

# 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-language 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.

```
root
├── server
│   ├── localIdentity
│   ├── secureSessionMgr
│   ├── connections
│   ├── locator
│   ├── swissTable
│   ├── sealer
│   ├── unsealer
│   └── vat
├── scope
│   ├── imports
│   ├── exports
│   ├── questions
│   ├── answers
│   ├── interface
│   ├── localLocator
│   ├── remoteLocator
│   └── remoteIdentity
├── stack
│   ├── 1
│   ├── 2
│   ├── 3
│   ├── 4
│   ├── 5
│   ├── 6
│   ├── 7
│   ├── 8
│   └── 9
└── a Transceiver
    ├── a Tuner - FL4dliz6eq2s
    ├── cap://127.0.0.1:10011
    ├── a SessionAgent(<runn
    ├── a Dictionary('Xrigak8y
    ├── a Locator
    ├── a SwissTable (oids: 0
    ├── a Sealer
    ├── an Unsealer
    ├── vat#FL4dliz6eq2sZDG
    ├── object-map( q<table(
    ├── table()
    ├── table()
    ├── table(1:1->a ProxyRes
    ├── table()
    ├── a Transceiver
    ├── a NonceLocator
    ├── ::remote promise prox
    ├── cap://127.0.0.1:10011
    └── a ThunkStack(a Trans
```

**1: 9 Layer stack Synopsis**

**2: Layer 5 Secure Session**

**3: Layer 6 Distributed Object-Caps**

**4: Layer 9 Vogel Meta Repository**

**5: Layer 8 System Cloud Markets**

**6: Layer 7 Application Job Instances**

**6: Conclusions**