E-Net: Cross Language Object-Caps

Shared Meta-Repository with extensible ASN.1 DER encoding

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Abstract

Presented here with is an shared Meta Repository with extensible ASN.1 DER encodings specified for application and management types. The core Meta Repository will specify the base set of meta-management types to allow for extensibility of an environment to support specific extensions. In non-dynamic languages, this will initially require language support for these new, dynamically described types, however, dynamic languages, with meaningful reflection services, will be able to dynamically model any newly defined data type. This leads towards support of dynamic mobile code, written in new dynamic language and will cross-compilation support in target language environments.

This Meta Repository will run on top of an object capability system being developed in Squeak, with the objective of building a bit-compatible cross-kanguage capacity for interchange between these supported environments. The current subject languages are: Squeak, Pharo and Java. Third parties may build support for Objective C and C#, these are out of scope for the current efforts. It is enough. This ocaps system is based upon the delectable work of the E-Rights Community.

Here is an image of the E-Net stack, after layers 5 & 6 have been rendezvoused.

1: 9 Layer stack Synopsis

2: Layer 9 Vogel Meta Repository

Bootstrapping core system

Replicated meta session

3: Layer 8 System Cloud Markets

Market Manager

4: Layer 7 Application Job Instances

Session contextualization

Session services

Meta Services

Logging Services

Host Services

5: Layer 5 Secure Session

ASN.1 DER encoding Layer 5 protocol traffic

Installed Encoder bridging to Layer 6

6: Layer 6 Distributed Object-Caps

Vogel specified Application object encodings

Eventual wiring: handlers & resolvers

7: Conclusions