Validate

Technical Information (v5.0 October 2018)

About Validate

Validate is an online database that manages large quantities of data around employees and sub-contractors, their competences, qualifications, skills, medical and D&A status, and site activity/access control. The system also comprehensively manages site visitors, generating electronically readable visitor and vehicle passes.

The objective of Validate is to make available at site or project level the key information that's required about personnel, stored in one central repository, to maintain the safest working environment available for the individual, team members and others working alongside them.

The application is available as a Standard version (with no modification made for the Client) or as a Custom version with client-specified additions and modifications included.

Validate is hosted by Reference Point Ltd and our provision is covered in detail in a companion document (Validate Software Agreement).

The vast majority of clients using Validate (whether Standard or Custom) use the database in conjunction with individual smartcards provided to each operative. This is because smartcards are a highly effective, simple and very portable way for individuals to bring a "passport to work" and confirm their suitability for a job in real-time. The cards (via the electronic chip contained within them) can be read and updated in a variety of ways, and these data changes are automatically synchronised with the Validate database to ensure data currency.

Compatible Smartcards

Validate Smartcards

Validate uses high capacity, high security 13.56 MHz contactless JCOP smartcards with 1K Mifare classic emulation capable of supporting Java applets. These cards are fully compliant with the ISO 7816 and ISO 14443 smartcard standards.

The Validate card is contactless only, meaning there is no visible chip on the exterior of the card. Validate smartcards are available from Mitie, with pricing dependent on volumes purchased, and Mitie
prints, personalises and despatches individual cards.

CSCS Smartcards

Validate also works seamlessly with CSCS smartcards, which share the same technical specification as Validate cards and which also include an electronic (contact) chip. The first time an existing CSCS smartcard is enrolled in the Validate system electronically, a new person record is generated, pairing with the individual smartcard and transferring the photo from the CSCS card automatically.

Clients may opt for Validate cards exclusively, CSCS cards exclusively or a combination of the two.

Reading and Writing to Smartcards

Validate's ability both to surface smartcard data out on site, as well as to write data to the card in real-time using a variety of different devices, is at the vanguard of industry expertise and very few companies can come close to the sophistication and scope that our solution delivers.

When it comes to reading and writing data to smartcards there are two options, which are usually combined by clients depending on where the cards are being read:

- Using a card reader connected to a PC/laptop, with the supplied Validate software to run this.
- Using the Validate Mobile App (available both for Android and iPhone).

PC-Connected Card Reading/Writing

Card-reading using a PC is achieved using a Java application within the client's browser, which downloads and installs automatically.

Users must have a compatible PC/SC USB card reader with appropriate drivers installed. The Card reader must comply to ISO 14443-4 and support 13.56 Mhz T=CL protocol.

Although not an exhaustive list, the following common PC-connected readers have been tested and work reliably with Validate Smartcards.

Please ensure one of these is purchased as we cannot assist with any reader-related support issues unless one of the devices below is being used:

- Identive Cloud 4700F (Desktop)
- Identive Cloud 3700F (Desktop)
- Gemalto IDBridge CL3000 (Desktop)
- HID Omnikey 5021 (Desktop)
- HID Omnikey 5022 (Desktop)
- HID Omnikey 5421 (Desktop)
- HID Omnikey 5422 (Desktop)
- SCM SCL3711(USB Dongle Style)

Recommended Browsers

Validate is designed to run on most current browsers, but listed below are the ones that are officially supported and which are tested during our software update processes:

- Microsoft Edge
- Internet Explorer 11
- Chrome

Please note that the PC Card Connector software is not currently supported on the Firefox browser.

IMPORTANT: For the system to function correctly you must allow pop-ups and cookies in your chosen browser.

The Validate Android Mobile App

The Validate Mobile App for Android is designed to read cards using NFC (which reads the cards as smartcards, effectively turning your phone into a mobile smartcard reader/writer) and also, provided internet connectivity is available, can scan the QR code on the front of each Validate smartcard to surface the relevant Validate record on the database for full authentication (meaning the app can still be used even if your phone doesn't support NFC).

We provide a separate version of the app that only scans QR Codes, rather than using NFC, so that this version can be downloaded by users of phones which do not have NFC functionality (since Google will prevent the installation of apps that includes NFC functionality from devices that do not support this feature).

Every time the card is checked via the app (or when other significant actions are taken such as granting access to a defined location or awarding a site induction for example), a record of this activity is uploaded automatically to the central database in real time. If there is no internet connectivity at the time, these auditable events will be uploaded the next time the app is launched and the device is connected to the internet.

Important

- Not all Android smartphones have NFC, though many modern devices do. NFC functionality can vary between devices however and it is not possible for us to test all Android devices currently available.
- To read QR codes, the smartphone must have a rear-facing autofocus camera. Almost all modern Android smartphones have this.
- CSCS Smartcards do not have QR codes and therefore must be read using NFC on a suitable Android device or by using a PC-connected reader.
- It is strongly recommended that clients wanting to purchase Android smartphones ask their vendor for the specification outlined in the section below as a minimum, and obtain just one device initially to ensure in functions reliably (since even devices possessing the requirements below can occasionally have hardware compatibility issues). Reference Point will be happy to evaluate and confirm suitability of any purchased device supplied to us before the client commits to making a volume purchase.
- To use NFC, users need to make sure NFC is enabled on the smartphone before an attempt is made to read any cards (you will find the option to do this is the device Settings).

Compatible Android Devices for use with the Validate App

As a minimum, the following is required to fully utilise the app:

- Android version 4 (Ice Cream Sandwich) or above.
- Ability to connect to the internet (via WiFi or Mobile Data).
- Rear-facing, auto-focus camera.
- Fully ISO 14443-4 13.56 MHz T=CL compliant NFC capability (this is not required if only scanning cards via QR code).

Although by no means an exhaustive list, below are several tried and tested devices confirmed as suitable for reading Validate smartcards (as of February 2017).

- Samsung Galaxy S3 (NOT the Mini)
- Samsung Galaxy S4- S8
- Samsung Galaxy Note 3 & 4
- HTC One X
- HTC One M7
- HTC One M8
- Samsung Galaxy Nexus
- Google Nexus S
- Google Nexus 7 (2014 onwards)
- Sony Xperia T
- Sony Xperia S
- Sony Xperis Z3 Tablet
- Motorola Razr I XT890
- iNew v3
- Blu Studio G LTE

Important

The following devices are **NOT** recommended:

- The Samsung Galaxy S3 Mini - not recommended as its NFC functionality is inadequate for Validate.
- HTC Desire C - this device is fine with NFC on Validate smartcards but is not recommended, owing to its limited autofocus camera, which prevents it from reading card QR codes on Visitor Permits.
- Nexus 7 (pre-2014) - this device is fine for NFC use of Validate smartcards, but is not recommended as it does not have a rear-facing camera which prevents it from reading either card or Visitor Permit QR codes.

It is strongly recommended that clients wanting to purchase Android smartphones ask their vendor for the specification outlined in the section below as a minimum, and obtain just one device initially to ensure in functions reliably (since even devices possessing the requirements below can occasionally have hardware compatibility issues). Reference Point will be happy to evaluate and confirm suitability of any purchased device supplied to us before the client commits to making a volume purchase.

Downloading the Validate App for Android

The App is publicly available on Google Play to download.

First-time Use Only: the first time the app is used on anyone's smartphone it will synchronise with the client's specific version of the Validate database (as there are many versions used by various clients). This is covered in full during user training and is a very simple process involving scanning a QR code available on the Validate site itself.

Downloading the Validate App for iPhone

Since Apple do not currently allow third party apps to utilise the NFC functionality present within the iPhone, this version of the app supports QR code scanning only.

Downloading the iPhone App

The app is publicly available on the Apple app store to download.

First-time Use Only: the first time the app is used on anyone's smartphone it will synchronise with the client's specific version of the SkillGuard database (as there are many versions used by various clients). This is covered in full during user training and is a very simple process involving scanning a QR code available on the SkillGuard site itself.

Validate - Summary of Card Reading Devices and Core Functionality

	Can Read cards 'Online'?	Can Read Cards 'Offline'?	Can Update/Write to Cards?	Provides Full Validate Functionality?	Can check Visitor Permits (QR Codes)
Android Device with NFC & Validate App	✔	✔	✔	✔	✔[2]
PC with a USB Connected NFC Reader & Validate Client App.	✔	✘	✔	✔	✔[3]
iPhone OR Android Device with Auto-Focus Camera & Validate App (no NFC).	✔	✔[1]	✘	✔	✔

1. An offline capability is provided within the Validate QR App, using copies of card data stored on the Android device which is cached/refreshed when cards are checked and the device in online.

2. Provided the device has an auto-focus camera, Visitor Pass QR Codes can be easily scanned, otherwise the Visitor Pass codes can be manually entered.

3. Visitor Pass Codes can be manually entered or scanned with a QR "Gun".