TypeWATCH. e-Biometrics Security.

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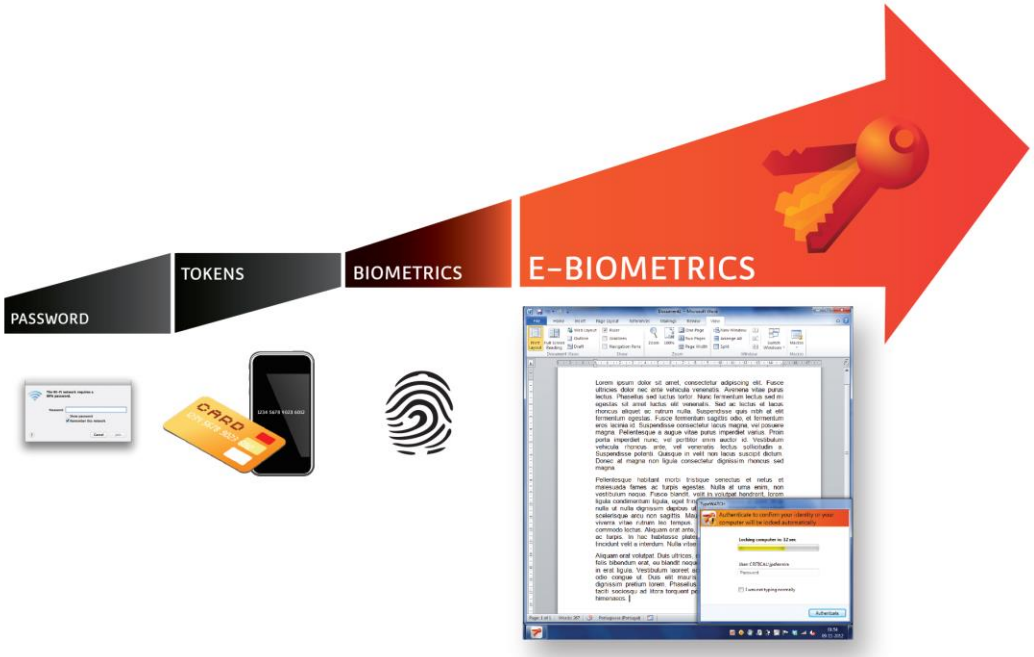

HOW SECURE ARE YOUR DIGITAL IDENTITIES?

TypeWATCH

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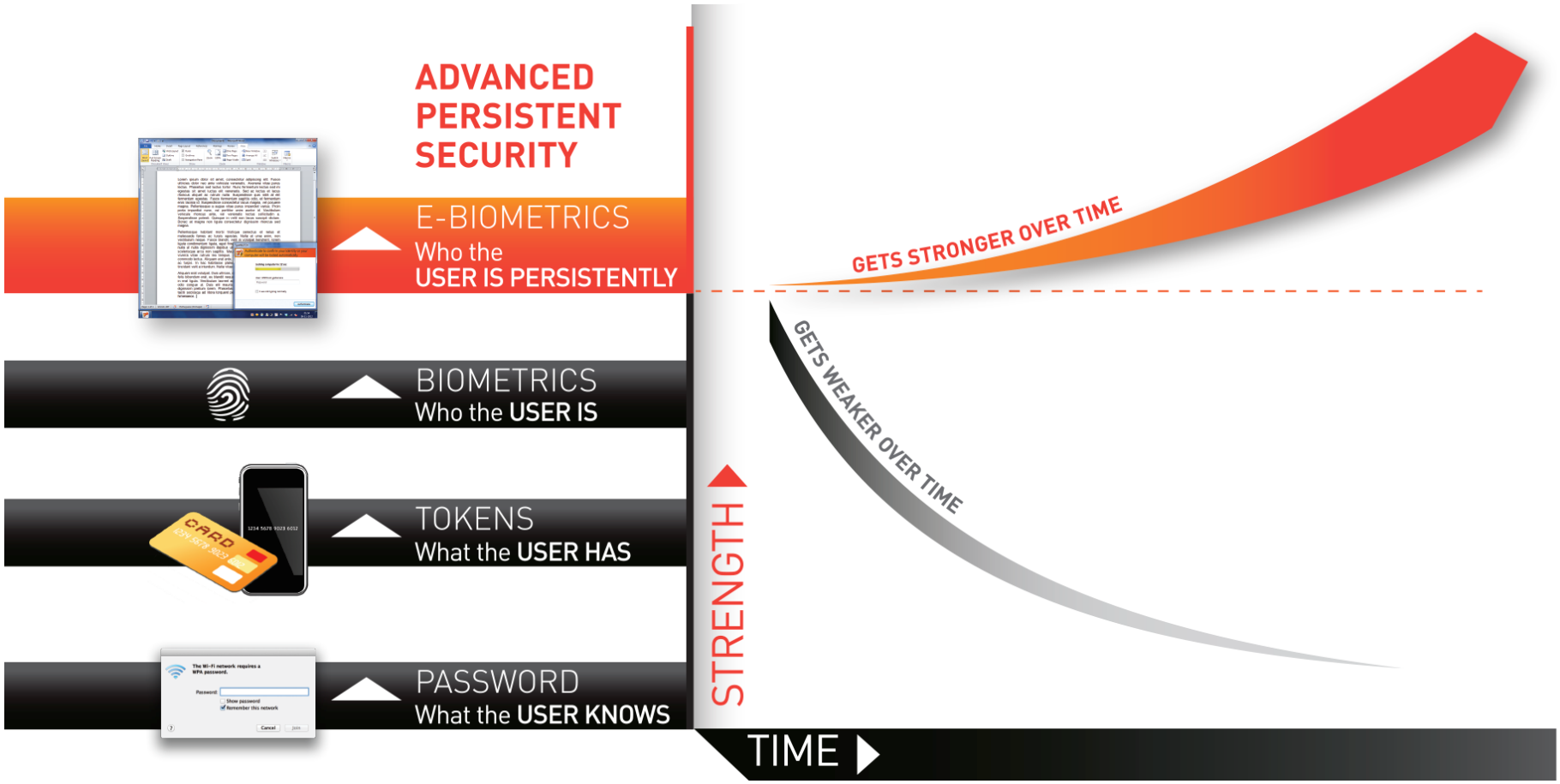
How secure are your Digital Identities?



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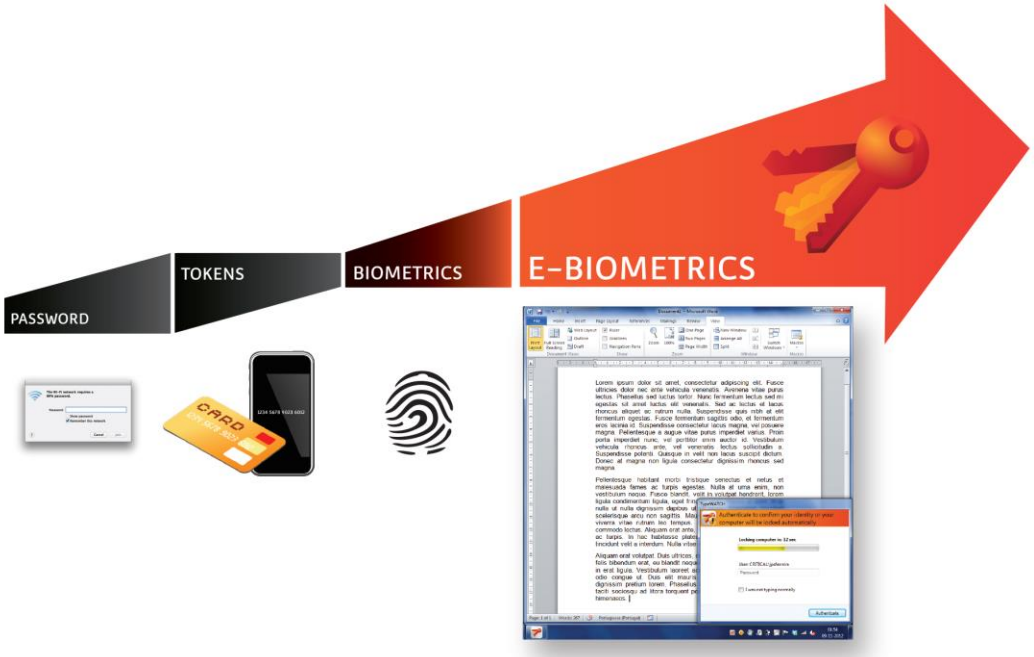

WHAT IS TYPEWATCH?

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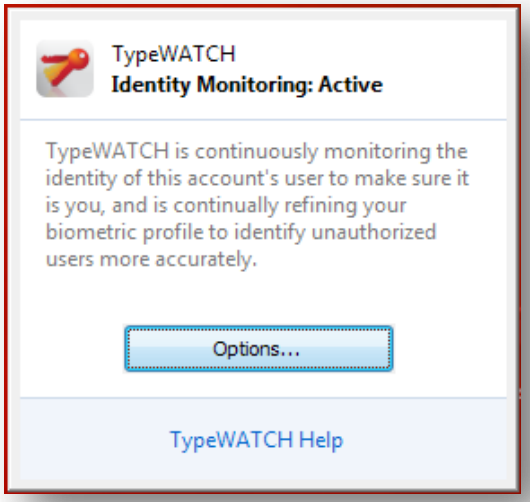
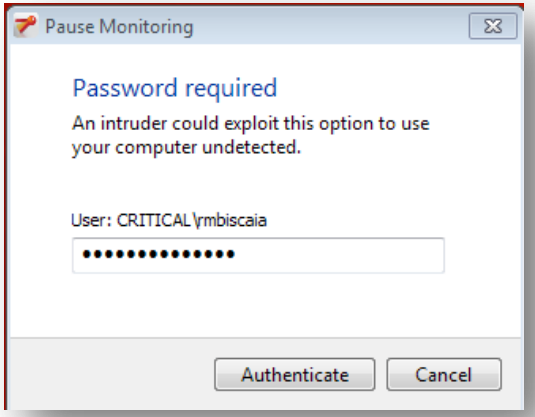
What is TypeWATCH?

- Is an advanced persistent authentication solution that:
  - Monitors for identity theft attempts by means of analyzing the typing patterns of each user
  - Enhances security with a 98%+ accuracy in identifying users solely by the way they type
- Is a silent revolution in personal security
  - Continually verifies users' identities as they type…
  - …enhancing the link between real and digital identities
- Is completely transparent
  - Not even noticeable to the user
  - Runs in the background, monitoring the typing rhythms produced by the legitimate users in their daily routine (and never asking for dedicated text input).





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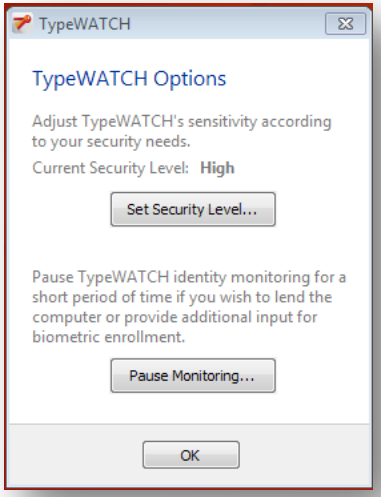
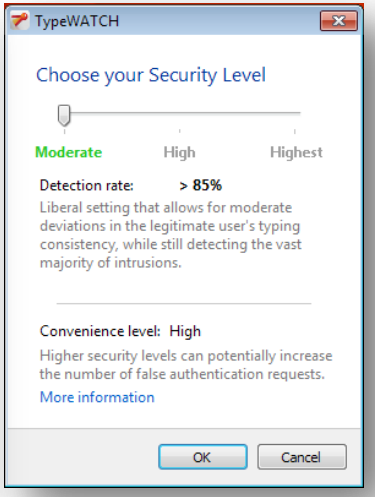
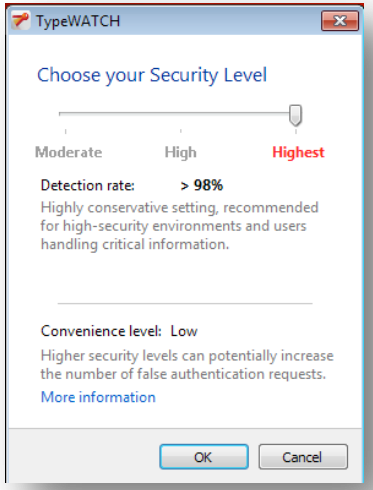
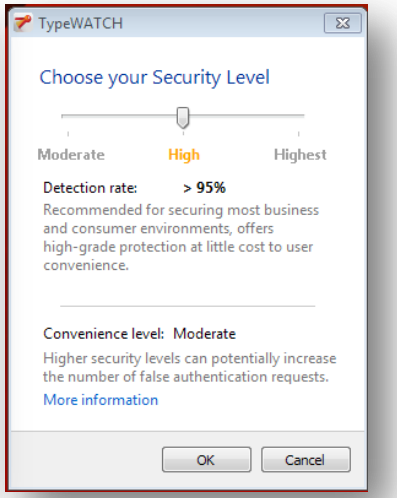
What is TypeWATCH?

- Has no hardware requirements
  - It has no impact on how one normally uses productivity tools such as when e-mailing or word-processing.
- Bulletproof
  - Marginal false acceptance rate
  - Increases strength with every successful login
  - Continuous security post-login (inside the perimeter)
- Flexible Enrolment and Roll-out
  - Provides immediate or gradual enrolment
  - Can be gradually or instantaneously deployed to millions of users
  - Complements every IDS already owned by adding a biometric security alarm layer









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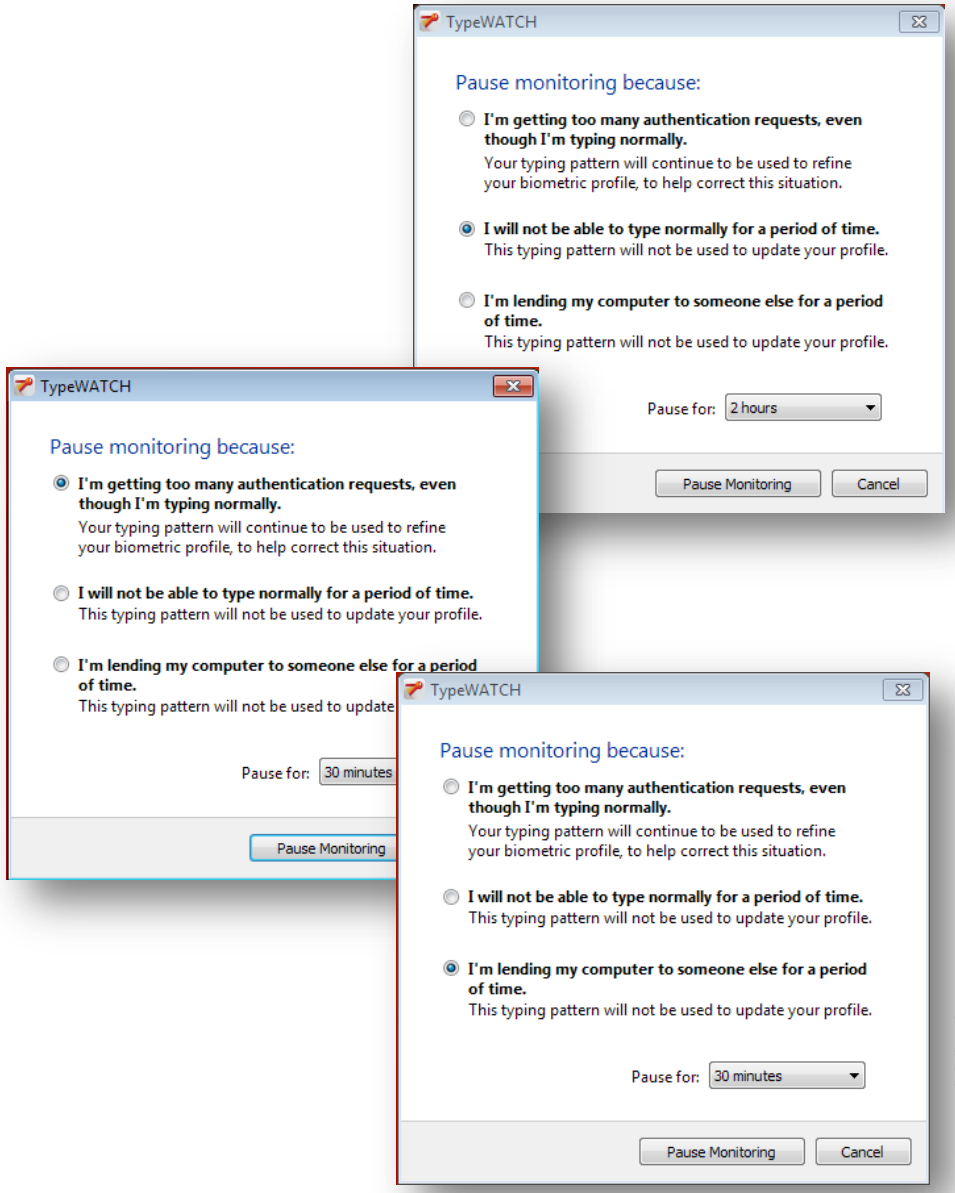
What is TypeWATCH?

- User friendly
  - Works in the background as if it did not exist
  - More accepted by users than invasive physical biometrics

- Low cost
  - Easy to deploy, easy to manage
  - No specialized hardware sensor or device is needed: the keyboard is the sensor
  - Real-time and persistent e-Biometrics software-only solution



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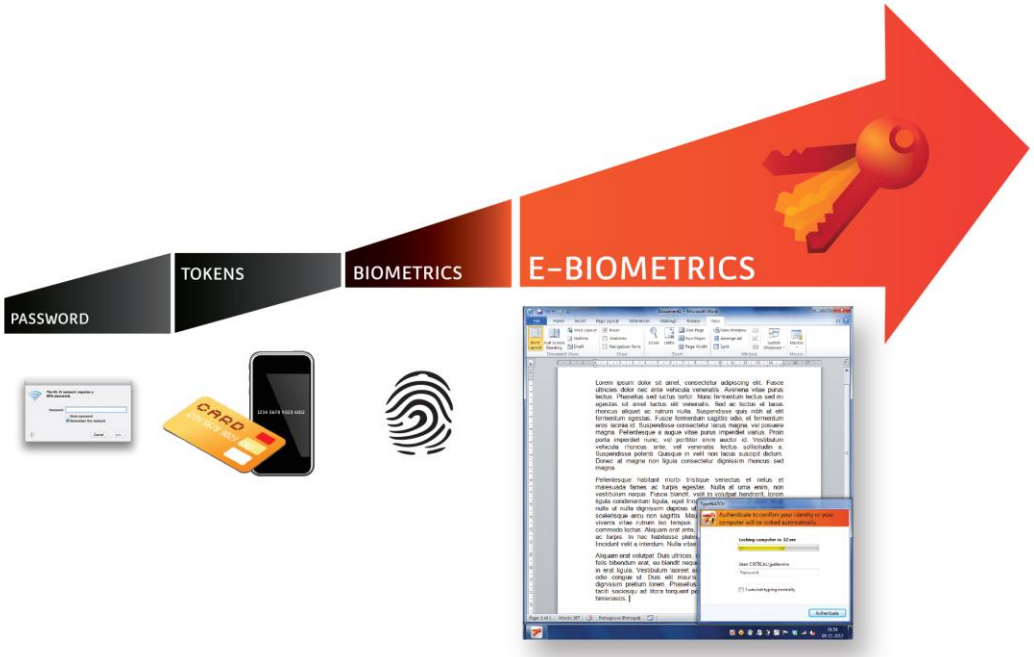

HOW DOES TYPEWATCH WORK?

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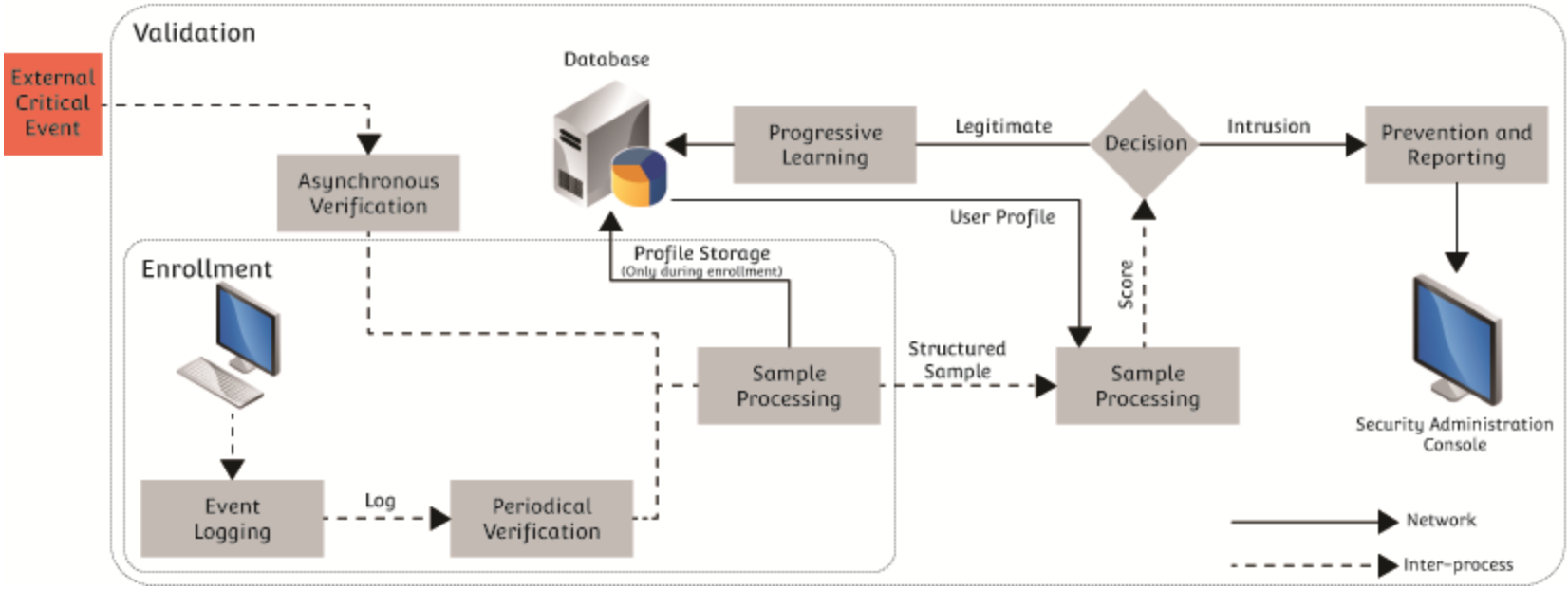
Operations

- Profiling, Enrollment and Persistent Identity Validation
  - The user is not required to type dedicated text nor to use dedicated APP
  - Once the TypeWATCH has gathered enough typing rhythms to built a first reliable biometric profile, the system is ready to start
  - The profile is built dynamically and is constantly being automatically being updated



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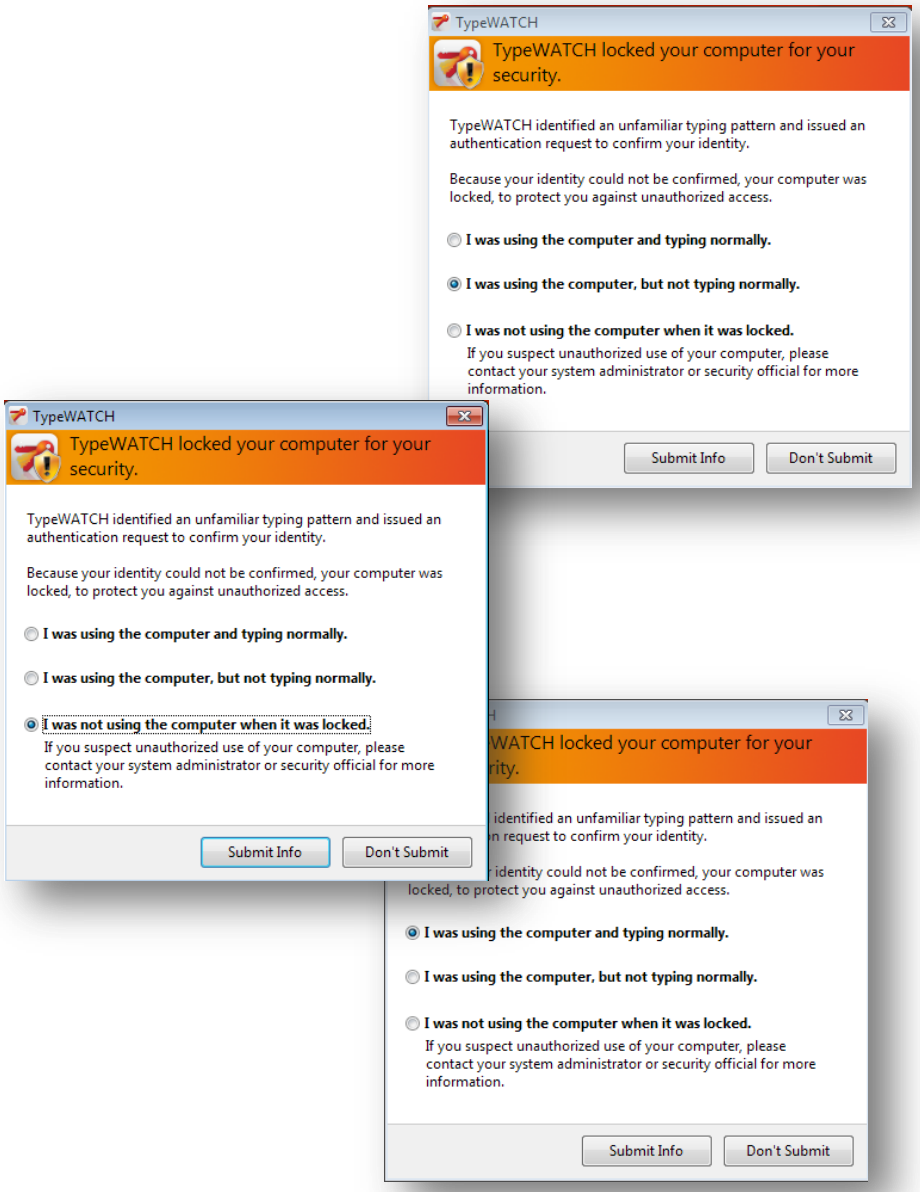
Safety

- Profile theft and text reproduction are not a threat as Keystroke identifiers and information are:
  - Stored as a hash value
  - Masked before hashing
  - Unique to each user
  - Sent to the server in large chunks of data
  - With no regard to the sequence they were originally typed

- TypeWATCH
  - Does not register what is being typed. Only unique typing rhythms:
    - Dwell times - time elapsed with a key pressed down;
    - Flight times - time elapsed on the travel between consecutive keys
  - Offers a comprehensive set of Monitoring and Auditing capabilities
    - For compliance purposes



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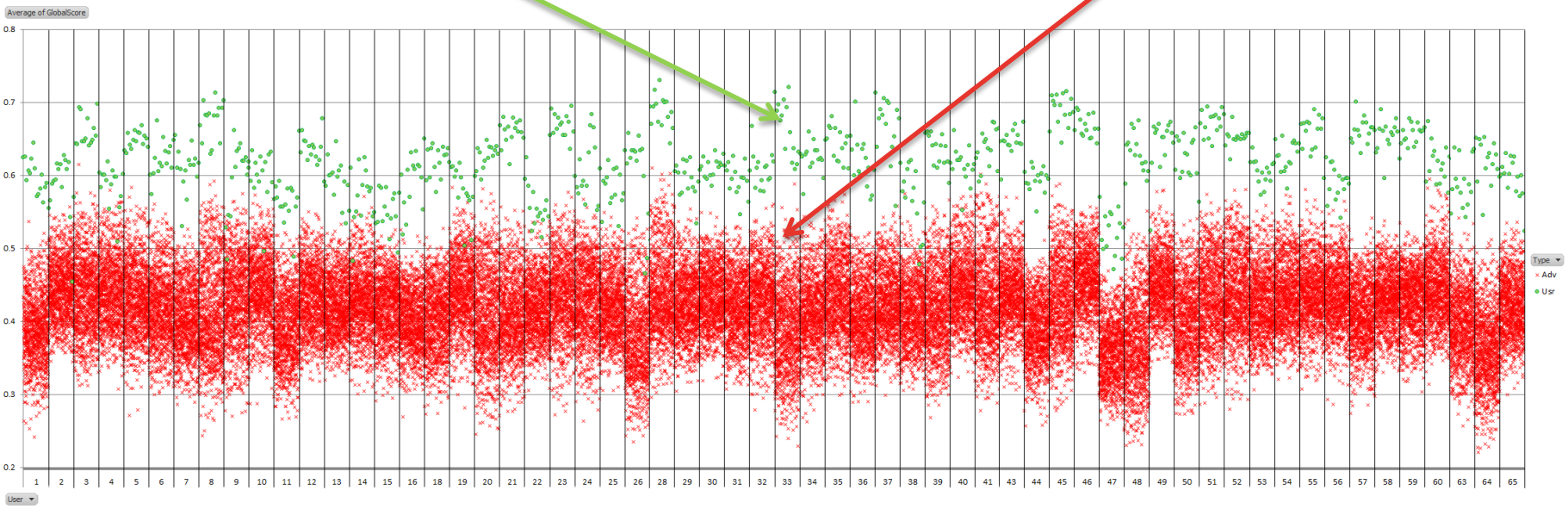
Accuracy

Legitimate Users

Intruders



Accuracy	Labeled Yellow	Labeled Orange	Labeled Red
99.69%	3.81%	16.49%	79.39%

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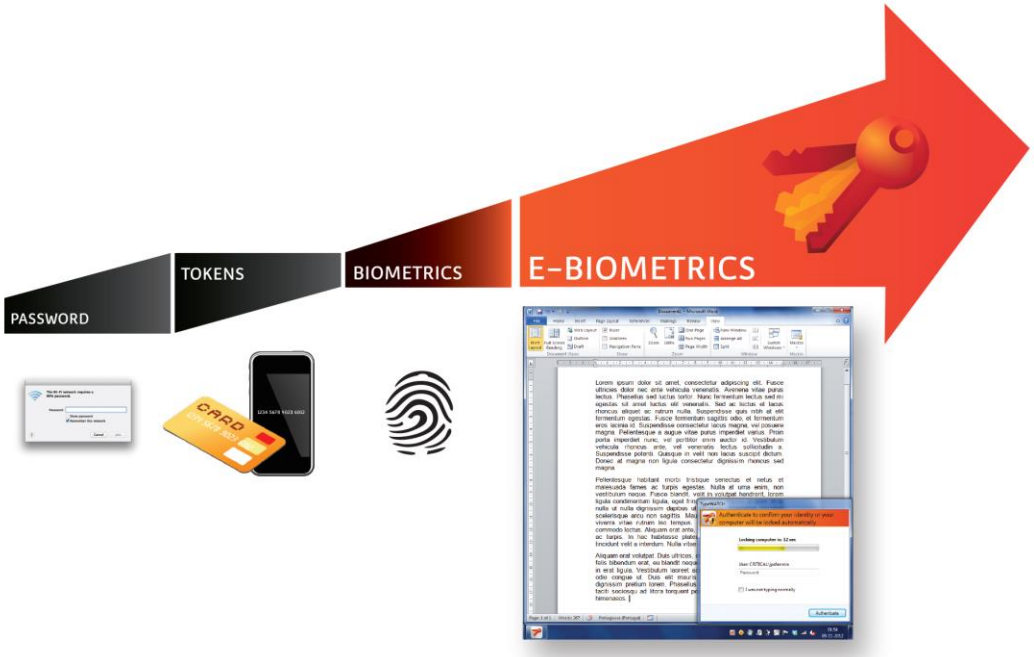

6 REASONS WHY TYPEWATCH?

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6 reasons why TypeWATCH

1. It's Precise
   - as it delivers 98% plus accuracy and makes it virtually impossible to mimic another person's typing pattern

2. It's Persistent
   - as it is constantly assessing typing samples against a legitimate user's stored dynamic pattern

3. It's Dynamic
   - as it offsets tiredness, switching and or sharing of computers / keyboards, mood, influence of alcohol and medications etc, and sets individual thresholds to every user to increase performance

4. It' Simple
   - as there is no special hardware needed as with other biometrics - a standard keyboard is sufficient

5. It's Safe
   - as data verification is provided between the input (keyboard) to the matching algorithm (even with remote desktop typing)

6. It's Auditable
   - as an intruder can be identified by means of matching the typing sample against the profile database.

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