# Central Ohio Public Sector IT Partnership



# CENTRAL OHIO PUBLIC SECTOR PARTNERSHIP IT ASSESSMENT

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**Quick Solutions, Inc.** 

440 Polaris Parkway Suite 500 Westerville, OH 43082 Office: 614.825.8000

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# Glossary

Business Continuity	A Business Continuity Plan (BCP) is a roadmap for continuing operations under adverse conditions.
Dark Fiber	Dark or unlit fiber is an unused optical fiber available for use in fiber optic communications.
Data Center	A data center is a facility used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices.
Disaster Recovery	Disaster recovery (DR) is the process, policies, and procedures that are related to preparing for recovery or continuation of technology infrastructure which are vital to an organization after a natural or human induced disaster.
GIS	Geographic Information System is a system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data. Uses maps to illustrate data.
RFP	A request for proposal (RFP) is a solicitation made, often through a bidding process, by an agency or company interested in procurement of a commodity or service, to potential suppliers to submit business proposals.
SLA	A service-level agreement (SLA) is a part of a service contract where a service is formally defined.
VOIP	Voice over Internet Protocol is the technologies for the delivery of voice communication and multimedia sessions over Internet protocol networks.
Wiki	A collaborative Web site comprised of the collective work of many authors.
Internet Service Provider	An Internet service provider (ISP, also called Internet access provider) is a business or organization that offers users' access to the Internet and related services.
Public Cloud	A public cloud is one based on the standard cloud computing model, in which a service provider makes resources, such as applications and storage, available to the general public over the Internet.



# **Executive Summary**

With economic pressure and push by the State of Ohio to create public shared services amongst local government entities; nine central Ohio organizations commissioned QSI to conduct an IT assessment of each participating partner. QSI assessed the current state of the IT environments and was able to make recommendations on how to achieve shared services for IT across all domains. Nine collaborative public partners include:

- City of Dublin
- City of Grandview Heights
- City of Upper Arlington
- City of Westerville
- Educational Service Center of Central Ohio (ESC)
- Metro Parks
- Metropolitan Educational Council (MEC)
- Mid-Ohio Regional Planning Commission (MORPC)
- Prairie Township

The assessment was initiated on 15 April 2013; initially a questionnaire was sent out to each of the nine partners to gather basic information. After consolidating the questionnaires, QSI conducted interviews with representatives from each partner who had both business and technical knowledge. Interviews were conducted onsite at each partners location, which afforded the opportunity for QSI staff members to tour their respective facilities including Data Centers, Server Rooms, Server Closets and free standing areas. Besides the initial questionnaire, each partner was asked to fill out an inventory of servers and systems. Each partner was assessed individually based on the information provided, research, interviews, and observations. Overall strategies were based on a compilation of the assessments, available technology, and industry trends.

Though the partners are a very diverse group, there are definite areas within IT that can be exploited with a Shared Services approach.

#### **Benefits of partnership**:

- Capacity providers benefit by providing services (infrastructure and expertise)
- Service Partners benefit by increasing productivity from consumed services
- Purchasing power achieved through aggregation

QSI has laid out some high level strategies and accompanying plans. With this recommended approach, we believe there would be reduced time spent on commodity IT services while allowing local IT staff to concentrate on applications, business processes, and user services.



# **High Capacity Partners**

**The Metropolitan Educational Council Information Technology Center (MEC-ITC)** is one of 23 designated data acquisition sites to provide technology services to Ohio school districts. The MEC-ITC offers educational management information systems, fiscal, student, technical services, professional development and cooperative purchasing to schools and educational organizations. Technical services include: WAN, LAN, high speed internet, network monitoring and security, email archiving, firewall, ISP, disaster recovery and helpdesk support. MEC-ITC is looking to offer its services to a wider audience through the shared services model. The MEC-ITC has ISP and data center excess capacity.

**The City of Westerville** through ISPs, Managed/Cloud Service Providers including Data Recovery Services (DRS), LLC, a regional provider of data center design and services in a public/private partnership to open the tier III WēConnect Community Data Center. The city owns the data center infrastructure, while DRS manages operations. The WēConnect facility has excess capacity that can be used by the partners in a shared services capacity. A full range of data center, ISP, Networking, Managed Services and Cloud services is available.

**The City of Dublin** is a founding partner of Metro Data Center. Metro Data Center is the City's data center service provider and is the primary location for the city's network operations and data warehousing. It is also the location for TechDEC which provides companies, specifically information technology startups, access to a data center and the ability to house servers, store data, and access interconnect points.

**The City of Upper Arlington** has invested in its infrastructure and has experienced staff with the capacity to support smaller partners. Other partners have limited capacity they may be willing to share. The proposed shared services model will offer all partners a vehicle to offer services.

Capacity	Dublin	MEC	Westerville	Upper Arlington
Data Center	$\checkmark$	$\checkmark$	$\checkmark$	
ISP		$\checkmark$	$\checkmark$	
Dark Fiber	$\checkmark$	$\checkmark$	$\checkmark$	
Support			$\checkmark$	$\checkmark$
VOIP	$\checkmark$		$\checkmark$	
Purchasing		$\checkmark$		



# **Service Partners**

**Prairie Township** has a small budget and manages with basic IT functionality. Whenever IT support is needed, either the Township Administrator or department heads will contact IT support. Though when dealing with support; this is not an ideal situation. The township hopes to utilize a shared services partnership to support its IT functions, better meet its business needs, leverage partner knowledge and expertise, as well as become proactive in IT planning.

Prairie Township					
Opportunity	Shared Service Option				
Server Management	Data Center, Shared Resource				
Desktop Management	Shared Resource				
Network Management	Shared Resource				
Document Management	Shared Resource				
IT Help Desk	Shared Resource, Helpdesk & Support				
Backup and recovery to Data					
Center	Data Center				
Disaster Recovery	BCP and DR				
VOIP	VOIP				
GIS	GIS				
HR Database	Shared Resource				
Inventory System	Shared Resource				
Standardized Emergency Services	EMS,Police,fire,911 Dispatch				

**The City of Grandview Heights** also utilizes their Fire Chief for IT management. They would like to reduce or eliminate the chief's role in IT. They are also looking to upgrade connectivity, tap into a larger GIS system, host its' servers offsite, and strengthen disaster recovery capabilities.

City of Grandview Heights						
Opportunity	Shared Service Option					
Increase the efficiency of						
information services to reduce IT						
duties conducted by the Fire Chief	Shared Resource					
Fiber connectivity	Shared Resource					
Server Management	Data Center, Shared Resource					
Desktop Management	Shared Resource					
Network Management	Shared Resource					
Document Management	Shared Resource					
IT Help Desk	Shared Resource, Helpdesk & Support					
Backup and recovery to Data Center	Data Center					
Disaster Recovery	BCP and DR					
VOIP	VOIP					
GIS	GIS					
Standardized Emergency Services	EMS, Police, and 911 Dispatch					



**Metro Parks** is unique in its coverage area and the terrain of internal sites. They would like to update technology, increase efficiency, host servers in a data center, and be in possession of offsite backup as well as a robust Disaster Recovery plan.

Metro Parks						
Opportunity	Shared Service Option					
Virtualization	Data Center					
Data Center server hosting	Data Center					
IT Help Desk	Helpdesk & Support					
Backup and recovery to Data Center	Data Center					
Disaster Recovery	BCP and DR					
VOIP	VOIP					
GIS	GIS					

**Educational Service Center of Central Ohio (ESC)** has a core mission of providing shared services in the education space. They are located next door to MEC and has a substantial server room. Potentially it would be worthwhile to conduct a business case to assess the benefits of locating the Educational Service Center of Central Ohio equipment in the MEC data center. The business case could identify the potential costs of making this move, if there are any cost increases or savings, and what value would be added to IT services. They already use ISP services provided by MEC-ITC as well as are a member of MEC's purchasing cooperative.

Educational Service Center of Central Ohio					
Opportunity Shared Service Option					
Improved Data Security	Data Center				
Generator backup	Data Center				
Disaster Recovery	BCP and DR				

**Mid-Ohio Regional Planning Commission (MORPC)** is a voluntary association of local governments serving central Ohio. Their upcoming initiative includes increasing broadband line speed and switching to VOIP. They have a well maintained server room, but would stand to benefit from a data center location. MORPC has a large GIS presence which could be part of a shared GIS strategy.

MORPC						
Opportunity	Shared Service Option					
Offer users more services	Shared Resource					
Improve the broadband at a lower cost	Shared Resource					
Colocation	Data Center					
GIS savings	GIS					



Overall synopsis of opportunities related to both the questionnaire and interview findings:

Opportunity	Prairie Township	Grandview Heights	Upper Arlington	ESC	мес	Metro Parks	MORPC	Westerville	WeConnect	Dublin
Server Management	0	0	R					0	R	
Desktop Management	0	0	R					0	R	
Network Management	0	0	R					0	R	
Document Management	0	0			R			0		
IT Help Desk	0	0	0	0	0	0	0	0	R	0
Virtualization	0	0	R			0		0	R	
Data Center server										
hosting	0	0	0	0	R	0	0		R	R
Backup and recovery to									R	-
Data Center	0	0	0	0	0	0	0	0		R
Disaster Recovery	0	0	0	0	0	0	0	0	R	R
VOIP	0	0	0	0		0	0	R	R	R
GIS	0	0	O R			0 R	O R	O R		O R
HR Database	0									
Inventory System	0		0							
Standardized Emergency										
Services	0	0	0					0		0
Fiber connectivity	0	0	0	0	R	0	0	R	R	R

#### **0** - Opportunities present for partner

R - Resources are available from partner

*Opportunities with no listed resources can utilize the shared resource strategy to locate resources (pg. 13)* 



# **Strategy Recommendations**

#### **Data Center**

Dublin, MEC, and Westerville have facilities with sufficient capacity to host IT services for additional public partners. The Educational Service Center of Central Ohio, Grandview Heights, Metro Parks, MORPC, Prairie Township, and Upper Arlington could realize significant savings from closing or reducing the footprint of their existing server rooms. Connectivity plays a large role here in the selection of a data center partner. Quoted connectivity costs have been a road block for many of the partners previously considering migrating to commercial data centers. Connectivity and data center rack space fees have made it unfeasible. The unique assets of the high capacity partners can eliminate this barrier. Partners with dark fiber can lease sell or lease to the other partners. Relocating partners would save in power and infrastructure maintenance and also gain the advantages of being located in a data center. Advantages include security, dual power sources, generator backup, cooling, and fire suppression.

The Educational Service Center of Central Ohio would have the potential of reduced costs by relocating its servers to the MEC. They would be able to repurpose the majority of their server room, save on cooling, maintenance, personnel, and power. The Educational Service Center of Central Ohio does have a battery backup, but does not have a generator.

#### **Planning Sequence**

- Conduct business case to gather cost/benefit data
- Request connectivity surveys to the data centers
- Determine necessary Rackspace and requirements
- RFP from selected Data Centers
- Select locations
- Purchase or plan to relocate equipment
- Migrate to data centers
- Decommission server rooms where possible





\*Sites connect to data centers and run the majority of servers from data centers.



# **Business Continuity Planning and Disaster Recovery**

Business Continuity and Disaster Recovery plans will be based upon the Data Center Strategy. It is recommended that the partner Business Continuity Planning strategy include dual connectivity and replication. Data center sites will partner to replicate between a minimum of 2 sites. It is recommended that DR include business resumption utilizing the partner locations.

#### **Business Continuity Planning Sequence**

- Establish data center site connectivity
- Select replication partners
- Implement replication
- Create **or** update existing business continuity plans to align with the implemented strategy
- Business Continuity Plans should be inclusive of equipment that will remain at the individual partner locations.

#### **Disaster Recovery Planning Sequence**

- Create **or** update existing disaster recovery plans to align with the implemented Business Continuity plan
- Include the offsite location for critical staff workspace during a DR event.

#### Purchasing

Metropolitan Educational Council Partners should utilize a set of standard documents to communicate with each other. Each partner will use existing purchasing avenues to get price quotes. Government, education and nonprofit groups will need to be careful in using the appropriate avenues.

MEC has an established purchasing cooperative which is available to all partners.

#### **Planning Sequence**

- Create a purchasing team from members of each partner organization
- Create communication channel amongst partners
- Create a standards process
- Communicate plans and actions amongst partners leverage buying power
- Coordinate planned purchasing cycles
- Submit joint RFP
- Partners must commit to RFP process and not use bids to negotiate with other vendors on an individual basis.



# **Shared Resource**

The partners have excess capacity in certain areas at certain times or lack necessary resources with particular skill sets. The preferred strategy would be to share skilled resources or potentially even enter into an agreement with a third party vendor in a joint manner.

#### **Planning Sequence**

- Each partner states how much capacity and the type of capacity (Support, Admin, Developer) they need in terms of hours per week.
- A standard SLA for each type of service is agreed upon.
- A list of 2-3 approved provider/vendors is selected.
- The needs are aggregated and collectively the group does a RFP bid to cover a services retainer for a contracted period of time from those 2-3 vendors.
- RFP should state rates for both planned capacity and unplanned capacity.
- Partners are allowed to bid as 3rd party vendors.
- Once the RFP is accepted, partners are committed contractually.

#### GIS

Dublin, Grandview Heights, Metro Parks, MORPC, and Westerville all use ArcGIS systems from ESRI. Upper Arlington uses City GIS from Draftco, while Prairie Township would like to access GIS, but currently lacks the funding. The preferred strategy would be to combine infrastructure and share base maps. Numerous options can be supplied by Franklin County. A combined resource strategy can be implemented to help with any maintenance and setup. There are two (2) ESRI Account Managers for the current partners, which are willing to meet with the partners and discuss options. They are familiar with the current services each partner has purchased and would have a good picture of how they can fit together. Draftco and other vendors may be considered.

QSI recommends a consolidated approach to GIS infrastructure, software, and support across partners to reduce cost and unnecessary redundancy.

#### **Planning Sequence**

- Determine requirements
- Meet with ESRI and Draftco representatives
- Determine options
- Select options or create RFP
- Implement solution

#### Voice over IP

The VOIP shared services strategy consists of consolidating the partner phone systems to save on maintenance cost and those using analog lines will be able to save costs by moving to VOIP.



QSI recommends phone systems be migrated to the City of Dublin's existing Voice over Internet Protocol (VOIP) system, which currently has surplus capacity to support all partners. Westerville's Mytel system could also be utilized as a secondary option, and a third option could be engaging a 3<sup>rd</sup> party connectivity agreement.

#### **Planning Sequence**

- Survey to determine necessary client-side equipment (VOIP router)
- SLA between Dublin and participating partners
- Purchase or lease additional phones and equipment
- Implement solution

#### **Emergency Services, Police, Fire, 911 Dispatch**

All municipalities have some combination of these services, either in-house or outsourced to nearby communities or townships. Though there is not much overlap in the applications used to manage these services, there is an opportunity for greater efficiency in consolidating systems. Multi – jurisdictional systems will need to be researched and vendors brought to the table to display their offerings. A number of vendors have embarked on cloud based systems which deserve consideration. Having uniform systems would go a long way in expanding the partnership by marketing to municipalities.

QSI recommends consolidating, or at minimum standardizing emergency systems amongst the partners.

#### **Planning Sequence**

- Create a governance structure that respects all partners
- Gather requirements for each partner
- Create RFP for multi-jurisdictional systems
- Select for demonstrations
- Select vendor
- Implement solution

\*\* Dublin and Upper Arlington are part of a study to consolidate 911 dispatch services with Hilliard and Worthington. Grandview Heights is also part of a study with smaller entities to consolidate their services. This is an area that the other government partners should look to pursue.



# Help Desk and Support

The recommended support strategy is a unified cloud-based ticketing system, level 1 support, and self-help by FAQs. QSI recommends that the strategy be implemented in phases.

Phase I is to implement a unified ticketing and work request system that supports all of the partners. Calls and tickets will be routed to the appropriate partners and third parties. The current support staff and structure will be maintained during this phase.

Phase II would be to create a shared help desk to act as a single point of contact for any shared services, to handle level 1 technical support and route calls and tickets to the partners and third parties.

It is also recommended to create a Wiki (a self-help web application) for support FAQ and training resources that can be shared across all partners.

#### **Planning Sequence**

Phase I

- Determine hours, SLAs, average number of tickets
- Select ticketing system (which could include a knowledge base)
- Determine if migration data is needed
- Migrate to new system (potentially consider going google)

#### Phase II

- Determine Help Desk staffing needs
- Create Wiki
- Inform users on help desk usage, hours, number, SLA, etc.
- Implement solution

#### Email

Email has become a commodity and there are a number of options available in the public cloud space. A public cloud email solution is recommended for the six remaining partners who are still on an exchange. Westerville and Metro Parks have converted to Google Apps. Metro Parks' decision was based mainly on accommodating various connection speeds to remote locations while Westerville gained back support hours. Dublin switched to Office365. There are a number of applications that can be added to these products such as MS Office. During our assessment, there was some debate on consolidating exchange on the backend with a number of virtual servers being managed by a single group, though this would reduce infrastructure, it would be complicated and support intensive. The services available now are proven and require minimal administration.



QSI recommends Prairie Township, Grandview Heights, Upper Arlington, MORPC, MEC, and Educational Service Center of Central Ohio to consider migrating from Exchange to a cloud-based Email solution. As a secondary recommendation; these same partners can also consider encryption system be added.

#### **Planning Sequence**

Each partner will implement individually:

- Determine the number of active users
- Determine group requirements
- Select option plans
- Develop a migration plan
- Archive inactive users
- Migrate on premise to Cloud based Email

Dublin, Metro Parks, and Westerville have been through the process and can be tapped for their knowledge and experience. They have reported savings in overall cost do to significantly reduced administration and the elimination of servers.



# **Tiered Strategies**

Tier1	<ul> <li>•VOIP</li> <li>•Helpdesk</li> <li>•Shared Resources</li> <li>•Data Center</li> <li>•GIS (Common base data and imagery)</li> <li>•BCP &amp; DR</li> </ul>
Tier2	•Purchasing •Cloud based E-mail
Tier3	•Emergency Services •GIS (GIS services and shared licensing)

Recommended Strategies tiered and sequenced from top to bottom.

- Tier 1 low difficulty, medium-high value
- Tier 2 medium difficulty, medium-high value
- Tier 3 high difficulty, high value



# **Approach to Assessment**

QSI believes the business functions impacted by IT departments fall into and will base the assessments on the following categories:

- Planning
- Marketing
- Communications
- Training and Education
- Service Delivery
- Customer Support
- Projects
- Day-to-Day Operations
- Reporting

These areas were reviewed:

- Backup
- Disaster Recovery
- Server Hardware
- Data Center Space
- Network Services
- Security
- Email
- Productivity tools
- Standard Reporting
- ISP's
- Communications
- Administrative Applications
- Help Desk
- Technical Support
- Upgrades
- Phone System
- Website Development and Maintenance

QSI sent out a questionnaire, to partner Point of Contacts, to gather initial information on the areas of review. Interviews and site visits were conducted at Partner locations with IT and business representatives. Each partner was assessed individually and recommendations are included. Individual assessments and recommendations were made for each partner. The overall strategy and plan is based on a compilation of all the partners' goals, resources, available technology, industry trends and an IT shared services approach. In regards for requested information for a



pricing module; since this particular issue was not a focus of the current assessment, QSI recommends that the Central Ohio Public Sector Partnership initiate a refined study focused solely on the analysis of establishing a pricing module.

# **Partner Assessments**

The chart below list a snapshot of the information gathered in surveys and interviews conducted between the partners and QSI.

	Drairie Townshin	Grandview Heighte	Linner Arlington	550	MEC	Motro Dorke	MORDC	Wastanilla	Dublin
		neignis	opper Annigton	ESC	IVIEC	<u>ivietro Parks</u>	MORPC	westervine	Dubili
	Fire Chief, Admin,	1 Consultant &							10
IT Staff	Infolink	Microman	4	6	17	2	2	11.5	12
Employee + (Part	52	CE . 25 . DT0 C	220	1200	22	200 . 50 070 6	00	425 - 265 PTR 6	500 · 200 PTR C
Time & Seasonal)	52	65 + 35 PT&S	230	1200	22	280+50 PT& S	90	435 + 365 PT&S	500 + 200 PT&S
External Clients	NO	NO	NO	27 School Districts	Network, App, ISP	NO SCOL Successfully	NO	NO	NO
CIE	None	ESPI docktop	City CIS Droft Co	None	None	ESRI Franklin	ECDI	ECDI	ECDI
Empil Licore	52	150	2201	2729	25	200	142	LJIN	525
Email	Exchange	Exchange	Exchange	Exchange	Exchange	Google Apps	Exchange	Google Apps	Office 265
Physical Servers	2 S	A	23	10	18	g g g g g g g g g g g g g g g g g g g	12	19	16
Host	1	2	8	4	10	0	5	10	10
Virtual Convorc	1	0	100	41	E1	0	5	83	63
PC (decktop	1	0	100	41	51	0	55	85	03
laptop, tablet)	26	27	250	350	20	110	93	372	450
	-				Oarnet 10GB				
		ATT & WOW 15MB			TW Comm 10GB	Bresco Broadband		L3 100M. TW Com	
ISP	TW 300KB	up/2 MB down	TW 20MB	MEC 100M	utilizing 2.25G	7M	TW Comm 10M	40M	XO 300M
Web host	AT&T	CIVICSPLUS	eGov	In House	In House	AFSWeb	In House	In house	RackSpace
				Sharepoint					Cpanel,
CMS	Fusion v.12.0	CIVICSPLUS	eGov	WordPress	eschool View	ZoomCMS	Percussion	Vision Internet	Wordpress
Productivity	MSOffice2007 &								
software	2010	MSOffice 2010	MSOffice2010	MSOffice2010	MSOffice2010	Google Apps	MSOffice 2007	MSOffice 2010	MSOffice 2010
Phone	PBX (Merlin)	Pri	VOIP Avaya	Some voip	PBX	Pri Windstream	VOIP	VOIP-MYtel	VOIP - Cisco
Sharepoint	No	No	yes	Yes	No	No	Yes, 2007, 2010	No	Yes
									NA-Washington
Fire & EMS	Fire House	FireHouse	Zoll	NA	NA	NA	NA	Alert Tracking	Township
									NA-Washington
EMS	Rescue Medic	FireHouse Medic	Zoll	NA	NA	NA	NA	Alert Tracking	Township
	NA- Franklin								
Police	County Sheriff	Access	Irilech	NA	NA	NA	NA	New World	HI
	Na	windows live/not	Na	Luna	FLODeerd	Nama	L. man	Coordo Telle	Luna
Training & Ed plan	NO	used	NO	Lync	EIOBOard	None	Lync	Google Talk	Lync
	No	No	TS ~20	No	No	No	Rilot	Pilot	No
nurchasing	Venders& IT	110	13 20	Vender	MEC Purchasing	Direct from	11100	1100	Direct from
Svs/Proc	outsource	VIP-SSI	New World	(hn CDWG) /MEC	Coon	Venders	TechSoun	STS state system	Venders
-,-,	No. lomega in			(	200p	, chiacity	realboup	2.2 State System	· chacis
Offsite Backup?	wiring closet	No /on-site	yes /Standby site	Yes / MEC	Yes	Yes / home	TW /Data Center	Yes /Data Center	Yes /Data Center
DR Plan	Yes (needs work)	No	Yes	No	Yes	No	Yes	Yes	Yes
									Use 2 Metro Data
Data Center	No	No	No	No	MEC	No	No	WeConnect	and Datacenter.BZ

# QSI Quick Solutions Inc.

## **Prairie Township**

# Interviewees:Tracy HatmakerAdministratorRandi GoodAdministrative AssistantSteve FeustalFire Chief

Prairie Township is an unincorporated local government with approximately 17,000 residents. Its organization has roughly 52 employees and 4 locations, with the majority of the work being conducted at the firehouse location.

#### Goals:

- Utilize IT shared services for all support needs
- Better use of technology to meet business needs
- Proactive IT planning
- Leverage knowledge and software expertise of the partners
- Phased implementation to avoid cost concerns

#### Planning

Prairie Township has no IT department or IT employees and has outsourced all IT functions to INFOLINK Technologies. Info-Link Technologies is a locally owned and operated IT company which provides complete computer services for business, educational markets and individuals in Central Ohio. The Prairie Township Administrator and Fire Chief work with Info-Link Technologies for all IT support. INFOLINK remotely monitors servers located in the Firehouse and General Office as well they provide phone support and a consultant is on site once a week.

#### Marketing

The Township has a website for general public information which they characterize as a bulletin board.

The administrative assistant uses Fusion v.12.0 for web authoring and LeapFTP for posting. The site is hosted by AT&T. The staff would like to add enhancements to the site which includes submitting complaints, a virtual town hall, and usage statistics. As well, they currently do not have an intranet, but would like to have one including individual calendars that are shared.

#### **Communications**

Due to the size and shared terminal setup, the Administrator Township does not feel a need for a messaging system. However, there is a current need for a content and document management system. Currently documents are stored on a shared drive as well as individual drives. There is no version control or uniform numbering and there are a large number of fax and paper documents.



#### Service Delivery

Prairie Township majo	or systems:
Firehouse	Fire department logistics
InspectionFiles	Permitting software installed in fire and zoning departments - computing
	power is local, data is in the cloud
PAYCOR	Web based payroll system - outsourced
Rescue Medic	tracks the EMS runs, EMS billing is contracted out to Med3000.
UAN	Unified Accounting Network, from State of Ohio, which is also web based.
MS EXCHANGE	Email
MS OFFICE	Productivity software

No specific data retention policy is documented for either system or records including emails which are public domain. Clayton IDS has proprietary binary data files for EMS runs prior to 2005. Due to cost the files have not been converted to the Rescue Medic format.

A GIS system is cost prohibitive at this time, but is at the top of the wish list. GIS can be plugged into Inspection File, Firehouse, and Rescue Medic systems.

The Township would like to have an HR Database which includes FMLA and Healthcare. There is also a need for an inventory system for facilities and infrastructure such as light, sidewalks, signage, pavement types, and streets. Currently an attempt is being made to keep the inventory updated manually.

#### **Customer Support**

INFOLINK provides IT Assurance package which includes weekly on-site service and unlimited remote service for \$1,350 per month. Prairie Township employees call INFOLINK directly for IT support. Web issues are reported directly to the Administrative Assistant who serves as the webmaster.

There are 18 personal computers and 8 laptops with Windows XP or Windows 7. Servers and personal computers are located at the Firehouse location and the General Office location.

All Laptops are utilized by firehouse staff; the Senior Center and The Road Cemetery and Parks department have shared desktop computers. Server and PC updates are done by (WSUS) Windows Software Update Services.

#### **Projects**

Projects are run by the Administrator or the Fire Chief, who are the subject matter experts for the township IT. Projects are run ad hoc with no prescribed methodology. Vendors are relied upon for managing larger projects. INFOLINK is consulted for support purposes.



#### Day-to-Day Operations

There are 2 server locations. The Administrative office has 2 physical servers for Exchange, Office2010, Permitting software, and ESXI hosting located in a server closet. There is 1 virtual server which serves as the domain controller. An Iomega drive is located at the other end of the building, in the Telco closet, for backups. A complete backup is done daily at 7PM and users are encouraged to save local files to the server for backup.

There are 2 servers located at the firehouse for Emergency Management Systems and Office2007. One system previously used for backups is no longer in use as backups are currently not taking place.

There is no documented hardware and software acquisition policy, process or procedure. Prairie Township buys through INFOLINK or directly from the Original Equipment Manufacturer (OEM) in consultation with INFOLINK. INFOLINK is a Lenovo reseller and is responsible for support.

Time Warner is the internet service provider (ISP) with a connection speed of *300KB*.

The administration building has a PBX phone system and the firehouse has an older Merlin system.

Network security is handled by a Sonic Wall firewall. MS Security Essentials is used for Antimalware.

The Disaster Recovery Plan was written by the vendor with no input from the client. The plan has a 48 hour goal for events which do not cause damage to major facilities or equipment. The plan currently does not have a clear timeline for recovery in the case of a catastrophic event such as a tornado or fire. A Mobile Site Plan will be implemented post insurance documentation and assessment. Bringing a mobile site online depends on how quickly it can be delivered to its desired location, and how quickly backups are restored and made operational.

#### Reporting

There are no automated reports; however reports can be pulled from various systems. They are available in electronic form. Network and server statistics are sent by INFOLINK monthly.

#### **Recommendations**

Prairie Township representatives should meet with the vendor INFOLINK and review the current services. The IT assurance package comes with a number of stand features including IT consulting and Asset reporting. A written response and minutes should be requested.

Consider using a web host site which specializes in government intranet sites. The process has been standardized and they can find many of the features they are looking for as well as other offerings. The cities of Upper Arlington and Granville Heights are good examples.



Contact the Franklin County GIS to determine if there is a way to tie into their system.

Officials should pursue the IT shared initiative to accomplish the stated goals above.

#### **Opportunities for IT shared initiatives:**

- Strategic Planning and Governance
- Server Management
- Desktop Management
- Network Management
- Document Management
- IT Help Desk
- Backup and recovery to Data Center
- Disaster Recovery
- VOIP
- GIS
- HR Database
- Inventory System



## **City of Upper Arlington**

#### **Interviewee:** Granville Harris

IT Director

The City of Upper Arlington has approximately 33,000 residents and 230 government employees. There are five supported locations: The Municipal Service Center, Public Service Center, Fire Station 71, Fire Station 72, and the Senior Center.

Goals:

- Assist other Agencies with their IT services needs
- Produce Revenue
- Fill general helpdesk needs with Shared IT Services

#### Planning

The office of the Director of Information Technology (IT) oversees and guides all technology-related activities associated with the delivery of products and services managed by every department of the City. Currently there is governance documentation with procedures for monitoring and patching servers. The IT department consists of an IT Director, two (2) System administrators and one (1) intern.

The city has invested heavily into technology and has a number of projects in the works.

Current and upcoming projects include:

- Twenty-five HPT310 Thin Clients are in production, which is being managed using Unidesk. Unidesk is also used by Ohio Department of Jobs and Family Services (ODJFS) for its' VDI management.
- Tritech police software has been updated and is running their latest operating system.
- Upgrade Security Monitoring System.
- Upgrade New World HR application.
- Deploying Two factor authentication rollout, utilizing NetMotion software with access tokens, to maintain security compliance for LEADS access.
- Upgrade internal cabling at the Public Service Center 4100 Roberts Road location.

#### Marketing

Upper Arlington has an internet site hosted by eGov. There are a number of utilities provided by the host including content management software. Separate modules have been purchased from the host for end user web services. The public Information Officer, Emma Spates, manages and oversees information placed on the website. Each department maintains their individual web page content, though there is currently no governance for content management. Upper Arlington is in the process of evaluating the current website and looking to make improvements such as the



possibility of a mobile interface app. Upper Arlington realizes the importance of being able to interface and communicate with residents utilizing mobile technology.

#### **Communications**

SharePoint is being tested as an intranet site for city employees. The fire department intranet site is up in production. The plan is to roll out the rest of the departments by the first quarter of 2014. Shared folders are currently be used for document sharing. Application Extender is used for document storing, archiving, and retrieval. There is no messaging system being utilized or considered as there is no immediate need.

#### Service Delivery

The City of Upper Arlington major systems:

The diff of opportuning to the	
Arbitrators	Police in-car camera system
City GIS	outsourced to vendor DRAFTCO which maintains it 100%
GBS	Courts System
New World	Finance System
New World Land Mgt.	Development
Panamasion	Finance application no longer used, but maintained for 7 year
	retention
RECTRAC	Parks & Rec event management software
TRITECH	Police Application
VOIP	Avaya
ZOLL	Fire Application
MS EXCHANGE	Email
MS OFFICE	Productivity software

All systems have some level of vendor support and there is capacity for other users. Data retention is specific to the retention guidelines set forth by the Ohio Historical society.

Upper Arlington staff is open to switching to alternate systems. They have considered switching from MS Office 2010 to Office 365. They have also been looking into consolidating its 911 dispatch with other areas, though switching requires migrating historical data, thus there are concerns in potential loss of both data and history.

#### **Customer Support**

UA has a helpdesk and helpdesk line for internal clients. The Help desk uses JITBIT a web based automated ticketing system that corresponds with users through email. Occasional external clients call the IT director directly. The IT Department's contact information is posted on the web site. The IT director feels the staff can support additional users or nodes with no additional staffing. They are willing to support instances for other partners.



New World, Tritech, and Zoll can be configured as multi-jurisdictional systems.

There are 200 personal computers and 50 laptops with Windows 7. Additionally there are 30 iPads and 30 air cards for laptops.

Server and P.C. updates are done by (WSUS) Windows Software Update Services. Critical Updates are automatic and regular updates are implemented a week later. There are no post-update testing procedures.

#### **Projects**

Projects are run by the IT staff members, who are the subject matter experts. Projects are run ad hoc utilizing no specific prescribed methodology. Vendor supplied Project Management is relied upon for managing larger projects.

#### Day-to-Day Operations

Purchases are handled by the Finance Department which has a documented process. The purchasing manager uses the New World application for purchasing equipment.

There is a documented computer use policy available in a central location that is part of the Personnel rules document.

There are 23 physical HP servers using Compellent SAN in the 2008 Active Directory. Eight (8) are clustered to host 100 VMware servers. The servers are located in a basement server room with backup servers located at the Public Service Center. Servers are Windows 2008R2 and backups are done using Exagrid to the standby site. Although most of data is cold storage, 96% of the data that is archived and considered stale data, which is not accessed often.

The Municipal Service Center, Public Service Center, Fire Station 72 and the Senior Center sites are connected to a Sonnet Ring. Fire Station 71 has a T1 connection and is being upgrade to a 10MB connection with a November installation timeframe.

TW Telecomm is the ISP using a 20MB up and down load from the Municipal building. Upper Arlington has approximately 328 phones utilizing VOIP with Avaya G450 gateways.

Virus protection management is handled by firewalls, Trend for servers and Symantec endpoint protection for clients. Network security is handled by Top Layer appliance, an analysis firewall providing network-level protection, a denial-of-service protection engine and a deep packet inspection engine providing protection against vulnerabilities, worms and application-level attacks.

The server room is secured by an S2 security system which requires a key card for access. This room is located in the same facility as the police station and is monitored by the police dispatchers. The server room has 40 minutes of UPS power and the building has a generator. There is a



sprinkler for fire suppression and the server room does not have raised floors. There is room and power for 4 additional racks. The UPS backup will need to be modified if additional racks are added.

#### Reporting

Helpdesk ticket reports are generated on a regular basis and can be utilized in a digital format.

#### **Recommendations**

Relocate Server room to a Tier 2 Data center or upgrade existing location with higher physical security and redundant internet uplink, cooling and power.

#### **Opportunities for IT shared initiatives:**

UA IT has expressed interest in providing services to other municipalities. The challenge has been trying to determine fair pricing models and generating TOS/SLA terms. Some of the same challenges exist with other new and existing vendors. The City attorney often inserts difficult terms in to an RFP. UA would like to see an agreement reached between all partners on what should be considered a fair pricing model for services.

- Data Center hosting
- IT Help Desk
- Backup and Recovery to Data Center
- Shared Network services with MEC
- Purchasing from shared purchasing agreement
  - Could we leverage purchase of RSA tokens?
  - o Leverage purchase agreement for desktop hardware and software purchases
  - Leverage cell phone provider? Number of devices?
- Spare VOIP Gateway 450 can be used at another location (Partner)
- SAN Storage



## **City of Grandview Heights**

#### Interviewees:

Bob Dvoraczky	Finance Director
Steve Shaner	Fire Chief

The City of Grandview Heights is a local municipality with approximately 6,500 residents. Its government has 65 fulltime and approximately 35 part time employees at 4 different locations.

Goals:

Increase the efficiency of information services, which would "free up" the Fire Chief from IT duties Strategy for fiber connectivity- shopped around, TW, XO too expensive Connect Civic buildings to Metro Columbus or Upper Arlington Offsite Hosting of Servers and services – Fiber connectivity key component Backup Disaster Recovery IT end user training- currently on the job training / no training program Best practices Tap into Columbus or Upper Arlington GIS system

#### Planning

Grandview Heights has no IT department or IT employees. Fire Chief Shaner heads up IT Part time, has a dual role and has been active in trying to partner with other municipalities. He utilizes best practices and makes recommendations to the Mayor informally throughout the year as needs arise, and formally through the budget process annually. The Fire Chief works with a local vendor MICROMAN, a third party consultant and system vendors for IT support. The consultant does general housekeeping such as (GPO) Group policy cleanup and assists with server consolidations. MICROMAN (MS Gold Partner) handles most of their infrastructure, provides server management and staff augmentation for large projects.

It is a goal of the city to create governance documentation, as well as procedures for monitoring and patching servers and applications.

GH has been actively shopping for fiber connectivity to an ISP. Pricing has ranged \$700-\$800 monthly. They would like to connect their Civic buildings to Metro Columbus or Upper Arlington. They are seeking a partner to host the servers. They are planning to virtualize their final server.

#### Marketing

The city has an intranet and internet site hosted by CivicsPlus. There are a number of utilities provided by the host including content management software. A combination of the Fire chief, department secretaries and outside contractor maintains content, but there is currently governance



for content management though it is not totally enforced. The website is the main interaction with the public which primarily uses it for document retrieval, information on parks and recreational events, and notification services. There is a notification service for crime and roadwork residents can sign up for. The City of Grandview Heights currently handles the notification service for Marble Cliff through its website and email system.

Other services are available online to citizens but are seldom used. The city is looking to drive traffic to the site and has advertised in Parks & Rec bi-annual Brochure. It will also be sending out brochures to citizens and businesses.

They would like to add online transactions such as paying parking and registration fees. The host provides many modules not being utilized, have not been integrated into current practices. Lack of training is an issue here.

#### **Communications**

Windows live server is available for messaging but is not being utilized. An extranet was listed one of the city's needs. Departments use shared drives for document sharing and could benefit from a SharePoint site, especially for the fire and police personnel who do shift work.

#### Training and Education

There are many long term employees who have received on the job training, but there are no training program or skills updates. There is some interest in end user training, but currently there is no training staff and time is spent on learning the basics.

#### Service Delivery

The City of Grandvie	ew Heights major systems:
MS OFFICE	Productivity software
MS EXCHANGE	Email
VIP-SSI	Finance System (Software Solutions Intelligence, VIP financial software)
Firehouse	Fire/EMS software hosted offsite
CMI	Courts System
ArcView	GIS Desktop system for viewing files, provided by EMH&T through Franklin
	County, for Storm Water and Waste Management

Though the staff is open to switching to alternate systems, they're currently not open to switching fire software vendors anytime soon. They've recently switched to VIP-SSI, a new financial system, so it would be difficult to justify a switch. Documents are being scanned into the new financial system and purchase orders and paystubs are being emailed from the system.

EMH&T is a private engineering and surveying firm which provides GIS maps to the county. The City of Grandview Heights has responsibility for its sewer system.



#### **Customer Support**

There is no help desk; Fire Chief Shaner is called directly for internal IT issues. He can fix or direct the issues to the vendors for resolution. External Web issues are reported and resolved by the host CIVICSPLUS.

There are a total of 51 PC's, 8 laptops in a mixed Windows 7 – XP environment. They are rapidly transitioning to a mixed Win 7 /8 environment. They also have 7 servers in a mixed WinServer 2003- WinServer 20012 environment. Currently there are plans to renew their Software Assurance on all servers and probably MS Exchange. The police and fire personnel use mobile laptops which are standalone using Sprint and/or Verizon wireless.

There is no documented testing or test procedures post updates. Testing is done by the Fire Chief and outside consultants as needed. As of now, testing is slated for fall 2013 after the server consolidation is completed.

#### **Projects**

Project management is outsourced as needed.

#### Day-to-Day Operations

There are two (2) Host servers in the server room running on the VMware platform. Each hosts four (4) virtual servers. A datacenter is desired but fiber connection cost is prohibitive. There is also a backup server offsite.

There are both full and incremental automated daily, weekly and special backups to disk Backups are logged daily and have weekly, monthly and annual retention periods. Although we considered the backups as being stored onsite, Fire Chief Shaner relayed that technically the backups are offsite, but more physical separation is desired. So a better offsite location is preferable but the cost is high and the perceived benefit low.

There is no documented hardware and software acquisition policy, process or procedure. Purchases are handled through the VIP-SSI system.

WOW is the ISP, with a 15M up and 2M down connection speed for \$85 monthly.

There is a PRI phone system and the fire department has a loop line to Columbus through AT&T at a negotiated \$145 monthly.

The Municipal building, Park and Recs building and Services building are fiber connected. There is no connectivity from these buildings to the swimming pool facility, while the desire is to connect the pool to the parks and rec via fiber.



A hardware firewall is monitored as well as the use of Trend software and Trend worry free for desktops and Internet security for mobile computers.

Though technically there is no Disaster Recovery plan, Chief Shaner is currently preparing the disaster recovery documentation and testing scheduled to be completed during the fall of 2013.

#### Reporting

There are no regularly generated reports. Annual user and security reports are generated and utilized in a digital format.

#### **Recommendations**

Hire an intern for desktop support needs.

Utilize the CIVICSPLUS University free online training sessions, training manuals, monthly webinars and upcoming features. Use the information to add the mentioned additional enhancements to the site. If the free training is not adequate invest in an onsite, offsite, or webinar training session.

#### **Opportunities for IT shared initiatives:**

- Server Management
- Desktop Management
- Network Management
- Document Management
- IT Help Desk
- Backup and recovery to Data Center
- Disaster Recovery
- SharePoint
- Training

Currently the City of Grandview Heights and the City of Upper Arlington have non IT related shared services. Grandview Heights' fire trucks are serviced at the UA Roberts Road garage. GH Police use the UA shooting range. The cities partnered to purchase defibrillators for a bulk rate and share a Tax department intern.

The phone system is a mixed copper and VOIP. Dublin's phone system can support 6,000 phones of which they are using 400. This can be an opportunity for VOIP shared services, but moving to a hosted solution in Dublin would likely require all new hardware and controllers.

Critical applications are monitored with Solarwinds.

Dublin has a colocation site, where users have access to co-located services.



#### Reporting

Help desk ticket closures, performance, and various application reports are used on a regular basis. They can be generated and utilized in a digital format

#### **Recommendations:**

#### **Opportunities for IT shared initiatives:**

• VOIP – room to add 5600 phones.

#### **Data Center Specifics**

Metro Data Center is carrier neutral with over 6,000 square feet with a large amount of excess capacity. Physical security is two tiered with a keypad and biometrics which scans bone density and blood flow. There are several AC units, "Cold Row" containment systems and raised floors. There is a two tier fire protection system, which includes FM200 clean agent and dry pipe pre-action. There are also two (2) diesel powered generators for full backup power.



#### **Metro Parks**

Interviewees:William RuffFinance DirectorMichael S. NewcombManager, Information Systems

Metro Parks is a separate political subdivision of the State of Ohio organized under Ohio Revised Code Section 1545 to conserve natural resources and provide natural area parks for people to enjoy.

They have 280 full time (165) and part-time employees (115) and between 30-50 seasonal employees and interns. There are 16 sites (Parks) within several counties. Most sites have multiple buildings and are in remote locations. They are made up of Park Centers, lodges, and activities buildings.

Goals:

- Partner with other organizations and see what is available
- Save money
- Increase efficiency
- Update Technology
- Hosted servers within Data Center
- 10 MB pipe to Data Center
- Disaster Recovery
- Backups

#### Planning

Metro Parks IT consist of an IS manager and one technician. The manager is specialized in systems analysis and design, while the technician is a trained coder. The manager handles the typical management details, but consults frequently with the technician, the Finance Director, and affected users. There are frequent consultation and a collaborative approaches to resolving most issues.

No single, formal governance document exists, but procedural and systems documentation have been developed and maintained, as well as an equipment inventory.

A new server with MSSERVER 2012 is being purchased to set up virtualization to host servers for document management and Terminal services. If the opportunity becomes available for servers to be hosted remotely from a Data Center, the accounting and domain controller systems must remain local. They are the 2 most critical systems and Metro Parks would like to have access in the event of a WAN outage.

Metro Parks would also like to provide WiFi limited to their lodges and not the surrounding parks.



The IT staff looked at office365 but decided to go with Google Apps after reviewing the system which is used by the Westerville water department.

#### Marketing

The external web site hosted by AFSWeb, is managed by our Media group. The Public Media Manager administers, and the {desktop publishing specialist} maintains the site via the content management system "ZoomCMS," which was purchased from AFSWeb.

The site is the main interaction with the public so it is maintained for changes, which occur frequently, but not on a daily basis. The marketing web site has links to the reservations/registration system maintained by Emerge, Inc. in Avon Lake, OH. Scheduled programming updates offered in Metro Parks, are done on the site. Members of the public can read about programs offered by naturalists and register for those for which there is limited space. The public can also reserve any of the lodges and a limited number of shelters from the site. The Summer Nature camp registration system is also managed through Emerge.

There has been some consideration to hosting conferences and developing a smart phone application, but it is too costly at this time.

#### *Communications*

Being spread over seven counties at 16 sites, some with more than one building where personnel are based, they make heavy use of e-mail, telephone, and radio communications. The most robust of these is Google Apps for Business, which offers not only e-mail, but also shared calendars and files, and internal web sites that are easy enough for most users to create and use.

#### Training and Education

Training needs are addressed as they arise.

#### Service Delivery

Metro Parks Systems:	
Google Apps	Email, Intranet, shared calendars, Web pages made available to volunteers
Fortis	Electronic Document Management system
Financial Edge	Accounting System
Portfolio	Photographic Collection
VolunteerWorks	Volunteer Records
GIS	Geographic information System, ESRI Franklin County
NeoGov	Human Resources

Google Apps was purchased from and is supported by Promevo. Fortis, the Document Management System by Westbrook, is supported by MT Business Technologies.



#### **Customer Support**

Metro Parks currently replaces workstations and servers on a six-year rotation; although they are moving to a five-year rotation. Some servers and workstations are replaced more frequently - based on the roles and the demands placed on them. User support is available during extended office hours as the manager reports to duty at 6:00am, while the technician comes in later and stays daily till about 6:00pm. Though there is no formal support procedure, users call the IS manager or technician directly and problems are usually resolved the same day. External clients are not supported.

The technician manages server and workstation patching via a Windows Server Update Service (WSUS) server. There are no post-update testing procedures.

#### **Projects**

Projects are managed by the IT Manager; larger projects involve outsourced providers, while smaller projects are undertaken with analysis and design handled by the IT Manager in close consultation with end-users and affected managers. Most internal project development utilizes Microsoft Office applications and Google Apps services. The IT Technician develops computer code when MS Office capabilities need to be extended.

#### Day-to-Day Operations

There are 8 physical servers located at the main Headquarters and backup location. Four (4) Servers running Server 2003, three (3) on 2008R2 SP1, and one (1) running 2008 Server Standard. IT maintains local networks at each of the 16 locations. Users share access to storage, printers, and other resources. A virtual private network (VPN) links almost all of the 110 workstations and 10 servers together in a Microsoft domain. The OS are Windows XP or Windows7. About 20 PC's are purchased per year 4-5 at a time. There is no purchasing system, but competitive quotes are obtained. Recently the 6 year refresh cycle was reduced to 5 years.

Metro Parks has a published a computer use policy: the Use of Metro Parks' Information Technology chapter of the Employee Handbook.

The IT Manager has developed a "Disaster Recovery" document describing the systems in place. In addition, the IT staff (1 Manager and 1 Technician) have developed a set of guidelines and procedures governing the configuration of networks, workstations, servers, etc. These are maintained in electronic documents. Included in these standards is a full backup of all servers on weeknights. The latest Friday tapes are carried off-site by the IT Manager, and the first Friday tapes of each month are stored for at least one year off-site. Offsite consists of the IS managers home and another building on site. Printed copies of critical recovery information are kept by the IT staff and the Finance Director.



Centralized malware protection is maintained with Symantec Endpoint Protection on all computers. Scans are run with other anti-malware software when systems are reported to have problems or slow-downs. There are periodic centralized checks for malware and on the state of Microsoft software updates on our workstations and servers, via their WSUS server.

There is no formal server monitoring process, but there are daily manual checks and a weekly restart.

The ISP for headquarters is Bresco Broadband; they provide a 7Mb wireless connection utilizing a tower as part of the configuration. AT&T DSL and Verizon wireless are used for remote locations.

There is a point to point T1 between headquarters and the Botanic Gardens.

Although several servers are maintained in a basement room, there is no server room or central server location.

There are local UPSs on most workstations, all servers, and PBX.

#### Reporting

There are no reports generated on a regular basis.

#### Recommendations

Move servers to a secure location.

#### **Opportunities for IT shared initiatives:**

- Virtualization
- Data Center server hosting
- Network Management
- IT Help Desk
- Backup and recovery to Data Center
- Disaster Recovery
- Shared purchasing



# **Metropolitan Educational Council (MEC)**

#### Interviewees:

Bret Longberry	ITC Director
Dayna Duncan	Assistant ITC Director

The MEC-ITC is authorized by the Ohio Department of Education as one of 23 Designated Data Acquisition Sites to provide technology services to Ohio school districts. Members pay an annual fee which is based on specific criteria. Current MEC-ITC membership spans 16 counties. ITC offers a number of services to schools and educational organizations. Services include Educational Management Information Systems, Fiscal, Student, INFOhio (media and library), and Technical services. They also offer Professional Development, Cooperative purchasing, and Document Storage and Retrieval (OnBase).

Technical services include: WAN, LAN, high speed internet, network monitoring and security, email archiving, firewall, ISP, disaster recovery, and helpdesk support.

The MEC-ITC is looking to offer its services to a wider audience through the shared services model.

Goals:

- As the lead applicant for the LGIF grant, match partners with needs to partners with capacity
- Create a new revenue stream
- Locate an alternate DR/ BC site

#### Planning

There are 22 employees in the organization, Seventeen (17) ITC and five (5) purchasing. ITC management is hierarchal structured then broken out functionally by service offerings. They have a Director, Assistant Director, Service Coordinators, and Specialists.

There are documented policies and procedures for IT governance. The documentation includes some guidelines, SLO's (Service Level Objectives) and procedures.

Upcoming IT initiatives include: replacing a number of switches at the client side location, retiring a VMS system, implementing a wireless solution, working on a Google Apps archiving project and an initiative to archive their clients' social media and websites. Google Apps was considered to replace MS Office, but their financial application requires Excel.

Current equipment that is school funded cannot be shared. Any equipment, other than fiber entry points and networking, to be used in an IT shared service capacity will need to be purchased or leased. MEC has expertise in negotiating prices and works with others in the same space for member pricing.



#### Marketing

MEC-ITC has an internet site which is maintained and updated by internal staff. The content management system is eSchoolView and updates are made as needed. MEC is an eSchoolView Educational Partner and there is currently limited governance for site content which is mostly dictated by policy.

MEC has two (2) shops; ITC and purchasing. Purchasing will be revamping their part of the website within the next 30 days and they will be including one-stop shopping with portals for goods and services. They would also like to set up an ecommerce type site where items can go to perspective vendor baskets, similar to Amazon.

#### **Communications**

ITC uses an in house messaging system EIOBoard for interoffice communication. Ohio Alert is used for text message alerts. OnBase, one of its service offerings is used for document management. There is also a staff file server for documentation.

#### Training and Education

Each staff member is required to earn two (2) Continuing Education Units (CEUs) annually and maintain all required certifications.

#### Service Delivery

ITC has semi-annual site reviews from ODE and an annual Continuous Improvement Plan as required by ORC and ODE to determine business systems and personnel efficiencies.

MEC-ITC Systems:	
Exchange 2007	Email
MailMeter	Email Archiving
OnBase	Document Imaging
OnBase	Document Imaging Test/Dev
Student Information System	Student Information System
Gradebook & Special Services System	Special Services
EMIS-R System	Statewide collection system for staff, student,
	district/building, and financial data for schools



MEC Webserver	Web
What'sUpGold Monitor	Network management and monitoring
VMware Virtual Center	VMware
VMware Virtual Center DR	VMware
Compellent Enterprise Manager	SAN management

MEC can support additional nodes of current systems for potential partners.

#### **Customer Support**

ITC uses CA Unicenter an online helpdesk ticket system to support its client members. Tickets are resolved by the appropriate staff member. Application support for provided services, basic networking, consulting and price negotiating with vendors are provided to member organizations.

MEC-ITC supports 20 internal employee PC's. There are testing procedures for updates to applications, servers, and workstations updates.

#### **Projects**

The Assistant ITC Director serves as the in house Project Manager. The team does not employ any specific methodology, but is working to secure ITIL training. There are weekly meetings and project reviews and debriefs.

#### **Day-to-Day Operations**

ITC has a Data Center where is houses nine (9) physical servers, 51 virtual servers and a PBX. There are also an additional eight (8) servers at their DR site.

Daily, incremental and monthly full system backups are performed automatically. Backup jobs are initiated through the Time-based scheduler. Backup tapes are rotated off-site regularly and stored in secure off-site locations. An additional backup to an off-site STOREServer is performed daily.

The MEC Purchasing Cooperative analyzes costs, negotiates with vendors, and makes recommendations for products and services that have been submitted for competitive bidding. MEC Purchasing is a fee membership service separate from ITC.

MEC-ITC is an ISP and has leased a significant amount of Dark Fiber throughout central Ohio. They have two upstream providers OARnet and TW Communications. ITC currently utilizes 1.25G of 10G from OARnet and 1G of 10G from TW, leaving at lot of bandwidth for growth. The MEC-ITC is an E-Rate service provider and provides pricing to its members. The E-Rate program provides discounts to assist most schools and libraries in the United States to obtain affordable telecommunications and Internet access. There are multiple point to point links between ITC and their various members. ITC is confident it can match school pricing, for shared services partners, including last mile connectivity which would make them very competitive.



Servers and workstations are protected with ESET Antivirus software. Internet security is handled by firewalls and M86 filtering.

MEC-ITC has an extensive Disaster Recovery Plan. It is well thought out, documented and planned. The plan includes tiered system recoveries which meet specified SLA, specified roles and responsibilities, vendor contact information, procedures for switching to the cold site, business resumption and Recovery.

The MEC-ITC Data center is 800 square feet, of which 100 square feet is being utilized. There is redundant power at 40% utilization and the center is connected to the buildings generator. MEC-ITC has invested heavily into their Data Center, recently updating their fire suppression to potassium based system. It has raised floors, battery backup and system monitoring.

#### Reporting

Helpdesk reports can be generated and utilized in a digital format in a limited fashion.

#### **Recommendations**

MEC should continue to monitor trends in cloud-based IT infrastructure as a service (IaaS) or platform as a service (PaaS). If appropriate and should significant cost savings be available, MEC should evaluate moving core services to a cloud provider.

If they feel it is still necessary to operate their own data center and disaster recovery/business continuity site, MEC should consider using the Westerville and Dublin model to partner with an established Data Center.

#### **Opportunities for IT shared initiatives:**

- Alternate DR/BC site
- Data Center Capacity (room for 50 Racks)
- Server Hosting
- ISP at E-rate pricing
- Network Monitoring
- OnBase Service



# **Educational Service Center of Central Ohio (ESC)**

#### Interviewees:

Angie Crandall	Director, Center for Technology
Steven Wright	Network Analyst

The Educational Service Center of Central Ohio of Central Ohio accelerates the missions of school districts in Delaware, Franklin, Licking, Ross and Union counties, serving more than 200,000 school children in 27 school districts. Through direct instruction and quality professional development, the agency partners with districts to improve education for all students, particularly those with special needs. The Educational Service Center of Central Ohio has approximately 1,200 employees spread over five (5) counties.

The Educational Service Center of Central Ohio uses a Shared Services Model to provide services at an affordable cost. Current services include background checks and training for substitute teachers, as well as professional development for educators. They are also looking to exploit opportunities in the IT space through shared services.

Goals:

- Cost Sharing
- Cost Avoidance
- Improved Systems
- Disaster Recovery
- Data Center
  - o Improved Data Security
  - Take advantage of Virtual Hosting
  - o Generator backup

#### Planning

The Educational Service Center of Central Ohio has approximately 1200 employees spread over five counties. There are six (6) IT Staff members: the Director of IT, Data Systems Analyst, three (3) Technology specialists and an EMIS Administrative Assistant. Technology specialists serve as help desk technicians and the EMIS Administrative Assistant handles data management and reporting. The Network Analyst position was not filled when the former analyst left the organization. Management is hierarchical and IT staff report to the Executive Director of Business and Innovation. There are several Governing Board policies related to technology matters. Several systems, processes, procedures and data definitions are documented.

There are plans to purchase copiers, SAN, Mac Servers and Workstations and MAC. The current 9T SAN will be replaced with a 20T system; while the old system will be used for Disaster Recovery.



#### Marketing

The Educational Service Center of Central Ohio has an intranet and Intranet site which the Communications department updates on a regular basis.

The intranet site is mostly informational and there is not a lot of interaction. The Educational Service Center of Central Ohio hosts their web-servers onsite. SharePoint is used for content management, but WordPress will eventually replace it for the Internet site. SharePoint workflows are used to automate the approval and publication process for both sites.

#### **Communications**

SharePoint is being utilized for content and data, and document management. OnBase - which is a service provided by MEC, is being used for document management of employee files. Several departments have SharePoint team sites and the IT department uses Microsoft Lync. Listserv software is used to funnel communications to large external groups.

#### Training and Education

There is a technology plan is on file with eTech. Ohio's eTech is a state program which provides IT services to schools and educational organizations.

#### Service Delivery

Data Systems Analyst act as a business analyst document business processes, define data needs and reporting requirements for development projects. Analysts provide details on how the business systems and personnel interact to determine efficiencies.

Educational Service Center of Central Ohio major systems:

Aesop/VeriTime	Sub calling/timesheets
AppliTrack	Recruiting
DASL	Student information system
District Management Council	Staff utilization/scheduling
Edge Document Solutions	Check printing
EIS/SAAS	Inventory
Employee Kiosk	Employee data/ leave requests
Learning Circle	Decision support system
Moodle	Web based Learning Management System
MS Exchange 2010	Email
MyLearningPlan	PD tracking/event data
NWEA (MAP)	Online testing
OCALI	Customer Relationship Management System
OnBase	Digitizing employee files
PeopleWerks	HRIS
eTPES (ODE)	Evaluation data (teachers/principals)



Progress Book	Electronic grade book
Review 360	Behavior plan data
SharePoint	Onboarding documents &processing /agency goal tracking/Team sites
SharePoint: Solomon Business	
Portal	Billing system (timecards)
SOES	EMIS subsystem
Solomon	MS Dynamics Backend
STARS	ODE event tracking system
Track It	Technology inventory/helpdesk
USAS	Accounting
USPS	Payroll

A number of systems are cloud based, including OnBase provided by MEC-ITC. WordPress will replace SharePoint for internet CMS due to reduced development cost and ease of use. Currently they spend \$157.50/hr. to a third party vendor (Rackspace) for SharePoint support. The Educational Service Center of Central Ohio is open to switching systems if it is cost effective, as longs as it adds benefit and switching costs are affordable.

#### **Customer Support**

The Educational Service Center of Central Ohio has a help desk staffed by three Technology specialists. They support clients and 350 PCs' in over 40 locations, the majority of the locations are classrooms. The majority of the PCs are running Windows 7, and there are approximately 30 Macs, which are running OSX 10.8.

There are a large number of remote users who utilize their services such as email and cloud hosted applications, but do not have Educational Service Center of Central Ohio issued equipment. There are some remote users with Educational Service Center of Central Ohio issued and supported equipment. Account and access related issues are resolved by Educational Service Center of Central Ohio technicians or the appropriate business application owners. Educational Service Center of Central Ohio technicians can remote into Educational Service Center of Central Ohio owned user machines. If the issue is hardware related and cannot be resolved remotely, a site visit is scheduled. Connectivity issues at non Educational Service Center of Central Ohio supported sites are referred to local IT staff.

From June 2012- May 2013, the Educational Service Center of Central Ohio helpdesk responded to 3,071 helpdesk requests; with the average number of calls per month at 256, median 225, Min 129, max 516. The busiest month was August with 516 support requests.

There are some testing procedures for updates to applications, servers, and workstations. SharePoint and SQL testing is done in a development environment prior to making changes to production.



The Educational Service Center of Central Ohio currently provides helpdesk services for the Action for Children's organization. They also perform web hosting for the Mentoring Center and Online Learning.

#### **Projects**

Currently Subject Matter Experts (SME) performs PM functions as two (2) Project Management positions have remained unfilled.

#### Day-to-Day Operations

There are 51 servers 10 physical and 41 virtual servers. The majority (41) are Windows Server2008R2, but there are a few MAC servers and (6) servers on Linux CentOS platform. There are 15 Microsoft Multipoint TS clients on a Microsoft Multipoint server.

There are multiple backup systems including VEAM which has direct SAN access. Backups are stored to Disk and tape and tapes are stored offsite. Data is also backed up to MEC location next door. Educational Service Center of Central Ohio is looking into increasing options for redundancy.

There is a process that is followed for justification of hardware and software purchases. Based upon an informal business case, recommendations are made regarding purchases, in alignment with budget.

Educational Service Center of Central Ohio is a MEC purchasing member and makes purchase from CDWG and vendors directly. The SAN purchase will be direct from HP.

MEC provides a 100M ISP connection to the Educational Service Center of Central Ohio Central Office for which it qualifies for e-rate pricing. MEC is also the ISP for Ventures/Arts Academy, and Glenmont locations. Other locations are serviced by Time Warner (business cable) or Frontier (DSL). If the Educational Service Center of Central Ohio leases classroom space within a district, the district in most (if not all) cases, would provide internet connectivity. In most cases, the Educational Service Center of Central Ohio provides hardware to the classrooms, but there are cases where the district provides both the hardware and the internet connectivity. The arrangement depends upon district preferences and how the agreement was set up.

The phone system consists of a local PBX with a 32 lines Potts hybrid system with ring central at Glenmont.

While there is a formal documented Computer use policy, employees sign an acceptable use policy document and data security training is conducted with end users. Security is handled with firewalls and MEC provided spam (ProofPoint) and content (M86) filtering.

There is no documented Disaster Recovery Plan, but there is system documentation and an inventory of systems, vendors and architecture which can be used to rebuild, post disaster.



The server room has a mechanical keypad on the entry door, 8 tons of AC cooling, as well as battery backup.

#### Reporting

There are numerous reports produced from the various systems as well as compiled data from the systems. These reports can be generated and utilized in a digital format. Individual reports are listed in the system Inventory spreadsheet.

#### **Recommendations**

Develop a robust comprehensive Disaster Recovery Plan.

Conduct a business case to determine the benefits and costs of migrating servers to a data center.

#### **Opportunities for IT shared initiatives:**

- Data Center
- Backup Redundancy
- Position Sharing
  - o Web Master
  - o SharePoint resource



# Mid-Ohio Regional Planning Commission (MORPC)

#### Interviewees:

Steven White Information Technology Manager

The Mid-Ohio Regional Planning Commission (MORPC) is a voluntary association of local governments serving central Ohio. MORPC provides service through planning, programming and public policy in the areas of economic development, energy, environment, housing, transportation and land use. Dublin, Grandview Heights, Upper Arlington and Westerville are among its current members.

Goals:

- Informational, see what can be shared
- Assess benefits of shared services
- Offer users more services
- Improve the broadband connection at a lower cost

#### Planning

The organization has a total 90 employees, including an IT Manager and a Systems Administrator who make up the IT department. There is no documented IT governance. The IT Manager reports to the HR&IT Director. The IT staff has been reduced from six personnel to two. There may be a need to add additional staff, possibly a programmer in the near future. They have one location and may be moving in the near future. Rack space is leased (1 rack) at TW Communications for colocation, but is currently not being used much. There are plans for heavy use in the future especially during a move.

Upcoming initiatives include improving line speeds to 44M, upgrading MS Office2007 to MS Office2012, deploying MS CRM (already have licenses) and switching to VOIP. MORPC staff may develop software for Columbia Gas which is looking to fund the development of an application similar to what MORP has programmed and used in-house for years. A VMware VDI server has been configured to test a VDI solution, and HyperV with 2012 is being looked at.

#### Marketing

MORPC host several of its own websites including Transportation and Housing. Some are interactive, but they are mostly informational. Editors maintain the content for each department using Percussion CMS. A Web Coordinator is responsible for content governance. The IT Manager is responsible for web development.

#### **Communications**

SharePoint 2007 and 2010 is used for data, document management on the intranet and extranet sites, but not on the internet sites. Microsoft Lync is available for intra office communication.



#### Training and Education

An IT strategy and training plan is currently in the works.

#### Service Delivery

MORPC major systems:

Exchange	Email system
ESRI	GIS Mapping
Percussion	Enterprise CMS system
Lync	Instant messaging
SharePoint	Document management
OpenIndicators	Statistical data and reporting system
Pyxis	Web Server of most of our web sites
3D Modeling	Modeling server for 3D and statistical data

The ESRI GIS system is currently running on several VM's with more servers likely to be added. Other transportation departments sync with the system.

#### **Customer Support**

The IT staff is called directly for customer support. A Help desk system was piloted but users were accustomed to the direct approach and it was scrapped. There are 93 supported PC's running MS Windows7 and 1GB connections.

There testing procedures for updates to applications, servers, and workstations updates.

MORPC supports Rideshare Ohio and OSU Ride solution; they also host Trapeze group websites.

#### **Projects**

The IT staff manages projects for MORPC with project managers from the supplier if necessary. No PMO or specific methodology is used.

#### Day-to-Day Operations

The server environment is mostly VMware, 55 of the 67 are virtual. They consist of file & print, GIS, applications, SharePoint, DNS, email archive, statistical, TS and web servers. The 12 Physical servers include Clustered SQL servers, exchange, modeling, backup and web servers.

A third party vendor (Revolution Group) monitors 30 servers, 3 physical and 27 VM's, for \$1,200 monthly. Microsoft System Center Datacenter has been deployed for application monitoring.

Though Symantec Backup Exec is used for backups, Dell AppAssure software was recently added for disaster recovery and backup.



MORPC is a nonprofit which allows it to participate with TechSoup; which currently is a nonprofit organization which connects nonprofit, charity, or public libraries with technology products and solutions. Members can access donated and discounted products and services, including highquality refurbished hardware, and software from partners like Microsoft, Adobe, Cisco, Intuit, and Symantec. MORPC purchases or receives a vast majority of its hardware and software through this program.

TW Telecomm is the ISP; it provides a 10MB up and down connection for \$1,200 per month. MORPC is currently leasing it phone system from Pro OnCall Technologies for \$1,200 per month, but are looking at purchasing a Cisco phone system.

Email spam filters and antivirus and adware software is running on each computer. Shared drives on servers are scanned for viruses. There are two Sonicwall NSA 2400 firewalls to handle Internet Security.

There is a disaster recovery plan and a colocation site. MORPC leases a full rack at TW communications' Data Center (\$450/month).

The server room has a lock and thumb print security, 5 tons of cooling, raised floors, as well as 2 and ½ hours of battery backup. Critical servers are monitored by a third party (Rackspace) and non-critical systems are monitored by local staff. With five (5) server racks and one (1) Telco rack, there is little room for expansion.

#### Reporting

Microsoft Systems Center Datacenter will produce reports that can be generated and utilized in a digital format.

#### **Recommendations**

MORPC should research using a cloud provider, such as Azure, for 3D imaging. This will allow them to free up server resources currently being utilized and speed up the process tenfold.

#### **Opportunities for IT shared initiatives:**

- Data Center Services
- Server Management
- Colocation
- ISP
- ✤ GIS
- Testing / Software Piloting (free or discounted pricing)

# QSI Quick Solutions Inc.

## **City of Westerville**

# Interviewees:Todd JacksonInformation Systems DirectorBrian MundyNetwork Operations ManagerNancy KiesterApplications Manager

The City of Westerville is a local municipality with approximately 38,000 residents and a daytime population of over 70,000. Its government has 423 fulltime and 377 part time or seasonal employees at 22 locations.

IT shared Services Goals:

- Reduce Cost
- Get away from Hardware Support
- Reduce Hardware
- Support Hyper Visor Layer and above
- Allow more time to focus on business process improvement, applications, databases, and system integration

#### Planning

The organization has 11 full time and one (1) part time IT personnel; including a Director, two (2) Managers, a GIS specialist, EMI consultant and an Oracle DBA.

The IT action plan includes installing DVR for police cruisers, implement new Court Docket and Records Management System, Land Development/Permitting/Code Enforcement System, replace Enterprise Document Management System, Leverage Cloud services available in the WeConnect Community Data Center, develop RFP for Enterprise Resource Planning Solution (WERKS – Westerville Enterprise Resource Knowledge System) and exploring alternative locations for the City replication site.

The city constructed a 16,000 square foot facility, of which 9,000 square feet available for colocation space. The facility opened in 2012 as the WēConnect Community Data Center. The Data Center is a public/private partnership; the City owns the data center infrastructure, while Data Recovery Services (DRS), a regional provider of data center design and services, manages operations. As a customer, Westerville located its hot site in the WēConnect data center and currently leases 4 racks and uses 100 mbps of bandwidth from Level 3. The City of Westerville WēConnect is a tier III data center.



#### Marketing

The City hosts its intranet site from the WeConnect facility. Each department maintains its pages using the Vision Internet content management system. Department of Administrative Services (DAS), Community Affairs Administrator, oversees the content

#### *Communications*

Collaborative Google Apps for Government or GAfG (Google docs, Drive and Sites) is utilized for content, data, and document management.

#### Training and Education

Westerville has a Strategic Plan which includes training initiatives. Each IT team member is charged with obtaining 120 hours of education/training annually beyond formal training provided by the City. Data gathered through the Service (Help) Desk application is used to identify training needs and recommend training opportunities for employees in other City departments as well.

#### Service Delivery

#### Westerville Systems partial list:

-	
Alert Tracking	Fire and EMS Records Management System
ESRI	GIS
New World	Police Records Management and Computer Aided Dispatch System
Google Apps	Email, Collaboration, Docks, Drive, Sites and additional applications
MS Office2010/GAfG	Productivity Software

Westerville will be switching to a US Bank product for credit card transactions. (See appendix for full list of systems)

#### **Customer Support**

Westerville has a helpdesk for internal clients and uses GroupLink software for incident management. IT supports 372 PCs' mostly Windows7 and a few with Windows8. A remote application server has been set up for a VDI pilot, but VDI is currently not being used.

There are testing procedures for updates to applications, servers, and workstations updates, test environments are created as well.

#### **Projects**

A Project Management Organization is being set up and roles have been defined. The IS Director would like to add additional Project Managers and Business Analysts and remains focused on applications and databases. The city utilizes outsourced resourced for some project work. Recently Citiworks was contracted to develop a mobile application for permitting and work orders.



#### Day-to-Day Operations

The 22 locations, including three (3) fire houses and the community pool, are connected with fiber and the network is monitored with "What's UP Gold". The WeConnect center serves as the hot site and houses the host and more than 80 virtual servers. Servers are replicated to an alternate site as part of business continuity.

There is a documented Computer use as well as a Bring Your Own Device (BYOD) policy.

A total of 14T of data is backed up and stored offsite to locations in Atlanta and Michigan.

Purchases are made using OHIO STS. STS (State Term Schedule) is a negotiated contract based on similarly situated most favored customer pricing and are held by manufacturers or software developers.

L3 provides a 100M internet connection from the administration building and TW communications supplies a 40M link from the DR site. All 22 sites are connected with fiber. Police, fire and EMT use Verizon air cards for remote connectivity.

Westerville has a Mytel virtual phone system, some locations have legacy PRI which require physical boxes to convert to a digital signal. There is room to add additional users to the system and they may be interested in hosting other partners, dependent on the number of phones. Cost to partners would include licensing as well as a portion of the system maintenance fees. Some sites may require an MCD virtual switch.

Virus protection management is automated at the domain (Enterprise) level. Internet Security is handled by Firewalls, vulnerability scanning, IPS, alerting, filtering, monitoring and reporting,

#### Reporting

Security, baseline, audit and backup reports that are being used regularly and can be generated and utilized in a digital format.

#### **Recommendations:**

Opportunities for IT shared initiatives:

- Reduced Hardware
- Shared GIS ( make use of 1 set of aerial photos provided by the county)
- Open to potentially moving replication site to partner location.
- WeConnect partner and government discounts

#### WeConnect Data Center

The WeConnect Data Center is carrier neutral and currently has seven (7) active (including OARnet) and two (2) offline carriers. Physical security is controlled with a badge, biometrics (finger print) and electronic sign in and out. It is also equipped with two (2) man traps. It has N+1



chilled water/glycol cooling systems and dry pipe pre-action zoned fire protection. Dual power and communication conduit paths feed the facility. Power is N+1 supplied from multiple power sub stations and there are dual generators. Power is scalable; the current two (2) Megawatts can be upgraded to six (6) megawatts. The data center is energy efficient and the facility will be applying for LEED certification. The center has excess capacity of 20% and with configuration changes in progress will increase to 50%.

#### Services:

- Access to city-wide fiber-optic network (which is connect to Columbus FiberNet in two locations)
- Cloud computing
- Managed services
- Co-location
- Disaster recovery services
- Business continuity
- Dedicated Internet Access (DIA)
- Managed phone system
- Managed Circuits
- Plus a catalog of other services provided by Managed/Cloud Service providers currently resident in the data center.



#### **City of Dublin**

#### Interviewees:

Bradley JonesNetwork EngineerBob SchaberNetwork Operations Manager

The City of Dublin is a local municipality with approximately 45,000 residents and a daytime population of over 100,000. Its government has 500 fulltime and 200 part time or seasonal employees at seven (7) locations.

IT shared Services Goals:

- Share excess Capacity
- Shared Purchasing
- Generate Revenue
- Open to Inter Agency Shared Network and willing to consider joint ventures, or leasing opportunities in concerns to allocating fiber

#### Planning

The organization has 12 full time IT personnel which provide networking, support, GIS and project management services t. At least two (2) employees work out of the metro Data Center. The City of Dublin has a professional service agreement with Metro Data Center LLC to assist with the City's Economic Development division. The Data center provides a multitude of services while supporting business growth. The two have a joint role in TechDEC, a technology based entrepreneurial center.

Current initiatives include an Office365 migration from GroupWise. The staff did a comparison of Office365 to Google Apps and selected Office365 for its quality in relation to their business. New police and Finance applications will be purchased, upgraded versions of the current HTE Financial software will be considered amongst other software.

VOIP and data services are being relocated from the Campus 7 building to the colocation site Datacenter.BZ. A strategy is being implemented to make buildings expendable, where users can work remotely from anywhere. Dublin has fiber connectivity to BZ.

#### Marketing

The internet site is hosted by RackSpace. A separate web team outside of IT manages the site using WordPress and CPanel for CMS and publishing. The police department uses Twitter and other social media to disseminate information.

Laserfiche and SharePoint are used for document management.



#### **Communications**

Lync is used for inter and intra office communication and SharePoint for content, data, and document management.

#### Training and Education:

#### Service Delivery

ESRI	GIS system, ARC10.1, GIS team exist
НТЕ	Police System, Dispatch
HTE Community Apps	Finance and community apps
Office 365	Email
Netmotion	Mobile Connectivity
Cityworks	Work Orders
Frontrange Heat	Helpdesk
VSI Rec Trac	Recreation App
Netmail	Archives
Infortel	Phone reporting
Laserfiche	DMS

The GIS system feeds the information into MORPC's GIS system.

Dublin hosts a shared Radio System, for police, fire and EMT, with Worthington and Delaware County. They are connected agency to agency to Delaware, through OARnet, with a cost savings of \$4,000 per month.

Fire and emergency medical services for the City of Dublin are provided by the Washington Township Fire Department. Fire and EMS units are dispatched by the City of Dublin 911 Communications Center from four stations located within the city. Consultants manage HTE and Firehouse Fire systems; Dublin IT does not support these systems.

#### **Customer Support**

Dublin's' seven facilities are fiber connected. There is a help desk and users can submit a ticket through email, voice mail or via the web. IT supports 450 PC's which are XP or windows7. There has been a slow rollout of Windows7 underway. IT management is not considering VDI since they use ZenWorks to push images and the equipment cost savings would not be much if any.

#### **Projects**

Dublin has two (2) Project managers on staff and the Network Operations Manager takes on a PM role when necessary. No specific methodology is utilized; a hybrid of existing is used. Vendor supplied PM's may be used if a vendor is involved on a project.



#### Day-to-Day Operations

There are 16 physical servers, including 10 VMware hosts which support 63 virtual servers. The host servers are located in the Metro Data Center and 6 servers reside in City Hall and the Justice Center.

Backups are documented and handled by network group. Server templates in-place and backups are configured for disk to tape.

There is no formal acquisition policy; purchases are negotiated directly with vendors. Prior relationships with NetTech have yielded 45% discounts on Cisco products. Other vendors include CDWG and HP. HP servers are in a 3 year server lifecycle plan. VMware is also purchased from OARnet which resells to governments for 70% off of retail.

The ISP XO provides a 300MB connection of which 100MB is in use.

The phone system is VOIP and most phones are Cisco. Dublin's phone system can support 6,000 phones of which they are using 400. This can be an opportunity for VOIP shared services.

Critical applications are monitored with Solarwinds.

Dublin has a colocation site, where users have access to reduced services.

#### Reporting

Help desk ticket closures, performance, and various application reports are used on a regular basis. They can be generated and utilized in a digital format

#### **Recommendations:**

#### **Opportunities for IT shared initiatives:**

• VOIP – room to add 5600 phones.

#### Data Center Specifics

Metro Data Center is carrier neutral with over 6,000 square feet of which  $\sim$ 20 is being utilized. Physical security is two tiered with a keypad and biometrics which scans bone density and blood flow. There are several AC units, "Cold Row" containment systems and raised floors. There is a two tier fire protection system, which includes FM200 clean agent and dry pipe pre-action. There are also two (2) diesel powered generators for full backup power.



# Attachments

#### SYSTEM\_INVENTORY.xlsx

Metro Parks System I	nventory				
System	# of	Overview	Database	Generated	Report
	Users		Utilized	Reports	platform
Google Apps	300	Email system			
Google Apps	300	Intranet (internal			
		web sites)			
Google Apps	200+	Web pages made			
		available to			
		volunteers			
Fortis	8	Electronic	proprieta		Westbrook
		document	ry		Tech.
		management			
		system			
Financial Edge	6	Accounting	SQL		Blackbaud
		system			
Portfolio	20	Photographic	SQLExpr		Extensis
	20	collection	ess		• .
VolunteerWorks	20	Volunteer records	proprieta	esp. hours of	proprietary
	0		ry	volunteer service	EGDI
GIS	8	Geographic	SQL		ESRI
		Information			
<u>C</u>		System	Dutahara	Constal	Desert
System	# OI	Overview	Database	Generated	Report
	Users		ounzed	Reports	platiorm
Grandview Heights Sy	ystem Inv	entory	-	_	
System	# of	Overview	Database	Generated	Report
	Users		Utilized	Reports	platform
Exchange	150	email system		NA	NA
VIP- SSI	5	Finance Software	.net- SQL	Various Financial	Built in
MS OFFICE 2010-13	150	office software	NA	NA	NA
Firehouse Medic		EMS			
FireHouse		Fire/EMS			
		software is hosted			
		offsite			
Police Access Database		Police have only			
		access database			
Parks and Rec		Parks and Rec use			
		only Excel and			
		Access			



CivicaDlua		Intro / Intornat					
CIVICSFIUS		hosted off site					
		nosteu on site	1				
MEC System Inventor	y						
System	# of	Overview	Database	Generated	Report		
	Users		Utilized	Reports	platform		
Exchange	35	Exchange 2007	N/A	N/A	N/A		
MailMeter	35	MailMeter Email	SQL	N/A	N/A		
		Archiving - SQL					
OnBase	125	OnBase Document	SQL	Daily Stats,	Integrated		
		Imaging - SQL		Weekly Stats			
OnBase Test	15	OnBase Document	SQL	N/A	N/A		
		Imaging -					
		Test/Dev SQL					
Student Information	7370	Student	SQL	Daily Stats,	Integrated		
System		Information		Weekly Stats			
		System - SQL					
Gradebook	8544	Gradebook &	SQL	Daily Stats,	Integrated		
		Special Services		Weekly Stats			
		System - SQL					
EMIS-R	50	EMIS-R System -	SQL	Daily Stats,	Integrated		
		SQL		Weekly Stats			
Student Information	7370	Student	SQL	N/A	N/A		
		Information					
		System - ODBC					
		SQL					
Webserver	500	MEC Webserver -	SQL	N/A	N/A		
	visitors	SQL					
	per day						
What'sUpGold	50	What'sUpGold	SQL	Daily Stats,	Integrated		
		Monitor - SQL		Weekly Stats			
Virtual Center	5	VMware Virtual	SQL	Daily Stats,	VMware		
		Center		Weekly Stats			
Virtual Center DR	5	VMware Virtual	SQL	Daily Stats,	VMware		
		Center DR		Weekly Stats			
Compellent Enterprise	5	Compellent	SQL	Daily Stats,	Integrated		
Manager		Enterprise		Weekly Stats			
		Manager - SQL					
Dublin System Inventory							
System	# of	Overview	Database	Generated	Report		
oystem	Users		Utilized	Reports	platform		
Office 365	525	email system	Jundeu	NA	NA		
H.T.F. community Apps	300	Finance and	DB2	Financial	Cognos		



[		a a manunitar anna	1		
	150	Community apps	DD2		Carrier
H.T.E. dispatch	150	Dispatching	DB2	Crime	Lognos
Faster Fleet	50	Fleet Mgmt.	SQL	Fleet	Crystal
GIS / ARC	100	ArcGIS	SQL	Many	Crystal
Infortel	5	Phone reporting	SQL	Phone Use	Crystal
Netmail	525	Archives	Proprieta	Litigation	Proprietary
			ry		
Laserfiche	75	DMS	SQL	Retention	Crystal
VSI Rec Trac	100	Recreation App	Progress	Member	Crystal
Netmotion	150	Mobile	SQL	Connection	HTML
		Connectivity		activity	
Frontrange Heat	10	Helpdesk	SQL	Overdue, closed, quantity, etc.	Crystal
Cityworks	50	Work Orders	SQL	Completed, Due,	Crystal
			-	etc.	
Informacast /	50	Paging /	SQL	sent notifications	HTML
Singlewire		Notification	-		
Educational Service	Center of	Central Ohio Syste	em Invento	ory	
System	# of	Overview	Database 0	Generated Reports	Report
	Users		Utilized		platform
Active Directory	2817	internal user	AD	Account audits	AD
(Internal)		account mgmt.			Manager
Active Directory	775	external user	AD	Account	AD
(External)		account		management	Manager
		management			
Aesop/Veritime	3000+	online sub	cloud	Absences and sub	Crystal
		calling/tracking	hosted	placement	Reports
		system			
AppliTrak	119	online application	cloud	Vacancies,	NA- cloud
		system	hosted	postings,	hosted
				applicant data	
Barracuda Message	1	e-mail archiving	NA	NA	NA
Archiver					
ProgressBook Suite	100	Student	cloud	Ability to	NA- cloud
		information	hosted	generate custom	hosted
		system, online		reports	
		gradebook and			
		special education			
		forms.	ļ		
Edge Software	12	Check printing	NA	Transaction	NA
		software		history/audits	
EIS	13	inventory	cloud	inventory reports	NA- cloud
		software (agency-	hosted		hosted



		urida)	I		
EMIS (state system)	5	State reporting system (student, staff, financial data)	cloud hosted	Validation, submission reports	NA- cloud hosted
eTPES (state system)	100	State system for teacher and principal evaluation data tracking (OTES/OPES compliance)	cloud hosted	supervisor assignment/eval uation completion status/performa nce data	NA - cloud hosted
Employee Kiosk	289	Employee portal for employee data exchange (absences, professional development, paystubs)	cloud hosted		NA - cloud hosted
LearningCircle	3 admin	decision support system - utilizes student data to inform educational decision-making.	cloud hosted	At present - attendance and alerts if exceeding thresholds- potential for expansion	NA - cloud hosted
Lenel	2 admin	Security/badge system	SQL	Door access activity	NA - proprietary
Link Roster verification (MCOECN)	12	State system for linking teachers to student performance data	cloud hosted	Class roster data	NA- cloud hosted
MeetingRoomManager	10	meeting room scheduling	cloud hosted	meeting detail summaries	NA - cloud hosted
Moodle	2767	LMS	MySQL	Enrollment/usag e, etc.	Moodle - proprietary
MS Exchange	2738 (active & inactive)	e-mail	MS Exchang e	NA	NA
MyLearningPlan	3,748	Tracks professional development- related information and events	cloud hosted	PD and event reports (registration/atte ndance)	NA- cloud hosted



NWEA Map	200 (student s & staff)	online testing for students	cloud hosted	Performance data by district, building, class, student	NA- cloud hosted
OnBase	20	Document digitization/repos itory	cloud hosted	document repository contents based upon index search criteria	NA- cloud hosted
PeopleWerks	35	HRIS	Filemaker Pro	Custom report cabapility with HR data.	Filemaker Pro
Review360	49	Currently tracking student behavior plans, proposed interventions, and staff PD for addressing student needs	cloud hosted	Current users,	NA- cloud hosted
SharePoint	250	Used to support agency-specific applications (onboarding data/approval workflow), electronic forms and collaboration sites	SQL	Varies by site and app.	SharePoint
SharePoint: Solomon Business Portal	125	Portal for logging into our billing system to track billable hours/enrollment for Student Services	SQL	NA	NA
Solomon (MS Dynamics Backend)	7	billing system	SQL	Billing related, timecard tracking	Crystal reports
Track It	950	Technology equipment inventory and help desk software (tickect management)	SQL	Inventory and ticket history, technician workload	Crystal Reports
USAS	42	accounting	cloud	accounting	NA- cloud



		system	hosted	reports	hosted				
USPS	23	payroll system	cloud	payroll reports	NA- cloud				
			hosted		hosted				
City of Westerville System Inventory									
System	# of	Overview	Database	Generated	Report				
	Users		Utilized	Reports	platform				
GAFG (Google Apps)	545	email, calendaring	Google	Users, Audit,	Cloud				
		and collaboration system		Storage, etc.					
eHelpdesk	545	Helpdesk	SQL	Daily Stats,	Crystal				
		Ticketing system		Weekly Stats	Reports				
ESRI - ArcGIS Server	150	Geographic	SQL	Yes	Crystal				
		Information			Reports				
CIDE		system	COL	Vee	Constal				
SIKE	5	Agenda Managament	SQL	res	Crystal				
SIRF	5	Document	SOL	Yes	Crystal				
SILL	5	Management	ЗQЦ	105	Reports				
		(being			- <b>F</b>				
		implemented)							
HTE	121	GMBA	DB2	Yes	Cognos and QRep				
НТЕ	7	Cash Receipts	DB2	Yes	Cognos and ORep				
НТЕ	34	Customer	DB2	Yes	Cognos and				
		Information			QRep				
HTE	11	Land	DB2	Yes	Cognos and				
		Management			QRep				
HTE	11	Accounts	DB2	Yes	Cognos and				
НТЕ	36	Payroll	DB2	Vos	QRep Cognos and				
	50	1 ayron		105	ORen				
НТЕ	107	Purchasing/Inven	DB2	Yes	Cognos and				
		tory			QRep				
HTE	7	Asset Mgmt	DB2	Yes	Cognos and				
					QRep				
CCG	10	Faster	SQL	Yes					
VSI	80	Recreation	Progress	Yes	internal				
МІТС	(	Programming	200	Vee					
MIIIS DTWin	0	Dormitting	DB2 Daradov	res	intornal				
r i vvill Matafila	25	Document	SOI	Vos	internal				
metallie	30	Document	зүг	103					



		Management			
		(being replaced			
		by SIRE)			
Kronos Workforce	800	Time &	SQL	Yes	
	100	Attendance			
Azteca Cityworks	100	Work Order	SQL	Yes	Crystal
	05	Management	0.01		Reports
Azteca Cityworks	25	Permitting and	SQL	Yes	Crystal
		Land			Reports
Vision Internet	50	Management	COL	Vee	Constal
vision internet	50	Content	SQL	res	Crystal
		Management			Reports
CDC		(website)	COL	Vee	
GBS	5	Mayor's Court	SQL	res	Internal
		software (being			
Courtview Instice	5	Mayor's Court	Oracla	Voc	Crystal
Courtview Justice	5	Mayor S Court	Uracle	165	Poports
		implemented)			Reports
Zenworks	5		SOI	Vas	internal
Zenworks	5	Management (IT)	ЗQЦ	103	meernar
MicroCall	2	Call Accounting	SOL	Yes	internal
The out	-	Software	547	100	meerman
Mytel	400	Phone system	SOL	Yes	
ESNA	400	Voice mail system	SQL &	Yes	Hybrid
		5	Google		, ,
Biscom	100	desktop fax		Yes	
MicroPaver	3	pavement		Yes	
		condition tracking			
Siemens?	3	traffic light		Yes	
		management			
ENRP	2	OUPS ticketing	Access	Yes	
ArcFM	20	Electric UtilityGIS	SQL	Yes	Crystal
		Facilities			Reports
		Design/Asset			
		Management			
	100	Software			
AlertTS	120	Fire Records	SQL	Yes	Crystal
		Management and			Reports
	100	Reporting	COL	V.	
New World Systems	100	Police Records	SQL	res	
LEKM2		Management and			
NEW World Contains	120	Reporting	SOI	Vaa	
NEW WORIG Systems	120	Dispatch Records	SQL	res	
CAD and MODILE		management,			



		Police Mobility			
		and Reporting			
HyTek LTD	5	Firearms		Yes	
5		Management			
Watchguard	100	Police incident	SOL	Yes	
0		recording system	C		
Dialogic	25	Emergency		Yes	Cloud
	_	Notification			
		system			
Plant CML	25	Emergency call		Yes	
		routing, recording			
		and reporting			
		software			
ProQA	25	medical assist and		Yes	
C		records			
Landis & Gyr	5	Electric Meter	SQL	Yes	
U U		Management	c		
SCADA	3	Electric Utility	SQL	Yes	
		Supervisory	c		
		Control and Data			
		Acquisition			
CRC	10	Call Routing and		Yes	Cloud
		Reporting			
AMI	25	Advanced	Oracle	Yes	Crystal
		Metering			Reports
PetraVend	5	Fuel Monitoring		Yes	•
		(gas pumps)			
AllMax	5	Water Quality		Yes	
		Records Mgmt			
Tokay	5	Backflow	SQL	Yes	
-		Maintenance	-		
		Records Mgmt			
Telog	5	Water		Yes	
C C		Infrastructure			
		Monitoring			
Government Jobs	50	Applicant tracking		Yes	Cloud
(NeoGov)					
Advanced Systems	25	Training		Yes	
		Evaluation			
		Software			
Halogen	450	Performance	SQL	Yes	
-		Management	-		
MODDC System Law	ontorr				
MORPL System Inv	entory	0	D		D
System	10 #	Overview	Database	Generated	Report



	Users		Utilized	Reports	platform
CygnusX1	142	email system	Exchang	NA	NA
	mainlbo		e		
	xes		Database		
esxi01	unlimite	VMware	VMware	VMware	VMware
	d	Enterprise plus			
		server			
esxi02	unlimite	VMware	VMware	VMware	VMware
	d	Enterprise plus			
		server			
VCS	unlimite	VMware vsphere	VMware	VMware	VMware
	d	Enterprise plus			
		with nexus 1000			
A	4	SWITCH	COL	ΝΙΑ	NI A
Amunke	4	Programming and	SQL	NA	NA
AnaCICCashan	10	Development Environment for	Server	NI A	NI A
Arcuiscacher	10	Environment for	NA	NA	INA
ArcCICCorvor1	ΝΔ	ESPI Manning	ΝΔ	ΝA	ΝΑ
AICOISSEIVEIT	INA	Sorvor	INA	INA	INA
ArcGISSorvor?	ΝΔ	FSRI Manning	ΝΔ	ΝΔ	ΝΔ
AI CUISSEI VEI Z		Server	INT.	пл	INA
ArcGISWebAdp1	Internet	ESRI web server	NA	NA	NA
in calo in corrap i		for the ArcGIS			
		server system			
CM1		Enterprise CMS	Built-in	NA	NA
		system			
Cohiba	90	File Server	NA	NA	NA
DataSource	Internet	Statistical data	mySQL		
		and reporting			
		system			
DC1	90	Active Directory	AD	NA	NA
		Server			
DC2-32	90	Active Directory	AD	NA	NA
		Server			
DOTNetNuke	Internet	CMS system	SQL	NA	NA
			Server		
ExchangeArchive	142	Exchange Server	SQL	NA	NA
	mailboxe	archiver	Server		
	S				
IMS1	internet	ESRI Mapping	SQL	NA	NA
T	0.0	server	Server		
Lync	90	Instant messaging	SQL	NA	NA
		server	Server		



LyncArchiver	90	Instant messaging	SQL	NA	NA
		archiving server	Server		
MORPC1	90	File Server	NA	NA	NA
MOSS64	90	Sharepoint front	SQL	NA	NA
		end server	Server		
MOSS64Search	90	Sharepoint search	SQL	NA	NA
		server	Server		
MOSS64Apps	90	Sharepoint	SQL	NA	NA
		application server	Server		
OpenIndicators	Internet	Statistical data	mySQL	NA	NA
		and reporting			
		system			
Pyxis	Internet	Web Server of	SQL	windows, google	windows
		most of our web	Server		
		sites			
Reports	90	SQL server	SQL	sql server	windows
		Reporting server	Server		
ReportServer	internet	SQL server	SQL	sql server	windows
		Reporting server	Server		
SCCA	5	System Center	SQL	System Center	windows
		Configuration	Server		
		Administration,			
		HyperV virtual			
		machine manager			
sdeServer	unlimite	ESRI Spatial	SQL	NA	NA
	d	Database Engine	Server		
		server			
Sharepoint 2010	Internet	Sharepoint 2010	SQL	sharepoint	windows
		server	Server		
Sharepoint 2010 fast	Internet	Sharepoint 2010	SQL	sharepoint	windows
search		server Fast Search	Server		
SharingServer	internet	File Server for GIS	NA	NA	NA
		services			
SOCServer1a	Internet	ESRI Mapping	SQL	NA	NA
		Server	Server		
SOCServer1b	Internet	ESRI Mapping	SQL	NA	NA
		Server	Server		
SOCServer2a	Internet	ESRI Mapping	SQL	NA	NA
		Server	Server		
SOCServer2b	Internet	ESRI Mapping	SQL	NA	NA
		Server	Server		
SystemCenter	unlimite	Site server for	SQL	System Center	windows
	d	System Center	Server	,	
tas2	Internet	Remote Desktop	NA	NA	NA
		services			



Tdata	90	File Server	NA	NA	NA
Trans2	90	File Server	NA	NA	NA
Utilities Sever	5	Server to control Dell SAN, misc utilities	NA	NA	NA
vCA	90	Certificate server and print server	NA	NA	NA
vCerts	90	Certificate server	NA	NA	NA
Vela	90	Custom Web Application server	NA	NA	NA
Weave	Internet	Statistical data and reporting system	NA	NA	NA
WebAppSom2b	Internet	ESRI web server for the ArcGIS server system - Shared service system	NA	NA	NA
WebServerPHP	Internet	Web Server for PHP internet sites	mySQL	google	windows
HyperV-01	unlimite d	Windows Datacenter for Microsoft HyperV system	SQL Server	System Center	windows
HyperV-02	unlimite d	Windows Datacenter for Microsoft HyperV system	SQL Server	System Center	windows
HyperV-03	unlimite d	Windows Datacenter for Microsoft HyperV system	SQL Server	System Center	windows
MORPCESXVC01	90	file server, HyperV	SQL Server	System Center	windows
sql2old	90	vmware server, ESRI License server	SQL Server	NA	NA
VMwareVDIServer	10	VDI testing server for vdi solution	SQL Server	NA	NA
SQL-A	unlimite d	SQL server for High Availability	SQL Server	SQL Server	windows
SQL-P	unlimite d	SQL server for High Availability	SQL Server	sql server	windows
Gitane1	Internet	Web Server	NA	NA	NA
DC3	90	Active Directory	Active	NA	NA



		Server	Directory		
BackupServer1	5	Backup Server for Backup Exec and LTO 5	SQL Server	NA	NA
BackupServer2	5	Backup Server for Backup Exec and LTO 3	SQL Server	NA	NA
AppAssureServer	NA	Backup and disaster recovery server	NA	NA	NA
COTA-Model1	2	Modeling server for 3D and statistical data	NA	NA	NA
COTA-Model2	2	Modeling server for 3D and statistical data	NA	NA	NA
COTA-Model3	2	Modeling server for 3D and statistical data	NA	NA	NA
COTA-Model4	2	Modeling server for 3D and statistical data	NA	NA	NA
COTA-Model5	2	Modeling server for 3D and statistical data	NA	NA	NA
COTA-Model6	2	Modeling server for 3D and statistical data	NA	NA	NA
COTA-Model7	2	Modeling server for 3D and statistical data	NA	NA	NA
COTA-Model8	2	Modeling server for 3D and statistical data	NA	NA	NA
Newton	2	Modeling server for 3D and statistical data	NA	NA	NA
Dirac	2	Modeling server for 3D and statistical data	NA	NA	NA
Faraday	2	Modeling server for 3D and statistical data	NA	NA	NA
Kepler	2	Modeling server for 3D and	NA	NA	NA



		statistical data			
COTAMorizon1	2	Madaling someon	NA	NA	NIA
CUTAWORKEr1	Z	Modeling server	NA	NA	NA
		for 3D and			
		statistical data			
COTAWorker2	2	Modeling server	NA	NA	NA
		for 3D and			
		statistical data			
COTAWorker3	2	Modeling server	NA	NA	NA
		for 3D and			
		statistical data			
COTAWorker4	2	Modeling server	NA	NA	NA
	-	for 3D and			
		statistical data			
Trans	2	Server for	NΛ	ΝΔ	ΝΔ
1141135	2	reporting and	INA		
		Control of Modela			
		Control of Models			
Prairie Township Svs	stem Invei	ntorv			
System	# of	Overview	Database	Generated	Report
by seem	Users		Iltilized	Reports	nlatform
Firehouse	03013	Fire department	otilizeu	Перогез	plationin
Thenouse		logistics			
In an estion Files		Dormitting			
inspectionFiles		Permitting			
DAVGOD		software			
PAYCOR		Web based			
		payroll system			
Rescue Medic		Tracks the EMS			
		runs			
Med3000		Contractor for			
		EMS billing			
UAN		Unified			
		Accounting			
		Network			
MSEXCHANGE		Email			
MS OFFICE		Productivity			
MSOTTICE		software			
		Soltwale	L	L	
Upper Arlington Sys	tem Inven	tory			
System	# of	Overview	Database	Generated	Report
	Users		Utilized	Reports	platform
New World		Finance System			
Tritech		Police Application			
Zoll		Fire Application			
GBS		Courts			
Now World Land		Dovelonment			
New World Lallu		Development	1		



Management		
RecTrac	Parks & Rec event	
	management	
	software	
Arbitrators	Police in-car	
	camera system	
City GIS	GIS- Draftco	
-	100% ownership	
Panamasion	Finance app no	
	longer used, but	
	maintained for 7	
	year retention	
VOIP	Avaya	
Exchange	Email	