

CLOUD RULES #33

# Less time managing boxes means more time slaying dragons.

Opscode + EA2D are 36th-level Zapping Wizards in the cloud.

Electronic Arts' Social Gaming Start-up Uses Hosted Chef to Ensure Reliability in a Time of Increased Usage and Site Traffic.

## ► The Challenge

EA2D, a development studio at leading interactive entertainment software company Electronic Arts (EA), creates high-quality, social games for avid gamers across connected platforms including online and mobile. With the imminent beta-release of its first game, Dragon Age™ Legends, its platform team needed to prepare for millions of online users that would flood its systems architecture. To manage the high demand, EA2D wanted a powerful, open-source and community-oriented configuration management tool that enabled full automation, scalability and reliability.

## ► The Solution

Operating as a “start-up” within Electronic Arts, EA2D wasn’t constrained by existing IT services, and could explore a solution that best met its needs. It discovered Opscode’s Hosted Chef, a server configuration management and infrastructure automation engine. Opscode’s Hosted Chef (OHC) lets IT managers express the design of the company’s infrastructure in code, affording the benefits of repeatability, agility and version-control. OHC is a centrally managed data store for information about company servers which enables client software to take dynamic, “infrastructure aware” actions across any portion of the environment. Those integrations enabled EA2D to scale more quickly and better manage its servers, saving both time and money.



LOCATION : Redwood Shores, CA

INDUSTRY : Gaming

INFRASTRUCTURE : Amazon EC2

## ► The Results

- Created repeatable, fully automated infrastructure
- Enabled manageable version control of infrastructure definitions
- Reduced set-up time from days and months to minutes
- Increased agility and reliability to efficiently manage platform configuration
- Improved configuration to easily scale infrastructure

EA2D, a development studio at leading interactive entertainment software company Electronic Arts (EA), creates high-quality, social games for avid gamers across connected platforms including online and mobile. The 30-person studio developed *Dragon Age Legends™* to bring the first real online social gaming experience to avid gamers.

EA2D operated in start-up mode within EA and wasn't bound by existing IT services. It could therefore opt for a solution that best met its needs. The 7-person platform team needed to prepare for millions of online users that would flood its systems architecture. To manage the high demand, EA2D wanted a powerful, open-source and community-oriented configuration management tool that had capabilities on the Amazon Cloud as well as full automation, scalability and reliability.

*"It blew my mind when I saw all the data-driven things you can do with Hosted Chef. Taking the training convinced me that we should use a Hosted Chef client-server model and employ Opscode. There was no sense in us running our own Chef server. It's just another server that we would have to deal with that wouldn't provide any value back to the business."*

▶ Michael Babineau  
EA2D systems architect

"We basically had no servers," says EA2D systems architect Michael Babineau. "Just a couple of dev servers. We didn't have any pain points, no overwhelming problems. We didn't have anything."

Having previously worked with Amazon Web Services, Babineau joined EA2D to build out its EC2-based architecture. He had built several multi-hundred server deployments and had used other cloud-computing management platforms and non-modular solutions. He knew he wanted to implement an automated infrastructure on top of a community-oriented, open-source configuration engine.

"There's a lot of appeal in having access to Opscode's community support and recipes, as well as modules that others have written," Babineau says. Ruling out RightScale and Puppet, Babineau ultimately opted for Opscode's Hosted Chef. Initially supporting the use of ChefSolo (for which Puppet had no equivalent), Babineau went through

Opscode's training and quickly saw the advantage of moving fully to Hosted Chef.

"It blew my mind when I saw all the data-driven things you can do with Hosted Chef," Babineau says. "Taking the training convinced me that we should use a Hosted Chef client-server model and employ Opscode. There was no sense in us running our own Chef server. It's just another server that we would have to deal with that wouldn't provide any value back to the business."

EA2D quickly spun up 200 servers, which were only maintained by two people. "And it's not like we spent our time managing boxes," he says. "Instead we spent our time doing integration. Everything in our system is fully automated." Babineau's modest team trained other members of the platform group who were traditional developers. Embracing the full devops approach, whenever the team needed to configure an application or install a software package on a server, anybody on the team could handle the task instead of requiring an operations team member to do the implementation.

"If we had rolled out our own solution, or if Hosted Chef wasn't as easy to use and understand, we wouldn't have had the ability to easily update the servers, and would need a much larger operations team," notes Babineau. Requiring many different operating and service environments, the platform team is also able to fire up new environments quickly, removing the rest of the team as middlemen. Hosted Chef enables the game developers to simply click a button and get started with configuring a new environment."

With the recent arrival of Amazon CloudFormation, which enables the provision of auto-scaling groups and servers, and other operations outside the purview of Hosted Chef, a new marriage was in the works. "The two are extremely complementary," says Babineau. "We're working to integrate the two in such a way that somebody could run a single command and get an entire copy of our production environment and use that as a development tool."

EA2D practices continuous deployment, and relies solely on running Hosted Chef on every server. When a team member merges in new code, it is automatically compiled and uploaded to Amazon S3. Hosted Chef then automatically picks up those new-build effects and deploys them within a minute. "That's our deployment process right now," Babineau says. "There's no button that we hit to deploy code. Instead, a developer just merges his code into a branch and it goes live."

On the Hosted Chef side, Babineau and his team also keep configurations in version control, which then integrates into EA2D's continuous integration system. When changes need to be made to a Hosted Chef configuration, the change is made locally.

It is uploaded to version control and the continuous integration server is notified of that change. The server then pulls down the changes and uploads the relevant files to the Hosted Chef server on the Opscode platform. Once uploaded, all the servers automatically pick up those changes within a minute.

With the beta launch of *Dragon Age Legends*, EA2D had to scale quickly as users flooded its game. "We had to scale up. If we didn't have a suitable config-management solution, we'd have to fire up those servers and configure them manually. Provisioning 50 servers by hand is a big task for just two people," concludes Babineau. "Because of Hosted Chef, we were able to use Amazon auto-scaling groups and scale up with literally one command. We're extremely impressed with Opscode; it's enabled us to scale more quickly and better manage our infrastructure, allowing us to do what we do best—create games."

### ▶ About Opscode

Opscode is the leader in cloud infrastructure automation. We help companies of all sizes develop fully automated server infrastructures that scale easily and predictably, can be quickly rebuilt in any environment, and save developers and systems engineers time and money. Opscode's team is comprised of web infrastructure experts responsible for building and operating some of the world's largest websites and cloud computing platforms. Opscode is headquartered in Seattle.

### ▶ About *Dragon Age Legends*

*Dragon Age Legends* is an epic, free online role playing game from BioWare™ and EA2D. Inspired by the award-winning *Dragon Age* franchise, *Dragon Age Legends* blends accessible and engaging tactical combat with compelling co-operative gameplay. Play *Dragon Age Legends* on Facebook at [apps.facebook.com/dragonagelegends](https://apps.facebook.com/dragonagelegends) and on your mobile at [m.dragonagelegends.com](https://m.dragonagelegends.com).

### ▶ About EA2D

EA2D, a development studio at Electronic Arts, creates high quality social games for avid gamers across connected platforms including online, mobile and beyond. EA2D's portfolio of critically acclaimed browser-based titles includes *Dragon Age Legends*, *Fancy Pants Adventures*, *Dragon Age Journeys* and *Mirror's Edge™ 2D*. For more information, visit [ea2d.com](https://ea2d.com).

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