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TELEWORK
CONSORTIUM

An Unsolicited Proposal: Preliminary Draft

A Distributed Work/Telework Implementation for the City of Gainesville, Florida

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Copy for:
Mr. Les Auerbach
Director, Computer Services

Submitted by:
Telework Consortium, Inc.
2214 Rock Hill Road
Herndon, VA 20170
www.teleworkconsortium.org

Primary Contact:
Rita Mace Walston
General Manager
walston@teleworkconsortium.org
703.742.7152

I. Background

Based upon our recent discussions with several entities of the City of Gainesville (CoG) government, and the collective needs expressed by CoG for enhancing its Distributed Work/Telework capabilities, The Telework Consortium, Inc (TCI) has generated this top-level draft proposal for further consideration.

In addition, based upon the CoG input and our Assessment for Readiness for Distributed Work/Telework Program Implementation, we present some recommendations and options to ensure a successful implementation.

II. Elements of the Proposal

Based upon our experience with city/government deployments and the results of the Assessment performed on May 17 and 18, 2006—recommendations based on the results of the Assessment can be found in Appendix A—the Telework Consortium Inc. (TCI) service offerings contained in this proposal are:

- Assistance in the development of a combined Distributed Work/Telework Program;
- Assistance with the documentation of policies, procedures, guidelines, and training program required for implementing a successful Telework program;
- Provisioning of desktop collaborative (video/audio/data)/IP software (Marratech AB);
- Hosting a Marratech AB management server, dedicated to the City of Gainesville government, at a secure Internet Point of Presence (POP);
- Application training for users of the Marratech collaborative software;
- Customer Support/Help Desk for collaborative technologies.

In addition this proposal contains several optional services, to allow flexibility in the rate of introduction of these advanced services into the operations of City of Gainesville government.

III. Proposed Software and Hardware

As a result of the recent Telework Consortium Assessment conducted for the City of Gainesville, we present the following recommendations and implementation options:

1. Collaborative Technology Features

We recommend the adoption of a collaborative software application offering the following minimum features:

- Video — Via Webcam, which allows participants to see one another during meeting;
- Audio — Voice over IP-quality sound;
- Instant Messaging (IM);
- Secure Electronic "Meeting Rooms" — Online workspaces where departments can conduct business in a secure fashion;
- Security — All video, audio, messages and data protected in transit and storage using AES 256 bit encryption;
- Electronic Whiteboard — Sharing and collaborative editing of business applications and graphics, allowing for the joint editing;
- Meeting Recording — Capability to record meetings for archival or training purposes;
- Low bandwidth adaptability — Capable of operating in non-optimal DSL, cable modem, and mobile wireless environments.

It is our recommendation, that the Marratech AB software (www.marratech com) be deployed to fulfill these requirements. The Telework Consortium has a Value-Added-Reseller (VAR) agreement with several collaborative software vendors, including Marratech AB.

2. Recommended CoG Collaborative Network

A collaborative network is critical to the success of a robust Distributed Work/Telework environment

The collaborative network configurations, shown in Appendix B, fulfill several expressed needs of the CoG. Each of the three configurations/scenarios provides collaborative technologies access to CoG employees within the current CoG network as well as secure access for home-based or mobile employees who are external to the CoG network.

TCI recommends implementation of Scenario 3. In this scenario the central server(s), hosted by TCI, resides outside the CoG network and a remote node(s) located within the CoG secure network provides for intramural communications for CoG employees.

Scenario 3 Benefits

TCI has, for its network reliability, contracted its server support with reliable Tier 1 Internet providers on rack space in secure data centers, as well as having redundant server backup in other geographic locations.

The physical security of the central server is ensured by the strict security rules of access to the co-locations' data centers. The cyber-security rules prevent server access by non-systems administrators as well as automatic 256 bit AES encryption for communications and local storage of data on the PC hard drive. No CoG data would be stored on external servers

In addition to secure access by employees outside the CoG internal network, the benefits to CoG of this TCI-hosted solution include:

- 24/7 monitoring and server hardware support;
- 99.9% server uptime/ geographically separated back-up server(s);
- Globally accessible server to fulfill the diverse needs of CoG;
- Ease of applications upgrades, or changes of collaborative software*.

* TCI is currently supporting other client-server collaborative applications with this architecture. If CoG determines new or other collaborative software offer better performance or value, this network can easily support the upgrade.

Through the experience gained from its pilot operations and deployments, TCI has determined that the principal reason for problems in collaboration deployment does not involve the desktop software, but rather the network. Fortunately, City of Gainesville has a well-designed and administered broadband network, which will greatly minimize the network problems.

3. Recommended Number of Seat Licenses

To minimize costs, this system—like the public telephone system—is, by design, "oversubscribed." The estimated number of **concurrent** CoG users determines the initial number of "seat" licenses which should be purchased. For example, CoG could download 100 Marratech software (free) clients to CoG employee PCs with the estimate that, on average, only 10 employees would be on the system simultaneously.

Based upon experience, TCI believes that purchase of **10 seat licenses** would be adequate for the initial phase of deployment. Additional seats can be easily purchased if CoG usage warrants it.

IV. Proposed TCI Services

In this proposal, and in the Cost Summary and Proposed Timeline (Sections V and VI), the following components and services will be provided to City of Gainesville government.

1. **Program Development and Implementation Support:** A robust Distributed Work/Telework program requires formal policies and implementation strategies. These span the areas of human resources, management, and IT. Through its expertise, TCI would work with key CoG personnel to develop a program structure and accompanying components.

2. **Marratech Server Support:** Marratech is a client/server application. *Marratech Manager* is server software used to authenticate users, and to create and manage an unlimited number of virtual "meeting rooms." Users can access the meeting rooms by simply clicking on a Web page viewer on their desktop PC or mobile PC laptop.

   The *Marratech Manager* function controls bandwidth limits, media selection, encryption and network port settings, making it adaptable to changing network requirements. The recommended CoG network topology is shown in Appendix B. TCI will provide support for the CoG collaborative network through the *Marratech Manager,* with central servers located at the Internet co-location facilities at Equinix (Loudoun County, Va) and a back-up site at Visual Link (Winchester, Va). These centers are network-neutral in that they provide access to multiple Tier 1 Broadband networks.

3. **Marratech Training / Collaboration Tools Customer Support:** The training needs for the collaborative Marratech application—particularly in the early phase of implementation—are quite different from those of other software packages. For example, in addition to becoming comfortable with the usual desktop application features, less familiar elements of support for configuring video, background lighting, audio (VoIP) must also be learned.

   Also, there is needed support for successful sessions by mobile employees—those using laptops from WiFi hotspots—and home-based employees, where the available bandwidth is typically limited.

   Hence the recommendation for more than the usual emphasis on training and customer support in the Cost Summary. It is recommended that the customer support option be contracted until there is an adequate familiarity with the software, hardware, and network from internal resources.

   a. **Training:** TCI will provide a virtual, online training session for CoG network administrators, responsible for PC configuration control, downloading of the Marratech client, and for management of the internal CoG remote node. In addition, TCI will provide virtual, online training to CoG employees on the use of the Marratech application. On-site training is also available, should CoG wish to

pursue this option.

b **Customer Support**: Phone and online support for System Administrators and CoG users will be provided according to the schedules in Sections V.

4. A La Carte Consulting Services Available as Required:

a. Meeting facilitation;
b. Development of Distributed Work/Telework documentation;
c. Development of tailored Telework training programs;
d Additional onsite training and support

Note: The duration of the above contracted optional services (2-5) depends upon the degree and rate of internalization of these services by the City of Gainesville staff. The following cost summary assumes a one-year acquisition of Telework Consortium services

V. Cost Summary:

Base Costs:

Software Products & Services Provided	Cost
Marratech Server Software* – License, 10 Concurrent Seats ($1,330/seat)	$ 13,300.00
Installation, Set up, Admin training and User Training (Marratech-GSA schedule)	$ 1,600.00
Year 1 Maintenance and Support, including up-to-date software @10% of license	$ 1,330.00
TOTAL NON-RECURRING	$ 16,230.00

*One-time cost. Year 2 and onward annual recurring cost is 17% of original license fee, which includes all software updates and maintenance.

Recommended Services:

Recommended Services	Monthly Costs ($/mo)
TCI Collaboration Customer Service, Training & Support*	$4,000.00
Collaboration Hosting (includes server, bandwidth, and redundancy)	$ 700.00
Emergency Recovery for Critical Network Services (includes server, bandwidth costs)	$ 700.00/server
Consulting Services	$ 100/hr

*As described in "Service and Support Options" on Page 7

Service & Support Options	Monthly Costs ($/month)
Customer Service & Support — Basic ♦ Help Desk—10 hours/month ♦ Training Classes: 1 Admin. 1 User ♦ 7:30am-5:30pm	$ 3,000 00
Customer Service & Support — Enhanced (Recommended) ♦ Help Desk---15 hours/month ♦ Training Classes: 1 Admin 2 User ♦ 7:30am-5:30 pm	$ 4,000 00
Customer Service & Support — Premium ♦ Help Desk—30 hours/month ♦ Training Classes: 1 Admin 2 User ♦ 6:30am-6:30pm	$ 5,000 00
Additional User Online Training (4 person minimum)	$ 150/person

VI. Proposed Timeline Deployment of Recommended Scenario (Scenario 3)

Task* Description	Lead / Input	Start / Duration
Contract Approval	CoG	By Oct. 2, 2006
Distributed Work / Telework Taskforce Appointment	CoG	By Oct 2, 2006
Concurrent Tasks:		Week of Oct 16 2006
Program Kick Off	CoG / TC	1 Day
Telework Phase 1 Identification		
Distributed Work Phase 1 Identification		
Verify Network Configuration	CoG / TC	1 Day
Install temporary node (Information Gathering Sessions)	TC	½ Day
Concurrent Tasks:		Week of Oct 23 2006
Conduct Information Gathering Sessions	TC / CoG	5 Weeks
Network / Hardware Infrastructure Upgrade	CoG / TC	Ongoing
Emergency Network Services Redundancy Installation	CoG	Ongoing
Concurrent Tasks:		Week of December 4, 2006
Technologies and Tools Selection and Approval	CoG / TC	2 weeks
Timeline, Budget, Objectives Development	CoG / TC	2 weeks
Distributed Work / Telework Phase 1s Kick Off and Training	TC	3 Days
Concurrent Tasks:		Week of January 2 2007
Phase 1	TC	6 months
Creation of HR Policies and Telework Program Documents	TC / CoG	6 months
Telework Program Training Program Development	TC / CoG	6 months
Phase 1 Program Evaluation and Data Analysis	TC	1 month
Integration of Lessons Learned	TC / CoG	Ongoing
Report to City Commission	TC	Early July

* based on results of Distributed Work/Telework Assessment (see Appendix A)

VI. Appendices

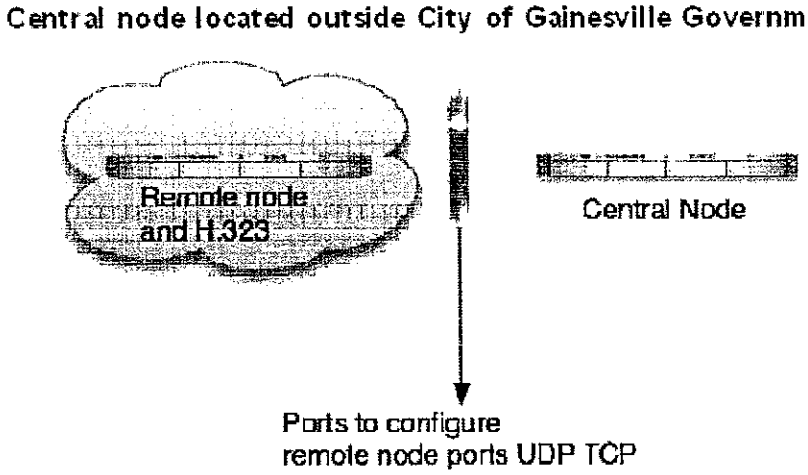
Appendix A

Recommendations based on Results of "Assessment for Distributed Work/Telework Program Implementation"

- Create an internal Telework Task Force which includes representatives from the four stakeholders: IT, HR, Management, End-Users.
- Identify department or group within City of Gainesville government appropriate for a Telework Phase 1 program.
- Identify department or group within City of Gainesville government appropriate for a concurrent Distributed Work Phase 1 program.
- Select technology and collaboration tools that will meet Phase 1 groups' needs.
- Conduct information-gathering sessions to understand mission, workflow, and culture requirements of Phase 1 groups.
- Develop timeline, budget, objectives, and measurements for Phase 1
- Identify and upgrade network infrastructure and computing resources that currently do not meet minimum specifications for robust Distributed Work/Telework
- Implement redundancy solution to support critical network services to provide Continuity of Operations in case of an emergency situation
- Create HR policies, agreements, eligibility requirements, and accountability and performance measurement tools
- Implement six-month Distributed Work/Telework Phase 1 as planned.
- At end of six-month period, analyze data collected from Phase 1 participants and support staff.
- Develop training program encompassing all aspects of teleworking, including network access and security, as well as the tools and technologies selected.
- Integrate lessons learned from Phase 1 into a broader Distributed Work/Telework program, following a similar implementation scheme.

Appendix B

Scenario 1:



The central node is made public on the Internet with a remote node inside the network. This makes the CoG Marratech server public to the world, allowing any CoG employee, set up with the client software, to utilize Marratech from any broadband connection. This includes WiFi hotspots, a home network, or a satellite office. This eliminates the need for any VPN software, as the encryption takes place between the clients. The Node being installed behind the firewall will allow CoG employees on the hard LAN to attach to the Marratech server without having to traverse the firewall while on the internal network.

Pros:

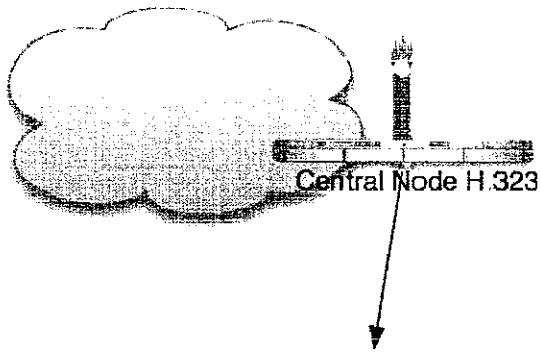
- This allows any CoG-authorized user in the world to attach and have virtual meetings with anyone inside CoG who has the client software installed;
- The installed Remote Node will minimize bandwidth consumption within CoG's internal network, as only one data stream-to-server from node is open, regardless of how many clients are being run inside the network;
- Allows remote administration from anywhere with out a VPN.

Cons:

- Requires open ports for UDP traffic on the firewall;
- Administrators must create rules that will allow Central and Remote Node to talk;
- Requires moderate bandwidth on internal network;
- Adds to administrative overhead;
- Must identify and contract with appropriate hosting facility;
- Requires server redundancy for Continuity of Operations.

Scenario 2:

Central node located in City of Gainesville Government Facility DMZ



Ports to configure
http / https
UDP ports for meeting

Putting the Central Node in the DMZ will allow access from the public Internet as well as from inside the CoG network. Again, no VPN software is needed as the client software will handle the encryption.

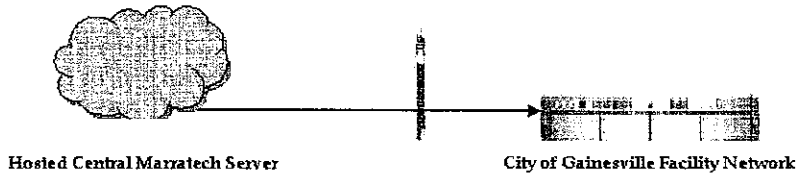
Pros:

- Requires minimal firewall configuration and new rule set;
- Allows remote administration from anywhere without VPN

Cons:

- Will use more bandwidth to perform. This can be moderated by bandwidth throttling on the server. Requires moderate internal bandwidth;
- Incurs additional administrative overhead;
- Must identify and contract with appropriate hosting facility;
- Requires server redundancy for Continuity of Operations.

Scenario 3



This configuration is identical to Scenario 1, except that it is implemented as a hosted solution available from the Telework Consortium, Inc

Pros:

- All technical aspects are handled by TCI;
- Server application will be modified to meet bandwidth requirements;
- All application upgrades and maintenance will be handled by TCI;
- Proactive monitoring of system by TCI to track and enhance performance;
- Increased bandwidth requirements of remote users are removed from CoG network .

Cons:

- No CoG access to server administration;
- All issues must be submitted to TCI for resolution.

Appendix C

About Us

The Telework Consortium is a 501(C) 3 located in Herndon, VA (www.teleworkconsortium.org). Our mission is to assist federal, state, and local entities to plan and implement robust Distributed Work/Telework programs. Since its inception in 2001, the Telework Consortium has focused on review and analysis of available technology and networks, working in real-life situations to provide solutions that mesh with security structures and workflow requirements

The aim of these solutions is to enhance economic development opportunities, address Continuity of Operations concerns in the event of a natural or manmade disruption, reduce road congestion and real estate costs, increase productivity, and promote work/life balance

We have, and are continuing to develop, strategic value-added-reseller relationships with several vendors of collaborative software and hardware. These vendors, who have tested their product offerings in the Telework Consortium pilot demonstrations, have offerings to satisfy a wide range of client telework requirements.

Products and Services

The Telework Consortium offers, based upon its experience in successful Telework demonstration projects in federal agencies, local governments, and private enterprise, consulting services that address appropriate telecommunications and PC technology for the remote worker, the IT and security issues inherent in Distributed Work/Telework program, as well as workflow, human resource, and work culture issues.

How to Contact the Telework Consortium, Inc.

If you need to contact us for any reason, you can reach us at:

Telework Consortium
SPC Building
2214 Rock Hill Rd
Herndon, VA 20170
USA
www.teleworkconsortium.org

Client contact: Rita Mace Walston
General Manager
703.742.7152
walston@teleworkconsortium.org