Mobile Security fase 2

attacchi mirati e l'uso di app per accedere a servizi cloud richiedono un approccio diverso

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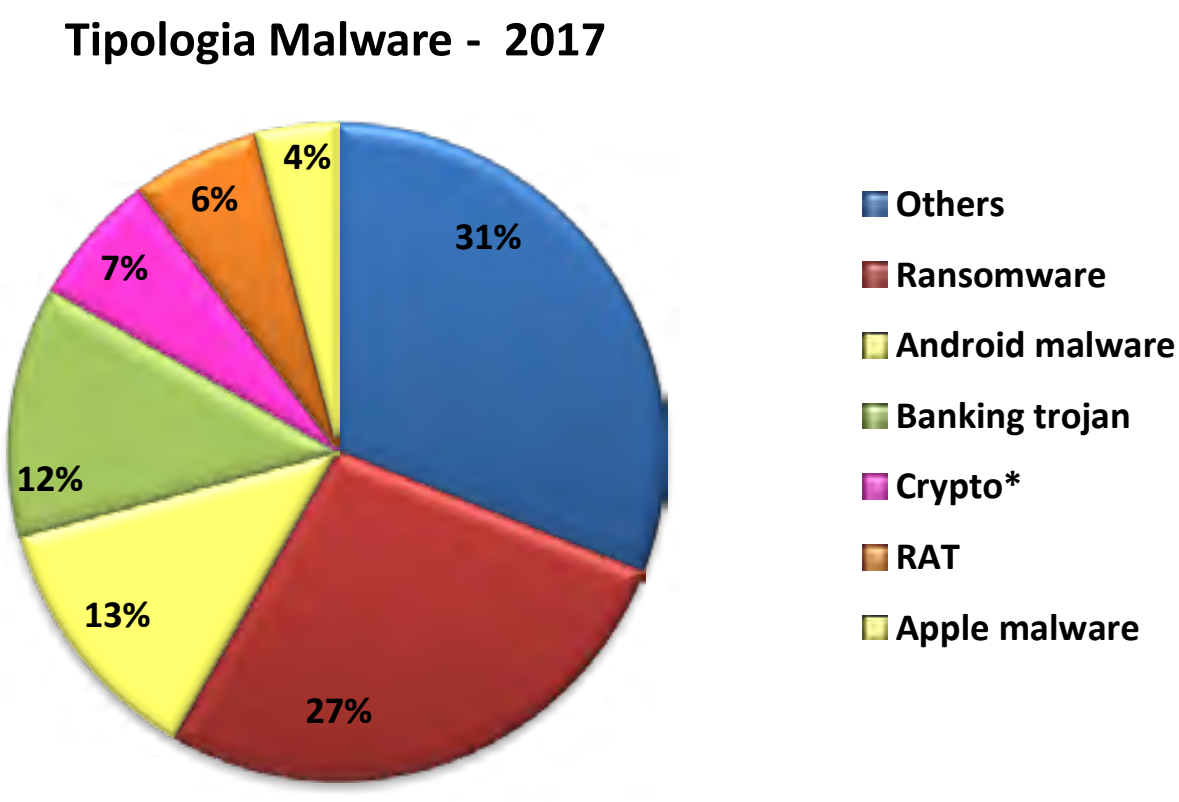
Perché ne parliamo…

- Le minacce*:
  - **Variety of data & multiple sensors**
  - **Personal device, always ‘on’**
  - **Different types of identifiers**
  - **Mobile and connected**
  - **Possibility of tracking**
  - **Limited physical security**
  - **Limited user interfaces**
  - **Limitations of app developers**
  - **Use of third-party software**
  - **App market**
  - **Cloud storage**
  - **Online Social Networks**

* Fonte: Privacy and data protection in mobile applications - Enisa

20% del totale…



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Privacy Risk Management

…mobile apps may hide risks (and accountability obligations), dependingon the overall context of the processing of personal data…(*)

GDPR PRINCIPLES	INDICATIVE PRIVACY RISKS	INDICATIVE REQUIREMENTS
Lawfulness, fairness and transparency Art.5(1)(a)	Unlawful, excessive and incorrect processing (e.g. due to permissions to unauthorised parties to access personal data through the app).	App providers/developers should make sure that they have a legal basis for the processing of personal data. App providers/developers should inform the data subjects properly about their data processing activities. This may help the users to understand what personal data is collected by them and why. App providers/developers should be aware of data subject rights such as rights to access, rectification, erasure, data portability. They should implement appropriate processes to support these rights.
Purpose limitation Art.5(1)(b)	Excessive collection and sharing of data (e.g. due to multiple sensors of mobile devices that are activated without need).	App providers/developers should use the data for a specific purpose that the data subjects have been made aware of and no other, without further consent. If the personal data is used for purposes other than the initial, they should be anonymised or the data subjects must be notified and their consent must be re-obtained.
Data minimisation Art.5(1)(c)	Excessive processing (e.g. due to use of third party libraries).	The minimum amount of data for specific processing should be processed by app providers/developers. For instance, they should not store the exact location point when a generic location area is sufficient for their app functionalities.
Accuracy Art.5(1)(d)	Outdated data pose identity theft risks.	Rectification processes into data management should be embedded in the app design.
Storage limitation Art.5(1)(e)	Undue data disclosure (e.g. due to cloud storage services used by mobile app developers).	Personal data must not be stored longer than necessary. App providers/developers should provide the "right to be forgotten" to the data subjects. This data must be kept only for a certain period of time for non-active users.
Integrity and confidentiality Art.5(1)(f)	Unlawful data processing, data loss, data breach, data destruction or damage .	App providers/developers should ensure that the security requirements of the personal data and the processing systems are met. This encompasses integrity and confidentiality as well as availability and resilience (Art. 35(1)(b) GDPR). For instance, the appropriate control access mechanisms should be embedded into the apps infrastructure in order to detect or monitor unauthorized access to the data.

* Fonte: Privacy and data protection in mobile applications - Enisa

Data Protection Goals… by design

Confidentiality, Integrity & Availability…

&

Unlinkability, Transparency, and Intervenability

- Unlinkability:
  - privacy-relevant data cannot be linked across domains that are constituted by a common purpose and context,
  - privacy-relevant data are unlinkable to any other set of privacy-relevant data outside of the domain
  - is related to the principles of necessity and data minimisation as well as purpose binding

Si realizza mediante: data minimisation, separation of contexts (physical separation, encryption, usage of differentidentifiers, access control), anonymisation (aggregation or adding noise for ensuring that the data cannot be linked to a person and that persons cannot be singled out), pseudonymisation, erasure of data.

Data Protection Goals… by design

Confidentiality, Integrity & Availability…

&

Unlinkability, Transparency, and Intervenability

- Transparency:
  - all privacy-relevant data processing including the legal, technical and organisational setting can be understood and reconstructed at any time
  - the actual, the planned and the time after the processing, to know what exactly happened
  - it is a prerequisite for **accountability**

Si realizza mediante: logging, reporting, understandable documentation covering technology, organisation, responsibilities, source code, privacy policies, notifications, information of and communication with the persons whose data are being processed

Data Protection Goals… by design

Confidentiality, Integrity & Availability…

&

Unlinkability, Transparency, and Intervenability

- Intervenability:
  - intervention is possible … by those persons whose data are processed
  - individuals' rights: the rights to rectificationand erasure of data, the right to withdraw consent or the right to lodge a claim or to raise a dispute to achieve remedy
  - control the data processor and the used IT systems to influence or stop the data processingat any time

Si realizza mediante: processes for influencing or stopping the data processing, manually overturning an automated decision, data portability to prevent lock-in at a data processor, single points of contact, switches for users to change a setting (e.g. changing to a non-personalised, empty-profile configuration), deactivating an auto pilot or a monitoring system for some time.

By design… e oltre!

- Ciò che è considerato «by design» è assimilabile alla misura minima
- E' necessario accompagnare alle misure di sicurezza ormai note, di mercato, un approccio specifico di valutazione e gestione dei rischi legati alla privacy
- La buona notizia: non dobbiamo «inventarci» quasi niente di nuovo! E' fondamentalmente l'approccio alla sicurezza che deve essere esteso, sia dentro che fuori il mondo IT

GRAZIE

Domande?

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