

Project Management

ITSO Processes - Mid-Tier Data Center

The Mid-Tier Data Center (MTDC) was founded in 2003, to provide the ability to ensure very high reliability, availability, and continuous operations in spite of adverse events such as hardware and software failures, communications disruptions, natural disasters, and physical or electronic attacks, for networked client-server and web based systems.

MTDC provides a secure application hosting environment that ensures very high reliability, availability, and continuous operations of networked, mission critical, client-server and web based systems in areas of infrastructure and architecture design, systems and database administration, disaster recovery, helpdesk, monitoring, and other operational support activities. This includes the configuration and management of client-server systems, including SQL and Oracle databases, and a multitude of other tools required to support the environment within the MTDC.

Applications that are hosted in MTDC are provided a secure application hosting environment that is monitored 24 hours a day, 7 days a week, including weekends and holidays. In addition MTDC also provides preventative maintenance for systems within their environment. To ensure business continuity, systems are continuously upgraded with the most current software patches and updates.

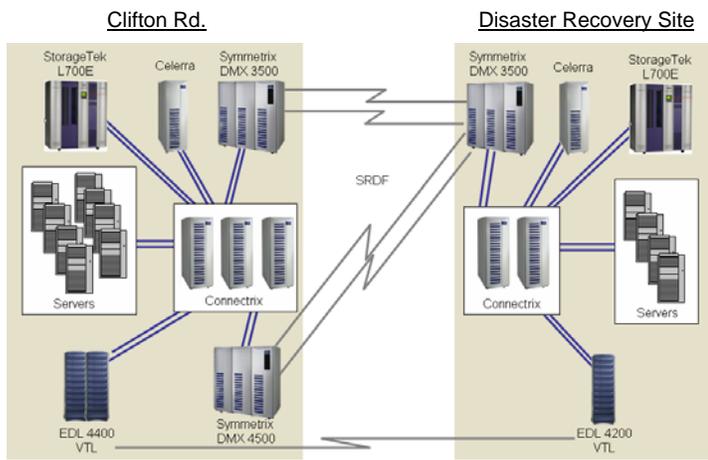
MTDC provides its services through the Information Technology Services Office (ITSO) in the Office of the Chief Operating Officer (OCOO). In addition to the above, some of the MTDC services that may directly, or indirectly, affect a project hosting in the data center include:

- *Design and planning services* including defining service requirements, new services, financial planning, defining and modeling service data, IT capabilities, benchmarking, and gap analysis in an attempt to proactively ascertain the future requirements for data center services in support of the business units requiring application hosting.
- *Testing and certification services* to create an appropriate testing scenario through which the

application or service can be evaluated and measured against a baseline that has been established to represent minimum performance criteria acceptable for the data center to offer services. Once it has passed the application is certified to meet the service levels agreed upon between the data center and customer.

- *Systems management services* are responsible for operational excellence in such areas as hardware administration, database administration, data backup, and other systems functions. This assures the availability, capability, and scalability of technology assets within the data center and encompasses items such as DNS, tape backup and storage technologies.
- *Quality management services* are responsible for defining the standards of the technology infrastructure. It interfaces with the design, planning, and systems management services and focuses on all aspects of provisioning, building, cataloguing, and life cycle support of IT services.
- *Monitoring services* proactively observes all operational components of the data center in order to assure that services are available and functioning according to standards established in the service level agreement. This service provides the foundation through which metrics are collected and managed against agreed upon standards.
- *Security services* proactively anticipate situations that could cause an interruption of service that may adversely affecting business operations. This service includes the physical data center security, host based system security management, firewall management, installation services, and change management. Processes defined outside of this service include, but are not limited to: enterprise security policy development, incident response for legal/HR/Federal audit and external threats, privacy and acceptable use of standards, and security assurance.
- *Disaster recovery service* assures the continuity of the delivery capability of the data center in the event of a catastrophe.

The main MTDC is located on Clifton Road. However, if a disaster were to occur disrupting MTDC services on Clifton Road, all MTDC activities would continue at a secondary disaster recovery location as depicted in the diagram below.



MTDC currently hosts more than 60 web-based and client-server applications on over 600 physical server machines, many of CDC's internal and external websites, including <http://www.cdc.gov> and more than 700 sub-webs, and some small business systems and mission critical applications.

Adding a system to MTDC requires that it:

- be deemed a mission critical system
- have a signed Authority to Operate (ATO)
- have funding for hardware, software, other required infrastructure, and support services

Upcoming Project Management Community of Practice Meetings and Topics

- **Friday, April 25**
Program Management Professionals Certification
- **Friday, May 16**
Security Issues that a Project Manager at CDC Need to Address
- **Friday, June 27**
PGO Processes
- **Thursday, July 24**
Project Management Career Framework
- **Friday, August 22**
General Management vs. Project Management
- **Friday, September 26**
Records Management, PIA, and Classified Information
- **Friday, October 24**
Facilitation – A Key to Project Success
- **Friday, December 5**
Influence – A Critical Skill for Successful Project Managers

At a high-level, the process for adding a system to MTDC includes:

- CIO identified a project for MTDC hosting and sends a request confirming this to its Technical Support Engineer (TSE)
- TSE forwards the CIO request to MTDC
- If approved, MTDC meets with the project's management team to understand service level requirements and to communicate potential costs
- MTDC assigns a Project Manager as a single point of contact acting as a liaison between groups coordinating communications, schedules, etc
- MTDC architect works with the project's development team to define physical and logical diagrams and to gather other needed information
- MTDC obtains estimates for hardware, software, and other infrastructure requirements
- Project owner supplies a CAN to MTDC
- MTDC and project owners negotiate a service level agreement and memorandum of understanding
- MTDC, in collaboration with the project team, receive and build staging, production, and disaster recovery environments
- The system is scanned and placed under formal change management
- Business continuity is confirmed, a signed ATO received, and the project deployed to production

Portions of the content of this newsletter were paraphrased from the MTDC website and a presentation by Steve Warren during the March 2008 meeting of the CDC Project Management Community of Practice (PMCoP). For more information regarding MTDC please visit the MTDC website located at <http://intra-apps.cdc.gov/mtdc/>.

For more information regarding the PMCoP or CDC Unified Process (UP) please visit the CDC UP website located at <http://www.cdc.gov/cdcup/>. ■

Contact the CDC Unified Process Team

The *CDC Unified Process Project Management Newsletter* is authored by Daniel Vitek MBA, PMP and published by the National Center for Public Health Informatics.

For questions about the CDC UP, comments regarding this newsletter, suggestions for future newsletter topics, or to subscribe to the CDC UP Project Management Newsletter please contact the CDC UP Team at cdcup@cdc.gov

<http://www.cdc.gov/cdcup/>