## **User Context-Aware Resource Allocation**

Wisdom Network as a Service

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## Abstract

In the world of real-time applications, speed plays a prominent role in the user experience. Often termed the wisdom network, the idea is to allocate resources (typically storage and compute) to a cohort of users (can be an individual user in some instances) based on the gathered context. As a result, the applications of wisdom network run across several advantages, including the better user experience for premium/active users (Super Users), conflict resolution for limited resource availability, cost-reduction on resources, and, most importantly, building the feedback loop between the business model and resource allocation.

While this already exists in the telecommunication industry for network allocation to a user. The proposal is to validate the design and development of wisdom-network as a middleware service.

## **General References**

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- [2] Salman, Haitham & Ali, Raniah & Thabit, Kawther. (2018). Study and Implementation of Resource Allocation Algorithms in Cloud Computing. 7. 591-594.
- [3] C. Sieber, S. Schwarzmann, A. Blenk, T. Zinner, and W. Kellerer, "Scalable Application- and User-aware Resource Allocation in Enterprise Networks Using End-Host Pacing," ACM Transactions on Modeling and Performance Evaluation of Computing Systems, vol. 5, no. 3, pp. 1–41, Nov. 2020, doi: 10.1145/3381996.

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