OGP Introduction

LLSD & OGP Base

IETF 74

Mark Lentczner, March 2009

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Vision

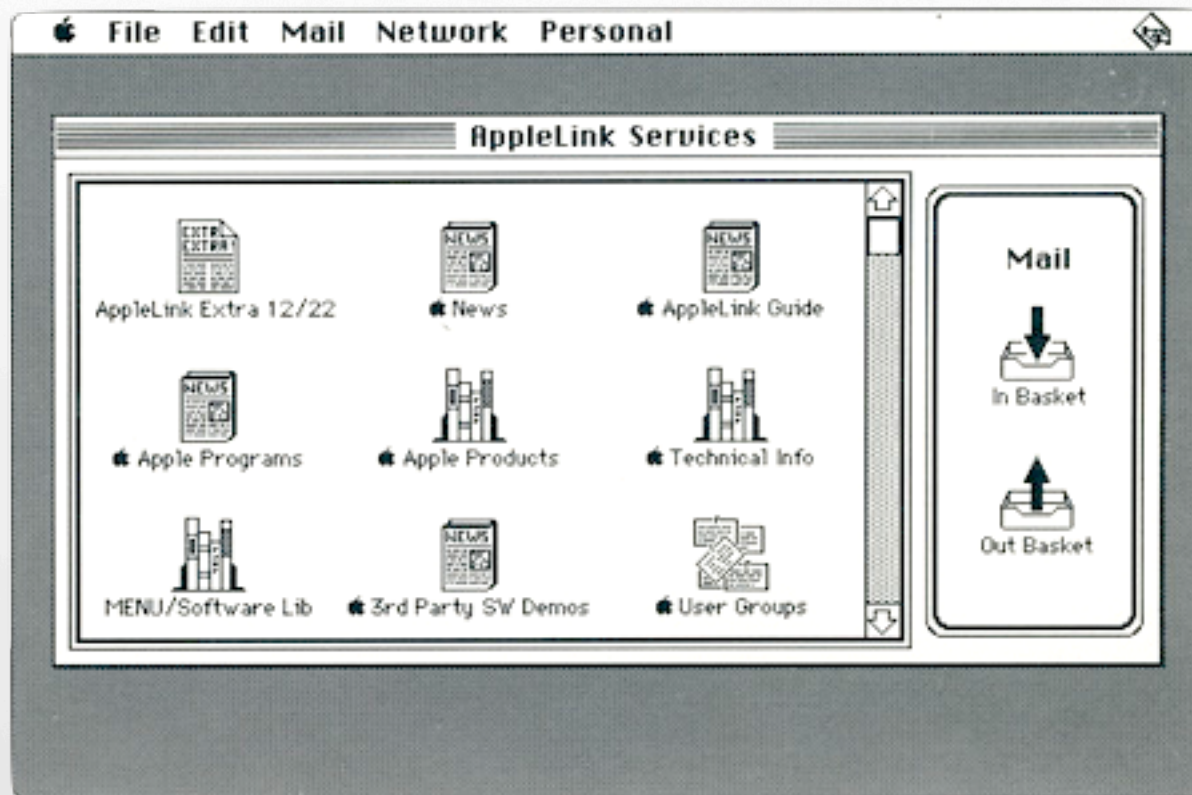# Why?

Why bother writing standards for interoperable virtual worlds?

Why aren't just perfectly fine as proprietary applications?

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Closed E-mail

Closed E-mail

File   Edit   Search   Format   Font   Style

Re.- Sprocket features

Sender-	Mr. Spacely (CEO)
Recipient-	George Jetson (Lackey)
Re.-	Sprocket features

When will our sprockets include the Frobnoz feature that Cogswell Cogs is now shipping? We're getting killed in the market over this!!!
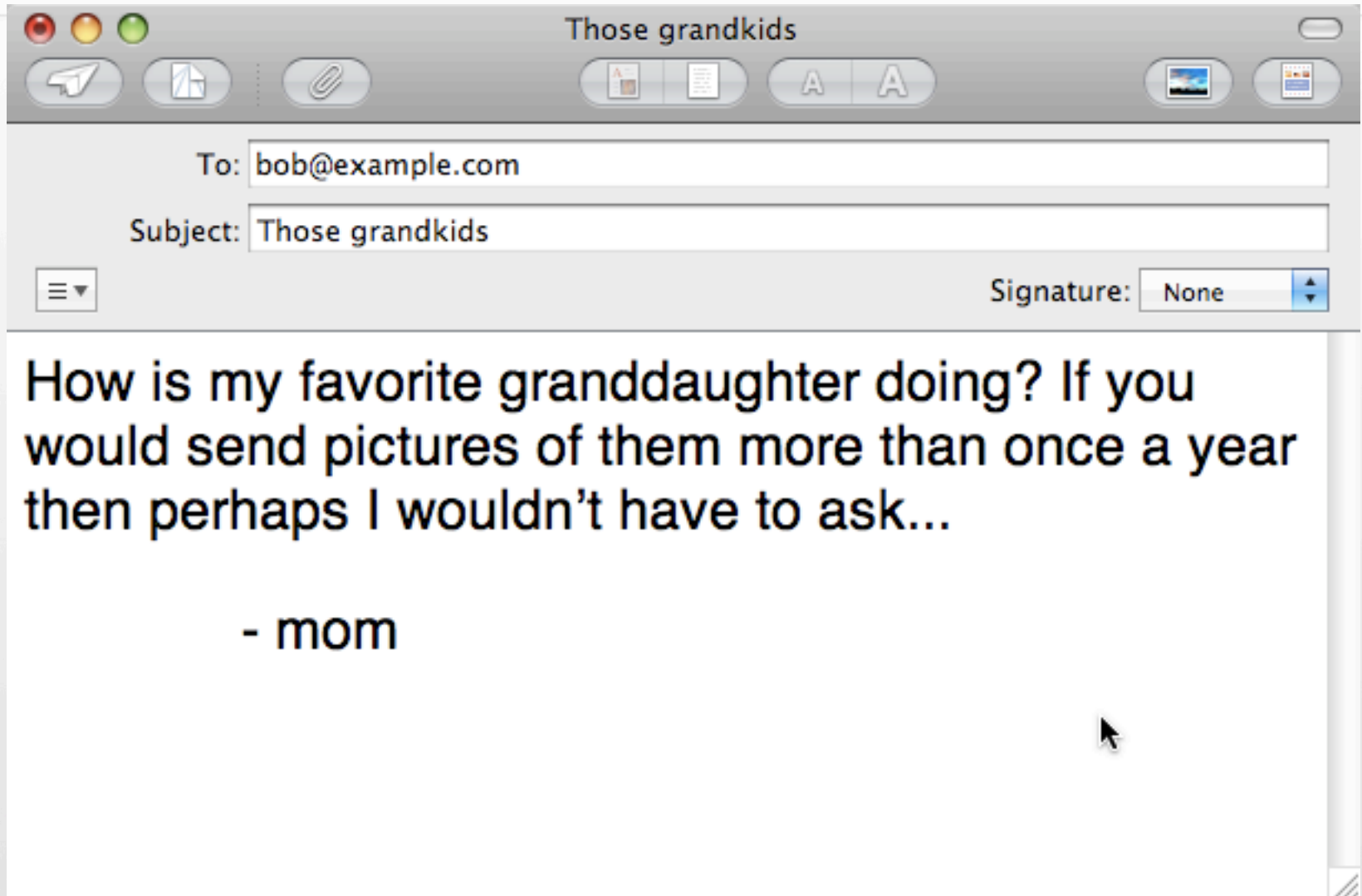
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Internet E-mail

Internet Email

Internet e-mail is more powerful
than closed e-mail systems...

...because mom can e-mail you!

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Document Retrieval

The Web

WWW

The web is more powerful
than walled document retrieval...

   ...because mom can look at her grandchildren
   on Facebook!

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Closed Virtual Worlds

Open Virtual World

Open Grid

An open grid is more powerful
than a proprietary virtual world…

…because your mom can ride a motorcycle, fight
alien robots, **and** go sledding with the grandkids.

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It's all about

MOM

It's all about

MOM

MMOX

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Architecture

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OGP Architecture

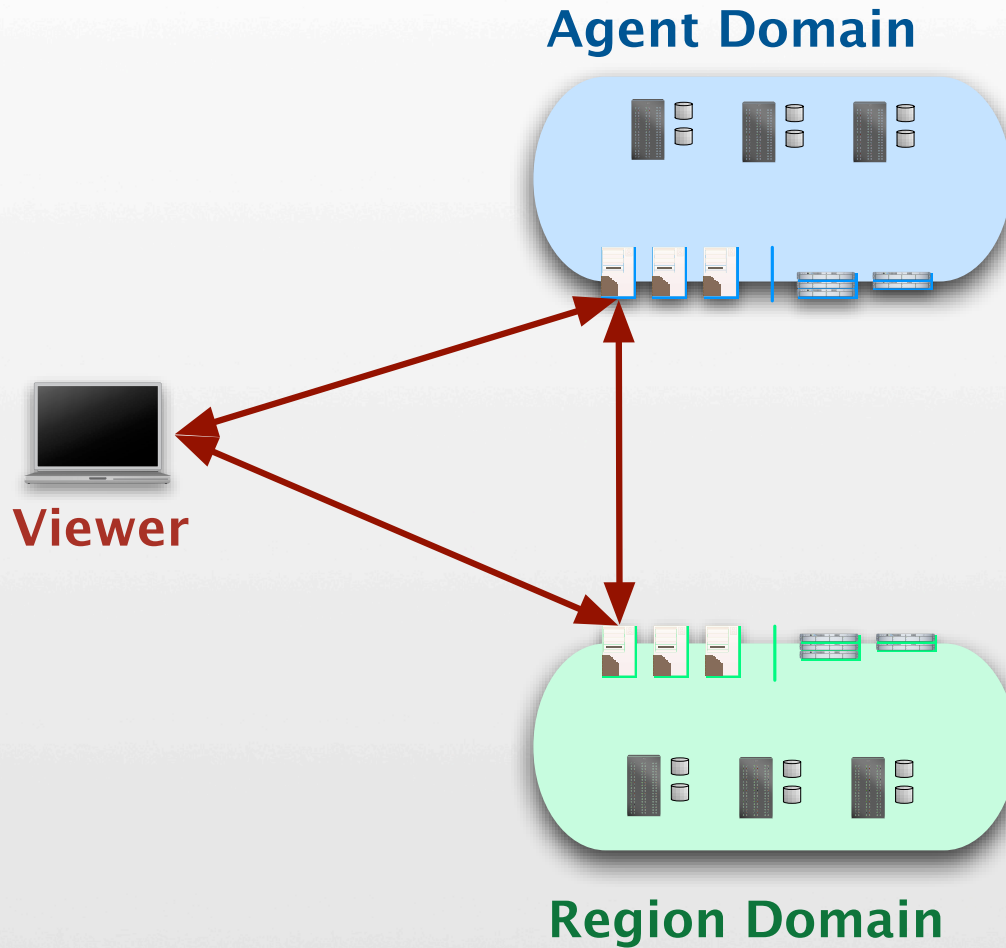Three-party Protocol:

Viewer	*the user's senses and controls*
Agent Domain	*persistent, personal identity & inventory*
Region Domain	*simulation, shared experience*

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Three Party Protocol
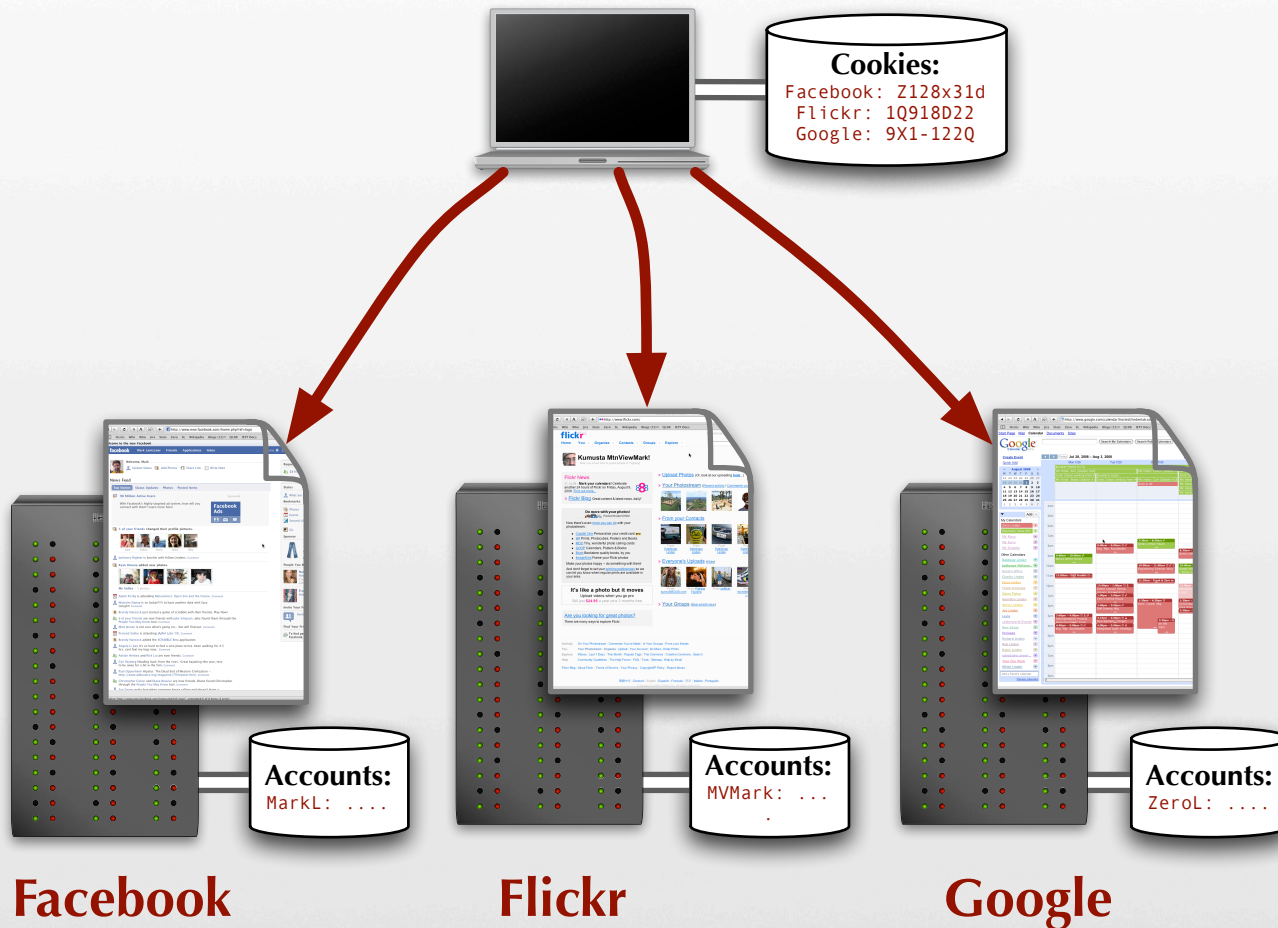
Why Agent Domain?

Agents reify personal identity

"...without personal identity
there is no community..."

Tamotsu Shibutani
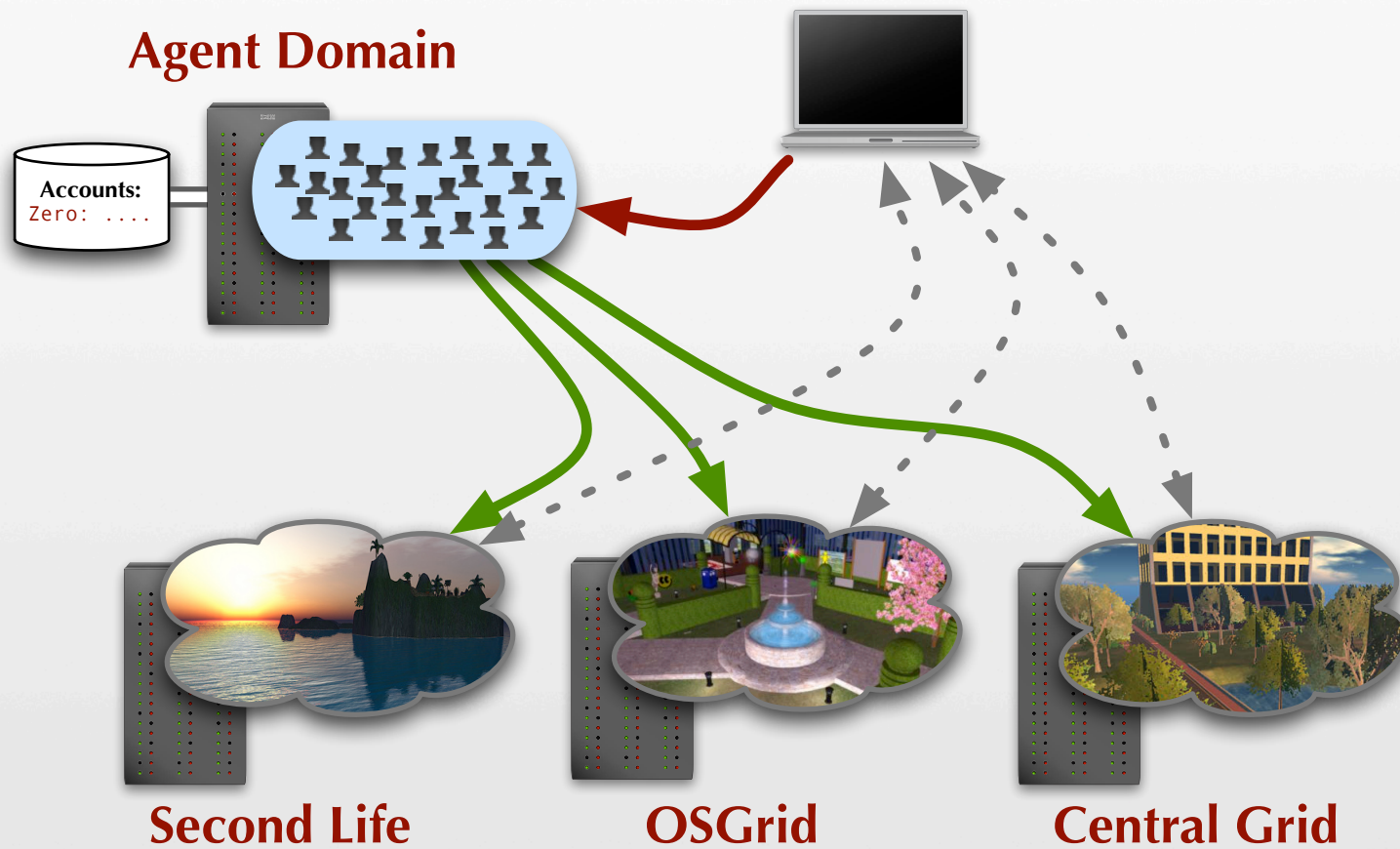*Society & Personality*
1961

Web: Multiple Accounts

OGP: One Agent

Agent Domain

Accounts:
Zero: ....
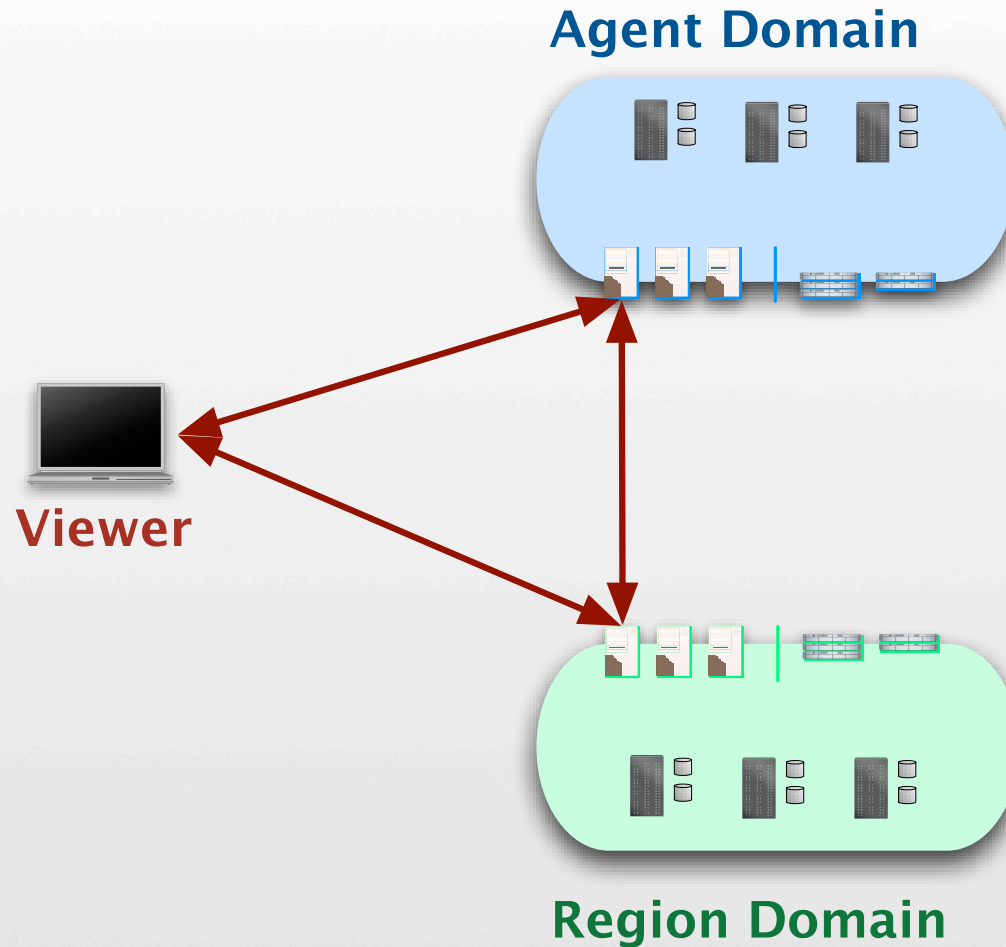
Second Life

OSGrid

Central Grid

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Agent Domain

Think of it as two steps:

- You log into your identity

- Your identity logs into the world

Three Party Protocol…

Agent Domain

Viewer

Region Domain

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...Internet Scale

Second Life Agents

XYZ Co. Employees

Viewer

Viewer

Open Land

Second Life Mainland

XYZ Co. Research Land

Alt. Continent

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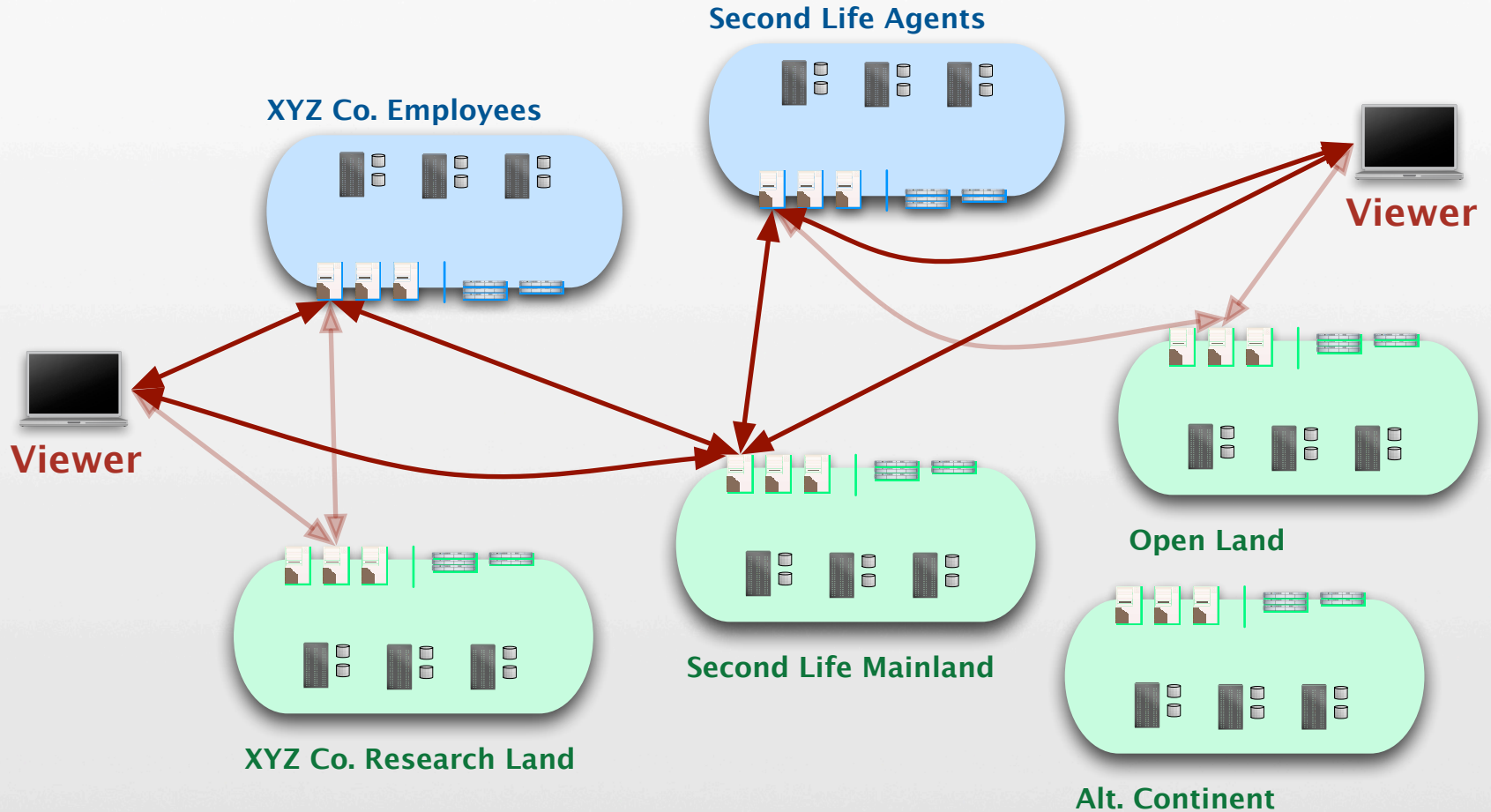
Result

People across the Internet can use their persistent identity to visit a wide variety of shared experiences hosted by anyone who wants to put up a server.

The Stack

Base for whole suite

LLSD - an abstract type system for REST protocols

OGP Base - an abstract REST API system,
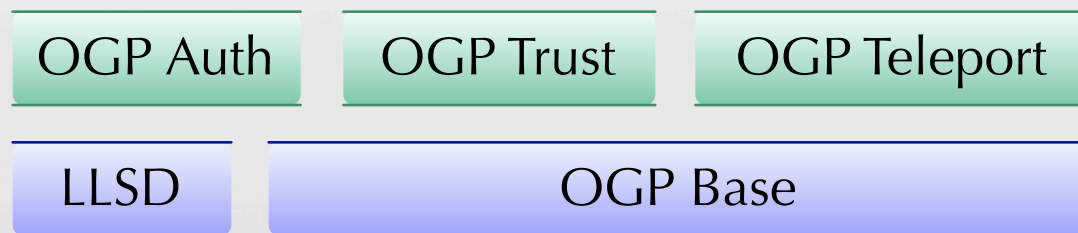   and bindings to HTTP

LLSD	OGP Base

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Establish the 3-party session

OGP Auth - authenticate client to agent domain

OGP Trust - domain to domain trust

OGP Teleport - setting up the 3-party session

OGP Auth	OGP Trust	OGP Teleport

LLSD	OGP Base

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Then comes the rest

…and you have a virtual world
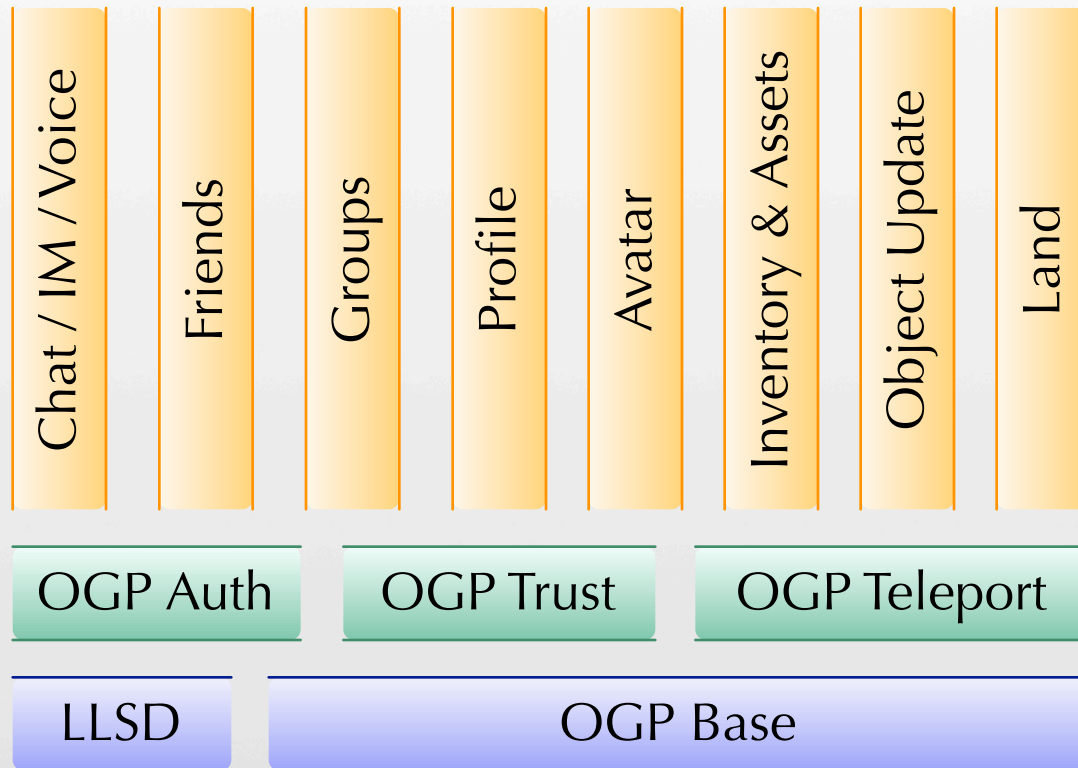
LLSD Aims

Communication w/o templates on both ends

Backward and forward compatibility

Tolerance of programmers

Ease of use

LLSD Parts

Abstract type system

Serialization formats

Interface Description Language

OGP Base Aims

Specify protocol architecture

Enable many extensible suites of functionality

Common building blocks for standard protocol operations

Clear binding to actual transport

OGP Base Components

Resource abstraction as API base unit

Capability model for separating authorization from implementation

Binding onto HTTP

Event Queue for implementing bi-directional HTTP

Contributors

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