

MDFS should use Web Services

Client-server architecture

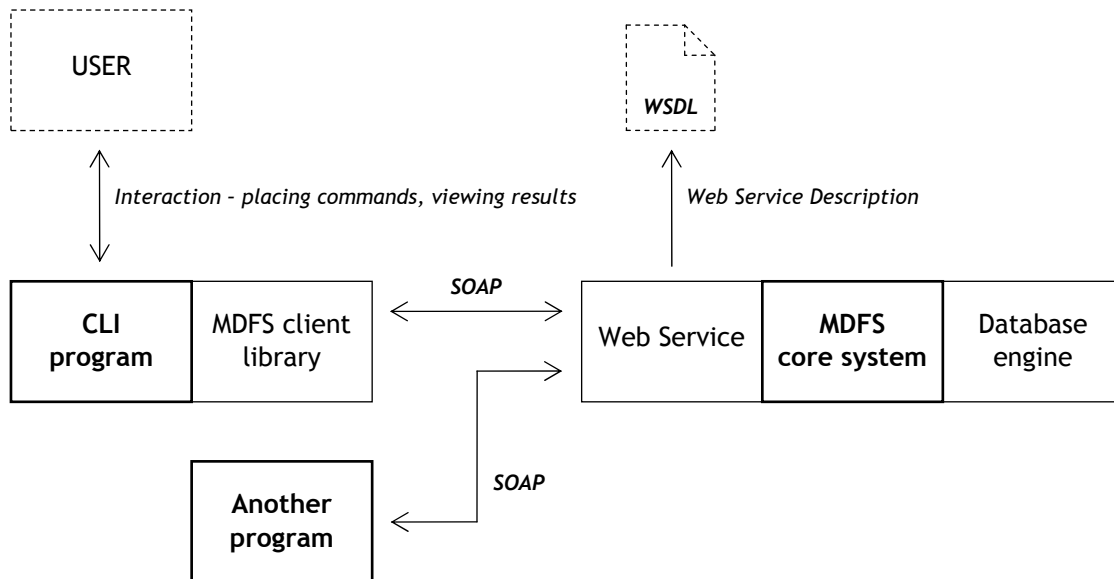
Almost all software today has client-server architecture, not because it's some kind of fashion but because this architecture had proven that is advantageous. Also, the service offered by MDFS is server-centric so the decision to use the client-server architecture is right.

The client and the server are communicating with each other over the network and to achieve that both sides will understand what the opposite one wants we use a protocol. This protocol can be text based (like FTP, HTTP) or binary (as the one used by MySQL). Today we have a standardized way to access remote services using SOAP (simple object access protocol) and these services are called then Web Services.



More specific example

Advantage of using Web Services and SOAP is that our MDFS server (service provider) will be accessible not just with our client library, but also natively from various programming languages and systems. This way we can save time which would be needed for every system which we would like to support.



The behavior of the MDFS web service should be synchronous and to complete a query, there should be only one request. If the SOAP will use HTTP transport (HTTP POST method) it could possibly use HTTP AUTH for authorization.

References

- Web Services Activity
<http://www.w3.org/2002/ws/>
- Simple Object Access Protocol (SOAP)
<http://www.w3.org/TR/soap/>