

Arkansas Wireless Information Network

Report to the

Joint Interim Committee on Advanced
Communications and Information
Technology

For the period ending March 31, 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: 02/22/07

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

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.

Maintenance. Procurement documents for maintenance are being developed and will be released in the next 4 to 6 weeks. These will include the maintenance on the infrastructure, as well as a contract for tower repair work.



AWIN Management and Operations

The system operation is the management of the 24/7 AWIN system. Issues are reported via the DIS Helpdesk Expert Automation Tool (HEAT) system where the progress is tracked until a resolution has been reached. Extended operational efforts are reviewed and tracked in an effort to maintain system and user impact.

System Manager:

Name: Bruce Lantz

Email: Bruce.L.Lantz@arkansas.gov

Updated: 04/06/07

MONTHLY HEAT TICKET SUMMARY

Top Call Types	Ticket Count	Comments
Tower Site Maintenance	46	Includes scheduled maintenance and problem reports.
System Infrastructure Issues	34	Includes microwave connections.
Console Malfunction	11	Dispatch Units. This number is impacted by upgrade efforts.
User Support	11	Includes user calls for assistance with radio equipment
Generator Malfunction	5	Being monitored for cause as part of an extended effort
Month Total	250	

Comments: System usage for the month was an average of 22,217 calls (communication between users) per day on the AWIN system. 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	78%	On-Track
Site Acceptance Punch List	02/05/2007	TBD	75%	
Home Zone Mapping	04/03/2007	06/06/2007		

Comments:



MONITORED SYSTEM ISSUES

Issue	System Impact	User Impact	Status
Dropped Calls around Jefferson County	None known at this time	Communication not dependable	A meeting was held to review the issues and discuss strategy for problem resolution. Problems continue and are monitored while cause and resolution are being identified.
Site Generators	Site back-up power not available	Loss of site use	Several issues are being monitored concerning generators. AWIN Management, Motorola and the generator manufacturer are working to set a date to meet and review the issues

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

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Updated: 04/06/07

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: 04/06/07

SUMMARY

Area	On Schedule / No Major Issues	Schedule Slipping / Possible Issues	Behind Schedule / Major Issues	Reason for Deviation
Schedule	X	-	-	
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 and approved by the Transition Administrator. Agreement needs to be finalized with signature from Sprint/Nextel.

April Outlook:

Finalize Planning Funding Agreement
Identify Project Kick-off date

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

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Updated: 04/10/07

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, 53% have been completed. (See comments below)

There are approximately 181 days remaining until project completion.

Phase/Activity	Start Date	End Date	Revised End Date	% Complete	Status
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Initiation/Planning	10/15/05	12/31/05		100%	Completed
Zone Controller Installation				100%	Completed
Building Prep	11/15/05	02/28/06	08/31/06		
Equipment Manufacture & Installation	12/15/05	06/15/06	01/26/07		
Software Upgrade/Optimization of the System	01/29/07	02/28/07		14%	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		100%	Completed
Move Troops to North Zone	01/04/07	04/19/07	05/17/07		behind
6.5 to 7.1 South Zone Update	04/13/07	06/06/07	07/04/07		Not Started
Upgrade from 7.1 to 7.2 PUSH	07/05/07	07/18/07	08/15/07		Not Started
Project Close Out	04/20/07	05/31/07	08/31/07		Not Started

Comments:

The project schedule has push-out approximately one month due to a hold up with a third party vendor providing the installation of fiber connectivity between Arkansas State Police Headquarters and the Department of Information Systems. This delay also cause a resource allocation issue with the upgrade team. The resource issue has been resolved and the project is back on track.

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

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Updated: 04/12/07

SUMMARY

Of the identified tasks, 50% have been completed. (See comments below)

There are 59 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	100%	Complete
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.

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.