



Bitnami Packaging and Deployment Technology for Server Software

A TECHNICAL OVERVIEW

Started in 2015, Bitnami's Software Partner Program provides a number of engineering benefits to Independent Software Vendors (ISVs) that want their software to be available on the greatest number of platforms with the least amount of resources spent on packaging and deployment. Engineering benefits realized by Bitnami's Software Partners include:

- Fully configured cloud images that can be launched in a few clicks on Amazon Web Services, Google Cloud Platform, Microsoft Azure, Oracle Cloud Platform, Digital Ocean, and VMware vCloud Air cloud platforms with Bitnami launchpad technology
- An optional containerized version of the application developed and maintained by Bitnami
- Ubuntu-based VMware virtual machines that run in enterprise data centers
- Local installers for Linux, Mac OS X, and Windows
- Painless version updates for every platform, packaged and tested automatically
- Extremely fast response to security vulnerabilities in application components
- Assured ongoing compatibility with changes in cloud platforms and software stack components

WHAT IS THE HIGHEST USE OF YOUR ENGINEERING RESOURCES?

Making your software run on multiple platforms is crucial to achieving the widest adoption and requires a substantial investment of engineering resources. Yet, making your application work on all the different flavors of cloud platform, virtual machine, and local installer can also require an outsized investment of engineering resources that could be better spent on building new features.

Companies frequently must choose between the worst of two evils: offer a suboptimal initial user experience with lengthy, complicated configuration instructions or sink hundreds of engineering hours into fiddling with deployment configurations and cloud platform APIs and red tape.

There is now a third option: let the server software deployment experts at Bitnami package your application to run in all the most popular platforms in the cloud, in the enterprise datacenter, and locally.

FOCUS ON YOUR PRODUCT AND LET BITNAMI DO THE REST

Partnering with Bitnami gives users a variety of options for deploying your application and introduces a host of efficiencies into the release management process, enabling you to focus on building great software. Bitnami has been honing the application packaging process for a decade and is the library of choice for over a million users every month.

Bitnami engineers are software deployment experts. We have published thousands of cloud images, VMs, and local installers for over 130 applications and have perfected the process more than any other company in the world. While a software company could package its applications for all the same platforms that Bitnami does, it is nearly impossible to do so with the same efficiency and excellent results.

WHAT IS INCLUDED

We begin with your application binaries and all of its dependencies and create local installers for Linux, OS X, and Windows; Virtual Machines; a VM-style Docker container; and cloud images for all of the leading cloud platforms.

LOCAL INSTALLERS

Bitnami local installers create a self-contained environment that runs your application right on a user's Windows, OS X, or Linux machine. They enable your application to work on these platforms because they include everything it needs: an Apache front-end web server; all the required runtimes, databases, and other dependencies; and of course the application itself. Once the user has gone through a familiar installation process, they are able to login to the application through a web browser just as they would in a cloud-hosted or SaaS version of your app.

Additionally, these installers can be used to deploy the application into production on existing servers. For example, if you have a running Windows instance in the AWS cloud, you can upload a Bitnami installer to the server and run it just as you would on your desktop. The only remaining step is to connect the front-end to a public IP address and you are ready to go.

VIRTUAL MACHINES

Thousands of organizations, from educational institutions to governments and corporations, require software to run behind the firewall in private data centers. A Bitnami Virtual Machine Image is a self-contained virtual appliance with a lightweight Ubuntu operating system and a fully configured application stack. This enables the application to run in any VMware virtual machine by simply unpacking the compressed application files and starting up the app.

CLOUD IMAGES

When you partner with Bitnami, our team creates and publishes fully-configured cloud images for every applicable instance size on each of the major cloud platforms. Cloud images are created by taking a "snapshot" of the app while it is running in a fully configured stable state. Users can easily deploy the image to their cloud accounts using the Bitnami cloud launchpad for the platform of their choice.

Bitnami's cloud launchpads are platform-specific web applications accessed through Bitnami.com. They enable users to launch your application in their own accounts with an instance they customize to meet the requirements of the application and their specific use case. They can choose among multiple settings for server size, memory, disk type and size, and region: everything they need to get started with anything from a basic free-tier server to a behemoth 16 CPU instance with over a hundred gigabytes of RAM.

"We saw that Bitnami offered an easy way for people to install eXo in the cloud. We understood very quickly that using Bitnami would help us with our key problem of lowering the entry barrier for new users."

—**Patrice Lamarque**, Chief Product Officer at eXo Platform

EASY, FRICTIONLESS DEMOS

In addition to making it easy for users to launch your app in their own cloud accounts, we also enable them to launch absolutely free one-hour demos on their cloud platform of choice. With our demos, a user does not even need to connect their cloud account to Bitnami to launch an instance of your app- it all happens in accounts maintained by us. Prospective users who are not sure about your application are treated to a positive first impression of effortlessly deploying and accessing the app in the cloud.

Bitnami cloud launchpads create a simple and low-friction experience for users who are interested in trying your app on their platform of choice. A Google Cloud Platform user, for example, can open the Google cloud launchpad, choose from a variety of instances that meet at least the minimum requirements of the application, and deploy it with the click of a button. After the hour has passed, the demo automatically shuts down and the user can then launch another demo or a persistent instance in a personal cloud account. Giving users the option to launch a completely frictionless demo not only helps from an engineering standpoint, but it also separates users who are truly interested in deploying a persistent trial from those who are only curious.

Using Bitnami as your source of demos eliminates the headache and security risks associated with maintaining an always-on demo environment for people to access from your website. Each demo user gets a fresh, fully-configured and running demo of the application that leaves no trace after an hour.

UP-TO-DATE, SECURE, AND ON THE CUTTING EDGE

The benefits of partnering with Bitnami do not end with creating the packages themselves. We make it easy to update your application on every platform, ensure that users are only getting a secure product without vulnerabilities, and help you stay abreast of the latest deployment trends in the industry.

EASY APPLICATION UPDATES

Publishing an application to all of the most popular cloud platforms is a lot of work. Each platform has its own unique API and a publishing method that must be followed for each instance type, every time you make even a minor update to the application. Doing this manually would require that you configure your app up to 119 different ways and test each one for compatibility issues. That's before you even get to building and testing it in a virtual machine or with local installers. Bitnami completely removes these steps from your build process.

Once your application has been released on all of Bitnami's supported platforms, we will work with you to setup a process where Bitnami's build system can periodically check for new versions. When an update is detected, it is automatically packaged and tested for every supported deployment scenario. In the event that the application is no longer compatible with the automated packaging process, our engineers will be alerted to identify and correct the issue. All you have to do is simply update the core application and Bitnami will release it on every platform, usually within about 48 hours.

SECURITY PATCHES AND DOCUMENTATION

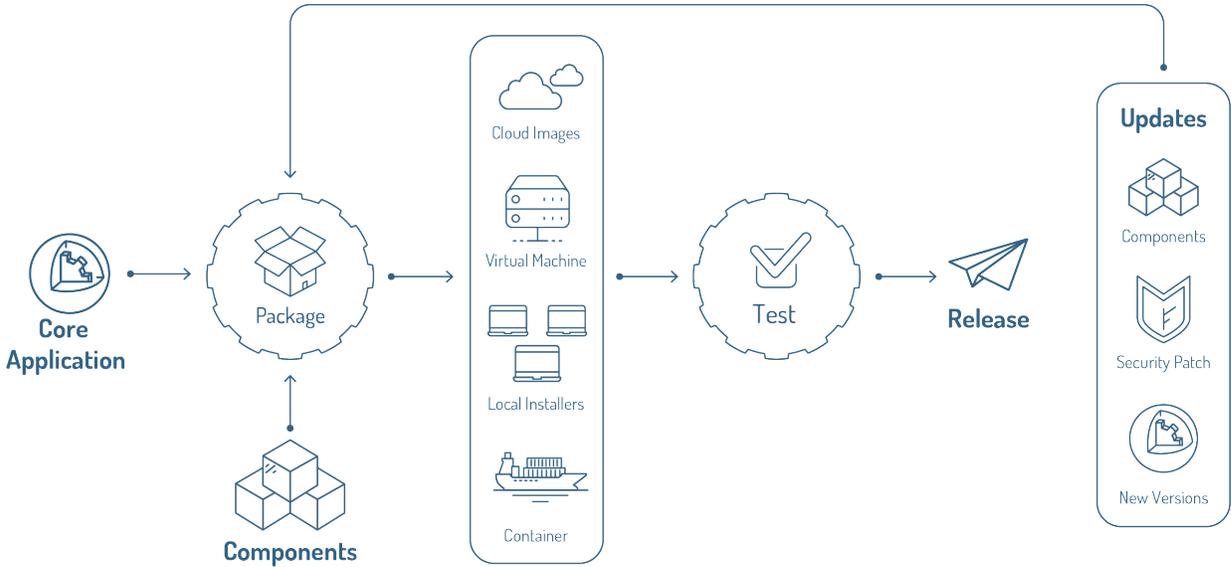
Bitnami's response to application component vulnerabilities is consistently both comprehensive and lightning-fast. Not only do we monitor security information bulletins and check our entire library against every threat, we also maintain an open dialogue with our vibrant community of developers and software partners about potential holes in the security of our stacks. Partnering with Bitnami is a great way to ensure that your users are getting the most secure experience possible while completely removing the huge interruption that typically results from a security vulnerability in one of your app's components.

A good example of Bitnami's response to a security vulnerability occurred on December 15th, 2015. Bitnami became aware of a vulnerability in Libpng that affected any application that uses this library to handle PNG images, including most Bitnami stacks. Our engineers reacted immediately, releasing patches and documentation for all ISV Partner applications within four days and all affected apps in under a week. During this timeframe, we also informed all of our affected partners of the vulnerability and released patch instructions and blog posts that enabled anyone currently using Bitnami stacks to quickly mitigate the threat.

CUTTING EDGE DEPLOYMENT TECHNOLOGY

Bitnami is a leader in developing the software industry's newest technologies for widespread use. We are pioneers in containerization using Docker, and in container orchestration and management with systems like Kubernetes and Mesos. If you are looking to offer your customers a containerized version of your application, Bitnami can develop and maintain this for you.

Bitnami's newest product, Stacksmith, empowers users to create custom Docker containers in minutes using our web interface or declarative API. Once a container has been created, Stacksmith automatically informs them when a component update is available. Over time, Stacksmith will make it easy for users to scale your application up and down to suit their needs, and to quickly and easily update individual application components.



PATHWAY TO PARTNERSHIP

The pathway to partnership begins with a feasibility study by the Bitnami Stacks Engineering team. Our Technical Onboarding Manager will work with a contact on your team to answer a few preliminary questions that determine your application's fit with Bitnami packaging and deployment technology. We will also exchange contact information with non-engineering stakeholders to begin laying the partnership's foundation.

FEASIBILITY STUDY

While Bitnami is able to work with almost all of the popular application runtimes, databases, and operating systems, there are some that are not compatible with our technology. In order to determine whether an application is a good fit for Bitnami, the first step is always for us to conduct a feasibility study.

Our Technical Onboarding Manager will ask for your current binaries and discuss all the required steps required to fully deploy the app. She will evaluate how the application interacts with its constituent components and work with you to determine the best route to an easy and seamless deployment experience for users.

In addition to evaluating the application's components, our team will also analyze the licensing mechanism that the application uses along with any trial license currently offered. If you do not have such a mechanism in place, we are happy to work together on creating a solution that gives users the ability to make an informed purchase decision by running a free trial or demo of your app.

COLLABORATIVE ONBOARDING

Once the feasibility study has been completed and we have agreed to work together, Bitnami will introduce you to our Partner Success Manager and begin packaging the application. Our engineering team works on a two-week iteration cycle, and in many cases will be able to complete a first cut of the local installers and cloud images during a single sprint. Our team will collaborate with your designated contacts through our ticketing system to resolve any questions or issues that arise during initial packaging. Once the first cut has been completed, it will be delivered to you with instructions to deploy and test the installers and cloud images. The overall onboarding timeline from contract signing to release is between one and two months.

For commercially licensed applications, each cloud launch or download triggers a lead that is sent directly to your sales team via a simple lead API. The API payload includes user information like name, email address, company, platform, and geo-location. It can be integrated directly into most CRMs or you can easily create a web hook to capture the information.

While the application is being packaged, our copywriting team will create documentation that gives users detailed instructions on how to customize and update your Bitnami stack. This documentation will be added to Bitnami's wiki page and will include topics ranging from how the application is updated to how it can be configured for special use-cases. We will also create web copy for your product page that describes the application's central function and highlights its key features.

“At DreamFactory, our focus is on providing features that enhance speed, reliability, and efficiency for our users. Partnering with Bitnami enabled us to shift engineering resources from packaging and deployment to these key areas.”

—**Todd Appleton**, Engineering Manager at DreamFactory

MORE INFORMATION

If your dev team is having a difficult time configuring your application to work on the greatest number of platforms, Bitnami can solve that problem for you. To learn more about the program, please visit <https://bitnami.com/partners> or email partners@bitnami.com.