**Initial Report – GOSSIP**

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1. **Team**

Team name: International Gossipers

Team members:

* Daniel Fomin
* Deniz Etkar

1. **Module**

Module & group number: Gossip – 6

Module implementation: Byzantine resilient random membership sampling

(BRAHMS)

1. **Programming Environment**

Programming language: Go

Operating System: Windows 10

Reasons for choosing Go: Provides extensive support for networking, cryptography and parallel programming (goroutines). Full cross-compatibility support for FreeBSD, Linux, macOS and Windows.

Reasons for choosing Windows 10: It is the OS that was already in use by the team members and they are more comfortable coding in it. Windows Subsystem for Linux (WSL) could not be used due to a well-known issue related to debugging Go language in WSL1. Windows 10 is chosen without loss of cross compatibility thanks to Go language.

See: <https://github.com/microsoft/vscode-go/issues/2505#issuecomment-566600059>

Build system: command provided by Go language tools. will also be available as an alternative build system.

1. **Testing & Code Quality**

* Specifications for both P2P and API will be documented. Unit tests for checking P2P functionality and integration tests for checking API functionality will be prepared according to the relevant specifications.
* 'gopls' language server is used for formatting and diagnostics to ensure code readability. 'govet' is used for checking the correctness of the code to ensure code quality.
* Wireshark for packet sniffing and network debugging.