



## Novadex Masters Release Automation with Zend Server

### CUSTOMER:

Novadex GmbH develops, markets and manages LetterMmaschine, a cloud service for customer communications management. With this Software as a Service (SaaS) solution, companies can easily create and order cross media communication pieces, including customized print, email and landing pages.

### CHALLENGE:

Novadex was wasting time and manpower with manual deployments to server clusters. If there was a problem during the deployment process, then the recovery was a manual and rather onerous task. Novadex sought a simpler and more effective solution to automating their application releases.

### SOLUTION:

Adopted Zend Server to automate deployment of application to a clustered environment of multiple servers. Can now easily check for causes of deployment errors thanks to centralized logging and redeploy to effected nodes with one-click. With more automated process, more junior team members can deploy application releases effectively without supervision.

Simplicity and automation are in the DNA of Novadex GmbH. Their product, LetterMaschine, is a cloud service (provided as Software-as-a-Service) that lets users create, print and address mass mailings from the cloud. Rather than laboring through direct mailings manually, LetterMaschine automates nearly every step of the process. In addition to quickly and accurately addressing and customizing letters, the service's centralized project management tool lets users easily track progress on their mailings, a task formerly relegated to elaborate spreadsheets.

Novadex's IT department, too, aims to operate in a simple and automated fashion. "Continuous delivery is something that all companies are moving towards," said DevOps Engineer and Systems Administrator Eric Ritchie. "Novadex's integration with Jenkins and Zend Server is helping us achieve that goal."

### The Manual Pandora's Box

Prior to adopting Zend Server, Novadex manually pushed out deployments to servers, a process that could take hours. Their continuous integration system would produce a package that they could deploy, but that deployment was a manual process—and not cluster-friendly.

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*"We wanted to start clustering our servers, and the number of manual steps were becoming very inconvenient," said Eric. "It would take about three hours to deploy something on multiple servers, with a lot of manual steps and possibility for error. We would manually distribute a Debian package to however many servers we wanted to deploy to. If one of those servers happened to need an update, that, too would have to be done manually, or the team would be forced to create a special package for that one machine."*

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For Novadex, the biggest headache arrived when deployment demons came to visit. "If something went wrong, it was very difficult to rollback a Debian package," said Eric. "Most sys-ops people see a Debian rollback as a nightmare. How hard it is depends on how well you've integrated your package into a package management system. It is possible to tell a package manager to install a previous version. After that, you hope that the package manager has the intelligence to roll back databases, which it probably doesn't."

## Zend Server Cured the Cluster Hangover

In order to solve the problem, Novadex moved to a combination of Zend Server and Jenkins. Eric leveraged Zend Server's API and application packaging capabilities, which he uses to push out apps to the server cluster. A key step is that Zend Server clones up a virtual machine, adds it to the cluster as a worker or front-end node, and adapts the cluster to the new configuration, all in an automated approach without further intervention or manual steps.

*"Zend Server is at the heart of our cluster deployment," said Eric. "The biggest advantage is that if the deployment to one node fails, we can check in a central location to find out which, and can redeploy to that node with a single button click. It's a nice piece of insurance, especially considering that all of our deployments are done in the evening when most of our staff has gone home."*

## Hands-Off Deployment

Zend Server has streamlined the workflow to the point that Novadex no longer needs anyone with intimate knowledge of the deployment process onsite in order to execute a deployment. "Anyone can do it," said Eric. "The person who architected the entire deployment methodology recently went on paternity leave for three months, and we continue to push out software releases effectively without him. Before Zend Server, that would have been practically impossible."

*"I didn't even need to be in the building for the previous two deployments," Eric emphasized. "It was just a matter of someone pushing a button and waiting for the green light, and that was it."*

In light of his experience, Eric has some words of wisdom for fellow development teams looking to move towards Continuous Delivery by first taking the step of automating their application releases: "I'm honestly a bit suspicious of companies that aren't using Zend Server in the PHP space," he said. "I think the product is quite necessary to be professional."

## Zend Solution for Continuous Delivery

Continuous Delivery helps companies release applications faster and with greater quality by streamlining and automating the process of bringing software from code to production. The [Zend Blueprint for Continuous Delivery](#) provides practical best practices to help companies implement each step of the continuous delivery cycle. Based on the [Zend Server](#) platform, the blueprint provides an easy way to implement these best practices through a series of patterns and plug-ins.