MicroBEN Bio
Finger ID based Attendance & Access Control System

FORTUNA

Time & Attendance is made easy & manageable with irrefutable personal Identification using "Touch-n-Go" Biometric Finger Print Technology.

There is no need of ID cards, with real time Finger identification in 1:N Mode. MicroBEN Bio is self contained device with FVC 2004 & FVC 2006 Award Winning Finger Print Sensor to enroll & store the Finger record, Identify users, save event logs and provides interface with Computer for generating MIS Attendance Reports & data required for Payroll Calculation.

A HID Proximity/iClass or MIFARE Smart Card/ EM Proximity Reader may be integrated inside. The Finger Print template can be stored on iClass / MIFARE Card.

MicroBEN_Bio provides superior speed & most importantly eliminates Buddy/Proxy Punching. The Finger Parking angle & guide is perfectly engineered to ensure impeccable finger scanning.

Only authorized personnel are allowed access to the protected area or to Clock IN/OUT. With Finger Print Module, Key Pad & a RF based Reader (optional), it gives the operator a choice of access modes in any combination of Fingerprint, Card & PIN entries.

Operation

❖ Finger Print enrollment using MicroBEN_Bio is done once in the built-in memory.
❖ User places their enrolled finger on the finger sensor for clocking IN/OUT.
❖ The MicroBEN compares live finger with the finger stored in built-in memory and then stores Attendance data only upon "MATCH".
❖ LCD displays Employee Name and "Granted" message upon authentication (with Date & Time).
❖ Optional : The Proximity Card is shown on the reader. If the card is Valid, user is prompted to put the finger on fingerprint reader(1:1 mode).
❖ User Friendly reports can be generated by Time Pro Software, a high end Attendance Analysis software (optional).

Communication

Networking of MicroBEN's can be accomplished via the RS232C/RS485 or Ethernet (LAN/WAN/WiFi) or dial up modem communication (using suitable External Hardware). The attendance data can be pushed from anywherein the world, in online mode using Broad Band to a Server. GPRS may also be used as medium for data communication.

MicroBEN Bio : Technical Data

Finger ID Sensor Specification
- CPU : 400MHz DSP CPU with 9000 Finger data storage (upgradable)
- Enrolment Time : 2 second for finger capture
- Identification Time (1:N): <1 Sec. (Typical) for 1000 Fingers, supports 1:1 mode
- Allowable Finger Rotation : +/-90 Degree
- Allowable Finger Displacement : +/- 5mm
- Sensor : Optical (16mm x19mm),Scratchproof
- Image Size : 280 x 320 Pixel, 500 DPI
- Finger Template Size : 256 Bytes, supports ISO 19794-2 template standard also
- Minutiae-only Template Extraction Algorithm with EER : <0.1%

Technical Specification

- Memory : 90,000 Transaction Storage
- Battery Back-up : Retention of Clock & Data upto 10 Years
- Communication : Ethernet/LAN(TCP/IP) Optional : WiFi, Broad Band, GPRS
- Card Reader Input : Optional Biometric EM Proximity Reader/ MIFARE / HID / iClass
- Match-on-Card : Feature supported with ISO 14443 Type A, MIFARE 1KB/4KB Classic Card
- Out Reader Interface : Card Reader of any type mentioned above may be interfaced
- Keyboard : 4x4 Membrane Keyboard
- Printer Interface : Serial Strip Printer
- Display : 16x2 Backlit LCD(White in Blue)
- USB Pen Drive Interface
- Human Voice Interface (on request)
- Access Control : Dry/Wet (12V) Contact O/P & ReX (Request-to-Exit)& DOTL input
- UPS with Battery : Battery Back-up for 4 Hours with Intelligent Charging(Optional)
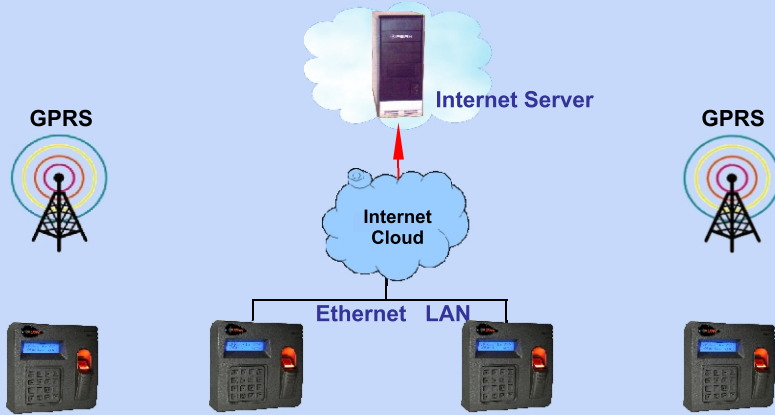
Environmental Specifications

- Power : Wide Range SMPS Adapter (110-260V@50Hz +/-5Hz)
- Dimension : 146 (H) X 154 (W) X 45 (D)mm
- Enclosure : Dust Resistant ABS enclosure
- Operating Temperature : 0-55 Degree C

Data Transfer to Internet Server on Web

Internet Server
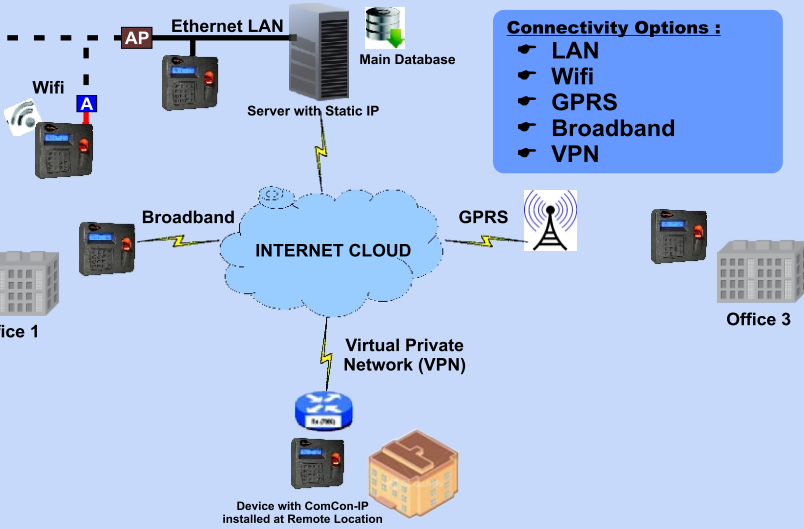
GPRS

GPRS

Internet Cloud

Ethernet LAN

In this Connectivity Option, all the MicroBEN Bio's at installation Location(any where in the World) will be connected to Internet using Broad Band. A Online Application will be deployed at the Server. Attendance Data will be pushed in online mode from Attendance Terminals. Data can also be pushed using GPRS connectivity.

Time Pro Enterprise: Attendance Management Software

Time Pro Enterprise is a Attendance Management Software for Large Office/ Factory with complex Shifts & Leave Management System. It is on Client-Server Architecture for fast & swift data entry/processing needs for Time Office.

The raw data from the Attendance Terminals may be pushed(DXS required) to Server in Online Mode for online update of the database residing on the Server. The back end processing of the raw data happens automatically without any user intervention. The system is fully configurable & no customization is required for most users. Time Pro Enterprise takes care of all time Office related functions such as Master Maintenance, Processing of Attendance Data from Attendance 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 provides the data for Payroll Calculation.

It can be further be extended using Swayam Seva, Web based Employee Self Service Portal. It can be loaded on an Internet/Intranet Server. The software has interactive GUI.

Ethernet LAN

AP

Main Database

Wifi

A

Server with Static IP

Connectivity Options :
- ☛ **LAN**
- ☛ **Wifi**
- ☛ **GPRS**
- ☛ **Broadband**
- ☛ **VPN**

Broadband

GPRS

INTERNET CLOUD

Office 1

Office 3

Virtual Private Network (VPN)

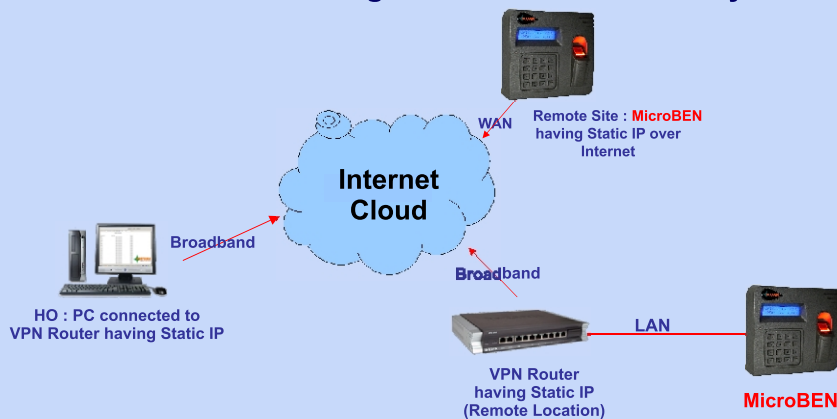**Device with ComCon-IP installed at Remote Location**

Devices connected through Broadband, VPN or GPRS, pushes the attendance data to the centralized server. Application software Smart Finger Plus (Web based) will be deployed at the centralized location.

Smart Finger : Finger Print Enrollment Station

The Smart Finger Application is a Windows based application which facilitates the finger image capture using a USB based Finger Print Reader Module and stores the digitized finger template data in the centralized Server database. Finger Print Enrollment & Card Personalization Application Software may be deployed at one or many PC's on Company's LAN network. It can also captures Employee Photograph using USB camera.

❖ It gives a advanced finger print management tool with downloading of finger template to Attendance terminal automatically upon assignment.
❖ It can also upload the finger template from Attendance Terminal for centralized database Generation.
❖ It can be interfaced to MicroSMART,Smart Card writer for loading the template on MIFARE Smart
❖ It is featured with add-on functions such as ID Card Printing, marking Employee Black-listed.
❖ It can be used as HR management tool for Employee Data collection & record for future reference.

Data Transfer using VPN / WAN Connectivity

WAN

Remote Site : MicroBEN having Static IP over Internet

Internet Cloud

Broadband

Broadband

HO : PC connected to VPN Router having Static IP

LAN

VPN Router having Static IP (Remote Location)

MicroBEN

In this Connectivity Option, the Remote Location is having a VPN Router configured with a Static IP. The MicroBEN Bio on the Remote Location will be connected to the Router thru Switch. The PC at HO is also connected to a similar Router configured with Static IP. VPN tunnel is established using Broadband on either side. COMPRO 7 Client Application will be deployed at HO. The Raw transaction Data from the remote location will be captured by HO without any user intervention.

Ordering Information

- ⇒ **MicroBEN Bio :** Finger Print Terminal(1:N) with TCP/IP & Adaptor
- ⇒ **OPT 01** : Add-on PoE Option for Ethernet
- ⇒ **OPT 02** : Add-on Smart Card Reader(**MicroBEN Bio_Pro)**
- ⇒ **OPT 03** : Add-on Proximity Card Reader(**MicroBEN Bio_Smart)**
- ⇒ **OPT 07** : Add-on HID Proximity Reader(**MicroBEN Bio_HID)**
- ⇒ **OPT 08** : Add-on HID iClass Reader(**MicroBEN Bio_iClass)**
- ⇒ **OPT 04** : Add-on UPS & Battery with 4 Hrs Backup
- ⇒ **OPT 05** : Add-on WLAN Port
- ⇒ **OPT 06** : Add-on GPRS with 1 SIM Slot with GPRS connectivity
- ⇒ **OPT 12** : Metal Enclosure with 4 Hours Battery Back-up
- ⇒ **OPT 13** : Metal Enclosure for Protection with Lock & Speaker
- ⇒ **MicroTIP :** Finger Print based Slave Out Reader
- ⇒ **MicroPROX/Prox Point/MicroSMART** : Out Reader option
- ⇒ **COMPRO 7 :** Data downloading, Configuration & enrollment Software
- ⇒ **DXS** : Online Data Xchange Service for Server
- ⇒ **Smart Finger Plus :** Finger Print Enrollment Software with DXS
- ⇒ **MIS Time Pro Enterprise :** Windows based Time Office Software
- ⇒ **Swayam Seva :** Web based Employee Self Service with Workflow
- ⇒ **ID Card:** (a) Proximity Card (b) Contact less Smart Card
- ⇒ **Door Lock:** (a) Strike (b) EM Lock (c) Turnstile (d) Drop bolt
- ⇒ **Accessories:** (a) Exit Switch (b) Lock/Reader Cable(c)Comm. Cable

* Specifications are subject to change without notice. ** Time Pro Ent., Swayam Seva, DXS, Smart Finger Plus are optional Software.