

Innovations in Information Technology

CAMA Shared Assessing software: Kirsten Shirer, DOR Division of Local Services

Regional Data Center: Mayor Rob Dolan & Jorge Pazos, City of Melrose

*Regionalizing Municipal Permitting:
Jennifer March Wackers, CT Capitol
Regional Council of Governments*


Sept. 2, 2010

**The
COMMUNITY SOFTWARE CONSORTIUM**




**Commonwealth communities
jointly purchasing and developing
the best technology at the lowest cost**

CSC BACKGROUND




**Formed
in 1996**




**Under MGL
Ch. 40 § 4A**

**Using FRCOG
administrative
services**




CSC PURPOSE




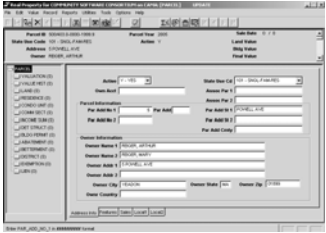
**Essential technology at
reduced cost**

**Shared issues –
shared goals**



Maintain local control





Real Property Information System (DOR CAMA)

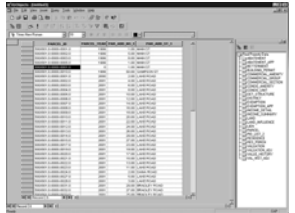
Includes all licenses and components



Business Objects

Reporting...

IQ Objects





Web-based Public Access

Csc-ma.us



CSC DLS-IT'S ROLE

- TRAINING
- TECHNICAL SUPPORT
- R & D
- ADVISORY



**Community
Cost = \$0**

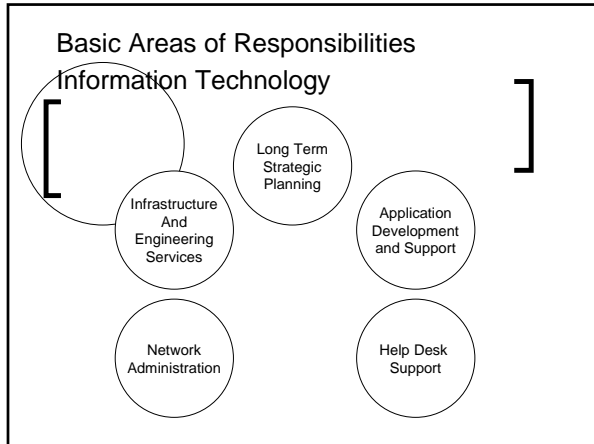
CSC WHY THE CSC?

- Local control
- Low cost
- Flexibility
- Support network

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Helpdesk Support

- Break/fix
- End user support
- Examples:
 - Troubleshoot printer problems
 - Troubleshoot application errors – “Word crashes”

Network Administration

- Maintain user accounts and rights
- Maintain and troubleshoot network issues
- Examples
 - Create new account with proper permissions for a new employee
 - Troubleshoot network performance issues

[Application Development and Support Services]

- Deploy enterprise applications
- Maintain and support applications

- Examples
 - Implement Munis, Patriot or other widely used application
 - Update applications – “load patches and upgrades”

[Infrastructure and Engineering Services]

- Design, engineer and deploy core information systems hardware and software

- Examples
 - Deploy new servers, core and edge switching, VOIP

[Long Term Strategic Planning]

- Develop and maintain long term plan for all information systems
- Ensure that plan is feasible, appropriate and sustainable.

- Examples
 - Develop lifecycle management plan for all assets
 - Align plan with organizational goals

[Regionalization Possibilities]

- Help Desk Support
 - Shared Help Desk among neighboring municipalities
 - Remote desktop support
- Network Administration
 - Shared administration operating as a "NOC"
- Application Development and Support Services
 - Common applications would make shared support possible
- Infrastructure and Engineering Services
 - Consolidated datacenters lend themselves to sharing these services
- Long Term Strategic Planning
 - Working cooperatively for information sharing
 - Consolidated datacenters lend themselves to sharing these services

[Melrose Regionalized Datacenter]

- Melrose is looking to partner with other municipalities to operate a consolidated datacenter
- Geography is not important; high-speed internet is critical
- Similar to central/branch office or "cloud" computing

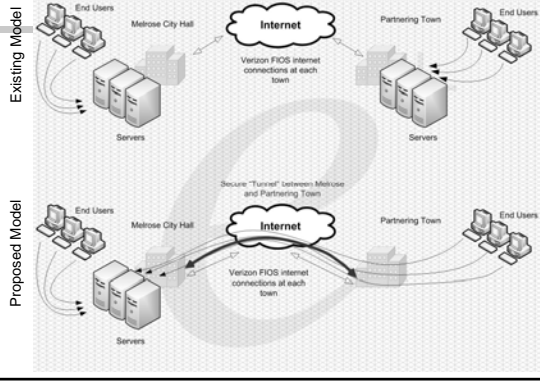
[Melrose Data Center]

- Funded using PEG grant
- Consolidated all server infrastructure – both city and schools
- Improved network performance
- Benefits include:
 - \$8,000/yr energy savings
 - Combined support costs
 - Agile technology infrastructure that can quickly respond to business needs
- Equipment in use:
 - Cisco Nexus 7010 core switch
 - Cisco Nexus 1000v Switch
 - Cisco UCS Blade Server Chassis
 - Cisco UCS B250 Blade Servers
 - NetApp SAN storage
 - VMware vSphere 4 and vCenter Server software

Current Proposals

- Melrose has submitted a proposal and municipal agreement to North Adams to host their datacenter and provide managed services.
- Will result in improved services, shared costs, reduced licensing costs, reduced energy usage and costs.

Moving partner servers to Melrose Data Center





CITY OF MELROSE

OFFICE OF THE MAYOR

ROBERT J. DOLAN
Mayor

City Hall, 562 Main Street
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The City of Melrose is looking to partner with up to three (3) municipalities next fiscal year in an effort to regionalize information technology services and data center operations. There are many benefits of a regional data center from both a financial and efficiency standpoint. There are also no geographical boundaries in creating this regional collaborative.

Some of these benefits include:

- Shared datacenter capital costs – reduces the burden on each city/town to build, maintain and sustain high quality data services
- Enterprise-grade data center – collective funding of a data center extends the buying power which in turn allows the regional group to purchase a higher quality, more robust datacenter
- Shared disaster recovery/business continuity costs – reduces the burden on each city/town to fund necessary but costly disaster recovery/business continuity initiatives
- Shared regulatory compliance costs – reduces the burden on each city/town to fund necessary initiatives to comply with various regulatory costs i.e. email archiving
- Predictable datacenter costs – collective purchasing and financing provides predictable costs over the term of the agreement
- Power and cooling savings – single regional data center reduces the cost of powering and cooling individual datacenters resulting in energy savings for each participating city/town
- Shared labor costs – allows participating city/towns to share staffing costs

Interested cities and towns should contact Mike Lindstrom in the Mayor's Office at (781) 979-4440 for additional information.

Sincerely,

Mayor Rob Dolan
City of Melrose



JORGE PAZOS
Director

CITY OF MELROSE

INFORMATION TECHNOLOGY

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Regionalized Information Technology FAQ

What is the City of Melrose proposing?

The City of Melrose is proposing to offer datacenter services to interested communities. Datacenter services can best be described as all services that are housed in your current “server room” or IT/MIS Departments.

How would this work?

Economies of scale would allow for the building of one large capacity datacenter that would service all partners. All communities would be connected together via high-speed internet connections. Each community would have dedicated servers, storage and services.

Does this work?

Yes. Most large companies operate under this model to reduce costs associated with building, operating and managing datacenters. Many mid-size and small companies are moving towards this model through outsourced solutions.

How would this save money for partnering communities?

The savings would be realized in several ways. By operating one datacenter (as opposed to several) the partnering communities would leverage economies of scale to achieve savings on capital costs. A single data center would also reduce all associated power and cooling costs. Regional partnerships would also facilitate the financial burden of managing the capital costs over the lifecycle of all equipment. Additional savings could be realized through reduced staffing, licensing and support costs.

Are there other opportunities for regional partnerships for Information Technology services?

Yes. Beyond datacenter services there are opportunities for regional technology support services. Rather than having a dedicated support employee responsible for all helpdesk support services in each community partnerships can be created where one support employee covers 2-3 communities. This would simplify delivery of services, increase efficiency and reduce labor costs.

How would a regionalized datacenter be funded?

All partner communities would require an appropriation of funds from their municipality. These funds could be existing funds that are currently targeted for technology or related services. Additionally a project of this scope would be eligible for any grants targeting either regionalization efforts or “green” projects.

For additional information, please contact Mike Lindstrom in the Mayor’s Office at (781) 979-4440.

**Regional On-Line Permitting
and Permit Tracking**

Jennifer March-Wackers, Municipal Services Manager
Capitol Region Council of Governments

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**CRCOG is Involved a wide Range of
Service Sharing**

- Purchasing Council (including natural gas/electricity)
- EZ IQC (master contract for small public works)
- Solid Waste Authority
- CAPTAIN mobile data public safety system
- Homeland security grants implementation
- Regional GIS system

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Regional IT Grant

- ▶ CRCOG received a \$515,000 Service Sharing grant to identify opportunities for regional IT services
- ▶ Very general guidelines
 - ▶ Examine opportunities to reduce costs/improve services through a shared approach in Information Technology
 - ▶ Implement one or more pilot projects

Permitting Selected as Pilot Project

- ▶ Needs assessment / review by IT Steering Committee identified creation of a regional online permitting system as the best candidate for a pilot
 - Relatively new capability
 - Online not yet deployed in Connecticut
 - Highly visible to homeowners and the construction community
 - Excellent successes elsewhere at reducing costs for both towns and for businesses
 - Significant economies of scale and scope with a regional approach

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Specific Capabilities

- ▶ Registered contractors and homeowners submit permit applications and attachments, pay for permits, receive them on-line – some instantly
- ▶ Contractor license is automatically verified through links to the state Department of Consumer Protection; address and tax status obtained through links to town assessor's data and financial systems.
- ▶ Applicants can track permit status and look up historical information
- ▶ Inspectors can look up information and enter results from the field
- ▶ Towns and state agencies can create a wide range of reports on permitting activities
- ▶ Manages permit tracking and routing process

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Expected Benefits

- ▶ Washington State (simple permits only):
 - 77,000 permits issued on-line
 - 49 % of permits available on-line are applied for on-line
 - Increase in number of simple permits applied for
 - Reduction in permit center traffic
 - Extremely positive feedback from the construction community
 - 2005: contractors saved over \$400,000 in direct labor costs using the system.
- ▶ Reduces town workload by allowing the public to access detailed information through the internet
- ▶ Stepping stone to more regional and online IT functions
- ▶ Cost savings over “go it alone” approach

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Project Scoping and Vendor Selection

- ▶ Early involvement of Town Building Officials, Town IT Directors, State Building Inspector, Department of Consumer Protection
- ▶ Robust RFI/RFP process to scope out the project
- ▶ Aimed to create a regional solution that meets the needs of diverse communities
 - Small/medium/large towns
 - Hosted or town-based
 - Integrated with vendor's permit tracking system or potential to connect vendor's front end with existing systems

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RFP Results

- Very strong responses, ranging from “boutique” local firms to industry leaders in permitting software
- Vendors willing to be flexible on product, price, timing, and other factors because of the regional scope of the project, and opportunities for future expansion
- RFP process, including demonstrations, also educated town personnel about the potential for the project
- Pricing substantially less than competing products or this product on a single-town basis
- Selected vendor, ViewPoint GIS, offered a very robust, user-friendly product with a broad range of capabilities; included modules for inspections, planning and zoning, and public works

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Costs to Towns joining after the pilot

| Town Population | 40 - 60k | 25 - 40k | 10 - 25k | Under 10k |
|-----------------------------|----------|----------|----------|-----------|
| Application Purchase Price | \$49,450 | \$43,000 | \$38,000 | \$28,000 |
| Training | \$3,000 | \$3,000 | \$3,000 | \$3,000 |
| Annual Maintenance (year 1) | \$8,280 | \$6,512 | \$6,364 | \$4,884 |

... pilot towns received up to \$25,000 in subsidies

Town participation and CRCOG's role

- ▶ Pilot Towns
 - ▶ Used OPM grant funding to offer subsidies for Pilot towns
 - ▶ Nine towns signed up for initial pilot – significant variances in size, sophistication, and requirements
 - ▶ Plan to add more towns over time
- ▶ Institutional Arrangements
 - ▶ CRCOG is primary contractor with the vendor
 - ▶ Each town signs a "participating agreement"
 - ▶ Contract includes pricing for additional towns, based on size and scope of the product
 - ▶ CRCOG receives 20 % of maintenance fees to cover management and development costs.

Lessons learned ...

- Towns can save significant dollars and get much higher capabilities by taking a regional approach
- Regional approach is harder and takes longer but can be done
- Need early involvement from IT directors and subject matter experts (in this case, building officials)
 - Project scoping
 - RFP process
 - Implementation
- Once the institution is built, it is easy to expand in scope (additional functions/modules) and scale (additional towns/cities)

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Going forward

- Continue to add towns and expand system capabilities
- Many areas where a regional approach would benefit towns
 - CAMA (property appraisal software)
 - Customer Response Management
 - Parks and Recreation
 - Document Management
 - Emergency Backup / Disaster Mitigation
 - ... many more

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