

BTEPS

Bostex Enterprise Platform for Security

A Complete Integrated Security Management System



Introduction

BosTex Enterprise Platform for Security is an intelligent and integrated security management system that developed to meet the increasing growth for centralized control in 21st century. This system is run on Windows Operating System, adopted the latest .NET platform, MSMQ message queue technology, multi-layer centralize data exchange architecture and SQL Database. This platform contains Door Access Control, Alarm Monitoring, Attendance Management, Canteen Payment, Lift Control, Car Parking, Human Tracking, Visitor Management, Online Guard Tour, Video Management, Meeting Attendance, Messaging Center, Audit Log Query, Data Backup, OPC Interface etc., is currently market most completed and integrated applications within the same system.

The system allows user to control access for single-site or multiple-site installations anywhere in the world and provides users with the power and flexibility to exercise complete control over who goes where and when, and creates detailed card-holder records and customizes system responses.

Each system is scalable not only in hardware, but also software modules, from a single PC workstation to a multi-user, network-based enterprise-wide configuration. Workstations can be configured either in a LAN and/or WAN environment, offering extremely flexible enterprise-wide operations suitable for large corporate organizations with multiple remote sites or buildings.

Features Highlights

- ★ **Supports Multi-tenant Management**
Realize the concept of multiple company "sharing common system with independent management".
- ★ **Supports Flexible Security Access Rights Management**
Assigns access right to user in 3 simple steps (select, drag and save), without the need to pre-define any access grouping. Add door by user, add user by door, by template, manual or auto importing has simplified access right assignment.

- ★ **Supports Wide Range of Controllers within the same system**
Designed to work with controllers supports RS485, TCP/IP, Wireless connection, from Single up to Eight Door Access Control as well as Biometric and different card technologies application .
- ★ **No limitation**
Able to handle virtually unlimited number of doors, readers and card holders with restriction only on respective controller storage capacity limitation.
- ★ **Centralize Biometric Management**
Centralize Fingerprint management has improved door access system security level, centralize fingerprint enrollment and real time fingerprint image display function help to make fingerprint management more easy and convenient.
- ★ **Stable Platform**
Create a virtual hub of integration applications with the industry's most powerful integration platform, built with .NET technology.
- ★ **Reliable Communication**
Uses Microsoft Message Queue (MSMQ) proven technology to provide a reliable communication between client and server.
- ★ **Automatic Database Synchronization with Field Controller**
Automatic download of Card ID, PIN, Fingerprint and access right function has reduced the tedious operational step for administrator.
- ★ **Supports Field Programmable Logic**
Using PLC programmable logic enable real time remote monitoring and control of any devices.
- ★ **Simplified Database Integration with 3rd Party System**
DSS Data Synchronize patented technology enable seamless data integration with 3rd party system and to realize the possibility of user door right assignment, inhibiting and reporting lost card by 3rd party system.
- ★ **Seamless System Integration with BMS system**
Via OPC interface enable data sharing and integration with 3rd party BMS control system. Via Sedona Framework able to integrate environmental information at the edge device level.

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Functional Summary

System Features

- ★ Native Windows 2000/XP/Win 7, multi-tasking, multi-users, distributed client servers.
- ★ Dual servers redundancy support.
- ★ LAN, WAN, Intranet communication connectivity.
- ★ All BTEPS Applications support enterprise-wide operations.
- ★ 32-bit ODBC Support. Standard bundled package uses MSDE database engine and relational database SQL support .
- ★ Localize language, date/time format support.
- ★ Intuitive graphical user interface.
- ★ Live video window.
- ★ Extensive audit trail and report generation Wizard guide assistance

Software Modules

Access Control

- ★ Single site or enterprise-wide, multi-sites access control management.
- ★ Supports both RS485 and TCP/IP network controller concurrently.
- ★ Supports single to multiple door controller.
- ★ Supports access control for doors, lifts, car parks, equipment etc.
- ★ Unlimited number of card readers and sites control.
- ★ Supports multiple card reader (and format) technologies simultaneously – EM, Mifare, HID, iClass, TI, CPU card.
- ★ Each user can hold multiple card.
- ★ Unlimited cardholders database.
- ★ Local & remote sites monitoring/control.
- ★ System Database structure supports multi-tenants and multi-department.
- ★ Security login control for users operating BTEPS software menu functions up to door and user level.
- ★ Supports local and global anti-passback.
- ★ Supports transaction data recovery.
- ★ Flexible report generation.

Alarm Monitoring and Control

- ★ Unlimited monitoring of points and sites.
- ★ Graphical image showing building(s), floor plans and device locations.
- ★ Real-time transaction monitoring of all events and alarms, such as door left open alarm, door forced open alarm, duress alarm, anti-passback violations etc.
- ★ Full alarm management functions for multi-users with different priority levels.
- ★ Remote control functions for door release, lock/unlock/auto , arm/disarm or by group of doors via graphical maps.
- ★ Automatic pop-up of floor plans during alarm with blinking alarm icons.
- ★ Alarm event interface to DVR, BAS, IBMS, via high level TCP/IP protocol.
- ★ On-line hardware equipment and sensors fault status reporting.

Time Attendance

- ★ Computation of unlimited clock-in/clock-outs per employee per day.
- ★ Computation selections are available for both fixed or flexible working shift.
- ★ Various overtime and holiday setting.
- ★ Process, preview and report generation of daily and/or monthly processed transactions by User ID, Department, and Date/Time.
- ★ Exception summary reports can be generated to provide:
 - ★ Absenteeism, lateness, insufficient working hour
 - ★ Missing clocking
 - ★ Overtime
- ★ Ability to import card holders information from ASCII file.
- ★ Data to be imported, sequence and format are programmable.

Minimum System Requirements

BTEPS has been tested to work on both 32 bit and 64 bit Microsoft Windows Operating systems.

- ★ Windows XP Professional with Service Pack 2 & 3, 32 Bit Versions
- ★ Windows 2000 with Service Pack 3, 32 Bit
- ★ Windows Vista, All Editions, 32 & 64 Bit Versions
- ★ Windows 7, All Editions, 32 & 64 Bit Versions
- ★ Windows Server 2003, All Editions, 32 Versions
- ★ Windows Server 2008, All Editions, 32 & 64 Bit Versions

Minimum Hardware Requirements

For 32 & 64 bit Windows Systems running BTEPS Server & Client

- ★ PC with Intel Pentium 4 or higher.
- ★ 1GHz or faster processor.
- ★ Minimum of 2 GB of RAM (4GB recommended).
- ★ 750 MB of available hard disk space (1 GB recommended).

BTEPS Software Modules

DAS - Door Access Management System
 MS - Monitoring System
 TC - Time Check
 POS - Canteen Payment System
 VMS - Visitor Management System
 GT - Guard Tour
 CPS - Carpark System
 HTS - Human Tracking System
 MAS - Meeting Attendance System
 VAS - Vehicle Assignment System
 DMS - Dormitory Management System
 MSC - Messaging Center
 DSS - Database Synchronization System
 VS - Video Server
 BT - Backup Transaction
 LQ - Log Query
 OPC - OLE for Process Control



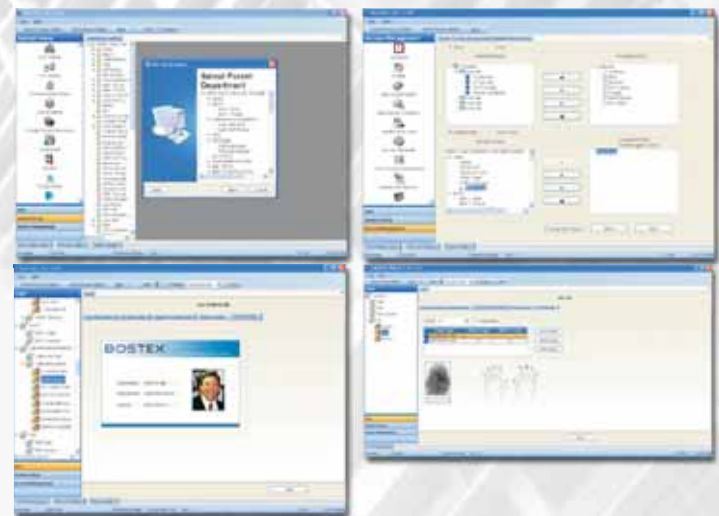
DAS - Door Access Management System

DAS Door Access Management System is the basic management module designed for managing user information, door information and assigning user door access right. The registered information such as department and user data is shared with other BTEPS applications such as Monitoring System, Time Check, Human Tracking, Payment, Meeting Attendance.

User management included changing of department, resignation, resume resignation, user replacement, card issuing, fingerprint enrollment, telephone entry, card printing operation, etc.

Highlights:

- ★ Multi-tenant and Multi-department Management
- ★ Simplified Door Access Right Assignment - Door to user, user to door, access template, manual or auto importing, etc.
- ★ Exquisite Door Control - Time zone control, PIN, Holiday, APB, Toggle, Arm/Disarm, Control Group
- ★ Centralize User Fingerprint Management
- ★ Definable User Field
- ★ Card Printing



MS - Monitoring System

MS Alarm Monitoring System is used to monitor all door point status, display card access transaction, user photo and capture photo, remote door control operation, setup door operation schedule, OPC integration and display predefined alarm live video and pre-recorded video from VS (Video Server) in real time. When system startup, MS will reload the latest door point and user information from database. Through DAS operator access right setup, each door point monitoring and control right can be defined.

Highlights:

- ★ Real time monitoring of door, device and controller status
- ★ Integrated Video Monitoring and Playback
- ★ Display card access transaction, user registered photo and snap shot photo in real time
- ★ OPC Integration and remote control schedule

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TC - Time Check

TC Time Check Management System setup consists of time attendance parameters, shift creation, auto shift assignment, annual leave assignment, leave/outstation/overtime registration and auto processing to fulfill staff attendance management and time attendance report. The attendance data source can be filtered from the selected door point.

Highlights:

- ★ Flexible Attendance Rule - allow late clock in/out, late/early clocking consider absent, clock time before and after shift, minimum overtime, rest time etc..
- ★ Flexible retrieving of attendance transaction - attendance processing can be from door access or dedicate time clock reader.
- ★ Support fix and flexible shift
- ★ Automatic Shift scheduling.
- ★ Annual Leave, Outstation and overtime registration.
- ★ Abnormal attendance handling and reason code entry.
- ★ Flexible attendance reporting.



VMS - Visitor Management System

Visitor Management Software supported visitor appointment registration function. When system startup, it will list down all the current day appointment list, able to query and print out all visitor appointment, registration, check-out information and modify visitor appointment record. Visitor appointment registration include the following information: visitor name, visiting Staff name, visitor company, visitor number, visiting location, visiting start and end time, the purpose of visit etc.

When appointment visitor arrive, the current appointment visitor can be selected, check-in by issuing visitor card and the system will automatically based on the visiting location to send down the visitor card information and access right to the controller. During check in, the visitor photo can be captured and stored into the database using a normal USB web camera. The same photo can be retrieved during the next visit.

Able to provide up to 10 user field to support rapid query of historical visitor information without the need to re-entry. User field name is definable, such as user field 1 for IC number, user field 2 for passport number etc.

Visitor Management Software support 3 methods of issuing card to visitor: manually enter card ID, read card ID from USB/232 read/write reader, select card from temporary visitor card list.



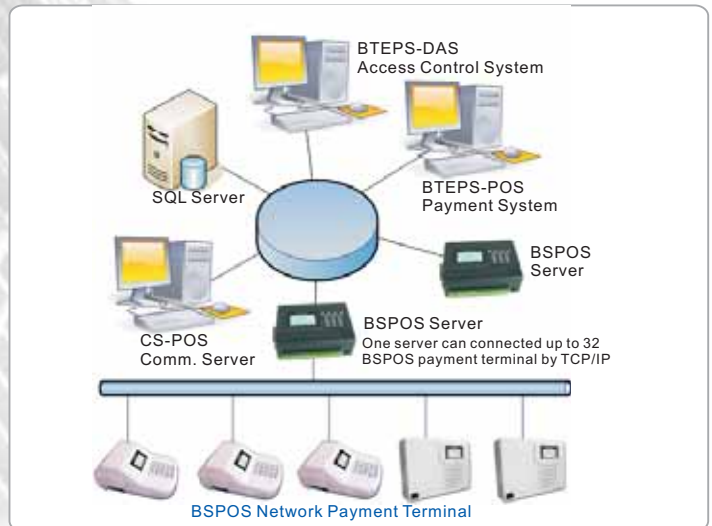
POS - Canteen Payment System

POS Payment Management System is designed to manage and control staff meal consumption in the company/factory/school. It is developed on BTEPS platform and is sharing the same database with other BTEPS application module.

The department user information can either be created from DAS Door Access Management System or independently from POS Payment Management System. The features include time attendance before dinning, 32 dinning interval and cross day interval dinning, limiting on the number of consumption and amount for monthly, daily and interval, Dinning Management, Supplier management and name display, product item name and price display.

Highlights:

- ★ Support multiple payment system.
- ★ Open account for the existing access control user
- ★ Support cash top up, refund and issue subsidiary operation
- ★ Control meal consumption by access right and payment type.
- ★ Support cash, daily and monthly close account operation.
- ★ Support flexible reporting



GT - Online Guard Tour System

Online Guard Tour System is using the existing door access control point and the guard tour user card to keep track of the security patrol in real time. If no card is presented during the predefine time, guard tour point alarm will be activated from the digital map. In comparison to the offline guard tour system, GT system is able to immediately reflect every guard tour point patrolling situation, knowing the current guard location, fully utilize the existing door access system hardware resource without installing additional equipment.

GT system will automatically process the particular day guard tour schedule when start up. If computer did not turn on for 3 days and start up on the 4th day, GT will automatically reprocess the latest 3 days guard tour schedule. The system supports multiple client, the first login client to CC will become the master client to process the guard tour schedule and the subsequent login client can only view the guard tour situation.



CPS - Carpark Management System

CPS Car Park Management System is developed for car park charging and control management. This system not only manage free parking, seasonal parking, register top up car but also unregister hourly parking. Different charging rate can be applied and control by time table, different day per week and different period within the same day.

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HTS - Human Tracking System

HTS Human Tracking System is used to monitor the user count within a predefined area in real time, rapidly locate the current location of a particular user and tracing the user movement. It is one of the essential subsystems in integrated security system and widely used in coal mine, prison, military, school, factory, sensitive government area and intelligent automation building etc.



DSS - Data Synchronization Server

DSS Data Synchronize Server provides an automatic database synchronization and seamless integration solution between BTEPS and 3rd party system (HR, OA etc.). It can either import 3rd party user information to BTEPS system by SQL Database, text file or excel file and also able to automatically export BTEPS door point information, user information and record to 3rd party SQL Database, text file or excel file. It is provided with text file and excel file field self-learning function, field programmable and 3rd party system modification is not necessary. The system supports exporting by interval, by fix time, by manual and the import/export operation of a particular day per week or month. This is a patented design and implemented on more than 1000 large scale projects.



BT - Database Backup and Archive

BT system is able to perform database remote backup and restore operation. Database will be automatically compressed after every backup operation and the backup time will be registered in the database.

BT system is able to perform database compression after archive and cleaning of unprocessed card access record. When software starts up, the system will verify the last database archive and management time. If it is exceeding the predefined time and prompts a message if the time exceeds. Able to set up pre-alarm and actual alarm length of time. When processing the card access record archiving, it supported the following archiving method: export to a designated archive database, export to text file, export to XLS spreadsheet file, export to encrypted compression file.



MSC - Messaging Center

MSC Message Center is able to receive mobile phone SMS messages and perform remote control on a particular door after analyzing the received message. Remote control operation includes: remote release, always open, always close, system control. MSC supports time zone control operation, able to set up a valid hand phone number and which door for remote door control function and SMS message format.

MSC is able to set up when an alarm event is received at a particular time zone will send out SMS to one or multiple registered hand phone numbers and at the same time query historical SMS send out log.



MAS - Meeting Attendance System

MAS Meeting Attendance System is developed on BTEPS platform to monitor the user meeting attendance status in real time. On the Meeting monitoring menu, it will display the attendance count, present count, absent count and the latest present user name and photo.



From the dedicated meeting clocking point, MAS system will receive the clocking record and filter on those valid records as meeting attendance. When the system has assigned users for a particular meeting, all these users must clock in on the specific point within a specific time. Able to assign the operator meeting monitoring rights based on the meeting type and location.



OPC -OLE for Process Control

OPC Server is able to examine BTEPS door point status and event in real time. Using standard OPC protocol, BTEPS is able to transfer information to 3rd party system and set up the data transfer interval.

OPC Server is able to provide the following BTEPS system information:

- (1) Door Status include door open, always open, always close, arm, intrusion alarm, door left open, door force open, communication failure, door open by time zone.
- (2) Controller Status include tamper, main power fail, battery low, communication fail.
- (3) Event include access record and alarm event. Access record include card user name, user ID, card ID, date and time, location, event code etc.



VS - Video Server

VS provides the ability to connect to 3rd party DVR systems and provides integration of video and security access control management system.

An integrated DVR solution links visual records to Bostex field devices events. Recalling a Bostex recorded event allows associated DVR stored images to be immediately retrieved.

DVR Video captures can be viewed live by the operator, or can be viewed in response to an event (event triggered viewing) from the BTEPS-MS (Monitoring Station).

A specific camera can be selected on the BTEPS-MS site plan and live images from the selected camera can be viewed upon demand.

The find tool can be used to search the historically recorded image sequences associated with a particular camera. Playback of archived/saved video recording can be initiated from the BTEPS-MS site plan.



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