**How to setup application servers like Tomcat - Application server creation process is similar to virtual server creation**

**Application server** creation process is similar to **virtual server** creation. The difference is that a specific default template is used automatically during **application server** creation. For more information refer to the Application Server Billing section of this guide.

Before creating an **Application** server make sure that you specified at least two **resolvers** for the network on which this server will run.

This can be done at Admin > Settings > Resolvers.

Before creating an **Application server** you need to configure notifications for your cloud.

This can be done at Control Panel > Admin > Notifications > Configuration.

For information on how to set up notifications for your cloud refer to **Notifications Setup**.

Before creating an **Application server** you need to fill in the system email parameter in the on app.yml file.

**To create an Application Server:**

Go to your Control Panel > Admin > Application Servers menu.

On the screen that appears, press "+" button or click the Create Application Server button underneath the list of servers on the screen.

Complete the application server creation form:

**On this page:**

Step 1 of 4. Cloud Locations

Step 2 of 4. Properties

Step 3 of 4. Resources

Step 4. Confirmation

See also:

**Manage Application Server**

Application Server Billing

Application Server Disks

Application Server Backups Application Servers

**Step 1 of 4. Cloud Locations**

The Cloud Locations step applies to those users who have compute zones assigned to location groups in their bucket.

If the user's bucket has several compute zones, some of which are assigned to location groups, whereas others are not - the cloud locations screen will not be available in the wizard.  Also if there is only one location this step will be skipped. In this case the wizard will start with the **Properties step**.

Indicate your application server's cloud location:

Country - choose the country, where the cloud is located, from the drop-down menu.

City - specify the city, where the cloud is located, from the drop-down menu.

Click Next to proceed to the following step of the wizard to specify the application server properties.

**Step 2 of 4. Properties**

Specify the following application server properties:

Label - the label of the application server. The required parameter.

Hostname - the hostname of the application server. The required parameter. The hostname should consist of letters [A-Z a-z], digits [0-9] and dash [ - ].

Additional Consideration for Windows

Domain - specify the domain for this VS. The default value is localdomain. This parameter is not applicable to Windows virtual servers.

For example:

test.onapp.com - specify ' test' as hostname, ' onapp.com'-  as domain. If you leave the domain field blank, the default value ' localdomain' will be used and you will get the following - test.onapp.com.localdomain.

Click Next.

**Step 3 of 4. Resources**

At this step, you can set your application server's resources, such as disk size, network configuration and other.

Compute Resources

Compute Zone - the compute zone to build the application server on.

Compute resource - the specific compute resource to build the application server on.  Compute resource may be selected automatically according to the set provisioning type.

Resources

RAM - set the amount of application server's RAM. The recommended RAM amount is at least 512 MB.

CPU Cores - set the amount of application server's CPU cores. For KVM compute resources, this parameter sets CPU sockets by default, unless CPU topology is enabled.

CPU Priority (or CPU Units) - set application server's CPU priority. If the CPU units are switched on in the bucket for this user, then CPU priority is replaced with CPU units. Refer to Billing Calculation section for details on CPU units and CPU priority.

The following options are available for application servers based on KVM compute resources only, providing the Enable CPU topology permission is switched on for the user.

Use CPU Topology - move the slider to the right, to set the following parameters:

CPU Sockets - set the amount of sockets.

**Primary Disk**

Data Store - choose a data store for application server's primary disk.

Primary disk size -  set the primary disk size.

Swap Disk

Data Store - choose a data store for application server's swap disk.

Swap disk size - set the swap disk size. There is no swap disk for Windows-based application servers. In all other cases, swap disk size must be greater than zero.

Disable - select the checkbox to disable swap disk creation

Network Configuration

Network Interface 1

Network - choose the network from which the application server should get the IP address

IP net - select from the drop-down list the IP net from which the IP address should be assigned

IP range - select from the drop-down list the IP range from which the IP address should be assigned

IP address - select an IP address to be assigned from the drop-down box

Selected IP address - assign an IP address for the application server from the drop-down menu. Only public IP Address can be chosen. Indicate compute resource and network to have the list of available IPs.

Show only my IP address - tick this checkbox to view only own IP addresses in the IP addresses dropbox.

Port Speed - set the port speed for this application server

Click Next to proceed to the following step of the wizard that completes the application server creation process.

Show IP address selection for new application server option is enabled via the ""Show IP address selection for new VS" slider on the Admin > Settings > Configuration screen (under the System tab).

You can't select unlimited port speed if the Network Zone is not selected. In this case the port speed will be 1 by default.

It's possible to create application server with unlimited network speed without selecting a network zone only if you have only one Network Zone assigned to your bucket.

**Step 4. Confirmation**

At this step, configure the automation settings. This is the final step of the **application server** creation wizard.

Move the Build Virtual Server slider to the right if you want the system to automatically build the application server. If you leave this box blank, you will have to build your server manually after it is created.

At the Confirmation step you can find the configuration summary of the **application server**, which will be created.  You can view template's name, RAM size, number of networks, primary disk and swap disk size, number of cores.

The **resolver** acts on behalf of programs as a client to perform the following functions:

**Access name servers** to provide name-to-address or address-to-name resolution

Allocate and read the **TCPIP.DATA file.**

Establish **TCP/IP** stack **affinity** for certain **socket APIs.**

Provide protocol and services information.

To resolve the query for the requesting program, the resolver uses information that it obtains from the following sources:

Available name servers

The DNS response information that has been cached locally (when system-wide caching is enabled)

Local definitions, such as

/etc/hosts,

/etc/ipnodes,

HOSTS.SITEINFO,

HOSTS.ADDRINFO, and

ETC.IPNODES

The **TCPIP.DATA** statements control how (and if) the resolver uses name servers.

For detailed information about TCPIP.DATA configuration statements.