

## Amazon Machine Image (AMI) Lifecycle Management Automation

**Adanto Software yet again helps an \$8 billion-dollar Professional Staffing global leader in its aggressive plans to be cloud-only company by 2018, by taking the complexity out of provisioning the latest versions of IT-approved Amazon EC2 virtual servers in the cloud for approved company-wide use.**

### The Situation:

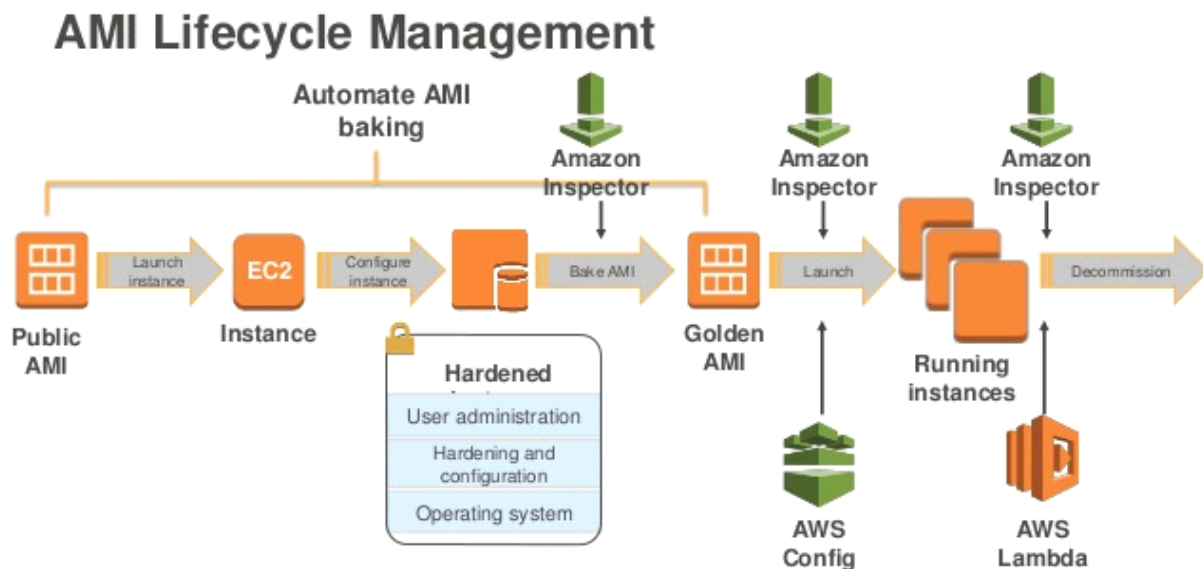
- Client has very aggressive goals of becoming a cloud-only company by 2018
- Corporate IT has been overwhelmed by business demands for provisioning virtual servers (EC2 and S3 buckets) in the cloud
- The provisioning process lacked any deployment standards, lifecycle management, was manual and prone to series of issues related to security, performance and cost.
- IT SLAs have deteriorated and company was off track to reaching its goal by 2018

### The Objective:

- Establishing an easy process of user self-provisioning the IT-approved Amazon EC2 instance or series of instances at the departmental level.
- Provisioning cloud tools and instances with the latest available performance and security enhancements available.
- Automating AMI Lifecycle Management process to force business adherence to the latest IT-policy standards required for desired cloud computing needs.
- Improving IT productivity, and reducing time of IT cloud service delivery to the business.

## The Solution:

Adanto automated company's Amazon Machine Image (AMI) Lifecycle Management process to keep AMI's up-to-date with the latest application build, combined with the latest performance, security patch enhancements and elastic auto-scaling (dynamic or specific) for load-balancing to optimize required performance with the running costs. The new IT Automation process of AMI release and deployment always utilizes the "golden" version of corporate IT approved AMI base (a uniquely customized copy of an AMI with CloudFormation root volume templates, full copy of the latest version of Linux O/S, application server and applications customized by the client), combined with the latest Linux OS security patches and performance enhancements released by the Amazon Web Services.



## AMI Lifecycle Automation Key Features:

- Utilization of the latest available AMI image according to corporate policy.
- Creation of deployment templates for AMI images. Two templates are created per image: one for a single instance deployment and another for auto-scaling group deployment.
- Publishing all templates to the corporate Sharepoint server.

## AMI's application and tool set includes:

- Installation of AntiVirus software, enhanced networking driver, various management, and monitoring tools
- Configuration of name resolution service, hostname, Chef server access

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AMI's O/S set include:

- **Windows Server family: 2008 R2, 2012, 2012 R2, 2012 R2 with preinstalled MS SQL Server**
- **Ubuntu Linux: versions 14 and 16**
- **Amazon Linux: two newest versions**
- **RedHat Enterprise Linux: 6.x and 7.x versions**

Technologies utilized in the solution:

- **AWS AMI (Amazon Machine Images)**
- **AWS EC2 (Elastic Compute Cloud)**
- **AWS S3 (Simple Storage Service)**
- **AWS CloudFormation**
- **AWS Cloudwatch**
- **AWS CLI (Command Line Interface)**
- **Jenkins Continuous Integration**
- **HashiCorp Packer**
- **Bash scripting**
- **PowerShell**
- **Chef (Infrastructure Automation)**

The Results:

Adanto Software automation of the AMI Lifecycle Management has moved the client back on track of becoming a cloud-only company by 2018. In addition, the automation and new user self-provisioning service has standardized many cloud processes at the company, enhanced cloud performance, improved IT security and boosted IT productivity (improved IT SLAs).

Adanto's new IT cloud infrastructure emboldened, empowered and simply set businesses free to manage their own cloud provisioning, without waiting on IT, but in adherence to the latest IT policies and IT standards.

## About Adanto

Adanto is an emerging global software services and solutions company, incorporated in Delaware, serving clients in the EU and the USA from its five global locations.

Combining vast experience with comprehensive capabilities across many technologies, industries and business functions, Adanto collaborates with clients to **accelerate their innovation** and help them become **high-performance digital businesses**.

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