



LESSONS LEARNED FROM WA:
UPGRADING AN AGING IIS
INFRASTRUCTURE WITH STATE IT

Office of Immunization and Child Profile

Previous State of the WAIS

- IIS Contract Transition
- Self hosted at State IT – Washington Technology Solutions (WaTech)
 - IGN - Inter-Governmental Network
 - Infrastructure Support / Server OS Support
- 2 Environments – Production & Test
 - 2 Linux Servers – Oracle Database Server
 - 2 Windows Servers – Web Application Server

Challenges/Issues with Previous State

- Unstable application – Unhappy users
- No dedicated admin to support/monitor the database or application
- Data Growth – More data, more problems
- Out-dated Linux and Windows operating systems

Changes

- New IIS enhancements and Modules
- WaTech decommissioning IGN – moving to State Governmental Network (SGN)
- Stability and Performance needs

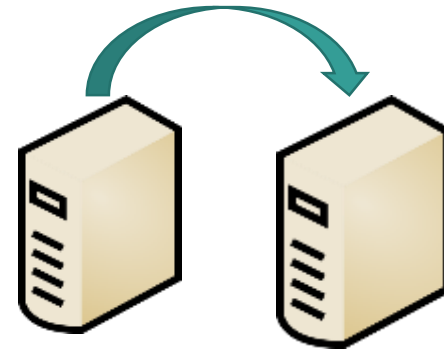
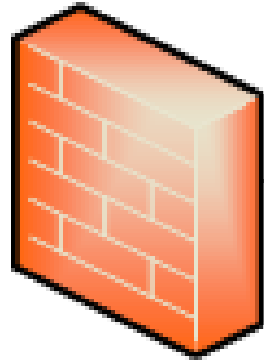
New Requirements/New Concerns

- Move to SGN Private Cloud
- Upgrade OS (RHEL / Windows)
 - Limited Linux support
- Add 12 servers (16 total)
 - Hosting cost concerns
- Upgrade Oracle / Java / Tomcat
 - Licensing issues



Standing Up New Environment in SGN

- Design and Security Approval
- VPN and Fortress Gateway Firewall Issues
- Data Migration



Migrating to the SGN

- Migration
 - Test Environment Dress Rehearsal
 - Production Environment Migration
- Test Environment Upgrades:
 - Oracle Upgrade
 - Java Update
 - Tomcat Upgrade
 - IIS Core Upgrade

New Issues Discovered

- Database Problems
 - Missing tables, constraints, indexes
 - Remediation plan
- New Fortress Gateway
 - JavaScript issues

Next Steps

- Database remediation
- Resolve WaTech gateway issues
- Standup Sandbox environment to mirror Production, upgrade Sandbox
- Production upgrade (Oracle, Java, Tomcat, IIS Core)
- Test upgrade (IIS Core + new Modules) and UAT
- Production upgrade (IIS Core + new Modules)
- AWS Cloud migration
- Multi-factor authentication

Lessons Learned

- Bring in the experts
- Be prepared for setbacks
- Be Transparent
- Build relationships

Thank you

