

XLDB 2015

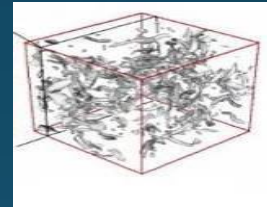
ElasticR

Connecting the dots of scientific computing
from the pi to the clouds

Science and the 4th paradigm



$$\left(\frac{\dot{a}}{a}\right)^2 = \frac{4\pi G\rho}{3} - K \frac{c^2}{a^2}$$



Experimental
Science

Theoretical
Science

Computational
Science

e-Science / Data-
intensive Science

The failure of the Grid paradigm



The Dancing Bear

The townspeople gather to see the wondrous sight as the massive, lumbering beast shambles and shuffles from paw to paw.

The bear is really a terrible dancer, and the wonder isn't that the bear dances well but that the bear dances at all



Take the compute to the data,
Run real-time events-driven R+Python engines anywhere



Public Clouds



Private
Clouds



Compute Clusters



Raspberry Pi / IoT

Hyper-Agile data science



RAD framework
for big data



Agile parallel
computing



Real-time, events-driven
R engines in the Cloud



Real-time, events-
driven Python engines
in the Cloud

Access from anywhere



Browser,
Html 5 virtual
workbench



Word



Excel



R Library



Python Library

ElasticR

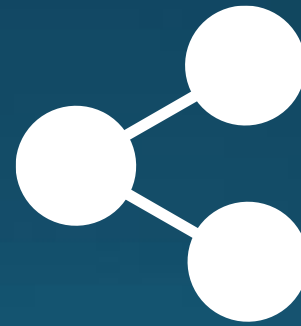
Real-Time collaboration and reproducible research



Online Collaboration



E-Learning



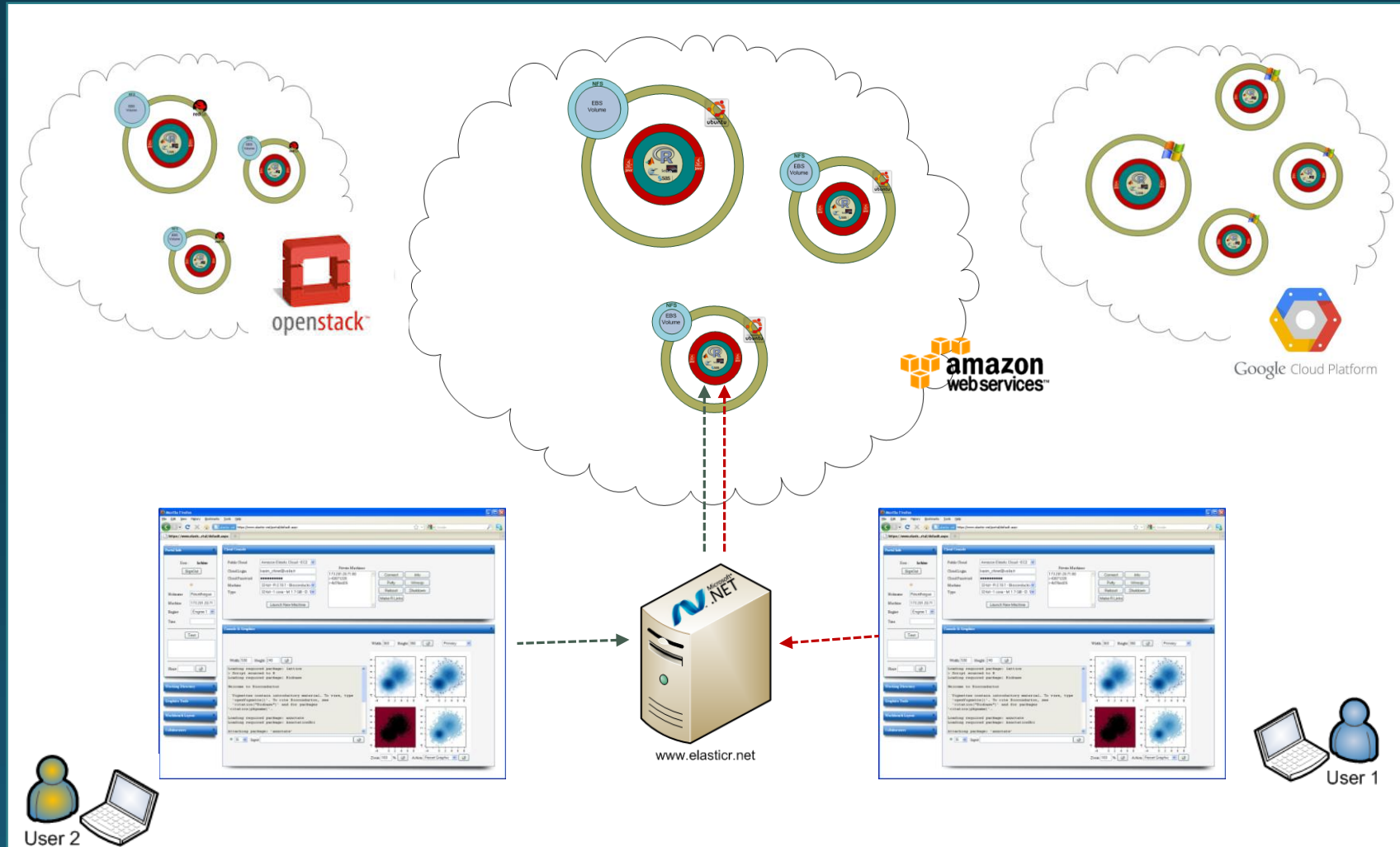
Sharing



Reproducible Research

ElasticR

Design overview



Demo

www.elasticr.com