

Project Title

A Java API for unifying ad-hoc Wifi networking

Team Members

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Faculty Sponsor

Dr. Marius Silaghi - msilaghi@fit.edu

Client

Dr. Marius Silaghi - Associate Professor at College of Engineering & Science, FIT

Meetings with Sponsor/Client

None

Progress of current Milestone (progress matrix)

Task	To Do (Completion %)	Peter	Klaus	Michael	Robert
Complete Direct P2P Support	Final integration of Linux components and android integration testing 65%	16%	17%	16%	16%
Complete DHCP option for Ad-Hoc networks	Final testing for joining/leaving networks 80%	20%	20%	20%	20%
Implement Android P2P support	Build from skeleton of Android classes 20%	5%	5%	5%	5%

Discussion (at least a few sentences, ie a paragraph) of each accomplished task (and obstacles) for the current Milestone

- Complete DirectP2P support: Currently Linux P2P support is largely complete and needs to be automated and integrated into the java code. The process and commands to be used are understood and can be reliably done manually.

- Complete DHCP option for Ad-hoc networks: DHCP was decided to be unfit for the scope of the project. A solution by IP pinging and broadcasting was pursued and needs final testing.
- Implement Android P2P support: The structure was decided upon. There are some logistical issues about how to work on it and actually implementing the code, but the Android API is understood and can be worked on more steadily now.

Discussion (at least a few sentences, ie a paragraph) of contribution of each team member to the current Milestone

- Peter Banis: Peter has researched and planned the integration of Linux P2P into the API. He assisted in the initial testing and demo of broadcasting for Linux. Peter also wrote half the evaluation and half the presentation.
- Klaus Cipi: Klaus has researched and planned the integration of Linux P2P into the API. He also helped devise the skeleton for Android P2P. He assisted in the initial testing of broadcasting for MacOS and the demo of broadcasting for Linux.
- Michael Kolar: Michael helped to devise the skeleton for Android P2P. He assisted in the initial testing of broadcasting for Windows 10. He also helped write the progress evaluation. He made suggestions on adjustments to the presentation about future milestones.
- Robert Olsen: Robert helped to devise the skeleton for Android P2P. He assisted in the initial testing of broadcasting for Windows 7. Robert also wrote half the evaluation and half the presentation.

Plan for the next Milestone (task matrix)

Task	Peter	Michael	Klaus	Robert
Create Showcase Poster	25%	25%	25%	25%
Create Ebook Page	25%	25%	25%	25%
Complete Direct P2P Support	25%	25%	25%	25%
Complete IP Discovery	25%	25%	25%	25%
Implement Android P2P support	25%	25%	25%	25%

Discussion (at least a few sentences, ie a paragraph) of each planned task for the next Milestone

- Complete DirectP2P support: Automate the command procedure so that the API can set up and handle connections without manually inputting the commands. There is some difficulty with specifying which method between push button and PIN but this is expected to be easy to resolve.
- Complete IP Discovery: When a device joins a network, it will ping the broadcast IP (255.255.255.255) if possible. If this is not the case, we will ping every IP in the 192.168.X.X range. There is technically an automatic recognition of connected devices on networks for Mac, but we feel it would be more reliable to have the aforementioned procedure for all operating systems.
- Implement Android P2P support: Create API functions based on the pre-existing API capabilities of Android. We must then align them with the Linux API, as this is the main goal of our project. Linux is the only other OS that supports P2P so we aim to align the API's more closely than we were able to with the ad-hoc networks.
- Create Showcase Poster: The design of the poster will likely consist of the system design diagram, operating-system specific notes regarding ad-hoc/P2P capability and other important details, and a short description on the project as a whole. This poster will also conform to the style guidelines depicted on the sample poster. The short description mentioned earlier will establish the Why/What/How factors established on the class website.
- Create Ebook Page: Create the Ebook Page for this project. We will use the template on the senior design website to help create it.

Sponsor Evaluation

- Sponsor: detach and return this page to Dr. Chan (HC 322)
- Score (0-10) for each member: circle a score (or circle two adjacent scores for .25 or write down a real number between 0 and 10)

Peter Banis	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Klaus Cipi	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Michael Kolar	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Robert Olsen	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10

- Sponsor Signature: _____ Date: _____