

# EnSAFE End System Suraksha Framework

A Security Product by C-DAC, Hyderabad



## **Overview**



- Security Issues within Corporate Network
- ❖ What is EnSAFE?
- ❖ Salient Features of EnSAFE
- ❖ Technical Architecture of EnSAFE
- \* EnSAFE Deployment Scenario
- ❖ Benefits of EnSAFE



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## Security Issues within Corporate Network

- > End system security is often neglected
- > Spoofing problems to bypass Authentication Mechanism based on IP and MAC Address
- > Network communication sniffing problems which lead to attack on confidentiality
- Unauthorized Changes to the System Hardware
- > Most of the End Users with Root Privileges
- Worms & Trojans (Replication / Backdoors)
- Security solutions are often integrated with Applications
- > Security Software Management / Administration Complexity
- Modems can Bypass all the Perimeter Security Solutions





#### What is EnSAFE?

- > EnSAFE is an integrated end system based security solution.
- > EnSAFE provides support for
  - \* Role based network access control at end system level
  - Authenticates end system based on the signature generated from its various hardware and software parameters
  - Establishes secure channel to TCP based client-server applications





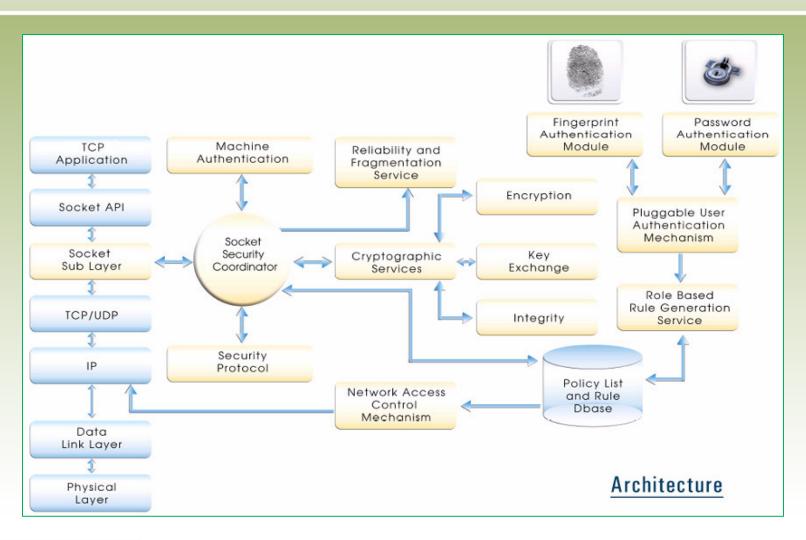
## Salient Features of EnSAFE

- Machine (End-System) Authentication mechanism
- \* Secure Network Communication
- Application and User Transparency
- Role-Based Network Access Control System
- Central Administration Console for policy formulation and Enforcement
- Implemented for Windows and Linux Platform





## Technical Architecture of EnSAFE





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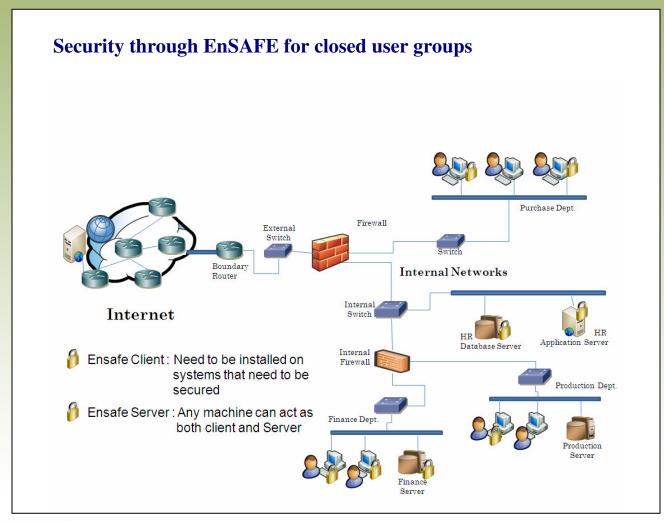
# **EnSAFE** Components

- Client Component
  - Security Policy Enforcement Agent
  - Need to be installed on systems that need to be secured
  - User-Console GUI
- Server Component
  - EnSAFE Server service
  - Administration Console GUI
  - Client and User Database





## EnSAFE Deployment Scenario







#### Benefits of EnSAFE

- Provide Security to End-to-End Systems and their Communications
- Provides three level Authentication
  - \* User Authentication
  - Network Packet's Authentication
  - \* Machine Authentication
- Provides Transparent Security to the Application's communication
  - Encrypted communication
  - Integrity of data on move
  - Session wise key exchange
- Provides the Central Administration Console for Policy formulation and Enforcement for all the EnSAFE agents
- Provides the centralized controlled distributed firewall to control the unwanted traffic from the End-Systems





For EnSAFE related enquiries please send us at EnSAFE@cdac.in