




LEVERAGING THE CLOUD

The way of the Virginia House

HOW WE USE WHAT THE CLOUD GIVES US

1. Applications in the cloud
 2. How the Virginia House uses it
 3. Utilization of development time saved by the cloud
 4. Example Application
 5. Security Audit
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WHAT THE CLOUD GIVES US

1. Scalability

1. Add the power when you need it
2. Take it away when you don't

2. Flexibility

1. We are never constrained by internal systems
2. Able to focus on the Business practices we are developing for and not IT

3. Reachability

1. Automatic redundancy
2. Access to business systems from anywhere, any time, any device



HOW THE VIRGINIA HOUSE USES IT

- **Local dev environments**
 - We use RVM to build our Rails framework
 - Built in web server to test everything locally
 - We code locally using whatever text editor or IDE
 - Locally we can build, break, destroy and rebuild from central repository
- **Github**
 - Source control
 - Automatically merges all of our code
 - Points out conflicts
 - We have a private repository on github.com that houses 20 projects for us

HOW THE VIRGINIA HOUSE USES IT... CONT'D

- **Heroku**
 - Platform as a service
 - Owned by Salesforce
 - Sits on Amazon
 - With in seconds, we can spin up one of many web applications and it would be immediately available to the web
 - Ruby
 - PHP
 - JAVA
 - Clojure
 - Python

UTILIZATION OF DEVELOPMENT TIME SAVED BY THE CLOUD

1. Controls Cost

- a. Time = \$\$\$\$
- b. There's no waist, only pay for what you need
- c. Less time on server configs and maintenance means more time spent on development

2. Rapid development

1. Been able to free our minds
2. Will have migrated from Lotus Domino/Notes by rebuilding 5 full applications in the past year
3. All of our applications are now accessible any where
4. Responsive web design to match the UI on any browser and device

FISCAL PAYROLL

1. One example is our new Finance Payroll

- Completely hosted in the cloud
- Does contain SSN's, birthdays and addresses
- Consumes member bio information from on-premise SharePoint lists
- Generation of custom reports for Department of Accounts
 - Stores on AWS S3 and will email when ready
- Applies login security using ADFS
- Allows wage staff to create timesheets and leave requests to be submitted to supervisors
- Fiscal admin sections of the app can only be accessed from internal ip addresses
- Several layers of encryption
 - SSL
 - Database encryption
 - Column level encryption

HOW CAN WE TRUST IT

Hired a third party security team to do a full audit

- Penetration testing
- Anonymous attacks
- Security Audit
 - Provided credentials to test what each level of users can see
 - Make sure wage users cannot see others information
 - Make sure encrypted data is in fact secure

QUESTIONS?

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