How to: Install BIG-IP Next tenant on VELOS

Prerequisites

- VELOS chassis install is complete; power is on in data center
- Initial configuration of a VELOS system is complete
- MyF5 account to download the bundle file

Summary

- Download the bundle file
- Update the system controller software
- Create a chassis partition
- Login to the chassis partition WebUI
- Upload a tenant image onto the chassis partition
- Create VLANs in the VELOS partition
- Create a tenant

Procedures

Download the bundle file

1. Navigate to MyF5.

2. In the upper-right corner, click **SIGN IN**,

3. Type your **Email** address and click **Next**.

4. From the top menu, click the **RESOURCES** list, and select **Downloads**.

5. To agree with the terms of downloading software, review the **End User License Agreement** and **Program Terms**. Click the checkbox and then click **Next**.

6. From the **Group** list, select **F5OS**.

7. From the **Product Line** list, select **F5OS Platform Software for VELOS**.

8. From the **Product Version** list, select the desired version.

9. From **Select a product container**, select a version number.

10. From **Select a download file**, select a .tar file.

11. From the **Download locations** list, select a location and then click the **Download** link.

12. After the download is complete, move the .tar file to a desired location for uploading.

Update the system controller software

Update the system controller software (F5OS) to the required controller version: v1.x.x.

1. Log in to the system controller webUI using an account with admin access.

2. On the left, click **SYSTEM SETTINGS** > **Controller Management**.

3. For **Update Software**, select **Bundled**.

4. For the **ISO Image**, select the full version release ISO image.

5. Click **Save**.

   The software on the system controllers is updated.

Create a chassis partition

1. Log in to the system controller webUI using an account with admin access.

2. On the left, click **CHASSIS PARTITIONS**.
   The Chassis Partitions screen opens with a graphical view of the VELOS chassis.

3. On the chassis graphic, select the available blade where you want to create a partition.

4. Click **Create**.

5. For **Name**, type a name for the chassis partition.

6. In the IPv4 section, type the values for **IP Address**, **Prefix Length**, and **Gateway**.

7. In the IPv6 section, click **Bundled**. For the **ISO image**, select the previously uploaded software image to run on the chassis partition.

8. Click **Save**.

   In the chassis partition list, for the new parition, the Operational State goes from **Starting** to **Running**.

   You can now log into the chassis partition using its management IP address to access the partition webUI.

Login to the chassis partition webUI

1. First-time login after creating a chassis partition requires using default credentials. For both the **Username** and **Password**, type **admin**, and click **Login**.

2. When prompted, type a **New Password**, **Confirm New Password**, and then click **Save**.

3. Login with the new credentials (**Username** and **Password**), and click **Login**.
   The F5OS|VELOS DASHBOARD opens.

Upload a tenant image onto the chassis partition

Upload with the GUI.

1. With the DASHBOARD open, on the left, click **TENANT MANAGEMENT** > **Tenant Images**.

2. Click **Upload**.
   The Tenant Images window opens.

3. Select the bundle file.

4. Click **Open**.
   The upload process starts.

   After the upload to the VELOS partition is complete, the bundle file is unbundled and replicated across the blades assigned to the partition.

Create VLANs in the VELOS partition

Create a VLAN and associate physical interfaces or LAGs with the VLAN:

- Any host that sends traffic to an interface is logically a member of the VLAN(s) to which that interface or LAG belongs.
- Create a VLAN before deploying a tenant.

Create VLANs with the GUI.

1. Login to the chassis partition webUI using an account with admin access.

2. On the left, click **NETWORK SETTINGS** > **VLANs**.

   The screen displays VLANs configured for the chassis partition.

3. Click **Add**.

4. In the **Name** field, type a name for the VLAN.

5. In the **VLAN ID**, type a number between 1-4094 for the VLAN.

   The VLAN ID identifies the traffic from hosts in the associated VLAN for an associated interface or LAG.

6. Click **Add VLAN** to create the VLAN.

   The VLAN is created and displays in the VLAN list.
   You can use the VLANs when configuring interfaces and creating LAGs.

   You can now deploy a tenant using the same chassis partition webUI.

Create a tenant

Before starting, decide on which slots to deploy the tenant.
You must have first created a VLAN in the chassis partition.

Note:

- A tenant name may only be a maximum of twelve characters.
- Support high availability (HA): A tenant name needs to be the same for both tenants in a single HA pair, and created on two different chassis.
- Support for multi-tenancy (deploying more than one tenant per blade): See: How to: Configure multi-tenancy for BIG-IP Next on VELOS (velos_configure_multi_tenancy.html)

For standalone, multi-tenancy, and HA:

- Support in a single blade: 4 and 8 vCPUs BIG-IP Next tenants.
- Classic BIG-IP and BIG-IP Next tenants should not be deployed in the same partition/blade.
- The number of tenants per blade is restricted to two tenants, with a maximum of 8 vCPUs per blade.
    - 2 – 4 vCPU BIG-IP Next tenants per blade.
    - 1 – 8 vCPU BIG-IP Next tenant per blade.

Create the tenant with the GUI.

If you are deploying HA, create one BIG-IP Next tenant on each chassis partition using the appropriate network information.

1. Log in to the chassis partition webUI using an account with admin access.

2. On the left, click **TENANT MANAGEMENT** > **Tenant Deployments**.
   The Tenant Deployment screen displays showing the existing tenant deployments and associated details.

3. To add a tenant deployment, click **Add**.
   The Add Tenant Deployment screen displays.

4. For **Name**, type a name for the tenant deployment (up to 12 characters).

   Note: The first character in the name cannot be a number. After that, only lowercase alphanumeric characters and hyphens are allowed.

5. Leave **Type** set to the default.

6. For **Image**, select a software image.

7. For **Allowed Slots**, first select the appropriate option:

   - **Partition Member Slots**: Lists only slots that the chassis partition includes.
   - **Any Slots**: Lists any slot on the chassis, even if not associated with the chassis partition, and even if no blade is installed in that slot.
     There is the option of selecting slots 1-8 whether or not they are associated with the chassis partition. This allows for preconfiguring tenant deployments before the hardware is installed and before the partition is configured to include it. Then, select the slots (or blades) that you want the tenant to span from the list.

8. For **IP Address**, type the IP address of the tenant.

9. For **Prefix Length**, type a number from 1-32 for the length of the prefix.

10. For **Gateway**, type the IP address of the gateway.

11. For **VLANs**, select the VLAN that you created.

12. For **Resource Provisioning**, select **Recommended**.

    This specifies recommended values for vCPUs and memory for the tenant.

13. For **vCPUs Per Slot**, only select **4** or **8**.

14. For **Memory Per Slot**, accept the default values.

15. For **State**, choose **Deployed**.

    This changes the tenant to the Deployed state.

    The tenant is set up, resources are allocated to the tenant, the image is moved onto the blade, and the software is installed. After those tasks are complete, the tenant is fully deployed and running.

    It takes a few minutes to complete the deployment and bring up the system.

16. For **Crypto/Compression Acceleration**, select **Enabled**.

    When this option is enabled, the tenant receives dedicated crypto devices proportional to number of vCPU cores. Crypto processing and compression are offloaded to the hardware.

17. For **Appliance Mode**, accept the default value (**Disabled**).

18. Click **Save & Close**.

    The tenant is now configured and in the deployed state.

    When the status is **Running**, the tenant administrator can use the management IP address to connect to the web based user interface or API, and then continue configuring the tenant system.

    The tenant administrator can also connect using SSH to the CLI through the VELOS System Controller.