

Start Here

/ ForgeRock Identity Platform 6.5

Latest update: 6.5.2

Gina Cariaga David Goldsmith Shankar Raman

ForgeRock AS. 201 Mission St., Suite 2900 San Francisco, CA 94105, USA +1 415-599-1100 (US)

www.forgerock.com

Copyright © 2018 ForgeRock AS.

Abstract

Important information about ForgeRock Identity Platform $^{\text{\tiny TM}}$ deployment using DevOps techniques.



This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Unported License.

To view a copy of this license, visit https://creativecommons.org/licenses/by-nc-nd/3.0/ or send a letter to Creative Commons, 444 Castro Street, Suite 900, Mountain View, California, 94041, USA.

ForgeRock® and ForgeRock Identity Platform™ are trademarks of ForgeRock Inc. or its subsidiaries in the U.S. and in other countries. Trademarks are the property of their respective owner

UNLESS OTHERWISE MUTUALLY AGREED BY THE PARTIES IN WRITING, LICENSOR OFFERS THE WORK AS-IS AND MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE WORK, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF ITILE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR THE ABSENCE OF LATENT OR OTHER DEFECTS, ACCURACY, OR THE PRESENCE OF ABSENCE OF ERRORS, WHETHER OR NOT DISCOVERABLE. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO SUCH EXCLUSION MAY NOT APPLY TO YOU.

EXCEPT TO THE EXTENT REQUIRED BY APPLICABLE LAW, IN NO EVENT WILL LICENSOR BE LIABLE TO YOU ON ANY LEGAL THEORY FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES ARISING OUT OF THIS LICENSE OR THE USE OF THE WORK, EVEN IF LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

DoinVa Font

Bitstream Vera Fonts Copyright

Copyright (c) 2003 by Bitstream, Inc. All Rights Reserved. Bitstream Vera is a trademark of Bitstream, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of the fonts accompanying this license ("Fonts") and associated documentation files (the "Font Software"), to reproduce and distribute the Font Software, including without limitation the rights to use, copy, merge, publish, distribute, and/or sell copies of the Font Software, and to permit persons to whom the Font Software is furnished to do so, subject to the following conditions:

The above copyright and trademark notices and this permission notice shall be included in all copies of one or more of the Font Software typefaces.

The Font Software may be modified, altered, or added to, and in particular the designs of glyphs or characters in the Fonts may be modified and additional glyphs or characters may be added to the Fonts, only if the fonts are renamed to names not containing either the words "Bitstream" or the word "Vera".

This License becomes null and void to the extent applicable to Fonts or Font Software that has been modified and is distributed under the "Bitstream Vera" names.

The Font Software may be sold as part of a larger software package but no copy of one or more of the Font Software typefaces may be sold by itself.

THE FONT SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF COPYRIGHT, PATENT, TRADEMARK, OR OTHER RIGHT. IN NO EVENT SHALL BITSTREAM OR THE GNOME FOUNDATION BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, INCLUDING ANY GENERAL, SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF THE USE OR INABILITY TO USE THE FONT SOFTWARE.

Except as contained in this notice, the names of Gnome, the Gnome Foundation, and Bitstream Inc., as hall not be used in advertising or otherwise to promote the sale, use or other dealings in this Font Software without prior written authorization from the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information, and the Gnome Foundation or Bitstream Inc., respectively. For further information in advertising the Gnome Foundation or Bitstream Inc., respectively. For further information in advertising the Gnome Foundation or Bitstream Inc., respectively. For further information in advertising the Gnome Foundation or Bitstream Inc., respectively. For further information in advertising the Gnome Foundation or Bitstream Inc., respectively. For further information in advertising the Gnome Foundation or Bitstream Inc., respectively. For further information in advertising the Gnome Foundation in the Gnome Foundation in

Arey Fonts Convright

Copyright (c) 2006 by Tavmjong Bah. All Rights Reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of the fonts accompanying this license ("Fonts") and associated documentation files (the "Font Software"), to reproduce and distribute the modifications to the Bistream Vera Font Software, including without limitation the rights to use, copy, merge, publish, distribute, and/or sell copies of the Font Software, and to permit persons to whom the Font Software is furnished to do so, subject to the following conditions:

The above copyright and trademark notices and this permission notice shall be included in all copies of one or more of the Font Software typefaces

The Font Software may be modified, altered, or added to, and in particular the designs of glyphs or characters in the Fonts may be modified and additional glyphs or characters may be added to the Fonts, only if the fonts are renamed to names not containing either the words "Tavmjong Bah" or the word "Arev".

This License becomes null and void to the extent applicable to Fonts or Font Software that has been modified and is distributed under the "Tavmjong Bah Arev" names.

The Font Software may be sold as part of a larger software package but no copy of one or more of the Font Software typefaces may be sold by itself.

THE FONT SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF COPYRIGHT, PATENT, TRADEMARK, OR OTHER RIGHT. IN NO EVENT SHALL TAVMJONG BAH BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, INCLUDING ANY GENERAL, SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF THE USE OR INABILITY TO USE THE FONT SOFTWARE OR FROM OTHER DEALINGS IN THE FONT SOFTWARE.

Except as contained in this notice, the name of Tavmjong Bah shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Font Software without prior written authorization from Tavmjong Bah. For further information, contact: tavmjong @ free . fr.

FontAwesome Copyright

Copyright (c) 2017 by Dave Gandy, http://fontawesome.io.

 $This \ Font \ Software \ is \ licensed \ under \ the \ SIL \ Open \ Font \ License, \ Version \ 1.1. \ See \ https://opensource.org/licenses/OFL-1.1.$



| Table of Contents | |
|-------------------|--|
| | |



Before You Deploy in Production

ForgeRock provides ForgeRock DevOps Examples, the Cloud Deployment Model (CDM), and the forgeops Git repository to help you get started in the cloud. Used together, these resources demonstrate deployment in a containerized environment using DevOps techniques. You are responsible for adapting the examples to suit your production requirements. These resources are provided for *demonstration purposes only*.

Do not deploy ForgeRock software in a containerized environment in production until you have successfully deployed and tested the software in a non-production environment.

Deploying ForgeRock software in a containerized environment requires advanced proficiency in the technologies you use in your deployment. The technologies include, but are not limited to, Docker, Kubernetes, load balancers, DNS, public key infrastructure (PKI), Google Cloud Platform, Amazon Web Services, and Microsoft Azure.

If your organization lacks experience with complex DevOps deployments, then either engage with a certified ForgeRock consulting partner or deploy the platform on traditional architecture.

For information about obtaining support for ForgeRock Identity Platform software, see "Getting Support" in the DevOps Developer's Guide.

Documentation Roadmap

The ForgeRock DevOps documentation set explains how to deploy and operate the ForgeRock Identity Platform in DevOps environments. The following table describes each guide in the documentation set:

| Document Title | Audience | Topics |
|-----------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DevOps Release Notes | Anyone who wants to deploy the ForgeRock Identity Platform in a DevOps environment | Installing required third-party software Upgrading ForgeRock Identity Platform DevOps deployments from version 6 DevOps changes for version 6.5, including new features, changes to existing functionality, deprecated features, and removed features Version 6.5 limitations |
| DevOps Quick Start Guide | Anyone who wants to quickly evaluate or demonstrate the | Setting up a simple DevOps environment for deploying the ForgeRock Identity Platform |



| Document Title | Audience | Topics |
|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | ForgeRock Identity Platform | Deploying an evaluation version of the ForgeRock Identity Platform |
| DevOps Developer's Guide | Developers who configure the ForgeRock Identity Platform in a DevOps environment | Introduction to using DevOps to deploy the ForgeRock Identity Platform Setting up DevOps environments for deploying the ForgeRock Identity Platform Building Docker images for the ForgeRock Identity Platform Deploying the ForgeRock DevOps Examples for AM and DS, IDM, and IG Troubleshooting DevOps deployments of the ForgeRock Identity Platform |
| Cloud Deployment Model Cookbook: For GKE For EKS For AKS (Evaluation Edition) | DevOps developers who migrate ForgeRock Identity Platform deployments from development environments to production environments Site reliability engineers who deploy the ForgeRock Identity Platform in production DevOps environments and keep the deployments up and running | Overview of the CDM Deploying the CDM |
| Site Reliability Guide: For GKE For EKS | Site reliability engineers who keep DevOps deployments of the ForgeRock Identity Platform up and running | Building CI/CD infrastructure for deploying ForgeRock Identity Platform Monitoring DevOps deployments of ForgeRock Identity Platform Making DevOps deployments of ForgeRock Identity Platform highly available Backing up and restoring directory data Managing passwords, keys, and keystores Upgrading the ForgeRock Identity Platform in DevOps environments |



Third-Party Software and DevOps Deployments

The ForgeRock DevOps Examples and CDM require you to install software products that are *not* part of the ForgeRock Identity Platform. We strongly recommend that you become familiar with basic concepts for the following software before attempting to use it even in your initial experiments with DevOps deployments:

| Software | Recommended Level of Familiarity | Links to Introductory Material |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Oracle VirtualBox | Install, start, and stop VirtualBox software; understand virtual machine settings; create snapshots | First Steps chapter in the VirtualBox documentation |
| Docker Client | Build, list, and remove images; understand the Docker client-server architecture; understand Docker registry concepts | Get Started With Docker tutorial |
| Kubernetes | Identify Kubernetes entities such as pods and clusters; understand the Kubernetes client-server architecture | Kubernetes tutorials Scalable Microservices with Kubernetes on Udacity The Illustrated Children's Guide to Kubernetes |
| Minikube | Understand what Minikube is; create and start a Minikube virtual machine; run docker and kubectl commands that access the Docker Engine and Kubernetes cluster running in the Minikube virtual machine | Running Kubernetes Locally via Minikube Hello Minikube tutorial |
| kubectl (Kubernetes client) | Run kubectl commands on a Kubernetes cluster | kubectl command overview |
| Kubernetes Helm | Understand what a Helm chart is; understand the Helm client-server architecture; run the helm command to install, list, and delete Helm charts in a Kubernetes cluster | Helm Quickstart Blog entry describing Helm charts |
| Google Kubernetes Engine (GKE) | Create a Google Cloud Platform account and project, and make GKE available in the project | Quickstart for Kubernetes Engine |
| Google Cloud SDK | Run the gcloud command to access GKE components in a Google Cloud Platform project | Google Cloud SDK documentation |
| Amazon AWS CLI | Run the aws command to access EKS components in an Amazon EKS project | Getting Started with Amazon EKS |
| AWS IAM Authenticator for Kubernetes | Use AWS IAM credentials to authenticate to a Kubernetes cluster | AWS IAM Authenticator for Kubernetes |