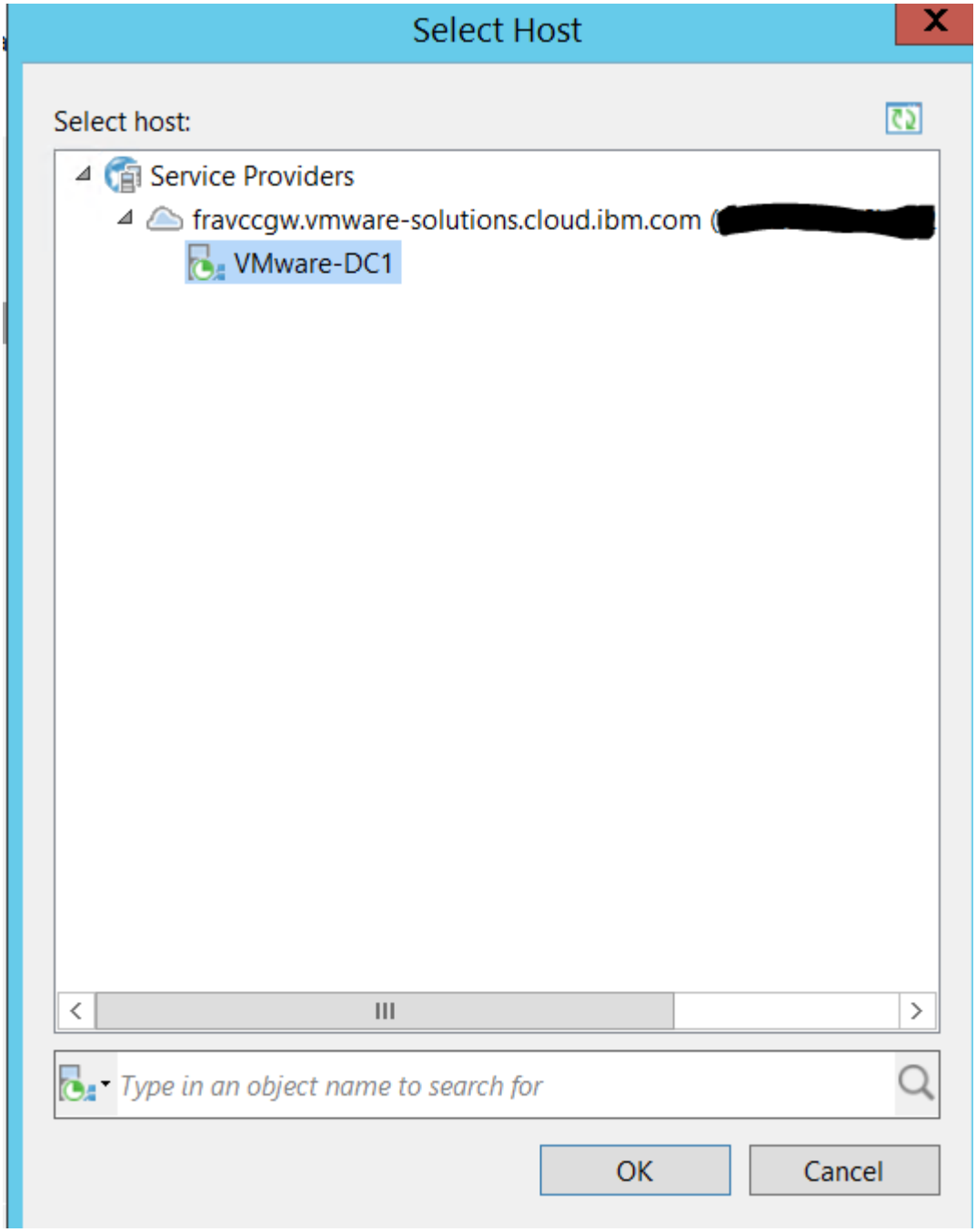
Click “add” to add the virtual machines, which need to be replicated to the DR site.



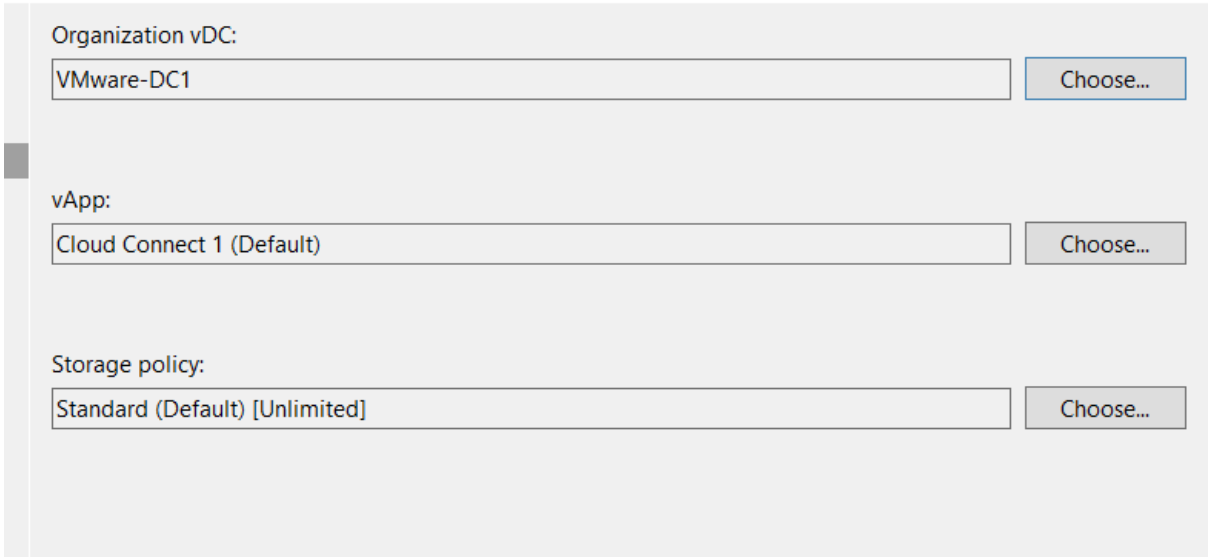
Now you need add information about the destination. Therefore choose “Cloud host”



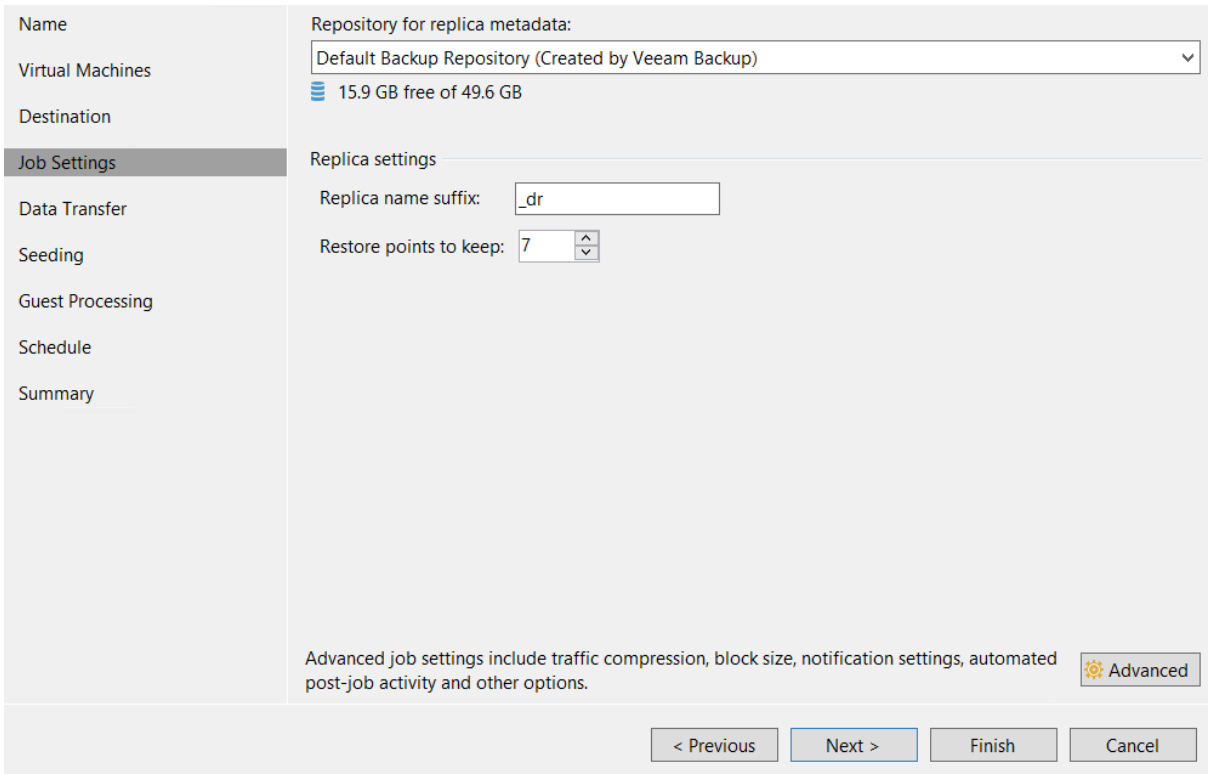
And select your environment on the IBM Cloud



It should look like this



Then you choose your Backup Repository for the Metadata



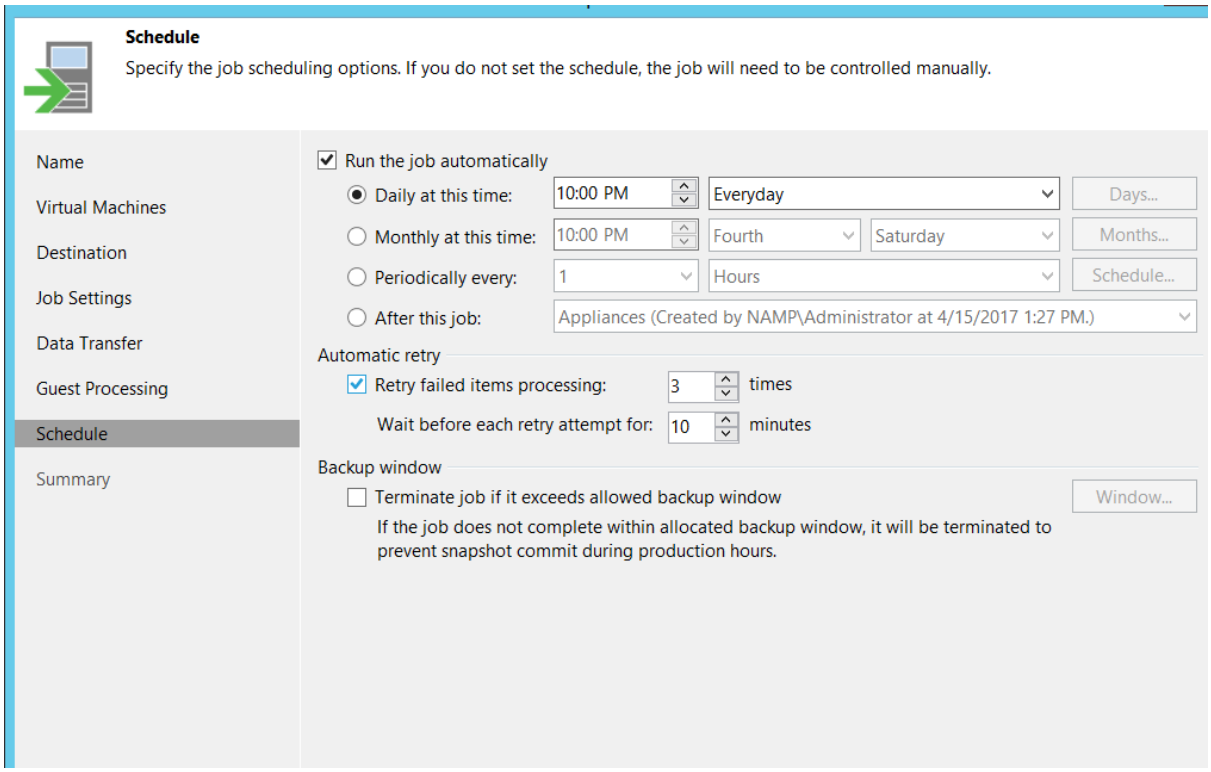
The points in Data Transfer you can leave unchanged.

And also the Guest Processing. Later you can do changes for applications or logins.

Please add a scheduler to get the virtual machine replicated as often as you need it for the recovery time objective.

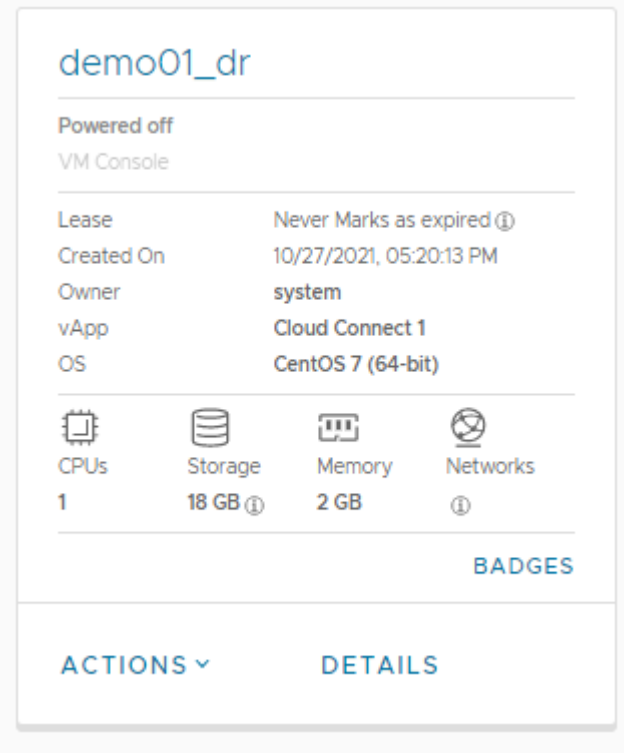
At this point, you can define the frequency of the schedule.

The maximum frequency you can choose is a continuous synchronization. Which does **not** imply, that the Recovery Point Objective (RPO) will be zero. It means that, the replication starts again, after the last synchronization is finished. Depending on the amount of changed data to be replicated, the time difference between two synchronizations can be very low.



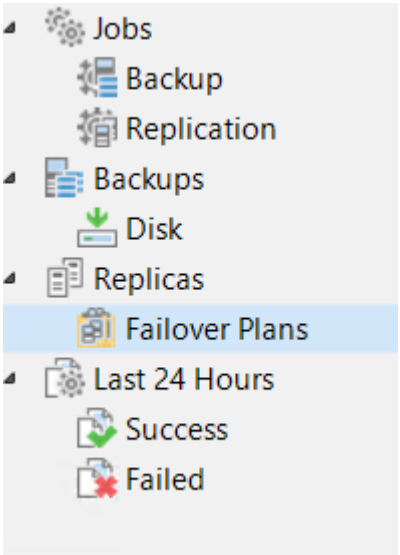
On the summary, please check all your settings again and then click on “finish”. You may want to check the box for “Run the job when I click Finish”.

After a successful replication, you should see the VM in your vCloud Director instance of your VMware shared environment.

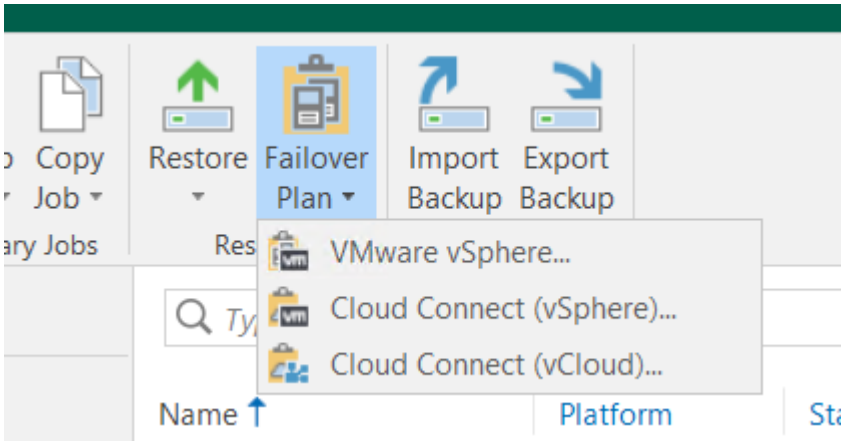


Now we need to create a Failover Plan.

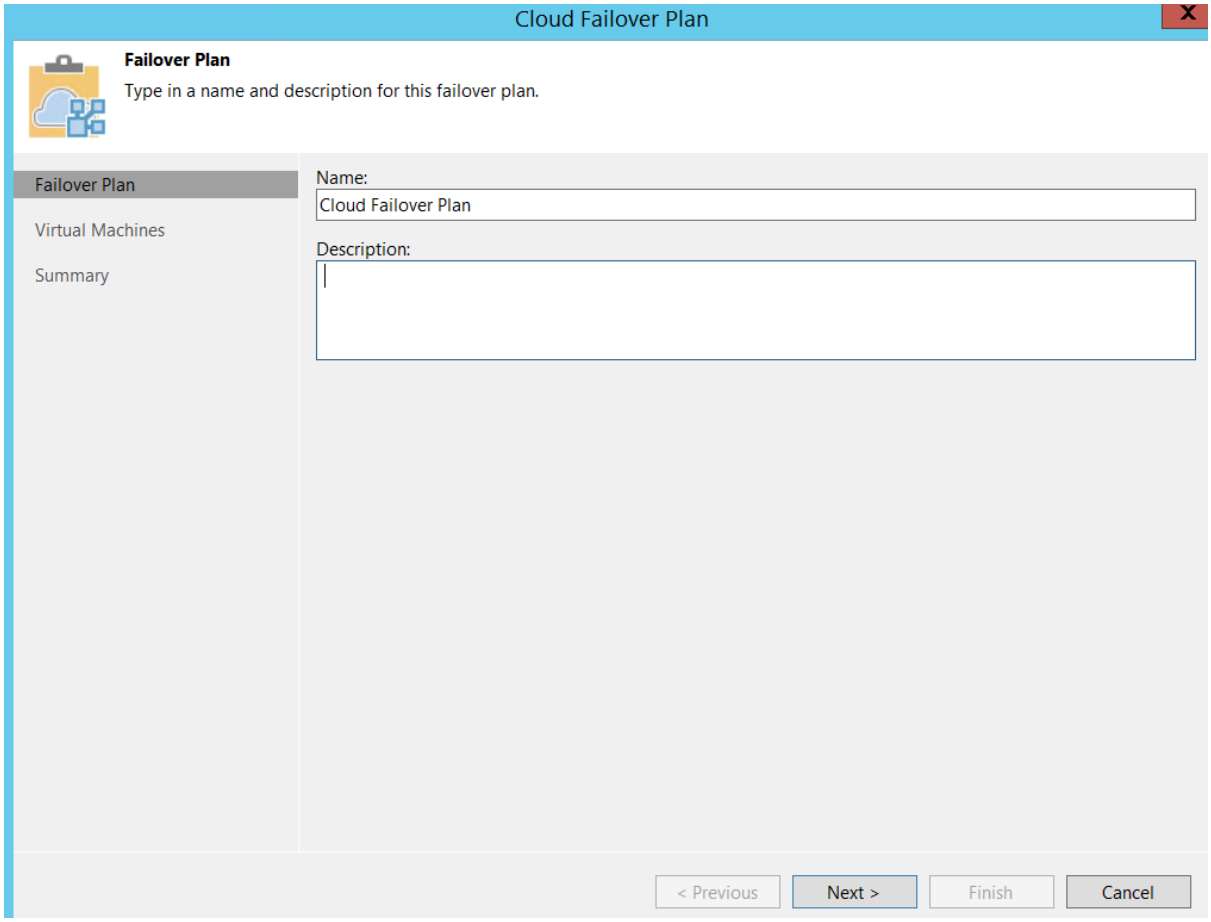
Therefore choose, in your Veeam environment Replicas->Failover Plans



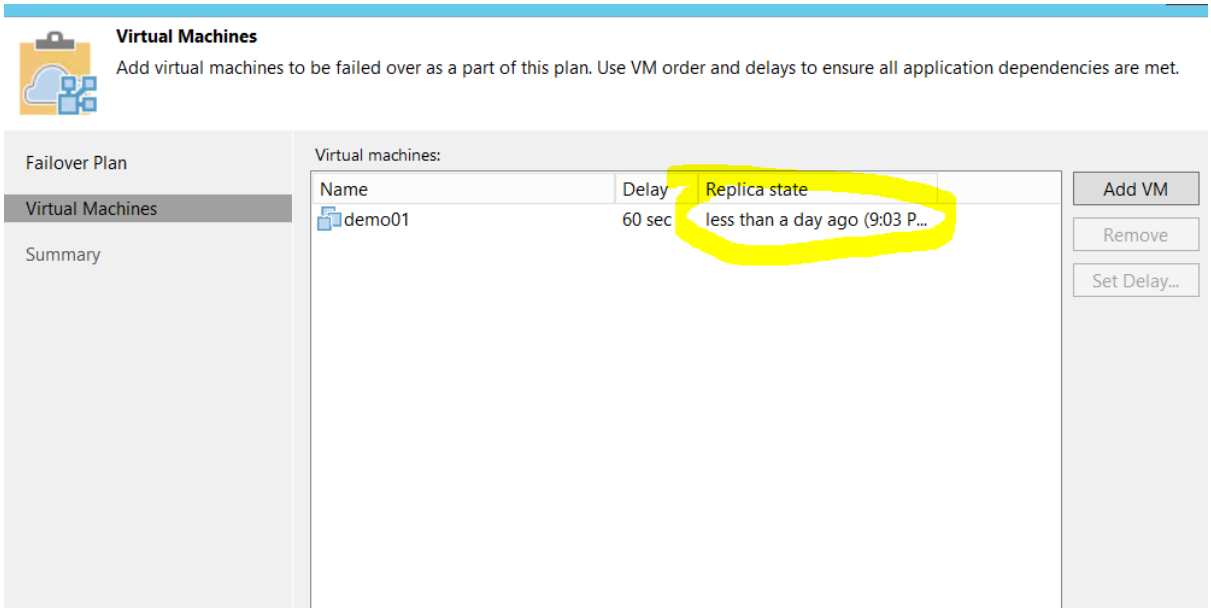
From the top menu, choose Failover Plan -> “Cloud Connect /vCloud)



Giving a name and click Next



Then add the VM you want to have included in the failover plan. It is important, that this VM has been already synced at least once.



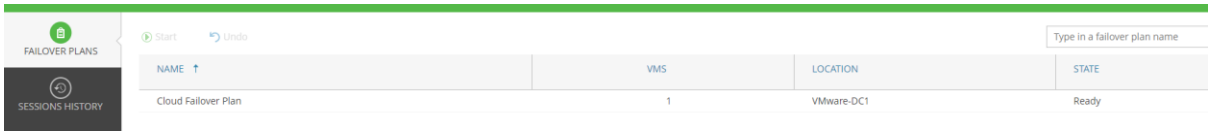
Then check the summary and click on “Finish”

Now you go back into your IBM Cloud Portal and switch to your VMware shared environment.

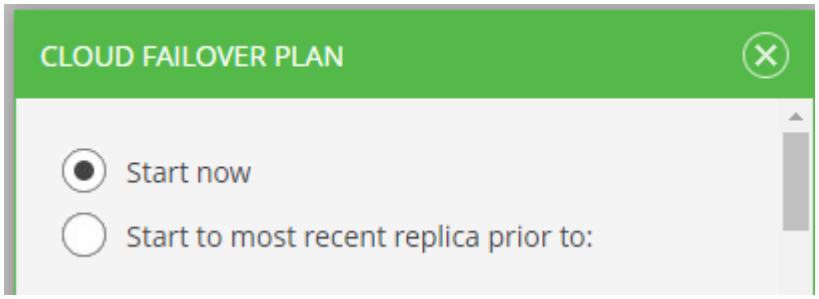
You can find that within “VMware Solutions/Resources”

Scroll down and choose “Veeam Cloud Connect”, in the newly opened window, you login with the credentials you got on the first page of the documentation.

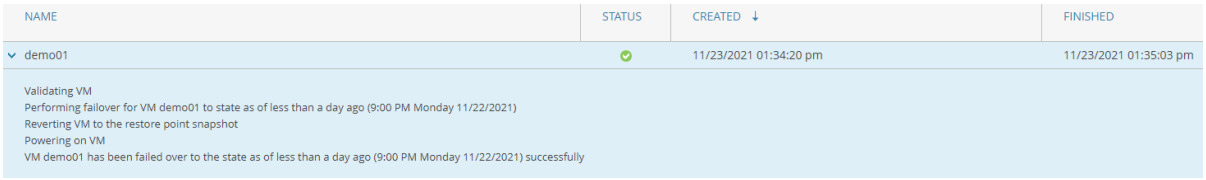
After logging in, you can see the dashboard with the available failover plans



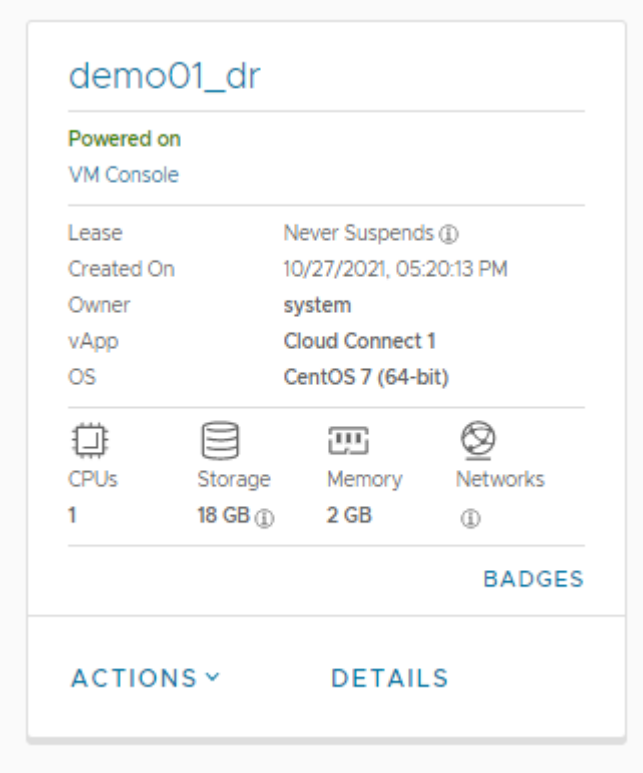
If you highlight the plan, you are able to click on “Start”. This would initiate the failover.



After a successful failover, you should see something in the “Session History” section

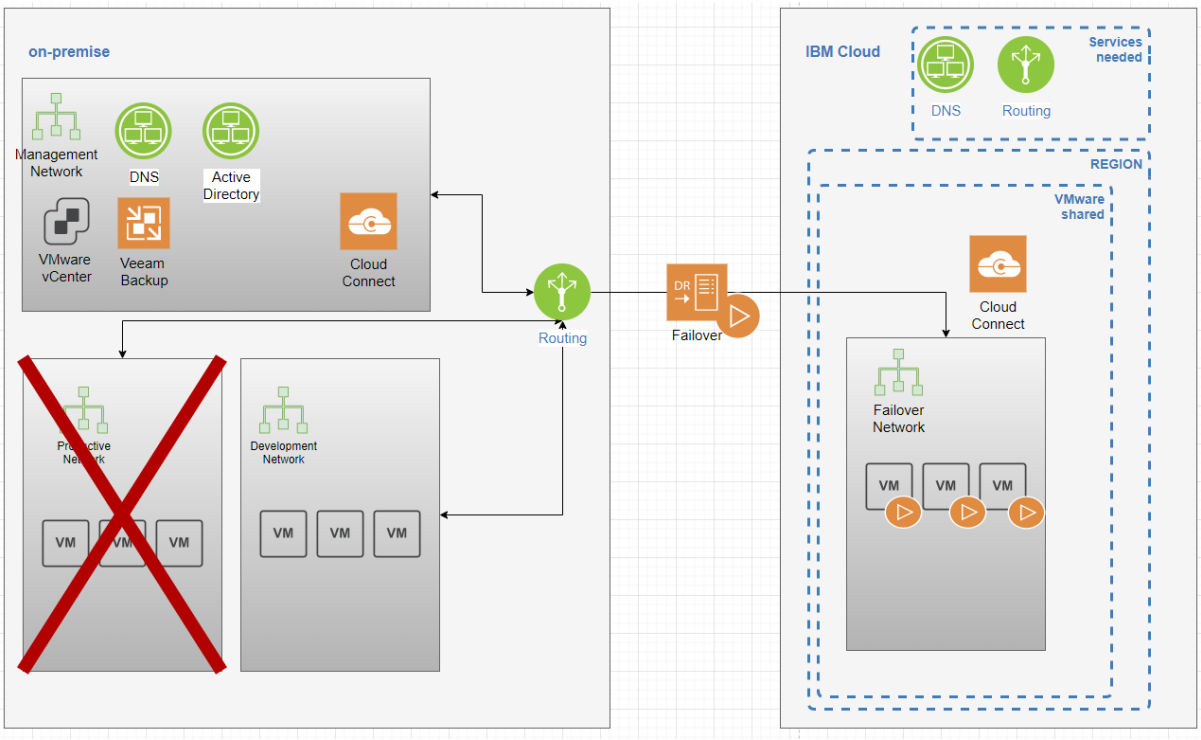


And also in the vCloud Director, the VM should be powered on



With this, you created a Veeam failover plan including the replication of a VM from your on-premise VMware installation to the IBM Cloud shared VMware environment.

Now your environment could look like this:



Be sure to check if your DNS configuration is adapted to the new environment, IP addresses may have changed depending on the target landing zone.

Also keep in mind, that it is important to check your routing and also firewall setting, so that your new environment is accessible from your on-premise network.

Docs:

https://cloud.ibm.com/docs/vmwaresolutions?topic=vmwaresolutions-shared_veeam

https://cloud.ibm.com/docs/vmwaresolutions?topic=vmwaresolutions-shared_overview