

Arkansas Wireless Information Network

Report to the

Joint Interim Committee on Advanced
Communications and Information
Technology

For the period ending February 28, 2007



This report contains the following sections:

Arkansas Wireless Information Network (AWIN) Program Status – a short description of the program, a list of the projects related to the program, and achievements of the program for the month.

AWIN Management and Operations Report -- additional detail on the management and operational issues of the 24/7 AWIN system.

Three County Pilot Project Status -- additional detail on the pilot effort implemented in Miller, Lonoke, and Craighead Counties.

800 MHz Band Reconfiguration -- The AWIN system is an 800 MHz system that will require some reconfiguration of the current frequencies. The Federal Communications Commission (FCC) ordered the reconfiguration of the 800 MHz band to avoid potentially life-threatening problems where public safety communications equipment may be rendered inoperable.

AWIN Continuity of Operations Project (COOP) – the COOP will ensure that a comprehensive emergency and recovery plan is defined and thoroughly exercised for the AWIN infrastructure.

Smart Zone Controller 2/System Expansion – This project implements a system expansion that will alleviate the burden currently placed on the system in the southern part of the state. Utilizing additional equipment and/or additional microwave paths to route traffic to the northeast and northwest portions of the system will remove that traffic from the southern part of the state.



Arkansas Wireless Information Network

AWIN is a multiple site, statewide, trunked communications system based on a digital 700/800 MHz system using the Association of Public Safety Communications Officials (APCO) Project 25 (P-25) standard. APCO P-25 is the industry standard for public safety developed to allow any manufacturer's P-25 radios to operate on the system. AWIN provides statewide operations, within the coverage area of the system, for public service entities using P-25 digital 700/800 MHz radios.

This type of system offers entities the following benefits:

- The ability to coordinate communications with other agencies or jurisdictions
- The ability to purchase radios from more than one vendor
- The ability to share resources to enhance communications and control costs

Program Director:

Name: Penny Rubow

Email: penny.rubow@arkansas.gov

Updated: 03/10/07

PROJECTS

| Project Name | Percentage Complete | On Schedule / No Major Issues | Schedule Slipping / Possible Issues | Behind Schedule / Major Issues |
|------------------------------|---------------------|-------------------------------|-------------------------------------|--------------------------------|
| Three County Pilot | 98% | | | X |
| 800 MHz Band Reconfiguration | 16% | | X | |
| Smart Zone Controller 2 | 45% | X | | |
| AWIN COOP | 50% | | X | |

Detailed information on each project's budget, schedule and scope may be found later in this report.

Program Funding

The funding information below reflects the funding plan and expenditures for the period of December 2003 to December 2006.

| Project | Funding Amount | Actual Expenditures | Unexpended Balance | Commitments | Remaining Balance |
|-------------------------------------|-----------------|---------------------|--------------------|----------------|-------------------|
| CSEPP | \$11,373,412.50 | \$11,373,412.44 | \$.06 | \$0.00 | \$.06 |
| Command & Control | \$12,979,798.80 | \$9,654,637.39 | \$3,325,161.41 | \$3,325,161.41 | \$0.00 |
| Tri-County | \$12,401,220.23 | \$12,284,916.84 | \$116,303.39 | \$116,303.39 | \$ 0.00 |
| ASP Network Upgrade (Federal Funds) | \$8,996,179.98 | \$8,996,155.35 | \$24.63 | \$0.00 | \$24.63 |
| ASP Network Upgrade (State) | \$30,713,728.45 | \$ 26,310,093.75 | \$4,403,634.70 | \$14,880.00 | \$ 4,388,754.70 |



| | | | | | |
|--------|-----------------|-----------------|----------------|----------------|----------------|
| Funds) | | | | | |
| | \$76,464,339.96 | \$68,619,215.94 | \$7,845,124.19 | \$3,456,344.80 | \$4,388,779.39 |

Comments:

Funding for 800MHz Rebanding: All expenses for this effort will be negotiated with Nextel, and paid directly by Nextel. The State should not incur any expenses for this effort.

Smart Zone Controller/System Expansion: The funding amounts for the Smart Zone Controller and System Expansion projects have been reported in two categories in previous reports. This is being corrected and in coming reports these two projects will be reported as separate line items.

AWIN COOP: This is an administrative project and the cost is reported as part of the ASP Network Upgrade (State Funds) described above.

Program Update

Legislative Session. AWIN Legislation has been withdrawn. (Closed)

Statewide Purchasing Agreement. The AWIN Management team continues work on developing an agreement that could be used by local governments and state agencies to purchase radios and accessory equipment.



AWIN Management and Operations

The AWIN System Management is responsible for the management and operations of the AWIN system. The system is monitored 24 X 7 X 365 by staff at the Department of Information Systems and the maintenance vendor in Shamburg, Illinois. Issues are reported via the DIS Helpdesk Expert Automation Tool (HEAT) system where the progress is tracked until a resolution has been reached.

AWIN System Management is also responsible for reviewing and tracking extended operational efforts in an effort to maintain the system and limit user impact. System analysis and trending is performed by this group to ensure that issues are being identified and resolved quickly

System Manager:

Name: Bruce Lantz

Email: Bruce.L.Lantz@arkansas.gov

Updated: 03/07/07

MONTHLY HEAT TICKET SUMMARY

System usage for the month was an average of 21,976 calls (communication between users) per day on the AWIN system.

| Top Call Types | Ticket Count | Comments |
|------------------------------|--------------|---|
| Tower Site Maintenance | 75 | Includes scheduled maintenance and problem reports. System upgrade efforts are reflected in this number |
| System Infrastructure Issues | 42 | Includes microwave connections. This number is impacted by upgrade efforts. |
| Generator Malfunction | 13 | Being monitored for cause as part of an extended effort |
| Site Hardware Failure | 12 | System equipment located at each site |
| User Support | 9 | Includes user calls for assistance with radio equipment |
| Month Total | 254 | |

Comments: Issues are reported via the DIS Helpdesk Expert Automation Tool (HEAT) system where the progress is tracked until a resolution has been reached. Issue reports generate from system users, technicians and contractors.

EXTENDED OPERATIONAL EFFORTS

| Activity | Start Date | Completion | % Complete | Status |
|----------------|------------|------------|------------|----------|
| Flash Upgrades | 02/05/2007 | 04/20/2007 | 48% | On-Track |



| | | | | |
|----------------------------|------------|------------|--|---------|
| Site Acceptance Punch List | 02/05/2007 | TBD | | Started |
| Home Zone Mapping | 04/03/2007 | 06/06/2007 | | |

Comments:

Site Acceptance Punch List: These punchlists items are related to the upgrade of the system that is completed. The remaining items are the responsibility of the state to correct. Funding is not currently available for the equipment and parts to complete these items. An effort is underway to identify funding for this project.

MONITORED SYSTEM ISSUES

| Issue | System Impact | User Impact | Status |
|--|----------------------------------|---|--|
| Dropped Calls around Jefferson County | None known at this time | Communication not dependable | Maintenance vendor has been notified of this issue. They are in the process of analyzing the data, and will be on-site in March to correct the problem. |
| Site Generators | Site back-up power not available | Loss of site use | Several on-going issues are being monitored concerning generators. A meeting between AWIN Management and the generator manufacturer will be held in March to determine a plan for addressing the issues. |
| <u>Single Event</u> Southeast Arkansas Tornados | No structural damage reported | Sharp increase in usage, primarily on two sites in the system | The highest used site handled 3234 calls between the hours of 1PM and 10PM with average call duration of 14 seconds. The site had as many as 22 talkgroups affiliated with it during this time period |

Comments:



Three County Pilot

The Arkansas Wireless Information Network (AWIN) Three County Pilot Project will provide the initial efforts to bring the interoperable network to the county and city emergency responders. The scope of the project is to work with Craighead, Lonoke, and Miller counties in building a fully interoperable radio system, based on Project 25 standards, for all public safety agencies in these counties. This project will provide additional infrastructure needed at the county level, upgraded dispatch units and integration into AWIN. Each county system will be considered part of the overall AWIN system. Further, a repeatable process will be identified that can be used as other counties integrate their infrastructure into AWIN.

Project Manager:

Name: David Baker

Email: david.baker@arkansas.gov

Updated: 03/05/07

SUMMARY

| Area | On Schedule / No Major Issues | Schedule Slipping / Possible Issues | Behind Schedule / Major Issues | Reason for Deviation |
|-----------------|-------------------------------|-------------------------------------|--------------------------------|--|
| Schedule | - | - | X | Schedule was delayed due to fiber install for Texarkana City. Install has been completed and remaining schedule will continue. |
| Budget | X | - | - | |
| Scope | X | - | - | |

SCHEDULE

Of the identified tasks, 98% have been completed. (See comments below)

There are 0 days remaining until project completion. (Estimated)

| Phase/Activity | Start Date | End Date | % Complete | Status |
|--|------------|----------|------------|----------|
| Project Initiation and Planning | 07/15/04 | 7/31/05 | 100% | Complete |
| Lonoke County System Design | 08/28/04 | 6-13-05 | 100% | Complete |
| Craighead County System Design | 08/28/04 | 7-24-05 | 100% | Complete |
| Miller County System Design | 08/28/04 | 6-27-05 | 100% | Complete |
| Final Approval of Design | 7-15-04 | 8-04-05 | 100% | Complete |



| | | | | |
|------------------------------------|----------|----------|------|----------|
| Project Execution Lonoke | 06-27-05 | 09-27-06 | 100% | Complete |
| Project Execution Craighead | 06-27-05 | 11-30-06 | 100% | Complete |
| Project Execution Miller | | | | |
| • Identify Frequencies | 6-27-05 | 11-15-05 | 100% | Complete |
| • Fleet Mapping | 9-01-05 | 5-21-06 | 100% | Complete |
| • Civil Work / FNE Installation | 3-20-06 | 12-18-06 | 100% | Complete |
| • Optimize System | 11-29-06 | 11-29-06 | 100% | Complete |
| • Acceptance Test Plan | 11-30-06 | 12-11-06 | 100% | Complete |
| • CATP Miller | 11-30-06 | 12-13-06 | 100% | Complete |
| • Subscriber Program and Install | 5-01-06 | 12-5-06 | 100% | Complete |
| • Training | 11-10-06 | 12-5-06 | 100% | Complete |
| • Cutover | 11-29-06 | 12-5-06 | 98% | Behind |
| • Finalize | 12-18-06 | 12-18-06 | 92% | Behind |

Comments:

Lonoke County and Craighead County

Both counties are completely cutover and operating on a day to day basis using the AWIN system.

Miller County

The county users are cutover and operating on a full-time basis using the AWIN system. The City of Texarkana which operates separately from Miller County is not yet complete. The cutover has been delayed due to installation of new fiber that provides connectivity between the New Boston Road tower and the dispatch console at the City of Texarkana Dispatch facility. Install follow-up work for the Texarkana City Dispatch are the remaining tasks to complete this project.

BUDGET

| Total Available Funds | Expenditures to Date | % of Budget Expended | Status |
|-----------------------|----------------------|----------------------|----------|
| \$12,401,220.23 | \$12,284,916.84 | 99% | On Track |

Comments: The above budget numbers are based on invoices processed as of December 31 2006.

SCOPE

| Change Request | Schedule Impact | Budget Impact | Status |
|----------------|-----------------|---------------|--------|
| | | | |

Comments: No Change Orders for this reporting period.



800 MHz Band Reconfiguration

The AWIN system is an 800 MHz system that will require some reconfiguration of the current frequencies.

The FCC ordered the reconfiguration of the 800 MHz band to avoid potentially life-threatening problems where public safety communications equipment may be rendered inoperable or interference may be disruptive to their communications.

Project Manager:

Name: David Baker

Email: david.baker@arkansas.gov

Updated: 03/07/07

SUMMARY

| Area | On Schedule / No Major Issues | Schedule Slipping / Possible Issues | Behind Schedule / Major Issues | Reason for Deviation |
|-----------------|-------------------------------|-------------------------------------|--------------------------------|---|
| Schedule | - | X | - | Waiting time to complete the agreement review |
| Budget | X | - | - | - |
| Scope | X | - | - | - |

SCHEDULE

Of the identified tasks, 16% have been completed. (See comments below)

| Phase/Activity | Start Date | End Date | Revised Complete | % Complete | Status |
|--|------------|------------|------------------|------------|----------|
| Complete Point-of-Contact Form | 08/01/2005 | 08/03/2005 | | 100% | Complete |
| Submit Request for Planning Funding | 05/14/06 | 08/01/06 | | 100% | Complete |
| Document Infrastructure Facilities Inventory | TBD | | | | |
| Evaluate Proposed New Frequencies | TBD | | | | |
| Prepare Cost Estimate | TBD | | | | |



| | | | | | |
|--|-----|--|--|--|--|
| Negotiate Contract with Nextel | TBD | | | | |
| FCC Applications Filed and Granted for New Frequencies | TBD | | | | |
| Nextel Clears Frequencies | TBD | | | | |
| Acceptance Testing | TBD | | | | |
| File Channel Surrender Applications with FCC | TBD | | | | |
| Certify Completion with Nextel | TBD | | | | |
| Complete Any Additional FCC Filings | TBD | | | | |

Comments:

Schedule: Sprint Nextel proposed Planning Funding Agreement was reviewed by the AWIN Rebanding Legal Team. Comments have been approved by Sprint Nextel, the agreement is ready for acceptance as soon as the list of frequencies to be considered for rebanding has been finalized. New frequencies assigned to the system are being added to the list. Agreement needs to be finalized with signatures.

March Outlook:

Sign the Planning Funding Agreement

BUDGET

| Total Funded | Expenditures to Date | % of Funding Expended | Status |
|--------------|----------------------|-----------------------|--------|
| TBD | | | |

Comments: All expenditures for this project should be funded by Nextel

SCOPE

| Change Request | Schedule Impact | Budget Impact | Status |
|----------------|-----------------|---------------|--------|
| | | | |

Comments: No Change Orders for this reporting period.



Smart Zone Controller 2/System Expansion

The scope of the Smart Zone Controller 2 (SZC2) Project is to install a second system controller on the existing AWIN system. This effort will include the engineering and design for adding the additional Master Site, including a Smart Zone Controller, preparing the site for housing the equipment, the implementation and optimization of any new hardware and software, the integration of any new hardware and software with the existing system, and testing of the system after the integration is complete.

AWIN is developed on a system of microwave rings, and from a very broad view is self healing, i.e., if a tower or towers are destroyed radio traffic is re-routed around the ring. The System Expansion portion of this effort is the implementation of additional equipment and microwave paths that will form a third ring on the system.

These two efforts will ensure the survivability of the system in the event that one controller is lost, all traffic can be moved to the remaining unit. Further, in the event of a widespread disaster that damages or destroys towers, traffic can be re-routed and users outside of the directly affected area will continue to have beneficial use of the system.

Project Manager:

Name: Penny Rubow

Email: penny.rubow@arkansas.gov

Updated: 03/08//07

SUMMARY

| Area | On Schedule / No Major Issues | Schedule Slipping / Possible Issues | Behind Schedule / Major Issues | Reason for Deviation |
|-----------------|-------------------------------|-------------------------------------|--------------------------------|---|
| Schedule | | X | | Minor slippage in the installation of T1 lines needed for connectivity. |
| Budget | X | | | |
| Scope | X | | | |



SCHEDULE

Of the identified tasks, 61% have been completed. (See comments below)

There are approximately 150 days remaining until project completion.

| Phase/Activity | Start Date | End Date | Revised End Date | % Complete | Status |
|---|-----------------|-----------------|------------------|-------------|--------------------|
| Initiation/Planning | 10/15/05 | 12/31/05 | | 100% | Completed |
| Zone Controller Installation | 11/15/05 | 06/15/06 | | 100% | Completed |
| Software Upgrade/ Optimization of the System | 01/29/07 | 02/28/07 | | 45% | On-Track |
| 7.0 to 7.1 North Zone Upgrade | 01/04/07 | 02/16/07 | | 100% | Completed |
| Upgrade Elite Console (7.1) | 01/04/07 | 02/27/07 | | 100% | Completed |
| Upgrade Troop Consoles | 02/19/07 | 04/02/07 | | 33% | On-Track |
| Move Troops to North Zone | 01/04/07 | 04/19/07 | | | On-Track |
| 6.5 to 7.1 South Zone Update | 04/13/07 | 06/06/07 | | | Not Started |
| Upgrade from 7.1 to 7.2 PUSH | 07/05/07 | 07/18/07 | | | Not Started |
| Project Close Out | 04/20/07 | 05/31/07 | 07/31/07 | | Not Started |

Comments:

Fiber installation. In order to connect the two controllers fiber has to be installed between the two locations. A third party contractor has been engaged to lay this fiber. A firm delivery date has not been provided, but work has begun. If the fiber is not installed in a timely fashion there could be serious impacts to not only this project, but other projects that are dependant on it.

BUDGET

| Total Available Funds | Expenditures to Date | % of Funds Expended | Status |
|-----------------------|----------------------|---------------------|--------|
| | | | |

Comments: The funding amounts for the Smart Zone Controller have been reported as part of the ASP Upgrade costs in previous reports.

SCOPE

| Change Request | Schedule Impact | Budget Impact | Status |
|----------------|-----------------|---------------|--------|
| | | | |

Comments: No Change Orders for this reporting period.



AWIN Continuity of Operations

The AWIN COOP Project will ensure that a comprehensive emergency and recovery plan has been defined and thoroughly exercised for the AWIN Infrastructure. This effort will encompass planning for emergency communications and the recovery and restoration of the AWIN System. A Continuity of Operations Plan is critical for systems such as AWIN due to the reliance on the system by first responders throughout the state.

Project Manager:

Name: Penny Rubow

Email: penny.rubow@arkansas.gov

Updated: 03/08/07

SUMMARY

Of the identified tasks, 85% have been completed. (See comments below)

There are 31 days remaining until project completion. (Estimated)

| Area | On Schedule / No Major Issues | Schedule Slipping / Possible Issues | Behind Schedule / Major Issues | Reason for Deviation |
|-----------------|-------------------------------|-------------------------------------|--------------------------------|----------------------|
| Schedule | X | | | |
| Budget | X | | | |
| Scope | X | | | |

SCHEDULE

| Activity | Start Date | Finish Completion | Revised Completion | Percentage Complete | Status |
|-----------------------------|------------|-------------------|--------------------|---------------------|-------------|
| Initiating the COOP Project | 10/6/05 | 10/31/05 | | 100% | Complete |
| Project Organization | 10/6/05 | 4/21/06 | 10/31/06 | 100% | Complete |
| Risk Assessment | 3/10/06 | 5/23/06 | | 100% | Complete |
| Mitigation Identification | 3/20/06 | 5/24/06 | 03/31/07 | 55% | In Progress |
| Equipment Acquisition | TBD | | | | |
| Training | TBD | | | | |
| Testing | TBD | | | | |
| Project Close Out | TBD | | | | |



Comments: The project has been reorganized. We are pursuing equipment acquisition as a portion of this project and will provide additional detail as it becomes available. If funds become available for response equipment those costs will be tracked in this section.

BUDGET

| Total Available Funds | Expenditures to Date | % of Funds Expended | Status |
|-----------------------|----------------------|---------------------|--------|
| | | | |

Comments: This is an administrative project and the cost is reported as part of the ASP Network Upgrade (State Funds) described in the Program Overview.

SCOPE

| Change Request | Schedule Impact | Budget Impact | Status |
|----------------|-----------------|---------------|--------|
| | | | |

Comments: No Change Orders for this reporting period.