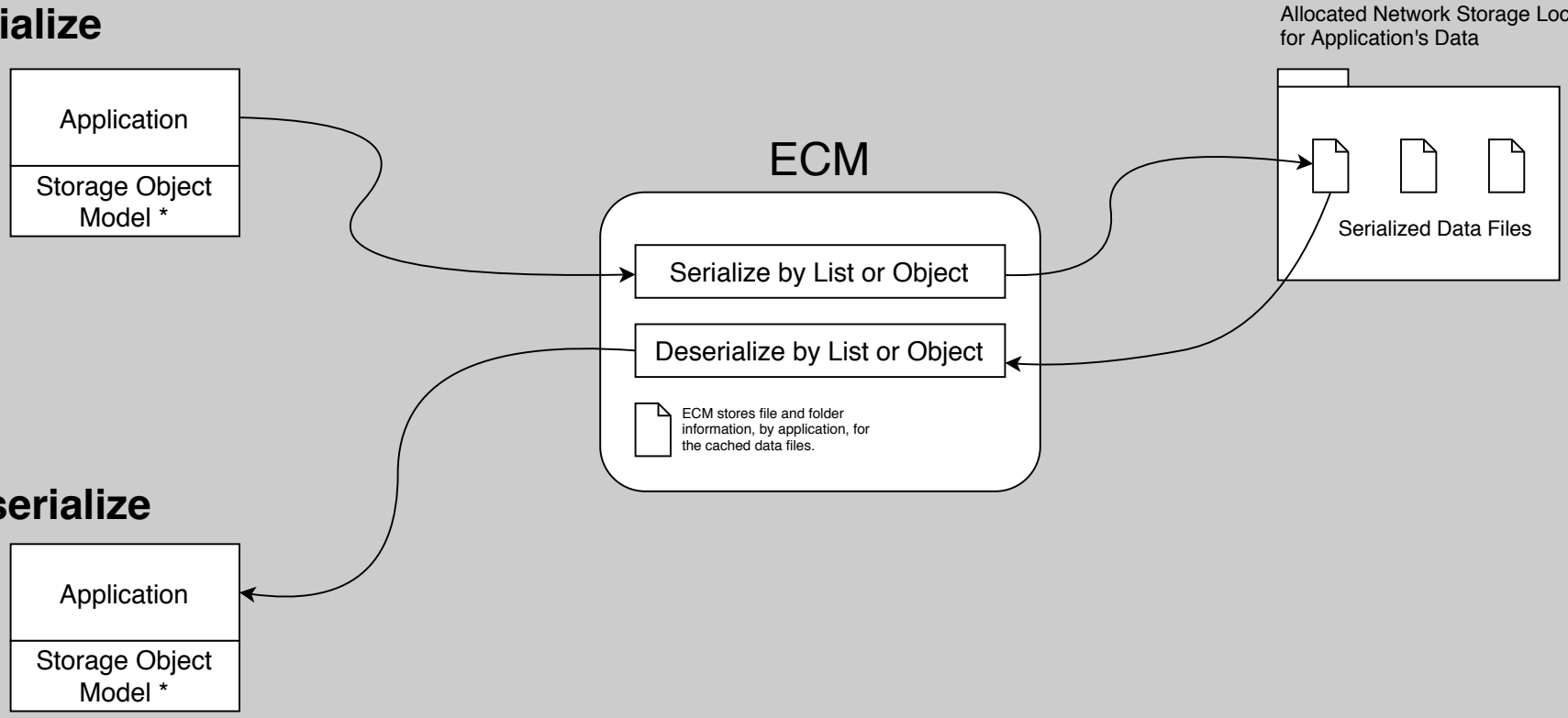
External Cache Manager

The External Cache Manager (ECM) provides a wrapper for the serialization/deserialization of cached data files for EAI applications. The ECM is also responsible for registering and mapping these data files to their respective locations on the network. The result is that applications are freed from having to maintain both the content and location of their external data stores, unless those stores are (by design) on the local user's computer.

Though there are many potential uses, the primary focus of the current design is to create and maintain a secondary data source that can accessed in the case of database lockouts or other connection errors. The associated "grabber" utility (this is an admin application developed for use by the IT manager) uses the ECM to refresh the data files nightly when the database backups are performed. Therefore, the information in the data files is always less than 24 hours old before being overwritten with new data.

Use Cases

Serialize



Deserialize

* The "Storage Object Model" (SOM) is the subset of application Model Objects that are destined for storage. Put another way, in order for a data object to be successfully stored externally, its class definition or a compensatory set of helper classes must be registered with the SOM. In addition to being necessary, the SOM is also sufficient for any application wishing to utilize external data caching through the ECM. For example, the "grabber" utility that conducts nightly backups requires references to the SOM for any application subscribing to the caches. As an aside, this does bring up the issue of DLL versioning consistency, but a discussion of the fuller issue belongs in the section describing application deployment choices. The only reason I bring it up here is to point out the importance of having the SOM up to date and correctly referenced by client programs.

Use Cases

While user applications make use of the serialize/deserialize service, admin utilities also utilize methods to handle the file mapping features of the ECM. The 'grabber' application makes use of the features shown in the graphic.