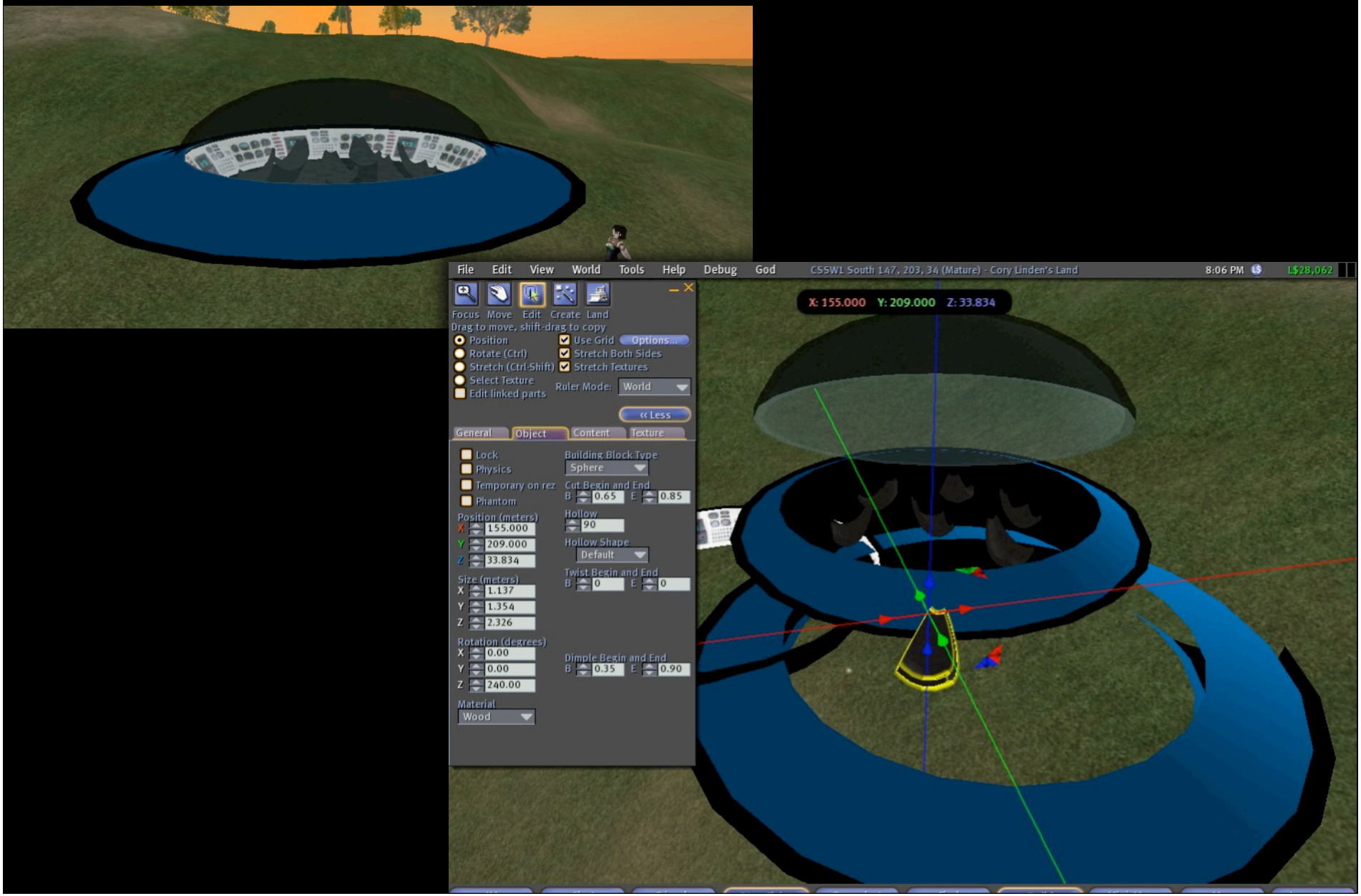
How it works (and how it doesn't)

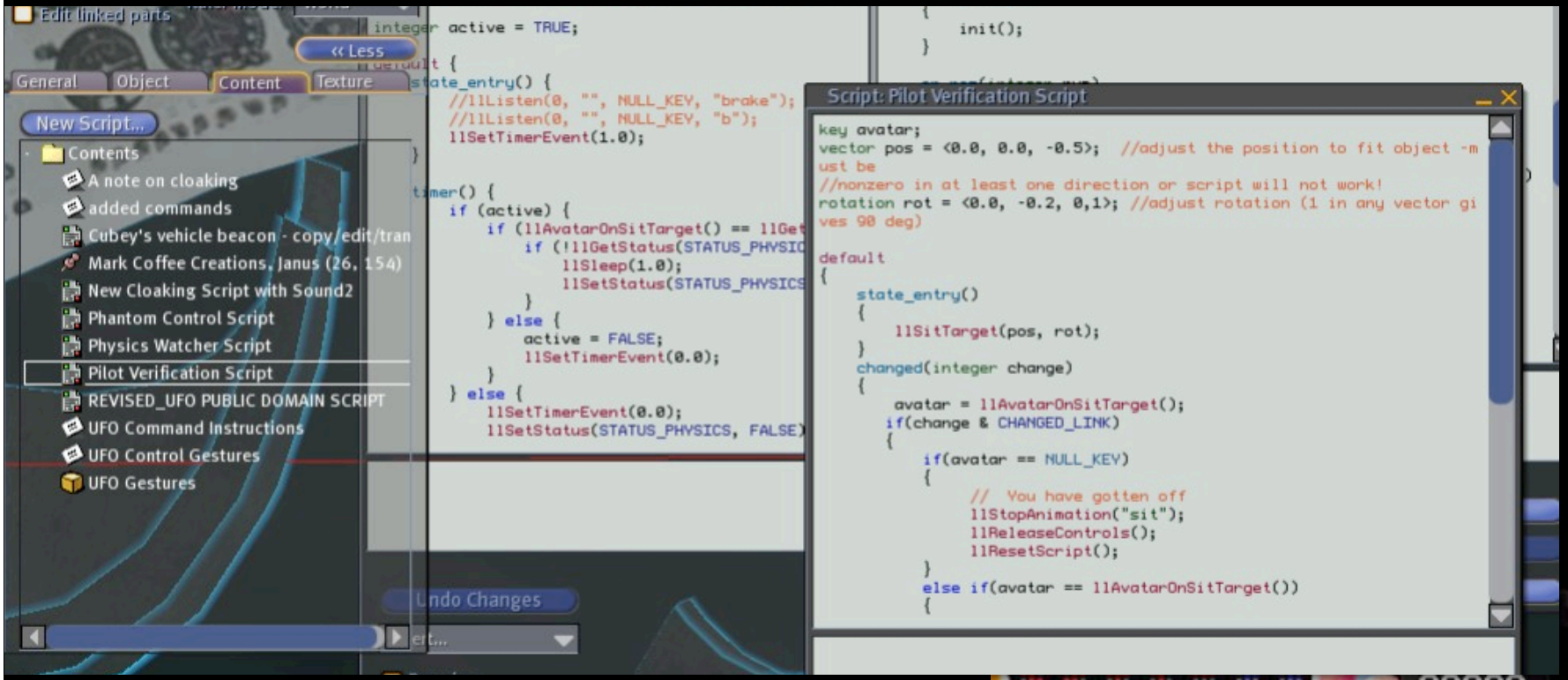
What is Second Life?

(It’s like first life, but you can fly.)

You can make your own stuff…



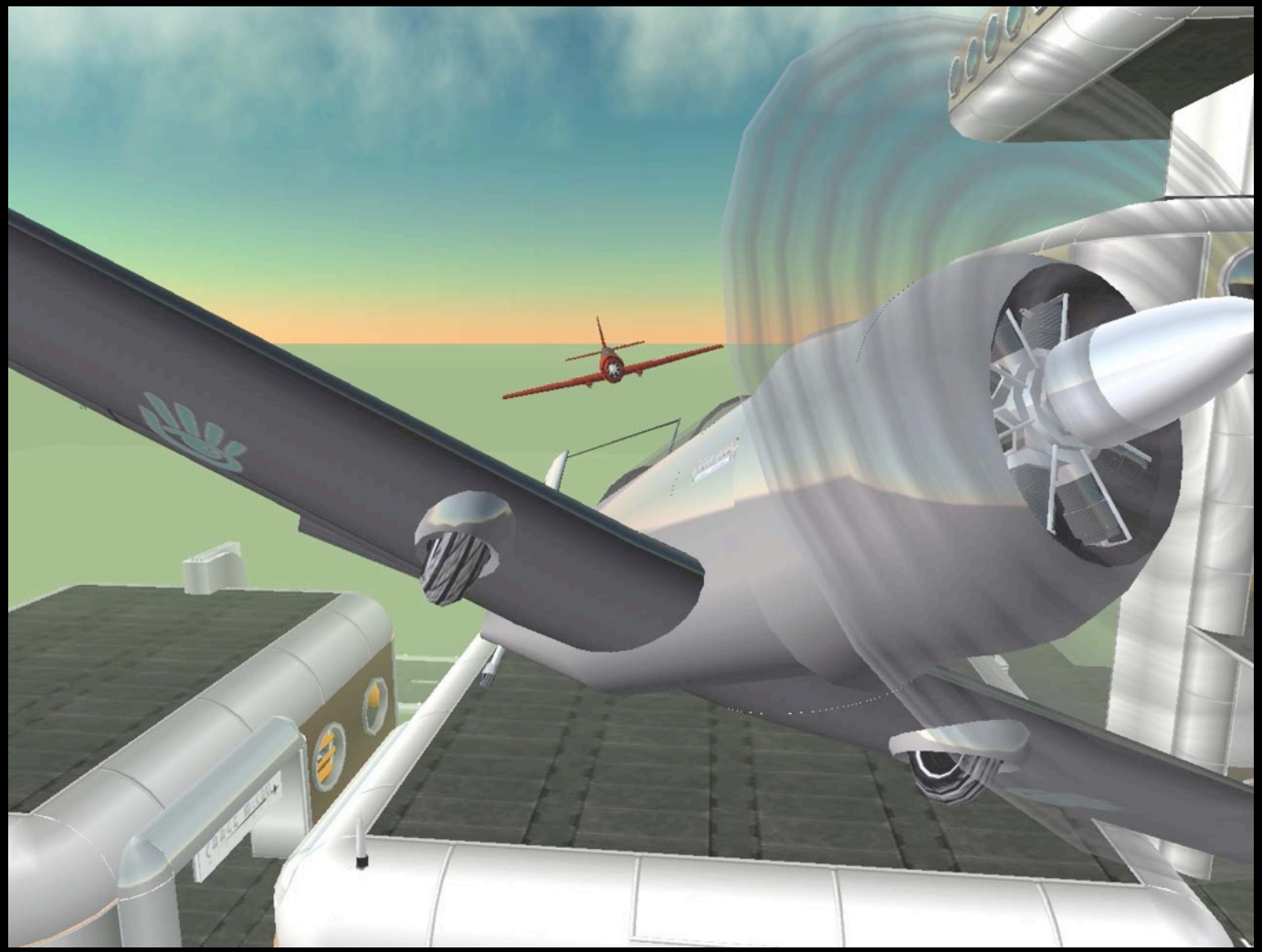
…and write your own software…



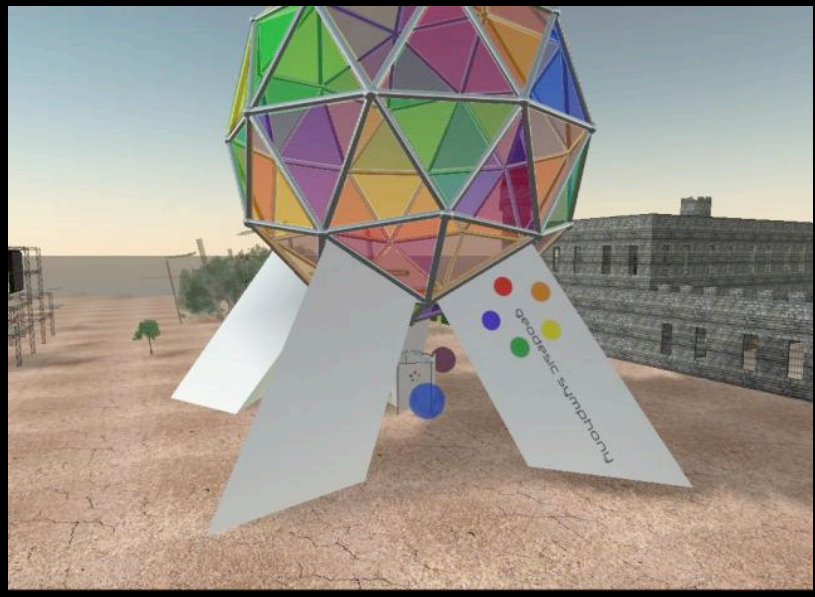
... so it's certainly not a game (or a "site").

Collaborative creativity is the killer app...

...but what do people DO in Second Life?



DANCE!
Click me!


geodesic symphony

REMEMBER

ONLY YOU

CAN PREVENT GRAY GOO

NEVER RELEASE NANOBOT ASSEMBLERS WITHOUT REPLICATION LIMITING CODE

www.modernmonkey.com

Cut a hole in the world to stop the goo

Grey goo

Firebreak

One server re-compile later:

(We've subsequently installed space lasers and replication fences)

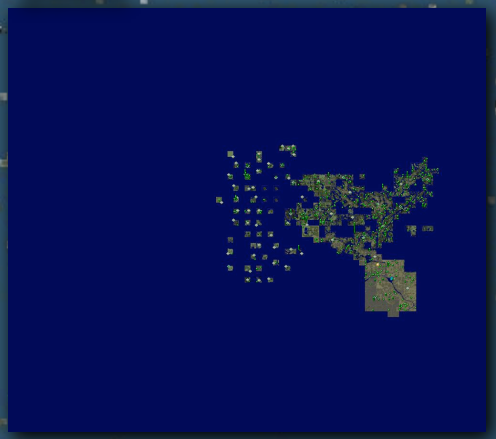
Back to our regularly scheduled program...

SL is pretty big

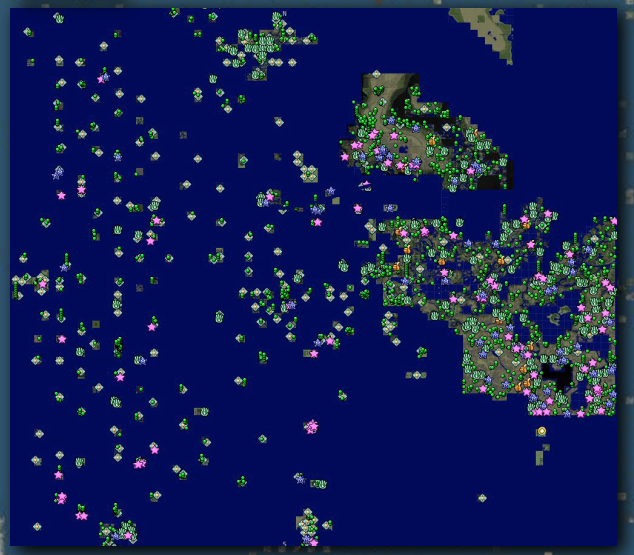
2007

2003

2005

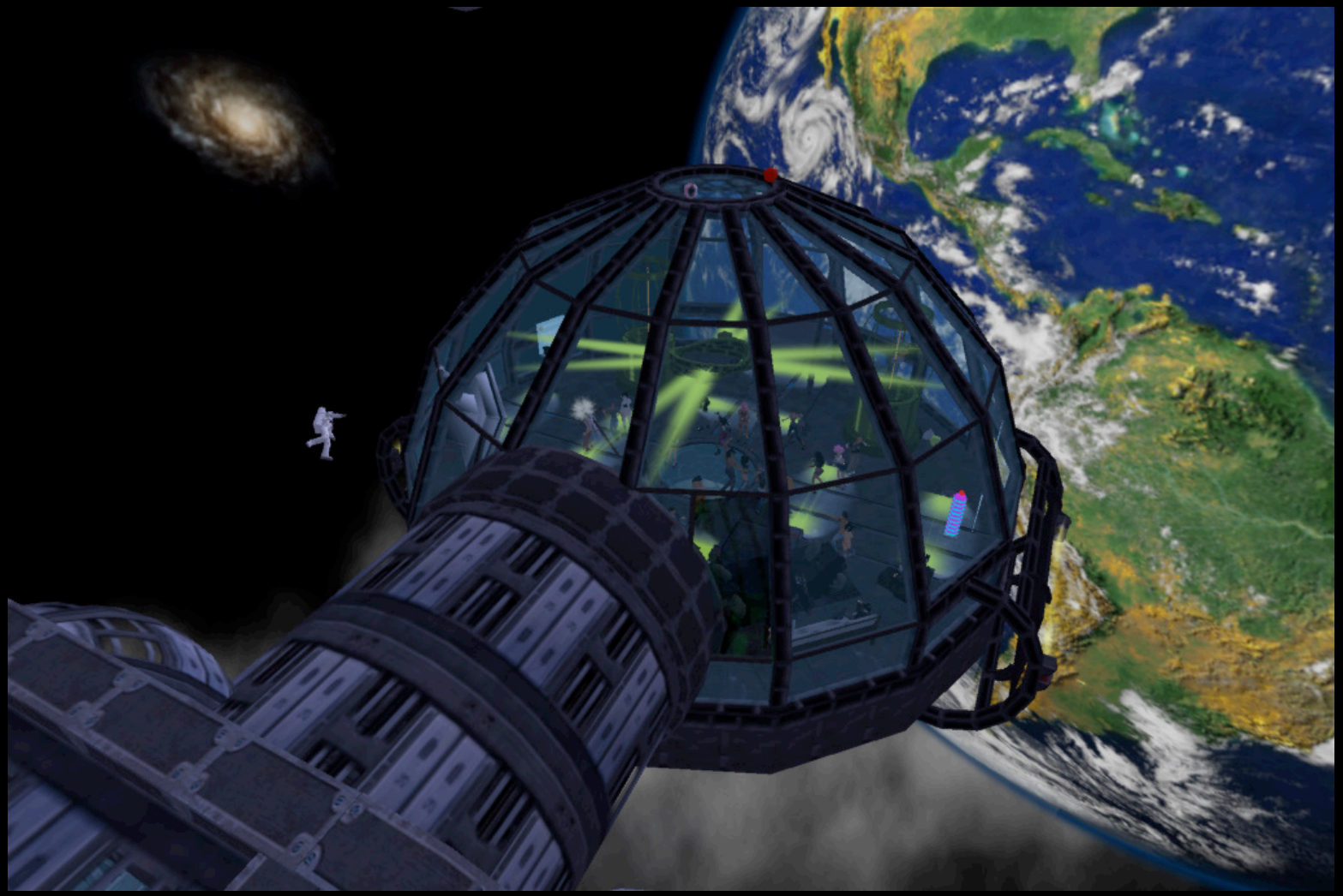


2006



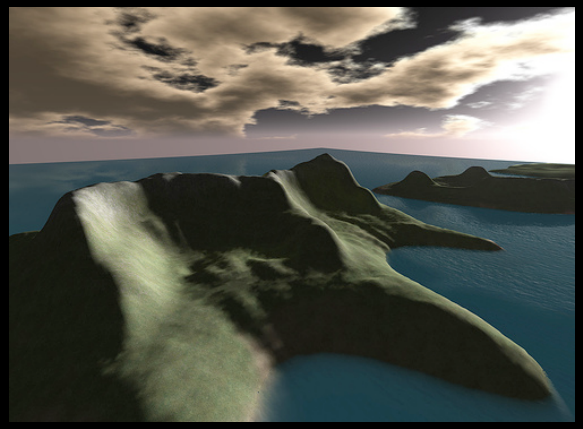
15,400 simulator processes
956 square kilometers = 8X San Francisco
~100 TB (over 1bn files) of user-created content
30 million concurrent scripts

How it works, today and tomorrow



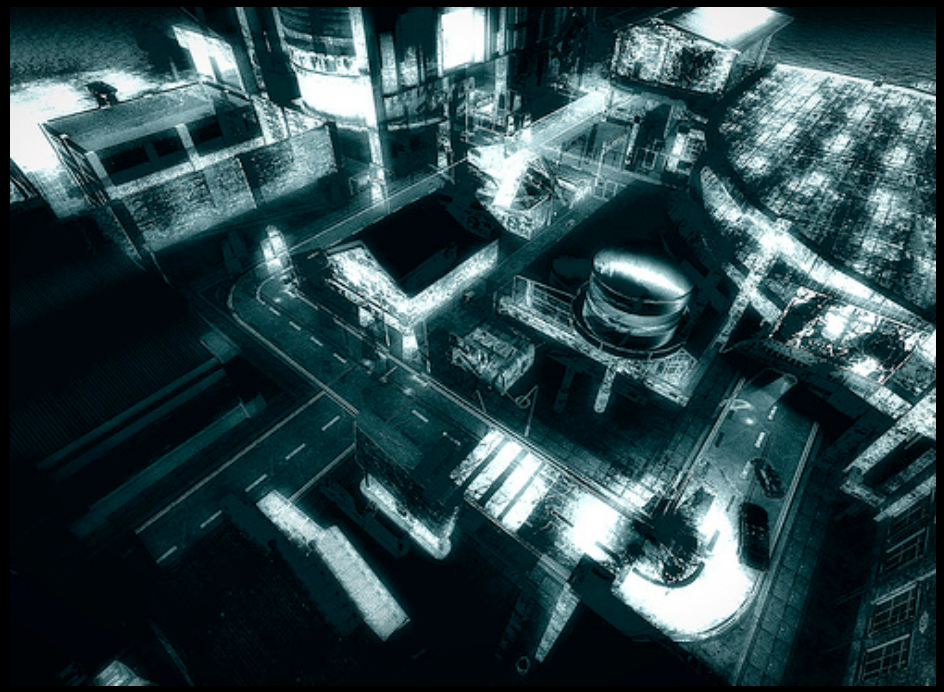
SL (the software) has two primary components: Viewer and Simulator

A user's PC



A Linden Lab server

The simulator



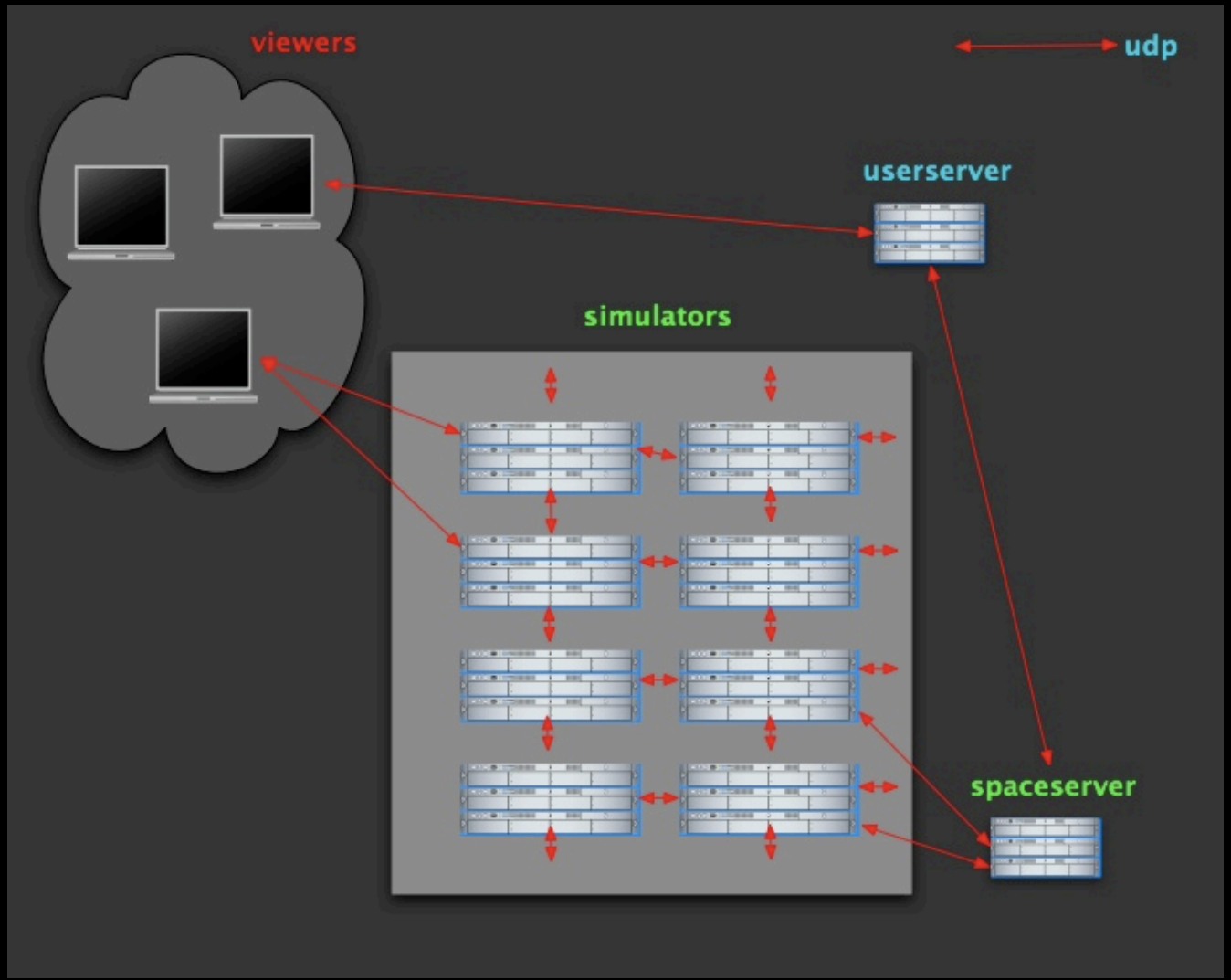
- Monolithic C++ application
- Linux
- 15,400 concurrent sims
- Fixed 256m x 256m size
- Havok Physics
- LSL Scripting
- Visibility Calculation
- Scene compression and streaming
- Closed source

The viewer

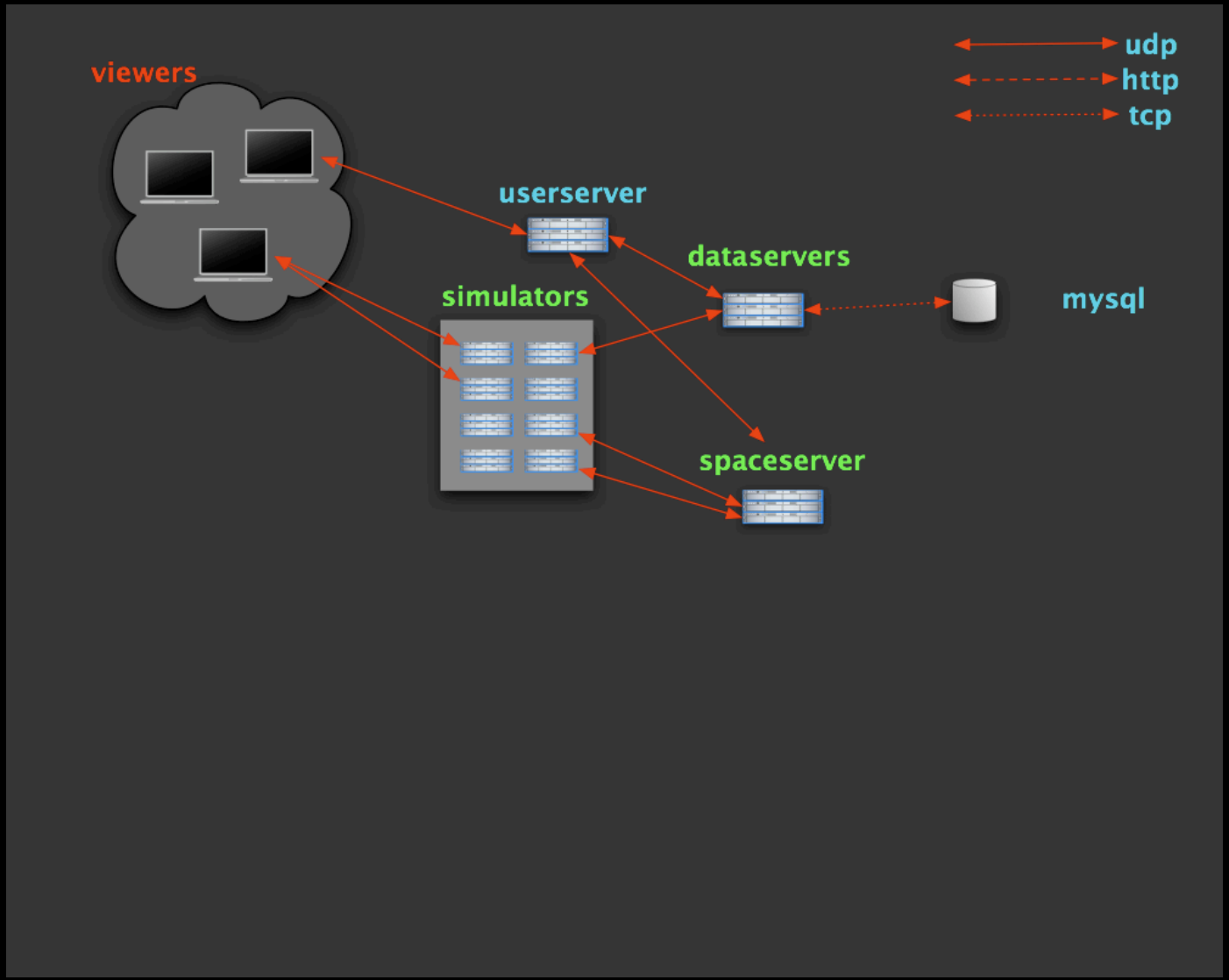
- Monolithic C++ application
- Windows, Mac OS X, Linux
- 50,000 concurrent viewers
- Creation tools built-in
- No client scripting
- No plugins
- Open source!

BTW: go download the code!

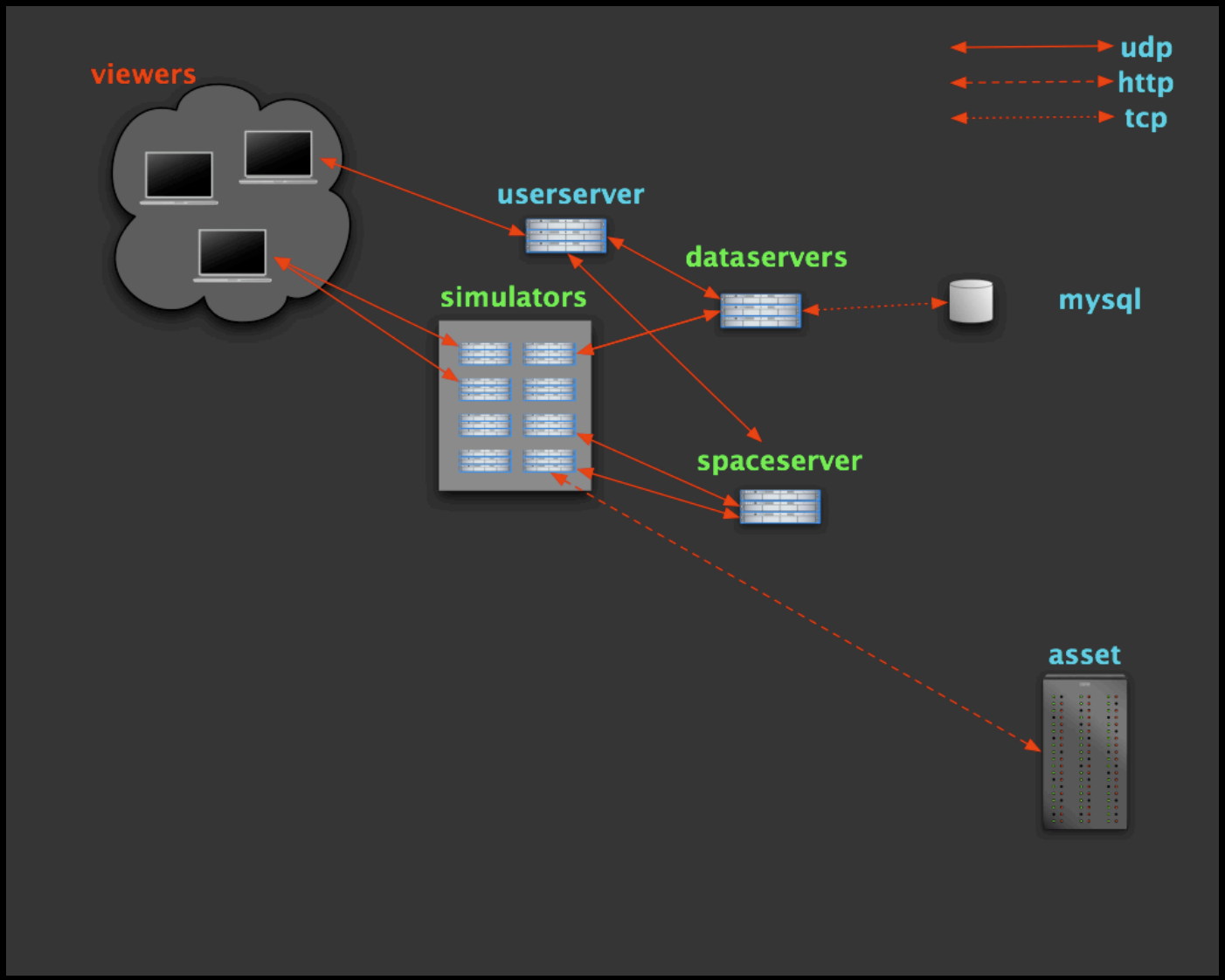
A simple plan



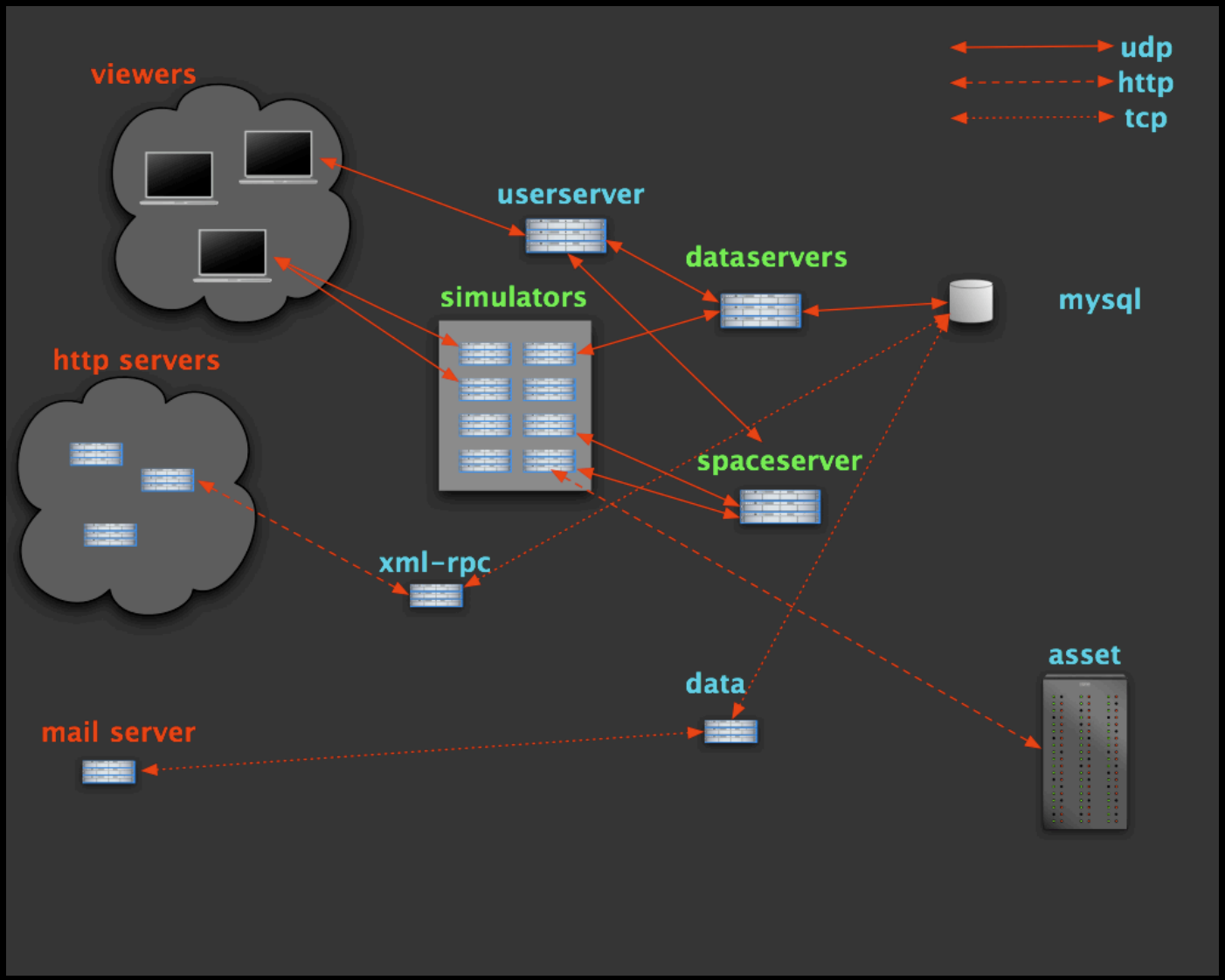
...with global data



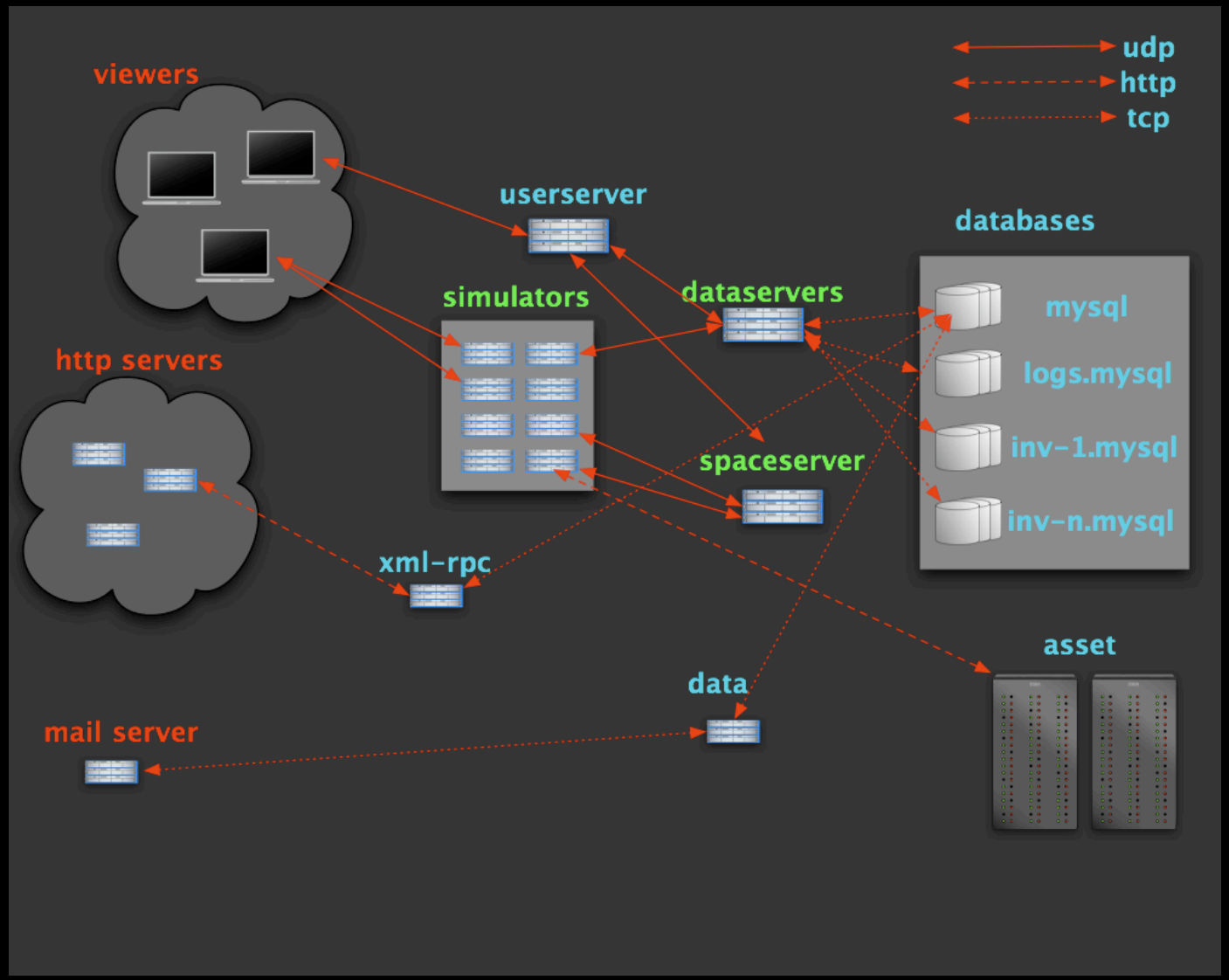
...and permanent storage



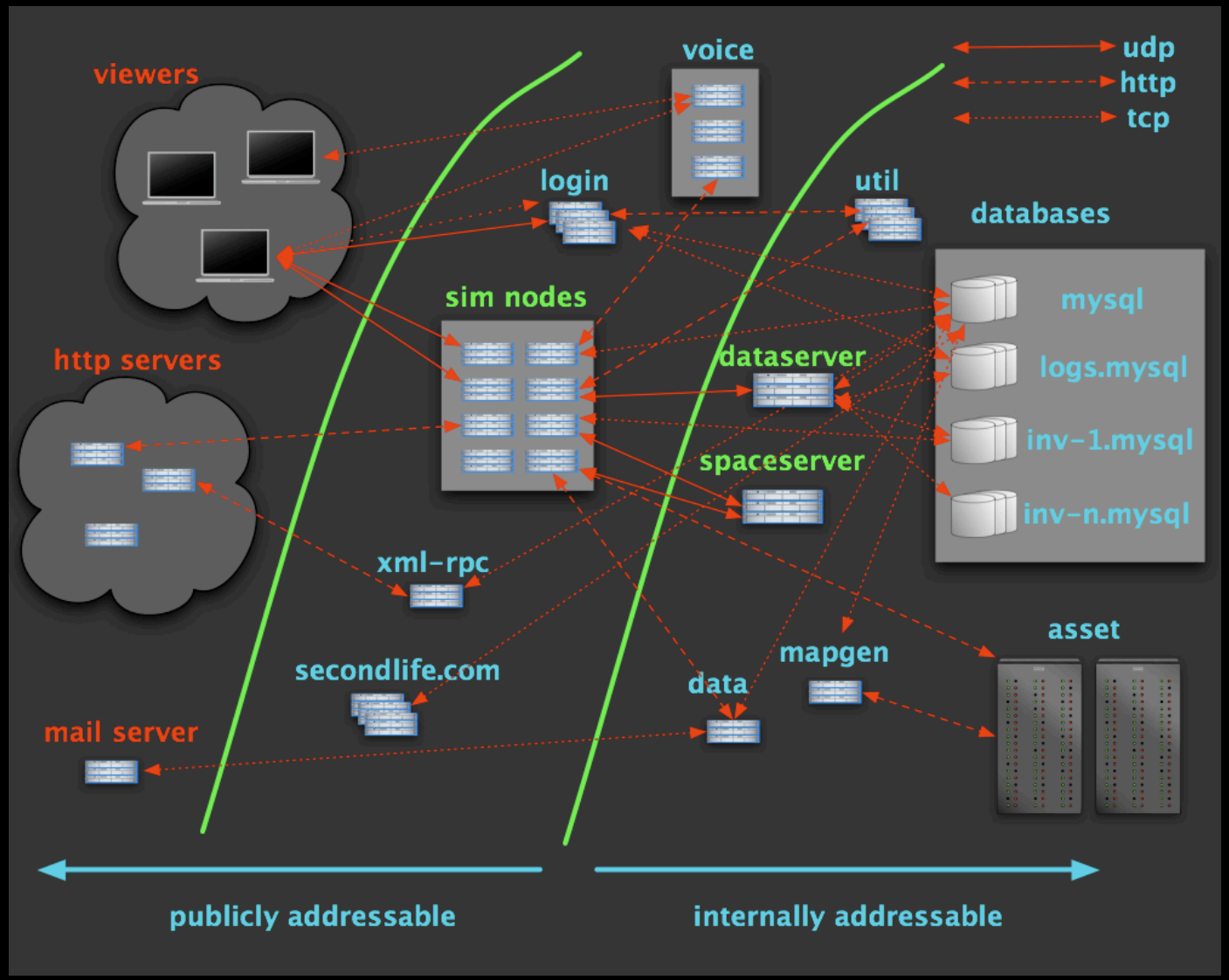
...and external communicatons



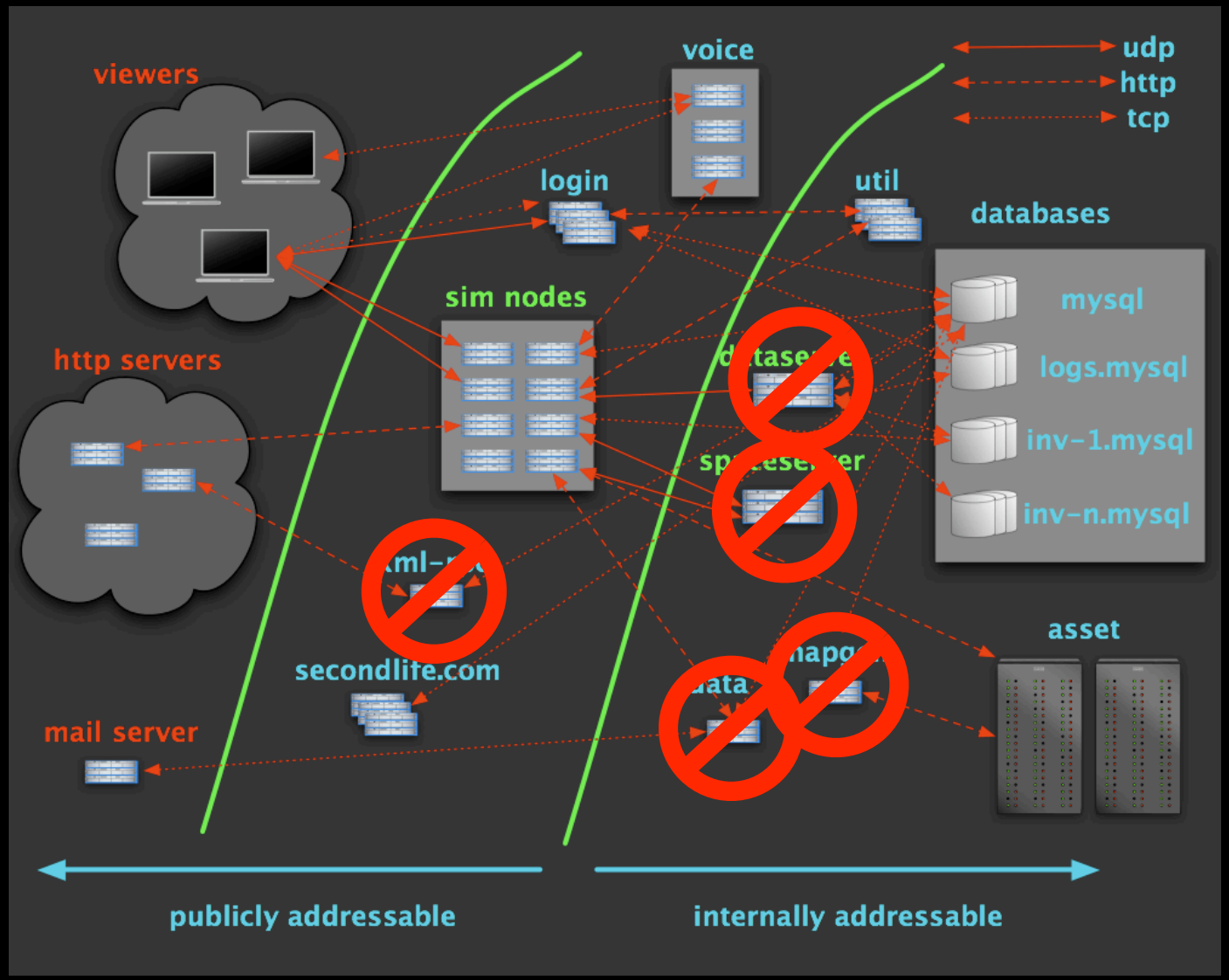
...and it needs to scale



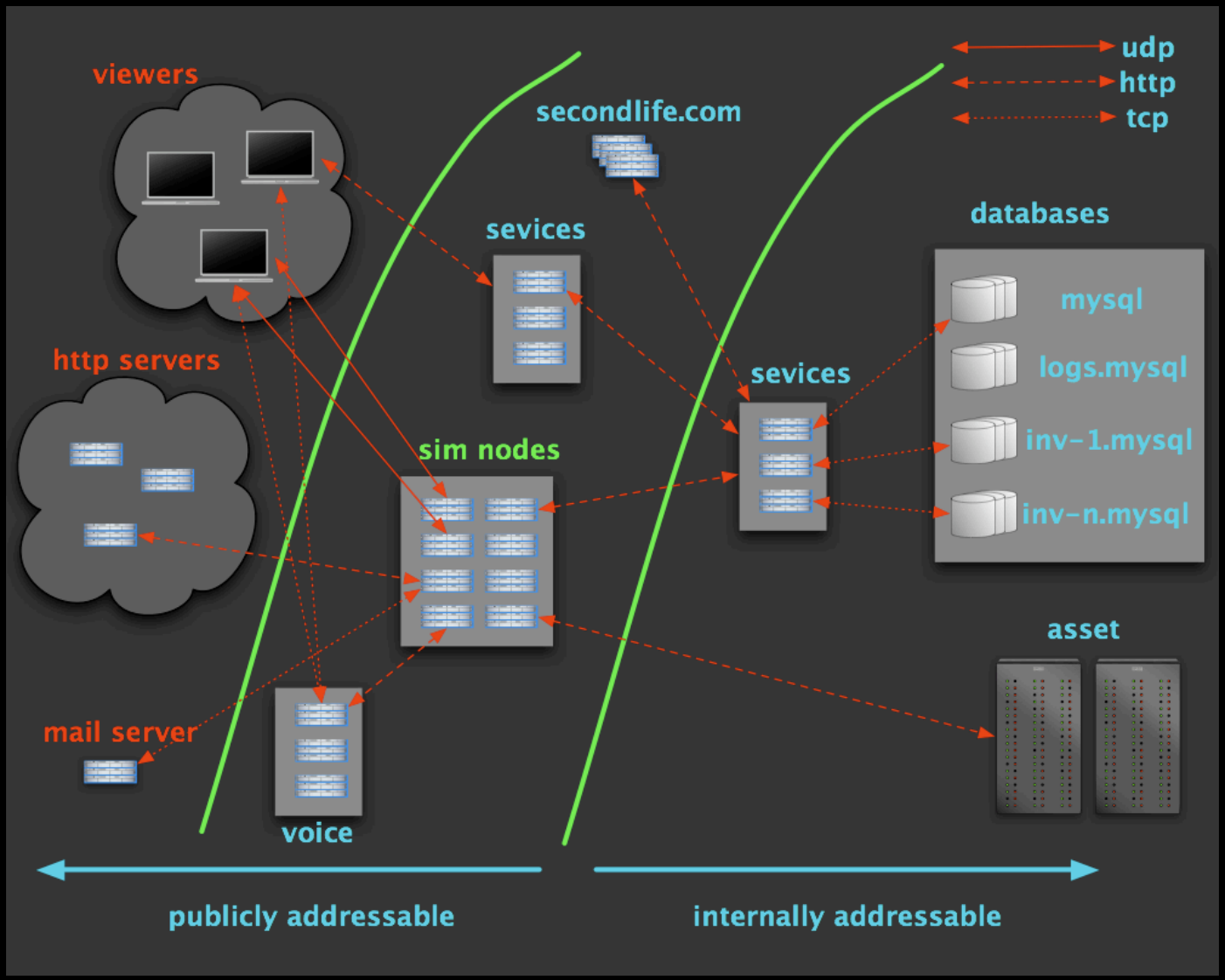
...so not really simple, OR a plan



Legacy components

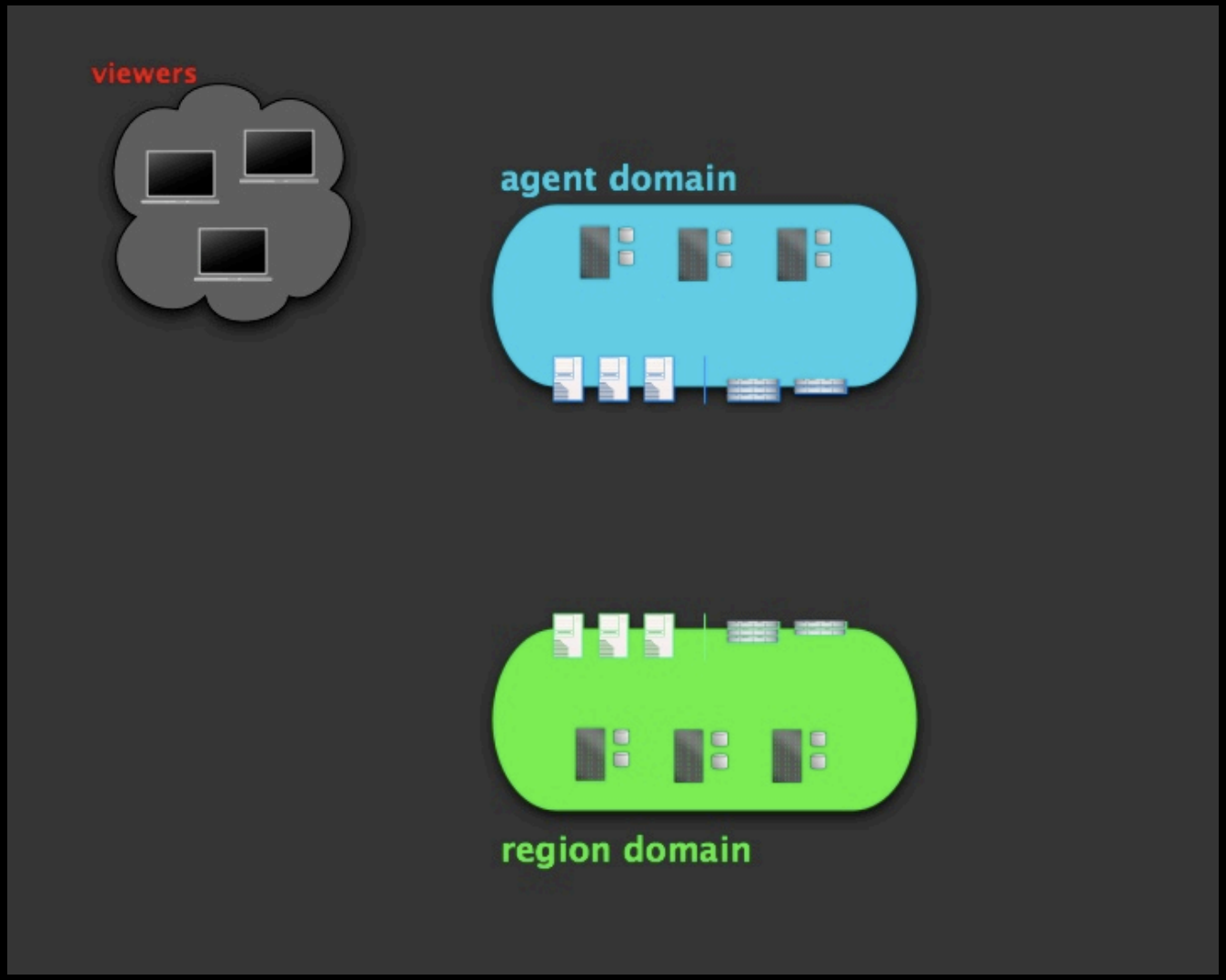


Time to modernize

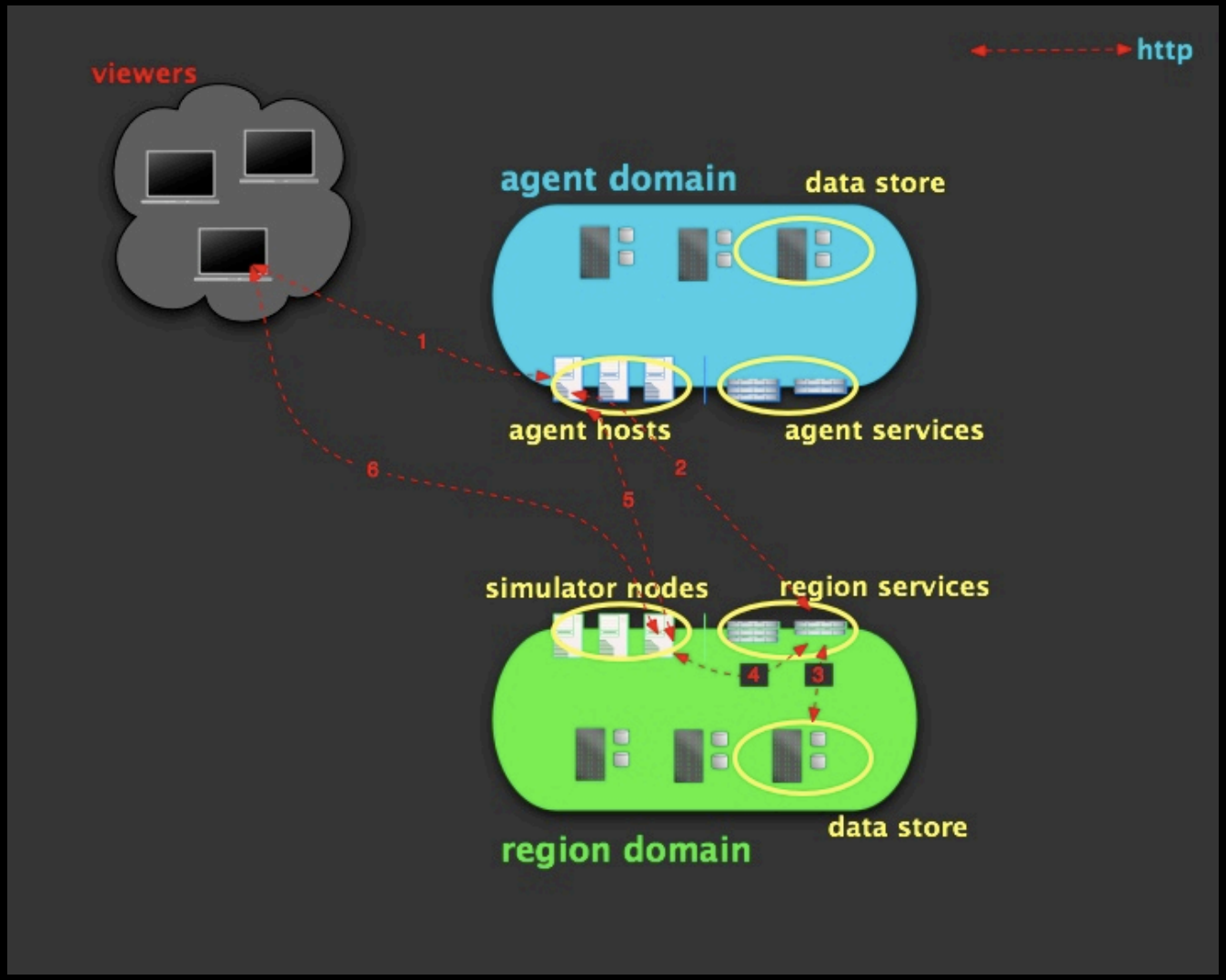


(Ponder...)

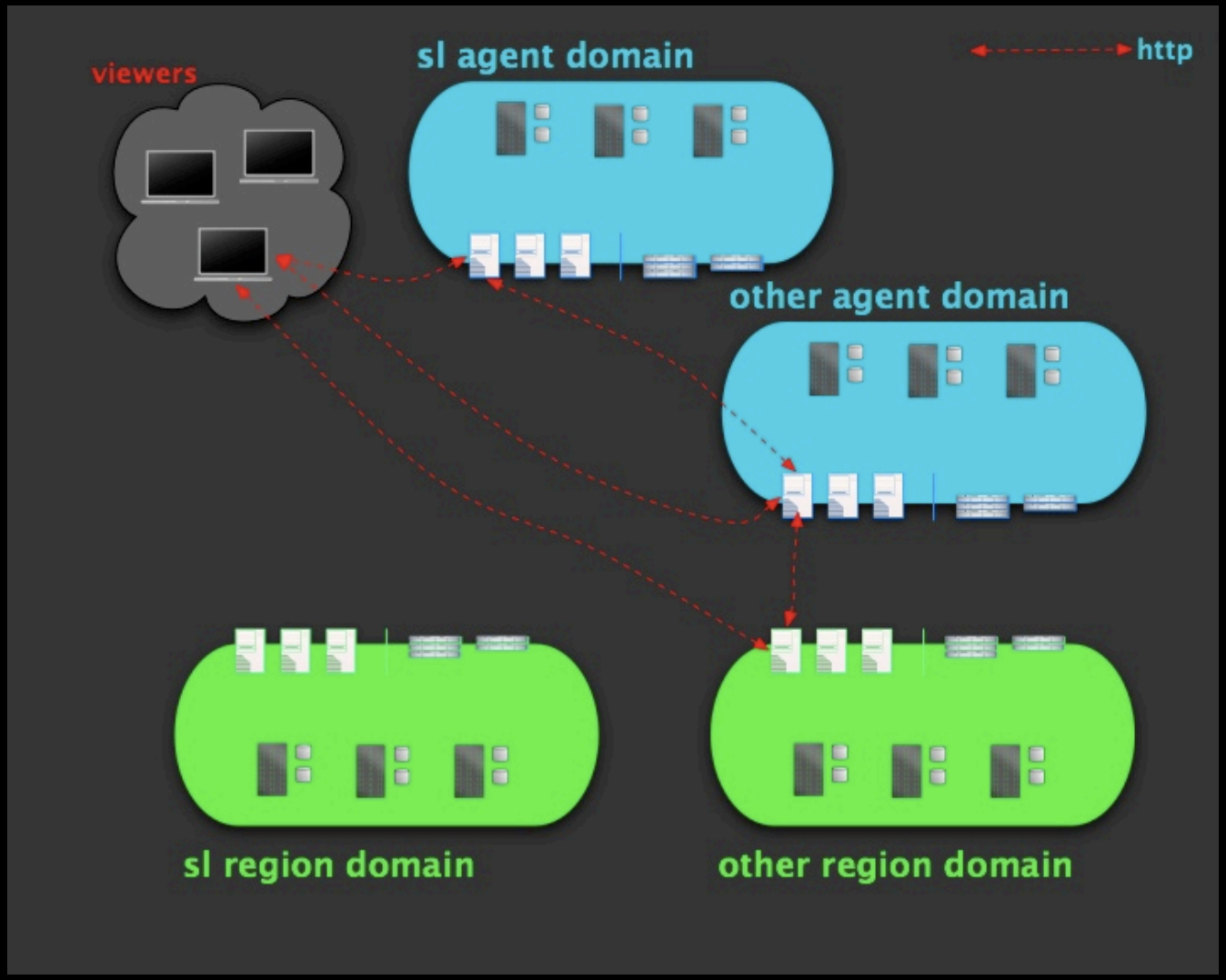
SL is a World filled with Avatars



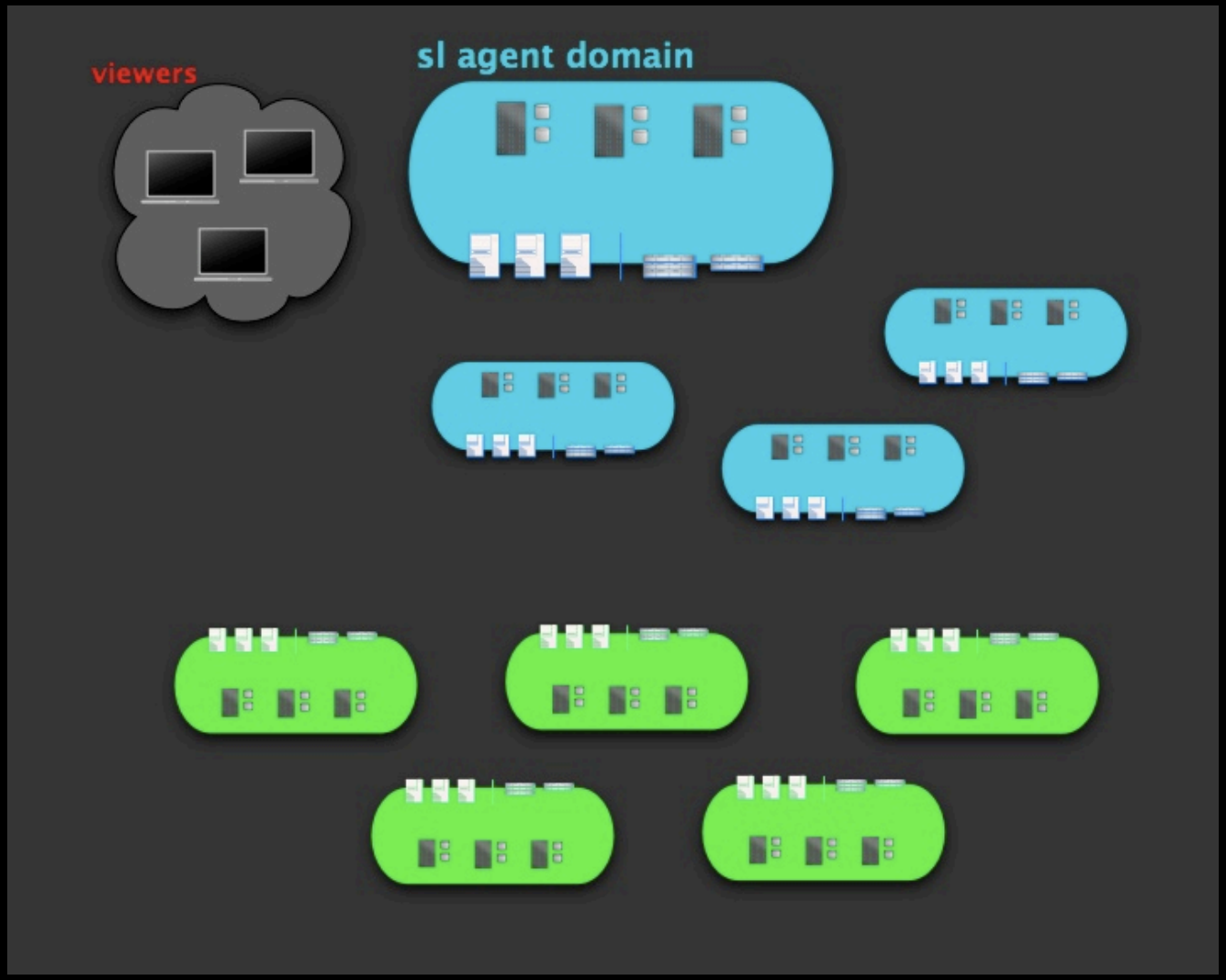
These could be self-contained units



For a larger scale



Toward a global platform



Second Life is a huge success, and the more people use it, the more interesting it gets. What you can do and be and create in this virtual world is limited only by SL technology, so we will never stop improving that technology. At the same time, we recognize that SL cannot truly succeed as long as one company controls the grid, so we must work toward opening the platform.

All of which is to say: we're only just getting started.

a tiny aside

The Second Life software is built and maintained by a 50-person developer team.

The Second Life infrastructure is built and maintained by a 12-person operations team.

lindenlab.com/employment

Questions?

Ian Wilkes
ian@lindenlab.com