

Twitsper, Tweeting Privately Over Secure Connections

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Abstract: *OSN today gives some type of privacy controls to protect a user's shared information from other users, these controls are insufficiently expressive to provides fine protection. We introduce Twitsper to support control over who sees a user messages in Twitter. Twitsper gives privacy controls to the users of Twitter without depending on Twitter to make changes. This is because it is a wrapper in the Twitter that starts or enables private communication while preserving Twitter's originality.*

Keywords: Twitter, video calling, security, Data transmission packet, Private twitting

1. Existing System

Currently, Twitter provides its users only two kinds of privacy controls—the ability to share content with all their followers (using tweets) or with exactly one follower (using direct messages)

2. Disadvantages of Existing System

- Controls aren't sufficiently expressive to provide fine-grained protection.
- No private group communication.

3. Proposed System

In this paper, we introduce Twitsper, a wrapper over original Twitter that provides privacy controls to the users of Twitter without depending on Twitter to make changes. Twitsper gives its users only two kinds of privacy controls—the ability to share content with all the followers (using tweets) or with exactly one follower (using Direct Messages). Twitsper enables users to share content with any group of their followers, without using the followers to change to a new application or OSN.

Advantages of Proposed System:

- Sharing private information with some followers, Twitsper can also be used to segment information and send only relevant information to subsets of followers.
- While Twitsper does not hide content from Twitter itself, some users may desire to do so. This raises a different set of challenges and may impact Twitter's revenue model.
- We created Twitsper to enable users to share content with any subset of their followers without requiring the followers to migrate to a new application or online social network (OSN).

3.1 User Login with Twitter

Twitsper is using twitter authentication to get the user login information and send direct messages to other users. Before send and receive through Twitsper all user must signing into Twitter in their mobile web browser and give Twitsper application the access to read their friends list then send and receive direct message. We need to create another

application in Twitter Developer console that application will be getting information from Twitter user accounts. Through that application we can send and receive direct messages to other twitter users. It is important to get the personal information and direct messages of a user.

3.2 Private Message Send

In this module whenever user wants to send private messages to their friends in a particular group the information are stored in the Twitsper server for later use. In Twitsper Server the message and user list is stored in encrypted format. Because user would not trust the third party server, so whenever user send whispers to their list, the list id and messages to each user in the list is encrypted and stored in the Twitsper server. The message is encrypted with the user id, message id. And the list is encrypted with the message send to each user.

3.3 Private Message Read

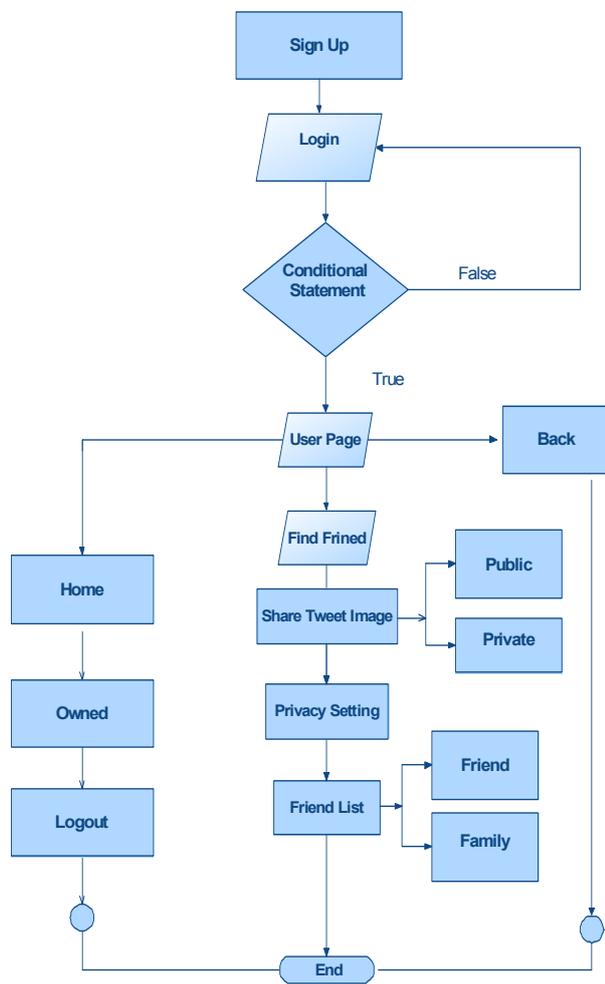
After successful login into Twitsper application user will see the list of whispers he received from his friends. The whispers are encrypted and stored in the Twitsper server, on login into Twitsper android client will read all the direct messages received from his friends in twitter then check the messages with the Twitsper server for verify that the message is send from Twitsper client. If the message is available in the server then it will be loaded into the whisper list. To retrieve the encrypted whispers in Twitsper server user need to decrypt the messages in the server through the message id and user id.

3.4 Private Message Reply

If the user wants to reply to a whisper he can choose the whisper in the list then type the text he wants to reply to that whisper and press send button. While sending the message the entire user in the list which the whisper was send will be fetched. If the reply is send to the entire user in the list, it will affect the user privacy, so the reply whisper is only to the members in the list who already linked with him. Again the whisper and list id is encrypted and stored in the Twitsper server to fetch in other user Twitsper android client application.

3.5 Data Flow Diagrams

1. The DFD is also known as bubble chart. It is simple graphical representation that can be used to represent a system in terms of input data to the systems, various processes carried out on data, and output data is generated using DFD system.
2. DFD is one of the important modeling tools used to model the system components. These components are the system process, an external entity that interacts with the system and the information flow in the system provided.
3. DFD shows how information moves from the system and how its modified by a series of transformation. It is graphical that depicts information flow and the transformations that are applied as data moves from input to output to another system.
4. DFD may be used to representing system at level of abstractions. DFD may be partition into level that represent increases information flow and function details.



UML Diagrams

development. The UML uses mostly graphical notations to express the design of software project.

The UML represents a collection of best engineering practices that have proven successful in the modeling of large and complex systems.

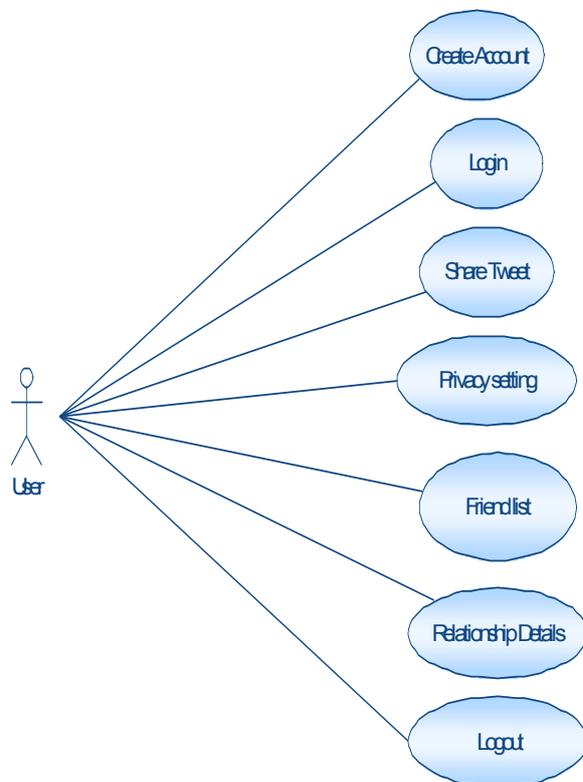
4. Goals

The Primary goals of the UML are as follows:

1. Encourages growth of Object Oriented tools marketing.
2. Support higher level development tools such as collaboration, framework, pattern and component.
3. Integrate better than other applications.
4. Provide user expressive visual modeling technique so that they can develop and exchange meaningfully.
5. Provide extendable and specialized mechanism to extend the core concept in each program.
6. Being independent of certain languages and development program.
7. Provide basis understanding for the modeling languages.

5. Use Case Diagram

A use case diagram in the Unified Modeling Language (UML) is a type of behavioral diagram defined by and created from a Use-case analysis. Its purpose is to present a graphical overview of the functionality provided by a system in terms of actors, their goals (represented as use cases), and any dependencies between those use cases. The main purpose of a use case diagram is to show what system functions are performed for which actor. Roles of the actors in the system can be depicted.



UML is defined as Unified Modeling Languages. UML is general-purpose modeling language for object-oriented software's. This standard is managing, and was formed by, the Object Management Groups. This Unified Modeling Language is standard languages for specifying, Visualization, Construction and documenting the artifacts of software system, as well as for business modeling and other non-software systems. The UML is a very important part of developing object oriented software's and the software

5.1 Class Diagram

In software engineering a Class diagram is known as Unified Modeling Language UML , it is a type of static structure diagrams that describes the system structure by viewing the system classes, operation and also their attributes and their relationships in-between the classes.

5.2 Sequence Diagram

A sequence diagram in Unified Modeling Language (UML) is a kind of interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence Chart. Sequence diagrams are sometimes called event diagrams, event scenarios, and timing diagrams.

5.3 Activity Diagram

An activity diagram usually gives the graphical description of work done stepwise order and it supports for choice, concurrency and iteration in all fields. In activity diagrams, UML it can specify the operations and business modules in stepwise manner workflow of components in a given system. It controls the overall flow of the system.

6. Conclusion

In order to maintain a steady and safe communication via the internet. Twitsper provides privacy controls to the users of Twitter today without relying on Twitter to make changes. This is because it is a wrapper around Twitter that enables private group communication while preserving Twitter's commercial interests. It preserves privacy both from the Twitsper server as well as from undesired Twitsper users.

Reference

- [1]Indrajeet Singh, Michael Butkiewicz, Harsha V. Madhyastha, Srikanth,V. Krishnamurthy, SateeshAddepalli "Twitsper: Tweeting Privately" IEEE 2013.
- [2]Sampath and D. R. Jeske "Analysis of Signal-to-Interference Ratio Estimation Methods for Wireless Communication Systems", Proc. IEEE ICC, pp.2499 - 2503 2001.
- [3]H. Shi, P. K. M. Ho and V. Cuperman "Combined Speech and Channel Coding for Mobile Radio Communications", IEEE Trans. Vehic. Tech., vol. 43, no. 4, pp.1078 -1087 1994
- [4]J. Gozalvez and J. Dunlop "Link Level Modeling Techniques for Analyzing the Configuration of Link Adaptation Algorithms in Mobile Radio Networks", Proc. Euro. Wireless, pp.325 -330 2004.