



Overview of the RCN Program



Current Projects in the RCN Program

# REGIONAL COMMUNITY NETWORK (RCN)



Fall 2008

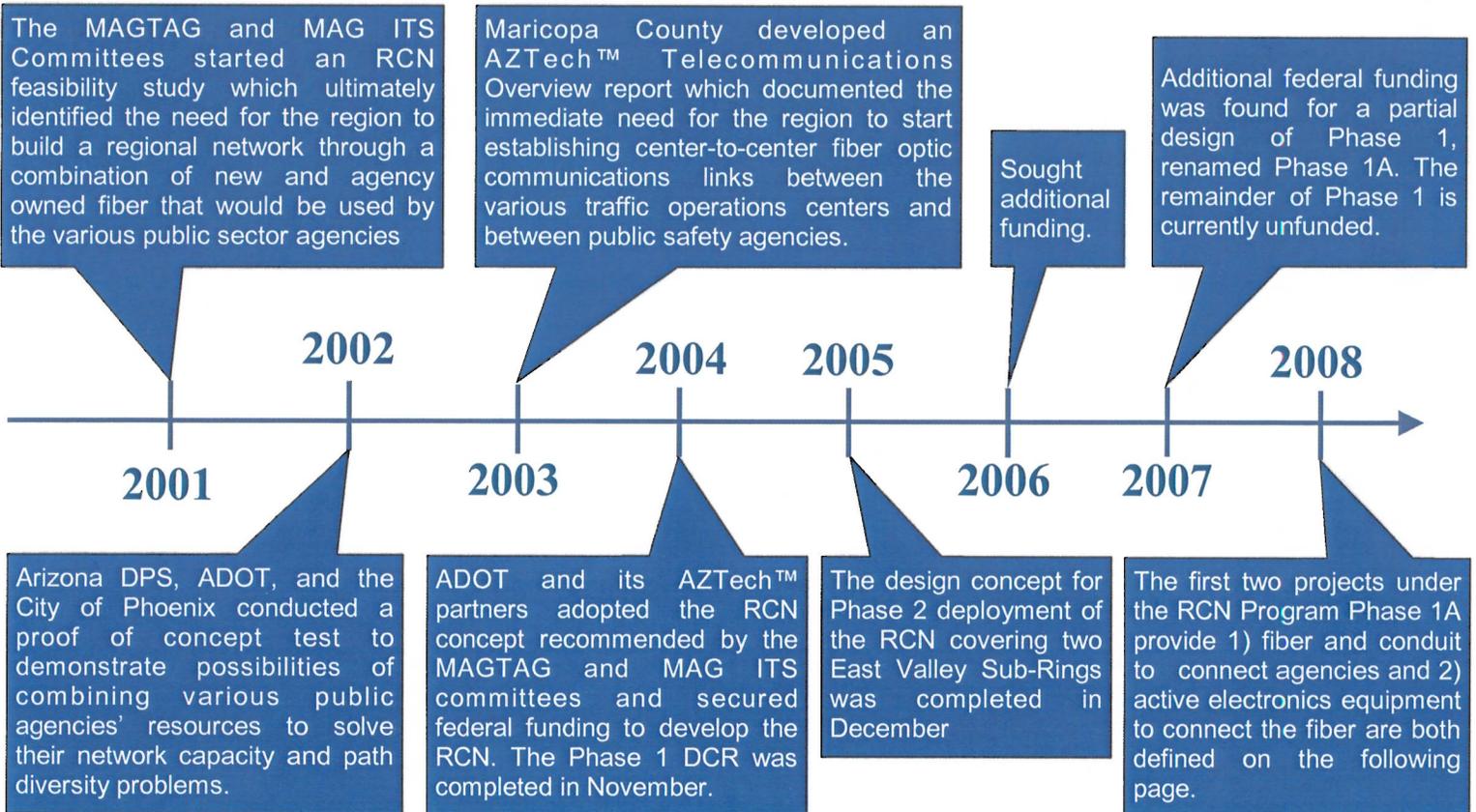
## RCN Program Overview

The RCN Program is the term used to encompass the numerous projects and stakeholders involved in creating a defined network of fiber and communications in the Phoenix metropolitan area. The RCN Program has been in existence since 2001 when the initial RCN Feasibility Study was being developed. Projects continue to be developed as part of the RCN Program as two projects are being developed to construct and implement the first phase of the Regional Community Network.

The RCN Program history in timeline format is described below up to the current status of projects being developed. Future projects foreseen as part of the RCN Program will include additional fiber and conduit infrastructure design/construction projects, operations and maintenance of the network, procurement of additional active electronics equipment, and potential studies regarding use of the network.

During the development of the first phase of fiber/conduit infrastructure deployment to connect agencies (RCN Phase 1A PS&E), the RCN Working Group was established to provide general oversight to the RCN Program activities and manage the future expansion and changes to the network. Changes to the network shall be discussed and agreed to by the agencies involved in the RCN Working Group. This RCN Working Group is comprised of representatives from MAG member agencies as a stakeholder consensus group to make decisions for the RCN Program moving forward.

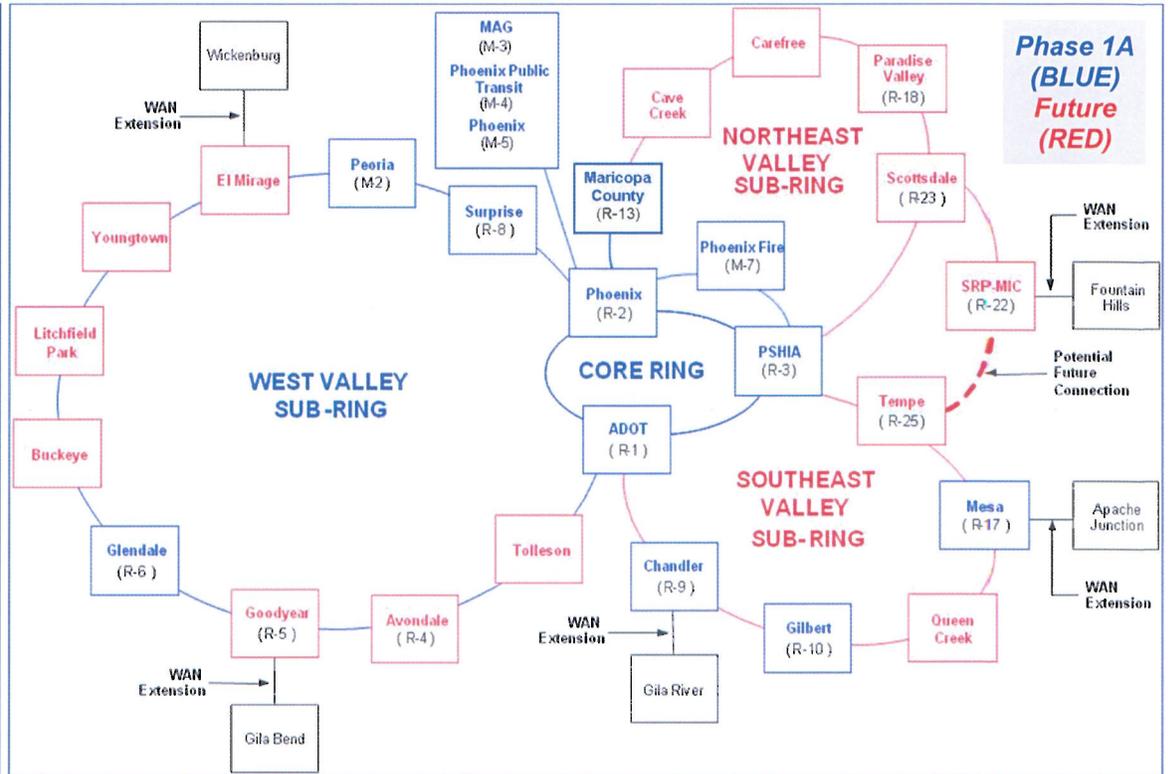
## RCN Program History



# RCN Ring Topology

The MAG RCN Feasibility Study recommended the network be divided into three sub-rings, as shown to the right, which will provide regional hub connectivity to the sub-regions listed below:

- West of I-17
- East of I-17 and North of I-10/Loop 202
- East of I-17 and South of I-10/Loop 202



## RCN Program — First Two Project Descriptions

**Phase 1A PS&E** This first project involved ADOT retaining Kimley-Horn and Associates (KHA) to develop construction plans for Phase 1A deployment, with Plans, Specifications, and Estimate (PS&E) awarded to the low-bid contractor for construction beginning in September 2008 and completion in Spring 2009. Project activities include:

- KHA held numerous meetings with stakeholders during design.
- PS&E package utilizes existing conduit and fiber optic infrastructure and installs minimal new infrastructure to create the RCN core ring and partial RCN West Valley ring.
- Bid opening for PS&E was July 11th, 2008.
- Project was awarded to Paramount Designs on August 15, 2008.
- An ADOT RCN Partnering Workshop was hosted by ADOT VISION on September 2, 2008.
- Construction on ADOT RCN Phase 1A PS&E is occurring this fall with an approximate duration of six months.

**Phase 1A Active Electronics** This second project involved ADOT retaining KHA to work with MAG member agencies to identify the appropriate technology solution for agencies to connect to the RCN. This project will define the network equipment standards that all MAG member agencies will be required to follow when connecting to the RCN network. Project activities include:

- 2007 MAG closeout funds added to total project funding to include additional TMCs that do not require new conduit or pull boxes to connect to the RCN network: MCDOT, Surprise, Chandler, Mesa, and Gilbert.
- ADOT Transportation Technology Group (TTG), KHA, and MAG have met with numerous stakeholders including FHWA, MAG, and newly added TMC agencies.
- ADOT TTG invited representatives from all MAGTAG and MAG ITS Committee member agencies to join the ADOT RCN Phase1A Active Electronics Selection Team.
- Facilitated four 4-hour vendor workshops to propose equipment and communications solution for the RCN.
- Foundry was chosen by the Selection Team to continue negotiations.
- Scope to be submitted to ADOT for distribution to on-call Statewide Wireless contractors.

**For additional information, please contact:**

Lydia Warnick, P.E., ADOT Project Manager, ADOT Transportation Technology Group, [lwarnick@azdot.gov](mailto:lwarnick@azdot.gov) 602-712-4281



REGIONAL COMMUNITY NETWORK

 Kimley-Horn and Associates, Inc.