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Request for Comments: ----
Category: ----------

Data Classification Protocol - DCP/1.0

Status of this Memo

This document specifies an protocol for the Internet community, and requests discussion and suggestions for improvements. Distribution of this memo is unlimited.

Abstract

The Data Classification Protocol (DCP) is a generic application-level protocol, stateless, which can be used for many tasks, such as name samples using neural networks.

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1. Introduction

1.1 Terminology

This specification uses a number of terms to refer to the roles played by participants in the DCP communication.

Connection:
A transport layer virtual circuit established between two programs for the purpose of communication.

Message:

The basic unit of DCP communication, consisting of a structured sequence matching the syntax of DCP and transmitted via the connection.

Request:

A DCP request message.

Response:

A DCP response message.

Client

A program that establishes connections for the purpose of sending requests.

User agent

The client which initiates a request.

Server:

An application program that accepts connections in order to service requests by sending back responses.

1.2 Overall Operation

The DCP protocol is a request/response protocol. A client sends a request to the server in the form of a request method and the server responds with a success or error code.

DCP communication is initiated by a user agent and consists of a request to be applied to a resource on some origin server. This may be accomplished via a single TCP connection between the user agent (UA) and the origin server (O).

2 DCP Message

2.1 Message Types

DCP messages consist of requests from client to server and responses from server to client.

DCP-message = Request | Response;

The request message consists of values separated by “#”, and the response contains a single line with an code and a message.

generic-request-message = content [value1 # value2 # value3]
generic-response-message = content [message]

In the interest of robustness, servers should ignore any empty line received where a Request-Line is expected.

3 Status Code Definitions

Each Status-Code is described below, including a description of which method(s) it can follow and any information required in the response.

3.1 Successful - 10

This status code indicates that the client's request was successfully received, understood, and accepted.

3.2 OK - 20

The request has succeeded. The information returned with the response.

3.3 Invalid Information - 21

Invalid data type in client side.

3.4 No Content - 22

The server has fulfilled the request but there is no new information to send back.

3.5 Bad Request - 30

The request could not be understood by the server due to malformed syntax. The client SHOULD NOT repeat the request without modifications

3.6 Request Entity Too Large 40

The size of Request is bigger than the allowed

3.7 Internal Server Error - 50

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The server encountered an unexpected condition which prevented it from fulfilling the request.

3.8 Service Unavailable - 53

The server is currently unable to handle the request due to a temporary overloading or maintenance of the server.