ICNS CONFERENCE

# The Use of Mobile Object Technology in a Net-Centric System

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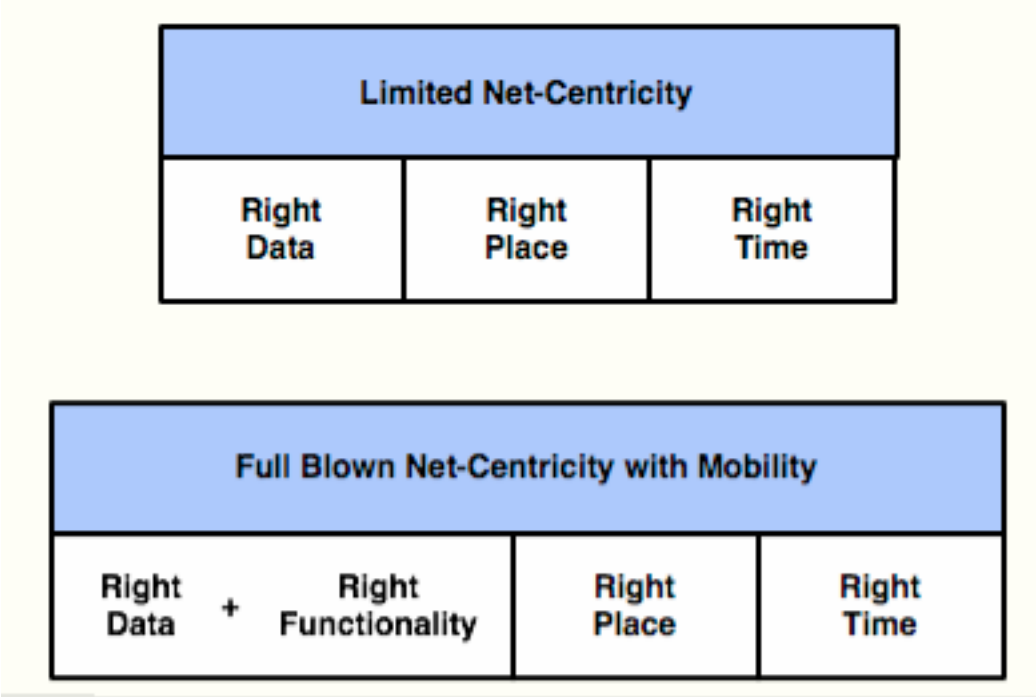
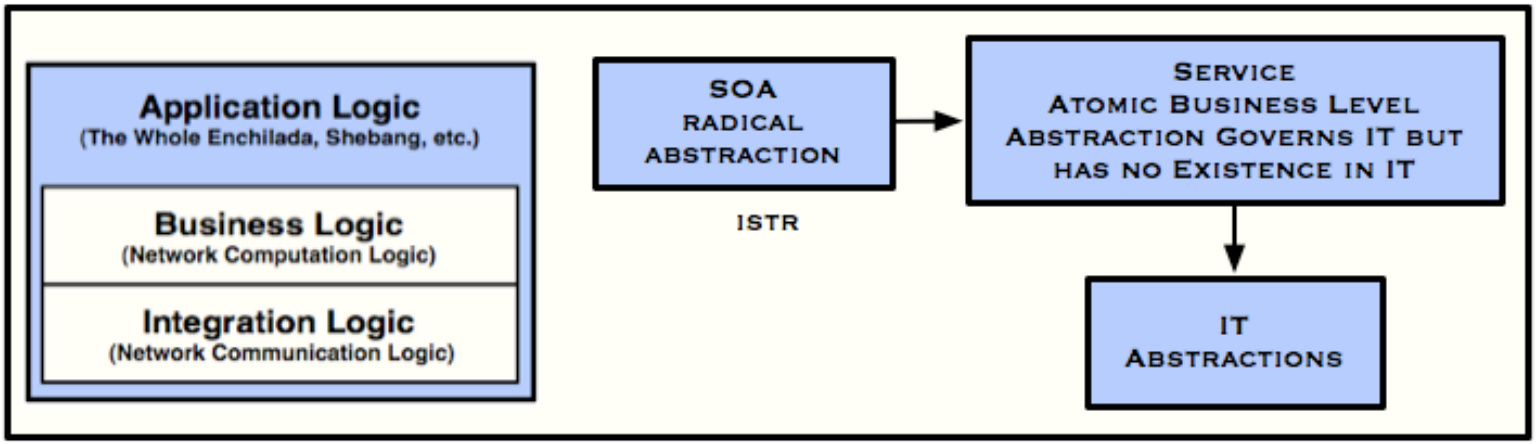
Michael McGrady
Senior Engineer
Topia Technology, Inc.

# Preliminaries

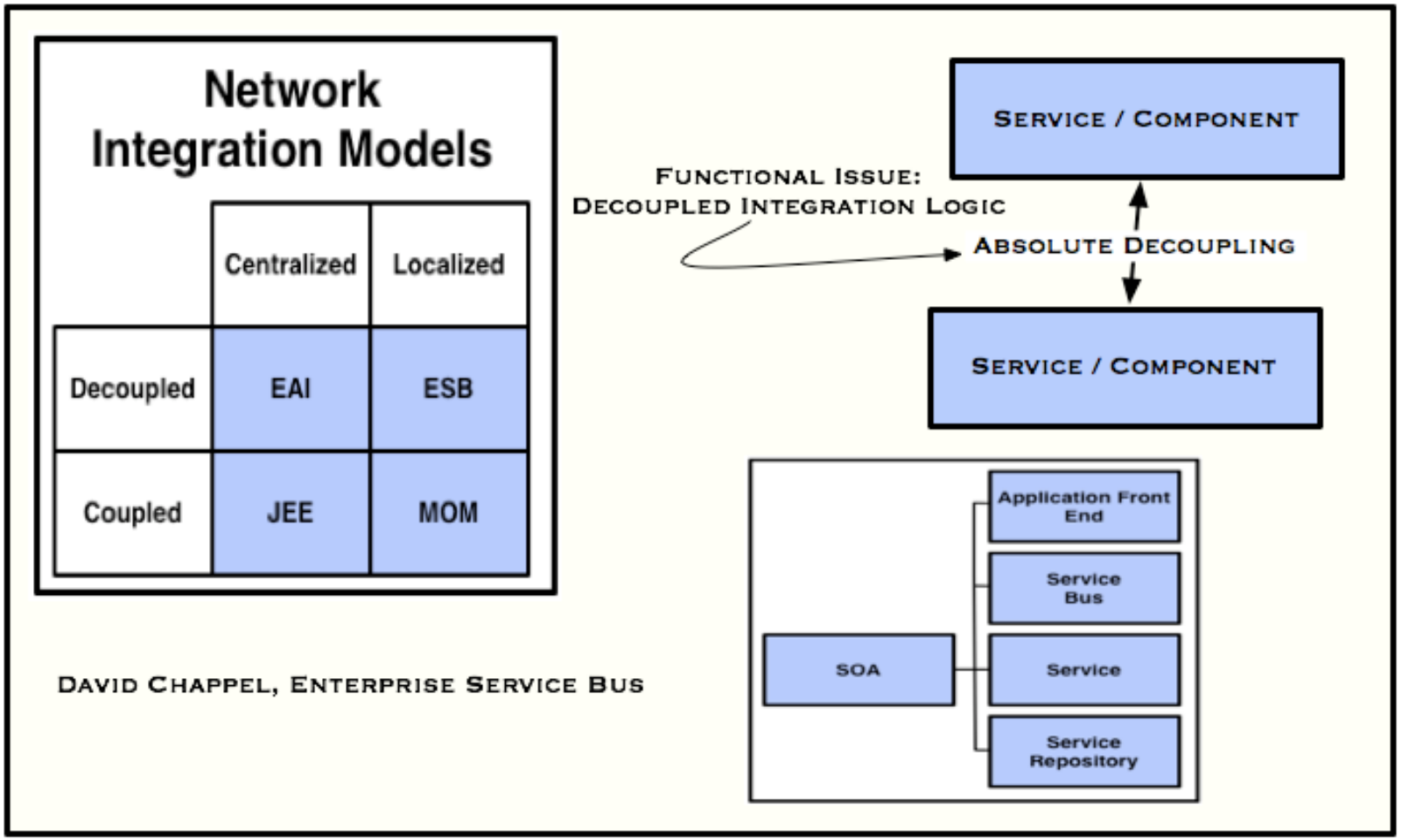
**Topic: The use of mobile object technology in a net-centric system**



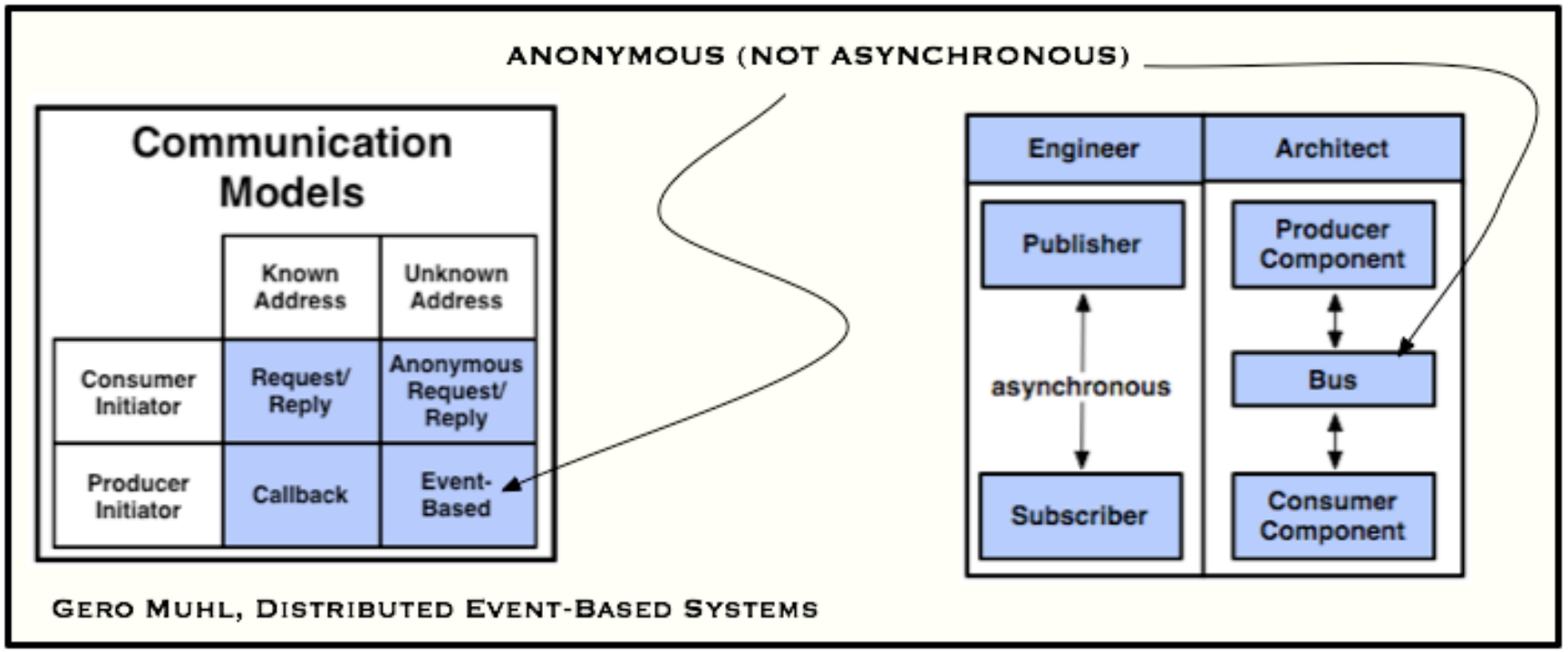
# SOA fundamentals



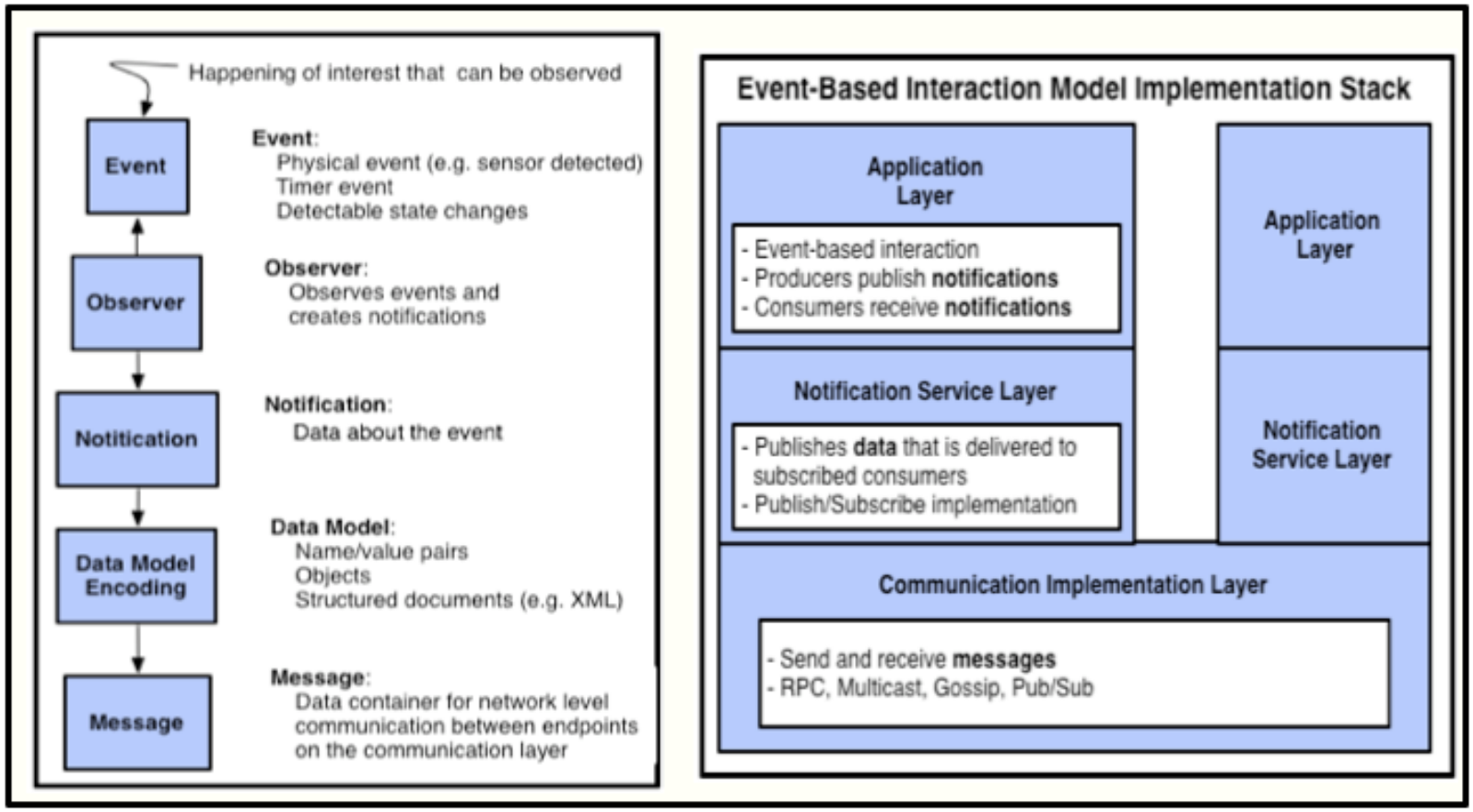
# Network integration models



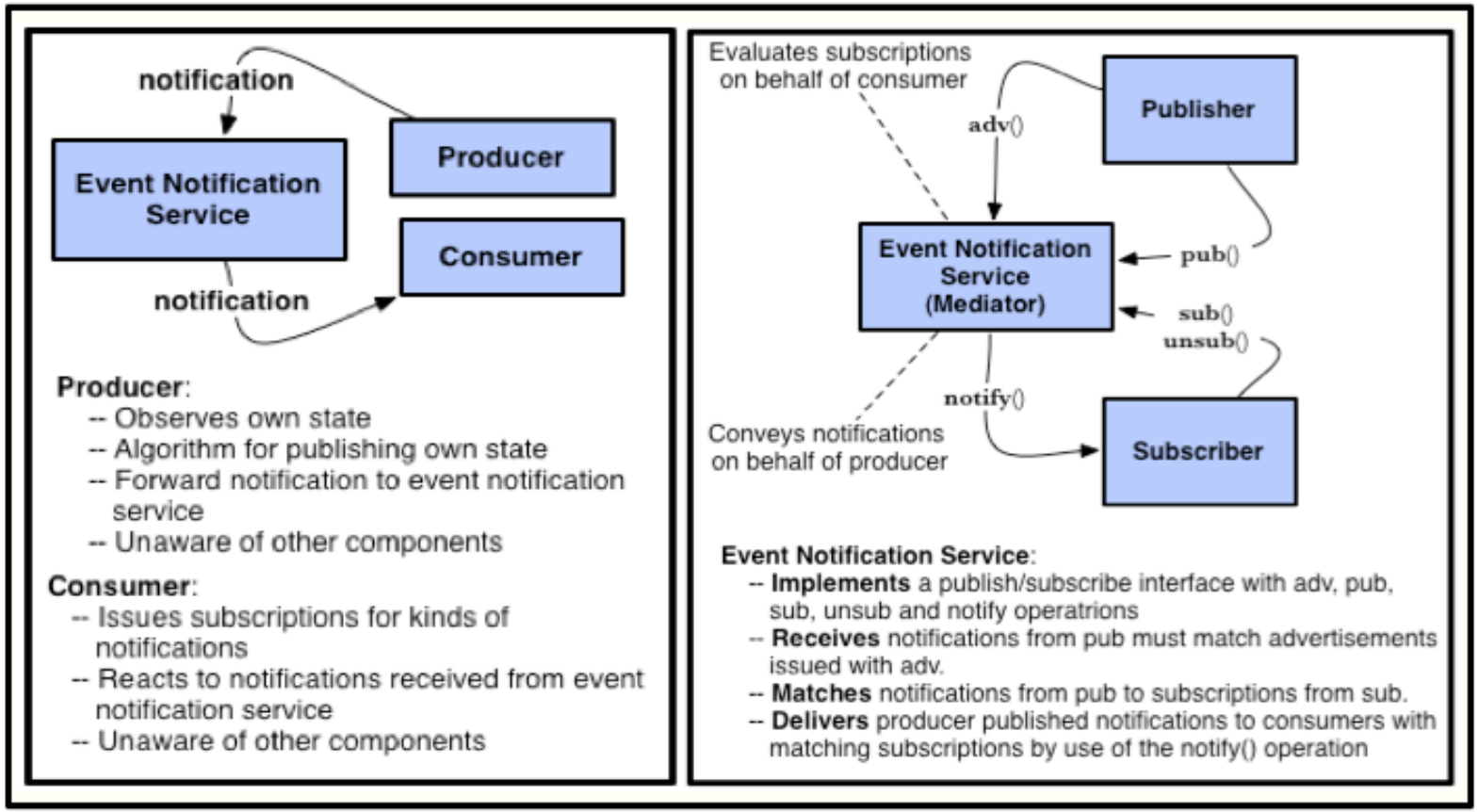
# Communication models



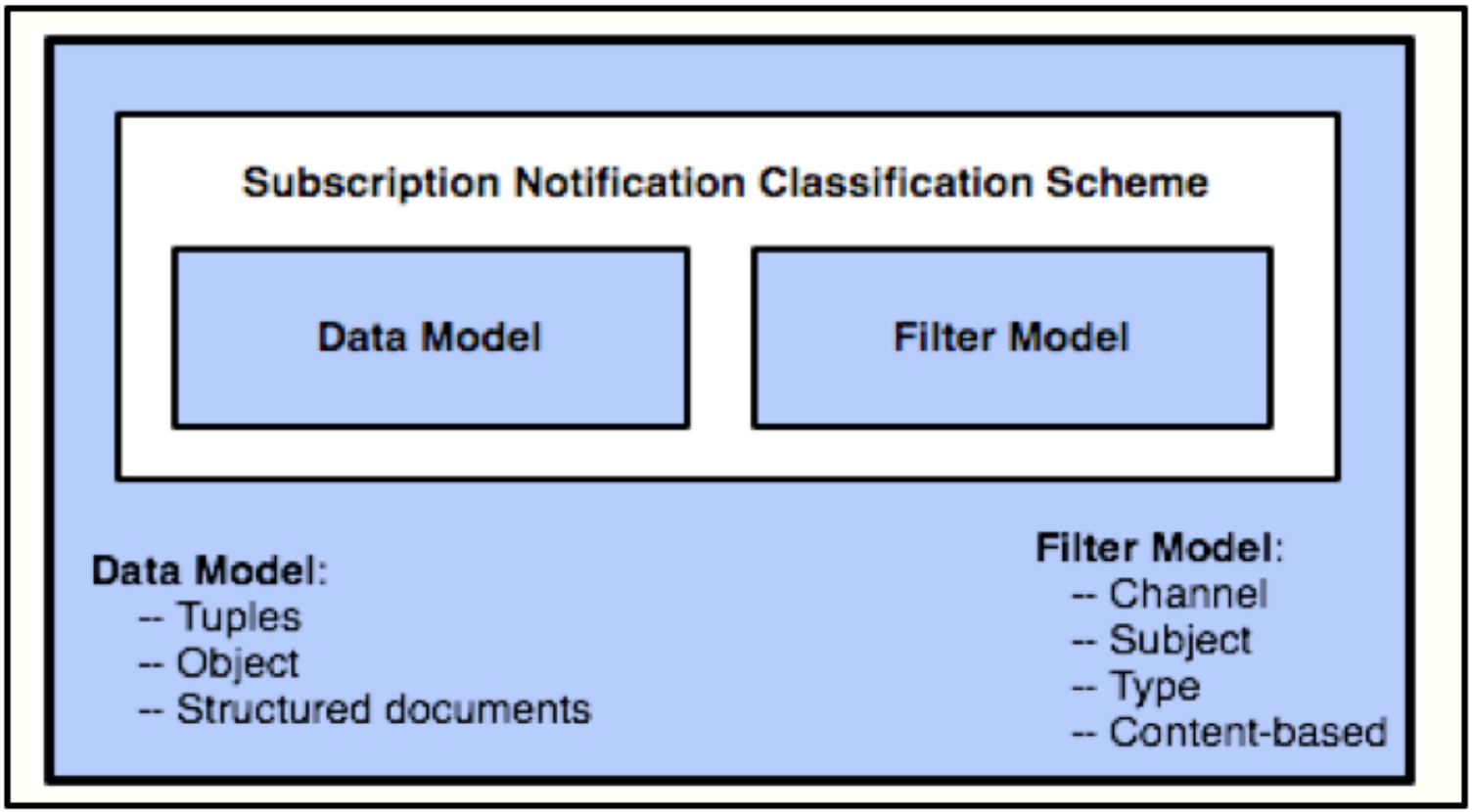
# Event-based notifications



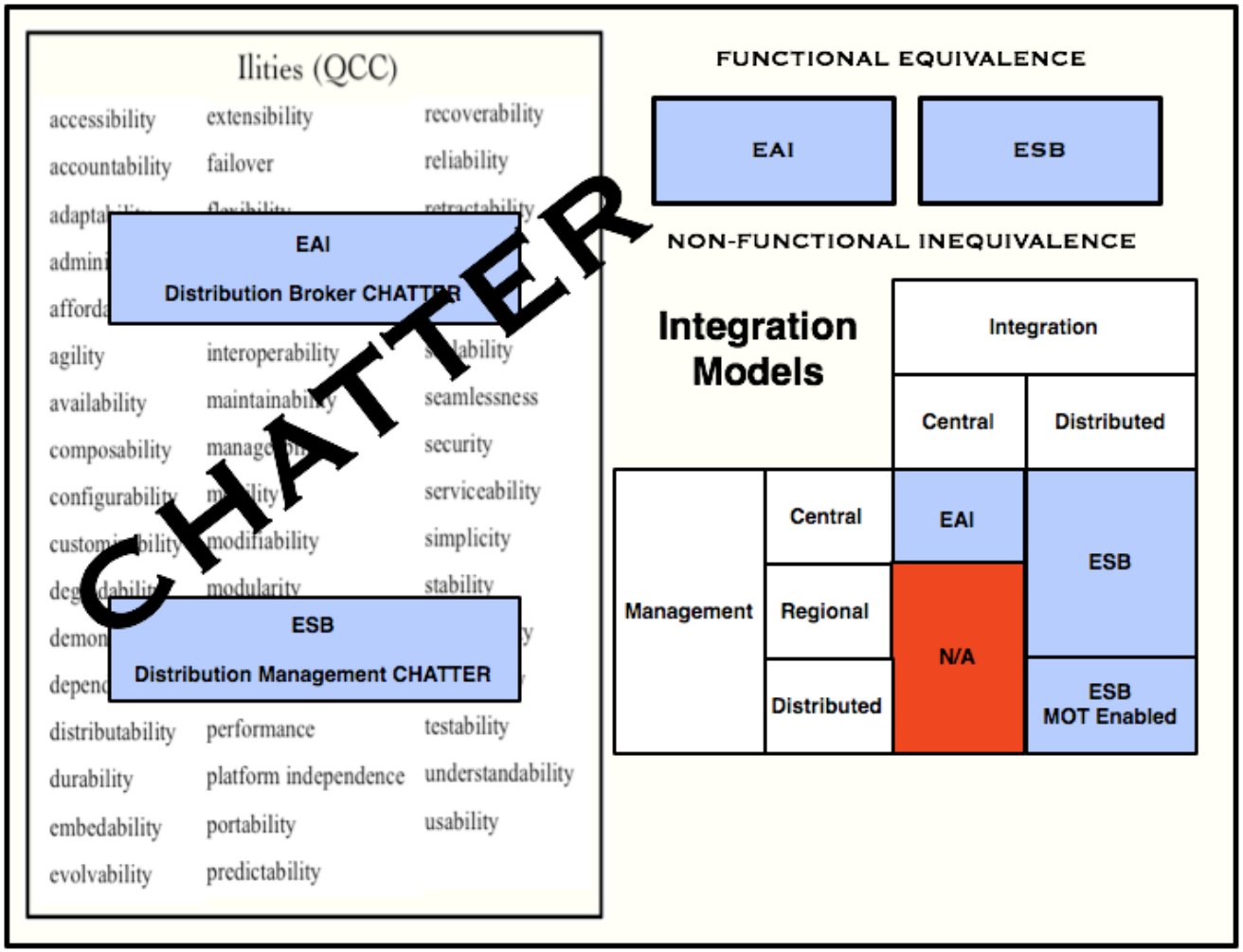
# Event notification service



# Subscription classifications

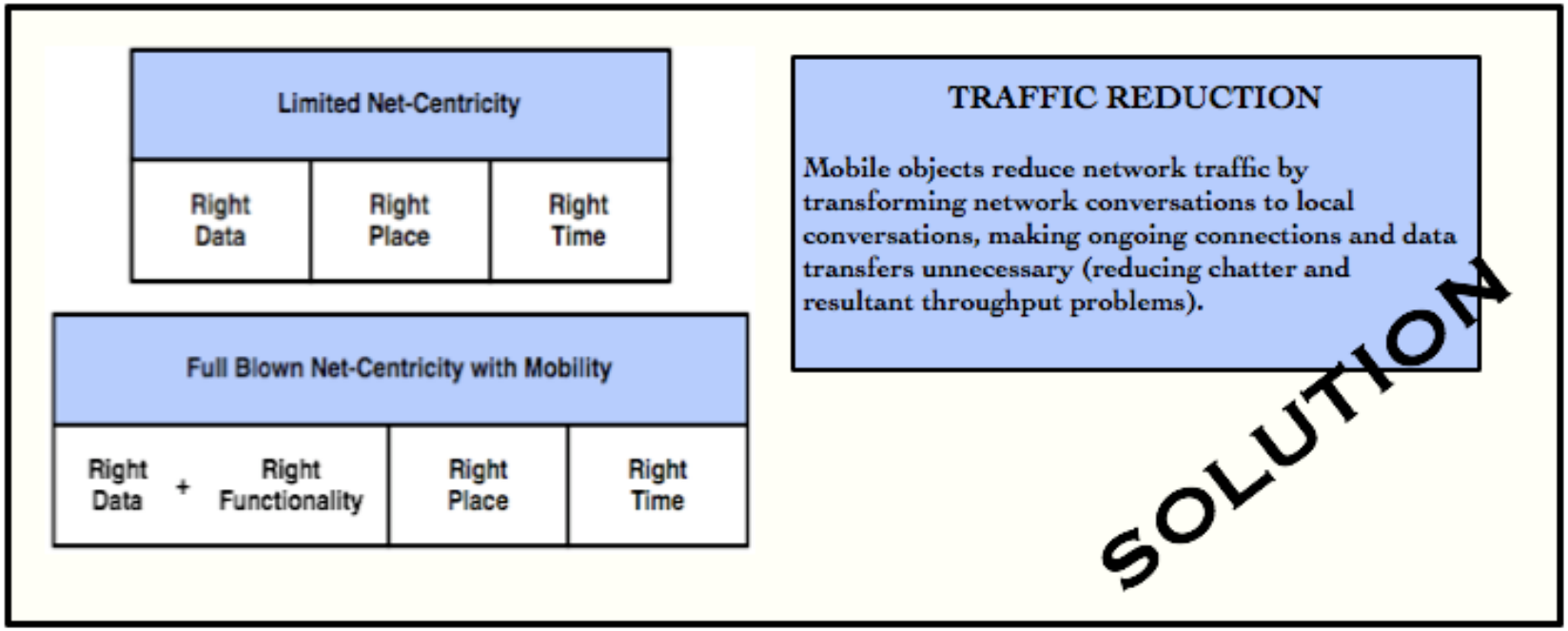


# ESB chatter


Ilities (QCC)
accessibility
accountability
extensibility
failover
recoverability
reliability
agility
availability
composability
configurability
interoperability
maintainability
security
serviceability
modifiability
simplicity
modularity
stability
performance
platform independence
portability
predictability
testability
understandability
usability
distributability
durability
embedability
evolvability
EAI
Distribution Broker CHATTER
ESB
Distribution Management CHATTER
CHATTER
FUNCTIONAL EQUIVALENCE
EAI
ESB
NON-FUNCTIONAL INEQUIVALENCE
Integration Models
Integration
Central
Distributed
Management
Central
Regional
Distributed
EAI
N/A
ESB
ESB
MOT Enabled

# Mobile object technology advantages

# Reduce chatter

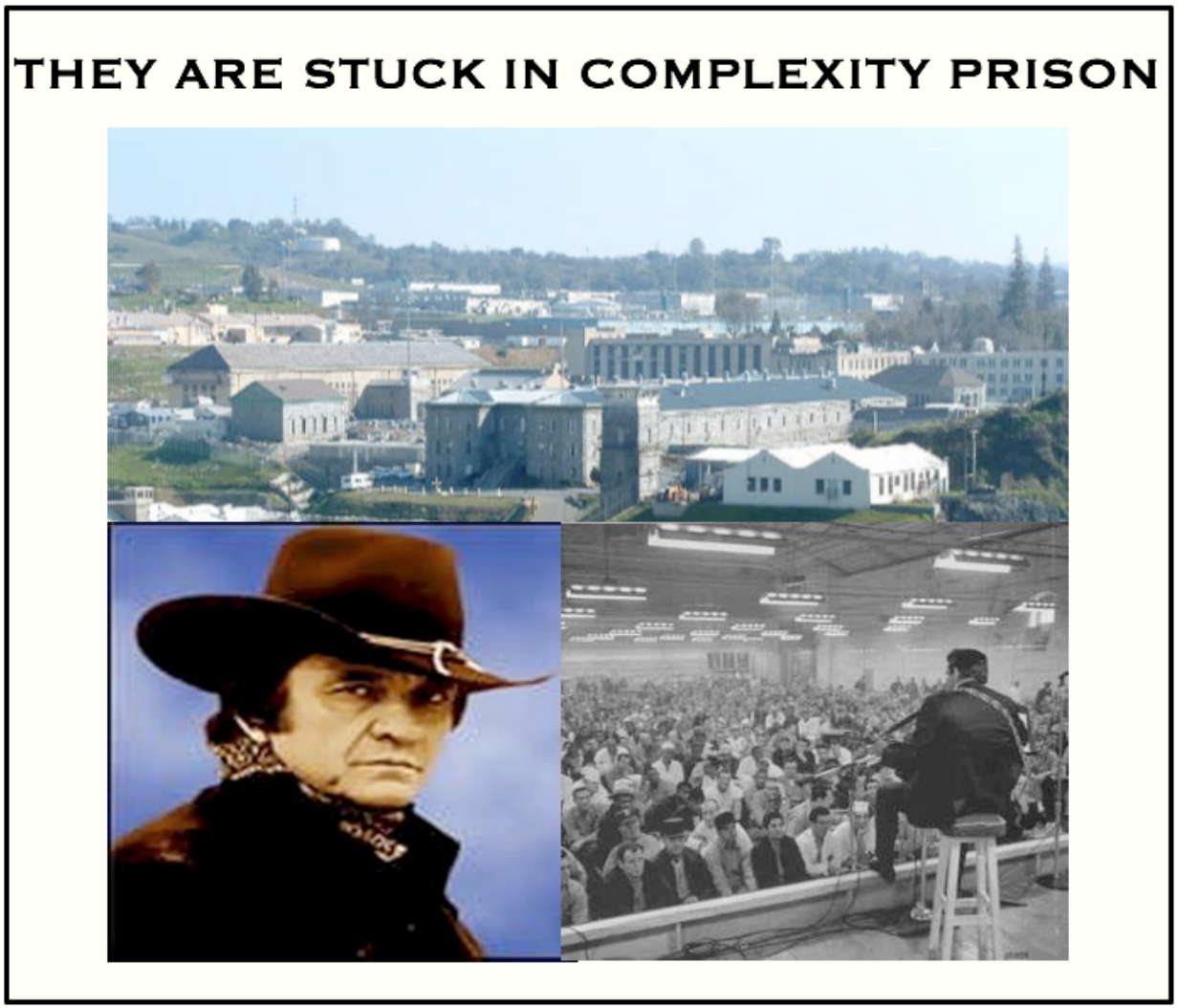


# Why?

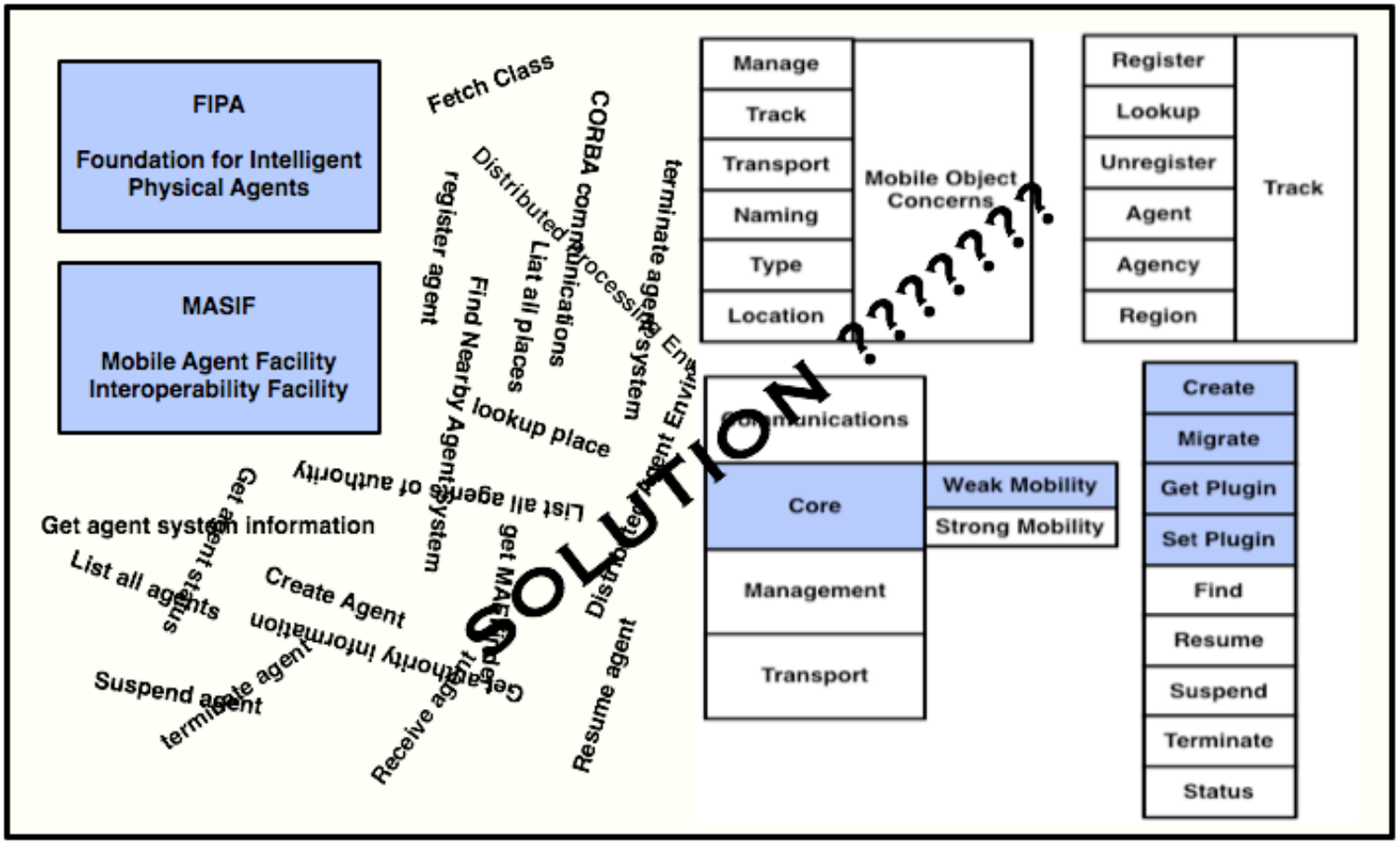
WHERE ARE MOBILE OBJECTS THEN?

WHY ARE MOBILE OBJECTS NOT UBIQUITOUS RATHER THAN MORIBUND?

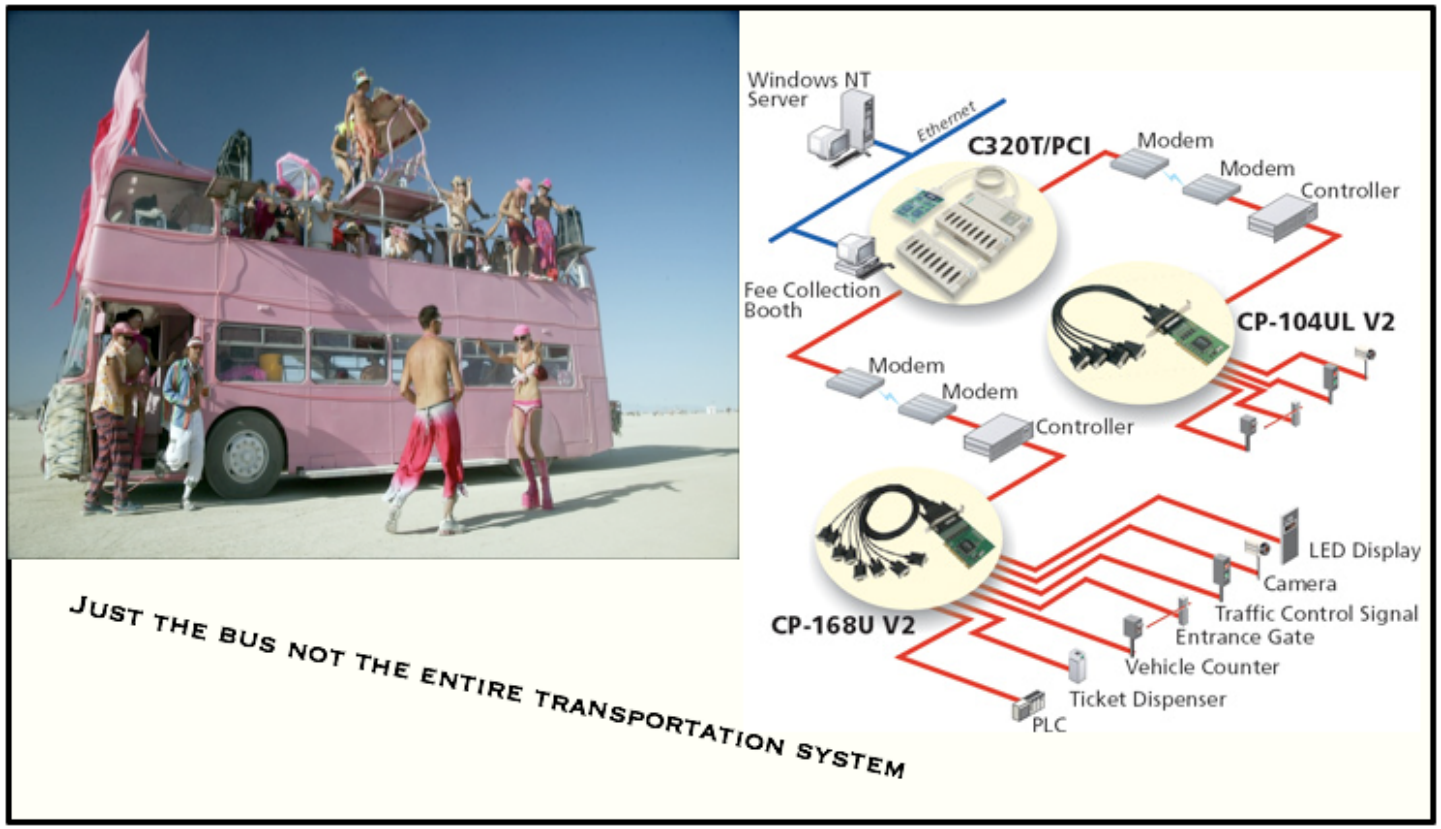
# Complex standards



# FIPA and MASIF



# KISS


JUST THE BUS NOT THE ENTIRE TRANSPORTATION SYSTEM
Windows NT Server
Ethernet
C320T/PCI
Modem
Modem
Controller
Fee Collection Booth
CP-104UL V2
Modem
Modem
Controller
CP-168U V2
LED Display
Camera
Traffic Control Signal
Entrance Gate
Vehicle Counter
Ticket Dispenser
PLC

# Example KISS standard

Mobile Object Platform Core Standard Interfaces

```
public interface MobileObject extends MobilePlugin, Runnable
{
    void init ( Object [] parameters ) ;
} ////8-)

public interface MobilePlugin extends Serializable
{
    void setMobilePlatform ( MobilePlatform mobilePlatform ) ;
} ////8-)

public interface MobilePlatform extends Serializable
{
    void create ( String mobileObjectClass, Object [] parameters, File file ) ;
    void migrate ( String location, MobileObject mobile ) ;
    MobilePlugin getMobilePlugin ( String name ) ;
    void setMobilePlugin ( String name, MobilePlugin mobilePlugin) ;
} ////8-)
```

CREATE

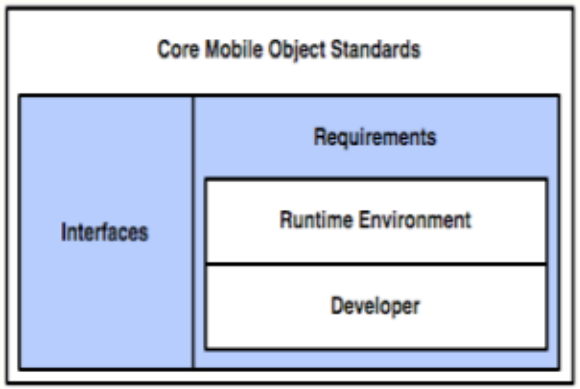
INITIALIZE

MIGRATE

PLUGIN TO APPLICATION

RUN

JUST THE BUS NOT THE ENTIRE TRANSPORTATION SYSTEM



# Micro (modular) standards