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my_teams communication protocol rfc

Abstract

This document describes the communication protocol between the server and its clients.

Status of this memo

This document is not an Internet Standards Track specification; it is published for informational purposes.

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Tables of contents

1.Introduction	
2.Communication protocol	
2.1 Client commands	
2.2 Communication scheme	
3.Communication codes	
4. Security Considerations	
5. Acknowledgments	-
6.Author's Adresses	,,,

1. Introduction

The goal of this rfc documentation is to describe the communication protocol that the server and the client send and receive in our myTeams application.

The my teams application has the goal to reproduce the teams application by microsoft, our application will not have a graphical interface, it will be only usable with a command line interpreter.

This project was completed as part of a school assignment. The purpose of the project was to develop skills and knowledge in creating our own socket application. The project may have required extensive research, planning, and execution. By completing this project, the student has not only gained a deeper understanding of the subject matter, but has also developed valuable skills such as critical thinking, problem-solving, and effective communication.

2. Communication protocol

The my teams application communication is based on sending and receiving packets.

2.1 Client commands

/help : show help

/login ["user name"] : set the user name used by client

/logout : disconnect the client from the server

/users : get the list of all users that exist on the domain

/user ["user uuid"] : get details about the requested user

/send ["user uuid"] ["message body"] : send a message to specific user

/messages ["user uuid"] : list all messages exchanged with the specified user

/subscribe ["team uuid"] : subscribe to the events of a team and its sub directories (enable reception of all events from a team)

/subscribed ?["team uuid"] : list all subscribed teams or list all users subscribed to a team

/unsubscribe ["team uuid"] : unsubscribe from a team /use ?["team uuid"] ?["channel uuid"] ?["thread uuid"] : Sets the command context to a team/channel/thread

/create : based on the context, create the sub resource

/list : based on the context, list all the sub resources

/info : based on the context, display details of the current resource

2.2 Communication scheme

(Data Creation) (Sending data packet) Interpreter $\rightarrow \rightarrow \rightarrow$ Client $\rightarrow \rightarrow \rightarrow$ Server **↑ ↑**

(Client receive data packet) $\leftarrow \leftarrow$ Data processing

3. Communication codes

These are the different response codes that our client receives from the server.

Codes	Description
120	Service ready
200	The requested action has been successfully completed
400	Bad Request
403	The requested action operation is not permitted
404	The requested resource could not be found
500	Internal Server Error

4. Security Considerations

The my_teams application may have some security issues due to the fact that users don't need a password to connect to.

But, our server verify for sure that the user is logged in before he can do any action.

5. Acknowledgments

We are grateful to Epitech school for letting us perform such an interesting project.

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