CITY OF SACRAMENTO
CALIFORNIA

May 8, 1990
FA90048

Budget and Finance Committee
Sacramento, California

Honorable Members in Session:

SUBJECT: **REQUEST FOR ADDITIONAL PERSONNEL IN THE DEPARTMENTS OF FINANCE, PUBLIC WORKS, AND DATA MANAGEMENT**

SUMMARY

This report requests the Budget and Finance Committee amend the FY 1990-91 Proposed Budget and authorize the addition of two Customer Service Representatives, and one Administrative Analyst I to the Revenue Division staff; one Senior Programmer Analyst, a UCIS consultant, and two cartridge tape drives for Data Management; one Typist Clerk III for the Customer Services section of the Solid Waste Division, and one Customer Service Representative for the Water Division.

BACKGROUND

On September 23, 1987 the City Council authorized staff to proceed with the development of the Utility Customer Information System (UCIS) to replace the outdated utility billing system operating on the Sperry Univac 90/60. The UCIS billing system has several advantages over other billing systems, including:

1.   on-line billing/payment history
2.   screen free-form messages
3.   on-line tickler file
4.   additional customer information, (telephone number, spouse data, premise direction, etc.)
5.   maintenance to various tables

The UCIS, designed to run on the IBM mainframe, was provided by Actron Information Data Systems (ACTRON). The professional services agreement between the City and ACTRON mandated a 390 day completion date due to the City's need to move all mainframe computer systems to the IBM mainframe by December, 1988. Staff envisioned a complete conversion from the old utility billing system to the new UCIS by November 1, 1988. On November 1, 1988 the City converted to the new utility billing system and the first UCIS utility bills were created.

DISCUSSION

After the conversion to UCIS, problems occurred due to incomplete testing of programs, conversion errors, and the misapplication of payments. The problems resulted in thousands of telephone calls from concerned customers regarding the continuing errors that appeared on their accounts. Responding to the additional calls greatly reduced the time for staff to perform routine work. The reduced staff time available for routine work resulted in a maximum backlog approximately of 3,500 hours of work during the period of November 1988 to February 1990 in the Revenue Division. The backlog has been reduced to approximately 100 hours partially through overtime work. It is anticipated that all backlog work will be completed by June 30, 1990. The Department of Data Management has a backlog of over 3,300 hours of programming work to correct UCIS programming errors and has numerous backlogged requests for changes and additions to the system.

ANALYSIS

A. Existing Staff

The Utility Services section of the Revenue Division is presently staffed by:

1.0	FTE	Revenue Supervisor
2.0	FTE	Senior Customer Service Representative
1.0	FTE	Account Clerk II
10.0	FTE	Customer Service Trainee/Customer Service Representative

The staff is collectively responsible for the billing of approximately 111,000 utility accounts, maintaining the City parcel system, and providing other high quality services to customers. Exhibit A provides a complete list of the duties of the Utility Services staff.

The Systems and Programming Division of the Department of Data Management provides modifications, support, maintenance, daily support and new development for the City's mainframe computer. There are 3.0 FTE from the Division assigned to maintain over 350 UCIS programs. The old billing system had 2.0 FTE assigned to maintain it; but since the new UCIS system was introduced in the City, only one additional FTE was redeployed to UCIS. However, the UCIS system is much larger, more complex, and more difficult to handle than the old Sperry system. Other cities of similar size which use the ACTRON system average 7 programmer analysts to support changes and modifications.

The water meter shop in the Water Distribution section of the Water Division is currently staffed with 1.0 FTE Utility Services Inspector and 3.0 Meter Readers. This staff is responsible for all 4,285 water meter accounts in the City.

The Solid Waste Division Customer Services section is currently staffed with 1.0 FTE Office Supervisor and 5.5 FTE Typist Clerks I/II. This staff is responsible for handling all Solid Waste customer service inquiries and service orders to the field crews.

B. Existing Workload

Maintenance of the existing 111,000 utility accounts, plus addition of new accounts and deletion of old accounts require extensive computer input. For example, there is an average of 1,200 ownership changes per month, which requires an average of 8 minutes per account to complete for a total of 160 hours per month. There are approximately 100 new construction projects to register per month. The research time required to establish the parcel number, legal owner, and type of service is about 10 minutes per account, which totals to 16 hours per month.

The primary goal of the Utility Services section is to provide high quality customer service, which includes responding to telephone calls within an average of 2 minutes. Presently, staff receives approximately 8,000 telephone inquiries and responds to an average of 350 customers at the public counter per month. During the months of June, July and August there is a dramatic increase in the number of telephone inquiries and number of customers at the public counter due to utility rate increases and the annual utility lien process. The length of time a staff member spends with each customer depends on the complexity of the call/visit; on the average it varies from 2 to 12 minutes.

The primary role of the 3.0 FTE Programmer Analysts is to support the ongoing UCIS computer program needs of the Department of Public Works and the Department of Finance. Staff must insure that the system is running error free and is providing the required bills, accounting interface data, and reports. Additionally, this same staff accommodates changes within the system to reflect changes in billing, services and general requirements.

The Solid Waste Division Customer Services section handles about 5,000 calls per month and many written inquiries. Account information is reported in UCIS and in other sources to respond to customer needs and inquiries. A major function of this section is coordinating the billing operations of the Revenue Division and field staff providing direct public services.

The meter shop reads 4,285 meters every 2 months.   The personnel investigate customer complaints, stop and start metered accounts, and audit the meter readings prior to billing for the service. One Utility Services Inspector supervises the meter readers and performs the clerical duties. Two occurrences have dramatically increased the workload of the meter shop personnel. Installation of the UCIS system has increased the time required to set up new accounts and delete old accounts. In addition, the City is involved in a water meter retrofit program which adds more than 300 meters to the system annually.

C. Existing UCIS Plan

A five step plan was developed in February, 1990 by the Systems & Programming Division to cope with the continuing problems associated with UCIS. The plan (Exhibit B) consists of the following tasks.

1. Modify and enhance the system code, by eliminating the dead code and extra data base calls that cause major processing inefficiencies.

2. Contract an experienced UCIS consultant to work on the 3,300 hours of backlog of requested corrections to the system. The consultant will correct 28 of the 50 problems identified to date. (Exhibit C)

3. Upgrade ADABAS to release 5.14 to provide better utilities, reduce the processing time, and bring the data base up to the level of the current release.

4. Implement a data base recovery technique called end transaction/beginning transaction (ET/BT), which is necessary to eliminate the need for constant backups and restores by taking advantage of the data base facilities.

5. Implement a technical training course for the Systems and Programming staff to enhance and fortify their knowledge.

D. Hardware Requirement

The Revenue Division and Department of Public Works require that at least 18 months of UCIS historical data be kept on-line resulting in large disk files which must be backed up nightly on magnetic tapes. Forty tapes and 3.5 hours of computer time are required for back up using worn out and outdated (1970's technology) tape drives. UCIS will be at high risk if the need arises to restore the disk files from the back-up tapes. Presently, a high percentage of tape failures occur on a nightly basis. Failure of one of the forty tapes could cause the on-line system to be unavailable up to 24 hours.

The aging tape drives need to be replaced by two newer reliable cartridge tape drives. The cartridge drive capacity is approximately double the capacity of the older drives and the speed is 3 to 4 times faster. The nightly processing will be reduced by at least 1.5 hours with the new cartridge drives. The time is needed for error recovery if required. Environmental benefits gained from replacement of two drives are the reduction of power consumption by one half and the reduction of heat generation by one half. The cost for two cartridge drives plus 100 tape cartridges is $50,000.

E. Need for Permanent Staff

The UCIS provides a plethora of information to better serve the customers. The previous utility billing system provided 2 screens of information on each account. The UCIS system provides 32 inquiry screens and over 50 account update screens. Sufficient data, however, must be input into the system to make the information available for use. The present staff is unable to maintain the

objectives of establishing new accounts within three weeks of notification and responding to telephone calls within an average of 2 minutes. Currently, the Utility Services section is using overtime hours in an attempt to keep up with the current workload and decrease the backlog of customer service requests. The section has worked 1,656 hours ($25,260) of overtime during the period July, 1989 through mid April, 1990. During FY 1988/89, Utility Services worked 1,335 hours ($20,926) overtime. It is anticipated that the backlog of customer service requests will be completed by June 30, 1990.

During the months of August, November, and December 1989, a survey conducted by Pacific Bell revealed that 8% of all calls received a busy signal and 35% of all calls were held for an unspecified time in the queue. Customers have complained to staff that they were on hold for up to 25 minutes. The combination of problems generated by the "bugs" in the new UCIS, the double billing that was caused when the City's utility bill processing service was dramatically behind in posting payments, and growth in the City have adversely affected the Utility Services staff's ability to maintain the desired high level of customer service.

A permanent staff increase of 2.0 FTE Customer Service Trainees/Representatives is required to:

1.   Reduce the number of customer calls held in the queue and the number of customers receiving a busy signal.

2.   Keep utility accounts current and perform cleanup on older accounts.

3.   Provide time for staff to periodically review utility accounts for correctness.

4.   Provide a trained staff for anticipated future increases in the number of accounts. Cross train staff in all phases of UCIS accounts and parcel system maintenance.

Currently, all issues regarding the UCIS system in the Revenue Division are handled by a Revenue Supervisor and a Senior Accounting Technician. These duties are inappropriate for both job classifications and are incompatible for the Senior Accounting Technician position. The Revenue Division needs a position whose work is dedicated to the UCIS system. A permanent staff increase of 1.0 FTE Administrative Analyst I is required to:

1.   Coordinate problem resolution and conduct detailed research.

2.   Coordinate and perform testing of systems repair and enhancements.

3.   Analyze information needs, produce information and reports, such as Focus and monitor reports.

5.   Conduct user training, develop and produce documentation and user procedures.

6.   Evaluate, design, and implement system controls.

7.   Maintain system tables and understand the implications of table entries.

8.   Investigate new system features not in use, audit conversion and identify problem areas.

Currently the Systems and Programming Division manager is using a disproportionate amount of his time on the UCIS project. The manager cannot devote the required full-time to UCIS planning and support because he manages 28 other systems. A permanent staff increase of 1.0 FTE Senior Programmer Analyst in the Systems and Programming Division is required to give UCIS full-time attention and insure that the current backlog is eliminated. This position will eliminate the need to hire consultants in the future. An experienced UCIS analyst on staff is necessary because a UCIS consultant may not be available within an acceptable timeframe. It makes sense to maintain this level of expertise in-house because many times system needs cannot wait until a consultant is obtained. Devoting this position to UCIS will also insure that another backlog will not be created and user requests for fixes and enhancements will be met. A consultant rate is $60.00 - $100.00 per hour. Hiring a consultant for 6 months could cost $63,360 - $105,600, which is equivalent to a 1.0 FTE Senior Programmer Analyst for 12 months. We are requesting $12,000 for a consultant at this time with the assumption that a senior program analyst will be joining our staff. In the intrem the consultant will be working on the UCIS backlog. The Senior Programmer Analyst is required to:

1.   Analyze current UCIS problems and plan and implement problem resolution.

2.   Monitor the daily performance of UCIS.

3.   Coordinate reports and activities with the Department of Public Works and the Revenue Division; prioritize work requests.

4.   Maintain quality control over the system, problem resolution, implementation, and future enhancements.

5.   Analyze UCIS to improve performance and increase processing speed and provide future enhancements.

6.   Keep UCIS current with the hardware and software upgrades in the City.

7.   Supervise and direct the three UCIS staff members.

8.   Provide project management.

The Office Supervisor in the Solid Waste Division Customer Services section is currently dividing available time among customer services supervision, training staff in UCIS, and special projects. Special projects work related to customer services are chronically behind schedule. There is not a Typist Clerk III in the section to assist the Office Supervisor with tasks requiring a higher skill level than the Typist Clerk I/II positions. UCIS documentation has not been completely prepared. Commercial customers are not receiving the level of customer services support necessary for the cost and complexity of service required. A permanent staff increase of 1.0 FTE Typist Clerk III in the Solid Waste Division is required to:

1.   Prepare UCIS documentation.

2.   Research and prepare response letters to requests for credit.

3.   Conduct and oversee internal system checks.

4.   Handle commercial customer services.

5.   Assist the Office Supervisor in training Customer Services staff on UCIS.

6.   Assist the Office Supervisor on special projects to allow the Office Supervisor the time necessary to adequately supervise the Customer Services staff.

The meter shop in the Water Division has one supervisory/clerical position. This position is responsible for starting and stopping water meter accounts, investigating complaints from water customers, dispatching and supervising the work of 3 meter readers, and auditing the data provided by the meter readers prior to billing for service. Approximately 20 new meter accounts are added each week which requires computer input and the creation of meter work orders. The supervisor must inspect and program the route for each new account. A work order is also required for each of the 20 maintenance requests per week on existing meters. The meter shop currently is backlogged 75 new meter accounts. The supervisor has been working 6 days per week. A permanent staff increase of 1.0 FTE Customer Service Representative is required to assume the clerical duties of inputting data into the computer, handling customer complaints, and researching accounts.

F. Training Requirements

The Revenue Division staff requires additional training on the UCIS system to effectively use the potential that the system offers. The training is

essential for the existing and new staff. The training will be conducted by a consultant experienced in UCIS and will occur in FY 1990-91.

FINANCIAL DATA

The proposed six staff additions will require an increase in employee services, equipment, and supply costs. The 1.0 FTE Administrative Analyst I position, the 3.0 FTE Customer Service Representative positions, and the 1.0 FTE Typist Clerk III position will be filled July 1, 1990. The 1.0 FTE Senior Programmer Analyst position is projected to be filled in August, 1990. The estimated staff costs for FY 1990-91 are:

	Salary/ Benefits	Furniture/ Supplies	Total
Revenue Division - Finance			
1.0 Admin. Analyst I	$41,820	3,400	$45,220
2.0 Customer Service Representative	53,576	6,930	60,506
Training	6,000		6,000
Design Costs Facility Maintenance		12,000	12,000
Systems & Programming Division - Data Management			
1.0 Senior Programmer Analyst	58,856	3,720	62,576
UCIS Consultant	12,000		12,000
Cartridge Tape Drives		50,000	50,000
Water Division - Public Works			
1.0 Customer Service Representative	30,793	5,700	36,493
Solid Waste Division - Public Works			
1.0 Typist Clerk III	28,614	5,500	34,114
Total	$231,659	$87,250	$318,909

Funding Sources

These expenditures will be funded by the utility Enterprise Funds and have been included in the FY 1990-91 rate adjustments.

Solid Waste Fund	$127,724
Sewer Fund	60,089
Water Fund	90,126
Storm Drainage Fund	40,970
Total	$318,909

BENEFITS

Customer confidence in the City's utility billing system will be restored as the backlog is reduced and high quality service is maintained. It is difficult to estimate the total amount of revenue to be collected by clearing the backlog of utility transactions. One account already identified is to be backbilled over $90,000. The cost avoidance of approximately $34,000 per year in potential overtime costs, however, can be accurately predicted. Overtime work on the backlog will stop with the addition of 2 Customer Service Trainees. Additional staffing will allow time to investigate questionable accounts and discover nonbilled and underbilled accounts. The Revenue Division staff will have the time and resources to add enhancements such as electronic fund transfers from bank cards (i.e., Visa, MasterCard), checking accounts, and savings accounts as a method of paying utility bills.

POLICY CONSIDERATIONS

Approval of this plan will restore the high quality of utility customer service that is in compliance with the policy of the City Council.

MBE/WBE EFFORTS

Not applicable.

RECOMMENDATION

It is requested that the Budget and Finance Committee amend the FY 1990-91 Proposed Budget and authorizes the addition of:

1. Revenue Division - Finance Department

    1.0 FTE   Administrative Analyst I
    2.0 FTE   Customer Service Representative

RECOMMENDATION (cont.)

Systems and Programming Division - Data Management Department

   1.0 FTE   Senior Programmer Analyst
   UCIS Consultant

Solid Waste Division - Public Works

1.0 FTE Typist Clerk III

Water Division - Public Works

1.0 FTE   Customer Service Representative

2.   Ancillary furniture, supplies, equipment, and training
     required to support the additional staff.

Respectfully submitted,

Betty Masuoka
Betty Masuoka
Director of Finance

Melvin Johnson
Melvin Johnson
Director of Public Works

Barbara Weaver
Barbara Weaver
Director of Data Management

RECOMMENDATION APPROVED:

Jack Crist
JACK R. CRIST
Deputy City Manager

Attachments

Contact Person: Louis Myles, Acting Revenue Manager, 449-5724

                                              All Districts

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DUTIES OF UTILITY SERVICES SECTION

The following is a listing of the duties currently performed by the staff of the Utility Services Section.

1. Communicate verbally and in writing to utility customers and other departmental personnel.

2. Establish and maintain flat rate and metered utility accounts.

3. Research records and background information to insure proper billing and payment application.

4. Review wrecking, condemnation, and fire permits to insure proper credit on accounts.

5. Maintain City parcel system and maps due to parcel splits and aggregates.

6. Lien recordation and release.

7. Review system reports for correctness of accounts billed.

8. Facilitate utility lien hearing and recording of special assessments.

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Schedule Name : UCIS ACTION PLAN
Responsible   : DATA MANAGEMENT
As-of Date   : 16-Apr-90   Schedule File : C:\TL3\DATA\UCISPLAN

				90							
			Duratn	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Task Name	Resources	Stat	(Wks)	1	2	1	1	2	1	4	1
SYSTEM CODE ENHANCEMENT	ID, KK, MM	?	4	xxxx							
BACKLOG Q/A's	CG		12		XXXXXXXXXXXX						
TECHNICAL TRAINING	C1, ID, M+		1			XX					
UPGRADE ADABAS 5.1.4.	HG		12	XXXXXXXXXXXX							
STORM/DRAINAGE RATE STR	C4	C	4.5					XXXXX			
IMPLEMENT ET/BT LOGIC	ID, KK, MM	r	4.5		...XXXXX--						
METER UPLOAD/DOWNLOAD E	MM	r	3.7		.......XXXXX--						

```
XXXXX Detail Task        ##### Summary Task      M    Milestone
XXXXX (Started)          ==### (Started)         >>> Conflict
XXX-- (Slack)            ##-- (Slack)            ..XXX Resource delay
------------------- Scale: 1 week per character ---------------------------
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TIME LINE Gantt Chart Report, Strip 1, Page 1

Data Management - Systems And Programming
Status Report By Employee For April 1990
RFS/QA/Incident Problem Reports (mnthemp)

EXHIBIT C

April 30, 1990

PROG'R	ST	PRI	RFS #	PROJ_NAME	ESTIMATE HOURS	ACTUAL HOURS	VARIANCE %	ESTIMATE START_DT	ACTUAL START_DT	ESTIMATE COMP_DT	ACTUAL COMP_DT	STATUS COMMENTS
TGECO	C	19	QA497	CA125 ACCOUNT 142.10.001	3.00	2.50	20.00	04/17/90	04/17/90	04/17/90	04/17/90	04/28/90- COMPLETE, FALLS UNDER QA500.
	I	8	QA581	23-15 PICKING UP FIRST ACCT AND ACTIVATE	15.00	11.00		04/21/90	04/21/90	04/29/90		04/28/90- READY FOR USER TEST.
		17	QA500	CA126,12F,125 ERROR MESSAGES	10.00	2.50						04/28/90- BETTY IS DOING SOME CHECKING.
				Total	25.00	13.50						
				Count	2							
	P	9	QA568	INVOICE CLOSING BILL INACCURATE	16.00	4.00		04/22/90	04/22/90			04/28/90- WAITING ON KATHY TO FINISH CA105, CA106.
		10	QA575	INVOICE CLOSING BILL	20.00	3.00		04/22/90	04/22/90			04/28/90- WAITING ON KATHY TO FINISH.
		11	QA532	ACCT 1051006 & 1209149 OUT OF BALANCE	20.00	1.00						
		20	QA570	RECEIPTS LISTED ON INVOICE	24.00	3.00		04/22/90	04/22/90			04/28/90- WAITING ON KATHY TO FINISH.
		21	QA536	METER RETROFIT SS03-02	24.00	0.50						
		23	QA561	23-06 ACCOUNT 0138001 ABEND	10.00	0.50						
		24	QA528	BILL PRINT FOR METER/FLAT RATE WATER	10.00	0.50						
		25	QA498	CHANGE OF SERVICE AUTO CREDIT GENERATOR	10.00	2.50						04/28/90- CHAR IS DOING SOME TESTING FOR ME.
		26	QA552	MONTHLY CLOSING BILL TILL CHARGED OFF	30.00	1.00						
		27	QA545	APPLY TO PRE-PAID 13-05	10.00	0.50						
		31	QA482	FIRE HYDRANT RATE 135	10.00	0.50						
		32	QA529	METER READ CYCLE SS	10.00	0.50						

Legend: ST = C-Completed, I-In_Progress, P-Pending,
        S-Suspended, X-Cancelled

    PRI = Priority

Data Management - Systems And Programming
Status Report By Employee For April 1990
RFS/QA/Incident Problem Reports (mnthemp)

April 30, 1990

PROG'R	ST	PRI	RFS #	PROJ_NAME	ESTIMATE HOURS	ACTUAL HOURS	VARIANCE %	ESTIMATE START_DT	ACTUAL START_DT	ESTIMATE COMP_DT	ACTUAL COMP_DT	STATUS	COMMENTS
				15-11									
TGECO	P	33	QA530	READ CYCLE GREATER THAN FOUR	10.00	0.50							
		34	QA441	SCREEN 25/29 ZERO	10.00	0.50							
		36	QA524	DELETE PENDING SERVICE ORDER 23-16	20.00	0.50							
		39	QA544	25-27 WORK ORDER CHANGE	20.00	0.50							
		42	QA566	SERVICE ORDER ZIP CODE	10.00	0.50							
		43	QA541	25-22 SCREEN JUMPS	10.00	0.50							
		45	QA542	25-26 SCREEN JUMPS	10.00	0.50							
		46	QA543	25-27 OPERATOR I.D.SCREEN JUMPS	10.00	0.50							
		47	QA551	SCREEN 25-22 DOESN'T PAGE DOWN	10.00	0.50							
		48	QA584	23-11 SHOULD NOT REQUIRE USER ID	10.00	0.50							
		49	QA585	16-01 DIALS AND CONSTANTS.	10.00	0.50							
		50	QA586	CA125 CHANGE PROGRAM TO IDENTIFY GL ACCT	10.00	0.50							
		88	QA573	SS16-08 DOESN'T COMPUTE AS RT59 BILLING	40.00	0.50							

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                              --------  ---------
                     Total    374.00     24.00
                              ========  =========
                     Count       25


                              --------  ---------
                     Total    402.00     40.00
                              ========  =========
                     Count       28
```

Legend: ST = C-Completed, I-In_Progress, P-Pending,
          S-Suspended, X-Cancelled
      PRI = Priority

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