This section provides a basic background of City IT functions and describes the basic requirements for any software the City may use. Review this section closely to ensure the compatibility of your proposed software with the City's existing network, policies and procedures. Refer to this section while preparing your response to other sections of the RFP.

1. INFRASTRUCTURE/NETWORK REQUIREMENTS

   A. Background
      The City of Madison – Department of Information Technology (IT) has two Direction Statements that help to govern the acquisition of hardware and software for the City. They are:

      1. Acquire hardware and software, which rank among the leaders in the industry, as balanced by their compatibility with the City's infrastructure, and by the resources needed for support.
      2. Implement application software which meets our customers' needs, as balanced by their compatibility with the City's infrastructure, and by the resources needed for support.

      To this end the Network Support staff has defined a fairly narrow, mainstream set of hardware/software standards that are supported on the City network.

   B. Network Infrastructure
      The City uses Cisco hardware for all network infrastructure, with the exception of wireless point-to-point wireless bridges, which are provided by BridgeWave, Proxim and Airaya.

      The primary network protocol used by the City is TCP/IP over Ethernet. Standard network speeds on the City network are 1Gb on the network backbone and 100Mb to all workstations on the LAN. WAN connections are primarily dedicated T1 lines. The City supports and maintains IEEE 802.11x secured wireless hotspots throughout the City of Madison and in most public conference rooms in city-owned facilities. Applications that may require the use of our "slower" network connections should be Citrix compatible. Contact the City's Communications Support Team to verify what type of connections the application may use.

      Lead-time for new network connections is 30 days minimum. New connections that require high-speed fiber optic cable may require significantly more lead-time. New wireless access points to the City network would also require significant more lead-time to ensure that the access is secure and to build the required infrastructure.

   C. Servers
      With the exception of a few application appliances, the City exclusively purchases rack mounted Dell PowerEdge servers for all Microsoft Windows based application, database and web servers. Currently Windows 2003 or 2008 Server is being installed on all new "Wintel" servers. Windows 2000, 2003 and 2008 Server platforms are supported on the network. Dell DRAC (remote access cards) are installed in all servers in order to allow remote access on the local network and remote access via the Internet using VPN. Contact the City Network Administration Team to obtain the current standard hardware configuration for City Wintel servers. In most cases the City would prefer to purchase hardware directly from Dell rather than the software vendor. Requests for hardware should be given to the Network Administration Team at least 30 days prior to required delivery date in order to allow the team time to order and setup the server. Servers that have a delivery month of December or January will require a 60 day advance notice to the Network Administration Team due to the usual slow down during the Holidays at the Dell manufacturing plant.

A native Windows 2003 Active Directory domain is the primary directory service on the City network. Whenever possible, applications should be integrated with Active Directory for authentication. Microsoft SMS is used to deploy application clients to the desktop. Microsoft SQL Server 2000, SQL Server 2003 and SQL Server 2005 are supported as our primary backend DBMS, however other DBMS platforms would be allowed if support is provided by the vendor. If the City needs to purchase the required system software (OS, SQL, IIS, etc.), the required system configuration should be given to the Network Administration Team no later than 30 days in advance so that licenses can be ordered and system security can be reviewed.

Microsoft Exchange 2007 is the supported e-mail/messaging platform for the City of Madison. Any applications or systems that require e-mail connectivity or integration should interoperate with Microsoft Exchange 2007.

Applications, which require Unix, will be supported on any HPUX platform. The City currently supports several HPUX servers running HPUX 11.0 on the HP "rp" or "l" line of servers.

The City also supports IBM i-series servers (a.k.a. AS/400). These servers are primarily used to house Public Safety applications for Madison and 16 surrounding communities. Due to the mission critical function of these servers only Public Safety related applications would be considered for these servers.

The City currently maintains six (6) VMWare ESX 3.5 Host servers that will support as many as 20 Virtual Servers per host. The Network Administration team analyzes needs prior to purchasing a physical server to determine if the new Server can run in a virtualized environment.

The City uses Veritas Backup Software to perform backups on all servers except the AS/400's.

D. Desktop Workstations
The City uses Dell PC's and laptops exclusively for all desktops. Contact the City Help Desk to obtain the current model and configuration for City PC's and laptops.

All new PC's and laptops are being deployed with Windows XP Professional Edition, SP2.

The City uses the Microsoft suite of Office productivity applications, including Outlook & Exchange.
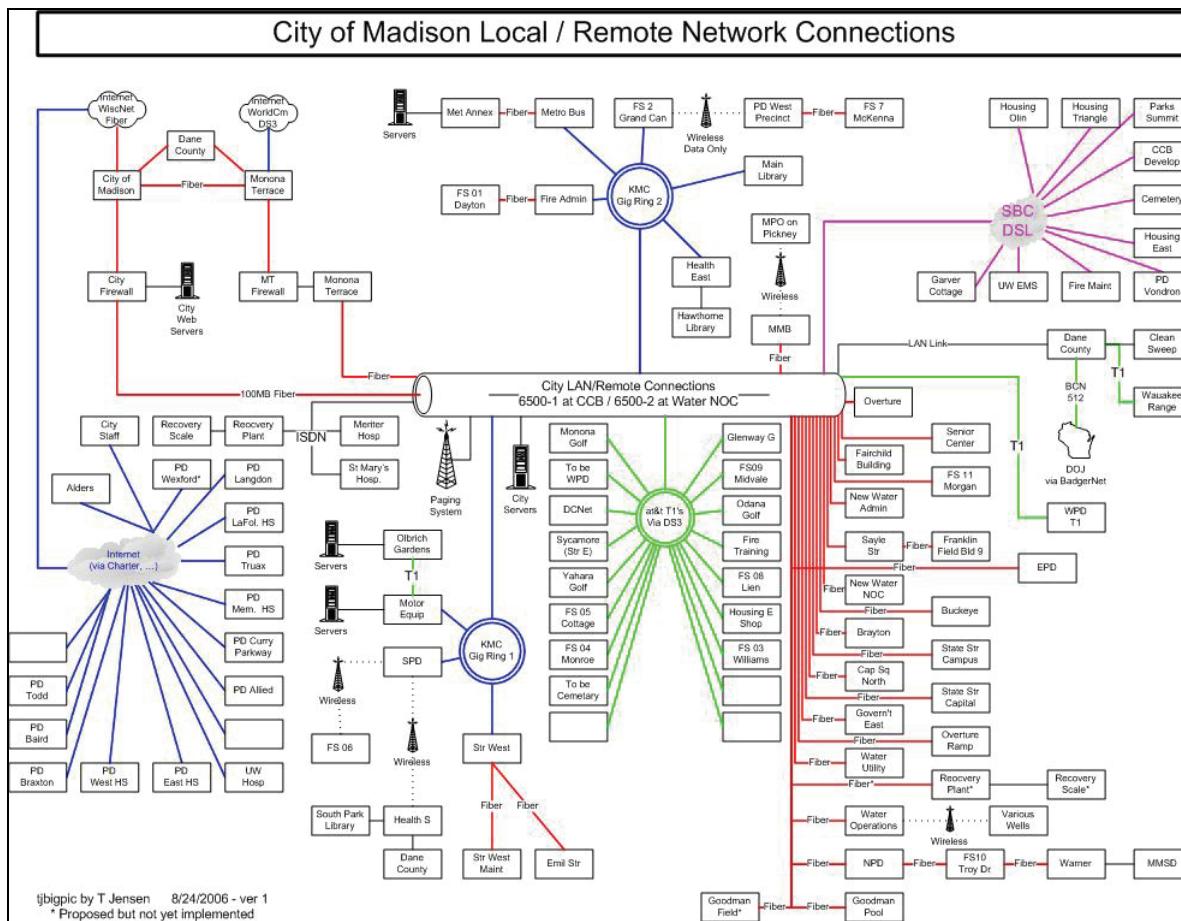
E. Mobile Devices

Smart Phones - The city supports any smart phone that has the Windows OS.

Laptops / Tablets – The City supports the complete Dell line of laptops and tablet PC's with the Windows operating system. If the devices are designated for fieldwork, we recommend the Panasonic Tough book line; since, they are ruggedized to withstand harsh environmental conditions.

F. Network Connection Agreement
All vendors that will need to connect to the City network, in order to update/maintain their software, will be required to sign the City's Network Connection Agreement. The Network Administration Team should be notified, prior to the purchase of the system, of the need for a vendor to connect to the City network in order to setup the secure network access procedure.

"Big Picture" Network Diagram

City of Madison Local / Remote Network Connections

tjbigpic by T Jensen   8/24/2006 - ver 1
* Proposed but not yet implemented

2. WEBSITE CONSIDERATIONS

   Accessibility, Portability, and Security for City of Madison Websites

   A. ACCESSIBILITY
      From the City of Madison Web Policies, Standards, and Guidelines (full document can be found at http://www.cityofmadison.com/is/pdf/WebPoliciesStandardsGuidelines.pdf):

      i. *ADA Requirements – Web Policies*
         As a government site, all pages will be designed to meet requirements of the Americans with Disabilities Act. Information about the Web Accessibility Initiative can be found at www.w3c.org/WAI. Any information presented on the web that is in anyway related to federal funding must follow these requirements. See our Web Standards at ADA Requirements for more information.

      ii. *ADA Requirements – Web Standards*
          At a minimum, the following City of Madison guidelines must be met:

          1. A text equivalent for every non-text element shall be provided (e.g., alt tags, descriptions for every image).

          2. If possible, equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.

3. Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.

4. Documents shall be organized so they are readable without requiring an associated style sheet.

5. Redundant text links shall be provided for each active region of a server-side image map.

6. Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.

7. Row and column headers shall be identified for data tables.

8. A text-only page, with equivalent information or functionality, shall be provided to make a website comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page must be updated whenever the primary page changes.

9. When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assisted technology.

10. When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with the requirements for Software applications and operating systems listed above. See Links, Plug-ins, Readers for more information.

11. When electronic forms are to be filled out on-line, the form shall allow people using assisted technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

12. Underlined text is not allowed except to designate a link.

13. All links, buttons, navigational tools, or other "click-able" items should be able to be activated from the keyboard in addition to mouse controls. If this is not possible, then the same information needs to be available in another ADA compliant format as well.

You can go to http://validator.w3.org to check your site for compliance. You can also find more information on the subject of accessibility by going to: http://www.section508.gov/index.cfm?FuseAction=Content&ID=12#Web.

B. PORTABILITY
From the City of Madison Web Policies, Standards, and Guidelines (full document can be found at: http://www.cityofmadison.com/is/pdf/WebPoliciesStandardsGuidelines.pdf

i. *Portability – Web Policies*
Sites will be created to allow portability across the major browser platforms as defined in Portability in our Web Standards. They should have essentially the same functionality regardless of the browser being used.

ii. *Portability – Web Standards*
Sites should be created to allow portability across the major browser platforms. As of January 2009 these include:

- Microsoft Internet Explorer with 68.15% of market.
- Firefox with 21.34% of market.
- Safari with 7.93% of market.

The top three comprise 97.42% of the market.

Sources: http://marketshare.hitslink.com/report.aspx?qprid=1

If a page or application will not be compatible with the platforms listed above, then the page needs to have a disclaimer stating what browser versions it is restricted to. For help on making your site cross-browser compatible see Portability in our Web Guidelines.

iii. *Portability – Web Guidelines*
How do I Make My Site Cross-Browser Compatible?

To create a cross-browser compatible web site:
- Use only standard compliant code.
- Don't use browser specific (proprietary) HTML tags and features. These work only in the browser they were created for and may even break your page when viewed in another browser.
- Validate your HTML/XHTML coding using the W3C free validation service found at http://validator.w3.org/.
- Validate your cascading style sheets using the W3C free validation service found at http://jigsaw.w3.org/css-validator/.

Some have the "You can't please everyone" attitude. Yes, your site will look different in each browser because each one interprets the coding differently. The goal with cross-browser compatibility is to make your site viewable in the major browsers available and have the pages render correctly. One thing that will drive visitors away is a site that doesn't work in their chosen browser.

C. SECURITY

From the City of Madison Web Policies, Standards, and Guidelines (full document can be found at: http://www.cityofmadison.com/is/pdf/WebPoliciesStandardsGuidelines.pdf

i. *Security*

All software on any City of Madison websites or on any sites hosted by the City of Madison shall follow our security standards as outlined in our Web Standards.

All software on any City of Madison websites or on any sites hosted by the City of Madison shall follow secure coding practices as outlined in "A Guide to Building Secure Web Applications and Services" by the Open Web Application Security Project. These include:

- Protecting database queries from SQL injections.
- Using SSL to protect secure transmissions of logins and secure data.
- Integrating any sites requiring authentication with Active Directory services.
- Documents should not contain information in the document headers, footers, or anyplace else that can disclose a login id. For example: a document footer with f:\users\isxyz\ should not be allowed.

- Document properties should not contain initials or the login id of the document author.
- Adherence to the City of Madison Network and Security Policies is required.

3. GEOGRAPHIC INFORMATION SYSTEMS

The City of Madison currently uses two GIS software packages (ESRI ArcGIS; and Integraph MGE running on Microstation J [MGE will migrate to Bentley's Geographic's running on Microstation V8 at some point in the future]). Geographic data this is maintained in MGE/GeoGraphics will be translated to ESRI ArcSDE format for use in ArcGIS.