Approach to Vendor Authentication

Detlef Houdeau, Amit Kumer Meher

Infineon Technologies AG,
Am Campeon 1 – 12
D 85579 Neubiberg

Detlef.Houdeau@infineon.com,
Amit.Meher@infineon.com

1 Background

With the remarkable and ever increasing technology growth, we need various products and services from different vendors, such as:

- Home appliances
- Furniture
- Mobile
- Internet

To deliver these products and provide services, representatives from concerned companies visit our place. We somehow need to ascertain if the person visiting is an authentic representative from the concerned vendor. In many countries, there are cases where an imposter visits as a company representative and indulge in theft or even murder of the persons at home.

2 Objective

The main objective of the Vendor Authentication Technique is to prevent customers from being cheated by impostors visiting them as a customer support official of a certain organization.

2 Method

Current Solution:

To examine the authenticity of the vendor representative the customer generally asks the vendor representative to produce an Office ID Proof and Government ID Proof. However, this procedure may not always be secure enough and the customer may
become a subject to fraud in lieu of fake ID Proof provided by the so called vendor representative.

**Proposed New Solution:**

Following are the steps need to be followed by the customer and the vendor representative there by visiting the customer place in person for a successful establishment of vendor authentication. Figure 1 gives a pictorial representation of the same.

1. The customer will ask the vendor to provide his/her official ID or registered mobile number.
2. The vendor representative provides the same detail asked by the customer.
3. The customer will send an SMS to SMS Server, which is supported by the vendor for vendor authentication procedure.
4. The SMS Server will check the authenticity of the vendor representative’s official ID or mobile number and will generate a secret code.
5. The SMS Server will send one SMS to the customer with the necessary detail about the vendor representative and the secret code.
   a. Name
   b. Gender
   c. Designation
   d. Any Government ID number
   e. Visible identification mark
   f. Photo (Optional)
6. The SMS Server will send another SMS to the vendor representative with mobile number of the customer and the secret code.
7. The vendor representative can now communicate the alphanumeric secret code information to the customer to establish his/her authenticity to the customer.

**Setup Required by Vendor:**

For all vendors who want to extend this trusted level of service providing mechanism to their customers they need to setup an environment for this new approach of vendor authentication.

- Need to have a SMS Server with some customer support numbers for receiving customer SMS as an enquiry. The customer support numbers should be made publicly known through various advertising media.
- All vendor representatives of the vendor shall be registered at the SMS Server with their office ID, mobile numbers, Name and other necessary details.
- SMS Server should be capable of processing the query received as an SMS from the customer and forward necessary vendor authentication information to both the customer and the vendor representative visiting the customer.
- Customers shall have the appropriate knowledge of using the vendor authentication procedure.
Choices of SMS formats:

- VA ID <ID Number>
- VA MOB <Mobile Number>

Advantages:

1. Easy to authenticate the vendor representative with little knowledge on usage of mobile sms.
2. The vendor organization can keep a track of time on vendor representative’s visit to customer place.
3. Vendor authentication can be possible for conversations done on phone/mobile between customer and vendor.
4. Prevention of Fraud vendor representative visit to customer can bring honour to organization reputation.

Disadvantage:

1. Not Cost effective as it requires sophisticated setup and skilled man force to support vendor authentication.
2. Vendor authentication with request for photo of the vendor representative’s can be time taking.