The need for an additional layer of authentication has never been more vital.

At Swivel we know how important this is. However when deploying risk based security policies the options available for strong authentication have been limited to two-factor authentication only, which in lower risk environments is seen to be overkill and not user friendly.

Unlike many tokenless authentication solution providers, the Swivel platform can be used as a single-factor and/or two-factor authentication system. Our platform enables organisations to tailor the solution using whatever combination they need to fit their security policies and compliance regulations.

**Single factor mode - How does it work?**

The Swivel tokenless authentication platform works by displaying a challenge to the user. The user is then required to respond with the correct response in order for authentication to take place.

In single-factor mode the user is presented with a security challenge in the same screen that they enter their one-time code. This is generally implemented within a browser, where an image is presented within the authentication dialogue.

**PINpad**

PINpad uses 10 separate images to represent the security string. The images may be arranged in any desired pattern.

These images are then combined within the authentication form to present a scrambled pin pad.

The PINpad interface enables the user to authenticate by selecting the number on the numeric pad that represents their PIN.

When the user selects the digits that represent their PIN (using a mouse, or touch), a one-time-code is generated.

The PINpad works by taking the user input, and scrambling it before sending the code to the Swivel server, creating a secure method of input to combat keyboard logging.
**Customisations**

Both the PINpad and click-less PINpad can be customised in a number of ways including:

- Fonts
- Background
- Size of buttons
- Location of buttons
- Shape of Buttons

In addition to the click/touch PINpad the interface can also be configured to detect the mouse pointer. In this mode, simply hovering the mouse pointer over a number for 2 seconds, will select the number. This means that there is no key press or mouse click to trigger a key log or screen grab.

**Integration**

PINpad integration requires the ability to present the challenge, the PINpad, to a user.

The PINpad interface works across all browsers, and platforms including mobile. The PINpad is presented using a combination of HTML and JavaScript.

When a user accesses the sign-in page of an application, or VPN, they will be challenged with the PINpad. The code generated by the PINpad is sent to the Swivel core for validation. If the code is correct, they will be granted access; failure will prompt for a new code.

The PINpad integration is available for most leading VPNs, web applications (OWA, SharePoint) and cloud solutions (Office365, Google, Salesforce).

More detailed information can be found at [kb.swivelsecure.com](http://kb.swivelsecure.com)