

Hosting: It's More Than Being a Good Server

Presented by:

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NWA Technologies Conference



Hosting Solutions
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NWA Technology Conference
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SPIRIT Timeline

- **2002** – 13 WIC State Agencies Formed Consortium to Develop a Modern WIC MIS System
- **2004** – Received State Agency Model (SAM) Grant, Awarded DD&I Contract to CSC Covansys
- **2007** – All 13 State Agencies Implemented the First SAM System by December 2007
- **2008** – Arkansas & Missouri Were First Geographic States to Transfer SPIRIT
- **2009** – Formation of SPIRIT Users Group
- **2010** – Montana, Minnesota Scheduled to Implement Maine, Mississippi, & Alaska Approved to Transfer



Organizational Documents

- MOA to Formalize Consortium
- MOA for Helpdesk Services
- MOA for Financial Invoicing & Payment of System Enhancements
- SPIRIT Users Group Charter
- Change Control Process Document



History

- System Hosting Services Can Be Expensive
- WIC Systems Are Complex
- Explored Options and Received Ball Park Estimates ~ \$500,000 Annually for Hosting and System Maintenance
- During Implementation Year, No Time and No Technical Experience to Write RFP. Also, No Data Available for Expected Volume of Calls, Hosting Requirements , Staffing Requirements, etc.



History (continued)

- Chickasaw Nation Industries (CNI), a Subsidiary Business of Chickasaw Nation, Was Contracted for Helpdesk Services, Training, and Equipment Installation for All 13 Partners During the Implementation Year
- Since CNI Was a Small 8(A) Disadvantaged Firm, FNS Approved a Sole Source Contract
- In 2008 Post-Implementation, FNS Required a RFP for Hosting/Maintenance or the Option for Lead Agency to Operate Hosting/Maintenance In-House

The logo for "Spirit" features the word in a white, cursive font on a purple rectangular background. The background has a decorative, glowing effect with red and white speckles and a white swoosh at the top right.

Spirit

Staffing

- Chickasaw Nation IT Department – 118 Employees Supporting All Information Technology for All Divisions Within the Chickasaw Nation
- Dedicated Spirit Helpdesk Staff ~ 6 FTEs
- Administration, System Administration, Database Administration, Application Support, Quality Assurance Analyst, Helpdesk Support



Data Center

- Centralized Data Center Located in the Chickasaw Nation in Ada, Oklahoma
- 3 Servers for Web and Application Services, Servers Are Load Balanced
- Each of the 13 Agencies Has Individual Database Servers
- Each of the 13 Agencies Has Individual Test Database Servers
- Disaster Recovery Site in Norman, OK



MOA for Helpdesk Services

- Helpdesk Service Hours are Monday – Friday, 7:00am – 7:00pm CST (Holidays Excluded)
- Telephone Support Via Toll Free Number
- Email Support
- Error Tracking
- Use of WebEx for Trouble Shooting and Installations
- Maintain and Manage the Version Control of All Application and Database Software
- Provide Testing of Upgraded, Enhanced or Modified Versions of All Modules Prior to Release

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Spirit

Levels of Helpdesk Support

- **Level One Support:** SPIRIT Hardware, Operating System and MS Office Software
- **Level 2 Support:** SPIRIT Application Software Developed By CSC Covansys
- **Level 3 Support:** SPIRIT Application Software – Issues at This Level That Cannot Be Solved By CNIT and Will Be Escalated to CSC Covansys for Resolution
- **Level 4 Support:** SPIRIT Database, Web, Server and Network Issues Which Will Be Forwarded to the Appropriate Dedicated Second Tier Support Within the Chickasaw Nation IT Department



Information Security

- Quarterly Auditing of System Logs for Any Anomalies or Breach Attempts at the External Web Servers
- Verify the Automation of Updates of Definitions for Anti-virus Protection for All SPIRIT Servers and Performing the Cleaning of Infected Files
- Perform a Bi-Annual Assessment of Users and Their Levels of Access at the System Level (Non-Application Accounts)
- Perform a Monthly System Patch Assessment
- Perform a Quarterly Firewall Assessment



Escalation Procedures

- **Standard Tickets**
 - By 4:00pm CST If Ticket Received Before Noon
 - By Noon the Following Business Day, If Received After Noon
- **Outages and ASAP Tickets**
 - If Unavailable Call Service Desk Manager on Cell Phone
 - If No Response Within 15 Minutes Call Director of IT Operations Support on Cell Phone
- **Outside of Standard Business Hours (Holidays/Weekends)**
 - Standard Tickets - Follow-up Up With Customer By Noon Next Business Day
 - If Outage and ASAP Tickets - Call Service Desk Manager on Cell Phone. If No Response Within 1 Hour, Call Director of IT Operations Support



Cost of Operation

- Cost Allocation Based on Annual State Caseload
- Total Combined Caseload of All Agencies ~ 25,000
- Number of Users ~ 175
- Total Cost of MOA for FY2010 = \$265,131
- SWRO Assists With Funding Using Operational Adjustment Funds
 - Small ITOs Under 1,000 = 75% of Individual MOA Costs
 - Large ITOs Over 1,000 = 25% of Individual MOA Costs
 - Will Consider Additional OA Funding on Case-By-Case Basis

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Spirit

Advantages

- Best Access to Services and Support With Limited Resources
- Allows Small State Agencies to Operate Robust System by Sharing Resources
- Stable and Limited Downtime
- Shared Enhancements
- Expertise in JAD Is Multiplied
- Technical Expertise Not Required on Staff in WIC Program
- Testing Performed to Ensure Reliability
- Disaster Recovery



SAM Vision

- *Build It Once, and Replicate It Many Times*
- Currently, 20 States in SPIRIT Users Group
- SPIRIT User Group Change Control Process
- Central Product Manager
- Executive Steering Committee – 7 States
- Change Control Workgroup – 6 to 8 Members, Along with CCWG Conductor



For More Information

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Hosting: It's More Than Being a Good Server

Maryland/Virgin Islands Hosting Solution

Deborah Morgan
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Project Overview

- Since 2006, Maryland has hosted the Virgin Islands WIC on the Web (WOW) System
- Virgin Islands application, databases and support staff reside in Maryland
- Virgin Islands received a complete system transfer for less than \$700,000 dollars
- Virgin Islands support costs are less than \$250,000 per year

Project Overview

- Collaborative effort between:
 - Maryland WIC
 - Maryland Health Department IT Staff
 - Virgin Islands WIC
 - Virgin Island Health Department IT Staff
 - Three Sigma Software
 - USDA

Maryland WIC Overview

- 19 Local Agencies
- 85 Clinics
- 350 Staff
- 150,000 Participants

VI WIC Overview

- 3 Islands
- 2 Local Agencies
- 7 Clinics
- 25 Staff
- 6,000 Participants

How It Started...

Virgin Islands legacy system

- Did not meet FRED requirements
- Had two distinct databases with no synchronization between islands
- Was losing data
- Was not providing enhancements
- Difficult to learn
- No Help Desk Support

How It Started...

USDA/MARO “Request for APD Technical Assistance” for Virgin Islands WIC

- Lack of technical capability and resources to maintain a system
- Lack of staff resources to plan or develop a system
- Willing to accept a State transfer without customization

Virgin Islands Requirements

- Increased system production
- Simplified navigation and learning curve
- Lower cost of ownership
- Centralized operations
- Strengthened disaster recovery
- Reduced maintenance concerns

Options Study

Booz Allen Hamilton Phase I – January 2005

Identify options for a WIC system solution for VI

- Option 1- Stand Alone Architecture
- **Option 2 - Outsource WIC System Operations**
- Option 3 - Make VI a Maryland Local Agency

Why Maryland

- Maryland WIC on the Web (WOW) System Implemented 2004
- Web Based Technology
- Three Tier Architecture
 - -- Client
 - -- Application
 - -- Database

Why Maryland?

- User Friendly (GUI Interface)
- Centralized Oracle Database (Enterprise License)
- 5 x 8 Help Desk Support
- Existing Contractor Support
- User Requirements
 - -- Internet Access
 - -- Internet Explorer 6.0 or higher

Considerations

Booz Allen Hamilton Phase II

- Analyze Maryland/Virgin Islands requirement differences
- Test Virgin Islands Telecommunications
- Final report of considerations and recommendations (Oct. 2005)

Procurement

- 2006 Maryland Maintenance & Support Contract
- System Enhancement #1: Virgin Islands System Transfer Project

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VI WOW IAPD

Contract Award

- April 2006 – Maryland
WOW System
Maintenance & Support
Contract Awarded to
Three Sigma Software

Ground Rules

- VI Business Practices will change to match Maryland's
- MOUs will be developed to define roles and responsibilities
- Unique backup procedure will be developed to enable VI to operate if mainland connection is lost

Maryland/Virgin Islands MoU

MD WIC will:

- Ensure VI WOW application and database are available Mon–Sat, 5:00 am – 8:00 pm
- Maintain, manage and test versions of application and database software
- Daily monitoring of logs, nightly processing, export files, etc.

Maryland/Virgin Islands MOU

MD WIC will (cont'd):

- Provide Help Desk support to include user access, troubleshooting, Toll Free Help Desk #
- Ensure all system applications and databases are in synch at all times
- Perform quarterly inspection and preventative maintenance

Maryland/Virgin Islands MoU

VI WIC will:

- Ensure all staff attend training
- Report issues as soon as encountered
- Maintain workstations and printers (E-Mail, Anti-Virus, Operating System, MS Office, etc)

Maryland/Virgin Islands MoU

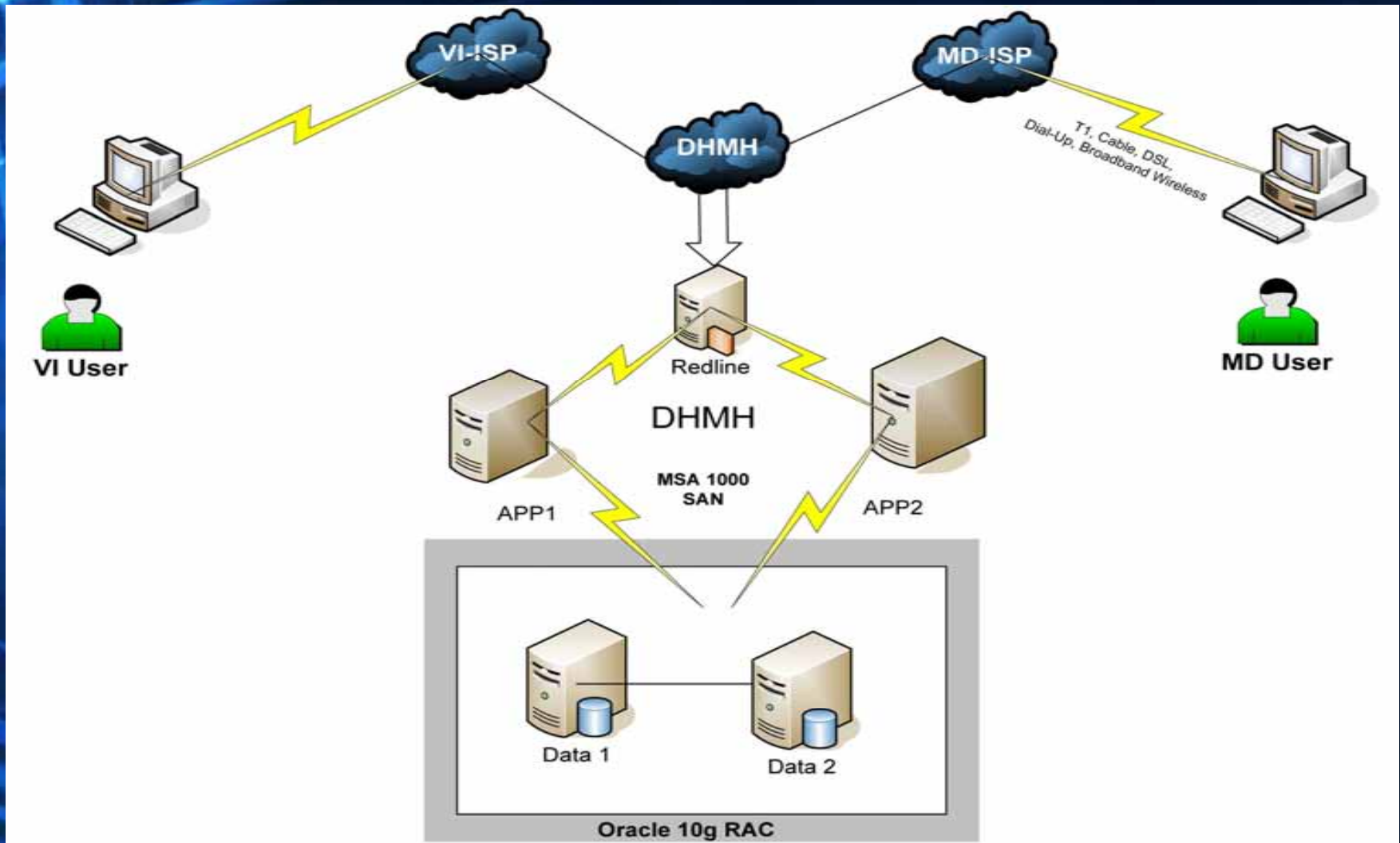
VI WIC will (cont'd):

- Procure all supplies (check paper, MICR toner)
- Provide internet connectivity for all users
- Provide 1st level help desk support

Planning

- WOW Configurable Items
 - --Dropdown Values
 - --Nutrition and Medical Data
 - --Edits
 - --Risk Factors
 - --Foods and Food Packages
- Banking System
- Vendor Authorization Process

WOW System Architecture



Transfer System

MD WOW...

Became VI WOW

The screenshot shows the Maryland WOW website. At the top, the logo reads "WOW Family Health Administration State of Maryland's WIC On the Web". Below the logo is a navigation menu with links for CLINIC, ADMIN, NUTRITION, FINANCE, VENDOR, TRAINING, and PASSWORD. The main content area features the heading "WOMEN, INFANTS, AND CHILDREN PROGRAM Better Nutrition for a Brighter Future". To the right, a "WIC NOTES & ALERTS" box contains the text: "(2)ATTENTION! TIME STUDIES MONTH October 1st - 30th". Below the alert box is a small image of a young girl. At the bottom, a disclaimer states: "Access to this system is restricted to authorized users only and limited to approved business purposes. By using this system, you expressly consent to the monitoring of all activities. Any unauthorized access or use of this system is prohibited and could be subject to criminal and civil penalties. All records, reports, e-mail, software, and other data generated by or residing upon this system are the property of the State of Maryland and may be used by the State of Maryland for any purpose."

The screenshot shows the Virgin Islands WOW website. At the top, the logo reads "WOW Department of Health Virgin Islands' WIC On the Web". Below the logo is a navigation menu with links for CLINIC, ADMIN, NUTRITION, FINANCE, VENDOR, TRAINING, and PASSWORD. The main content area features a large image of children playing with a red ball. To the right, a "WIC NOTES & ALERTS" box contains the text: "(1) Need Help Call 1-800-879-7862 Think Healthy!". Below the alert box is a small image of a young girl. At the bottom, a disclaimer states: "Access to this system is restricted to authorized users only and limited to approved business purposes. By using this system, you expressly consent to the monitoring of all activities. Any unauthorized access or use of this system is prohibited and could be subject to criminal and civil penalties. All records, reports, e-mail, software, and other data generated by or residing upon this system are the property of the Virgin Islands and may be used by the Virgin Islands for any purpose."

WOW System Transfer

Dropdown Values

Maryland Holidays

Virgin Islands Holidays

Transfer System

MD Nutrition History Screen...

VI Nutrition
History Screen

Transfer System

MD Medical Information Questions...

VI Medical

Information Questions

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*November 2006
Training &
Implementation*

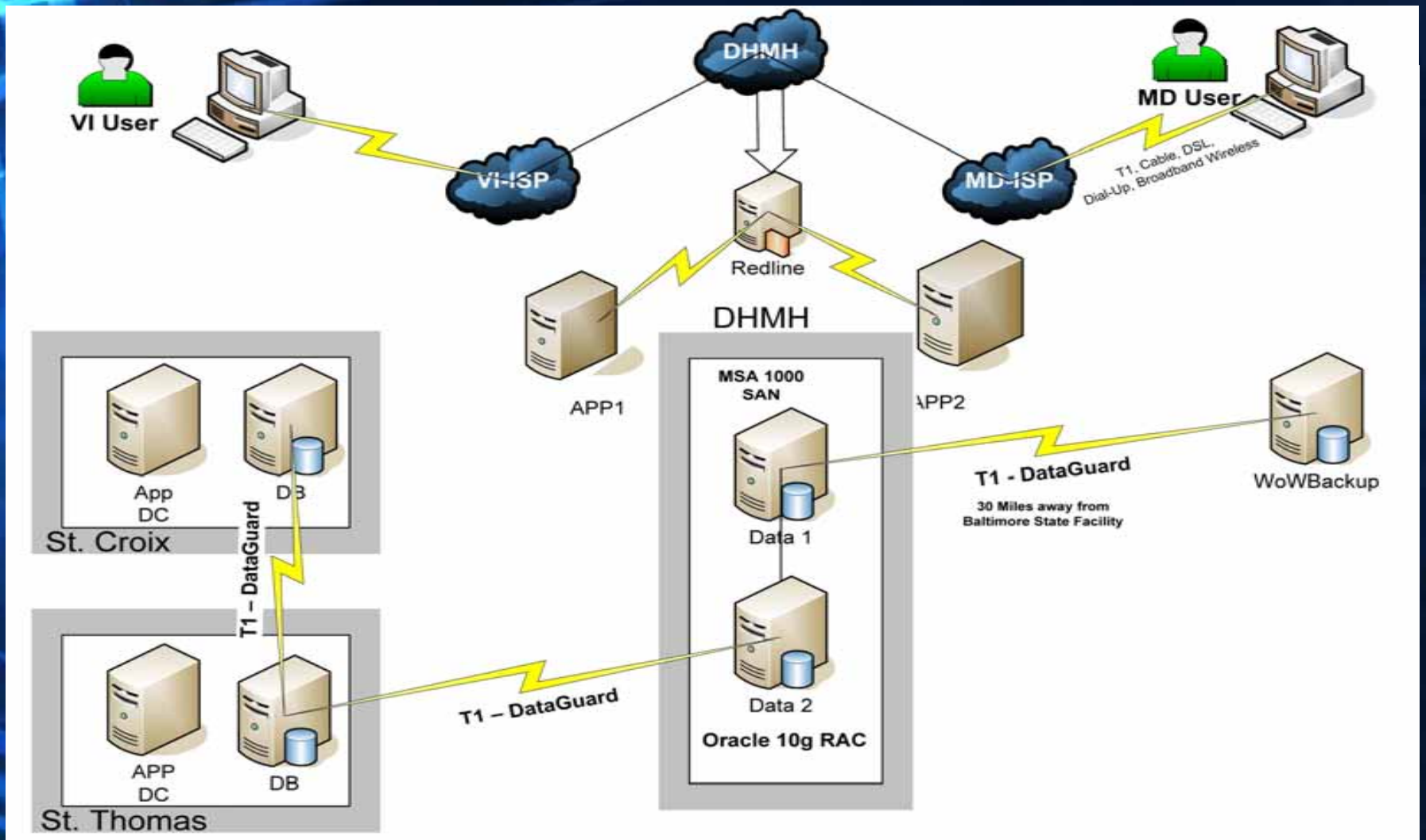
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Ongoing Help Desk Support

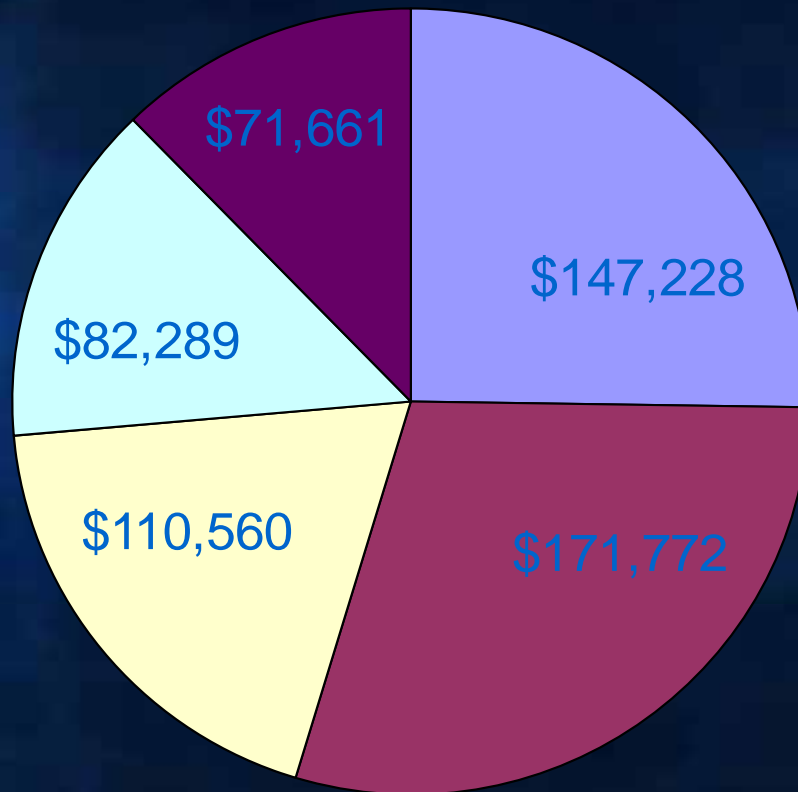
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*Ongoing MD Staff
Support*

VI Backup Solution



VI Transfer Costs



- Planning
- System Transfer
- Training and Implementation
- Travel
- Equipment

VI Transfer Costs

Transfer Solution	\$583,510
Standalone Backup Solution	<u>+ \$ 98,048</u>
Total	\$681,558

Ongoing Maintenance & Support

FIXED

50% Computer Specialist	\$116,734
T-1 Line MD to VI	\$ 30,636

VARIABLE

Based on % of Participation

Annual Contractor Support Cost	\$ 16,407
Annual Help Desk Cost	\$ 33,041
Travel	\$ 7,400

TOTAL Annual Maintenance & Support **\$ 204,218**

Funding

- System Transfer – Combination of Infrastructure and OA Funding
- Ongoing Maintenance & Support – Regional OA Funding requested by Maryland for Virgin Islands Maintenance and Support

Benefits

- VI has a state-of-the-art, web-based management information system
- Promotes sharing of best practices
- Encourages dialogue between states and regional office for policy interpretation
- VI receives all updates and enhancements that MD produces “free of charge”

Benefits

- Leverage use of existing:
 - -- Servers
 - -- Software
 - -- Plans (Disaster Recovery, Security, etc.)
 - -- Lessons Learned
 - -- Contractor Procurement

Key Factors for Project Success

- Management Support
- Staff Commitment
- Compromise
- Teamwork
- Communication
- Technology

The background is a dark blue gradient with several bright, glowing blue light streaks and lines that create a sense of motion and depth. The lines are curved and intersect, giving it a futuristic or digital feel.

In Conclusion...

Hosting Solutions Can Work!

Thank you.

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AIM Hosting Solution

Presented by:

Karen Sell,

Chief

Bureau of Nutrition and Physical Activity

AIM

- AIM (Arizona in Motion) automation system is currently used to administer the following four USDA nutrition programs:
 - Special Supplemental Nutrition Program for Women, Infants and Children (WIC)
 - Commodity Supplemental Food Program (CSFP)
 - Farmers' Market Nutrition Program for Women and Children (FMNP –WIC)
 - Farmers' Market Nutrition Program for Seniors (SFMNP)

Current AIM: Clinic Level

- AIM is used by more than 650 State and Local Agency staff within the AIM Consortium to:
 - Handle all appointment activities
 - Certify participants
 - Document medical and health information
 - Determine nutritional risk
 - Issue food instruments on demand
 - Document nutrition and breastfeeding education
 - Generate reports
 - Document and track referrals

AIM Consortium

American Samoa

CNMI

Navajo Nation

Guam

AIM Implementation Dates

- American Samoa - May 1, 2008
- Commonwealth of Northern Mariana Islands (CNMI) - October 14, 2008
- Guam - February 2, 2009
- Navajo Nation - June 2, 2009



Scope of System Migration

- Feasibility Study
- Leverage Existing Investments in Infrastructure
- Expand Technical Infrastructure
- Provide Technical and Operations Support
- Provide AIM Help Desk Services
- Provide End-User Workstations and Printers
- Establish Communications to AIM
- Data Migration
- Training
- Agreements

ADHS roles

- Host AIM for all partner agencies
- Provide AIM help desk support
- Provide technical assistance to all partner agencies
- Provide on-site technical support as needed
- Provide assistance with query tools

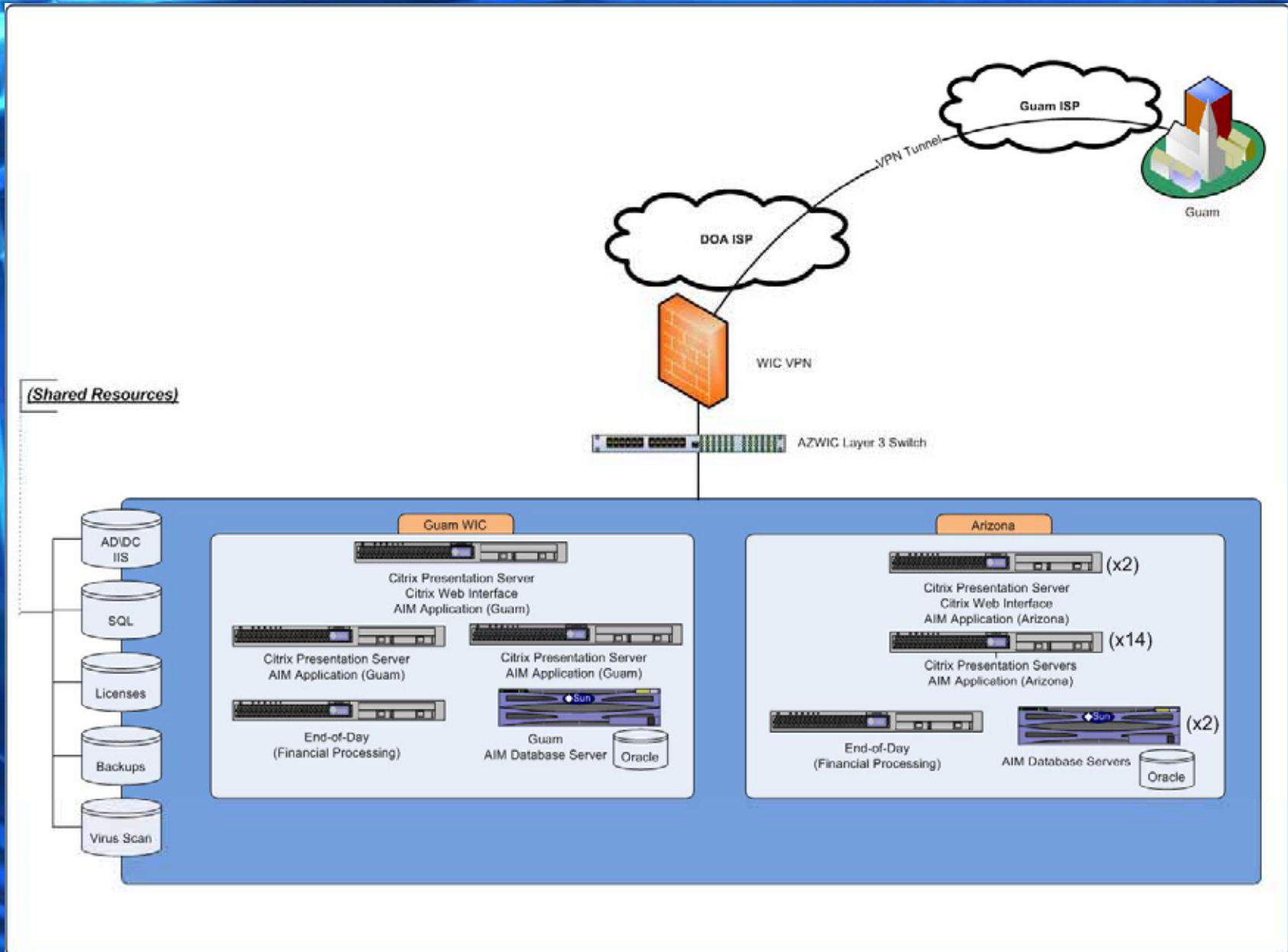
Technical Operating Structure

- In-House support:
 - WIC IT staff (11)
 - Quality Assurance staff (3)
 - Help Desk (3)
- External support (Contractor):
 - New development
 - Maintenance
 - Database operations

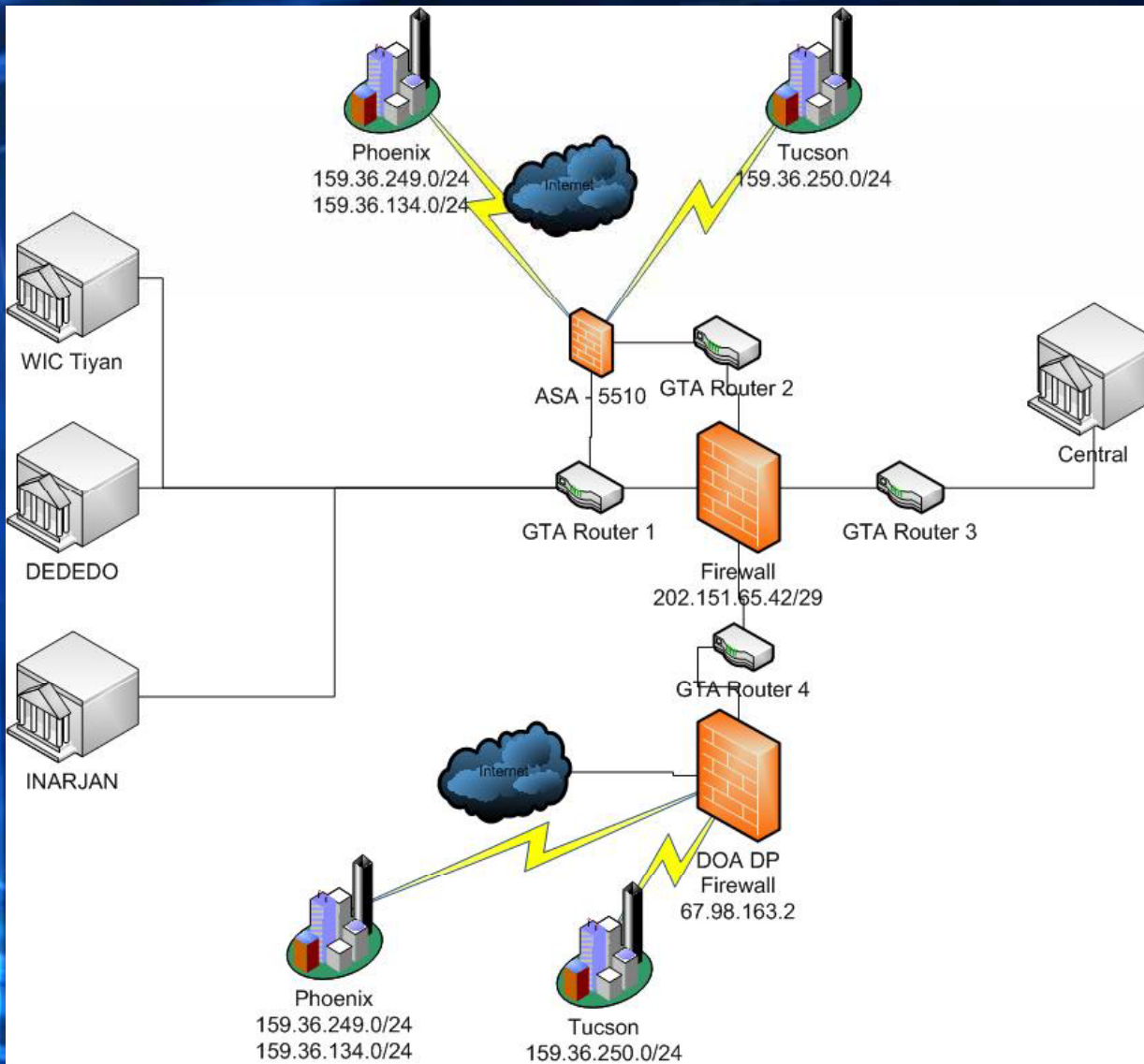
Current AIM: State Level

- More than 100 state agency WIC and CSFP staff members use AIM to:
 - Track and manage financial and program operations
 - Monitor Federal Regulation compliance of Local Agencies
 - Track and manage caseload
 - Generate financial and management reports
 - Perform all WIC Vendor activities including authorizing, monitoring, and educating vendors

Hardware Hosting (Sharing Resources)



Minimum Connectivity Requirements



Time Zones

The system is used Monday through Saturday during normal working hours of the clinics using the corresponding State Agency Time Zone from 6:30 AM through 7:00 PM.

- American Samoa WIC: (UTC -11:00)
- Arizona WIC: (UTC -07:00)
- CNMI WIC: (UTC +11:00)
- Guam WIC: (UTC +11:00)
- Navajo Nation WIC: (GMT-07:00)

Technical Benefits

- Change Management
 - One time modification for 5 WIC Agencies
 - Creates Standardization for Consortium
 - Reduces overall modification expenses

Design Considerations

- International Use
- American Indian Tribes
- Swift Conversion of Navajo Nation WIC to meet New Food Package Requirements
- Change Management (AIM Versioning)

Requirements (Non-Technical)

There are various steps that need to be accomplished during the AIM system expansion.

- *Intergovernmental Agreement:*

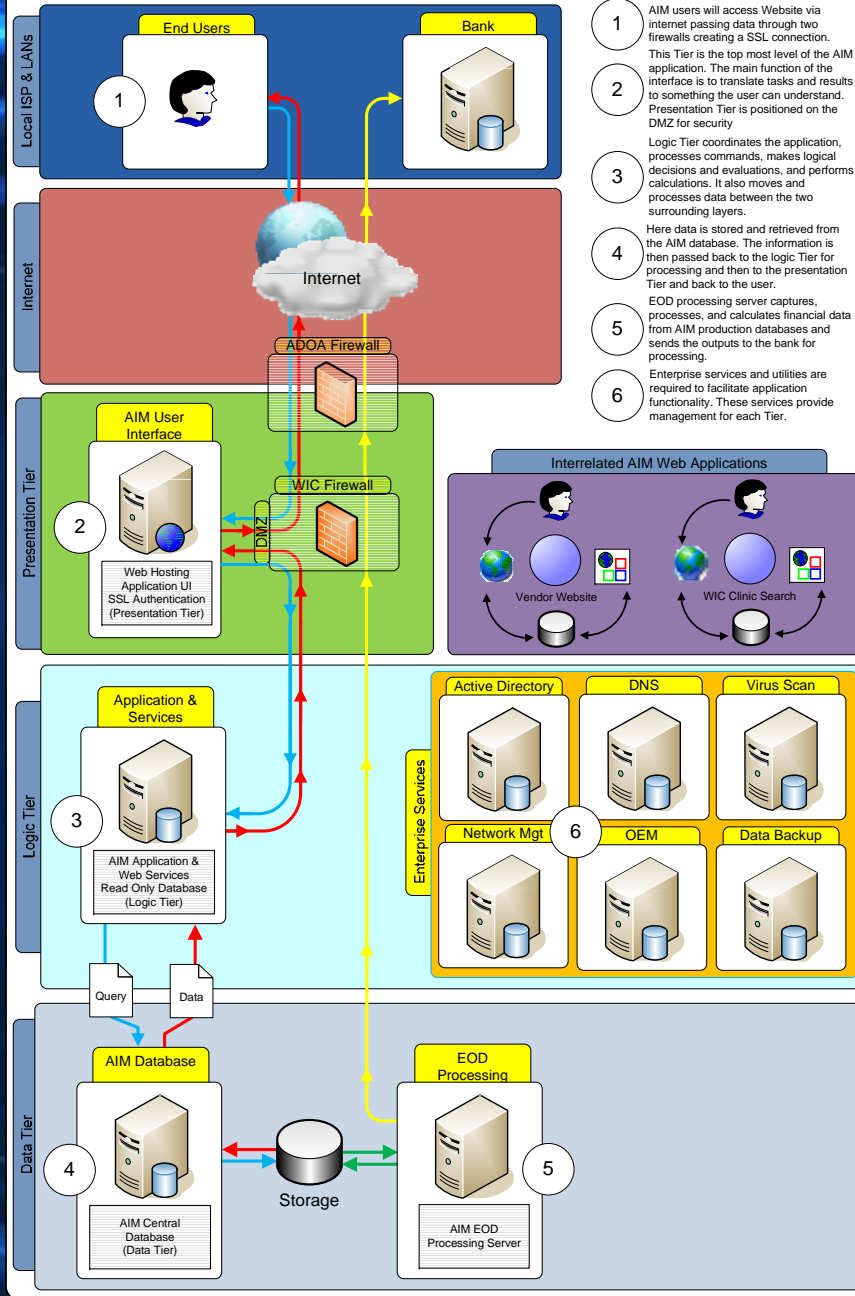
This document outlines and explains in detail responsibilities for which each agency shall be fully held during this implementation.

- *Initiate Banking Contract*

Modify banking services to meet the requirements of AIM, and test runs have been completed to initiate services.

- *Business Requirements Definitions (BRD)*

AIM Consortium WIC AIM.NET Application Logic Flow



Overall Advantage

- Improve WIC program's operations by providing an automated computer system that is in compliance with all USDA regulations.
- Comply with USDA regulations.
- Utilize and leverage recent investments in technology and resources to reduce cost of deploying a new WIC system.
- Improve disaster recovery model.