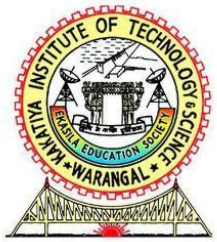

Kakatiya Institute of Technology & Science, Warangal.
Dept. of CSE
Project proposal

IntoNet

A P2P mobile Ad-hoc network for advanced file sharing and messaging.

Project guide:
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Problem statement

Internet provides the best platform for information sharing, but following are some problems, which we may have to bother about when dealing with sensitive information.

- **Data security**

  As everything is shared via Internet, data is not completely secured.

- **Surveillance**

  People connected to internet are subjected to surveillance 24x7.

- **Connectivity**

  Internet connectivity is a big issue when it comes to developing countries like India where 70% population live in rural areas and most are of middle class.

Our Idea

To establish a new way of communication similar to intra-net but, exclusively with smartphones i.e, without any interference of centralized mobile operators, web servers or routing devices.

This can be done by creating a platform to provide following services among devices within proximity using Wi-Fi.

- File sharing (search, download)
- Messaging

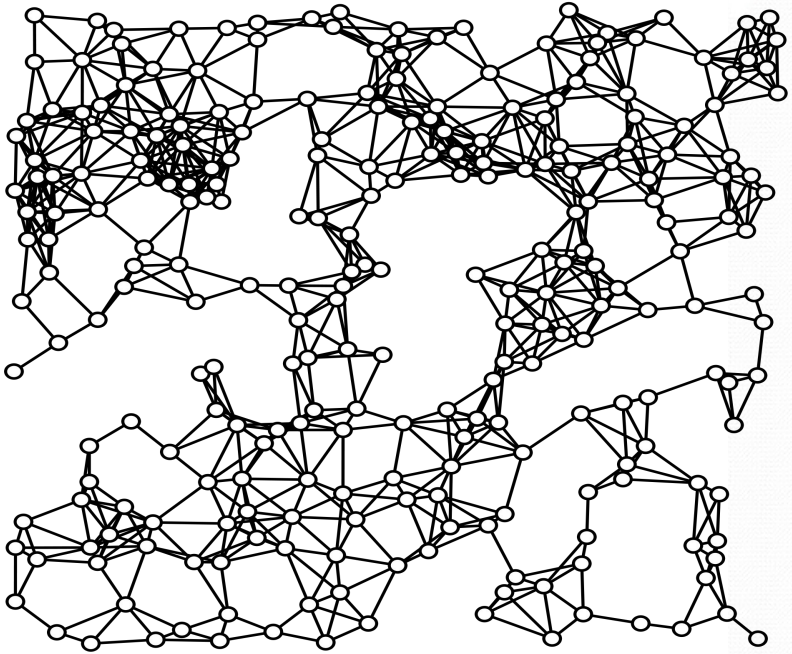
Our target

As the wireless networks have physical distance limitations, we cannot create a complete alternative for Internet but, we can solve the above mentioned problems for devices within a short range.

So, our main targets are

- Corporate offices
- Educational institutions

What is Ad-hoc?



What similar technologies are existing?

- The Serval Project
- FireChat

What's new?

1. Search for any file and if there is any device in your proximity with that file as sharable, you can download the file directly without disturbing the sender.
2. Send message to any of your friends even when they are not in your proximity, which will be forwarded by other devices to reach them.
3. Cleaning the cache for every cycle of 10 MB is done.

What we use?

1. IDE: Android studio
2. Programming in Java,UI design in xml
3. Hardware: Android phone with wifi connectivity
4. Reference: The Serval Project

Architecture

Module 1

1. Announce presence
2. Search nearby
3. Hand shake
4. Exchange

Module 2

Receive or send request for service

Module 3

If not destination, Forward the message to all nearby devices

Database table description

Friend table

Name	ID

Message table

Name	ID	Text	Timestamp

Hide table

File ID

Proximity list

Rank	ID

- Friend table for messaging service
- Message table for storing and retrieving valid messages
- Hide table for hidden files
- Proximity list for storing IDs of the nodes in our proximity

Signal information

Message signal data

Message path	Sender ID	Receiver ID	Message text	Timestamp

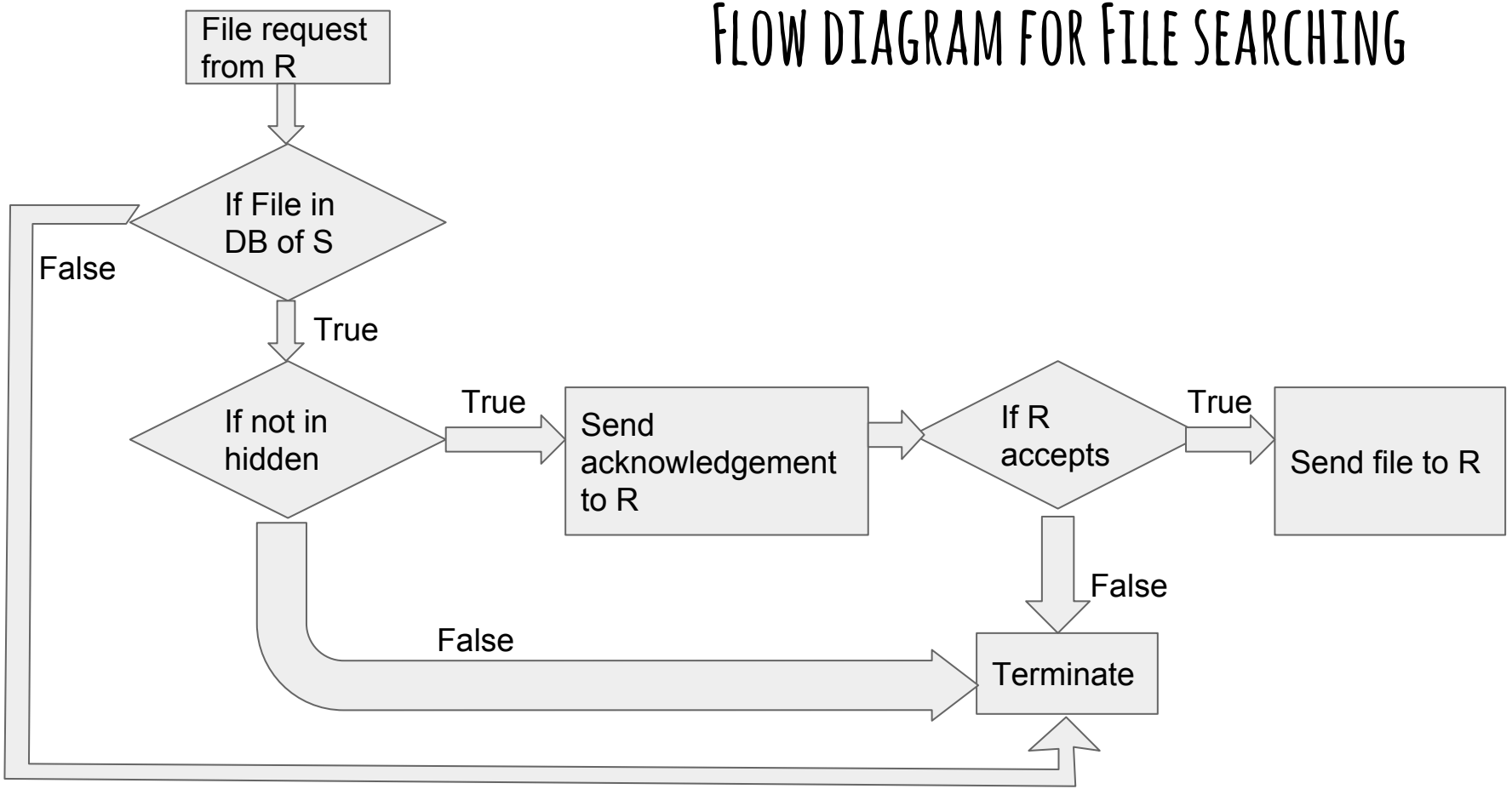
File request from receiver

File name	File type	Receiver ID

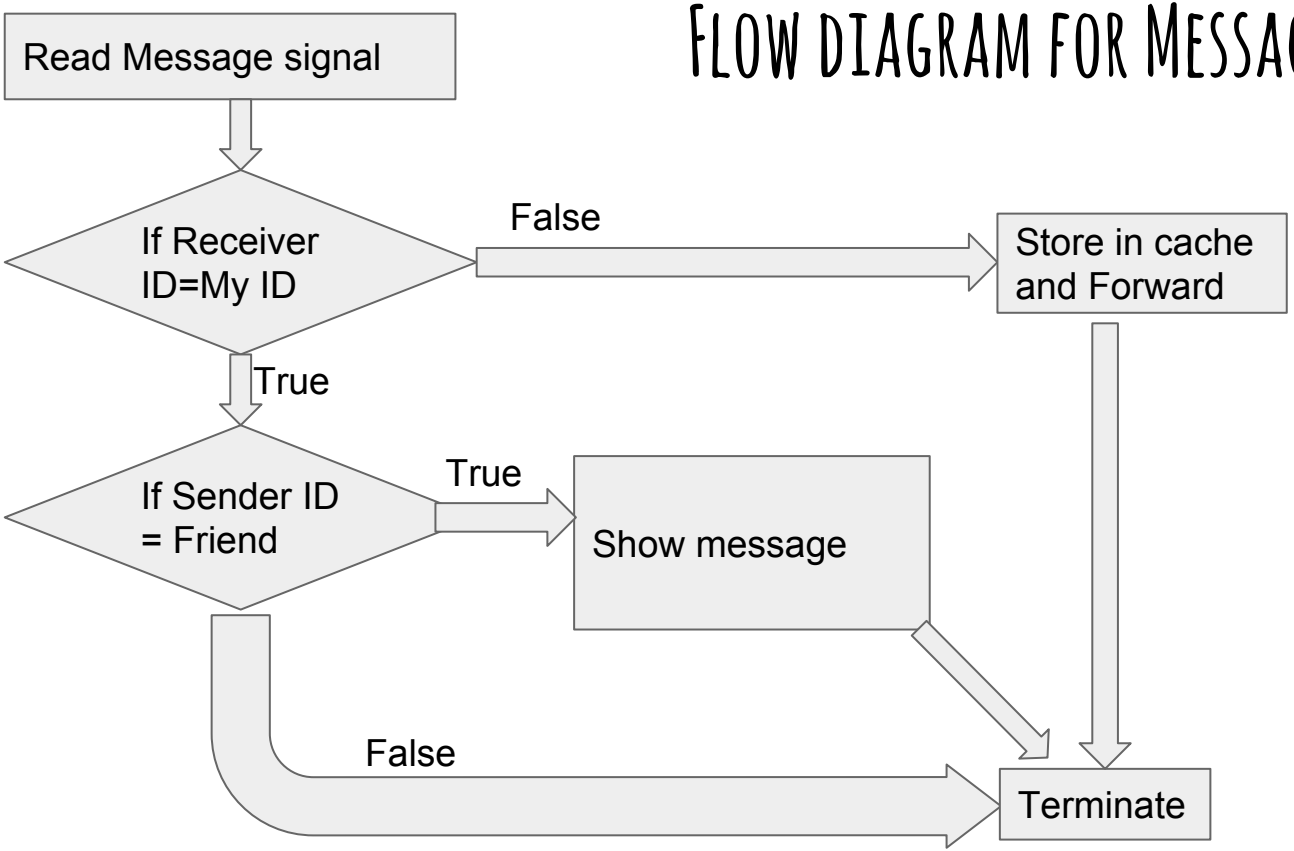
File available acknowledge from sender

File ID	File name	File type	Receiver ID	Sender ID	Timestamp

Flow diagram for File searching



Flow diagram for Messaging

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Making it a practicable and
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Thank you!!