

INTERDEPENDENCE OF GOVERNMENTAL SERVICES: ACHIEVING VERTICAL INTEGRATION

**OAKLAND COUNTY MICHIGAN
April 1999**

Business issues facing the nation over 200 years ago continue to face Oakland County today:

“It has frequently been remarked that it seems to have been reserved to the people of this country to decide the important question, whether societies of men are really capable or not of establishing good government from ‘reflection’ and choice, or whether they are forever destined to depend for their political constitution on accident and force.”

Alexander Hamilton, Federalist Papers, 1787

A discussion broke out. Not atypical for a hotel bar – discussions do break out in bars. This was a discussion on a serious business issue facing a County department. Millions of dollars of cash receipts were not being deposited in the bank, local city officials were complaining, companies’ records were not being processed timely, and overtime was being incurred in a frantic attempt to keep pace with a crushing workload. Low interest rates were causing a glut of refinancing statements and the interest rates appeared as if they would drop again. The department was losing the war.

The discussion opened innocently enough. A commissioner pondered why administration and the department-head had not re-engineered the cash receipting functions to mitigate this problem, particularly in light of the millions expended for information technology over the past several years. No one from the buried department was present at the hotel bar, but if they were present, they would have retorted that the present manual recording system was being automated. A state-of-the-art computer system would be implemented in the next year or so. While the computer system may serve to alleviate the crushing backlog some time in the future, the backlog is real, today, and getting worse.

Administration attempted to discuss the business matter, including the reasons for the paperwork backlog and action steps to alleviate the immediate problem (getting the money deposited and the documents recorded) – all to no avail. The commissioner pressed on: ‘millions for technology and we still have this problem. Why isn’t administration reducing costs and / or bringing more service to the public? We should be re-engineering these processes.’ Questions frequently asked by the print media and public at large as well.

The public is demanding more services from governmental units and challenging each tax increase. Tax reduction proposals are sweeping the nation and the State of Michigan. There is an appropriate desire to improve efficiencies in lieu of raising new revenue sources. Federal and state governments are passing program responsibilities to local

governmental units, frequently without providing the financial resources to do so. Similar business issues are faced daily by commercial businesses – many do so, improve their profits and prosper. Others fail. Businesses are required to do more with less, or perish. Similar expectations are now evident in government today with its customers – taxpayers.

Creative governmental administrations with long-term visions will survive in an increasingly competitive world – and the world is truly becoming more competitive for governments. Taxes, education, crime rates, public health, parks and public works all contribute to a quality of life for a very mobile public. If governmental administrations within the same general region offer cost-effective services to the public, people desire to live in the community (increasing demand, and prices, for property). If, on the other hand, governments do not provide quality, cost-effective service, people and commercial entities often vote with their feet – they leave, reducing property values and frequently exacerbating the quality of life for those remaining.

As a general rule, governments do not file for bankruptcy. Core program services, however, can be reduced to a point where the public no longer desires to live in the community. Governments are in an increasingly competitive environment and must look to creative solutions to solving the dilemma, or languish. Doing more with less will become the norm for governments.

The commissioner was certainly correct in assuming that re-engineering processes can serve to improve productivity and lower per unit operating costs. Correcting a singular departmental function is important, particularly when cash is not being deposited in the bank. Cash held over night could lead to other financial control issues as well. Departmental business re-engineering, however, provides limited benefits to the public at large. It reaches only those individuals who may be doing business with that specific department in that unit of government.

A perfect time to challenge each step in a business process, organizational structure (including staff size and staff levels), statutory compliance and management reporting needs is when a new computer system is implemented. Each component of change must be handled correctly to secure a fully functional computer system that achieves the lowest operating costs, satisfies the departmental operating needs and complies with statutory regulations. The importance of addressing departmental operating and business needs is a normal day-to-day administrative responsibility. But, is this all there is?

Unfortunately, many governmental units' view their departmental operating needs on a purely department-by-department basis. Each department is too frequently viewed as a stand-alone monolith of business issues to be solely and completely addressed within the department. Improvements are solely targeted at the department level, particularly if the departments are autonomous. Cost / benefit analyses are targeted solely at the business issue at hand. The singular business need is corrected without regard to other departments within the governmental unit who might benefit from departmental re-engineering for a specific function. A business process can be re-engineered for a single

function, within a single department, within a single layer of government, but will provide limited benefits to the public as a whole.

As one example, this myopic view of improving processes within a County department leads to geographic information systems (GIS) located in many departments within the same governmental unit using different parcel data, hardware, software and personnel. Only one map of the same real world exists. Redundant services are charged to the same taxpayers through taxes within that singular governmental unit. GIS programs may actually exist in other governmental units (such as cities), further exacerbating the inefficient delivery of services to the public. Unfortunately, while the singular department may have been served its specific statutory and operating interests, the larger governmental unit and, thus the taxpayers are not being served well.

The business process review of a single departmental function within a single governmental unit certainly could improve the government's operations. A very traditional approach to improving service to governments (or the commercial sector for that matter). Benefits are frequently small and targeted solely towards the business issue at hand. Few would dispute the need. Certainly the commissioner was correct – as far as the discussion went. Is there more? Could additional benefits be achieved if more creative solutions were sought? Yes, to both questions.

Increasingly, governmental units within each geographic boundary are realizing that they do not operate in a vacuum. The reasons for this view are varied and include increasing unfunded federal and state mandates, devolution, tax limitation, etc. Each governmental unit, which has specific statutory functions, relies upon one another to provide a holistic quality of life. Generally, the operating responsibilities, which are set out in statutes, do not overlap within the same geographic boundaries. A school provides very different services than a city. At times, however, they do overlap – only to result in duplication of services. When one governmental unit fails in providing its core services in a cost-effective manner, all governmental units in the region are affected.

The Detroit Public School District is failing to educate students. Only 30% of students' graduate and most that do cannot function at levels necessary to become fully productive members of society. Only 2% of eleventh graders pass all four parts of the state examination. Certainly this educational deficiency places the Detroit students at a competitive disadvantage for jobs in an increasingly competitive world.

Several businesses are complaining that Detroit Schools are not providing sufficient qualified workers resulting in a higher cost of their operations. It is probable that the students who drop out of school will be unable to command a decent wage, may contribute to crime, and otherwise draw from society, rather than contribute to it. If the School District fails, city, county and State services are burdened in law enforcement, courts, jails / prisons, social programs, and / or other services required. This failure contributes to a high tax rate, a generally lower quality of life in and around Detroit, and those who can leave Detroit are certainly doing so. Detroit is desperately trying to locate each resident in an attempt to retain their official census at 1 million plus residents.

The Detroit Board of Education denies that there is a problem. The Detroit Board has launched numerous educational improvement initiatives over the past 20 years, all to no avail. The Governor has recommended that the Detroit Public School District's governance be transferred to the City administration as a means to improve the quality of education. The Governor's initiative is a bold step in addressing this regional problem. Should the State approve this governance change, it will take years to determine if this change will have any impact on students' education. While this change in governance is drastic, it does demonstrate that each governmental unit within a region depends upon one another to survive and flourish.

Clearly, each governmental unit is dependent upon one another for a successful quality of life. Cost-effective direct services to the public at large are critical to ensure that the quality of life is maintained: public safety (law enforcement, fire, emergency medical services), public health, public works infrastructure (roads, drains, sewers, water, wastewater, parks), schools, economic development, tax assessment, jails, and courts. These 'direct' services are frequently statutory in nature and can be provided by more than one layer of government, often concurrently. Failure of one or more of the "core" direct services within or between governmental units can contribute to a costly governmental structure and a general lowering of the quality of life.

Indirect services requisite to all governmental units effectively draw from the limited financial resources necessary to provide the above direct services and include: legislative, general administration (including administrative functions within direct programs), financial services (accounting, payroll, treasury), personnel, facilities' construction and operation, purchasing, telephone, computer services, legal, and risk management. These 'indirect' services support direct services to the public. They exist simply because of the legal corporate entity itself. Similarly, inefficiently provided indirect services will sap scarce financial resources to the detriment of direct services. Yet, the several layers of government that reside within the same geographic boundary provide direct and indirect services paid for by common taxpayers.

Indirect services have costs that are largely fixed simply by virtue of the governmental unit's existence. Indirect services are provided by each of these legal entities. It is conceivable, for example, for the same taxpayer to provide payroll preparation services to the County, a city, village or township (CVT), school district, intermediate school district, road commission, watershed, libraries, and other authorities. Each governmental unit has a payroll attendance and reporting process (including personnel assigned to this function), computer systems to prepare the payroll and a means for payroll cost distribution. Yet, too few governmental units within the country share these common service functions.

Oakland County is comprised of approximately 1.2 million residents being served by one county government, 61 CVTs, 28 school districts, one intermediate school district, five watersheds, hundreds of drainage districts, a road commission, and numerous authorities. The governmental entities within the County's borders are fiercely autonomous and

support strong ‘home rule’ principles. Yet, the County frequently performs services on behalf of the local CVTs that few other counties in Michigan provide.

Oakland County has a wide array of demographics and geographic disparity. The populace is comprised of welfare recipients, ‘blue collar’ workers, and professionals and every manner of worker in between. Income levels run the gamut as well. Half of the County is urban; half is rural. Many communities have no industrial base; others rely heavily on manufacturing to survive. The County’s residential and commercial base is growing at a torrid pace with over \$10 billion in new property value coming onto the property tax assessment rolls over the past five years. Over 65,000 residential permits were issued in Oakland County in the past 10 years. During the same 10-year period, less than 500 residential permits were issued in the City of Detroit. People care about the cost-effective, quality services rendered by governmental units and will move if they do not receive those services.

The changing face of Oakland County provides its residents a unique opportunity for governments to work together to achieve a singular purpose of cost effective and efficient services provided by only one layer of government. The governmental units must, however, begin to think in terms of a holistic body of services that all governmental units provide to the public. **Re-engineering services between governmental units is far more difficult than improving a singular function within a singular governmental department. However, it will allow many of the governmental units to survive as autonomous governmental units.**

Traditional local government revenues are under attack, restricting the ability to fund quality public service. In 1994, the State of Michigan passed Proposal A as a constitutional amendment to limit the growth in property tax revenues. An earlier constitutional amendment was passed in 1978 (Headlee Tax Limitation Amendment) and had some impact in reducing property revenue growth. Proposal A will have far reaching consequences that have just now begun to be felt by several CVTs in the County. The most restrictive components of Proposal A involve the limitation of the property value growth (‘taxable value’) on which property taxes can be levied to the lesser of the Consumers Price Index (CPI) or 5.0%. New construction and property sold on which tax limitations were previously placed under Proposal A would come onto the assessment rolls at the market value at time of construction or sale. Restrictions on property tax rate increases continue, either from the statutory requirements of the Headlee Amendment or local ordinances – or simply due to natural taxpayer resistance to increases.

Further, the State Supreme Court has recently ruled on a legal case (Bolt v. City of Lansing) that could limit the imposition of fees for services. It is conceivable that fees for services such as public works projects may have to be approved by the residents before imposition. Increasingly, federal mandates for environmental projects (water and sewer improvement projects) are unfunded by the federal government. The project costs are then borne by the State, or more likely, local governments. Restrictions on the imposition of fees to resolve these unfunded mandates could adversely impact direct

services to the public. If the fees cannot be imposed (as the residents have rejected them) and federal mandates cannot be waived, direct services could suffer.

As can be seen, the principal revenue sources on which most governmental units rely have now been capped or severely restricted – particularly in areas with little or no new construction. Over the past couple of years, the CPI has been around 2.0%. Government's expenditures, however, have no such economic limitation. Health costs, which are generally uncontrollable by a governmental unit, have been in check over the past several years, but are now beginning to increase at rates between 7% to 9% and they could go even higher. General inflation has been in check for the past ten years. However, there is no guarantee that 'double-digit' inflation could not return. Should this occur, particularly with the 5% limitation on taxable value growth, significant program reductions may be required.

Many other costs are also out of the direct control of the governmental unit. But, because direct and indirect expenditures use the same scarce revenue resources (and will continue to become more scarce as the expenditures move adversely against limited resources), direct service programs will begin to be pinched. Conceivably, over a longer period of time, it is entirely feasible that fiscal distress may creep into CVTs and school districts that enjoy robust programs today.

No longer can governmental units think of themselves as separate entities providing unique services to a limited constituency. Governments must begin to think of themselves as a set of services provided to common taxpayers at varying levels of government. In fact, that is just what happens in many instances. The direct service process often starts at the CVT level and moves upward to the county. For example, law enforcement incidents involve an offender and the local police departments for ticket issuance or arrest. In turn, local district courts will process offenders and forward cases onto the Circuit Court, Prosecutor, jail, probation / community corrections diversionary programs and / or other social programs. At each stage, the prior process gathers data and provides services. The success of the entire process is dependent upon steps being efficiently performed at the CVT and county levels of government.

The apprehension and conviction of an offender is a process involving more than one unit of government. The process is not unique to law enforcement. Public works functions (roads, drains, sewers, etc.) are located at the local and County levels. Public health services can be found at the local and county levels, including clean water, septic system maintenance, and water well inspections. Local and county construction and maintenance services for roads exist. None are independent of one another. Few residents can realistically tell which roads, for example, are maintained by which level of government. They are only concerned that roads are maintained not who maintains them. A pothole is a problem for federal, State, county AND local governments as it contributes to the quality of life of their respective residents. Few drivers would care which level of government is responsible as they replace their tires on the side of the road.

Other direct services to the public do not involve processes starting at the CVT level and ending at the county. Law enforcement information, for example, is of mutual use by CVTs AND the County Sheriff's Department in apprehending offenders. In most counties, this law enforcement information is maintained in two separate records' management systems (at CVT level and county level) with little or no direct access by both law enforcement agencies in immediate time of need. While both law enforcement agencies are theoretically working to apprehend the same offenders, the two separate databases, in most counties, work to the offenders' advantage – and, maintenance costs are redundant as well!

There are, however, several creative approaches to improving services to the public. The improvement of a single function within a department is generally where most governmental units start and finish its re-engineering processes. Cost / benefit analyses are evaluated on a single departmental business need basis. This limited effort represents a very traditional approach to operating improvement plans. It provides marginal benefits to the public, as the improvements are generally limited to the elimination of process steps. Few department heads need be concerned with the larger goal of reducing costs in the government unit as a whole or regionally – their daily focus is their departmental services to the public only.

Since Oakland County and local governmental units are inextricably dependent upon one another (as are other governmental units throughout the nation), the County and its local governmental units have diligently worked with one another in a cooperative fashion to provide savings to the common taxpayer. This principle has been the belief of County administration and its Board of Commissioners for quite some time. In fact, the County has frequently stood the cost of technology and other programs that benefit its local CVTs more than the County itself. Few governmental officials will stand the costs of a program only to allow benefits to be derived by another governmental unit. In Oakland County, the costs borne by the County are compared to the benefits obtained by the County *and* CVTs – a truly visionary approach to serving taxpayers common to the County and CVTs.

Oakland County's technology arrangements in place or underway serve the County's citizens by minimizing otherwise duplicative service costs and accelerating services delivered to the public. The creative approaches to business issues is truly re-engineering the way in which County and CVT officials perform their tasks within their departments. Other cooperative programs exist between the County and CVTs as well. The examples used herein, however, will concentrate on the technology initiatives.

The County's technology initiatives underway can be classified into basic types of efforts that improve operations at the County and CVT levels of government:

- Improving singular departmental functions within the same layer of government. A traditional approach to operating improvements not further discussed herein.

- Enterprise-wide solutions involving the elimination of similar functions in two or more departments on the same layer of government (‘horizontal integration’) or through a consortium of governments at the same level (city to city; county to county; etc.).
- Enterprise-wide solutions involving the consolidation of similar functions in two or more layers of government (‘vertical integration’) and / or accelerating the processing of transactions that pass between two or more layers of government.

Those governments that can effectively eliminate costs by consolidating functions into a single department who then takes responsibility for that function on behalf of County departments will eliminate significant costs otherwise incurred. Certainly, this is a more creative approach to government than improving single department functions. But, those creative governmental administrators who can squeeze out redundant costs from duplicative services between layers of government serving a common taxpayer will significantly improve the efficient delivery of government services. In doing so, additional available resources will be provided to expand direct services to the public and / or reduced tax burdens on those same citizens being served by two or more levels of government.

By way of example, the County’s GIS program was finally launched in 1995. Prior to this time, efforts were undertaken to launch the automation of paper base maps no less than three times. Each prior time, funding was withheld by the Board of Commissioners (and rightfully so), as a strategic plan was not developed to answer questions concerning overall program cost, benefits to be derived by the County and its CVTs, and uses of the GIS program. In 1995, the vision of GIS was explained to the Board and the project was finally launched to the benefit of the County departments, CVTs and the public at large.

In 1995, the County’s GIS Team faced numerous County departmental GIS initiatives underway as a central GIS approach had failed through most of the early 1990s. Six County departments were creating their separate base maps for their singular departmental purpose without regard to other departmental services of a similar nature. Similarly, many CVTs had either just started their GIS programs or were seriously considering funding a parcel automation project – the first step in a GIS project. The CVTs were no longer looking to the County to assist in this effort. The time was critical to ensure that the costs of creating and subsequently maintaining the parcel fabric would not be burdened on the same taxpayers by more than one County department and / or unit of government.

While the concepts of horizontal and vertical integration were not well defined in 1995, the County recognized that its taxpayers should not have to pay for a parcel fabric several times. After much internal discussion, the County agreed to create an accurate parcel fabric for the benefit of County departments and its CVTs. In doing so, several benefits are derived – both horizontally (between County departments) or vertically (between County and CVTs):

- The costs are incurred once to create and maintain the base maps.
- Since the County incurred the parcel fabric costs on behalf of the County and CVTs, the County operating departments and CVTs could concentrate scarce resources on application development.
- Since scarce resources were used efficiently, applications attached to a single base map could be built far quicker than might otherwise occur.
- A common spatial referencing system at the County (between departments and CVTs) encourages data sharing arrangements for functions previously considered incompatible.
- Many CVTs have entered the GIS world that would have never been able to fund the launch of this costly new service to the public on their own.
- Finally, the data sharing simply fosters cooperative relationships in the region allowing for the discussions of other cooperative operating initiatives to occur.

The automation of the County's parcel fabric, however, was not inexpensive. The County is expected to expend approximately \$7.0 million to do so, before considering a State grant to be received over 10 years of roughly \$2.5 million to address the public land survey system. Once a CVT's parcel fabric is created, it is immediately shared with the CVTs at no cost to the local unit. Similarly, the parcel information is shared with County departments. Further, to help ensure that the County and its CVTs are able to easily transfer information, the County purchased and distributed up to three software licenses to each CVT interested in the GIS program. In doing so, the County has now encouraged the use of a standard parcel fabric and software throughout the County departments and CVTs.

The financial burden associated with parcel fabric maintenance and subsequent distribution of changes to County departments and CVTs rests with the County. Because the County has re-engineered the former manual effort in maintaining paper base maps, only two new positions were created for the GIS operations. The maintenance effort and launch of many GIS applications (a new service to the public) will occur from those who would otherwise have toiled at their manual paper base map efforts. The County has improved the efficiency of maintaining County base maps, standardized a product between County departments so that it is maintained only once. This Countywide approach has ensured that the CVTs will use the same parcel fabric so that the taxpayers common to both levels of government fund the same map only once.

The GIS efforts are also changing the way in which the County operates within and between departments. Changes to the paper base maps maintained by the County's Equalization Division took up to six months to wind their way through the County's departments. Previously, the County's 4,500 paper base maps were recreated on Mylar for use as a backdrop against unrectified orthophotography. Because the County's

departments now use a centrally maintained digital base map, changes to the parcel fabric can be enjoyed almost immediately as County departments draw this information from a central server. Finally, the labor-intensive maintenance of the mylars is no longer required in favor of a digital (rectified) orthophotography against the County parcel fabric.

Because the County spear-headed an initiative to enable governmental units to provide GIS and related information to the public, off the County's premises, for a fee, the parcel fabric will be enjoyed by the public at large in the summer of 1999. Other land information products are presently available through the County's Internet service. The County is retaining 85% of the proceeds received from the public for access to this information and distributing 15% of the proceeds to the CVTs (even though the costs were borne by the County). In doing so, the County is continuing to foster improved data sharing relations in a win for the County, a win for the CVTs and most importantly, a win for the public at large.

In 1997, the County launched another technology initiative that will change the way in which County departments and CVTs use non-spatial land record information. The County performs assessing services for 22 CVTs of the 51 local assessing units and maintains land record information for most others. Prior to 1997, this information was maintained on a mainframe computer. Users constantly complained that access and ad hoc business queries against this information were too limited and time-consuming to perform. The County's Equalization Division also uses these same land records for their daily operating needs.

The County began to create a data warehouse, complete with the ad hoc business query tools, necessary to access land records information. While other operating departments have interest in using the data warehouse, the initial project targeted the County's land records' system. Basically, the data warehouse land record project allows predefined data sets to be extracted from the land production files for use in performing queries and preparing reports by system users. County demonstrations of the data warehouse's functionality and query tools to County departments and CVTs have resulted in a pent up demand for access to this system. Departments who maintain records other than land records are considering using the data warehouse to provide help in accessing mainframe information as well.

In an effort to determine how the local assessors could use this information and query tools, the County selected six CVTs for a pilot test. These CVTs received a computer with a disk of data extracted from the land records system, formatted in a manner similar to the data warehouse, for operating use during the first quarter of 1999 and through the closure of the Board of Review process in March 1999. The Board of Review process allows individual residents the ability to challenge their assessed property valuation. Those communities actively using the computer, query tools and land record information have found this system to be invaluable.

A problem exists, however, in the ability to access the County's land record data from a remote site (as is the case for a CVT). The County's service complex maintains the records on-site; yet, there are 61 CVTs scattered over 910 square miles of territory. The County is securing improved communications infrastructure (Metro-Area Network / Wide-Area Network, or MAN-WAN) to ensure that the bandwidth existing between the County and CVTs is sufficient to enable timely access to data when needed. Portions of the MAN-WAN are expected to be in place in the summer of 1999. When the MAN-WAN is connected between the County and CVTs, the data transmissions for all information will improve. Functions at the County and CVT levels of government will change as well. The County is standing the cost of the MAN – WAN.

Once the MAN – WAN is functional, the business practice and relationships between the County and CVTs will change overnight. The types of new services that can be brought to the public, either by the County or the CVTs, include but are certainly not limited to:

- Transfers of data involving land records, GIS updates for parcel changes, law enforcement, economic development, infrastructure, treasury, financial, and much more.
- The County is exploring the use of the MAN – WAN for telephone dial tone as such service could significantly reduce the cost of long distance charges. The use of the MAN – WAN for CVTs' dial tone is also being explored.
- The County is exploring how video arraignments could be performed to minimize the transfers of offenders who would be able to post bonds but for the fact that bonds are set by judges. This new service will reduce unnecessary time incurred by law enforcement officers transporting these offenders, potentially allowing the officer more time to pursue more effective community oriented policing.
- Cooperative approaches to providing information once, accessible by the County and CVTs can then be explored in earnest. While the County is performing much of this effort currently with the GIS and several other programs, the relationship is hampered by a need for a governmental unit to access the most up to date information. Quarterly distributions of GIS data via disks is better than what has occurred in the past, but is not satisfactory to many CVTs. The MAN – WAN will enable the service to improve significantly.

In connection with the cooperative relationships being developed by Oakland County and its CVTs, the County is literally reinventing the way in which communities will be served in law enforcement for decades to come. For over 20 years, the County has maintained a mainframe database of law enforcement incidents occurring at the local CVT level and Sheriff's Department. This system, Court and Law Enforcement Management Information System (CLEMIS), is unique in Michigan, if not the country. CLEMIS and its 45 member law enforcement agencies all contribute data and draw information from this mainframe system. Incidents, offender contact, and access to State law enforcement records provide critical elements for local law enforcement officials. Ad hoc queries and

criminal reporting contained many of the typical limitations associated with any mainframe, ‘home-grown’ solution designed over a 20-year time frame.

Despite providing information to local law enforcement agencies in Oakland County (unlike many other counties in Michigan), the County and its member CLEMIS units felt it necessary to revamp the entire system. The County has now launched a significant effort comprised of the four major projects – in millions:

	<u>County</u>	<u>Federal</u>	<u>Total</u>
• E9-1-1 call-taking equipment	\$ 3.0	\$ -	\$ 3.0
• CLEMIS upgrade	6.4	17.1	23.5
• E9-1-1 radio (voice) communications	25.0	-	25.0
• MAN – WAN	<u>10.0</u>	<u>-</u>	<u>10.0</u>
TOTAL	\$44.4	\$17.1	\$61.5

While the County has no legal obligation to do so, the County’s Board of Commissioners appropriated \$3.0 million for the replacement of aging E9-1-1 call-taking equipment at the local police and fire departments. The maintenance and replacement of the E9-1-1 call-taking equipment is normally vested on the CVTs. Through the cooperative CLEMIS relationships, however, the County was able to secure volume discounts for the equipment purchased. This common equipment will be linked to the County’s future CLEMIS system, providing a standard method of capturing E9-1-1 data quickly and uniformly throughout the County.

Despite the current CLEMIS records management system, computer-aided dispatch and other functions being far superior to any other regional system in Michigan, the County is upgrading this portion of the CLEMIS to another generation of hardware and software. In the next 18 months, the County Sheriff’s Department and 45 CLEMIS member law enforcement agencies will have the most advanced, locally based, law enforcement network in the country. Police vehicles will be equipped with a laptop computer with software that will enable reports to be prepared in the vehicle, access to mugshots in the regional database, fingerprints, and GIS data. Computer-aided dispatch stations will permit GIS functions to be used for the first time. Ad hoc queries for police reports, spatially referenced, will ensure that law enforcement resources are specifically targeting trouble spots within each law enforcement agency. Further, regional reviews of ‘hot spots’ and crime trends can be performed with the same tool as the County and CVTs will be using the same parcel fabric as noted previously.

The ability to perform regional and local crime analysis with spatial tools (i.e. GIS) would be virtually impossible had the County not launched the GIS initiative. Yet, at the outset of the County’s parcel automation project, the use of GIS for crime analysis was only tacitly noted in the first strategic plan. This new service to the public by all CVTs and the County is being spawned from the cooperative, vertical relationships underway in Oakland County.

The E9-1-1 radio (voice) communications system involves the launch of an 821 MHz system attached to the County's 806 MHz system. In roughly 18 months, the County will have a seamless radio communication system between the dispatchers and public safety field vehicles. The County's General Fund and / or an operational surcharge on telephones could be used to fund the \$25.0 million in equipment costs.

The estimated MAN – WAN costs of \$10.0 million will enable the communications between the County and its CVTs for CLEMIS and many other functions (such as land records, treasury, economic development, GIS, telephones, etc.). While the County is still evaluating MAN – WAN proposals to serve at this writing, this infrastructure is critical to the successful, timely communications between the County and CVTs. Without this communications infrastructure in place, much of the conceived benefits of vertical integration discussed herein will not be possible.

Since receiving the federal grant of \$17.1 million for CLEMIS, the County has been approached by no less than a half dozen other counties and CVTs outside of the County, who have expressed interest in participating in a regional effort. In doing so, critical law enforcement information otherwise locked in the separate records' management systems will be made available to multiple jurisdictions. The County is in a unique position to expand the vertical and horizontal integration concepts to its fullest with a significant impact on the regional quality of life over the next 36 months.

Finally, the County launched an initiative that would enable law enforcement officers to communicate with the Prosecutor's Office remotely via a computer and camera. Each police department received a computer with modem, monitor, printer, camera and software necessary to enable it to link to similar equipment at the County Prosecutor's Office. This warrant teleconferencing system cost \$900,000 and was paid for by the County's General Fund. This system has been credited with removing significant officer travel time and allowing for no less than 20 officers being redeployed to the streets (in lieu of spending inefficient travel time to and from the Prosecutor's Office seeking arrest warrants). In one instance, an offender was about to be released on bond on a minor charge when an officer was able to obtain a warrant for that offender on a major child sexual assault case via the warrant teleconferencing system. Without this system in place, the offender could have fled the area.

Since the discussion in the hotel bar with the commissioner, County administration has actively worked to resolve the records backlog in the overburdened department. Short-term solutions include using temporary help and creating a second shift. The department's computer project presently underway should assist in improving the operations over the longer term. Process improvements should occur over the next year as the computer modules are implemented.

County administration will continue to foster cooperative business relationships with the County departments and CVTs, both horizontally and vertically, to ensure that the computer technology literally reinvents the way in which the public is served. The

County fully intends on assisting its CVTs to mitigate the creation and maintenance of duplicative records, either at the County level or CVT level. These County initiatives will truly provide the millions in benefits that were sought by the commissioner.

Though it may be an imprecise analogy, metropolitan areas in the nation today resemble the ‘disunited states’ of America under the Articles of Confederation in the late 1770s and early 1780s. The County is engaged in the same struggle between the ideologies of the ‘localists’ and the ‘centralists’ as existed in 1787 at the national level. The prospect for the future of our metropolitan regions is as bleak now, in the absence of unity, as was the future of our country in those critical times that spurred Madison, Hamilton and Jay to write the Federalist Papers.

As pointed out by the authors of the Federalist Papers, the ‘excess of democracy’ is as much to be feared as over-centralization. The balance between the two will be as difficult to chart in metropolitan regions as our Founding Fathers found it to be in institutionalizing our nation.

The concept and practice of vertical integration represents a clear and compelling call for strong and effective local government, providing strength through unified sharing of information throughout the metropolitan complex.