

# Smart Server Login

## Protect your Server from Hacking



Smart Server Login is a solution designed to impose an extra layer of security on the user login to a system by means of verification of operator biometrics and smart card authentication. The solution has been developed for Linux based Operating Systems - Ubuntu and CentOS, and the extra layer of security has been added with the default login process of the operating system. This security solution is targeted for secure servers, workstations and PC containing confidential data where it is desirable that the login to system is to be in the knowledge of more than one single operator. The current design enforces the presence of two authentic operators with finger print and their smart card to mutually authenticate each other to get login access into the system.

### System Login

User Name

Pass Word

Operator 1 Pin  Operator 2 Pin

Operator 1 Finger Print  Operator 2 Finger Print 

```
CentOS release 6.3 (Final)
Kernel 2.6.32-279.el6.x86_64 on an x86_64

ICTS1lab1 login: server_operator

User 1 Card Reader: Identive CLOUD 2700 F Smart Card Reader (53991306200040) 00 00
User 2 Card Reader: Identive CLOUD 2700 R Smart Card Reader (53691307200002) 01 00

Enter User 1 Card PIN:
Place User 1 Finger

Enter User 2 Card PIN:
Place User 2 Finger

please wait...

Password:
Last login: Thu Jun 11 16:46:30 from 10.240.9.127
[server_operator@ICTS1lab1 ~]$
```

Operator 1 Operator 2



### Salient Features

- ⊙ Server Login with smart card and Finger print for two factor Authentication
- ⊙ Requires simultaneous presence of any two Operators from the Group
- ⊙ Uses 3DES Mutual authentication for smart card security
- ⊙ Can be extended to SSH, Telnet, Remote Desktop & SU services
- ⊙ Based on SCOSTA OS which meets ISO7816 standard
- ⊙ ISO 19794-2 standard finger print templates are used
- ⊙ Application integrated with PAM framework of Linux OS
- ⊙ Currently tested on CentOS 6.5 64 bit & Ubuntu 12.04.4 LTS 32/64 bit
- ⊙ Master Key of the system will be saved securely in a pair of card



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