

 MIDDLE EAST TECHNICAL UNIVERSITY
DEPARTMENT OF COMPUTER ENGINEERING



NEWSUNI PROJECT PROPOSAL

BY

TheonTech

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A Unified News Exchange Server with NNTP, Mail, Web and RSS

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3. **Project Topic:**

Usenet is a set of protocols for generating, storing and retrieving news articles and for exchanging these articles among a readership which is potentially widely distributed. Usenet is one of the oldest computer network communications systems still in widespread use and was established in 1980. Nowadays, the web forums and RSS newsfeeds are more commonly used for news broadcasting and discussion sessions. For the Unified News Exchange Server with NNTP, Mail, Web and RSS Project, we are expected to implement the followings:

- **The Message Exchange Core:** A basic threaded and secure message exchange web service will be developed.

- **The Extension Modules:** Modules providing e-mail lists, NNTP, WWW and RSS access methods will be developed.

NEWSUNI Scenario: Whenever a subscriber posts an article to a newsgroup using tin or thunderbird, the following tasks will be accomplished:

- The article will also be posted as mail to the subscriber.
- The article will also be fed to the RSS clients on web.
- The article will also be seen on the web forum.

4. Application Areas:

4.1 The news websites :

Nowadays, a great majority of news websites publish the news as RSS Feeds and in the mean time, mail the news to the subscribers. Therefore, the work load of the server that hosts the news website overwhelms the system. The excess work load of the server will be reduced by Unified News Exchange Server with NNTP, Mail, Web and RSS because our server will handle all of these issues.

4.2 The communication of large-scaled companies :

The communication among the company employees and the distinct departments is the main problem of the large-scaled companies. Unified News Exchange Server with NNTP, Mail, Web and RSS will handle all the communication problems. The mobile workers, remote

workers and traveling workers will be able to reach all of the news about the company by using the unified exchange server to be developed.

4.3 The communication of the university:

In the universities, communication among the students and the instructors is essential. By using the unified exchange server, the students will be able to follow the news about the courses and will be aware of the new assignments. The students will also be able to share information with the other students and reach the up-to-date resources. The instructors using the unified exchange server will feel more confident about the transmissions of the critical announcements.

5. The Project Initials:

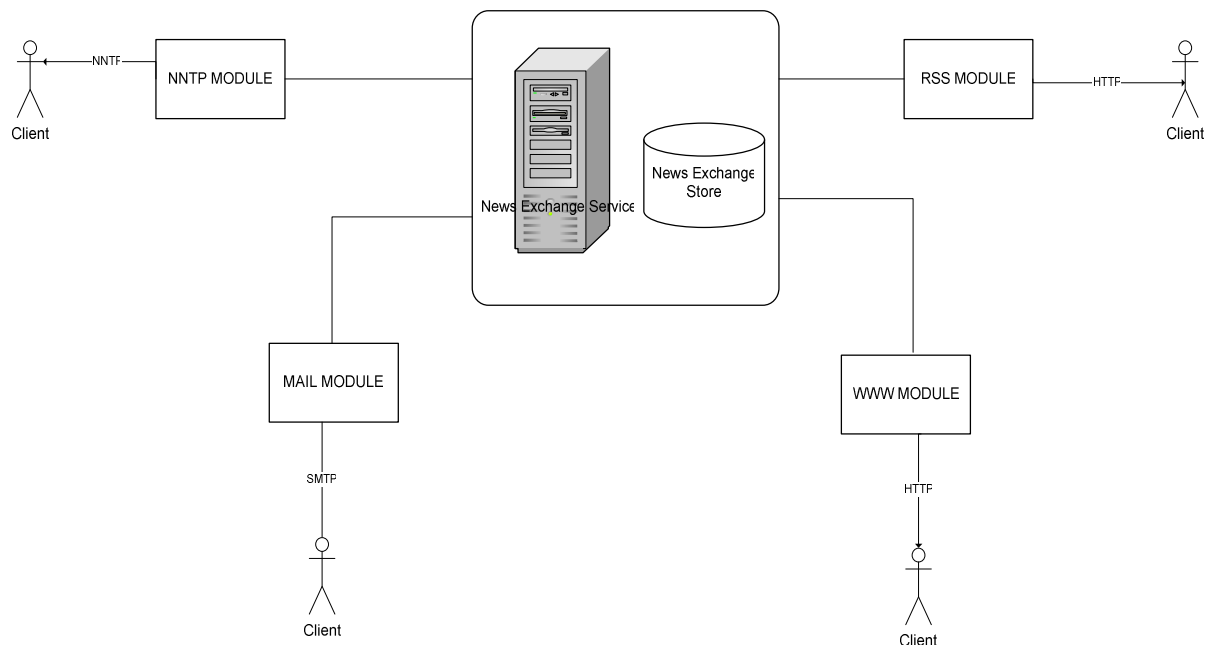


FIGURE-1

- As it is seen in FIGURE-1, the Unified News Exchange Server with NNTP, Mail, Web and RSS will provide a compact communication platform for the subscribers.
- Message exchange core service will be responsible for posting each message obtained via any one of the access modules to the other ones and this operation will involve **text processing** because each access module has a specific message format. Hence, the core will be capable of converting among any type of messages.
- Since each specific type of message will be posted synchronously using all access methods, it will be better to implement a common data store that will be used by all of the access modules. Therefore, an issue of **file management** is encountered at this point and as a solution, a separate module for controlling data storage will be implemented.
- Since external communication of access modules with clients is based on NNTP, HTTP and SMTP protocols, implementation of the modules will involve **network programming**. Furthermore, since the core will be threaded, its implementation may include inter-process communication.
- A filter mechanism may be imposed on modules in such a manner that an article posted via any of the access methods may also be posted to some of the unsubscribed clients in the case that subscription preferences of those clients reflects some relevance with the content of that article.