

1999 White Paper Project:

Creating Kosciusko's Next Frontier:

Exploring the possibilities of Information Networks

for

Key Sectors of Kosciusko County.

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Preface:

I struggled for about a month to find a way to write a paper that was good for Kosciusko County (the Kosciusko Leadership Academy (KLA) requirement), but which also benefited my KLA benefactor (the Warsaw Community Development Corporation), and which also synched with one of the passions of my life, the Internet (now mostly known as "The Web") and what it can do for people and their enterprises. This left me knowing that its scope had to be county-wide, but yet would have to touch Warsaw, especially its downtown, in a very specific way. It would, however, also have to deal with making life and communications easier for people, in an era where computers often seem to make life more difficult.

One October morning, sitting in a Donnelly and Sons conference room, I heard a speaker address the trend of various economies from one model to a much less centralized model, a model which, ironically, actually made them stronger and more flexible. I began drawing a series of circles and lines. One group of these represented charities, another represented downtown merchants facing an internet onslaught without the finances to really build something worthwhile, while still another represented our government, and education. Some groups showed the centralization of that entity (or lack thereof), but all showed the capacity for the kind of money-saving decentralization that the speaker was addressing. Every one of these could, I thought, be affected in a positive way if they could *together* marshal their resources and work together toward common goals, and be able to do so without spending any more energy than they had before.

The first paper I wrote, however, during the Autumn of 1998, was far too heavy with technical details - details which became almost completely dated and obsolete by February, 1999. More importantly, that paper rarely addressed the *people* involved from *their* perspective - it focused solely on economics and technology - thus missing both my immediate and life goal: impacting *people* by making their lives *easier*, not more difficult. I realized, (after a good bit of prodding by some good friends) that not only would no one read it, but those who did would lose the overarching enthusiasm in the mass of details.

So, I set out simplifying - the scope, the plan, everything. I literally threw the first paper in the trash can. In this second version, I hope I have successfully shifted my focus from the technology - which was (and still is) becoming more user-friendly with each passing month. I hope I have shift my focus to the *people* involved, and have kept this idea, and its execution from becoming more of a burden than a help.

My fondest hope(s) for this paper, therefore, are three-fold:

- that it provokes thought, by providing the most basic of platforms - like the raw earth of our county, waiting to be plowed, but at least now discovered.
- that, for a time, the number of suggestions does seem a bit overwhelming - if that were not so, then the project's sights would have been set too low... and there would be no challenge to persevere.
- that in ten years, some future KLA candidate, scanning through the white papers from years gone by on his wireless laptop will see this paper and laugh - in the same way I did at the paper detailing computer use in the County in 1990 - glad that "we've gotten past that primitive stage".

Trish Brown

(and the Warsaw Community Development Corporation)

Thanks for your sponsorship and trust.

Thanks as well for your comments and your perseverance.

I only hope that the contents of this paper return even more to you than you've invested in me, and by that, make Warsaw stronger.

Important Concepts for this Paper -

(Also see the Glossary among the Appendices to this paper)

*(All *'d items in the text are found in that Gloassary)*

Common Access:

By Groups of various sizes and requirements to a common set of information critical to their productivity or problem solving capabilities. Historically, this has had to be via word of mouth, or other form of electronic media, none of which had permanent storage capability. The only media that afforded somewhat common access was paper, which is expensive, and often requires a trip to another location to view, and is often found to be increasingly obsolete given the amount of time required to get from creator to potential user(s).

Dramatically expanded Institutional Memory:

The local Web, or a local network, or even more specifically, various departmental, group, or agency computers linked to a central and constantly (and easily) updated knowledge base (whether a web site or a someone's database) is the ONLY tool we have so far that "remembers" information, no matter who had it first, or how many office holders have passed through the office which created that knowledge. It doesn't need sleep, (yes, some maintenance) so it is available to anyone, anytime. There is no longer a need for an idea which "happens" over ones weekend, only to be forgotten or to languish until Monday.

Economies of Scale:

Cost saving achieved when a group of individuals find a new and unique way of "blending" whatever is needed to share a single product, a product large enough for all participants. In this case, it is achieved through sharing: web design and security, reach, and a variety of other options.

Networks:

Flexibility of size and components. Once, networks were very rigid. The lack of flexibility required service by a variety of highly trained service personnel. While many systems of today (for various reasons) remain on such systems, for our purposes, I have tried to work around such needs and rigidity, and focus instead on solutions that use already existing architecture and as few as possible additional human beings.

Rapid access:

The ability to place information (sometimes critical) into the reach of, or to retrieve similar information from a spot on the Web media. Up until January of 1999, this would have taken expensive software, and a lot of training to accomplish. Today, however, local "inventions" have made this capability a "no-brainer".

Portable Document Format:

(or similar software and media concepts if found better or needed)

A creation of Adobe, it is mostly referred to as "PDF" and files using the format use the ending ".pdf". It allows something unheard of only a few years ago: the complete publication of a document to the World Wide Web, without the loss of ANY kind of formatting or graphics, or text layout. This is ideal for government forms (fill them out before arriving at the office, please)...

Simplicity:

- Of Administration
- Of Cost
- Of adding, accessing and securing content.

Introduction

How the center of our lives has changed over the past 160 years.

Paradigms and purposes.

Reality Check.

There was an era when, for early settlers of a frontier like Kosciusko's, simply getting to a Kosciusko County "General Store" could be an all day (even multi-day) event. In that era, though, we had all day, and despite the dangers (broken wheels, foul weather, and more), when we got to the store, or the government office, our ancestors stood around and chatted, making the most of the time invested. Information passed, important transactions were made, mail could be checked, and people even had fun. While things may not have been convenient, they were certainly centralized to a location. The land was far from crowded, the streets and roads, when they existed, were often random tracks, and no one cared where you built, just so it wasn't near them. "Competition" was local, mostly fair, and often welcomed. Charity was almost always cared for by the "Church," (getting to which also often involved either a simple walk across the street, or an entire weekend) so charities were rare and the only "not-for-profit" was probably the Church as well. Communication was either completely in person, or by post.

But even during this time (the mid to late 1830's), people had enough foresight into a town's potential future that they initiated a procedure called "plattng," or carefully planning out, the town of Warsaw and other communities. During the course of meeting the legal requirements for becoming an "official" town, they gave (one imagines) careful and attentive thought to planning what they saw as the city, where its infrastructure might go, and so on. Quite likely, they, or those who established the legal structure they were following, realized that order in a new landscape was not only desired, but necessary and helpful to growth.

A century later, however, times had changed rather drastically. Although the number of "labor saving devices" we had at hand had jumped dramatically, it still seemed that the amount of time we had decreased, and proportionately, the amount of time we needed to invest in various activities, like shopping and getting official things done, also decreased. We had grocery stores and churches on every corner, (churches which, after the Great Depression and the various social experiments which followed no longer handled all of the

charity work) and competition certainly existed in all the walks of career life. More disturbing to society's fabric, though, was the trend, especially after World War II, towards decentralization. One went one place for one thing, another place for another, still another place for mail, and so on. More labor saving tools meant more flexibility, but they also meant, often enough, that whole days were still required in caring for one's steady needs.

This was still a time though, when driving to a given (official) office or business, or calling during business hours was the only, (and therefore unchallenged) mode of business. By this time, a century and more after the "planning" of Warsaw and Kosciusko County, not only were things overcrowded, but we began to feel the need for a zoning code - not simply to insure that various types of businesses and structures did not interfere with each other or with the quality of life, but also to (optimally) create the best possible situations for those businesses affected to thrive. In a sense, we returned to the "general store" mentality of the century before. Charities/non-profits began to form to fill the gap or to provide a liaison between the new-found government largesse, and to fill new needs outside of the purview of religious bodies. But the people outside of the mainstream often "fell through cracks", because resources and ability to coordinate at the increasingly high required levels were finite. Competition was still mostly contained to either a few businesses nationally (if you were that big) or to businesses of the same size and scope within a given region. You could still count on places like your Downtown, (or the increasingly popular local "mall") as at least one convenient and centralized location which saved you some time.

Entering the late 1990's, though, finds times, or at least paradigms, again drastically changed or changing. Many labor saving devices have changed focus from the home to the office, from the daily grind of "manual" labor to the harsher grind of "mental" labor, while on the other hand, they've begun to return to the home, smaller, leaner, as people grow tired of another daily grind: commuting. Computers, once a luxury (only a decade ago, only 16% of Warsaw businesses had them) have now invaded every aspect of our lives. Even if their function had remained that of making "memory" and other tasks easier, they'd probably still be having a major impact. One other creation, however, has all but insured that they will not be limited to just storage or computational devices. The Internet, the first strands of which were laid in 1969, and its more brilliant child, today more commonly known as the "Web" (created in late 1993), has radically changed the perception and use of computers. Today, in a world where computers allow information and services to sprint around the block and around the globe in seconds, public perception of them, and more importantly, our use of them, will likely not allow us to return to any of the old paradigms.

Every facet of public interface, from business to government to charities, even to education, is faced with a new challenge, a new choice, a new luxury: traveling, or waiting until an hour controlled by someone else, is no longer necessary, or even acceptable. Goods, services, and information can be obtained in the seconds necessary

for research, making a choice, and typing in ones credit card. The media notes (through a rather dim understanding, I think) that "a new era", a "new landscape" (amusingly called 'cyberspace') has arrived. While the cliché stature the Web is given is rather annoying, the reality is even greater than it is often represented: we, even here in Kosciusko County, are faced with what really is, essentially, a new frontier. We are faced with a network which, although we cannot see it, is weaving itself over our heads and around our bodies, our minds, our businesses, and our whole lifestyle. It will not disappear, and it cannot be ignored. We are truly on a new frontier, the magnitude of which compares in many ways with the world of 1836.

Every facet of public interface, from business to government to charities, even to education, is faced with a new challenge, a new choice, a new luxury: traveling, or waiting until an hour controlled by someone else, is no longer necessary, or even acceptable...

In one sentence: over the last 160 years, the focus of our lives, the place from which we did most of our living has changed - from the "General Store" and our home(stead)s, to a combination of downtown, the suburbs and the telephone, to the home office, the center of which is the computer.

It is my strong belief that Kosciusko county (like any other county) has a choice: we can continue using the 1960's-1980's paradigm, and ignore a public increasingly used to armchair business and immediate information. Or we can begin to lay the groundwork for a kind of collaboration and customer service never before considered, but which takes the most profitable advantage of the New Paradigm. I *do not* believe that laying this groundwork will insure survival in the information age, but I do believe that a plan, (call it an "Internet Zoning Plan" if you will) will at least guarantee a position far better than inaction.

Despite my great enthusiasm for this new paradigm (I've seen it do some amazing things) I realize that there are tremendous challenges and pitfalls ahead. They must be explored and mapped. We must summon the frontier toughness and ingenuity prevalent during our founding days, and I believe that we must resist the impulse to remain on the "East Coasts" of our lives. If we try to implement what follows in too rapid a fashion (without supplies and forts, if you will) it will be easy to be (or feel) overcome by the potential problems (quite real) and to **ignore the immense possibilities** offered by this "new frontier". We can probably even stay rather comfortable if we remain where we are. If we choose this course, though, we'll see a slow, steady disappearance of businesses (rather normal) but we will not see any businesses arising

to replace them. Businesses today need information and reach (*not the same as size*) to survive, and they'll locate where they can get those, and where government acts in concert with those needs.

Purposes

The purpose of this paper is to ask questions.

It is my intent only to provide general answers to those questions, and in turn, propose even more questions in the quest to conquer and control the amazing possibilities and richness of that new frontier. I have NO desire to rebuild Kosciusko County, or even Warsaw, by myself. My focus and my knowledge of Kosciusko's diversity, while broadened greatly by the Leadership Academy, are still too narrow to capture and reproduce the subtleties that make us great. To mandate my solution as the only possible solution would rob us of a great number of minds, of innovations, of solutions, and beauty. (In the same manner as if one man or woman were to have tried to build all of Kosciusko County alone.)

Ultimately, though, the purpose here, like the various *physical* zoning commissions/ plans, is to see where concepts like "virtual" economies of scale (electronic alliances), faster access to information, removal of mental drudgery and repetition of effort, and other common elements of "realspace" can allow us to stay competitive. I hope to encourage a lot of "real" entities to re-examine their perceived limits and borders, enforced by the limits of "realspace", in light of the new "virtual reality", and to make the necessary changes which "being online" makes possible.

I'm not here to propose that we go to "full throttle" immediately. The proposal, or series of them, contained within this paper is/are not the ONLY way to create the "rough idea" of what I'm proposing. In general, I hope, BEFORE it becomes a problem, to create a "plan", or even an "understanding" of both how a series of large scale public nets can save money, create new opportunities for cooperation, and allow all those affected to not just survive in the new electronic economy, but to thrive.

Information has and will always be passed, and solutions have and will always be created better by groups gathered around some kind of core. Kosciusko County stands in the dawning light of the "Information Age," in which groups can create solutions in a freer, yet more deliberate and better informed manner. All of this has massive import for all sectors of the economy, not just in terms of survival, but in offering opportunities for growth. We have three choices:

- become an island at the mercy of the waves of the information sea,
- build a helter-skelter raft or dinghy to stay barely abreast of the tide, or
- build a growing series of networks, the ocean liner that will place this county on the forefront of the information age, presenting new opportunities for growth and interaction.

Reality Check

One of the first questions I asked myself, and a question whose answers and ramifications I've watched over the months that this paper has developed is "Are there other cities, counties or towns (with special attention being paid to those our size) pursuing anything similar to what is being proposed here? If so, what are they doing, and how are they doing it? If not, where does this place Warsaw and Kosciusko County if we do this (no matter how slowly)? The answer to the first questions has been a consistent "I don't know, and if there are, I cannot find them." Although there is the late-breaking COMDEX99 example of Chicago's "ChicagoIT" program. If more emerge, it will be, I believe, a clear sign first that the project has merit, and second, that if we wish to retain our wealth and our dominance, we too need to "get a move on."

While I do wonder if other towns are not simply asking the same question(s), and even looking for the same "sign," I've chosen to make this mainly ambiguous answer roughly equivalent to a "no." This has, of course, pushed me to ask the other question time and again: The answer, again, is consistent: pursuing such a project will have wide-ranging implications for our education requirements, for our ability to attract business, and more, which I'll discuss throughout this paper. Above all, though, even if we only stay a step ahead of any other city/county combination of our size, Warsaw and Kosciusko become leaders not just in orthopedics or eggs, but in the Information Age.

We can investigate our future today and plan well for it, or we can stare it in its face in ten years when it is here. Then, like the millennium bug which plagues us today, we risk slapping together a solution, rather than thinking one through. This paper is intended as a road map. Nothing here is sacred.

We have the opportunity to rebuild (our) community here. Not with bricks and mortar and streets and physical infrastructure, but in another dimension, one where nearly instantaneous connections are possible. Only, however, with the RIGHT engineering, CAREFUL thought and comprehensive input will these connections be made. Only then, will the *immediate* connection to two or more people, with his or her unique part of a particular problem's solution, be possible. Only then will we be able to save time, and hence money, by knowing precisely WHO has the money, or the knowledge to do exactly what someone else needs to get done. It is that sort of forethought and deliberation that I hope to generate with this paper.

Chapter One: Government networks:

Why network government?

What parts do we network?

How will this benefit anyone not DIRECTLY involved?

Common Questions for Later Consideration:

What information should be shared?

What information is off limits?

What are the benefits?

What are the problems?

I've picked government to go first for a number of reasons. Among them is a speech I happened to hear on cooperation between Warsaw City Council and the County Commissioners, and the immense need for fast information transfer. At that time, the idea stayed small, but as I looked through other KLA White Papers, and as I looked through lists of Local, City and County Offices, the idea began to grow. I started wondering about what repetitive jobs they did and whether the many bits of information they dispensed daily made them feel like tape recorders rather than people. The idea expanded to a quiet look at a great many offices of government at their various levels in this county, and eventually contracted back into what follows.

During this same period, my graphics work with a political campaign and the resulting discussions about political platform(s) began to validate on a human and financial level what I'd been seeing for several months from a computer/technical perspective: *We have the ability as a city and as a county to make the political process and the administrative process much easier, much more streamlined.* I also began thinking about government as literally emulating and as a complete parallel to a well-run business. I wondered what could happen if all departments, offices, boards and committees were given some kind of more-or-less SIMPLE way to gather instant as well as delayed (once the dust settles) information on the impact of their operations. What might happen if the fine people who (almost transparently) make our lives easier or safer could solve problems or answer questions with information gathered by other departments, departments which may or may not have ever known of the question's or problem's existence?

It also began to occur to me that government "of the people" should be available to the people in some fashion 24 hours a day, in a time when it seems that at least 1 citizen in 6 is awake (and as our daily logs indicate, using the Internet) during the hours of 11 PM to 7 AM. Equally, in a borderless world, in which immediate "redundancy checks" can be done, many promotional and other agencies might be able, to bring down costs by agreeing that one or the other will shoulder a burden which all had previously shared at greater individual cost, in order simply to ensure that it got done. Potential borders which previously existed no longer need to, because significant quantities of the information that various entities distribute to promote or sustain themselves are also being offered by other agencies and departments. *(A particular example of this sort of duplication is the duplication of the Warsaw's history and the statistical information, available from, at last count, eight web sites. While not an issue only a year ago, it is now obvious that this information might be better maintained as ONE web site, updated by one or two people, and simply linked to the other sites that display it.)*

On the other hand, many agencies and departments work each day with small, probably unnoticed, information gaps. With only the telephone, mail, (any of the currently common tools, for that matter) or even personal communication over lunch or a game of golf, only so much information can be retained by any one person or group of people, and that information will grow "stale" at an increasing rate. Let me repeat a point made above: the local Web, or a local network, or even more specifically, various departmental, group, or agency computers linked to a central and constantly (and easily) updated knowledge base is the ONLY tool we have so far that "remembers" information, no matter who had it first, or how many office holders have passed through the office which created that knowledge. All of our other tools are completely dependent upon human memory. With "job churn" so rapid, (especially in a sector where leaders are elected and re-elected) the capacity for loss of even a few pieces of critical/relevant knowledge is enormous. And because it is impossible to realize which knowledge is important to another person, it isn't much more of a leap to extrapolate a potential scenario. ("For want of a nail...")

... government "of the people" should be available to the people in some fashion 24-hours a day, in a time when it seems that at least 1 citizen in 6 is awake (and as our daily logs indicate, using the Internet) during the hours of 11 PM to 7 AM.

Only with the technology made available by networked computers can we ever hope to regain the stability afforded by the "town fathers" and "storytellers" who were so important many years ago.

Returning to the issue of borders (of responsibility in this case) returns us to an unmade point: while good government constantly seeks to do what is right for its electorate, it does this in various ways. In America today, this can be done (please forgive the stereotypes made necessary by the space available) by "taxing and spending," by consolidating and cooperation between government sectors, or by some combination of the two. In the past, however the second option has often meant cuts in government spending, which in turn have meant cuts in available government staffing. Fewer people are doing increasing work. An equally unfortunate side effect of "government belt-tightening" is that staffing cuts are often made across the board (mostly in a real attempt to appear fair), in some cases hitting departments already greatly stretched. As the workload on those who are left increases, the time available to "network" in the traditional sense evaporates, and the "compartmentalization" of government continues, often leading to decreased satisfaction, rather than to increased satisfaction.

The technological advantages afforded by a completely and properly networked government, however, would finally allow, if managed properly, a change in the progression of this cycle. Information on the number of employees is most likely available to those desiring to promote efficiency. However, what hasn't been available is a mindset, potentially brought about by networking technology. We really have not had a chance to examine how departments would/could cooperate if they all had access to all of the information (with security issues taken into account) generated by all of the other appropriate departments.

Creating and allowing such access brings about the potential and of "working smarter," of allowing various departments to TRULY cooperate with a new IMMEDIACY never realized before. But aside from the immediacy, there is the potential for a whole NEW level of customer service, in four of the possible facets we describe below. (We'll address the potential downsides (mostly related to lack of upkeep), and other, more human issues.

At this point, while a department-by-department examination and application of these principles might be in order if we all had unlimited space and time, what really is in order here is a quick discussion of how these various government nets and "sub-modules" might (emphasis on MIGHT) be organized. Research needs to be done, but what follows represents what seems to be a logical "first step" in *thinking* through levels and categories of organization. I would suggest that this is by no means complete, since it completely ignores (mostly for reasons of time and space) "sub-organization" within each "group".

A simple outline, followed by a quick explanation of or expansion on the main points, will have to suffice, again given the scope of the paper as "suggestive," rather than "authoritative." What I'd suggest is that those who know the political system and the organization well begin the whole project by thinking of various governments not as single offices and or employees, but first as small clusters of closely related departments, continually reducing the number of groups (each including a larger number of departments) until they've merged their entire city into one group, all with SOME sort of connection. I'll discuss this more in Chapter 5)

Intranetting Kosciusko's major cities (Warsaw and Syracuse).

The recently created "*warsawcity.net*" web site, a project spearheaded and coordinated by Michelle Bouchert of the Warsaw Mayor's office, has gone a good distance in covering many of the "start up" ideas mentioned below. I say this not only because it is well done, but because it takes clear advantage of the "24-hour" nature of the internet by *not just* noting that various departments exist, *but by* noting important specifics about those departments. The site enhances the values of the various departments, and as it progresses, will continue its job of placing a pleasant, non-threatening face on all departments.

Making the project even more exciting is that the site has been carefully left open to future development of the kind I had in mind when I wrote about "increasing interactivity" above. The agendas of various Boards and Committees are already beginning to appear in a very timely fashion, and the structure of the site is open enough to allow the eventual posting of the various "minutes" as well. (The next step is to create a "loading dock" of sorts to allow the secretary of each committee to post its own agenda(s) and minutes, relieving Ms. Bouchert and/or others of this duty. Applications have already been created which would allow text from any word processor to be placed online with a "simple" "cut-and-paste" routine, requiring about 30 seconds worth of time and a web browser.)

A number of issues will arise from careful thought along the lines noted immediately above. As officials (and voters) begin to see their government as a unified whole, a number of borders will potentially dissolve, which will be the first step/sign that this project is meeting its goals. While we might be tempted to view the dissolution of borders between departments (they all probably did have a cause or reason at one time) as a negative, every dissolved border bears the opportunity for either cost or time savings at the very least, even in the very general senses mentioned in the next few paragraphs.

Among these:

1. A "promotional" network: a merging of some of the "exterior" duties of the various Chambers of Commerce, Convention and Visitors' Bureaus and any other

organization which seeks to promote the town or county in order to bring in business or tourism. While such an idea might be seen as terribly alien, and I'll be the first to admit that my understanding of the differences between the missions of the named organizations (and potential others) is a bit thin, I would still suggest that, given the changing nature of both business travel and business location strategies will give the involved organizations will have plenty to talk about.

At the VERY LEAST, both organizations (Chambers and CVBs) and their partners are essentially promoting the same things: a beautiful place (work or play), a fun place (for long-term benefits or for weekend getaways), rich resources (whether raw materials or good food), and so on. If someone moving to the area (see the next chapter) were to approach two towns, one where he could talk to one organization which presented business and fun as a package, the other of which forced him to drive to two different ends of town, either physically or mentally, it is easy to see that the first town already has an edge. Take that edge to the Internet, (or track the same person behind the scenes, coordinate mailing, and more), and the edge created by cooperation becomes even greater. I am by no means suggesting that the organizations merge, or that they are not cooperating already. I am, however, suggesting that commonalties which up to this point were "too expensive" to make real can be made real with electronic networks, networks which remove the barriers of space and time. And more importantly, I am suggesting that, just as in a "three-legged race," the ties that unite can be made either a stumbling block or an incredible asset if the cooperation is well coordinated.

2. Payment for city services and fees over the internet. (Decent security is no longer prohibitively expensive nor is it difficult to implement) Perusing the *warsawcity.net* web site again this afternoon gave me a few ideas, including "waste water treatment" fees - especially for large local business who "call in their usage and are billed accordingly." Given that paper-based billing costs \$2.00 to \$3.00 per incident, and electronic billing costs about \$0.50 per incident (including time, paper, postage, etc.), it remains to be seen whether there are enough bills printed, at a cost savings of \$1.50 to \$2.50 a bill, to justify the dedication of a computer system to this obviously repetitive task.

3. Allowing departments the chance to assess their value to the City, and equally important, to allow the citizens to help them do their jobs (where possible) without even knowing that they're doing it. A quickly and easily executed example would be a "pothole busting" page by the Department of Public Works.

City and Town Councils, Boards, Committees: - The first savings here would be the money saving through electronic publishing of Council and Committee minutes (already in progress in Warsaw and in Winona Lake). Later, a given City Council's site could feature the text (and background) of new laws passed each session, along with new laws up for passage, and projected chronology on those laws.

For example: If I want to attend some meetings on a law I consider important, but my time is limited, which meetings will be most important for me to attend if: I only want information? I want to voice my opinion? I want to see the actual vote? Moving from the "reality of today" to the potential reality of tomorrow, this becomes even more important if we are trying to attract a business, or a class of businesses who perhaps need(s) infrastructure changes or a very specific (even tailored) operating climate. Given the opportunity to watch the progress of a law, or an infrastructure project's appropriation move from "far away", and even to influence it from afar, at a convenient time, rather than the huge time investment required by doing the same thing locally, the choice is pretty simple.

Eventually, interaction could range first to "static solicitation" of opinion (by "passive" forms, and "forms-to-email", and later on, (thinking at my most optimistic), live "simulcast" council meetings on the net, meetings, which, unlike television or radio, allow full (but easily managed) and live interaction between the governing and the governed. It may be a sad irony on its face, but at heart, when the full capacity of such networks are brought to fruition, and participation in government is taken beyond the letter, reading the newspaper, or the talk over the backyard fence, such networks bring us perhaps closer than we've ever come before to a true democracy... the people can truly speak, and in a manner and time-scale where the issue is still "fresh".

County Commissioners Net - Very similar to the suggestins noted above for Town and City Council(s). However (and this relationship goes both ways) such a net offers the chance for timely interaction not just with interested members of the county itself (once a regular job, before information began to flow through wires) but with members of other affected or interested government bodies, bodies which, I'm fairly certain, will appreciate the ability to collaborate in ways which time restrictions formerly made prohibitive (by which I mean both those of work and those enforced by the time required to create, print, reprint, package, and mail proposals, not even considering the reduced research time).

Equally, it would be wise to allow information taken from the intra-city networks, and couple it with information gathered in the same manner for the county commissioners. Then allow input again at this level; both from the public and from the commissioners and all other interested parties.

"Small-town.net:" - Here, I'm just as concerned that the towns make their entire presence felt on the net as I am with these towns literally connecting themselves and their government entities WITH each other, in order to produce new (and probably unthought of) economies of scale.

Allow small towns to share information on thorny issues. I see a time when our network (especially if it is one of the first up) can either sell or trade for other considerations, the solutions they've created through their collaboration. It is said that manifest genius isn't much more than standing on the shoulders of those who have gone before. There are any number of bright and capable people with ideas, or parts of ideas, (political, financial, social or whatever else) hidden in many of the governments of our small towns. But, unfortunately, they have few, if any, shoulders on which to stand.

With a network of small towns (the potential expansion goes beyond Kosciusko and beyond the few attempts that I've seen out there), the availability of solutions and ideas grows many-fold. To grossly paraphrase the biblical book of Ecclesiastes - "there's no new small-town problem under the sun" - or at least no problem that doesn't have major components of a given problem faced today. The exciting things about this particular facet, of course, is the far more rapid solutions available, the ability to experiment, or better, to check the proposed experiment with other data gathered from the past and present experience of other towns, and the potential of "being the town that had the missing piece" of some administrative nightmare or other.

D. CountyOffices.net - inclusive of everything in the Old and New courthouses, and the balance city and county offices and departments which are not (likely cannot be) centrally located. On one hand, the point of this network seems distinctly apparent. However, such a network also may includes a number of important subtleties which might be missed -- right along with broad-brush issues that will provide some immediate and apparent savings, savings potentially poured into creating ever more comprehensive networks. Frankly, I'd like to see (not to mention help build) a "kosciuskocounty.net" site similar to the "warsawcity.net" site discussed above, and I see little reason why it should not be feasible momentarily. However, a questions whose answer is not as clear at this level as at level of the City of Warsaw site is "who might be the center, the lightning rod for action on a county-level site, as the Mayor's Office is for the City?"

More Potential Areas for Cost Savings (available in some measure at all levels)

Printing. what if a way could be found to "print" the all common, yet constantly updated material *electronically*, place it online in a common but accurate format, and have it instantly available to anyone who needed it? Would this save money? The software is NOT that expensive (about \$500.00) and the training is relatively simple, especially for those already creating documents as part of their everyday work.

Here again, employees might be encouraged to take a close look at daily traffic in and out of their offices. What forms, if filled in before arrival, could speed a citizen through a given procedure faster? Lets put those forms online in the PDF format, so they can be printed out and brought in already completed. The next step to this process would be a sort of "form tree" within given offices and departments, which citizens could use to determine which forms are needed in the first place.

What if a citizen could determine what forms (s)he needed, and have them printed out, and completed (in the comfort of home) with plenty of online documentation, before ever arriving at the office?

Over time, of course, these "trees" would be melded so that rather than jump from department to department, office to office, board to board, the citizen starts and the top of a question and answer "session" on the web site, and by the process inherent in the questions, determines his or her needs exactly. I suspect this will save a great deal of phone time, as well as offering the convenience of fewer lines and faster (more convenient) fill-out times. (Not to mention the feeling of an efficient government that would be created.)

Telephone Issues: if we can keep people off the phones, we can save a huge amount of money in various ways:

- Long distance charges
- "internet telephony" (sic) new and only coming over the horizon, and
- what those in the business call "recorder fatigue".

Recorder fatigue is caused by the repetition of the same answer, to very nearly the same question, time, after time, after time, after time, with absolutely no way to stop it except by going home. When a medium is available 24 hours a day, and it is used to its fullest extent, (which in this case includes sets of frequently asked questions ("FAQs") placed online) the number of questions should drop steadily as people learn that they actually can get answers at city hall or the courthouse without using the telephone, or walking to it. It will grow with the growth of the Net itself.

My thoughts and research did not extend to looking for laws which might prohibit access by one department into the information held by another, but the issue is likely to be present, and should be given careful research, thought, and planning before anything is actuated.

A word about democracy and the disadvantaged: I've been asked (confirming my own doubts) various versions of the question: "What about those who cannot, and despite constantly dropping prices may not ever be able to purchase a computer, or more especially, be able or willing to use the internet with the kind of intensity the above material suggests?" Good point. I'd reply that three or so years ago, those of us on the forefront of the internet revolution here in the county never thought that more than 10-20% of Warsaw's population (our scope at the time) would ever get on the internet. A year or so ago, we doubted the number would cross the 50% mark. Now, we've stopped predicting a number publicly, and even privately, we fully expect 80 to 90% of Kosciusko and Hoosier citizens to "get online" in the coming years.

History also reminds us of such one-time "luxury" items as automobiles (when everyone had to be his/her own mechanic), telephones (see also answering machines and now voice mail, which doesn't even require your own machine), microwaves, cable television, gas, electrical power, all complicated, many, especially Cable, phones and automobiles, requiring an IMMENSE but gradual and sustainable investment in infrastructure for their popularity. Once that investment was made, the cultural curiosity turned itself to cultural necessity as new uses were found and adopted, and the increasing markets and competition dropped prices to a place where very nearly all of us make use of a these one-time "luxury" items every day. (Note: Having just seen full-fledged and reasonably decent computers at a computer convention just last Monday [19 April 1999] sell for \$299.00, which includes a year of internet service, I'm more convinced than ever that this situation will come to reality.)

I suspect that with the help of speaking/reading and listening/interpreting computers, even more people, including those most challenged among us, will find a brand new way to participate, potentially bringing participation in small-town democracy to new levels. Equally, while there are no features of computers dedicated especially to the mobility challenged, those who have difficulty "getting around", such individuals are among the best served by website and networks of the kinds just discussed and discussed in the coming chapter as well. We would all be wise to make ourselves aware of the continuing technology available to us which should aid us in servicing this sector. We ought, as well, to seek to make our sites as accomodating as possible to the challenged sector of our populace, keeping them prominently in mind *while designing the site*, rather than including them as an after-thought.

Chapter Two: A Downtown Merchant Net

The current state: Wal-mart vs the local hardware store.

The coming state: Amazon.com vs. OnCue vs. Readers' World.

This is not a matter of who will survive, but of who will thrive, and how.

Danger from a new quarter ... supermalls and electronic stores in the ether.*

Focus on niche marketing.

Focus on economies of scale.

Focus on unity against a giant foe.

How that unity will manifest itself...

I will focus, in this section, on the City of Warsaw, especially its downtown. While I will tend to use the Warsaw Downtown as an example (because I know it better than I know any other downtown, and because it is the reason I am enrolled in KLA), I want to be clear that what I write here is written such that it should be "easily" transferable to most other Downtowns large enough to profit from one or more of the proposals I make. As a matter of fact, (as noted above) the contents of this section stem from the fact that at one time, I had considered concentrating on this section as my entire White Paper.

I will likely make more applications (and non-computing related suggestions and comments) in this section as well, for a few additional reasons: there are far more possibilities, there is far more competition, and there are a larger number of possible negative side effects.

Danger from a new quarter ... supermalls and electronic stores in the ether.*

I suspect that the same forces that shaped Kosciusko's "frontier" development (and most other areas, for that matter) will shape Kosciusko's electronic frontier today, especially in the area of business and commerce. Just as the need for constant vigilance and invention drove our ancestors, so it will drive us today. This may sound alarmist, but there is literally "no place to hide" from what's coming. It may not touch us immediately, and unlike a military attack, or a drought, or most diseases, we may never feel it coming, until it is too late to do anything. Even then, we may not know exactly what it is that "got us."

What is this force? What is this thing for which we ought to be on constant watch? The heading to this section pretty much sums it up: essentially, competition from stores with little physical existence except at the cash register. Why are these stores dangerous? To sum it up in one word: convenience. Why wait until business hours to go to your local neighborhood bookstore, for example, and pay full price for a two or three books, when you can, at any time of day, with a few clicks from the comfort of your computer, search one web site (amazon.com), save enough on the price of the books to pay for shipping, and often have them within a day or two... about the same time you might have to wait for your schedule to clear enough to get to the bookstore when its open?

I could start slinging a bunch of numbers here about the growth of this kind of commerce, the fancy word for which is "e-commerce". But even if the predictions

... losing 15% of anything doesn't seem like much, unless it is the 15% you need to survive...

ring true, by 2005, ecommerce may only make up 10-15% of the US's multi-trillion dollar Gross National Product. Not much? Not really, until that 10-15% starts eating away at one's profit margins... losing 15% of anything doesn't seem like much, unless it is the 15% you need to survive...

Focus on economies of scale.

So the question becomes: how do we fight this trend, if we chose to fight at all? Warsaw's Downtown has quite a bit of diversity - almost 200 businesses packed into a few square miles, coupled with a lovely park system, well-kept storefronts, and a number of restaurants whose atmosphere provides a hands-down alternative to the national chains. However, the great majority share the same pair of disadvantages: First, they're small, and their advertising budgets (and hence their reach) are mostly small - most, it seems, choose (wisely for the moment) to invest their advertising dollars in the local media, and for some, in a few choice pieces of national media. The arrival of Warsaw's VSP-TV has done wonders for the television side of things, but even there, audience and interactivity, but especially duration, are all limited to various extents. Second, most do not have what would seem to be the kind of inventory one might "sell" (in the traditional sense) on the Web.

Enter the World Wide Web. Well, maybe not. The Web has a lot of drawbacks for the small merchant, and with the sort of web site that many small merchants could afford (if they chose to divert enough precious advertising dollars) it is hardly worth the diversion, since the market is still relatively small in the region to which they want to market themselves (only about 20-30% of Kosciusko households,

as of April, 1999; projected to be about 45-50% by mid-2000), and if they were to market to the world, they'd be faced with hiring more people to compensate for the growth, potentially eating up most of, or more than, the amount of additional money brought in.

Instead, enter something called the "electronic mall." Historically (a whole three years or so) what web-based malls existed were merely collections (rather eclectic at times) of shops who merely share a common promoter, and perhaps a critical anchor store - and who relied on the draw of one or more of these "popular" (anchor) shops to spin off business to some of the other shops. But they were always inconvenient to some extent - each for each store in which one shopped, one always had to pay separately. These malls were rarely successful, and NEVER in my "travels" did I ever see one that share any kind of geographical commonalty. So, most of the stores on the net now rely on the "find-me-in-Yahoo-or-Excite-and-I-hope-you'll-like-the-inventory-I-have-up-there" method of promotion.

I did about two-thirds of my Holiday shopping in this manner, and I must say that yanking out my credit card several dozen times over the course of seven to ten shopping days got old fast, as did keeping track of the various receipts and my shopping list. While a mall-type concept would certainly benefit larger downtowns like Warsaw or Syracuse, they still are faced with some real problems, problems that crop up back out in "realspace". To be implement-able this enterprise would need two main things with a third optional, but, I believe, a powerhouse.

1. Geographic commonalty - eases promotional issues, and raises trust.
2. One-cart-for-all-stores - I want to enter my shopping list on-line, and I want to get all of the items (or most of them) in one place, and pay for the whole lot ONCE, as I would in a hyper-mart like Meijer.
3. A "backend*" that is completely integrated, one which does not place the burden on each retailer individually, but rather distributes the workload to another LOCAL organization.

Two major (and very recent) developments, however, are beginning to crest the horizon, which I believe could be harnessed to make all three of these things come true, and make them cost-effective enough for consideration in our local communities.

The first is being "pioneered" by a coalition of Microsoft, IBM, Ross Perot's EDS, and a number of major banks, warehousing companies, and shipping companies like Fedex and UPS. This "meta-mall" (sic) concept, currently in "beta-testing*", hopes to use huge "anchor stores" comprised of the larger catalogue manufacturers, along with thousands, even tens of thousands of mid-level and even small stores, all sharing

an advertising budget, and in which shipping and handling is done for them by a common clearing house. There is, however, on VERY important difference, one not possible until very recently, mostly limited by computing power and communications speeds. (The data generated by this behemoth alone is expected to pass several "terabytes*" of data a day - several million novels or phone books if it were to be printed.)

That difference is best explained by asking that you picture Glenbrook with only one set of cash registers, or perhaps a set of cash registers at each mall entrance, rather than in each store. Additionally, instead of each store having its own receiving and shipping dock (obviously the metaphor breaks down a bit at this point), there is one huge warehouse that handles all shipping and receiving. The "meta-mall" promises exactly this: individual stores (especially the smallest) no longer need to have their own ecommerce solutions in hand before joining. They simply place their products online, and the check shows up each month, (if their product is worth buying, that is...).

However, I've had enough experience on the Web (including losing money to some "fake" storefronts) to realize that this meta-mall still has one short-coming: they aren't local. They're hard to trust - and why should I buy from someone I don't know, if someone I know gives me better, faster service in my own town?

This sets the stage for a **second development**, one for which I basically must either take the credit or shoulder the blame - bringing this "meta-mall" home. Most, if not all of the resources and manpower exist here in Warsaw to do this. I think it is also safe to say that if the various smaller towns in the county don't have everything needed on their own, there are other small towns that just might. It is the product of this stage of development that I'll detail below, because it involves more than just linking the 200 or so businesses in Downtown Warsaw to one common "virtual" cash-register that "chings" twenty-four hours a day, seven days a week - it involves literally changing the potential level at which Warsaw (or other towns or alliances of towns or even the county), could do business. I sincerely hope that it proves to be the way future business can be done in Warsaw and other cities, a way that both increases profits and profit margins, while keeping individual owner manpower and time requirements the same or even, if adopted completely, reduces them.

Focus on niche marketing and service, from a warehouse.

During the course of writing this and doing some quiet person-to-person research, a potential contradiction became apparent. If these economies of scale are to be produced by keeping people in their homes, seemingly glued to their computer screens, how is a downtown, many of whose shops simply cannot be on the Internet, survive, if its already slimming traffic is cut further?

The answer to that question lies both in the very operations that need the people (largely the restaurants) and in those stores that sell things people feel they need to see, (like antiques, unique clothes, and other unusual goods). This is perhaps oversimplified, but it represents the "thesis statement" for the whole mall concept:

If our current and future competition is going to (try to) beat us by becoming the purveyors of the usual and standard by selling at the lowest price made possible by economies of scale, then let us, let all downtowns, do something similar. Let US (or any other downtown) become the purveyors of the UNUSUAL and the UNIQUE by selling at the lowest prices we can afford, to a similarly large market, using our own, well-thought-out economies of scale.

**Three 'pieces'
critical to the suc-
cess of a Down-
town eMall ?**

- **Geographic com-
monalty**
- **One cart for all
stores, common
checkout**
- **A completely in-
tegrated and time-
saving backend...**

If any merchant's web site or the component of a mall web site is used properly, not only should it whet people's appetite to visually inspect goods they currently do not have the capacity to inspect fully (and likely never will) on the Web, but it should entice them downtown, for the pleasure of seeing personally. When they do arrive, let us continue to be certain, *as we do now*, that we continue to distinguish ourselves, and our styles of service from the pattern of the large stores: let us make sure a salesperson is present as soon as needed, that we provide the solid customer service that the competition does not, but more than that, that visitors to our stores can feel that they've gained some value, something extra and special, by coming to our stores, something they can never get from the web. If we can, lets even try to

(for those for which this means something) add value by having them leave our stores more informed consumers.

Focus on unity against a giant foe.

The unfortunate reality, completely apart from my words, is that few of us have time, few of us can afford to take a half-hour with our customers, hearing them, and having them learn from us. It is here that several components of the electronic mall could both give us additional time (by storing that learning electronically) and freeing store owners from many of the mundane, week-to-week, day to day chores that sap our time and energy.

What will such a mall look like? What are those components?

- the electronic facade
- the purchasing mechanism
- the advertising component
- distribution
- the staffing mechanism
- the accounting mechanism
- the communications component.

I'm NOT going to try to discuss all of these in depth. Their look is in too much flux to even pin down with comfortable precision. However, I'll describe each VERY briefly enough to both arouse curiosity, and to start the mental wheels turning.

The electronic facade: This, again, is the electronic hybrid of mall and department store, from the midst of which one takes everything through ONE cash register, and which has a rather specific and PROMOTED geographic unity. Online, the "surfers" experiencing our electronic mall should be able to, say, Christmas-shop from 6-12 stores, but only use their credit card once. Because everything that the stores want to sell will be online and therefore searchable, all articles should be easy to find. Just as important, many of the products are "co-branded" with similar items from other stores - like cookware and food, or movies and pizza, etc.

More difficult and requiring further ideas, is using co-branding to insure a constant message is driven home - "we offer this e-mall as a service, as a sign of our desire to keep serving you in this new age - but there are other stores in the downtown that you REALLY NEED TO SHOW UP TO ENJOY!" This is where a comment made above comes to bear: those stores which do not have "inventory" in the traditional sense (printers, service organizations, restaurants) can actually serve the downtown as the most powerful bridge between the electronic mall and the physical downtown. Where there is no excuse for stores with non-customized hard-goods not to ship on demand (or face going out of business) stores and service companies with customizable products still have the ability to "require" on-site visits - and it is with these enterprises that the third group of enterprises (restaurants, etc. which MUST have physical patronage) must co-brand and depend.

The purchasing mechanism: again, very simple on its face, but much more easily said than done. Each bank which has downtown businesses as customers will likely need to participate either in a primary sense or at a secondary level. At the most simplified level, there is one secured server, located on the same machine as the rest of the mall. (rather than sock each participating business with the fees for setup, purchase, or both.

All actual purchases are fed through this server, into one bank's accounting software - or into one main location, if banks are unprepared or unwilling.)

Once the combination of purchases have been sorted out, four things must happen, *in specific order (due to legal issues)*. First, notification (preferably electronic) must be sent to the merchant(s) affected, or the mutual local warehouse, if they choose not to do shipping themselves. Second, the goods must be shipped. When shipment is made, (date of delivery is inconsequential) the coordinating processor (the bank or computer center discussed above) is notified, and fourth, credit is posted to the various merchants' account(s), at which point, things look like a standard credit or debit card purchase. At this fourth stage, individual bank participation is critical, but the software for this is much more common. Once deposited/credited, there is little difference from standard transactions, with the exception of fewer trips to the bank with deposits.

Distribution of Sold Goods: The Mall, or the Merchant, does the shipping as noted above. Factors which would influence this decision include volume of traffic, physical size of the merchandise (a furniture store vs. a gift shop), whether or not the enterprise has or desires a constant internet connection, and more. For shipping done by the mall, a service fee is charged, computed based on the amount of time an employee of the given business might have taken to do the same process, with some arbitrary discount for issues of scale.

For example, a business which would normally sell 60 to 100 items a day requires "x" number of employees to cover the hours they are open. If, as a result of the e-mall, AVERAGE sales rise to 120-200 items a day (for simplicity's sake, not a guarantee) the enterprise is faced with either hiring additional personnel (to cover any business not soaked up by current employees 'idle time') or letting the Mall ship, with a portion of shipping charges covering Warehouse expenses. The rest would come from a determination (from a standard chart in an attempt at fairness) of how much the merchant would have spent in additional man-hours. Savings to the merchant result from time not taken in hiring, training, documenting, etc. of employees whose value may vary from week to week.

In addition, we'll need the cooperation of the larger (read that "national") shipping companies such as FedEx and UPS, along with coordination of local transport and courier-like companies. If there are not enough of these, then this represents either an additional revenue source for mall management, or for an entrepreneur.

The Advertising Mechanism: The Mall "Office" does the advertising, stretching dollars. We discussed above one very powerful advertising mechanism in which each group (type) of store is critical in either drawing people to the e-mall (those

with traditional inventory), or in drawing them to the e-mall for a quote on custom goods with the requirement that they come downtown for pickup.

However, this should by no means serve as a replacement for the traditional forms of advertising. All media should be still be used, with the exception that advertising should shift focus to the eMall and the downtown as wholes, with specific spotlights granted to enterprises with specials in a given time period (florists on a various holidays, etc.).

Staffing: I can see a clearinghouse taking shape in which people are able to fill in and submit resumés online. These resumés are then "e-forwarded" to the office(s) chosen to screen the applicants. The mall office may even handle the recruiting and the interviewing, along with paper-processing and macro-accounting, (1099's and W-2's, etc.) if need be. Applicants' resumés remain in a pool, until a given retailer requires additional staff. In the same fashion as a "temp" agency screens applicants, a downtown merchant organization might offer this as a service to members of the electronic mall.

Communications: It is extremely unlikely that this will be primarily a "during-the-day" network. I'd (also) hate to see the very time saved by the various additional services being sucked up by computer glitches, poor design, and a confusing (combination of) interface(s). There will be little need for the traditional "central server" since the local Internet Service Provider can handle the large bulk of the web-work and more importantly, the security.

Calendar - with links to other calendars that should be sprouting across the network: takes the guesswork out of planning very large (and even small) events across from each other... while there are almost too many events to avoid cross scheduling, it would make it easier to group various events so that there is a good variety each weekend/weeknight... (not three fish fries on the same night).

Forum - with public and private (secure) parts, and perhaps some in-between... The secure side allows for the running (read that "the extending out") of any number of "meetings" over the course of a week, rather than in an hour or so. How? Agendas are posted, comments are made (see the following "story") and discussion follows the threads of the agenda(s). Security for this area would be tightly controlled.

How to pay? How is this cheaper than hiring an accountant for everyone? The difference isn't JUST in economies of scale. If it were, if the ONLY thing that made this attractive was that it became cheaper to pay a bookkeeper 5 hours a week for

his time, this idea wouldn't be as attractive. The difference lies in the methods of transmission and access, the immediacy. Information no longer needs to wait to travel. From my own experience, I suspect that the greater part of anyone's reluctance to give over any part of their business to an outsider (besides trust and privacy issues) is accesses – immediate access. At the very least, additional services are payable to the Warsaw CDC, and thus kicked back out into the community. In the future, acceptance into this mall, or the Warsaw CDC, will work off of the dues of the various members who have joined in the past.

In addition, the more fun and educational experiences that are programmed downtown, the more people will actually ignore the internet, and come down.

EVERY store faces the pressure of the internet giants - leading me to believe that in order to survive, tiny downtown stores will require two skills to survive: first - not competing with THEMSELVES for scarce resources like time, and second, reaching out in ways that transcend the typical (and deservedly proud) spirit of the independent business owner, to rip more market share from the local and internet giants on the basis of renewed and energized customer service, based again on more time, made available by economies of scale.

No one, most especially someone running a small business has time any more for everything that has to be done to keep that business running. Running a small business successfully requires constant intake of information, along with constant output of information: rules and laws from various levels of government, financial information and reports flowing in and out, more specifically the constant pressure to find and keep good employees and the pressure to keep (at the very least) just the name of the business out in front of hungry consumers who are bombarded with the same information from every side, and who no longer are restricted to just the local shopping scene.

However, when we realize that these requirements exist for all businesses, to roughly the same degree, and that technology does offer solutions at a variety of levels, we can get started down the road toward information relief. Enter, once again, the "information architect" and the "information manager." In the same way that (see above) an IA can work with government to reduce paperwork and submission/turnaround times (among other things), this person can work with businesses which are concentrated in a similar way to government: in this case, with a tightly woven downtown.

While the concept of a downtown physical mall may seem alien and/or unwanted since it removes a large number of decisions from the hands of the small

business decision-makers, what if such a "mall" could be executed ONLY in "cyberspace", with only a few extra employees, or, even better, with one or two business leaders acting as rotating administrators for a very short time? And more importantly, what if the alliances which such a mall makes simpler, and the time which such alliances could potentially save, could actually give the small business owner the time and money to expand, or simply to savor the fruits of their labors?

The following scenario (condensed from various other smaller illustrations, research and my imagination) hopefully illustrates in story form a good bit of what we've discussed so far, while explaining a few extra things, and suggesting additional implementations and possibilities stemming from unique combinations of this chapter and the last:

In a time that could be the present, where people change not just jobs, but CAREERS every seven years on average, a "cubicle worker" from a large corporation in a large, impersonal city decides that she's had enough. She knows she's got enough unique skills to run her own business, and decides to try.

She's heard not only about Warsaw (from our listing in the top 100 small towns registry several years running) but about a variety of slightly larger cities in the Michiana area. She feels, though, that for her business to work, she'll need a downtown location, and so is looking specifically for a spot in a certain kind of downtown. After a quick preliminary Web search, she feels that, in ways that are statistically important, we look good for her business. But so do a few neighbor cities with slightly larger downtowns, when only the raw numbers are considered. In fact, we're in a dead heat with another local town for her business.

So she looks further another night after work. She's now looking around the net for property or a building. Warsaw, she finds, has a list both of downtown properties and properties in areas immediately surrounding the city. [I foresee (and hope to realize) a situation where all of the properties in the central business district are databased, and made available INSTANTLY, with large amounts of good information, the minute the involved (and allied) realtor presses the appropriate buttons on his or her web browser.] Not only does she see a list of the properties, but she has the opportunity to gather data about her neighbors and future associates, about which kind of advertising cooperation (cobranding) she can expect, and which kind of rules and expectations will govern her business' (and her) stay in Warsaw.

She looks for business forms to fill out. Warsaw has all of the necessary forms ready to either print out or file electronically. She doesn't have to come here, or wait for the mail to come to get the forms, nor must she pay postage to submit them to the proper authorities. Granted, she'll want to see the city for herself, but again, based on information gleaned from Warsaw's integrated "city-net", she is able to arrange a stay, find a number of unique and interesting places to eat, and make appointments with the necessary real estate, government, and promotional people before she ever arrives.

She also realizes one other, very important difference between Warsaw (or Syracuse, etc.) and the other cities at which she's looked - not only will she not have to worry quite as much about advertising, accounting, or personnel management, but she'll be able to spend more of her (precious) time developing her idea and her business, and her relationships, because not only was she able to obtain promises of capital online, but she found (unique) assurances that the sort of things (employment, accounting, etc.) that dog new and new-to-area business people out of an hour or two each day, can be taken care of with a "simple" membership in the downtown mall cooperative.

In the end, with a properly constructed and populated network of the kind I'm about to propose more fully, she can do everything but drive the truck, sitting on the sofa late at night, without taking time, miles, and/or loss of pay/vacation time just to get information. Even if not everything is done in a night or two, given a decision which requires days of research and correspondence in one case, and weeks of the same in another, who gets the contract and the business? Who looks more competent?

Even a month ago (February, 1999), her story might have ended here (which wouldn't have been too bad, all the same). But new ideas and new technology have mixed in my mind in the months since that time, so lets take the story forward a bit more - lets push this network thing as far as it will go -

She's made the decision for Warsaw. Not only has she found and signed for decent working space remotely, but she's been able to find the variety of office equipment she needs here by means of a cooperative (human and electronic) effort between some local business supply stores (who got tired of fighting Staples individually) and their national suppliers. Since she's been able to design her office space remotely by bringing "on board" a local interior decorator both during the ordering pro-

cess and during the delivery phase, she won't lose any time waiting for delivery, setup or anything else. She can spend the time setting up her apartment (which she also found online), and arranging the little personal details of the office space - not lugging desks, lamps, and equipment for a week or two.

She's already spoken to the mall/cooperative's employment specialist, and found that they have several people lined up for her to interview for the spots she has open. She makes her decision, pulls up their W2's and other employment paperwork online for them to sign (with electronic verification and security), and returns them to the mall's accounting/personnel group.

She'd decided, partially at the gentle prompting of the eMall's promotional and familiarization literature, to contribute her energies by joining one of the variety of planning committees. While she dreads the time commitment that she's used to such committees requiring, she's intrigued by what she's heard about how different things are in this wired town.

Within a day or two of joining the committee, she finds an invitation in her e-mail to "join" the committee at several levels. She's hardly surprised at the face to face meeting planned for over dinner at one of the local restaurants, but she is surprised by the username and password contained in the e-mail, coupled with directions on logging in to the committee's online forum. With an hour before dinner, she gets "online", surfs over to the forum area, and notices that the agenda for what appears to be the next meeting has already been posted. She also notes that various "threads" of discussion have already been started, with active discussion spanning days. She finds that a number of the issues have been settled, and only a few remain for face to face discussion.

Intrigued and happy to finally have some time on her hands, she realizes she can walk to dinner, and heads out not only to meet the committee for dinner, hoping to meet some (future) customers on the way (but only after having check the Parks Department's Evening activities schedule).

I can say with some authority that everything I've just described is not only "do-able" today, but is being done, in pieces, around the world, and in this county. We need, now, to be able to bring the pieces and the people together.

The web is getting easier and more likely to mirror real-life every month. Anyone who says otherwise is merely serving their own (financial) interests. I'm not saying this will be simple, but I am saying that it can, and SHOULD be designed with the people for whom it is intended firmly in mind.

Chapter Three

The Charity/Non-profit Network

Three core needs:

Money: doing more with what's given, and getting more, for less cost.

Volunteers: getting around increasing instability in volunteers schedules.

Communications: fast and accurate between the servers, and between the servers and the served.

This sector's greatest needs, I imagine, are and will be to raise money, to recruit volunteers, and to find whatever is needed to meet the needs of the groups they are trying to reach. Realistically, if any sector needs to be (and is) conscious of money, it is this one. Equally, because the charity/non-profit sector deals with the constantly changing needs of people (as opposed to governments and businesses, where needs are either created (the minority) or constant (the majority), rapid communication is a must. Last, because of wide and rapid schedule swings brought on by any assortment of causes, constant phone contact with volunteers, and matching those volunteers to a given (historically fixed) need is becoming more and more arduous. Thus, this sector holds correspondingly greater potential, but is also a bit more clear cut.

Informational publications -

Type 1 - Why spend hundreds to thousands of dollars on fancy brochures, whether to raise money or simply to inform, when by taking one less step (put the "camera ready art" through a \$99.00 software program, it is ready to be made available on the web, in the same format as it would have been printed - to all who want it, rather than hoping that even half of those to whom you send it will want to or have time to read it, much less act upon it.

Type 2 - Various changes in applicable laws - especially tax laws as they relate to giving - why suffer through this process alone? Who does this now? Where before, any committee designed to research this for everyone would have had to create and print a book, today, all of that research can be placed on the web, or even more simply, "linked to" from the most basic of pages... (no HTML* required)

Money: doing more with what's given, and getting more for less cost.

Content that will aid this:

Posting of major documents (especially those constantly updated, or those constantly distributed [or both]) in a format which looks exactly like the format in which the document would be printed. This format is called a Portable Document Format, and the "reader" (application) for this format is FREE from Adobe corporation, the makers (as well) of the software used to create this document.

Once the document is posted, "distribution" becomes a matter of mailing a postcard with the new URL (web location/address) to the interested parties. The document can then be loaded to the visitor's computer hard drive, and either viewed from there, or printed out with 99% of the printers available in popular use today.

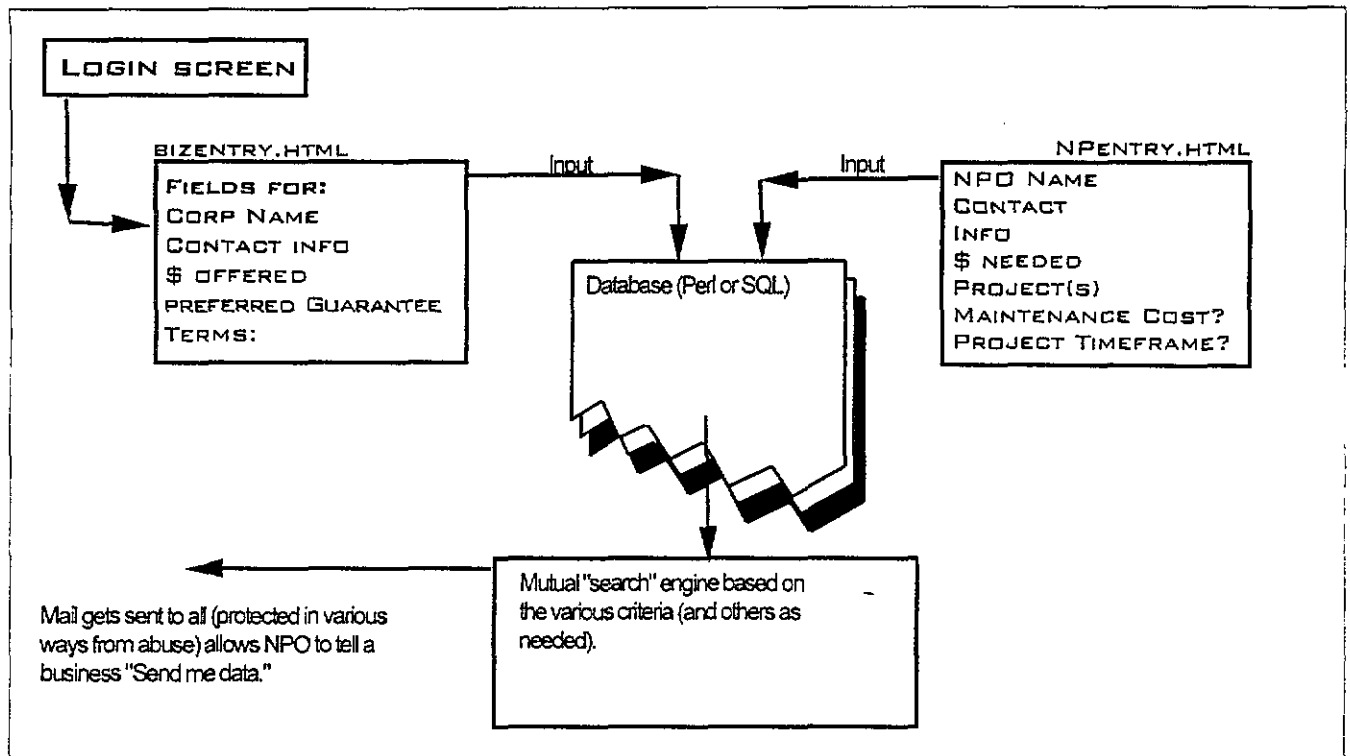
Routine billings: according to statistics from a wide variety of sources over the past six months, it currently takes large companies between \$2.00 and \$3.00 or more per "bill" in a billing cycle, for print mail distributed through the US Post Office. Now, however, any billings or anything routinely and comfortably done via Web Forms or electronic mail is only costing in the range of US\$0.45 to \$0.55. Why bother to use paper bills to gather periodic pledges if you don't have to?

Financial forms - to allow application by NP's to United Way, to allow verification of status, basically anything that is printed, which does not need to be in print to be legal or even which must be repeatedly filled out and could be filled out outside of the office to which it must be submitted.

Calendar of events: Kosciusko County, in my experience, has been very highly blessed with such a dedicated percentage. People here will go to various events, or try to, on the same night, since they tend to be quite generous. However, there still seem to be troubles with either not being totally certain of an event's day and time, or not being aware of it at all. It has even occurred to me that this system could allow a different kind of decision: if a "perfect" date for a fund-raiser or other function has already been set, and another organization is faced with cross-scheduling against it, an events calendar (similar in scope to but less accessible/more highly policed for content than KCOOnline/ HoosierLink's Community Calendar) would allow the organizers one of two options: either re-schedule the event, or find a way to schedule such that elements of the event provide a good contrast, or a good segue from or to the other event for the time slice. .

Volunteers: getting around increasing instability in volunteers schedules.

Reiterating what was noted briefly above: people's schedules are becoming increasingly unstable, parallel with the demands of a faster paced society.



(Above) Sketch of prototype of funding cross-matcher being built/prototyped by KCOOnline, Inc for Fort Wayne.

Content that will aid this:

Forum - (secure) This can be used either by the volunteer pool or by the coordinators. The volunteer pool might use it to discuss/suggest various improvements to be made to a given assignment, or to talk with, even train (or comfort) other, newer volunteers, allowing or creating a higher comfort level within the volunteer community. On the other hand, the volunteer coordinator(s) might use it to discuss among themselves better ways to soften the impact of volunteering, (better schedules, etc.) and by discussing things that have worked for various groups in various attempts to upgrade volunteer recruitment and retention.

Communications: *fast and accurate between the servers, and between the servers and the served.*

How many times have we, ourselves, seen someone in need, or had someone approach us with a serious need for which we knew there must be a solution, but had little or no idea where to start with our search? This network should be set up in such a way as to ensure that it becomes the place to start. Not only should a "needs matching" database be set up for the public, but there should be some provision for handling those cases for which we have not yet seen solutions, let alone set up procedures or an agency.

This can be an on-the-web clearing house for the needs of everyone, both servers and served.

Steps to building this Sector's Network:

First - Revitalize the CCS "volunteer board"/web page (a joint creation of Combined Community Services and KCOOnline/KCDesign) - at <http://www.kcccs.org>. This will help businesses and business people connect with the local needs, and at the very least, place the issue in high demand. I'm quite certain that the local ISP would gladly run banner ads to promote such a page...

Second, again, using CCS as the center, although the United Way could do the same thing - or at least benefit... CCS puts up an inventory of what's come in over the last year, so that people know what is appropriate, what is needed... rather than lots of this, and lots of that... (keep it current, back to about the year prior.) and begin establishing the methods for those groups to talk to each other, to share data, and share experiences. When those groups have solidified, we merge them again, and again, until we've got a network covering every charity and not-for-profit in the county, perhaps the region...

Paying for it:

Can we pay for this by getting a major corporate underwriter, especially if that is simply for the opening project? Can we automate everything from the start? Will the amount of time and energy, along with a revitalized community, and all of the other demonstrated benefits be enough to encourage "the blessed" to underwrite this?

Structure?

Looking at a diagram I drew during and after a recent KLA class on this very subject, I'm reminded that, when I "organized" the United Way organizations into a sort of "network wheel" (a sort of information architected finished product). As one travels either clockwise, or counter-clockwise around the wheel, one sees the local demographic broken (largely) into chronological groups. (We are truly blessed to have such a spectrum in a town this size)

As one travels along various spokes of the wheel, (with United Way located at the center, in this particular representation), we are able to see the flow of resources - money, time, hard goods, and services. I have little doubt that while these dynamics have been thought of already, their application to network has not been touched. Therefore, the simplest way to define any intended structure (this will need a lot more work [and knowledge] from within the non-profit community) is to say that we need to first network small groups of NP's within age groups, to reduce cost outlays for resource gathering. Then, these groups can be tied into the whole, at which time the full power of the "content" of the meta-network (as described in the "content" section above) can be felt.

Chapter Four:

Churches in the Online Environment

(originally a Sub-Group of Chapter Three - Worth breaking out)

In my time at KCOonline, I have observed a great deal of religious activity online - activity within this county. Of the approximately 10-11 dozen churches reported by various phone-books, at least 3-4 dozen already have a "web-presence" to a greater or lesser extent. Most of these presences, however, are of the "billboard" variety - simply an exercise in name recognition, and attracting those new to the community, or contemplating being new to the community.

I would suggest, given these two factors (and several other minor ones), that this county is ready for the next step in its religious "online presence." That next step involves creating an online "super-community" of the religiously inclined, a sort of "super-church". I am NOT speaking in a theological sense here. (I've had too much religious training to know or believe that such a proposal approaches the rational.) What I AM speaking of, though, is the creation of a community, a community spread out across AND between churches of various denominations for a few simple purposes:

- *sharing of problems and prayers, both between church "goers" and church "leaders".*
- *sharing of meaningful interaction and discussions.*
- *sharing of joy when things go right.*
- *sharing of resources when things go really wrong.*

In a more concrete sense, what I'm proposing at the most basic is a forum-like structure, moving (as the web goes) in slow motion, its conversations building in permanently archived streams of conversation about every imaginable religious context and content.

And, for those occasions (like a mass holiday celebration), a county wide "surf-in" chat room/service for those who either are not comfortable in large-group settings and so do not attend the traditional larger church or for those who are truly (for reasons of physical challenge), unable to do so.

In such a setup, those who would normally remain outside of the church's reach can be induced to walk more closely, simply through the power of the internet.

I leave this as another potential area for research by someone from the KLA Class of 2000 or 2001.

Chapter Five

Network Combinations, Network Cooperation, and the Super Network...

How many different ways can four networks be combined, and to what effect?

Or is it just four networks?

Instead of combining main networks, would it be better to cooperate among the modules?

What networks could be tried, but have less of a chance for a good return?

Where does this networking stop?

I've written this chapter with only two goals in mind: first, to provide food for imaginations by showing and describing briefly just a few other examples (one of which is already being proposed in far greater depth in other 1999 KLA White Paper), and second, as the "showcase" for the "Total Kosciusko Network" (TKN) idea. Because it has its dangers and its benefits, most of the discussion, including all of the discussion around the first goal will address the TKN concept.

How many different ways could the four main networks be combined, and to what effect?

Let's list some, and evaluate them as they come up - some will be good ideas, others will be downright dangerous. *I believe that once we've evaluated them on a major network basis, and once we've looked at the next question, we'll be able to first address a better way (level) to address the combination issue, and from that, build a paper prototype of the TKN.*

1. Government/Church:

Obviously not, at a Constitutional level, but I'd suggest that Churches holding/ coordinating special events might file for permits, etc., and receive approval in this manner.

2. Government/Business:

Maybe not the most savory on its face, especially if too much pressure is exerted in the wrong direction. However, as business and government begin to look and act the same, and exert the same power and influence on the national

level, there may be a time when they do the same thing on the local level as well. Additionally, since there are already large numbers of parallels between the two groups: (people "vote" for both and are therefore "represented" by both), they pay both, in a manner of speaking, and have some level of control over the "price" of both, it might be wise for elements of both organizations to learn lessons from each other with regard to the best possible modes and methods of service - both have extensive experience in this area.

Equally, government can make life easier for business by reducing paperwork in the manner(s) noted above and facilitating online fee and tax payment.

3. Government/(Charities/NonProfits):

I don't know that this relationship can be helpful either way at first glance. However, it may come to issues of tracking those (and corresponding about) who are trying to take advantage of one group or the other for fiscal gain. Certainly, on a department by department or level by level basis (city, county, etc.), it would be easier to manage various funding campaigns, especially the United Way Annual campaign. In the same way as the churches, any permits required can be obtained online.

4. Church/(Charity/NonProfits):

The number of uses to this combinations are limited only by the imagination. A church could much more easily find a project to sponsor or need to fill. On the other hand, churches could finally make available in a reasonably SECURE manner, a list of the truly needy, for discreet contact by the appropriate agency. (Even if names were not mentioned, and discretion was the intent of the above sentence, how many church pastors and helpers have encountered a given situation of extreme need, with NO idea of where to turn to seek help, or even what kind of help to seek?)

5. Church/Business:

I must admit that I'm at a loss. It has been suggested to me that both are establishing and servicing needs in the community, including between each other. Perhaps each can learn from the experience of the other about need and satisfaction. However, I'm certain that eventually, as the network matures, uses of which I never dreamed will emerge, and someone will find a more detailed connection here.

6. Business/(Charity/NonProfits):

Again, the United Way campaign, along with other fund-raisers (especially those working on pledges or regular-period giving could benefit from this contact at this level.

What networks could be tried, but have less of a chance for a good return? (Not necessarily for success, just measurable return.)

1. Education:

Degrees needed for a job in the community, and inversely, the community creates a database (observed by a variety of local schools, to anticipate and provide career direction to keep from advising too many students in one direction or the other. The other possibility, of course, is that of "tele-education".

2. A cooperation between education and corporations:

Whether for the provision of tutors, the arrangement of tutor scheduling, the making available of internships and career advice days, anything which requires communication between the two entities. I'm reasonable certain that this issue will be covered in another 1999 KLA White Paper.

3. Medical networks:

I realize that the Constitutional and other privacy issues attached to such networks are intense. However, the possibility of saving lives in an emergency, or more simply of fast, comprehensive, informed, and therefore more effective treatment, or the amount of research and evaluation which could be accomplished by linking together all medical services is attractive enough to at least cause me to propose the issue. I see ("simply") a computerization of all medical data (not really a long-shot, since most is these days anyway), and in emergency or other situations (with the patient's approval as much as possible), ALL the appropriate data, whether from one's pharmacist, one's doctor(s), or wherever else, is made available to whoever needs it.

These are but three of the possible networks.

Instead of combining main networks, or dreaming up new ones, would it be best to cooperate among the modules? (The better way to address.)

We've already addressed modularity elsewhere in this paper, mostly to analyze it for the possible benefits it offers with regard to ease of setup, growth, scalability* issues and more. We did not, however, evaluate modularity as a way to combine for growth of size and comprehensiveness of the network itself. I believe that it would indeed be effective for such a purpose, although the scope of this paper and the investigation required do not permit REAL answers in this short a paper or time.

Where does this networking stop?

The simplest answer to this question is "It hasn't stopped yet." In all seriousness, the Web continues to grow because people are constantly finding new ways, and simpler ways to make information available, which as often as not leads to more

information being made available, and a steady supply of new networking methods and motives. I've stated before that I see this proposal as only a base for thought. I almost hope that before this project is implemented, someone (myself or any other) makes this whole paper more or less look like a starting point.

However, on the other hand, we may wish to stop for a while and catch our breath at either one of the higher levels of integration within the four network areas discussed at length above, or only having completed the four main areas (and a few of the other suggested attempts.) I'm also under no illusions that progress in one area will be as speedy as progress in any of the others. Therefore, the network I'm about to propose may actually exist in theory only for a long time, or it may make itself know in a way I never anticipated. However, at some time, I would hope to see all of the various networks and their manifestations at the various levels join into a county-wide network, with large chunks accessible to all citizens.

Chapter Six

Security, Construction, and Maintenance Concerns

How do we build this?

How do we keep these nets and the "super-net" secure?

How do we insure that they run properly and stay running properly?

Results when the network is abandoned or ignored...-

Administrative and Maintenance Issues:

People

Training

I cannot afford to ignore the immense risk (often touched on above) presented by this technology. With these various risks in mind, I present a short-list of them here, again, so that I am not accused of ignoring or being ignorant of, the various risks. More importantly, though, I want to give them their own space, where expanded discussion of a few possible solutions might take place.

One of the first major problems that always accompanies the establishment of any network of computers, (quite simply, any time two computers are connected by any sort of communication line open in some way to the outside world) is the human problem. The media today knows them as "hackers" (a corruption of a once noble word, which was applied to people who solved difficult computer problems). Whether the problem comes from those who simply have no respect for privacy (more common today) or from those looking for a challenge (the most dangerous group) or even the simply curious, it remains a problem. This is, of course, ignoring the more subtle "threat", that of a recently laid-off employee or associate still in possession of unchanged passwords, doing damage to the system(s) to which (s)he has had access.

However, this problem isn't anything that we haven't seen before, whether in computer history, or simply in human history in general: diplomacy, war, or any other situation where one group knows something that another group wants to know. More importantly, this is a problem which has historically received serious attention, attention which increases steadily. This attention has yielded very solid and comprehensive solutions, both "passive" (similar to a locked door) and more recently, "active" (similar to an armed security guard, locked and loaded, behind the door).

Each implementation should be subject to two assessments. There should be an initial assessment, made as part of the start-up phase, of the information being made available, and the kind(s) of "hacker" likely to be attracted to it, with provisions made for all types, and a concentration on the main type. The second assessment should actually be comprised of a series of assessments conducted as the network(s) grow(s), information content changes, and the number and type of users change and increase.

I believe that one of our best allies not only in building and maintaining this "web", but also in securing it, will be a concept known as "modularity". By definition, modularity will have its greatest impact and application in the government sector, where the number of distinct and equal units is greatest, but it will, I think, prove useful in all of the areas discussed above. After all, the "Kosciusko super-net" around which this whole project is based, and the entire "net" (on the global scale) is made up, quite simply, of a given number of smaller "modules", some of which can be further broken down.

Results when the network is abandoned or ignored:

Abandonment is likely to be the result, first, of poor or inadequate forethought - leading to a hard-to-use interface, difficulty entering information quickly/seamlessly, or simply the difficulty and (perceived) expense of maintaining the system. However, it could also be the result of poor choice of software, or of inadequate software. This is a subject I'd dearly love to address here, but which I've deliberately chosen to avoid, for two reasons: first, any *very specific* recommendations which I'd be likely to make are also likely to be obsolete by the time this paper receives serious consideration (if it ever does), and second, because, while I'm reasonably familiar with the three main operating systems in use today, and with some of the networking software which runs on them, I'm partial to the "minority" operating system, and therefore, I would find it quite difficult to keep my recommendations unbiased.

Where is it prudent to start, and how should the process run?

I suggest starting by aligning computer systems within departments.

Decide what products get moved most. Digitize these, placing them on web sites.

Create forums within departments, then between department groups, then across a sector.

Unite the web sites into a cohesive whole, with one IT manager across the sector, handling and increasing interactivity with the userbase over the years.

Administrative and Maintenance Issues:

People:

People are absolutely critical to the building, and to the continued and ultimate success of this venture. Just as the formation of this county was done largely for people (with a widely varying set of needs), so this project is being proposed (ultimately) with people in mind: saving them work, stress, time, and money. Therefore, for this network to succeed, we need to insure that the more closely someone is tied to the network, the simpler it becomes for that person to use.

In today's world of Windows 95 and 98 "daymares," this whole process seems counter-intuitive. It just doesn't seem to make sense to suggest that we can make this project "simple" for folks to use, when "computers are so darn difficult". However, there are a number of trends emerging which, if harnessed and managed correctly, can be made to serve our purposes.

In the process of writing this chapter, I'd thought about suggesting some sort of management system (read that "people/offices/bureaucracy") but I'll steer clear of that, since the complications it could introduce could very well kill the project, if they were to be considered as a startup issue, rather than as the collateral issue that I see them to be. This might be a worthy study project for another KLA class member, or we might consider it AS the project grows, and as our needs are more distinctly felt, rather than in the project's formative stages. Whatever management system we eventually created, however, will have to have as part of its reason for existing one major focus: training the people who are "charged" with maintaining this network, not just those who "pull the cables," but those who provide its real value: the information which I hope will save us all time and headaches.

Training issues:

If this network is implemented carefully and correctly, two distinct trends will help make such nets much less daunting than they sound. The first trend, which is really just an implementation of existing technology on a "homegrown" much less expensive level, is called the "browser updatable" or the "dynamically updatable" web page/site. Such sites are created, as mentioned at various other points in this paper, to be updated using nothing more complicated than a web page pulled up in a browser.

The user simply enters an assigned or chosen username and password on a specified web page. He or she is presented with a form-like document (depending on what's being added or updated. The various lines of the "form" are filled in (for various

applications mentioned within this document, it may well simply be a large "text-field" into which (s)he drops the whole text contents of this agenda or her minutes.

The second trend is a trend occurring within the HTML coding community and language. Many computer users during the eighties and very early nineties will remember how something we take very much for granted today really operated: they will remember the word processor. For the sake of those who don't remember, and for clarity on this point, all of the "first generation" (and some even in succeeding generations) did not make things "bold" or "italicized" or "underlined" in the simple manner we do today: today, we simply highlight the word(s) and press the "bold" button, or the "underline" button. In that time, however, when once wanted something to be "boldface", (s)he would find a way (it varied) to single out the word(s) for boldfacing or whatever other emphasis needed to be made. Then, the writer would make various symbols before and after the word or phrase. In those days, a /b bold-faced/b word was sent to the printer looking like /ithis/i. or like this.

For most of the applications of technology here, the trend is shaping up in similar manner: Today's HTML (the markup language that makes webpages what they are, and readable on all computers) is still quite similar to the word-processing productions that were coming into there own a decade or so ago. When this trend comes to final "fruition," in about 2-3 years, maintaining this web/network will be no more difficult than filing any of the other reports which are filed on a regular basis, and if planning, implementation, and programming are carried out in a VERY careful and thoughtful manner, the network may actually update itself, as a result of normal, everyday processes.

Even if both of these trends materialize as I expect them to, though, this project faces an entire generation which grew up without computers. This generation is not to be mocked or belittled, but rather, trained to understand the computers with which they find themselves forced to do battle on a daily basis. (Microsoft doesn't make that job any simpler, but that's another paper.)

This "training" and deeper, the establishment of the mindset that computers truly can be "tamed" into being our friends, our work-horses, solutions instead of problems, will take significant doses of time and effort. However, there is a solution which may help with that issue: a solution called mentoring. Under a mentoring program, someone comfortable with computers "moves up alongside" someone who is not, and rather than simply teach them "how to use _____ program", actually teaches them the "why" of not only the program, but of its surroundings, its "theory", and its impact on the others in the organization. We have an ample supply of such people, if we ignore (I wish I could say "simply ignore") the fact that most of these folks are half our ages.

What I am proposing is that we use our high school youth to teach this current generation about computers. Such a program would take work and serious maintenance (and likely a very strong will), but the side effects would be enormous. The current generation would increase their workflow (dramatically) and the younger generation would (hopefully) gain a strong interest in both networking and the inner workings of American Civilian Government. What a bargain: while their parents are made more productive and competitive on the job (thus ensuring their continued comfort), their children find themselves with the potential of gaining not only enough respect to serve their communities in the future, but with enough knowledge to assure that the work we've started will survive into the very capable hands of the next generation.

Chapter Seven

The "Bottom Line"

How do we pay for start-up costs?

Can we start one place first and see if it works?

Where IS the money to be made on this (these) project(s)?

(If at all?)

(And how do we measure it?)

If this is our only concern, then we're in trouble. Perhaps, however, now that I've gotten your attention, I should reword that to say 'If this is the PRIMARY question we're asking, the project, the concept, is in trouble. Even making that comment, though, I'm aware that there is a sharp difference between what I and other "net geeks" dream up in our "Ivory Towers", and think *should* happen, and the harsh world of business and fiscal reality. I realize that, while those who founded and built Kosciusko County, Warsaw, Syracuse, and the host of other towns and the businesses which reside in them did not have money as their FOREMOST objective, it was back there somewhere. After all, we all need money to survive.

I speak as I do about funding and bottom lines, though, because not all of, and I daresay *most of* the realized gains from projects like this will not be measurable in "hard currency". Some areas will, no doubt, make money directly (not counting the network specialists and other computer related businesses.) However, I will suggest that we rather focus our eyes on the time that will be saved, saved on the part of the server/businessperson, and on the part of the served. More importantly, I suggest that we develop means (appropriate to the various sectors) of counting, of "touching" the "intangible" benefits of this system. I would even hazard the comment that in the development of these means of measurement, we'll find not only reasons to start, build, and maintain these projects, but to expand them further.

I have found, as I've built various sites, and consulted on others, that every hour we can save ourselves from re-doing something "routine" is an hour for thought, an hour for action, an hour for play, an hour for actually spending WITH the customer, and for making money because we know or have anticipated his or her needs that much better.

Funding It?

Each section will have a unique funding source.

I'm afraid (and rather embarrassed) to admit that I have simply not had the time or the energy to investigate these options. However, I have come across, in the course of my daily work, various funding sources and funding "centers" around which a future KLA class-member might build his or her paper.

Government - Grants

Charities - Corporations and Grants (Kosc. Co. Foundation?)

Education - Taxes and or Tuition, internal funding

Downtown - Merchant Dues, Mainstreet Grants

Money Net? - Participating Organizations...

The expenses to be expected in projects like this will differ among the various groups: for the downtown "mall" concept or the charity-net, for instance, most of the investment, if any, will be in "up-to-date" computers, since browsers and most other required "net-clients" are free, with the notable exception of any accounting software which might eventually be included. On the other hand, the government network would cost considerably more, but the cost can be anticipated to spread evenly across roughly three or four distinct categories, not all of which need to be implemented immediately. Those three areas could be roughly named "boxes" (the computers themselves), networking software, wiring (for government offices in close proximity, like a courthouse or a city hall), which isn't all that critical.

Additionally, as we suggested above, requirements, and hence costs, will vary dramatically across the various "modules", and sections of this project. I suspect, and therefore suggest, that the project(s) be started in areas where the most "hard cash" is likely to be generated.

Essentially, though, other than optional wiring (which increases something known as "bandwidth" or the amount of information which can be transferred at one time), the only other expense for most government offices, and for any of the other nets, will be a "central " "server". This computer holds much of the network software, and acts as a central storage unit for common and/or frequently accessed information. Such a "server" will tend to cost the equivalent of one or two (on occasion three, but that's rare) times the price of an ordinary computer.

Conclusion

This is likely to be a challenging, if not downright difficult project. I am NOT promising that ANY of this will be anywhere close to simple. The temptation will be to simply say "forget it, this guy's nuts."

However, I am willing to wager that none of these projects, if given conscientious thought, careful planning, and deliberate execution, will it be as difficult, expensive, or complicated as they may sound. This county has enough risk-takers, enough people willing to come forward with ideas and solutions, and enough money to risk on them. If it didn't, we'd not be the comfortable, pleasant county we are today. And I'm quite certain that founding our county, and taking the risks both then, and the many risks we've all taken since, were also far from simple. But we took them, and we've been blessed.

I am only one person, and my ideas are limited by my background and by my vision. Others will (and should) come up with ideas to fill the gaps exposed by this paper, and I hope they will. (This paper should be online by the time you read this, (as proof of the process) and I hope that the methods of interaction created and in place there shortly thereafter will allow for such improvement.)

*[The location should be: <http://www.kconline.com/government/NK.html> ,
with a more direct route being
<http://www.kconline.com/government/networkingkosc.pdf>]*

But my ideas are also tempered by my experience both in tech supporting several hundred people onto the internet, and in my emerging service to the Kosciusko Community and the Whitman Group not only as web manager for a number of large and national sites, but as a MIS of sorts. I have encountered varying levels of fear, uncertainty, and self-doubt, but these almost always disappeared when the necessary training was provided. The teaching aspect of this endeavor must be carefully planned, and continuously practiced AND upgraded.

Again, what is contained in this paper may be obsolete five years from now, despite my best attempts to keep this a more or less "technology general" paper, a thought exercise.

Simply saying that I believe that the benefits outweigh the problems is drastic (but necessary) oversimplification, made only for effect and summary. The consequences in any direction are impossible to ignore, once highlighted. If all I've done is to provoke thought, then on one hand, great, but on the other hand, lets turn that thought into action.

The evidence and the trends are difficult to ignore. The world IS coming to Kosciusko County on waves of electrons and beams of light, and it is bringing with it an undreamed of era of convenience and rapid satisfaction. But it is also bringing with it competition from undreamed of directions and in unimagined proportions, competition which threatens to scuttle the prosperity of unprepared cities and regions. We cannot ignore this any more than we could ignore the changes brought by moving State route 30 away from the route taken by the old Lincoln Highway.

Only if we anticipate and plan for such dramatic changes will we survive. But I hope for more than survival for this county - as blessed as it has been. It is my hope that this paper will unite us in ways of which we never dreamed, but because we now must, perhaps our early "heads-up" will occasion a "hands-to-the-shovel" attitude that will place this county in the forefront again, allowing us not just to keep the prosperity with which we've been blessed, but to extend that prosperity even further, and spread it around even better, by our having acted early.

Appendix A: Glossary of Selected Computer Terms: (as used in this paper).

I have tried valiantly to keep the number of terms (which I use every day) to a minimum, and I've also tried to keep the technical details, like server types, hardware specifications, and lots of other things to a bare minimum, not just because of their rapid obsolescence, but because I felt that they got in the way.

However, there are some terms which simply need to become part of the common language, because they are very close to terms we use every day already, to describe common, "real-space" events. I include these terms here because a knowledge of them provides an easy bridge to the mindset from which I'm coming at this issue, and from that bridge, I believe it is much easier to see future structures, and thus the future itself.

So, in the definitions below, I will *stay away from* the more common, dry, textbook definitions for a given word or phrase, opting instead for definitions which will provide some kind of word picture, or some kind of bridge between the world of books, printed reports, phone calls, car horns, and other atomic things, to the world of PDF's, e-mails, modem squeals, and other things electronic.

Database - a collection of related information about a subject organized in a useful manner that provides a base or foundation for procedures, such as retrieving information, drawing conclusions, and making decisions. Any collection of information that serves these purposes qualifies as a database, even if the information isn't stored on a computer. In fact, important predecessors of today's sophisticated business database systems were files kept on index cards and stored in file cabinets. Information usually is divided into data records, each with one or more data fields. *

E-mail address - typically in the format *yourname@yourcompany.com*, it is the address to which electronic mail is delivered. An e-mail address can accept properly addressed messages from human beings, and it can also accept electronically generated product requests from websites, along with sales information.

Ether - a slang term which helps those of us who work everyday to create "reality" which actually exists only on a millimeter or so square piece of metal-coated plastic. It is intended to describe the untouchable "reality" that is created as a result of computer and application and code combined.

Firewall - A security procedure that places specially programmed computer system between computer system between an organization's local area network (LAN) and the Internet. The firewall computer prevents crackers from accessing the internal network. Unfortunately, it also prevents the organization's computer users from gaining direct access to the Internet. The access that the firewall provides is indirect and mediated by programs called proxy servers.*

Gigabyte - Measure of data. A Gigabyte is the next increment up from a Megabyte (see) and is roughly equivalent to a 500 to 1,000 volume library.

HTML - stands for **HyperText Markup Language**. - the core scripting language used on the Internet today, it is the language that made the World Wide Web possible. It essentially describes to browsers how a page should look, using a language, or script that has been globally agreed upon in a series of ISO agreements. (Until Microsoft decided to corner the market by making up its own extensions...)

Information Architect - A new form of web design based on a research about web-users' preference when viewing sites. Users are looking for information, and the job of an information architect is not necessarily to execute a site (like an engineer or a contractor), his/her job instead is to make the site and the data it presents, as easily accessible as possible.

Interactive, Interactivity - The ability to present more on a page than simple, static information. Whether this manifests as offering a user the ability to vote, or to make suggestions, or simply to extract data from a database, being interactive is far preferable to being "static".

Perl/CGI - a scripting language (formerly used only to generate reports on Unix machines) used to create interactivity between a web site user and site-owner. Often used to either detect certain variables like machine/browser type, or location/time, or to take user input, and from them, create dynamic, (customized) pages. Very useful in storefront and decision-tree based websites. (see also PerlDatabase and SQL Database.)

Megabyte - Measure of data. A Megabyte is the next increment up from a Kilobyte (about a typewritten page) and is roughly equivalent to about the phone book of a large city or a large novel.

Network - Any communications, data exchange, and resource sharing system created by linking two or more computers and establishing standards (called protocols), so that they can work together. *

PDF - Stands for Portable Document Format. Readable on any machine (Windows, Macintosh, Unix, etc) on which has been installed the Adobe Acrobat Reader, a freeware program created by Adobe Systems Incorporated. PDF documents are easily created from most page-layout programs, including Quark, Photoshop, and Adobe Systems own PageMaker.

PerlDatabase - A text based database which is easily accessible and easy to create. Programs (called scripts) for accessing the database, and for interfacing with web users, are also relatively simple to create, making it a good candidate for smaller applications where dynamic web pages (pages custom-created for a user) are necessary.

Scalability - The capability of hardware or software to accomodate increasing numbers of users. A server than can accomodate a few hundred users may fail catastrophically when the number of users expands to 10,000. A scalable system includes an upgrade path that enables administrators to add extra capacity as needed to that overall system performance is not degraded.*

Search Engine - Any program that locates needed information in a database, but especially an Internet-accessible search service that enables you to search for information on the Internet. To use a search engine, you type one or more key words; the result is a list of documents or files that contain one or more of these words in their titles, descriptions or text. The databases of most Internet search engines contain World Wide Web (WWW) documents. Compiling the database requires an automated search routine called a spider (forms filled out by Web authors) or a search of other databases of Internet documents.*

Secure Socket Layer(s) - "SSL" - An internet security standard widely supported by leading Web browsers and Web servers. SSL is application independent - it works with all Internet tools, not just the World Wide Web. With the 128-bit keys used for SSL communication within the US, the encrypted transmission would be computationally infeasible (not impossible, with 100's of thousands of computers linked together) to decode, so it is safe from snoopers and criminals.

Server - a computer running special software which enables it to "serve" or "dispense" Web information in the form of HTML (and usually Perl) pages.

SQL Database (*see also Perl Database*) - SQL (pronounced 'sequel') is an IBM developed query language that has become the de facto standard for querying databases in the sort of networks needed for this project. Its four basic commands correspond to the four most basic functions of data manipulation. SQL queries approximate the structure of an English natural-language query. Because of its incredible speed (relative to other database languages, including larger Perl databases) and its almost universal acceptance, it is an appropriate choice for any new databases created during this project.*

Static Site - (*also known as a "stale" page*) - Given the speed at which Web coding and layout technology is progressing, and given the amount of information which constantly changes, a stale/static page or site is one on which either the information or the layout has not been updated for a significant amount of time. (Especially a problem for time-sensitive data, like calendars of events.)

Terabyte - Measure of data. A terabyte is the next increment up from a Gigabyte (see) and is roughly equivalent to a 500,000 to 1,000,000 volume library.

Web (site) address [*typically called a URL, short for "Uniform Resource Locator"*] - Typically found in the format "http://www.whateverthename.com", or ".org", etc, this is a sort of "social security number" or "1-800 number" for a website - no matter where it is moved (on what server it resides), it can always be found by typing in the URL.

*'d entries are crafted from definitions provided by Webster's New World Dictionary of Computer Terms, Seventh Edition: Brian Pfaffenberg, Ph.D.; Simon and Schuster, ©1999. (ISBN 0-02-862884-5)

Appendix B: Potential Surveys

Survey I:

(geared primarily for the Government and Non-Profit Sectors)

(A hold-over from the previous edition of this paper)

Given to each entity to be added to the subnets or to the high-end intranet.

Entity is a (check one)

- q business,
- q gov't office,
- q 501(c)3,
- q church, other ?

What is your primary goal?

How do you normally achieve that goal?

What repetitive contacts do you have with the public?

What documents do you distribute to the public on a regular basis?

What documents does the public fill out and submit on a regular basis?

How private are the results of these (likely a range)

Are they simply stored, or is regular use made of the data?

For what question/answer combinations do you feel like you wish you had a tape recorder?

How many employees do you have?

How many of those employees are computer literate?

How many of them use a computer as a major part of their job functions?

What are the various job functions of your organization?

Do you have any part time employees?

What do they do?

(These two questions operate to see where melding can occur)

Survey II

(Geared for Business groups especially for prospective members of any Downtown Mall)

(Meant to be used in conjunction with Survey I)

Employees (# of)

List any part-time functions keeping you from your job.

Advertising

Accounting

General knowledge

Constant/regular interaction with gov't entities...

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Over time, a shorter précis should be made available.

(Or one may be made available on demand.)

Stay tuned to

<http://www.kconline.com/government/NK.html>,

or

<http://www.kconline.com/government/networkingkosc.pdf>

For any additional commentary