

# Technical OVERVIEW



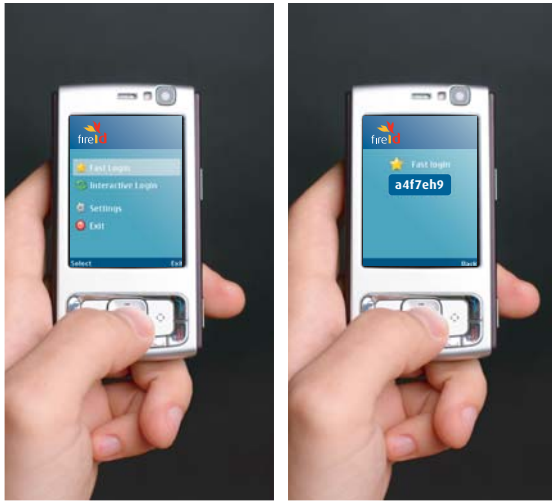
[www.fireid.com](http://www.fireid.com)

[info@fireid.com](mailto:info@fireid.com)  
0860 FIRE SA (3473 72)

2nd Floor  
Block C, Octo Place  
Electron Road  
Technopark  
Stellenbosch 7600  
Western Cape  
South Africa

FireID turns your mobile  
phone into a self-contained  
OTP generator.

[www.fireid.com](http://www.fireid.com)



### The FireID Mobile Application

Is the end-user's interface to the FireID solution. It is easily deployed and installed to any mobile phone, with native versions or builds for specific handsets or platforms where appropriate.

The deployment process automatically detects the mobile phone make, model and platform, and delivers an appropriate version of the application from over 1,500 possible versions.

A user's FireID application is capable of storing one or many different OTP "tokens", which are used to securely generate one-time-passwords, without requiring any GPRS/EDGE/3G or SMS activity.

### The FireID Authentication Server

is responsible for authenticating users' OTPs as generated by FireID on their mobile phones. The authentication server is able to identify if the password supplied by the user is correct or not using an incremental algorithmic process.

The authentication server can be easily integrated into the backend of the system such as VPN devices, web applications or any other vector, via either RADIUS or the SOAP API. It also features Multiple Datasources, which allows it to be linked to multiple, separate existing directories or databases of users.

## Algorithms and standards employed

STANDARD NAME	TYPE/FUNCTION	OFFICIAL SOURCE
OATH	Open authentication specification for a standard method for generating OTPs	www.openauthentication.org
SHA-256	Hashing algorithm	US FIPS 180-3
AES Rijndael 256	Symmetric encryption	US FIPS 197
HMAC	Message Authentication Code	US FIPS 198-1

### The FireID server based solution is hosted internally by our clients using their own infrastructure.

FireID makes use of existing customer infrastructure and integrates seamlessly with your client database(s) using either Radius or SOAP calls.

The FireID Authentication server is therefore a fairly standard machine with the following specifications:

### Production environment

- A dedicated computer
- 1 GHz processor (Core2 processor recommended)
  - Both 32 and 64 bit chips are supported
- 512MB RAM (1GB recommended)
- 4GB disk space (8GB recommended)
- Network access via Ethernet with DHCP and DNS integration
  - Realtek- or Intel-based cards are recommended
  - Atheros-based cards are not supported
- Always-on internet connectivity via network card
  - Proxies are supported if required
- CD or DVD ROM drive
  - Only required during installation

In a testing or low-usage evaluation environment the memory requirement can be lowered to 256MB.

## For a virtualized environment

Either production or testing / evaluation:

### Virtualization software:

- VMware Server 2.0 (recommended) or 1.x
  - Freely available from [www.vmware.com](http://www.vmware.com)
  - VMware ESX or ESXi should also work, but these are untested
- Microsoft Hyper-V
  - A problem may arise when booting the installation disc; Installing to a VMware Server virtual machine and then importing into Hyper-V is available as a workaround
- Xen
  - A problem may arise when booting the installation disc; Installing to a VMware Server virtual machine and then importing into Xen is available as a workaround

### Network configuration:

- Bridged network (where VM is connected to the external network) is recommended
- NAT network (where VM is behind the host computer) should work, but is not recommended

## Cellular Device Platforms

The FireID Token application supports most mobile cellular devices and is available for four platforms:

### 1. Windows Mobile

Windows Mobile 6.0 Standard, Windows Mobile 6 Professional, Windows Mobile 5 with .Net Compact Framework 2.

### 2. Java

Colour display WAP-enabled mobile phones with Java Midlet version 1.0 or later.

### 3. Blackberry

### 4. iPhone