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With the rapid advancements in the usage of networked systems, information is made accessible from anywhere and any time. But at the same time it raised serious threats / attacks to our networks. Cyber security surveys in the recent past shows that 85% of all the attacks are launched from within organizations, making the end system most vulnerable. Hence network access control and strong end system authentication have become the basic needs to defend against various network attacks and access violations.

The definition of network security has been modified frequently down the time line to best describe the situation. And now by deploying the perimeter solutions in the network, we cannot assure security. End system level security deployment is becoming very important. C-DAC has come up with a solution NAYAN to address the access control and authentication requirements of end systems.

NAYAN controls the access to different network services at the end system level, protecting internal network from rapidly propagating threats and network misuse. NAYAN unifies End System Authentication, Desktop Firewall with Centralized Administration, Automatic Policy Updating and Role Based Access Control.



Network Abhigam niYantrAN

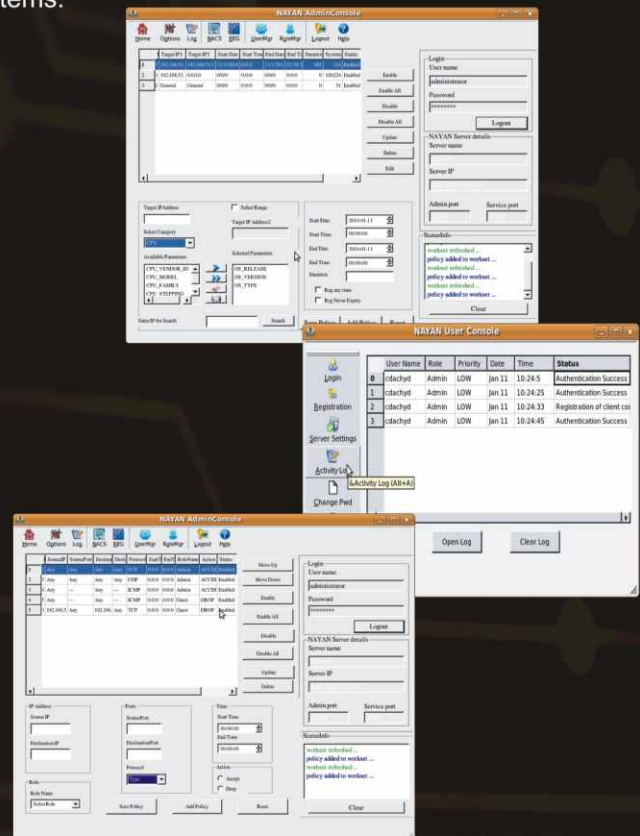
Protects internal network from rapidly propagating threats and network misuse

NAYAN (Network Abhigham niYANtran)

The primary objective of NAYAN is to **ease the Enforcement of Network Access Control Policies** at the end systems in the network. NAYAN having the feature **Centralized & Remote Administration** helps the administrator, control access to network services and to monitor from anywhere in the network. NAYAN supports **Automatic Policy Updating** feature, which pushes policies specific to each end system time-to-time. NAYAN has a unique way of authenticating an end system based on the **Machine Fingerprint** generated from various system parameters CPU, OS, Hard disk, Network and RAM details. This has made NAYAN resistant to Spoofing attacks.

Role Based Access Control ensures that only authorized personnel have access to configuration and personal information. Policies for accessing the network services are defined based on protocols (TCP, UDP, ICMP), Source and Destination IP and ports, Roles assigned to the users and time of effect. A **Desktop Firewall** component of NAYAN, enforces the Network Access Control policies at every end system. Network usage can be monitored by the **NACS log**, and the access to the end systems can be reviewed at every end system using the **Activity log**.

NAYAN is available for Windows and Linux Operating Systems.



About C-DAC, Hyderabad

C-DAC, Hyderabad is a Knowledge Centre with the components of Knowledge Creation, Knowledge Dissemination, Knowledge Application to grow in the areas of Research & Development, Training and Business respectively. The R & D areas of the centre are e-Security, Embedded Systems, Ubiquitous Computing, e-Learning and ICT for Development

End System Security, Malware Analysis & Prevention and Security for Ubiquitous Computing Environment are the focus areas in e-Security research. The Centre has developed over a period of time a number of products in e-security such as EnSAFE, RealSAFE, NAYAN, USB Security and Process Execution Control Solutions. The centre has also established e-Suraksha Concept Lab and Malware Resource Centre.



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