

Redis for Pivotal Cloud Foundry Docs[®]

Version 1.4

User's Guide

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Redis for Pivotal Cloud Foundry

This is documentation for the [Redis service for Pivotal Cloud Foundry](#).

Install via Pivotal Operations Manager

To install Redis for PCF, follow the procedure for installing Pivotal Ops Manager tiles:

1. Download the product file from [Pivotal Network](#).
2. Upload the product file to your Ops Manager installation.
3. Click **Add** next to the uploaded product description in the Available Products view to add this product to your staging area.
4. Click the newly added tile to review any configurable options.
5. Click **Apply Changes** to install the service.

Dependencies

This product requires [Pivotal Cloud Foundry](#):

- Elastic Runtime version 1.2 or greater
- Ops Manager version 1.3 or greater

Available Plans

There are two available plans:

Plan Name	Suitable for	Tenancy Model per Instance	Highly Available	Backup Functionality
Shared-VM	Development and testing workloads	Shared VM	No	No
Dedicated-VM	Production workloads	Dedicated VM	No	No

Provisioning and Binding via Cloud Foundry

Once you have installed the product, it automatically registers itself with your Elastic Runtime. At this point, the product is available to your application developers, either in the Marketplace in the web based console, or via `cf marketplace`. They can add, provision, and bind the service to their applications

like any other CF service:

```
$ cf create-service p-redis shared-vm redis
$ cf bind-service my-application redis
$ cf restart my-application
```

Example Application

To help your application developers get started with Redis for PCF, we have provided an example application, which can be [downloaded here](#).

Please provide any bugs, feature requests, or questions to [the Pivotal Cloud Foundry Feedback list](#).

Version

This product is based on Redis version 2.8.19.

Further Reading

- [Official Redis Documentation](#) 

Redis for Pivotal Cloud Foundry

Resource requirements for Redis for PCF

These are the default resource and IP requirements for installing the tile

Product	Resource	Instances	CPU	Ram	Ephemeral	Persistent	Static IP	Dynamic IP
Redis	Redis Broker	1	2	1024	4096	1024	1	0
Redis	Dedicated Node	5	2	1024	4096	4096	1	0
Redis	Broker Registrar	1	1	1024	2048	0	0	1
Redis	Broker De-Registrar	1	1	1024	2048	0	0	1
Redis	Compliation	2	2	1024	4096	0	0	1

Notes:

- The `shared-vm` plan is on the `Redis Broker` resource
- The `dedicated-vm` plan is on the `Dedicatd Node` resource

Redis for Pivotal Cloud Foundry

Dedicated-VM Plan

An instance of this plan, provisions a single Redis process, on a single **dedicated VM**, which is suitable for production workloads.

The following commands are enabled:

- MONITOR
- SAVE
- BGSAVE
- BGREWRITEAOF

Data persistence is enabled through the use of RDB and AOF.

The maxmemory value for the Redis process is set to be 45% of the RAM for that instance.

Operator Notes

These instances are pre-provisioned during the deployment of the tile from OpsManager, into a “pool”. The VMs are provisioned and configured with a Redis process ready to be used, when an instance of the dedicated-vm plan is requested.

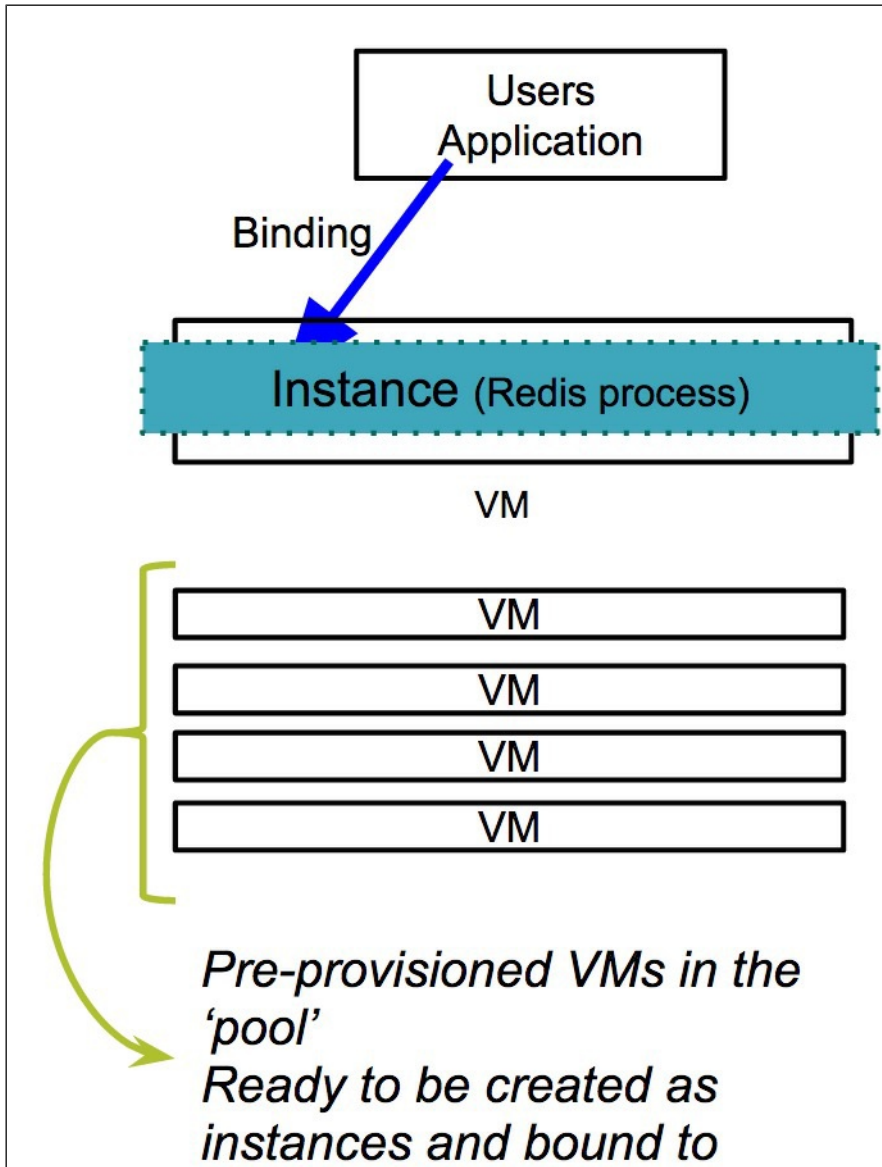
A default deployment will provision 5 instances of the dedicated-vm plan into the “pool”. This number can be increased on the Resource Config tab in OpsManager, either in the initial deployment or subsequently thereafter. The number of VMs **cannot** be decreased once deployed.

When a user provisions an instance, it is marked as in use and taken out of the “pool”.

When a user deprovisions an instance, it is cleansed of any data and configuration to restore it to a fresh state and placed back into the “pool” ready to be used again.

This plan can be disabled by setting the number of instances of the Dedicated node job in OpsManager to be 0.

Diagram



Known Limitations

Limitations with the current `dedicated-vm` plan include:

- No ability to change the Redis configuration, the `CONFIG` command is disabled
- Cannot scale down the number of VMs on the plan, once deployed
- Not highly available, each instance is a single VM with no master / slave setup.

Redis for Pivotal Cloud Foundry

Shared-VM Plan

An instance of this plan, provisions a single Redis process, on a single **shared VM**, which is suitable for development workloads.

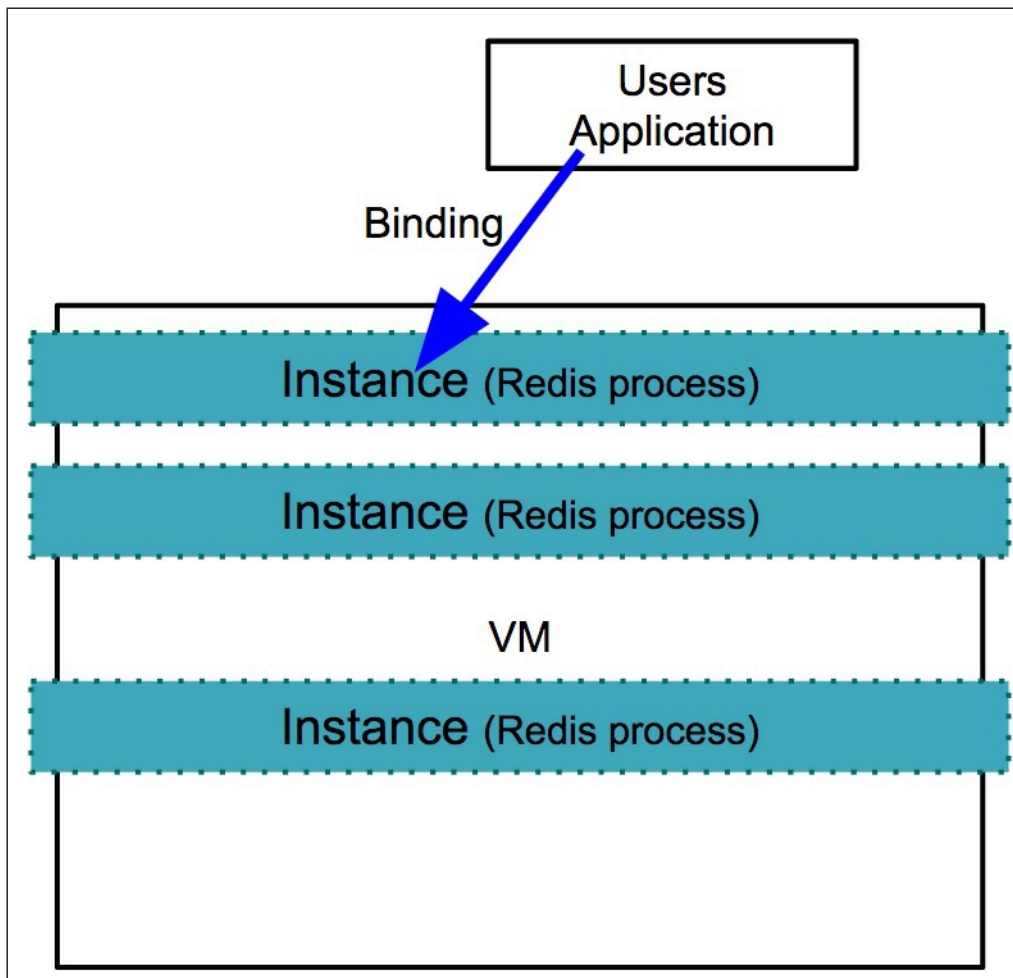
We **do not** recommend using this in a production environment.

Data persistence is enabled through the use of `RDB` and `AOF`.

Operator Notes

This plan can be disabled by setting the `Max instances limit` on the `Shared-VM Plan` tab in OpsManager to be `0`.

Diagram



Known Limitations

Limitations with the current `shared-vm` plan include:

- It cannot be scaled beyond a single virtual machine.
- It has no backup and restore capabilities.
- The following commands are disabled: `CONFIG`, `MONITOR`, `SAVE`, `BGSAVE`, `SHUTDOWN`, `BGREWRITEAOF`, `SLAVEOF`, `DEBUG`, and `SYNC`.
- Constraining CPU and/or disk usage is not supported.

Redis for Pivotal Cloud Foundry

Release notes for [Redis for Pivotal Cloud Foundry](#) ↗

1.4.34

Release Date: 19th December 2016

Features included in this release:

- Update stemcell to 3263.13
- Update to Golang 1.7.4

1.4.33

Release Date: 24th October 2016

Features included in this release:

- Update stemcell to 3233.3

1.4.32

Release Date: 13th October 2016

Features included in this release:

- Update stemcell to 3233.2

1.4.31

Release Date: 4th October 2016

Features included in this release:

- Update stemcell to 3233.1

1.4.30

Release Date: 27th September 2016

Features included in this release:

- Update stemcell to 3232.21

1.4.29

Release Date: 25th August 2016

Features included in this release:

- Update stemcell to 3232.12

1.4.28

Release Date: 29th June 2016

Features included in this release:

- Update stemcell to 3232.12

1.4.27

Release Date: 14th June 2016

Features included in this release:

- Update stemcell to 3232.8

1.4.26

Release Date: 13th June 2016

Features included in this release:

- Fix bug with Redis upgrade stalling, introduced in 1.4.22 release

1.4.25

Release Date: 8th June 2016

Features included in this release:

- Update Stemcell to 3232.6

1.4.24

Release Date: 19th May 2016

Features included in this release:

- Update Stemcell to 3232.4

1.4.23

Release Date: 4th May 2016

Features included in this release:

- Update Stemcell to 3146.11

1.4.22

Release Date: 20th April 2016

Features included in this release:

- Update Golang to 1.5.4

1.4.21

Release Date: 15th March 2016

Features included in this release:

- Update Stemcell to 3146.10

1.4.20

Release Date: 24th February 2016

Features included in this release:

- Update Stemcell to 3146.9

1.4.19

Release Date: 19th February 2016

Features included in this release:

- Update Stemcell to 3146.8

1.4.18

Release Date: 2nd February 2016

Features included in this release:

- Update Stemcell to 3146.6

1.4.17

Release Date: 21st January 2016

Features included in this release:

- Update Stemcell to 3146.5, resolves CVE USN-2871-1

1.4.16

Release Date: 18th January 2016

Features included in this release:

- Update Stemcell to 3146.3, resolves CVE-2016-0777 and CVE-2016-0778

1.4.15

Release Date: 7th January 2016

Features included in this release:

- Update Stemcell to 3146.2, resolves CVE USN-2857-1

1.4.14

Release Date: 4th December 2015

Features included in this release:

- Updated stemcell to 3146 to address USN-2815-1, USN-2812-1 and USN-2810-1

1.4.13

Release Date: 1st December 2015

Features included in this release:

- Updated stemcell to 3144 for monthly patch release

1.4.12

Release Date: 11th November 2015

Features included in this release:

- Updated stemcell to 3130. Resolves CVE USN-2806-1.

1.4.11

Release Date: 30th October 2015

Features included in this release:

- Updated stemcell to 3112

1.4.10

Release Date: 16th October 2015

Features included in this release:

- Certified with PCF Suite 1.6
- Updated stemcell to 3100
- Updated Redis to 3.0.4

1.4.9

Release Date: 7th October 2015

Features included in this release:

- Update stemcell to 3094 to address [USN-2765-1](#)

Known issues:

- Note one important known issue with the 1.5.6 patch for Openstack deployments. BOSH stemcell v3094, which this version of Elastic Runtime references, has a limitation affecting Openstack users only:
 - Elastic Runtime 1.5.6 on Openstack does not work with S3/Swift blobstores.
 - Elastic Runtime 1.5.6 on Openstack users must configure their object storage to use the internal blobstore option.

- vSphere, AWS and vCloud users are not affected.

1.4.8

Release Date: 2nd September 2015

Features included in this release:

- Updated stemcell to 3062

1.4.7

Release Date: 29th July 2015

Features included in this release:

- Updated stemcell to 3026 to resolve CVE-2015-3290

1.4.6

Release Date: 6th July 2015

Features included in this release:

- Support for OpsManager 1.5.x or 1.4.x
- Support for Elastic Runtime 1.5.x or 1.4.x
- Support for HTTPS-only environments
- Support for vSphere or AWS Deployments
- Requires stemcell 2989
- Fixes a bug where credentials are double escaped after upgrading from Redis 1.3.2 and then re-binding existing instances.

1.4.5


Release Date: 15th June 2015

Features included in this release:

- Latest version of Redis 2.8.21 to resolve the Lua sandbox exploit
- Migration path added from Redis for PCF 1.3.2

Known issues:

- Upgrading from Redis 1.3.2 to this version or prior versions and then re-binding an existing instance can cause the credentials to be double escaped. New instances or existing instances without a re-bind are not impacted.
- On AWS, this version supports deployments in the US-East region. Multi-region support is coming in a future release.
- The experimental HTTPS-only feature in Elastic Runtime 1.5 may cause issues with this version of the product. Full support for HTTPS-only traffic is coming in a future release.

 **Note:** BOSH Stemcell 2865.1 is required for installation on Ops Manager 1.5.x and above.

1.4.4

Release Date: 14th May 2015

Features included in this release:

- Support for OpsManager 1.4.0 or greater
- Support for vSphere or AWS deployments

1.4.3

Release Date: 23rd March 2015

Features included in this release:

- Updated stemcell to 2889 to resolve [these OpenSSL CVE alerts](#) [↗](#)

1.4.2

Release Date: 30th January 2015

Features included in this release:

- Updated stemcell to 2824 to resolve [CVE-2015-0235 Ghost](#) [↗](#)

1.4.1

Release Date: 16th January 2015

Features included in this release:

- Latest version of Redis 2.8.19
- Latest version of Nginx 1.7.9

1.4.0

Release Date: 15th December 2014

Features included in this release:

- New service plan called `dedicated-vm`
 - Pre-provisions a pool of VMs upon deploying the tile
 - An instance of this plan provides a single dedicated VM, with a single Redis process
 - [See more details here](#) [↗](#)
- Latest version of Redis 2.8.18
- `development` service plan renamed to `shared-vm`

1.3.2

Release Date: 6th October 2014

Features included in this release:

- General Availability release
- `development` service plan, providing a redis process on a shared-vm
 - suitable for development and test workloads

