

MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
TELECOMMUNICATIONS ADVISORY GROUP

June 27, 2002
MAG Office
302 North First Avenue
Phoenix, Arizona

MEMBERS ATTENDING

Jim Hull, Mesa, Chair
Kevin Hinderleider, Avondale
*Betsy Wise¹, Carefree
Patrick McDermott, Chandler
*Peter Putterman¹, Fountain Hills
**Shawn Woolley², Gilbert
Jerry Wightman, Glendale
**John Imig¹, Goodyear
Cary Parker², Maricopa County

**Duncan Miller¹, Paradise Valley
Ralph Spencer, Peoria
Greg Binder, Phoenix
*Tracy Corman, Queen Creek
*Kevin Sonoda, Scottsdale
*Randy Jackson, Surprise
*John Laue¹, Tempe
Chris Hagen-Hurley for Ralph Velez, Tolleson
**Derek Rushing, ADOT
Susan Tierney for Randi Alcott¹, RPTA

*Members neither present nor represented by proxy.

OTHERS PRESENT

Patrick Timlin, El Mirage
**Mark Goldstein, IRC
David Haines, Kimley-Horn and Associates
Audrey Skidmore, MAG
Heidi Pahl, MAG

Rita Walton, MAG
Debbie Kohn, MAG Telecommunications
Associate
**Linda Bauerle, Norstan
Patrick Hait, Peoria

**Participated via telephone conference call.

- 1 Site Coordinator
- 2 Site Backup Coordinator

1. Call to Order

The meeting was called to order at 10:10 a.m. by Chair, Jim Hull. Voting members: Shawn Woolley, John Imig, Duncan Miller and Derek Rushing attended via telephone conference call.

2. Approval of April 25, 2002 Meeting Minutes

It was moved by Jerry Wightman seconded by Ralph Spencer and unanimously recommended to approve the April 25, 2002 meeting minutes.

3. Telecommunications Projects and MAG Telecommunications Associate

Heidi Pahl said she was pleased to introduce Debbie Kohn, the new MAG Telecommunications Associate, and explained some of Ms. Kohn's tasks. Ms. Pahl stated that since the last MAGTAG meeting in April, there was a Videoconferencing Press Conference held that attracted several TV stations, radio stations and print media. She noted that the Press Conference was the official launch of the Regional Videoconferencing System.

4. Informational Session

Ralph Spencer and Patrick Hait of Peoria discussed the City of Peoria's voice over IP (VoIP) implementation. Mr. Hait noted that 10 Mbps to the desktop is not enough bandwidth, but 100 Mbps to the desktop was adequate. He said that Gigabit Ethernet was used to replace the existing ATM OC-3 network.

Jim Hull asked if the entire city was VoIP. Ralph Spencer responded that the VoIP project is 55-60% deployed and that they had to rebudget and expect to be finished with the entire City complex by mid-July and the remote locations by end of December. He added that the Police Department will not be done until they move into their new building in September 2003 – that will complete the project.

Shawn Woolley asked how many total users were on the system. Ralph Spencer replied 350-400 users were on the system right now.

Jim Hull asked if there were any issues with reliability and stability. Ralph Spencer responded that minimal downtime was a critical need during the migration period. Mr. Spencer said there were scheduled outages during off-time to affect as few as possible end users. He said they had to go through various software releases. He explained that the biggest issue was that the broadcasting services caused the system to be unstable so the broadcasting needed to be turned off. Ralph Spencer added that Cat 5 cable was needed to replace the existing Cat 3 cable plant. He noted that the new phone system has been very stable for two months.

Shawn Woolley asked what kind of feature sets were implemented. Ralph Spencer replied that there are many features that could have been implemented but they just did a few of them. Mr. Woolley asked what the overall cost was for implementation on a user basis. Ralph Spencer said he did not know exactly, but they replaced the 11 year old PBX and spent the same amount of money to install a new network and phone system as they would have on a new PBX. Mr. Woolley asked at what capacity would Peoria have to start adding new hardware. Ralph Spencer said there is no capacity

limit. Mr. Woolley asked how they were connected to Qwest. Mr. Spencer responded that they were connected to Qwest via standard PRI T1s.

Kevin Hinderleider explained that Avondale is also looking at deploying voIP and asked what Peoria is looking at when implementing the new 911 system. Ralph Spencer responded that since Peoria is not doing the police department until September 2003 that this has not been addressed.

Mr. Hinderleider asked what the timeframe was from planning to installation. Ralph Spencer stated 2-3 months. Mr. Hinderleider asked what they did on the back end for redundancy. Pat Hait replied that redundancy is built into the system by using 2 separate Cisco 6509 switches which are mirrored. Each switch also has redundant power supplies.

Kevin Hinderleider asked how many remote sites were on IP telephony. Pat Hait stated that there are 75-100 users at one remote location and there are 2 T1's to that location. He said there are a total of 12 remote locations that are or will be connected to City Hall via T1s, including 2 fire stations.

Jim Hull asked who was the local exchange carrier. Ralph Spencer responded Qwest and that they have had no problems working with Qwest. Mr. Hull asked what impact on staffing VoIP has had. Ralph Spencer said there is no staffing increase and that they should be able to maintain the system with the existing staff. He noted that Peoria hired an outside consultant to help design the system.

Greg Binder asked what type of training was given to IT staff. Ralph Spencer responded that two engineers received technical training. Mr. Binder asked if end users needed to be trained. Mr. Spencer responded that the consultant they hired to design the system also trained the end users with best practices and phone etiquette and telephone functionality. Mr. Binder asked what the benefits of VoIP are relative to the current PBX. Ralph Spencer stated that the greatest benefit is working off of one converged network for voice, video and data which allows for one cable-plant to be deployed and maintained.

Cary Parker asked if Peoria was using Cisco handsets. Ralph Spencer replied yes. Mr. Parker asked if they were running Quality of Service on the T1s. Mr. Spencer said yes and they have experienced no difficulty. Mr. Spencer noted that they only had problems with broadcasting over the network and that they had to turn off those services. Mr. Spencer explained that telephones get power from the network switches. A powered patch panels approach was not used.

Debbie Kohn asked what lessons were learned from the VoIP implementation. Ralph Spencer replied that it is essential to have a knowledgeable telecommunications analyst and a dedicated project manager on staff, or contracted, to work with the vendors and the network services group to assure successful implementation.

Jim Hull thanked Mr. Spencer and Mr. Hait for their presentation. Ralph Spencer invited any interested TAG members to tour the server room and see the system in operation.

5. Regional Community Network (RCN) Study and Round Robin

Audrey Skidmore introduced the new project manager of the RCN Study, David Haines of Kimley-Horn and Associates. Ms. Skidmore stated that the purpose of the round robin is to obtain information from each member agency on telecommunications and Intelligent Transportation Systems (ITS) projects in their jurisdiction. She noted that there is probably more information out there than has been received to date and that an accurate picture of where we are now is needed.

Pat McDermott asked for a review of the scope of the project. Ms. Skidmore gave the background and an overview of the RCN Study.

Jim Hull asked for the target level of Geographic Information Systems (GIS) requests. David Haines responded that it was a two-fold target level: first was how do we archive what is in the ground and how good of a job are the agencies doing in tracking infrastructure and the second target level is the Geographic Information Systems (GIS) used to map/ID where the infrastructure exists and where gaps exist.

Ralph Spencer said the only telecommunications project that he knew of at Peoria was put on hold due to lack of funds and the project was to put fiber in ground along 83rd Ave for a traffic control center.

Susan Tierney stated that Valley Metro is working on connecting teleworkers.

Kevin Hinderleider stated that Avondale has an economic development plan along the I-10 corridor for installing fiber along 115th Ave. & Van Buren. He added that they will be putting infrastructure at the new government center at 115th Ave & Van Buren. He said they are using a Citrix solution for remote users and they are looking at telecommunications requirements for economic development.

Jerry Wightman said that Glendale has conduit in the downtown area and that they are putting conduit in along 59 Avenue from Camelback to Union Hills. This is Traffic Operation Center fiber with extra capacity for Information Technology. He noted that they are focusing on putting conduit in the ground whenever there are street improvements. He added that Glendale also trades with Cox and other providers for sections of conduit.

Jim Hull said that Mesa has a data network of fiber running through the downtown campus and they can provide drawings of the network. He added that there is also fiber at some of the campuses – 2 major campuses and some smaller campuses. Numerous smaller campuses are connected via a microwave system which also connects to the Police Department & Fire Department. Mr. Hull stated that the area that handles microwave handles the phone system. He stated that there is lots of fiber laid for traffic signals. He noted that the Mesa Public schools have a large fiber network. Mr. Hull mentioned that Mesa has a relatively new department called Mesa E-Streets in charge of electronic streets and licensing. Mesa has no plans to move to voice over IP. He said they are looking to get extra conduit and fiber from providers on ROW. They are also looking to upgrade backbone from 100 to 1000 MBT.

Cary Parker said that the County has fiber on campuses but not in the streets. He stated they have connections to the state and cities. He mentioned that a Regional Community Network using the Internet is best so that problems with backdoor routing and access are avoided. He said the traffic group is laying fiber in unincorporated areas.

Pat Timlin said the El Mirage is working on connecting their city buildings and he is also looking at 802.11 wireless to get higher speeds between buildings. He said he is planning a VPN solution between buildings.

Greg Binder stated that the City of Phoenix has fiber up 19th Ave. through Tech City economic development initiative. Mr. Binder added that Phoenix is doing a fiber project upgrade from the 24th Ave and Buckeye Rd. Police Academy to City Hall. He noted that there is a connection needed between downtown Phoenix and Sky Harbor Airport. He said that he is not sure what the Streets Department is doing.

Pat McDermott said that Chandler has conduit in the arterials for signal lights, with plans for 3 miles this year, 3 miles next year and extra capacity. He said they are replacing the copper with fiber. Mr. McDermott said Chandler has coordinated traffic signalization, is installing cameras at several intersections and is working on a new traffic center. He mentioned they had no economic development plans related to infrastructure development. He said there is not enough bandwidth on traffic's fiber for IT to use.

Chirs Hagen-Hurley stated that Tolleson has nothing to report.

John Imig noted that Goodyear is exploring fiber or wireless on Litchfield Road and 139th Ave linking street lights and monitoring cameras. He said it is coordinated through Dean Howard in the City Managers Office.

Shawn Woolley stated that Gilbert has microwave for Fire and Police Departments and they are partnering with Mesa. He noted that there is dark fiber that links the new buildings. He added that Gilbert is sharing fiber with traffic control. He noted that they have hard wired all campuses, they have a private VPN and that they do very little partnering with the private sector. He added that the GIS maps of infrastructure is almost complete.

Duncan Miller stated that Paradise Valley has fiber installed along Lincoln Drive to take digital images for photo enforcement. Mr. Miller added that there is utility work on Tatum Blvd. He said that the Town Council is moving slowly on the installation of fiber.

Audrey Skidmore thanked the committee members for their contributions.

6. Review of Strategic Planning Facilitation and Brainstorming Session

Debbie Kohn gave an overview of what the MAGTAG strategic planning group has done. She announced the people on the planning group and thanked them for their efforts. She stated that the group has reviewed the TAG purpose, mission, goals and objectives, studied trends and identified strengths weaknesses, opportunities and challenges. She told the group that she would e-mail them

the input on the strengths weaknesses, opportunities and challenges and ask them for further input. Jim Hull emphasized the importance of everyone's input in the strategic planning process.

7. Announcements and Public Input

Rita Walton announced that MAG is forming a new committee called the Transportation Policy Committee (TPC) which will be composed of elected officials from the MAG member agencies, private sector representatives and state representatives. Ms. Walton noted that the Chair of the TPC will be selected at the July Regional Council meeting.

Susan Tierney announced that on July 25, 2002 there will be a Telework in the Public Sector Clinic and that registration is available on the valley metro web site.

Rita Walton announced that Valley Metro won an award for Bike Week at the MAG Desert Peaks Awards Ceremony. Ms. Walton added that a number of cities won awards for their plan reviews. Ms. Walton announced that James Bourey has resigned effective August 1, 2002 and that Dennis Smith is the Interim Executive Director.

Rita Walton stated that a MAGTAG contact list as well as a diagram of the MAG committee structure would be sent to all TAG members.

Mark Goldstein announced that the Arizona Telecommunications and Information Council (ATIC) has formed an elections committee and has prepared letters and questionnaires for the candidates running for Governor and Commissioner. Mr. Goldstein said that more detail is available on the ATIC web site.

8. Date of Future Meetings

The next meeting is July 25, 2002 from 10 AM to noon.

The meeting was adjourned at 11:30 AM.