

ExtendTime™

A completely automated IP Telephony time and attendance solution that immediately realizes an organizational return on investment.

Introduction

Companies that are considering purchasing IP Telephony systems, or have already deployed IP phones throughout their enterprise, are looking for solutions that will leverage their investment by lowering operational costs and make the company more efficient - expanding the ROI value that IP Telephony already delivers.

Trident Internet Systems, Inc.'s ExtendTime™ time and attendance product is such a solution. ExtendTime™ revolutionizes the way companies manage the organization's daily time and attendance system by extending accessibility to the point of activity using IP phones from several manufacturers, which:



A company with 750 employees saved approximately \$25,000 per month after implementing ExtendTime™ by eliminating payroll errors and employee time theft.

- Seamless integration to existing Payroll and HR systems
- Improves operational efficiency
- Increases employee productivity
- Streamlines business processes
- Improves employee and management satisfaction
- Drives increased revenues

VoIP: The Future of Voice Networks and Applications

Widely perceived as the future of voice networks, Voice over IP (VoIP) is a technology standard that enables voice calls to be carried over an IP network (i.e. the Internet). VoIP technology takes a human voice stream, translates it into digital format, packages the digital material, and then sends it over the Internet. From an end-user perspective, you are simply "talking on the phone," but VoIP standards are actually being used to create what's known as IP Telephony: Internet-based telephony systems that provide advanced features such as call routing, voice mail, and contact centers.

Technology leaders are already utilizing their VoIP networks in creative ways; namely, to improve the functionality and effectiveness of other applications. Web-savvy companies are squeezing additional value out of their VoIP investments by using VoIP networks to deliver applications throughout their organizations. As an example, some organizations access their labor management systems from IP Phones. The beauty is that they have already been using the IP Phones to make calls, as well as to enable phone-based inventory tracking and/or video conferencing. Without adding hardware, they implemented a labor management solution that that was accessible from the IP Phone on their desk. Instantly, they gain a new method to track employee time and attendance, as well as deliver employee self-services.



ExtendTime™

ExtendTime™: Time and Attendance Solution Utilizing VoIP Phones

Today, the main information entry point continues to be an organization's phone system where operational procedures involved in tracking, communicating with and managing people remain a challenge. In many businesses, a majority of workers lack easy access to computers. Much knowledge remains hidden from the corporate memory due to the changing and transitory nature of today's worker. Trident Internet Systems, Inc.'s ExtendTime™ application is designed to improve employee satisfaction and drive increased revenue by effectively managing the flow of time and attendance information.

ExtendTime™ from Trident Internet Systems, Inc. is a comprehensive enterprise wide, Web-based time and attendance solution designed to meet a company's complex and dynamic payroll and human resource communications requirements. This application is flexible enough to provide value in small to medium enterprises, is powerful enough to deploy into a large organization and is ideal for institutions requiring management of "non-exempt" employees and other hourly compensated staff. ExtendTime™ offers a solid return on investment by automating the data collection, audits, and reporting, thus reducing costs associated with manual time cards, payroll error rates and administrative data entry.

A company with 250 employees using a manual time card system can expect estimated monthly payroll savings of approximately \$7,100 and annual savings of over \$85,000 after implementing ExtendTime™.

Using IP phones for labor management saves money by eliminating hardware needs, such as time clocks or biometric devices, while providing broader functionality. Employees can clock in and out, review time sheets, check schedules, receive text messages, and view accrued benefits – all from IP Phone-enabled workstations. Clocking in via the phone also tends to reduce the stigma of punching into a time clock. Employees feel more at ease and are more willing to comply with the system. In turn, managers can track employee activity and produce highly accurate job costing and productivity reports. VoIP, when combined with web-based labor management, enables totally automated data collection, online reporting, reduced inquiries to the Human Resource Department, and fewer payroll error rates – all of which add up to lower cost of operation.

ExtendTime™ is used by many organizations to:

- Reduce payroll error rates
- Reduce management audit time
- Eliminate time paid but not worked
- Reduce unauthorized leave time
- Eliminate paper timecards

ROI: Realize Immediate Returns on Investment

Extend Accessibility to the Point of Activity. ExtendTime™ revolutionizes the way that a company manages its daily time and attendance systems by extending accessibility to different locations using an IP phone. This solution transforms IP phones into business tools by combining call features with advanced application functionality. It provides a gateway to business critical data, enabling organizations to enter and manage employee time and attendance data from devices throughout the enterprise. By utilizing ExtendTime™, organizations can collect time management information right at an employee's desktop, work location and/or point of activity.



ExtendTime™

Utilize Existing Infrastructure. ExtendTime™ is a fitting solution for today's dynamic IT environment and its use of open standards allows for easy implementation alongside existing applications. Implementing ExtendTime™ on an existing VoIP infrastructure eliminates manual tracking of data without requiring purchases of additional data collection hardware. By leveraging their existing VoIP infrastructure, organizations can greatly enhance the return on their technology investments.

Increase Productivity and Operational Efficiency. Supervisors are able to measure productivity and operational efficiency by tracking specific departments, enforcing payroll policies and producing a variety of management reports. In addition, ExtendTime™ interfaces directly to most HRMS systems to create a fully automated payroll process, eliminating manual time reporting errors and streamlining the overall process.

- Collect valuable labor data while controlling labor costs
- Increase payroll accuracy
- Reduce payroll error rate and processing time
- Real-time detailed labor analysis
- Elimination of timecards
- Improve the tracking of time data through management reports

Automatically Enforce Corporate Policies. ExtendTime™ enables managers to automatically enforce corporate policies (i.e. payroll) and control labor costs by capturing all relevant labor data and applying in real time the appropriate rule-sets (i.e. automatically calculating available benefit time balances). Also, address time paid but not worked situations by enforcing employees to clock in and clock out on a specific IP phone.

- Reduce unauthorized leave time
- Control leave liability

Anytime, Anywhere Access. With today's transitory nature of employee activities, it is often difficult to enforce traditional time reporting processes. ExtendTime™ allows employees to access time reporting from many different types of devices. Employees have anytime, anywhere access to clock in and out, receive text messages, view accrued benefits and work schedules, transfer work hours between departments and project codes. Employees clock in and out at the point of activity via:

- Cisco IP phones 7900 Series with LCD Displays
- Avaya 4600 and 9600 Series IP phones
- Web browsers and time clocks
- Biometric devices
- IVR (Interactive Voice Response) TelePunch

ExtendTime™

ExtendTime™ IP Phone Features

An IP phone provides a unified interface for both primary phone functions and the interaction with ExtendTime™. Employees reporting time would primarily use the phone interface and administrators/supervisors primarily would use the web interface.

Employee self service features that are available via phone interface are:

Clock In and Out. ExtendTime™ eliminates the need for a standard time clock by allowing employees to "clock in" and "clock out" on any number of devices throughout the facility. Management has the ability to interactively set certain restrictions on number of hours worked and regulate the hours that employees clock in and out.

Start/End Breaks and Lunch. ExtendTime™ allows employees to quickly enter when they start and stop breaks and lunch. This menu option can be configured to only display after the user has worked a specific period of time.

Transfer Time to Another Level. ExtendTime™ allows employees to transfer their time to different levels, departments, or locations.

Work Schedules. Employees can view and print their scheduled work hours to a network connected printer.

Messages. Messages can be sent to employees from their managers via web browser access. Employees can send messages to their managers by selecting one of the customer-defined notes that appear on the Cisco and Avaya IP phone's display screen.

View Benefits Information. ExtendTime™ allows employees to view benefits information including accumulated vacation, sick and personal time.

Review Hours. Employees can view and print the hours they have already logged into the system for the current and previous pay periods. Additionally, employees have the option to approve a payperiod and print a hard copy of the timecard from an IP phone to a network connected printer.

Employee Directory. Employees can retrieve employee information including whether they are in the office, on break or at lunch and utilize the many other Cisco and Avaya IP phone features.



Main Menu



Work Schedule



Messages



Employee Directory



ExtendTime™

Access Authentication. Employee system authentication is provided via password and employee number, or an optional speech authentication feature that is integrated into ExtendTime™.

Manager Capabilities. Managers are able to manage employees' time, generate schedules, send company-wide messages, and generate reports. Supervisors have access to update, change or override employee entries.

ExtendTime™ Web Browser Features

ExtendTime's™ web interface includes all of the features provided with the phone interface, with additional reporting for management on time data. Features include:

- Approve/edit timesheets
- Establish work schedules
- Create and view over 65 time management reports
- Real-time view of employee work status
- Send and receive messages to and from employees

Deployment Configurations

Many factors must be considered to determine the appropriate hardware and software configuration for any given company. Considerations such as peak concurrent usage, fault tolerance, availability, corporate environment, application architecture, performance and platform influence how a system should be implemented. Corporate IT staff will need to consider these and other factors to determine the appropriate configuration for their environment.

Corporate Environment. The corporate environment will ultimately determine the type of deployment architecture. Questions such as "Is the solution to be implemented in a single or multi-site scenario?" or "Should you implement a centralized or decentralized solution in a multi-site scenario?" must be considered before all others. Answers to these questions will undoubtedly raise additional questions on LAN/WAN configurations, IT staff availability, costs, etc.

Usage. Many corporations size their equipment according to expected peak usage levels. The simple question of how many users you expect to log in and use the application concurrently will determine how many servers will be required. To determine concurrent usage, you will need to calculate the number of different types of users (supervisors, employees reporting time using web services, administrators), by shift, geographic location and time zone. Often, the number of workstations in a corporation with multiple shifts will be a limiting factor for peak concurrent usage. Generally, industry averages for concurrent usage of ExtendTime™ systems is five-percent of the total employees being managed. However, this percentage will be higher for enterprises with employees using Employee Services to report their time. This factor will also vary depending on industry and the corporate environment.

Performance. Many enterprise systems lack measured performance statistics on a per-user basis to determine server sizing and configuration. ExtendTime™ has been load tested at various levels to determine performance capabilities. On average, you can expect to service 250-300 concurrent users per CPU on a server dedicated to Web Servers. If multiple services (database, web, application, reporting, etc.) are installed on the same server, user number per CPU decreases.

ExtendTime™

Sizing Chart. The following chart provides a sample employee to server ratio. Many factors discussed previously may affect how many servers are required for deployment. This chart does not include machines required for data collection. Typically, these computers are standard PCs and not high end servers.

Total Employees	Number of Servers	Recommended Hardware Configuration	Server Distribution
1-750	1	1 x 3GHz CPU 1GB RAM 10GB storage Recommend RAID Disk	1 Server (for database/web/queue)
750-2500	2	2 x 3GHz CPUs 2GB RAM (Web), 4GB RAM (SQL) 25GB storage RAID Disk	1 Database Server 1 Web/Queue Server
2500-6000	3	2 x 3GHz CPUs 2GB RAM (Web/Queue), 4GB RAM (SQL) 25GB storage (SQL) RAID Disk	1 Database Server 1 Web Server 1 Queue Server
6000-12000	4	2 x 3GHz CPUs 2GB RAM (Web/Queue), 4GB RAM (SQL) 25GB storage (SQL) RAID Disk	1 Database Server 2 Web Servers 1 Queue Server
12000+	5+	2 x 3GHz CPUs 2GB RAM (Web/Queue), 4GB RAM (SQL) 25GB storage (SQL) RAID Disk	1 Database Server 2+ Web Servers 2+ Queue Servers

Minimum Hardware & Software Requirements

Database Microsoft SQL Server 2000 - 2008 (Standard or Enterprise Edition) with latest service packs.

Servers Microsoft Windows 2000, 2003 or 2008 with latest service packs.

Client Workstation Any Operation system able to run a browser that can interpret HTML.
Adobe acrobat viewer for some PDF formatted reports.