

# The experience gained from OCTAVE user trials with Findomestic remote banking

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*'Next Generation User Authentication by Voice Biometrics? Ready to Market!'*

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OCTAVE gives its new TBAS system to a group of workers in order to test it as potential users and then they can report their impression or suggestion to improve it.

In the real-life environment of FINDOMESTIC trial, mixed methods are used to gather qualitative and quantitative data through self-documentation, interviews and automatic data log recording mechanisms set up by researchers.

Participants that took part to trial have the following characteristics:

- *50 volunteers*
- *recruited from employees, registered to simulate the access to the secure online banking services*



Findomestic End-Users involved in the trial are employees



Informative material that has been published on the Company Intranet Website to invite the volunteers inscription



Volunteers' names are collected and registered

All users have to fill in a survey to outline the end-users panel and to report feedback about test executed



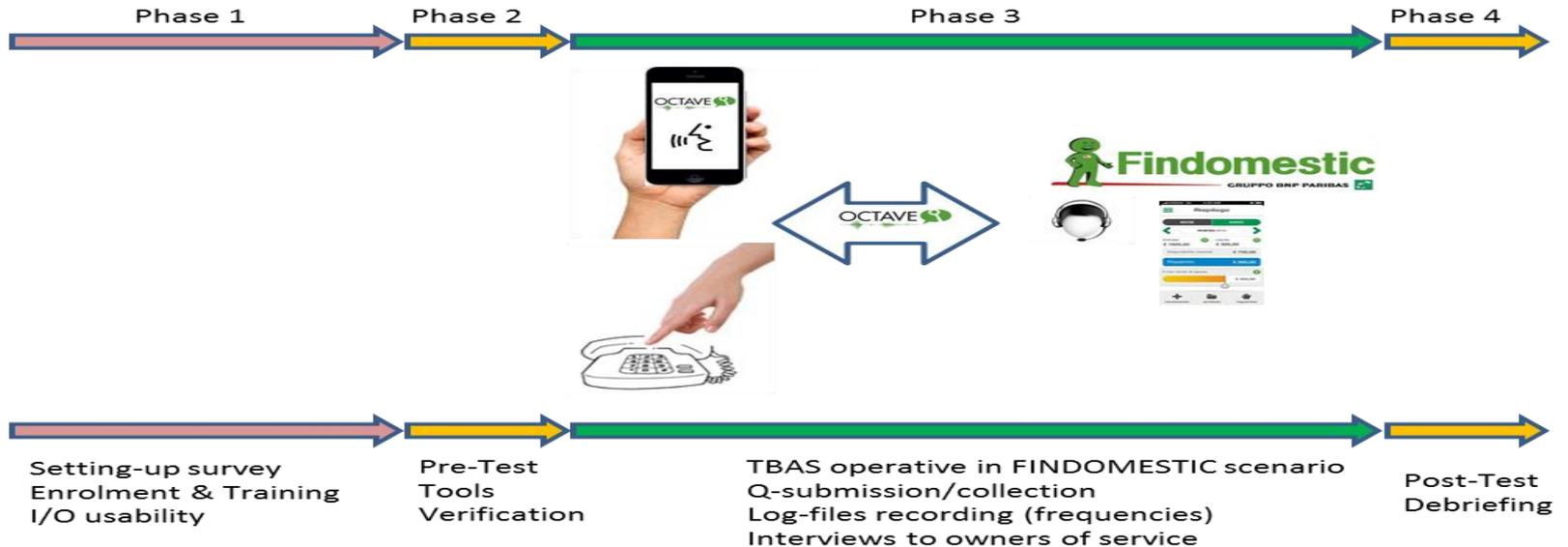
Volunteers receive training material



Each volunteer signs a specific privacy agreement

Specifically were identified 4 phases through which the assessment of the study variables will be made:

- PHASE 1: Setting up field work
- PHASE 2: Pre-test
- PHASE 3: In-field trial
- PHASE 4: Post-test



# Test material (1)

 FINDOMESTIC TRIAL  
 Pre-study Questionnaire

**PERSONAL INFORMATION**  
 (SELECT WITH A X)

Gender	MF
Age	From 18 to 65 in ranges (18-25, 26-35, 36-45, 46-55, oltre 65)
Role	Headquarter or Network
Education	
Type of mobile device that will be used in the trial	Owned, company one, both

**ADDITIONAL INFORMATION QUESTIONS ON MOBILE DEVICE**

QUESTION	OPTIONS
Type of Mobile device	Operative System
Which protection mechanism do you use on your smartphone?	a) None b) PIN (4 digits or more) c) Password (characters and numbers) d) Pattern lock e) Face recognition f) Fingerprint recognition g) Other (Please specify) a) It's too much of a hassle / takes time b) There is nothing on my phone that I need to hide c) No one would care about what's on my phone d) In an emergency, others can use my phone e) I've never thought about f) Other (please specify)
<b>IF NO AUTHENTICATION</b> Why do you not use any protection mechanism? (choose all that apply)  <i>In this case of no authentication selected additional data collection ends here.</i>	

000000002	2017-05-08 15:51:25	5: VERIFY	accepted	2,4317002
000000067	2017-05-08 15:51:43	5: VERIFY	accepted	1,4838305
000000012	2017-05-08 15:57:19	5: VERIFY	accepted	1,2127622
000000002	2017-05-08 16:00:54	5: VERIFY	accepted	2,2551632

20	cancelazione	mobile	silenzioso	12/06/2017	16,35	ok
25	cancelazione	mobile	silenzioso	12/06/2017	16,35	ok
25	iscrizione	mobile	silenzioso	12/06/2017	16,37	ok
25	accesso	mobile	silenzioso	12/06/2017	16,38	ok
25	cancelazione	mobile	silenzioso	12/06/2017	16,39	ok
28	iscrizione	mobile	silenzioso	12/06/2017	17,05	ok
28	accesso	mobile	silenzioso	12/06/2017	17,06	ok
28	cancelazione	mobile	silenzioso	12/06/2017	17,07	ok

ANNEX 4 – USER'S MANUAL



Progetto OCTAVE: servizio di autenticazione tramite Biometria Vocale



Manuale Utente

## Test material (2)

**Questionnaires:** FINDOMESTIC participants have provided basic demographics and information before the enrolment phase. Questionnaires have been used to assess the experience of FINDOMESTIC employees after they have used the TBAS along the trial period.

**Usage activity logs.** Logs consist of usage events automatically recorded by the FINDOMESTIC IVR while interacting with the TBAS.

**Excel Files** used to summarize each test result.

**Focus group.** Participant end-users who have shown significant or curious usage patterns have been invited to attend a focus group or a single interview.

**Others.** A dedicated email address has always been available for the entire duration of the in-field trial, to assist in collecting information about the daily working life of end-users.

### SECTION A

Please to express your opinion on the OCTAVE Interactive Voice Authentication System (AVO) by indicating your level of agreement with each of the following statements.

Usability	Completely disagree			Completely agree	
	1	2	3	4	5
U1. Generally speaking I'm satisfied with the AVO.	1	2	3	4	5
U2. The access procedure is clear and understandable.	1	2	3	4	5
U3. AVO system is slow.	1	2	3	4	5
U4. AVO system is reliable.	1	2	3	4	5
U5. The AVO system correctly recognizes my voice.	1	2	3	4	5
U6. The phrases given by the AVO system are too long.	1	2	3	4	5
U7. It is difficult to switch between Deleting, Editing, or Updating Data procedures.	1	2	3	4	5
U8. The language used by the AVO system is not very understandable.	1	2	3	4	5
U9. Generally the interaction with AVO is boring.	1	2	3	4	5
U10. Generally, interaction with AVO is tiring.	1	2	3	4	5
U11. The AVO system sometimes stops unexpectedly.	1	2	3	4	5
U12. It is difficult to resume the access procedure in case of voice recognition error.	1	2	3	4	5
U13. It's easy to learn how to use AVO.	1	2	3	4	5
U14. It's easy to use AVO.	1	2	3	4	5
U15. The passphrase is not easy to remember.	1	2	3	4	5
U16. The passphrase is appropriate to the purpose.	1	2	3	4	5

## Focus group results



Focus Group revealed a global positive experience using TBAS, in detail:

- Voice password always available, with perception of security
- Voice not the only way to access to Home Banking: possibility to have alternative systems , may be difficult use voice in public (road, bus ...), passphrase lived like a password
- The group agrees on the possible use to access to information services, for service like money transfer more security is required, but they are available to more complex enrollment procedures, like Hybrid mode.
- The use of Biometric access is strictly related to frequency of use: more frequent usage, more utility is perceived
- Highly interested to use voice to substitute traditional password to access PC and company applications