

Leveraging Projects to Develop Arizona Address and Road Network Data

Howard Ward, TerraSystems Southwest, Inc.

Prepared for the
The NSGIC 2013 Annual Meeting



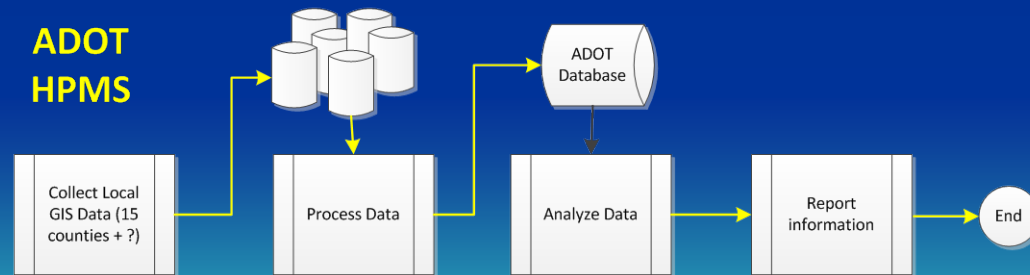
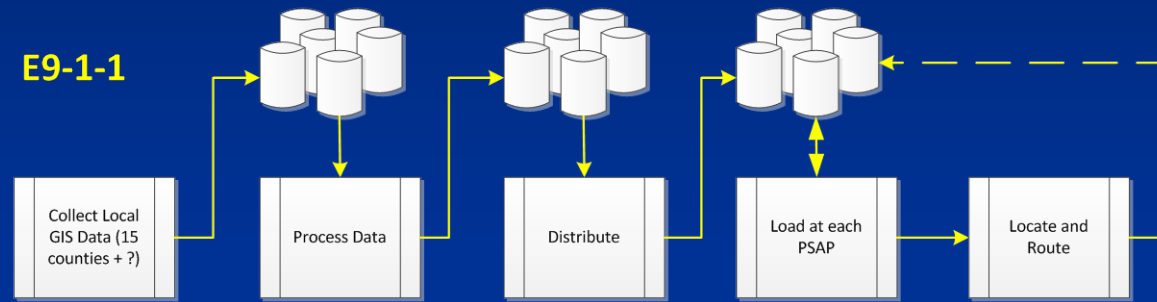
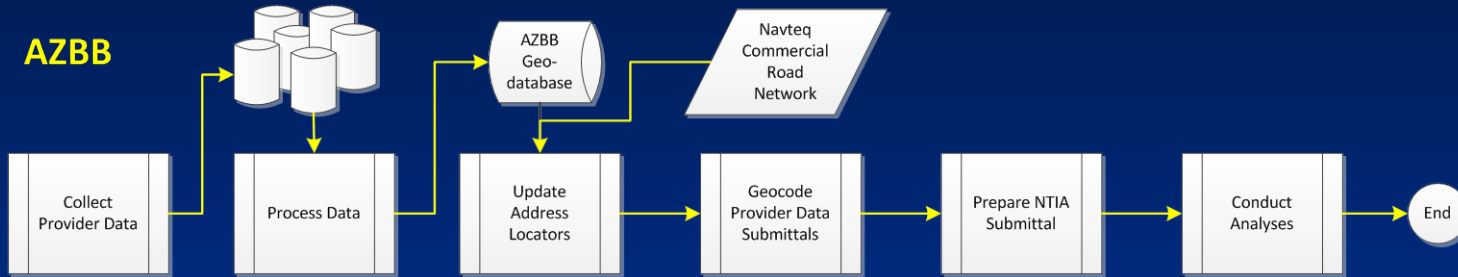
Need for Statewide Address and Road Network Databases

- Current and accurate addresses and road Networks are needed to provide many government services.
- Major Arizona projects and programs that depend on this data include:

PROJECT	PURPOSE
AZ Broadband Mapping Project	Geocoding service addresses for analysis of speed and availability of broadband.
AZ Broadband Address Project	Developing improved address data in rural Arizona to improve geocoding rates needed for AZ BB Mapping.
AZ E9-1-1 Program	Address location Emergency Response Routing
AZ DOT MAP 21 Program	Developing and maintaining state and local highways and improving highway safety.

Opportunities for Collaboration

Current Workflows



Current Workflows

- Parallel with no interconnection
- Unique data schema and representations.
- Minimal Feedback loops.

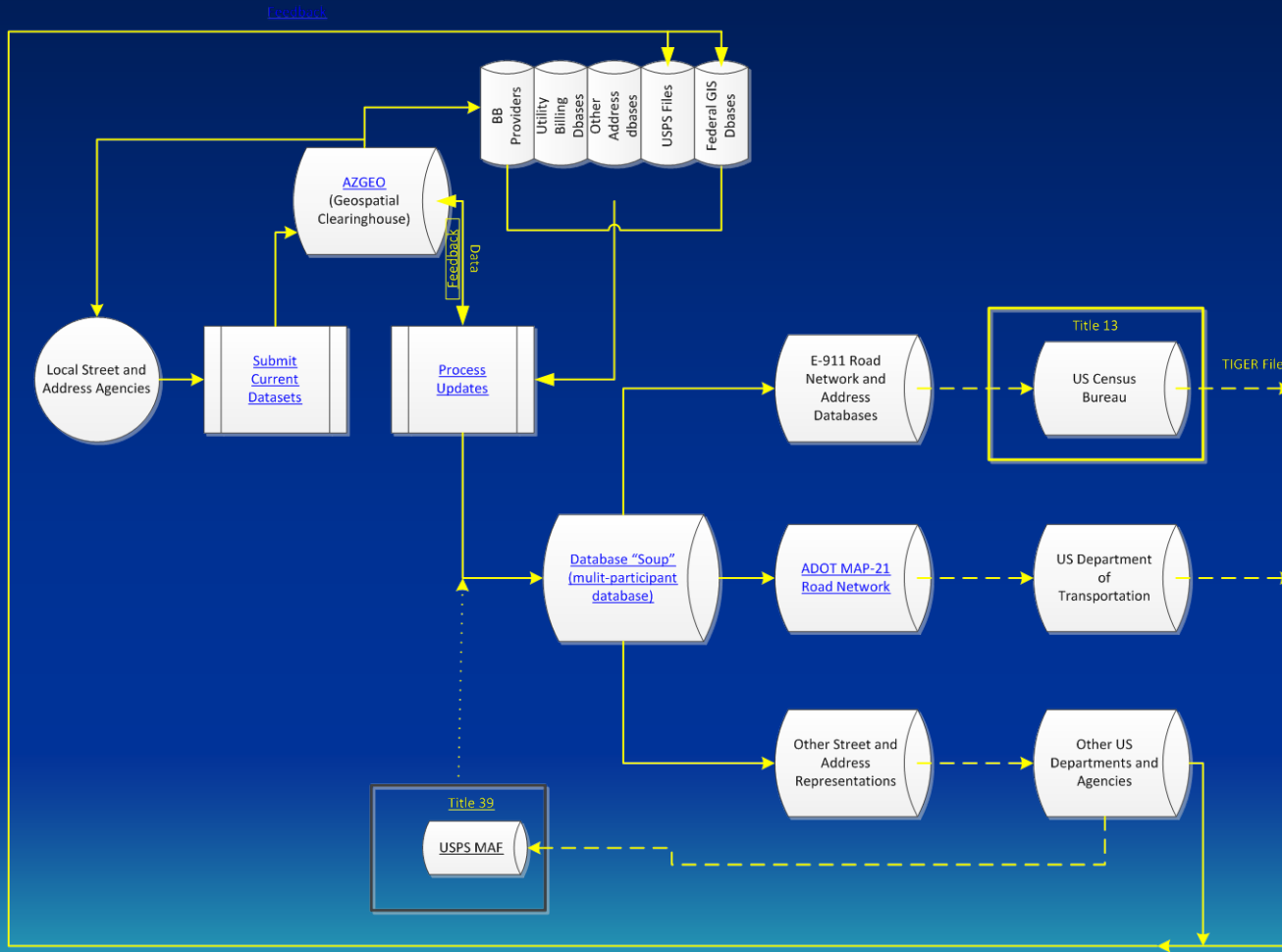
Opportunities for Collaboration

Schema Mapping from Arizona E9-1-1 standard (leftmost column) to the 12 completed Phase II counties (one column for each).

FIELD	Cochise	Coconino	Gila	Graham	Greenlee	Maricopa	Mohave	Pima	Pinal	SantaCruz	Yavapai	Yuma
STSEG_ID	GID	STREETID	ROAD_ID					ROADID			ROUTED	
ALTSEG_ID												
FROM_ADD_L	FROMADDL	LEFTFROMAD	LEFT_FROM	LLO	FROM_ADD_L	LEFTFROM	LFROM	L_ADD_FROM	LLO	L_F_ADD	FROMLEFT	FROM_ADDR_L
TO_ADD_L	TOADDL	LEFTTOADDR	LEFT_TO	LHI	TO_ADD_L	LEFTTO	LTO	L_ADD_TO	LHI	L_T_ADD	TOLEFT	TO_ADDR_L
FROM_ADD_R	FROMADDR	RIGHTFROMA	RIGHT_FROM	RLO	FROM_ADD_R	RIGHTFROM	RFROM	R_ADD_FROM	RLO	R_F_ADD	FROMRIGHT	FROM_ADDR_R
TO_ADD_R	TOADDR	RIGHTTOADD	RIGHT_TO	RHI	TO_ADD_L	RIGHTTO	RTO	R_ADD_TO	RHI	R_T_ADD	TORIGHT	TO_ADDR_R
PRE_DIR	PREFIX	PREDIRECTI	PREFIX	PRE_DIR	PRE_DIR	PREDIR	PRD	PRE_DIR	PRD	ST_DIR	ST_PREDIR	PRE_DIR
PRE_TYPE										ST_PRETYPE		PRE_TYPE
ST_NAME	NAME	STREETNAME	NAME	ST_NAME	STREET_NAME	STREETNAME	STN	STR_NAME	STN	ST_NAME	ST_NAME	STREET_NAME
ST_TYPE	SUFFIX	STREETTYPE	SUFFIX	TSSW_STTYP	STREET_TYPE	STNAMETYPE	STS	STR_TYPE	STS	ST_POSTTYP	ST_TYPE	STREET_TYPE
SUF_DIR		SUFFIXDIRE	DIR	SUFF_DIR	POST_DIR	POSTDIR	POD	SUF_DIR	POD	ST_POSTDIR	ST_SUFDIR	POST_DIR
FULL_NAME	STREET	FULLNAME	RDNAME	STREET	FULLNAME	FULLSTNAME	FNM	STREET		FULLNAME	FULLST_NAME	FULLNAME
ALT_NAME		STREETNA_1	ALIAS	TSSW_ALIAS	ALT_NAME		ANM		ASN	TSSW_ALIAS	FULLST_ALIAS	P_ALIAS
ONEWAY					ONEWAY		SIDE	TRAVDIR_CD	ONW	SIDE		ONE_WAY
MSAG_COM_L		LPLACE	COMMUNITY	COMML	MSAG_COMM_L		MCL		MCL	L_MSAG_COM	MSAG_LEFT	MSAG_LEFT
MSAG_COM_R		RPLACE	COMMUNITY	COMMR	MSAG_COMM_R		MCR		MCR	R_MSAG_COM	MSAG_RIGHT	MSAG_RIGHT
ESN_L		ESZLEFT	ESN	ESNL	ESN_L					L_ESN	ESN_LEFT	ESN_LEFT
ESN_R		ESZRIGHT	ESN	ESNR	ESN_R					R_ESN	ESN_RIGHT	ESN_RIGHT
CITY_L	TSSW_CITYL	TSSW_CITYL	COMM	L_City			TSSW_CITYL	TSSW_CITYL	TSSW_CITYL	TSSW_CITYL	TSSW_CITYL	CITY_L
CITY_R	TSSW_CITYR	TSSW_CITYR	COMM	R_City			TSSW_CITYR	TSSW_CITYR	TSSW_CITYR	TSSW_CITYR	TSSW_CITYR	CITY_R
ZIP5_L	ZIPL	TSSW_ZIPL	ZIPL	L_Zip	TSSW_ZIPL	ZIPLLEFT	TSSW_ZIPL	Lzip	TSSW_ZIPL	TSSW_ZIPL	ZIPCODE_LEFT	ZIP_LEFT
ZIP5_R	ZIPR	TSSW_ZIPR	ZIPR	R_Zip	TSSW_ZIPR	ZIPRIGHT	TSSW_ZIPR	Rzip	TSSW_ZIPR	TSSW_ZIPR	ZIPCODE_RIGHT	ZIP_RIGHT
ADD_ORIG	SOURCE				SOURCE				SOD	CREATION_U	CREATEBY	
UPD_BY				SOURCE	MODIFY_USER		ED			MODIFY_USE	LASTUPDTBY	
UPD_DATE			DATE_MOD	DLU	MODIFY_DATE		DLU		DLU	MODIFY_DAT	LASTUPDATED	
APD_SOURCE	APD_SOURCE	APD_SOURCE	APD_SOURCE	APD_SOURCE	APD_SOURCE	APD_SOURCE	APD_SOURCE	APD_SOURCE	APD_SOURCE	APD_SOURCE	APD_SOURCE	APD_SOURCE

Opportunities for Collaboration

Proposed Workflow



Proposed Workflow

- Unitary versus parallel workflow.
- Transform, export and load approach from common, multi-participant data framework.
- Data portal (AZGEO)
- Feedback loops.
- Potential applicability to federal database initiatives.

The End

ALL