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Document **H82**

## **ROI CASE STUDY ADP ENTERPRISE ETIME LARGE EAST COAST HOSPITAL**

### **THE BOTTOM LINE**

**Despite steadily increasing labor costs, a large East Coast hospital reduced its payroll expenses by using ADP Enterprise eTIME, to reduce overtime, eliminate paper costs, and improve the productivity of its managers and payroll administrators.**

**ROI: 1,006%**

**Payback: 1 month**

### **THE COMPANY**

The hospital is one of the nation's leading academic medical centers and provides state-of-the-art care across the full range of health care services. Specialties include cardiac care, surgery transplantation, cancer care, emergency medicine, pediatrics, and maternal-fetal medicine.

The hospital's senior management team continually seeks improvements to its quality of care, employee morale, and cost structure and has received a number of prestigious awards and rankings. Harvard researchers ranked the hospital as one of the ten best hospitals in the nation in quality of care in a study commissioned by The Commonwealth Fund. The hospital was also ranked in the top 30 for heart care in U.S. News & World Report's 2007 ranking of America's Best Hospitals.

### **THE CHALLENGE**

Because of intensifying competition and rapidly increasing costs in the health care industry, the hospital continually seeks ways to reduce costs without affecting customer care. During 2004, the management team saw opportunities to reduce costs by improving its time, attendance, and payroll workflows. Payroll is typically one of the largest expense areas for hospitals — and one that is hard to reduce — because of a scarcity of well-trained healthcare professionals.

The hospital's time and attendance workflows were entirely paper based and involved a blend of both union and non-union employees who were all subject to different pay rules. This complexity posed a number of problems:

- Payroll accuracy. Because employees filled out their own time sheets and this data was manually transferred among a number of administrators and managers, the hospital was concerned that human error was inflating payroll costs.

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- Staff productivity. The paper-based workflows were labor intensive, distracted managers and administrators from their core functions, and reduced productivity.
- Overtime costs. The hospital's hourly employees are occasionally at the hospital for brief periods of time before or after their assigned shifts. Because this non-shift time is typically unrelated to work, and treated as over time under labor rules, management wanted to ensure that employees were compensated only for time spent working during assigned shifts.

**THE STRATEGY**

In 2003, a 4-member team worked with an ADP consultant for eight months to deploy ADP Enterprise eTIME. The team:

- Configured payrolls. The team researched labor agreements and had a number of meetings in order to identify all payroll rules for four groups of employees: members of the three unions and non-union employees.
- Installed time clocks. Based on the locations and rules of different employee groups, the team determined ideal locations for time clocks and configured each for the local payroll rules.
- Configured servers. Separate servers were configured for time-clock data, databases, and the ADP Enterprise eTIME application.

The system was ready in late 2003, but the hospital did not want to go live while it was finalizing its year-end financial statements. After running the system in parallel with the old paper-based system for several months, the system was fine tuned and went live in early 2004.

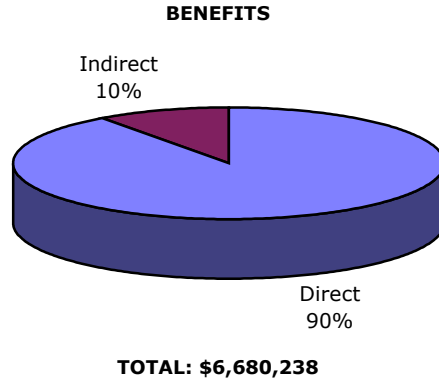
During 2005, the hospital upgraded to bar-code time clocks and programmed them with rules that prevented employees from starting their assigned shift seven minutes early or ending it seven minutes late. The hospital also bought ADP Enterprise Scheduler for its 10 nursing directors. Enterprise eTIME is now used by 1,900 employees and 38 managers.

**KEY BENEFIT AREAS**

By automating its time, attendance, and payroll workflows with ADP Enterprise eTIME, the hospital significantly reduced payroll inflation from clock rounding, eliminated paper costs, and improved the productivity of its managers and payroll administrators. Key benefits from the solution include:

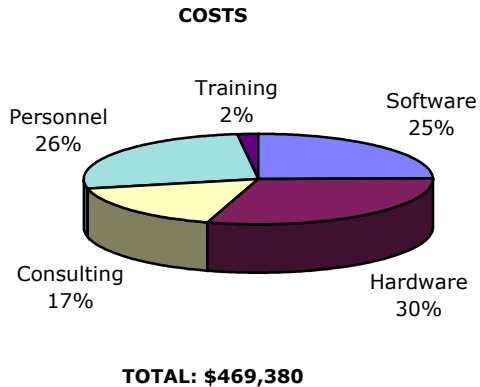
- Reduced overtime. Because employees now record their attendance using time clocks rather than time sheets, employees and their managers are able to more accurately record attendance, which has significantly reduced overtime costs.
- Improved manager productivity. The old system in place at the hospital required its 38 managers to manually review and authorize each employee's time sheet. Because this process is now automated, these managers save 11 hours per bi-weekly pay period. Because ADP Enterprise Scheduler is so tightly integrated with the rest of the ADP solution, the hospital's nursing directors have eliminated four hours of manual scheduling work per pay period.

- Improved administrator productivity. The old system in place at the hospital required its three payroll administrators to manually review each employee's time sheet and transfer attendance data into the payroll system. Because this process is now automated, these administrators also save 11 hours per bi-weekly pay period.
- Reduced paper costs. Deploying ADP Enterprise eTIME has enabled the hospital to eliminate its budget for paper time cards and time sheets.



**KEY COST AREAS**

Key cost areas for the deployment included hardware, software, personnel, consulting, and training. The hospital pays monthly for 1,900 employee licenses, 38 manager licenses, and 10 Enterprise Scheduler licenses. The deployment also includes 41 biometric clocks that are leased from ADP. The 4-member deployment team from the hospital worked on the deployment with a consultant from ADP for eight months, including both the initial implementation of the core Time and Attendance system and the subsequent upgrades for the bar code clocks and Enterprise Scheduler. At the end of the deployment, the team leader completed four weeks of training and then provided two-hour internal training sessions to 35 directors.



### **LESSONS LEARNED**

One reason the deployment was successful was that the team dedicated time and effort to pay rules early in the process. Early in the deployment, the team collaborated with the ADP consultant, non-union managers, and union managers in order to obtain detailed information about all pay rules. Because this process was so thorough and accurate, the team was able to properly configure its servers, databases, and time clocks, which helped to minimize the amount of time spent fine tuning the system when it was tested in parallel with the old system.

### **CALCULATING THE ROI**

Nucleus calculated the costs of hardware, software, personnel, consulting, and training over a 3-year period to quantify the hospital's total investment in ADP Enterprise eTIME.

Direct benefits included the reduction in overtime costs from clock rounding and the elimination of paper time cards and time sheets. Indirect benefits consisted of improved productivity of managers and payroll administrators. These productivity benefits were based on the average fully loaded annual cost of these employees using a correction factor to account for the inefficient transfer of time from time saved to time spent on new tasks.

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# DETAILED FINANCIAL ANALYSIS

## LARGE EAST COAST HOSPITAL

### SUMMARY

Project:	<b>ADP Enterprise eTIME</b>
Annual return on investment (ROI)	<b>1006%</b>
Payback period (years)	<b>0.10</b>
Net present value (NPV)	<b>2,337,842</b>
Average yearly cost of ownership	<b>156,628</b>

<b>ANNUAL BENEFITS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Direct	0	2,005,388	2,005,388	2,005,388
Indirect	0	221,358	221,358	221,358
<b>Total Benefits Per Period</b>	0	2,226,746	2,226,746	2,226,746

<b>DEPRECIATED ASSETS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	0	0	0
Hardware	0	0	0	0
<b>Total Per Period</b>	0	0	0	0

<b>DEPRECIATION SCHEDULE</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	0	0	0
Hardware	0	0	0	0
<b>Total Per Period</b>	0	0	0	0

<b>EXPENSED COSTS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	38,928	38,928	38,928
Hardware	0	46,740	46,740	46,740
Consulting	80,000	0	0	0
Personnel	123,300	0	0	0
Training	9,580	0	0	0
Other	0	0	0	0
<b>Total Per Period</b>	212,880	85,668	85,668	85,668

<b>FINANCIAL ANALYSIS</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Net cash flow before taxes	2,141,078	2,141,078	2,141,078
Net cash flow after taxes	1,070,539	1,070,539	1,070,539
<b>Annual ROI - direct and indirect benefits</b>			<b>1006%</b>
Annual ROI - direct benefits only			902%
<b>Net present value (NPV)</b>			<b>2,337,842</b>
<b>Payback (years)</b>			<b>0.10</b>
Average annual cost of ownership			156,628
3-year IRR			1005%

### FINANCIAL ASSUMPTIONS

All government taxes	50%
Discount rate	15%