

## **Appendix A2**

### **AUTOMATED EMPLOYEE SCHEDULING SYSTEM (AESS)**

#### **Functional Business Requirements**

*These requirements are intended to provide general information only and are subject to revision. The rights and obligations of any party contracting with the County will be determined in accordance with the terms of the applicable contract and applicable law.*

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<b>Human Resources - Scheduling Application</b>			
<b>Section Number</b>	<b>Business Requirements</b>	<b>Vendor Response</b>	<b>Comments</b>
<b>1.00</b>	<b>GENERAL REQUIREMENTS</b>		
1.01	The selected scheduling application must provide the organization with the ability to support complex scheduling, deployment and time management requirements of the Los Angeles County Fire, Probation and Sheriff's Departments.		
1.02	The scheduling application must provide the organizations with the ability to change the staffing patterns at a moments notice for the purpose of deploying and redeploying personnel.		
1.03	The scheduling application must allow for real-time reporting of information, increase overtime management capabilities, increase accuracy of 3rd Party Contract Billing, and reduce data entry activities for Scheduling and Payroll/Timekeeping personnel.		
<b>2.00</b>	<b>SYSTEM INTERFACES</b>		
2.01	The system must be able to import data from other databases, as well as export data to other databases.		
2.02	The system must have the ability to interface with Los Angeles County's eHR System, the Advantage 3.8 Human Resources Suite, developed by CGI, Inc.		
2.03	The system must have the ability to interface, in real time, with other County applications developed by the County's approved vendor CGI using common data base links or XML/Text-delimited export-import functions.		
2.04	The system must have the ability to interface with the Countywide electronic web-based timesheet (TIMEI) to pre-populate user-defined time and leave data each pay period.		
2.05	The system must include a built-in export feature for extracting data in standard formats (e.g. Excel, comma-delimited text, etc.) for use in importing information to a Countywide Human Resources Suite.		

2.06	The system must include a built-in import feature for uploading employee information from a Countywide Human Resources Suite, when new employees are added, when changes occur to existing employee records (e.g., promotion, lateral transfer), or when existing employees terminate from the Department/County.		
2.07	The system must be able to integrate with e-timecards or other time and attendance collection devices - front and back end, and on-line.		
2.08	The system must provide for the use of multiple payroll labor activity codes to apply consecutively for duties scheduled for, and worked during, the assigned shift (e.g., alternative staff shifts, regular shift and special events, specialized assignments) for labor based on a 24-hour clock.		
2.09	The system must provide support for customer-defined labor activity coding (unlimited) for work scheduled and performed.		
2.10	The system must provide an outbound interface that is able to identify and tag all hours and minutes of a shift with date and time.		
2.11	The system must allow for electronic signatures.		

<b>3.00 EMPLOYEE INFORMATION</b>			
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3.01	The system must be able to accommodate unlimited user defined data fields, including, but not limited to, all of the data fields listed in this section.		
3.02	Employee Name		
3.03	Employee ID Number		
3.04	Employee Home Address (Multiple)		
3.05	Employee Telephone Number (Multiple)		
3.06	Race		
3.07	Gender		
3.08	Classification/Payroll Title (Multiple)		

3.09	Title/Item Number (Multiple)		
3.10	Sub-Title/Item Sub Letter (Permanent, Full-Time, Hourly, Per Session, etc.)		
3.11	Unlimited Seniority Dates (User Defined)		
3.12	Continuous Service Date (CSD) - County Hire Date		
3.13	Department Hire Date (DHD)		
3.14	Unit Date		
3.15	Transfer Priority (Preference) Date		
3.16	Assignment Seniority/Priority (User Defined)		
3.17	Job Appointment Date		
3.18	Skills/Training, Certification/License Expiration Dates (Unlimited and User Defined)		
3.19	Training (type; dates training accomplished; expiration dates)		
3.20	Certifications (type, expiration and renewal dates)		
3.21	Licenses (type; expiration and renewal dates)		
3.22	Bonus Codes (Multiple)		
3.23	Job Code Numbers (Multiple)		
3.24	Availability Status (Active, Inactive, Military Reserve - Active, Military Reserve - Inactive, etc.)		
3.25	Assignment Restrictions (Unlimited List of Restrictions with Beginning and Ending Dates for Each and a note field)		
3.26	Overtime Eligibility - Yes/No and Expiration Date		

3.27	Location Codes (Multiple, User Defined) (Unit of Assignment, Work Location, Pay Location, etc.)		
3.28	Unit Code and Organization Code (one primary and multiple secondary) for the Employee by Payroll Title		

<b>4.00 POST POSITIONS</b>			
4.01	Post Positions are defined by duty station, job description, and shift.		
4.02	The system must allow management to determine the number of duty stations required to be staffed, the number and duration of shifts needed in a 24-hour period, and the days of the week requiring coverage.		
4.03	The system must allow schedulers to add or delete Post positions.		
4.04	The system must allow management to deploy personnel based upon pre-established staffing patterns designed to provide coverage for each Post by shift.		
4.05	The system must propose the deployment of personnel in advance.		
4.06	The system must allow management/scheduling staff to make daily/hourly changes to the deployment plan.		
4.07	The system must be able to associate an Organization Code/Primary Cost Center for the Post.		
4.08	The system must be able to associate user defined data elements with a post (e.g. Activity, Event, Incident, Project, Program, Task).		
4.09	The system must be able to associate numerous Payroll Titles with the Post (All Payroll Titles Authorized to Work a Post).		
4.10	The system must be able to associate Assigned Staffing Priority for Posts or groups of Posts.		
4.11	The system must be able to associate a Job Description with each Post.		

4.12	The system must have the unlimited flexibility to associate shifts, hours, days of the week, skills and staff required to cover a Post.		
4.13	The system must allow management the ability to place employees in positions outside of their classification on a temporary basis (e.g. an employee works as an "acting" supervisor for a shift).		
4.14	The system must allow management to determine the number of Posts that must be staffed for various staffing levels (critical, minimum, optimal, etc.).		
4.15	The system should provide a Color Coding System to distinguish the various staffing levels.		
4.16	The system must be able to associate whether a Post includes a lunch period/breaks.		
4.17	The system must be able to associate whether a Post can accommodate an employee with a physical limitation such as those listed in item 3.25.		
4.18	The system must be able to associate each post with a physical location including unlimited user defined codes.		
4.19	The system must be able to associate each Post with requisite Skills/Certifications/Training/Licenses.		
4.20	The system must be able to Track Equipment assigned to a Post (Unlimited by type and serial number).		

<b>5.00 SHIFTS / TIMES</b>			
5.01	The system must allow for the first shift of a calendar day to begin one day, cross midnight and end the next day (e.g., early morning shift begins at 2200 hours on Tuesday and ends at 0600 hours on Wednesday). Unit Level Configured.		
5.02	The system must be able to record and transmit total actual hours worked on either day. Unit Level Configurable.		
5.03	The system must allow for multiple shift start times.		

5.04	The system must be able to use both a 12-hour and a 24-hour clock (military time).		
5.05	The system must automatically adjust for daylight savings time changes, including crediting employees with one hour of overtime when appropriate.		
5.06	The system must automatically adjust for leap years.		
5.07	The system must allow for unlimited user defined data fields associated with each shift an employee works.		

<b>6.00 SCHEDULE CREATION</b>			
6.01	The system must have the ability to create emergency staffing for an entire organizational unit or sub-components of the unit.		
6.02	The system must keep track of holidays and vacations while creating shift schedules on demand.		
6.03	The system should manage a dynamic daily roster of all activities by capturing and maintaining the names of all employees that work a given post during a shift, and capturing and maintaining the names of all the posts a given employee works during a shift.		
6.04	The system must use labor and business rules and guidelines (user defined) to manage and modify work rosters.		
6.05	The system must allow the movement of personnel from one in-service roster to another.		
6.06	The system must allow management / scheduling staff to select and assign employees to positions prior to schedule creation.		
6.07	The system must allow supervisors/management to permanently assign employees to posts or jobs.		
6.08	The system must have the ability to rotate assigned schedules at predefined periods for individuals and groups of individuals.		



6.09	The system must allow for automated rotating schedules, special assignments and shift changes.		
6.10	The system must allow for user defined scheduling periods and durations.		
6.11	The system should have the ability to recognize the transitional period of time when an employee(s) is taken off an alternate work schedule (e.g. 9/80 and 12/80) to determine the appropriate day/date to place that employee(s) on another work schedule.		
6.12	The system must be able to ensure that training officers are working the same schedule and post as their assigned trainees.		
6.13	The system must be able to rotate days off for personnel as well as rotate days off by post (user defined).		
6.14	Many employees work a four day work week in which one of their work days is a double shift (16 hours). The system must be able to assign the day an employee will work their "county double" (16 hour shift) based on current shift coverages and other user defined rules.		
6.15	The system must have the ability to generate Emergency Response Staffing Schedules (defined by each unit within each department).		
6.16	The system must be able to support all current and future Los Angeles County work schedules and associated work patterns pursuant to business rules and FLSA requirements.		

<b>7.00</b>	<b>OVERTIME ASSIGNMENT</b>		
7.01	The system must have the ability to allow employees to sign-up/bid on-line for overtime spots based upon user defined rules.		
7.02	The system must generate a confirmation notice to the employee whenever a request has been acted upon (approved or denied).		
7.03	The system must populate the schedules and in-service roster when a request has been approved.		

7.04	The system must notify employees when sign up/bidding processes start and end.		
7.05	The system must be able to notify employees when they have been hired to work overtime and provide the employee with detailed information about the position they will work.		
7.06	The system must prevent employees from signing up for overtime that would cause them to violate timekeeping rules without management / scheduling staff approval.		
7.07	The system must warn management / scheduling staff when upcoming overtime positions will exceed an individual's limit as determined by department rules.		
7.08	The system must be able to rank employees according to the number of overtime hours/positions worked within a period of time. User Defined.		
7.09	The system must be able to warn management / scheduling staff whenever an employees' schedule will violate County and/or Departmental policies.		
7.10	The system must be able to provide a view/report of the total number of scheduled hours of overtime within a predefined period of time based on user defined criteria.		
7.11	The system must be able to provide a view/report for the total number of overtime hours worked within a predefined period of time based on user defined criteria.		
7.12	The system must distinguish between various types of user defined overtime categories.		
7.13	The system must be able to generate and process Overtime Worked Reports.		
7.14	The system must be able to track overtime worked by the use of Overtime Reason Codes.		
7.15	The system must be able to track reimbursable overtime hours by use of Project Codes (eCAPS COA Accounting Override) based on user defined criteria.		
7.16	The system must be able to track overtime worked by the use of a Universal Record Numbers (URN).		
7.17	The system must be able to track overtime worked by the use of Control Numbers.		

7.18	The system must be able to track overtime worked by the use of an Outside OT Organization Number.		
7.19	The system must provide for the following data fields for all overtime worked:		
7.20	Overtime Reason Codes		
7.21	Ordered and Voluntary overtime		
7.22	Paid and Compensatory (saved) overtime		
7.23	Universal Record Numbers (URN)		
7.24	Control Numbers		
7.25	Outside OT Org. #		
7.26	Vehicle Make		
7.27	Vehicle Model		
7.28	County Vehicle Number		
7.29	Starting Mileage		
7.30	Ending Mileage		
7.31	Total Mileage		
7.32	Free form field for a narrative explanation and justification of overtime worked		

<b>8.00 ABSENCES</b>			
8.01	The system must have the ability to allow employees to sign-up/bid on-line for vacation and training spots based upon user defined rules.		
8.02	The system must generate a confirmation notice to the employee whenever a request has been acted upon (approved or denied).		

8.03	The system must populate the schedules and in-service roster when a request has been approved.		
8.04	The system must notify employees when sign up/bidding processes start and end.		
8.05	The system must generate absence/variance requests (reports) when requests are approved.		
8.06	The system must allow schedulers and management the ability to approve or deny time off requests.		

<b>9.00 SHIFT SWAPS</b>			
9.01	The term "Shift Swap" is also known as "Time Exchange", "Shift Exchange" or "Trade". It refers to one employee working for another employee for an agreed upon portion of time with the understanding that the other employee will pay back the time at some point in the future by working an equal amount of time for the first employee. The agreed upon amount of time is usually a full shift, but can also be for portions of a shift.		
9.02	The system must allow for employee-initiated shift swaps with other assigned personnel. The system must require supervisors or scheduling staff to approve the swap before it is authorized.		
9.03	The system must verify that employee payroll titles of each employee are eligible to participate in a shift swap with one another (User Defined).		
9.04	The system must verify that the employees involved in the shift swap are on like-shifts (e.g. 8-hour shifts cannot swap with 10-hour shifts).		
9.05	The system must allow schedulers and/or management to override the shift swap rules.		
9.06	The system must ensure that all shift swaps are completed between the two employees only within a user defined period of time (e.g. some department's timekeeping rules state that both portions of a shift swap must be completed in the same calendar week or month).		

9.07	The system should initiate a reminder, at a user defined time, for scheduling staff and employees participating in a shift swap.		
9.08	If a shift swap is not completed, the system must be able to alert scheduling staff and generate the appropriate overtime and absence forms for the employees involved.		
9.09	The system must be able to advise employees that request an absence, when they are scheduled to work a shift swap, that they are scheduled to work a shift swap and they will be creating an incomplete shift swap if they proceed with their request.		
9.10	The system must be able to notify scheduling and management whenever an employee swaps off of a shift, then works overtime on that same shift.		
9.11	The system must be able to notify management and scheduling staff of the number of shift swaps each employee has been involved in during the calendar month at the time the swap request is submitted.		
9.12	The system must be able to notify management and scheduling staff when a shift swap will not be completed due to employee termination, promotion, transfer (organizational code change).		

<b>10.00 MANAGEMENT TOOLS</b>			
10.01	The system must help management fill required posts while ensuring employees are scheduled to work the required number of hours/shifts within a given period of time.		
10.02	The system must allow Schedulers to deny all requests for time off for specified periods of time.		
10.03	The system must have a free-form "notes section" for Schedulers to leave comments about a particular job assignment, overtime assignment, etc.		
10.04	The system must notify management/scheduling staff about various user defined events (e.g. employee-priority for mandated training, required time-off, restrictions on working consecutive shifts/hours, restrictions regarding OT worked, restrictions based on labor laws or MOU's, etc.).		
10.05	The system must allow schedulers to identify posts which will not be filled.		

10.06	The system must allow for template duplication for scheduling for individuals or groups of individuals.		
10.07	The system should include a "user friendly interface" with features such as easy or quick fill capabilities, on-line edits, drop down menus, "type ahead" capability, undue capability, etc.		
10.08	The system must maintain a history of all staffing patterns and work schedules. This history should be accessible to schedulers enabling them to quickly and easily apply those patterns for future periods of time.		
10.09	The system must ensure that all posts are adequately covered and determine if relief personnel are required based upon unlimited user defined parameters.		
10.10	The system must track approved absences, approved absence requests and unapproved absence requests.		
10.11	The system must track telephonic notifications of absences (call-ins).		
10.12	The system must track absences due to training.		
10.13	The system must track the number of anticipated vacancies.		
10.14	The system must track partial shifts, including absences for partial shifts.		
10.15	The system must have the ability to track other user defined fields as needs arise.		
10.16	The system must allow schedulers to record absences, variances, overtime, time card bonuses, etc. with the use of numeric and/or alphabetic earnings/deduction codes (user defined) which will appear on the daily in-service roster.		
10.17	The system must allow schedulers to assign personnel to established posts to generate assigned work schedules (5/40, 4/40, 9/80, 12-Hour, 12/80, 24-hour, etc.).		
10.18	The system must be able to track the total number of times an employee was called back within County rules and user defined periods of time.		

10.19	The system must be able to determine the number of guaranteed hours worked on a call-back, based on user defined labor rules.		
10.20	The system must be able to track actual hours worked on a call-back.		
10.21	The system must be able to rank employees according to the number of call backs within a user defined period of time.		
10.22	The system must have an override capability for the purpose of adjusting the schedule or adding new information to the schedule at the last minute based on permissions.		
10.23	The system must allow management to change the work schedule when needed (FLSA Rules).		
10.24	The system must have the ability to notify or give descriptive warnings to management / scheduling staff when an employee is assigned to a post that they are not qualified to work or when an employee's schedule has been changed in violation of labor laws or current MOU's.		
10.25	The system must have the ability to give descriptive error/warning messages to users when inaccurate data has been entered in the system or a function can not be completed.		
10.26	The system must have the ability to immediately identify when an employee is scheduled to work but is not assigned to a post.		
10.27	The system must be able to track employees that are loaned from one unit to another unit on a temporary basis.		
10.28	The system must allow for the development of "what-if" scenarios for deployment.		
10.29	The system must be able to calculate project staffing cost, prior to implementation, using actual employee salaries and budgeted allocations (S&EB Costs by Shifts, etc.).		
10.30	The system must allow schedulers and management to temporarily assign an employee to a different post or assignment without affecting that employee's permanent post assignment.		

<b>11.00 REPORTS / VIEWS</b>			
11.01	The system must have the ability to export reports in standard file formats (.xls, .txt, ASCII, etc.).		
11.02	The system must have the ability to display reports on a screen as well as print reports.		
11.03	The system must provide an assigned work patterns (FLSA) view and report.		
11.04	The system must provide a shift assignment view and report.		
11.05	The system must provide a work station (physical) view and report.		
11.06	The system must provide an assigned work schedules view and report.		
11.07	The system must have the ability to generate reports prior to payroll processing for cost projections and other reporting requirements.		
11.08	The system must have the ability to report on contract, grant and project staffing.		
11.09	The system must be able to offer all reports as an on screen view.		
11.10	The system must have the ability to create ADHOC Reports on any data element (access limited by organizational structure and level of authority).		
11.11	The system must have the ability to store ADHOC created reports and restore report formats for future use.		
11.12	The system must have the ability to generate numerous reports including number of personnel assigned to training by shift, type of training, and location of training.		
11.13	The system must have the ability to generate reports related to any staffing variance by post or post type.		
11.14	The system must have the ability to generate reports related to overtime eligibility and overtime limits (user defined).		



11.15	The system must have the ability to generate reports on telephonic absences (call-ins) and previously approved absences (requests).		
11.16	The system must have the ability to generate Overtime Worked Reports (overtime slips).		
11.17	The system must have the ability to generate Swap Reports (swap request slips).		
11.18	The system must be able to generate detailed staffing and usage reports.		
11.19	The system must be able to produce schedules/rosters that include a field for the beginning and end time of employee shifts (time in and time out).		
11.20	The system must be able to produce schedules/rosters that include a field for the actual hours worked by an employee each day.		
11.21	The system must be able to produce schedules/rosters that include a line-by-line free form field next to each employee name on the schedule for comments (e.g., to note skills, trainings, etc.).		
11.22	The system must be able to report on employees that are loaned into a unit and employees that are loaned out of a unit.		
11.23	The system must have the ability to generate daily, weekly, and/or monthly schedules/rosters.		
11.24	The system must allow users to view and update schedules/rosters from other teams housed at the same location, based on security and work flow rules.		
11.25	The system must be able to generate a wide variety of overtime reports based on types of overtime (paid, saved, on-call), locations, time periods, overtime codes, UO numbers, etc. (User Defined).		
11.26	The system must have the ability to generate electronic and printed timesheets/timecards in a user defined format.		
11.27	The system must have the ability to generate reports/screens in a calendar view.		

**12.00 EMAIL / INTERNET**

12.01	The system must have an automated integrated electronic mail component that is capable of sending notifications and requests to employees regarding vacant positions via electronic mail.		
12.02	The system must be capable of handling multiple employee electronic mail accounts.		
12.03	The system must support authorized scheduling requests transmitted by employees via a network (internet/intranet/email).		
12.04	The system must be able to restrict requests based on user defined rules (e.g. employees requesting time off two hours or less before their scheduled shift must contact a supervisor for approval).		
12.05	The system must provide internet/intranet access to any employee's calendar. Employees must be able to view their work schedule and request changes of assignment or time off.		
12.06	The system must be able to display a graphical personal calendar via the internet/intranet for management view.		
12.07	The system must provide internet/intranet access for employees to view various in-service and roster information. Information to be limited by user defined access restrictions.		
12.08	The system must provide automatic notification to employees regarding requests or requirements to work, or any change in their work schedule, via multiple email accounts.		
12.09	The system must provide automatic notification to management / scheduling staff via email of staffing alarms caused by changes in staffing levels and work schedules (user defined).		
12.10	The system must automatically maintain an audit trail of outgoing email messages. The audit trail must reflect read receipts for each email account when possible (internal SDN emails).		

## 13.00 TELEPHONY

13.01	The system should have a Telephony component that is capable of automatically making and receiving requests of line staff to fill vacant positions telephonically without human intervention (interactive communication).		
13.02	The system must support existing or be compatible with existing telephone systems. The Department currently utilizes four telephone systems (NEC, Nortel, Meridian, and Cisco IP). Refer to Technical Requirements Document for detailed information on each system.		
13.03	The system should be able to use pre-recorded messages for outbound telephonic messages including broadcast messages regarding emergencies or "all call" situations. The system should have the capability to use individually pre-recorded (by unit) or Organizationally pre-recorded messages.		
13.04	The system should be able to accept scheduling or absence requests from any touch tone telephone with user defined restrictions.		
13.05	The system should have the ability to track telephonic notices of absence (call-in) and whether or not replacement personnel were assigned to fill the job/position.		
13.06	The system should provide automatic notification to employees regarding requests or requirements to work, or any change in their work schedule, via telephone.		
13.07	The system should provide automatic telephonic notification to Supervisors/Administrators of staffing alarms caused by changes in staffing levels and work schedules (user defined).		
13.08	The system should be able to distinguish between same day telephonic absence call-ins (one day) versus telephonic call-ins for an extended period of time.		
13.09	The system should maintain an audit trail of all outbound telephone calls and the status of those calls (Completed/No Answer/Busy/Answering Machine/Etc.).		
13.10	Application must be able to create manpower pools for quick response during emergent situations and notify employees via email, telephone and answering machine simultaneously.		

13.11	The system should be able to initiate phone calls to specific groups of people based on various data elements (e.g. Employees at a specific work location, Employees that live in a particular zip code, etc.).		
13.12	The telephony component can be an integrated part of the application, or a third party component.		

<b>14.00 SECURITY</b>			
14.01	The system must govern scheduling authority with a security system.		
14.02	The system must use security codes/passwords.		
14.03	The system must have the ability to logon onto the system via biometric devices, radio frequency identification, or other identification devices.		
14.04	The system must be able to maintain a history of employee variances, job assignments and schedules, as well as be able to create views/reports based on the interaction between these data elements.		
14.05	The system must be able to maintain a history of employee hours worked at each post/job/schedule.		
14.06	The system must be able to maintain a history of employee training, skills, certifications and licenses which can be accessed for views/reports.		
14.07	The system must allow access to the application to designated employees based on their organizational structure and level of authority.		
14.08	The system must allow temporary access to the application to designated employees when they are placed in an "Acting" supervisory/management role based on their organizational structure and level of authority.		
14.09	The system must be able to automatically keep audit trails on every record produced, updated or changed.		
14.10	The system must automatically maintain an audit trail of the rules used to fill vacancies.		

14.11	The system must automatically maintain audit trails on every change in business rules.		
14.12	The system must be able to maintain active records and work history for at least 24 months.		
14.13	The system must be able to archive scheduling history and records that are over 24 months. The archived information must be accessible to management and employees for viewing.		

<b>15.00 SPECIAL EVENTS</b>			
15.01	The system must be able to accommodate scheduling and timekeeping for special events or temporary assignments (Planned and Unplanned).		
15.02	The system must be able to accommodate small events that affect only one unit (e.g. High School Football Game, Security for a Movie Shoot).		
15.03	The system must be able to accommodate large events that require staffing from several units (e.g. Annual Pasadena Rose Parade, Countywide Elections).		
15.04	The system must be able to accommodate unplanned emergency activations for various events (e.g. fires, earthquakes, civil disturbances, etc.).		
15.05	The system must be able to track billable hours (regular and overtime) for all special events by the use of Overtime Reason Codes and Project Codes (eCAPS COA Accounting Override).		