# VU™ Mobile Tokens

**Datasheet**

VU

# What is it?

It is the SDK component that allows to integrate the functionalities of VU™ App & Cloud Server to the mobile applications of Android and iOS, providing robust authentication to register, generate and validate two-factor authentication methods.

It does not depend on phone or Internet network, which helps avoid delays and reduce the need of remembering multiple, long passwords. It is intuitive and the device can be unlocked with a PIN or the fingerprint. The token can be easily recovered in case the device is lost or stolen, and can work on mobile devices, PC and web, without agents.

## Logic operating diagram
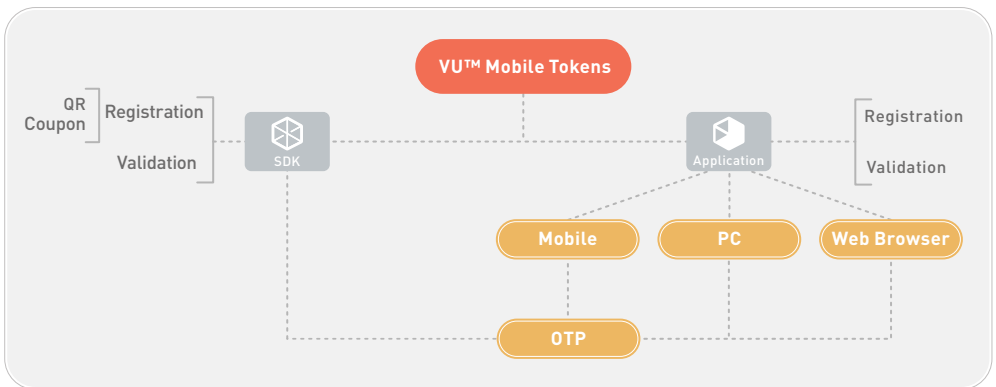
## Browser

Firefox
Internet Explorer 10 or above
Google Chrome
Apple Safari

## Technology

Java 1.7 or higher

## Security

RSA / SHA1 / 3DES / AES 256
Security certificates
EAP-PEAP-MSCHAP v2
TimeStamp
HOTP/OCRA/TOTP/HMAC

## Web Server

Apache 2
Nginx
IIS
Jboss
Tomcat
WebSphere

## Integrations

WS-I Basic Profile 2.0
SOAP 1.1 or higher
WSDL 1.1 / WS-Security WSI
XML Schema 1.0
TSL 2.0

## Access Management

Radius
Cisco ACS 4.2 or higher
FreeRadius
Active Directory
Samba
Cisco ISE

## Report Management

Crystal Reports
Syslog
Nagios

## Mobile Compatibility

iOS
Android
Windows Phone
HTML 5
USSD
SMS
Push Notification

# Hardware Dimensioning*

| Number of users | Instancia Principal | | Instancia Secundaria | | Transactions per second | Required storage | LOG Storage |
|---|---|---|---|---|---|---|---|
| | Processor | Memory | Processor | Memory | | | |
| 1 to 10.000 | 4 processing threads | 2 GB RAM | 4 processing threads | 2 GB RAM | 40 | 60 GB - HD | 60 GB - HD |
| 10.000 to 50.000 | 8 processing threads | 4 GB RAM | 8 processing threads | 4 GB RAM | 80 | 120 GB - HD | 120 GB - HD |
| 50.000 to 100.000 | 16 processing threads | 8 GB RAM | 16 processing threads | 8 GB RAM | 160 | 240 GB - HD | 240 GB - HD |
| 100.000 to 250.000 | 32 processing threads | 16 GB RAM | 32 processing threads | 16 GB RAM | 320 | 480 GB - HD | 480 GB - HD |
| 250.000 to 1.000.000 | 64 processing threads | 32 GB RAM | 64 processing threads | 32 GB RAM | 640 | 1 TB - HD | 1 TB - HD |

* The calculations and estimates contemplate the functioning on high availability.

# Software requirements and compatibility

## SDK of VU™ Mobile Tokens

VU™ offers the psossibility of adding the VU™ Mobile Tokens funcionalities to the existent applications through the SDK of VU™ Mobile Tokens, which includes all the necessary methods to carry out the integration.

In order to improve the implementation experience of the developer that will integrate the SDK, VU™ delivers use examples of all the funcionalities. This makes it easier to translate to the real scenario of implementation.

The SDK is available for the following languages: Java, JavaMe, Javascript, Objective-C.

VU™ provides a class with all the required functionalities and the corresponding documentation to deploy an authentication via OTP.

The public funcionalities are detailed below:

• Activation of algorithm of unique OTP per user

• Delivery of the corresponding OTP code

• Return of the current OTP's lifetime

• Synchronization of the time with the server for the proper functioning of the OTP

• Encryption and decrption of the secret shared between VU™ Mobile Tokens and the server

• Delivery of the secret ready to be stored

## Integration API

The infrastructure is designed to integrate with any other platform, no matter the used language, through Web REST or SOAP services.

The application is composed of different methods, identified with functionalities destined to the administrative management and to be used by final users. The communication between the presentation layers and the VU™ App & Cloud Server is made through a SSL connection.

## The available methods allow to:

• Sign up, validate, block and unblock users on the VU™ Mobile Tokens system.

• Deregister the VU™ Mobile Tokens assigned to the user on the VU™ Mobile Tokens system.

• Report the user status on the VU™ Mobile Tokens system.

• Validate the VU™ Mobile Tokens of a final user.

• Provide the OTP assigned to the user on the VU™ Mobile Tokens system.

• Validate OTPs.

• Deactivate transactions.

• Enable transactions to validate on the VU™ Mobile Tokens system.

| Operative System | Database | Virtualization | High Availability |
|---|---|---|---|
| Debian 7 or higher | MySQL 5.6 or higher | VMWare | HA Proxy |
| Ubuntu 14.04 or higher | PostgreSQL 9 or higher | Citrix | KEEPALIVE |
| Red Hat RHEL 6 or higher | Oracle 10 or higher | Microsoft Hyper-V | REPMGR |
| Suse 10 or higher | MS SQL 2008 or higher | RHEV | DRBD |
| Solaris 10 x86 | MS SQL 5.6 or higher | Virtual Box | |
| Solaris 10 Sparc | MariaDB 5.5 or higher | Docker | |
| Windows 2008 R2 or higher | DB2 | | |