

# 2007 KEY ACCOMPLISHMENTS

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COUNTY EXECUTIVE OFFICE, INFORMATION TECHNOLOGY



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# 2007 KEY ACCOMPLISHMENTS

COUNTY EXECUTIVE OFFICE, INFORMATION TECHNOLOGY

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# **Executive Summary**

It is the mission of CEO Information Technology (IT) to utilize technology to improve the quality of life for the communities we serve by delivering quality, innovative and fiscally responsible products and services. Satish Ajmani, County CIO and staff collaborated to describe the vision for the CEO/IT organization as “Making IT easy to get great service from the County!”

CEO/IT has implemented a new organizational model, transforming customer service delivery with 16 “Centers of Excellence”. These centers are designed to develop and deliver IT expertise in key areas including; IT Security, Strategic Planning, Portfolio Management, Process and Quality Assurance and Customer Support. In order to achieve our organization goals, CEO/IT has identified the following critical success factors:

- ▶ Understand the County business and strategic goals
- ▶ Be responsive to Agency/Department and customer needs
- ▶ Take a leadership role in identifying technology to meet business needs
- ▶ Provide effective collaboration and communication to ensure project success
- ▶ Actively support secure data and information sharing
- ▶ Provide cost effective and competitive services to our customers

During 2007 CEO/IT followed these guiding principals and worked collaboratively with County partners to complete many challenging and exciting initiatives to meet the business needs of Orange County. CEO/IT also worked diligently to refresh the County IT infrastructure and processes to ensure the County can meet the technology needs of today while preparing for the future.

Highlighted within this report are 16 projects that demonstrate CEO/IT’s commitment to employ effective, innovative technology and services to meet the challenging and diverse business needs of Orange County.

# Awards for Excellence

## OVERVIEW

▶ **Award of Excellence: “Orange County Data Center (OCDC) Collaboration”**

The California County’s Information Services Directors’ Association (CCISDA) presented Orange County with an Award of Excellence for “Orange County Data Center Collaboration”, as a result of the collaboration and planning efforts between Orange and LA Counties to establish and provide a suitable location for LA to house their Information Technology Disaster Recovery site.

▶ **“Best of California” Award of Excellence in IT Operations, Support & Service**

This award was received for creating a Virtualized Server and Storage Area Network (SAN) Center for Digital Government for the Orange County Probation Department to store their essential computer systems/servers.

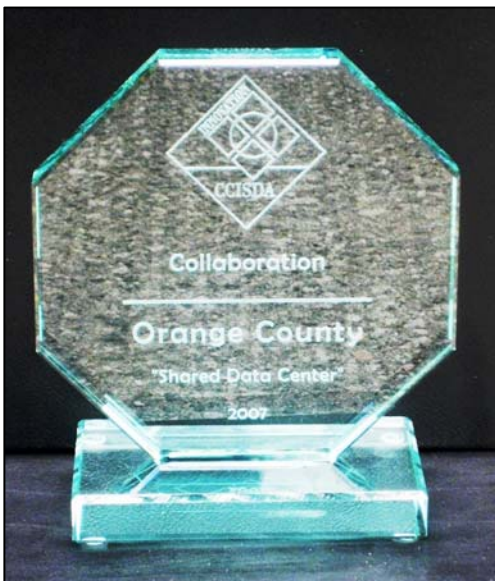
## OUTCOME / BENEFITS

**Award of Excellence: “Collaboration - Orange County Data Center”**

- ▶ Sharing location with LA County has reduced OCDC overhead costs in excess of \$90,000 per year.
- ▶ Other local government entities, including Ventura County, have shown an interest in establishing a similar agreement.

**“Best of California” Award of Excellence in IT Operations, Support & Service**

- ▶ Fulfilled increasing need for 24/7 operational and technical support.
- ▶ Proven benefit from the March 2007 flood at the Probation facility where this data was originally stored, and the critical system lost communication with the data center. The new solution allowed for a 100% data recovery and restoration of servers in less than 24hours.



*The Orange County Data Center received the Collaboration Award of Excellence for its “Shared Data Center” (Above, left)*

# SERVING OUR COMMUNITY

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# eGovernment

## OVERVIEW

The eGovernment (eGov) initiative enables the County to leverage the full capability of technology to deliver more effective and efficient services to each of its constituent groups anytime, anywhere. By availing services on a “Life Event” basis rather than through the County traditional organizational structure, this initiative moves Orange County in a direction to improve constituent service delivery and transform how the County interacts with residents, business owners, community organizations and County staff. The Alpha launch of Phase I of the eGov initiative was completed in December 2007 and achieved the following objectives:

- ▶ Re-design of the County Internet Site based on “Life Events” with consistent navigation and improved Search capability. Phase I re-design included the OCgov home page, the Board of Supervisors, the County Executive Office (CEO), Chief Financial Office, Treasurer-Tax Collector and CEO Information Technology, Human Resources, Risk Management, Volunteer and Clerk of the Board. The remaining Agency/Departments will be converted in 2008.
- ▶ Preparing for the business requirements of the future with the implementation of a new Internet platform using state-of-the-art Portal, Content Management and Search technology.

## OUTCOME / BENEFITS

### ▶ Enhanced Customer Focus – “Life Events”

By availing services and information based on "Life Events", customers will be able to access information based on their needs and the way they think rather than on the County's traditional organizational structure.

### ▶ Common Look & Feel, Navigational Structure & Natural Language Search Engine

With a common look and feel, standard navigation through-out the site and an improved search engine, the new portal allows users to focus less on how to navigate the site and more on how to obtain the information or services they are seeking.

### ▶ Increased Operational Efficiencies

Migration to the new portal allows the County to enjoy economies of scale and cost avoidance as a result of: content management software that reduces costs to implement new web sites and allows authorized business users the ability to update web content leading to increased accuracy, timeliness, and relevancy of web data; reduced programming required with the ability to re-use content types and templates and consistent web platform which allows for the development of cross-agency expertise.



# **County Community Service Center**

## **OVERVIEW**

In October of 2007 CEO/IT collaborated with RDMD to complete the operational set-up of the County Community Service Center (CCSC) in Westminster. The CCSC was approved by the Board of Supervisors on August 14th and needed to be up and operational within 2 and 1/2 weeks.

CEO/IT was responsible for designing and installing both a telephone solution and temporary Internet access until the permanent T1 could be installed. The wiring to the desktop, phones and internet access was in place on time. Much of this work involved staff working early mornings and late evenings to get this done so that the Board of Supervisors and the media could open up this essential facility on time and within budget. On Opening Day Supervisor Nguyen publicly thanked CEO/IT for their efforts.

## **OUTCOME / BENEFITS**

- ▶ Geographically localizing access to County services.
- ▶ By the end of December 2007, the CCSC had already assisted over 3,000 constituents.
- ▶ Publicly showcased CEO/IT's ability to work in collaboration with other agencies to provide innovative, responsive and fiscally sound solutions.



*Supervisor Nguyen (shown left) helps cut the red ribbon at the Orange County Community Service Center's grand opening in October 2007.*

# **CEO/IT Emergency Response**

## **OVERVIEW**

### **PROBATION:**

On March 8, 2007, a sprinkler head in a remote location of the top floor of 909 N. Main Street malfunctioned, resulting in significant flooding to the lower floors which housed Probation's computer systems. The Orange County Data Center staff, responsible for 24/7 management and monitoring of Probation's computer systems functions received an alert that Probation's servers had lost communication with the centralized monitoring system. Probation was immediately notified and carried out their Disaster Recovery Plan. Through a collaborative effort among CEO/IT, Probation, and County emergency services, 100% of the data was recovered and all servers were completely restored in less than 24 hours.

### **CENTRAL JUSTICE:**

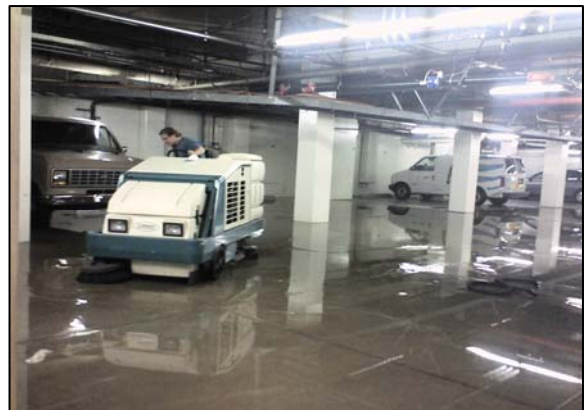
On May 21, 2007 nearly 2,000 County staff and citizens, including several dozen inmates, were evacuated from the Central Justice Center (CJC) due to an underground fire suppression water main break. The event sent thousands of gallons of water and mud into the computer room and underground parking garage. The computer room housed the County's primary phone switch, significant portions of the County's Wide Area "data" Network and computer equipment supporting Probation, District Attorney and Superior Court. CEO/IT responded quickly to this emergency. The loss of the CJC facility would have had a catastrophic impact on the County's ability to provide services to County residents.

### **FIRE VICTIM ASSISTANCE CENTER:**

During the recent Orange County fires in 2007, under the direction of Supervisor Campbell, CEO/IT assisted in the establishment of a Local Assistance Center for the residents that were impacted by the fires. This project was completed in less than 24 hours and entailed provisioning of desktop computers and telephones services. The facility provided displaced residents with the convenience of accessing County services locally.

## **OUTCOME / BENEFITS**

- ▶ Collaborative efforts among County Agencies mitigated potential disasters.
- ▶ Quick response resulted in minimal service disruption.
- ▶ An Assistance Center for Orange County fire victims was quickly established, with technology to support their needs.



*Flooding caused by an underground water main break, sent thousands of gallons of water and mud into computer rooms and underground parking garages.*

# **Child Abuse Registry**

## **OVERVIEW**

CEO/IT replaced Social Services Agency's Automatic Call Distributor (ACD) reporting package that had reached end of life with a Child Abuse Registry solution. The project included installation of approximately 50 telephones, a call recording device and custom reporting packages. The system was also connected to the Orangewood Children's Home for after hour calls.

## **OUTCOME / BENEFITS**

Features of the new Child Abuse Registry solution include:

- ▶ All inbound and outbound calls are automatically recorded and stored for future use.
- ▶ Separate queue established for backline callers that move them to the front of the queue. This includes police officers, social workers, families, etc.
- ▶ System support provided by the County's Help Desk, eliminating the need to contact an outside vendor, as was the case with the previous system.
- ▶ Real time display reports to the desktop and custom reports for daily, weekly, monthly reviews are generated.



# Board Meetings / Video-On-Demand

## OVERVIEW

This project updated the technology and infrastructure to provide public access to County Government through the broadcasting of the weekly Board of Supervisors (BOS) meetings via the internet.

**This service provides the following capability:**

- ▶ Live video of BOS meetings and special messages for public / employee viewing on the County of Orange internet and intranet.
- ▶ Access to archived video for viewing on demand by the public and county employees.
- ▶ Live “on-site” recording capability for the BOS and the County Executive Office for emergency and special messages.
- ▶ Searchable video archives by agenda item and keyword.
- ▶ Closed captioning services in conjunction with the video and audio broadcast.

## OUTCOME / BENEFITS

- ▶ Major customers that benefited from this project include the citizens of Orange County and all County employees.
- ▶ Project provides easier access to County government by allowing viewing of the Board of Supervisors meetings remotely.
- ▶ Provides the ability to search video archives by “key word” or agenda item to view a specific portion of any meeting.

The screenshot displays the OCGOV.COM website interface. At the top, the logo for Orange County Government Online is visible. Below the logo, there is a video player showing a live stream of a meeting. A red callout box labeled "Broadcast Controls" is overlaid on the video player. To the right of the video player, there is a search bar and a list of agenda items. A red callout box labeled "Board Meeting Video / Agenda Segments" is overlaid on the search bar. The agenda items are numbered 10, 11, 12, and 13, each with a description of the meeting item. At the bottom of the screen, there is a section for "Closed Captioning" and "Board of Supervisors" with five member portraits and names: Janet Nguyen, John Moorlach, Bill Campbell, Chris Norby, and Pat Bates. A "Help" and "Feedback" link is located at the bottom right.

# Emergency 9-1-1 Implementation

## **OVERVIEW**

CEO/IT implemented a Caller ID system to provide accurate location information for 911 calls originating from County facilities. Many County facilities involve multi-story buildings or multiple buildings that are served by a single phone system. Therefore, when an individual calls 911, the address of the phone system displayed on the emergency dispatch screen may or may not be the address where the call actually originated.

Callers can now be identified by specific building address, agency name, floor, and room number. Previous 911 calls were only identifiable by the main telephone number billing address.

## **OUTCOME / BENEFITS**

- ▶ Reduces likelihood of 911 dispatching to an incorrect address, thus lives may be saved.
- ▶ Benefits the public in the event of emergencies while they are in a County facility.
- ▶ Alleviates County liability issues arising from incorrect location IDs.



*The new system reduces the chance of 911 dispatching to an incorrect address.*

# **PROCESS IMPROVEMENT**

## **TO ENHANCE CUSTOMER SERVICE DELIVERY**

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# IT Strategic Plan

## OVERVIEW

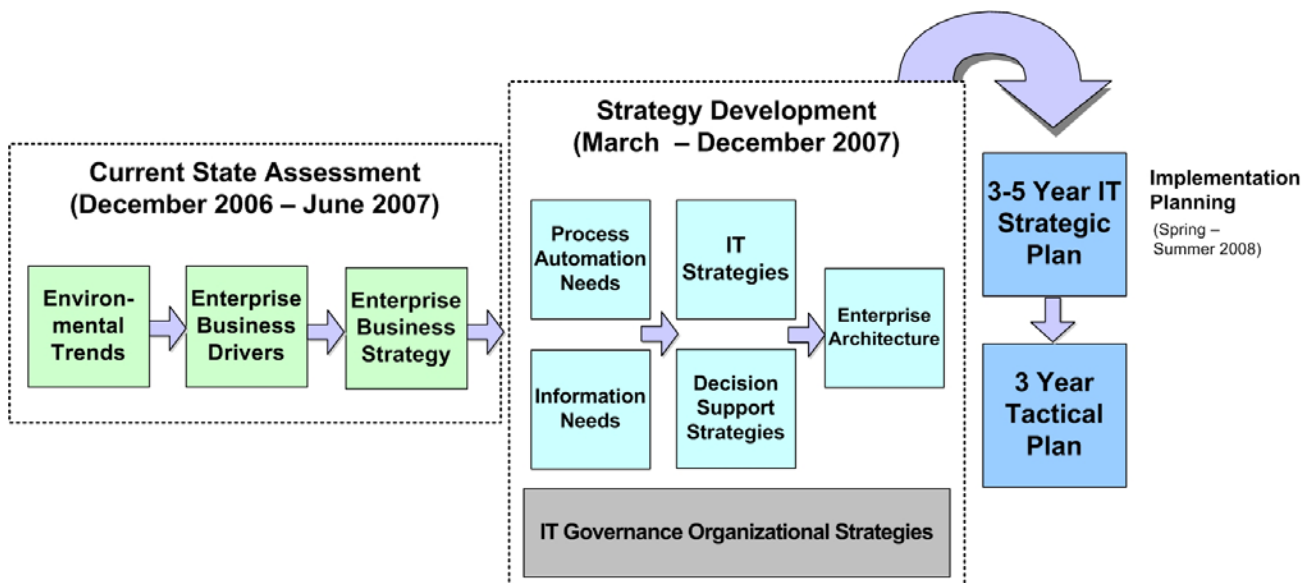
This initiative will produce a five-year County-wide IT Strategic Plan and a three-year tactical plan containing a portfolio of IT projects that will support County strategic business goals. During 2007, significant milestones were completed with this project including:

- ▶ Completed focus groups with both Department/Agency Business and Information Technology staff to assess current IT practices, shared application services and the existing project portfolio.
- ▶ Performed Gap Analysis
- ▶ Completed strategy development and documentation of Strategic IT Imperatives, Application & Domain Architecture and IT Governance Strategy.

During 2008, the five year Countywide IT Strategic Plan will be completed and training will be provided to all Departments and Agencies to develop consistent IT Strategic plans within their jurisdictions.

## OUTCOME / BENEFITS

- ▶ Aligns Information Technology with the County's strategic goals and agency needs.
- ▶ Establishes a technical framework to support County business.
- ▶ Identifies information sharing needs among "communities" within the County.
- ▶ Leverages countywide IT expertise.
- ▶ Defines the IT strategic plan for the County.



# IT Best Practices & Standardization

## **OVERVIEW**

IT Process Standardization works to leverage industry best practices and apply a series of carefully crafted, integrated quality processes to support the business.

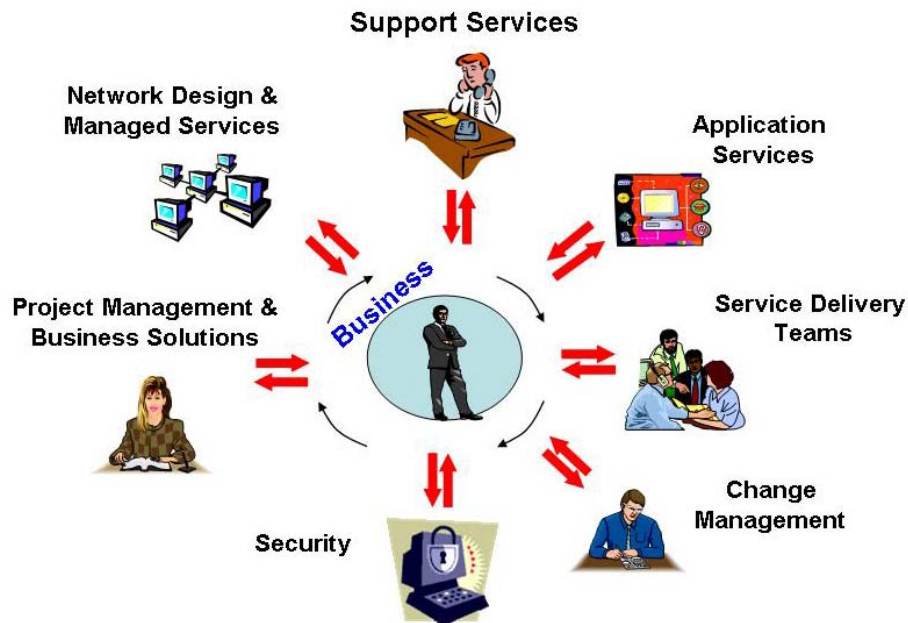
This project is comprised of four phases:

- ▶ Assessment, Gap Analysis, and Recommendations
- ▶ Reduction of Unplanned Work
- ▶ Improving the Customer Experience
- ▶ Applying Greater Resources Towards Specialized Work

During 2007, CEO/IT completed the strategic vision for the project, performed a comprehensive ITIL (Industry Standard Framework) assessment, designed the blueprint for organizational change, and created the overall IT Service Management program roadmap to be implemented in 2008.

## **OUTCOME / BENEFITS**

- ▶ Sustainable, repeatable and efficient processes
- ▶ Improved alignment between the business and Information Technology
- ▶ Customer-centric organization



# **Business Continuity Management and Recovery Center**

## **OVERVIEW**

The focus of Business Continuity Planning (BCP) is to identify the County's business processes; determine which of these processes are critical; and develop a method for continuing to provide those processes and services after a business disruption. CEO/IT is assisting 21 County agencies in documenting continuity plans for their critical processes, determining and implementing recovery strategies, and testing and maintaining their plans. The Business Recovery Center (BRC) is a facility dedicated to use by County agencies in the recovery of critical business processes during a short-term, localized disruption.

Primary 2007 Accomplishments:

- ▶ Consolidation, review and prioritization of Business Impact Analysis (BIA).
- ▶ Documentation of 100% of "A" level process plans & 75% of "B" level process plans.
- ▶ Upgrade and build-out of County Business Recovery Center (BRC) at OC Data Center.
- ▶ Initiation of Business Continuity Working Group (BCWG) with members from all participating agencies.
- ▶ Distribution of RFP for Phase I (Assessment) of Recovery Strategy Development and Implementation project. This project will identify a comprehensive recovery strategy for critical systems and applications housed at the OC Data Center.

## **OUTCOME / BENEFITS**

- ▶ Business Impact Analysis (BIA) for each agency that identifies critical processes.
- ▶ Process plan documentation for each process/system identified on the BIA.
- ▶ Established methodologies, procedures, and standards for business continuity.
- ▶ Communication paths among and between agencies, departments and personnel.
- ▶ BCP maintenance, testing and audit program.
- ▶ Meet agency requirements in providing an adequate business process recovery facility.

**The new BRC provides:**

- ▶ A continuously available alternate worksite for any County agency that wishes to arrange for its use.
- ▶ An additional resource in the County's ongoing efforts to provide mission critical business functions, despite a disruption in normal operations.



*Members of the Auditor-Controller Cash Management Continuity Team test processes at the recently upgraded Business Recovery Center.*

# **IT Security Audits**

## **OVERVIEW**

This project successfully completed the first Countywide Information Technology Security Assessment. CEO/IT managed the activities of a globally recognized security vendor in assessing the state-of-security for over 17 County Agencies. As part of each assessment the agency was provided an overall security assessment package which scored and outlined all of the next steps required to fully remediate the findings. Additionally, we are now compiling a set of Countywide Security Policies based upon comparing our existing security policies to nationally recognized standards and best practices.

## **OUTCOME / BENEFITS**

- ▶ Increased Countywide Security awareness at all levels of the organization.
- ▶ Identified specific security vulnerabilities for Agency/Departments to correct.
- ▶ Provided templates for new Countywide security policies, standards and updates.
- ▶ Provided each Agency with specific remediation, plans, processes and patches.
- ▶ Established an ongoing methodology for future Security Assessments.
- ▶ Improved communication among and between agencies regarding security issues.
- ▶ Dramatically improved the County's overall Security readiness posture.



# **TECHNOLOGY PROJECTS**

## **TO MEET COUNTY BUSINESS NEEDS**

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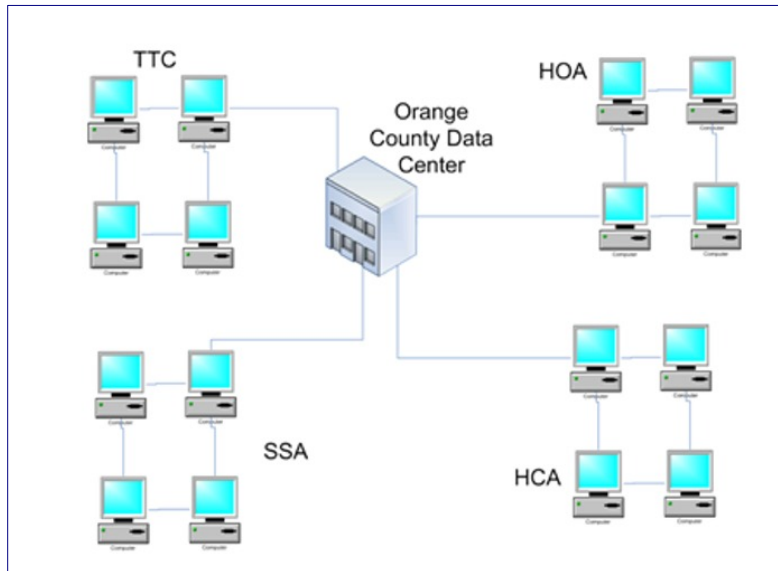
# Wide Area Network

## **OVERVIEW**

The objective of the Wide Area Network II (WAN) project was to implement a more current and robust network to support increased capacity for County applications. The implementation replaced aging network equipment at 20 different sites throughout the County during a six-month period and was completed without any unscheduled downtime.

## **OUTCOME / BENEFITS**

- ▶ Increased bandwidth, performance and reliability.
- ▶ Added redundancy in core areas of the County's infrastructure.
- ▶ Reduced overhead costs.
- ▶ Provided robust network features, functionality and reliability.



# Virtual Server Consolidation

## OVERVIEW

Historically, Agencies would buy 2-8 new physical servers each time they added a new application. Today, using Data Center's new Virtual technology each virtual cluster server transparently replaces 10 – 14 traditional hardware servers. This consolidation results in less need to buy new servers, lower maintenance costs, less staff support, better management, added redundancy, increased reliability and less down time overall. During this project 250 of the Data Center's 450 servers have been virtualized.

Additionally, the Probation Department has begun using the Data Center's Virtual Clusters to host their critical 24x7 applications. Their migration has been seamless and the Agency has decided that all new Probation applications will be developed to use Virtual Clustering technology. So far over 10 Agencies have begun to use this technology and all are seeing both cost savings and improved service levels.

## OUTCOME / BENEFITS

- ▶ Provides virtual and physical server resources in the most cost efficient manner, taking advantage of hardware and software economies while meeting the current and future business needs.
- ▶ Provides standardized operating environments which ensure interoperability across CEO/IT environments.
- ▶ Provides standard service offerings that minimize non-standard solutions.
- ▶ Improves reliability of the infrastructure.
- ▶ Improves management and utilization of the current / proposed infrastructure.
- ▶ Ensures on-going upgrades to technology to support changing business needs of the County.



# Co-Location Study

## **OVERVIEW**

The objective of this project was to assess the technical, business and financial feasibility of co-locating six Departments/Agencies' (IWMD, RDMD, SSA, RoV, JWA, and HCA) data centers to the Orange County Data Center. In addition to co-location feasibility analysis, all data center facilities were evaluated and reviewed with respect to their fire suppression, electrical power, HVAC system, data center facilities' structural reliability, physical security, and drainage and leak detection.

Orange County Data Center (OCDC) was rated as a Tier III facility while all the Agency data centers were rated as Tier II facilities. A Tier III facility is characterized as being more reliable than a Tier II.

## **OUTCOME / BENEFITS**

As result of this study, several County Departments are considering co-locating equipment to the Orange County Data Center. This will provide OC departments with a safe and reliable environment for their computer equipment; resulting in additional efficiencies and cost savings for the entire County.



*The Orange County Data Center (OCDC) was rated as a Tier III facility, more reliable than all Agency Data Centers rated as Tier II facilities.*

# **Platform Design - CAPS+**

## **OVERVIEW**

CEO/IT worked with sponsoring agencies to design platform architecture to support the next generation of the CAPS + system based on “SMART” criteria: Security, Maintainability, Availability, Reliability, and Total Cost of Ownership. This ensures the platform meets the client’s business objectives and desired service levels. The first phase of the CAPS + upgrade implementation has been completed and the deployment of this system is scheduled to begin in FY 08-09. Fifteen Focus Groups have been established to serve as “advice and consent” forums to help ensure that the CAPS+ Project Teams are configuring the new system to best meet the County’s needs.

In addition, a communication outreach strategy has been implemented which provides all departments with project updates on regular intervals. The CAPS+ website was launched and provides detailed information on the project including Focus Group minutes and handouts, the “Status At a Glance’ project report, and links to the project’s quarterly newsletter. This platform replaced the IBM mainframe and is designed to meet or exceed mainframe performance and reliability standards at a substantially reduced cost.

## **OUTCOME / BENEFITS**

- ▶ Secure, scalable and reliable environments to support changing business needs.
- ▶ Improved efficiency, controls, tracking and reporting of financial and procurement information.
- ▶ Improved service levels to departments.



*Satish Ajmani, Deputy CEO and Chief Information Officer, speaks to the CAPS + Team about the importance of this Countywide initiative.*

# Alternate Power Source for Orange County Data Center

## **OVERVIEW**

Several years ago the County installed seven natural gas turbines at the County Operations Center. In 2007, CEO/IT collaborated with RDMD to take advantage of the Co-generation facility in order to fully utilize its capabilities and provide more economical energy to the Orange County Data Center. The turbines were put into operation at the COC to supplement the Southern California Edison electric power feed, thereby reducing ever increasing electrical power costs. They are especially affective running as “peak shavers”, reducing costs during those hours where customer demand for electrical usage is at its highest.

Current measurements indicate a total reduction in Edison power of between 120KW and 150KW.

## **OUTCOME / BENEFITS**

The Orange County Data Center averages about 11.5 cents a KWH, which will result in an annual gross reduction in Edison electrical power costs of approximately \$120,000 to \$150,000.



*The turbines above are rated at 60KW (thousands of watts) each and provide an actual supplement of between 30KW and 60KW per turbine to the Southern California Edison feed at the Data Center.*