

Gateway 2000-Tip-Smart

Smart Finger ID based Attendance & Access Control System



Built-in 1:N Identification Feature



Finger ID on Smart Card



Gateway 2000_Tip_Smart Features

- ◆ "Match-on-Card" Technology with Individual Security level, Stand alone offline operation
- ◆ User carries finger on Card, Suitable for large Organization, Employees can give their attendance at any place of choice
- ◆ Support for ISO 14443A contactless 1K/4K Mifare Smart Card, 50 mm read range
- ◆ Stores two fingerprint on a Mifare 1K/4K Card using only 12 sectors (256 byte minutiae per finger)
- ◆ Flexible storage of Finger on Card, enables use of existing cards containing legacy data
- ◆ Unique Personal Keys, protects against unauthorized re-enrollment of cards
- ◆ Optical Fingerprint scanner, 500 DPI resolution Scratch, Dust resistant
- ◆ 32 bit High Speed Digital Signal Processor based Minutiae extraction
- ◆ One touch Verification/Identification Mode with Transaction time < 1.5 Sec (including card read)
- ◆ LCD displays Employee Name, and "Allowed" message upon authentication (with Date & Time)
- ◆ 12500 Attendance transaction storage with battery back-up for 10 years
- ◆ Optional : Additional Exit Smart Card Reader/Exit Switch, Lock output for Access Control
- ◆ Built in Power Supply with Battery back up for 8 hours in event of Power Failure

Gateway 2000-Tip-Smart: "Finger Match-on-Card"

Gateway 2000_Tip_Smart is the Complete Attendance System taking advantage of Finger Identification technology and Smart Card technology. With a built in Contactless Smart Card Reader & Biometric Fingerprint Reader, the system implements "MATCH-ON-CARD" functionality which results in :

- ◆ No Proxy/Buddy Punching
- ◆ Unlimited Users Per System
- ◆ Employee Verification not limited by Geography
- ◆ No fear of losing finger data in event of hardware failure
- ◆ Secured Smart card for data integrity
- ◆ Built-in Finger Enrolment Feature without additional Hardware

Gateway 2000-Tip: "Identification 1:N"

Gateway 2000_Tip is a standalone Attendance/Access Control system using fingerprint Identification(1:N) technology. Upto 4000 fingers/2000 Users can be enrolled on the Gateway 2000_Tip with built-in finger enrolment feature. Enrolled fingerprints can be transferred to other terminals in the RS485 or Ethernet network via Data Download PC. Attendance transaction is logged based on finger identification. Gateway 2000_Tip can optionally be used along with a built in Proximity Card Reader for Double Authentication (1 : 1).

OPERATION

- ◆ Fingertip enrollment using Gateway 2000_Tip_Smart (on Smart Card)/Gateway 2000_Tip terminal is done once.
- ◆ User puts his finger on fingerprint reader. The Smart card is shown on the card reader, only in case of Gateway 2000_Tip_Smart.
- ◆ The terminal compares live finger with the finger stored on card/memory and then stores Attendance data only upon "MATCH".
- ◆ The data stored in The Attendance terminal is then downloaded by Compro 2000, a Windows based Configuration software.
- ◆ Compro 2000 can connect to Gateway 2000_Tip thru RS232C/RS485/Ethernet/WiFi or modem.
- ◆ User friendly Reports can be generated by TimePro Enterprise, a high end Attendance Analysis software which takes the data collected by Compro2000 as input(optional).

COMMUNICATION

Networking of Terminals can be accomplished via the RS 232C/485/Ethernet(LAN/WAN)/WiFi/ZigBee/Bluetooth or dial up modem communication using suitable External Hardware.

FIRMWARE FEATURES

- ◆ **User Mode** : All users can be individually configured for a particular mode of operation. For example directors could be in Card/ Finger only mode, whereas other people could be in Card + Finger mode. New employees would be enrolled on PIN + Finger mode till they became permanent and got their Card.
- ◆ **Finger Modes** : Apart from above Modes, there are several Sub Modes of operation like Always Check Mode, Thick Random Check and Thin Random Check Modes. The first checks all fingers, the second and third ask for USER fingers at Random based on an inbuilt random algorithm.
- ◆ **Load Zones** : A working day can be divided into multiple zones based on the User traffic load. The User ID modes can be assigned differently in different zones for example, during the peak load when people are entering the office the User Mode could be Card + Thin Finger, during the day, Card + Thick Finger, Evening only Card and at night Card + Always Finger mode.
- ◆ **Holiday & Weekly off Database** : The Weekly off and Holidays can be downloaded to the system. Here irrespective of their User Mode, Finger has to be provided for additional security.
- ◆ **Shift Timings** : Upto 16 time zones may be defined in the system. A Shift could be across a day as is required for night shifts in factories, hospitals & Call Centers. Users would be assigned to a particular shift and would be only allowed access during such times.

FINGER ID SENSOR SPECIFICATION

TECHNICAL INFORMATION

CPU :	400MHz DSP CPU/4MB Memory	CPU :	High Performance 16 bit Micro controller
Enrollment Time :	800ms for finger capture (Typical)	Memory :	12500 Transaction Storage
Identification Time(1:N) :	< 1 Sec. (Typical) for 1000 Users	Battery Back-up :	Retention of Clock & Data upto 10 years
Verification Time(1:1) :	< 1 Sec. (Typical)	Communication :	RS232C or RS485 (Optional Ethernet)/WiFi
ID Number :	Upto 8 Digit ID Card	Data Upload Speed :	1000 Records/Minute(9600BPS)
Encryption :	256 Bit AES (FP Data Protection)	Card Reader Input :	Contact less Smart/Proximity Card Reader
EER :	<0.1%	Keyboard :	4X4 Key Membrane key Keyboard
Allowable Finger Rotation :	+/- 90 Degree	Display :	128 X 64 Pixel / 16 X 4 Char. Backlit LCD
Allowable Finger Displacement :	+/- 5mm	Power :	Wide Range SMPS(170- 260V@50Hz +/-5Hz)
Sensor :	Optical (16mm X 19 mm)	Uninterrupted Power :	Using 7.2AH MFB for 8 Hours Back-up
Image Size :	280 X 320 pixel, 500 DPI	Relay Output :	12V Wet / Potential Free Contact O/P
Finger Template Size :	256 / 384 Bytes	Dimension :	223 (H) X 100 (W) X 86 (D) mm
Template Extraction Technology :	Minutiae-only Algorithm	Enclosure :	Dust Resistant ABS Casing
Finger Enrollment Class :	5 Level depending on Quality	Operating Temperature :	0-50 Degree Centigrade
Verification Mode :	High / Auto / Low Security	Modularity :	2 Box Design (Controller & UPS Box)

SYSTEM CONFIGURATION DIAGRAM



eTIME Pro is a Web based Attendance Management Software & meant for Corporates/IT enabled companies to harness the power offered by 3-Tier architecture. It can be loaded on an Internet Server on Web or on an Intranet Server. Any Computer or Thin Client having a Web Browser (no Client software required!!) can be used with proper User authentication with friendly interface.

A PC would poll the data from the Attendance Terminals and push the raw data to the Server for online updation of the database residing on the Server. The backend end processing of the raw data happens automatically without any user intervention. The system is fully configurable & no customization is required for most users.

eTIME Pro takes care of all time Office related functions e.g. Master Maintenance, Processing of Attendance Data from Terminals, Manual Attendance, Leave, Tour/On-Duty input, Over Time Calculation & sanction, Shift Rotation, Late Rules etc. This provides host of Daily, Periodic & Yearly Reports related to Time Office. It also provides the data required for Payroll Calculation.

- Gateway 2000_Tip_Smart : Attendance Recording & Access Control System with built-in Contactless Smart Card Reader & Keyboard
- Gateway 2000_Tip : Attendance Recording & Access Control System with built-in Proximity Card Reader & Keyboard with 1:N feature
- MicroSMART/MicroPROX : Exit Card Reader option
- COMCON : RS 232C to RS485 Converter
- COMCON TCP/IP : RS232C to Ethernet Converter
- COMCON Web Server : Web Server Comm. Interface
- MIS Time Pro LITE : Time Office Report Generation Software suitable for Office(Single Shift Operation)
- MIS Time Pro ENTERPRISE : Time Office Report Generation Software suitable for Factory/Large Enterprise(Multi Shift Operation)
- eTime Pro : Web Based Attendance Management Software
- PayLITE : Pay Roll Calculation & Generation Software
- ID Cards : 1K/4K Smart Card (b) Proximity Card
- Door Lock : (a)Strike (b)EM Lock (c)Turnstile (d)Drop Bolt (e)Boom
- Accessories : (a)RS232C/RS485/CAT 5 Comm. Cable (b)ReX cable

ORDERING INFORMATION

* Specifications are subject to change without notice.

** eTIME Pro is Optional Software.

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