Requirements for accessing data in network storage

draft-ohlman-decade-add-use-cases-reqs-00

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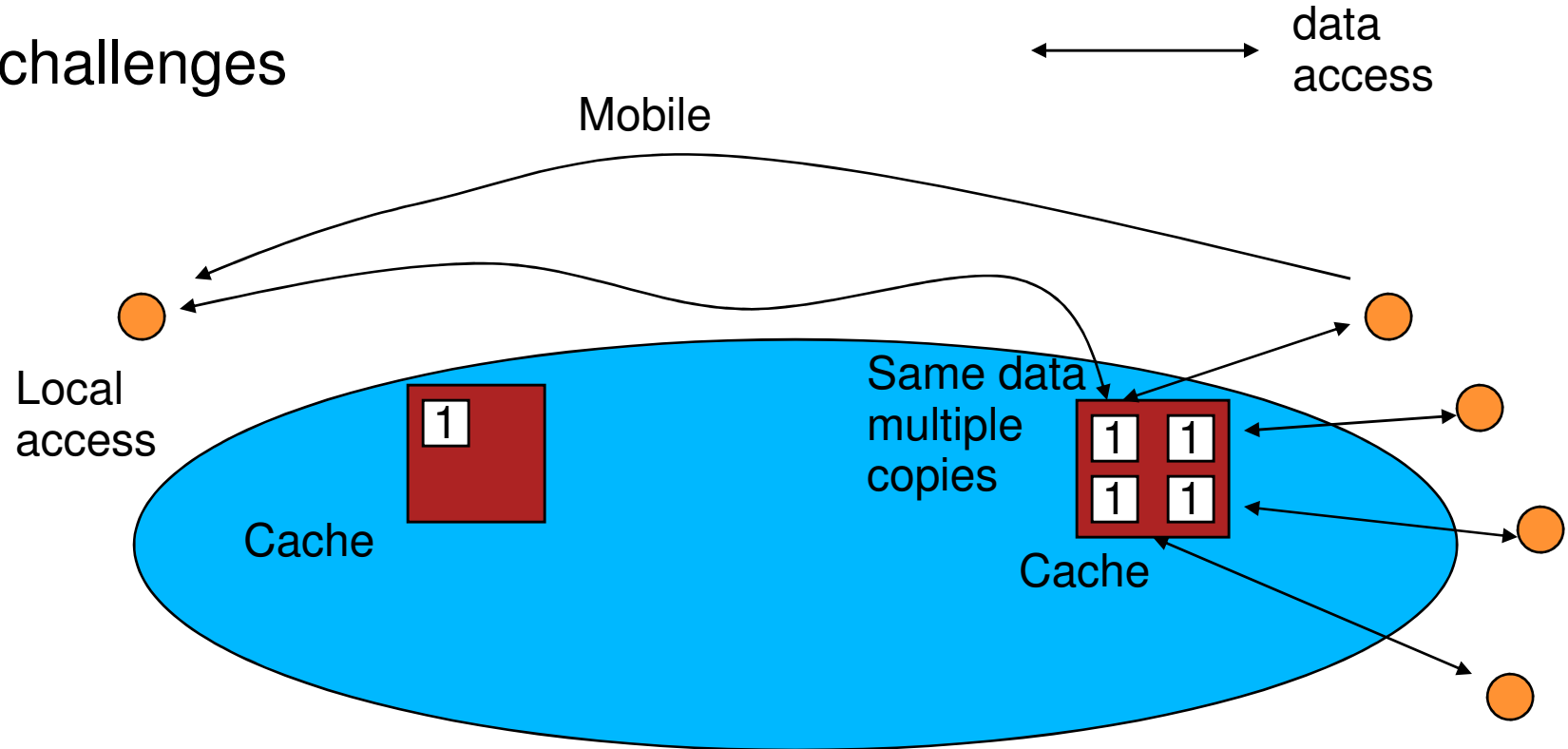
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Requirements for accessing data in network storage

❖ Additional requirements to complement "draft-gu-decade-reqs-02"

❖ Requirements:

- Application agnostic,
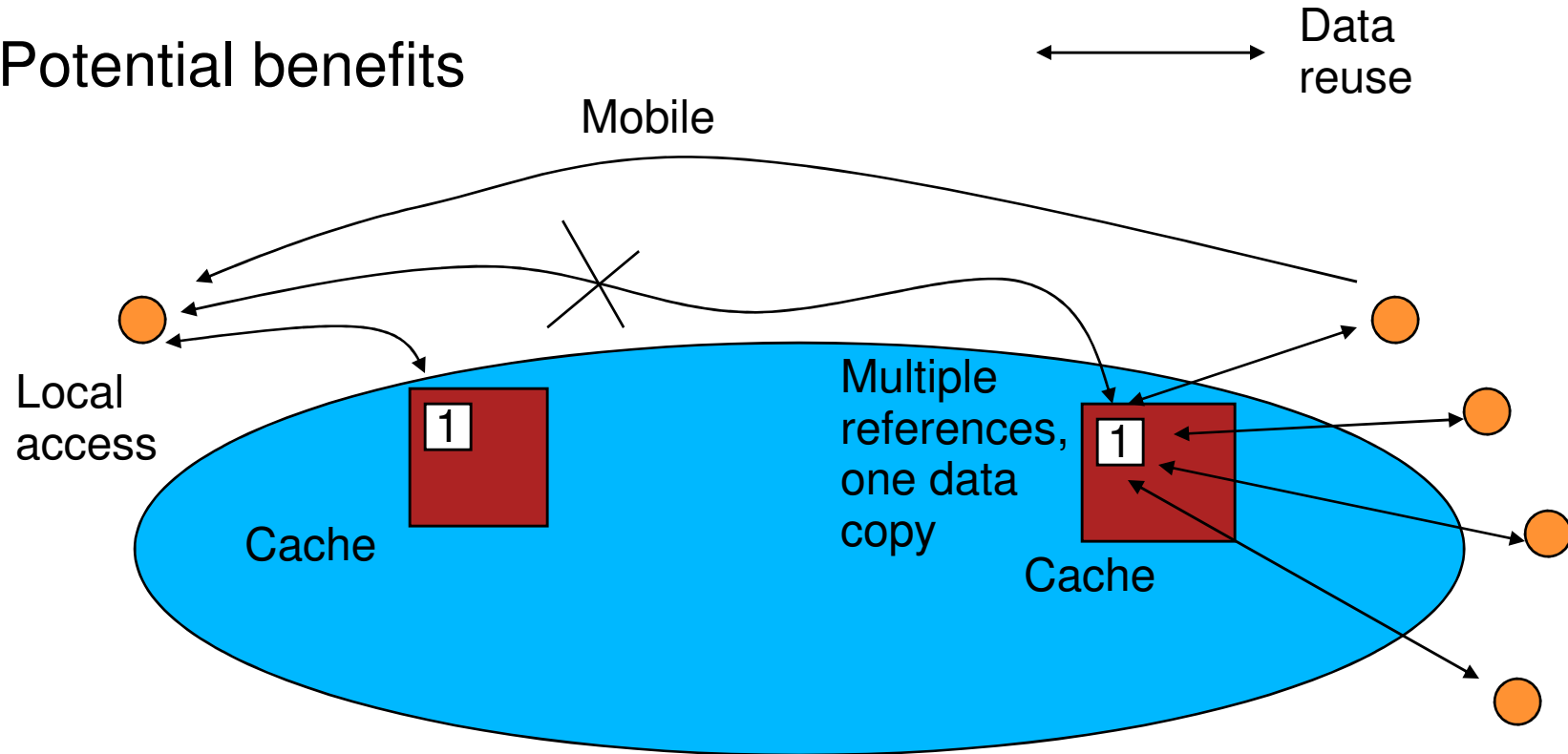- data reuse,
- mobility

draft-gu-decade-reqs

❖ challenges

Additional requirements

❖ **Potential benefits**

Data reuse

Mobile

Local access

1 Cache

Multiple references, one data copy

1 Cache

DECADE: application-agnostic

❖ The specification of DECADE SHOULD strive to make the DECADE in-network storage application-agnostic. As a verification of this effort DECADE SHOULD be specified in such a way that it can address at least one other application type, besides P2P applications.

❖ IPTV Use case: distribution of video content, mainly focusing on Video-on-Demand (VoD) services and user-generated contents.

❖ Characteristics of IPTV scenario:

– support an efficient large-scale distribution of video;

– high degree of replicated contents to a multiplicity of fixed and mobile users

DECADE: Data reuse

❖ When certain content is popular and used by many users, the network part of DECADE SHOULD be able to store only one (or any limited number) copy of that data. The same data can then be used to serve requests from multiple DECADE users.

❖ Generally several copies in multiple storage good for user response – when data popular and copies in different locations

❖ Target is efficient use of available data, unnecessary data copies not needed

DECADE: mobility

❖ **DECADE SHOULD** have the ability to support mobility of terminals/users/applications by allowing the use of a data object that is available near a new location when moving. **DECADE COULD** also provide nomadic network storage.

❖ Lot of cross network traffic when data in home storage

❖ Target to improve performance for the mobile
  – Nomadic data, use local data copy?

Summary and Conclusion

❖ Additional requirements
- Application agnostic
- Data reuse
- Mobility

❖ Adopt requirements into "draft-gu-decade-reqs"

❖ Selection of reference non-P2P application

Thank you !

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