

Date & Time Time Zone Clock

Click your part of the world, then choose a city from the pop-up menu.



Time Zone: EDT

Closest City: New York - U.S.A.



# Time Zones

*Cyrus Daboo*

*Apple Inc.*

# Current State

- ◆ Many OS's, calendar products, rely on Olson TZ Data:
  - ◆ zoneinfo on unix, linux, Mac OS X systems
- ◆ TZ Data is an "ad-hoc" operation hosted on an NIH server and managed by a few individuals, based on mailing list input
- ◆ There is no guarantee on the longevity of this service
- ◆ Other vendors maintain their own TZ Data (e.g., Windows registry)

# Who cares about this?

- ◆ Everyone - all our devices (desktops, mobile, embedded) use time zone data.
- ◆ This covers many areas - not just calendaring and scheduling products (e.g. airline schedules, building management systems, etc).

# Time Zone Problems

- ◆ From a Calendaring & Scheduling standpoint we have seen many interoperability problems related to time zones:
  - ◆ Different definitions used by different products
  - ◆ Failure to properly update when rules change
  - ◆ Failure to update in a timely fashion when changes occur

More...

# Time Zone Problems

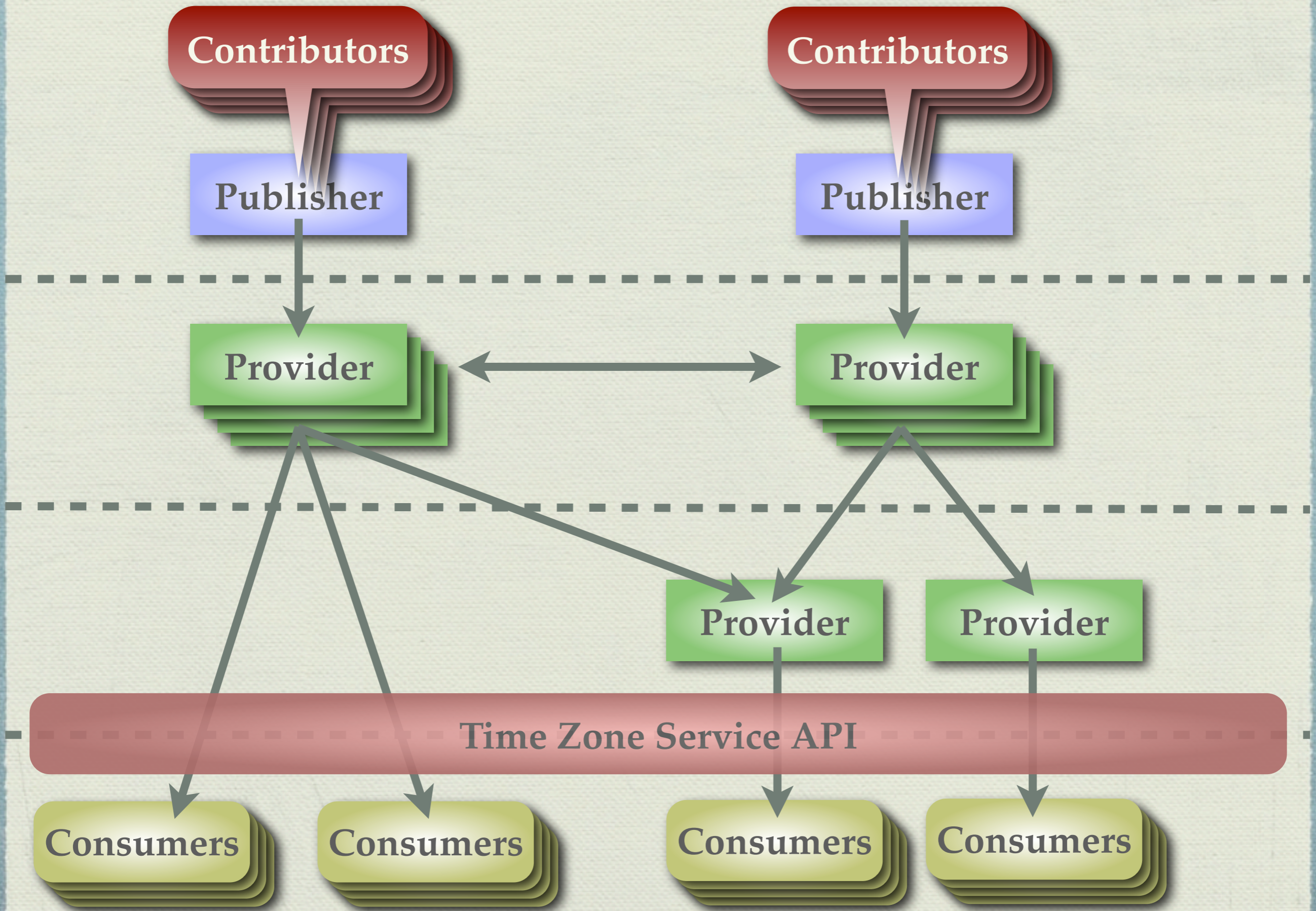
- ◆ From an OS standpoint:
  - ◆ Many copies of zoneinfo on the same system - often versions do not match
  - ◆ Updates only done as OS patches - cannot respond fast enough to changes

# Ongoing Work

- ◆ The Calendaring & Scheduling Consortium (CalConnect) has a Technical Committee working on these issues
- ◆ Their goal is to develop a set of draft proposals for submission to the IETF
- ◆ Recent Time Zone Workshop took place during CalConnect Roundtable event in February, hosted by Microsoft
- ◆ Key vendors are involved in this effort

# Proposed Solutions

1. Create IANA Time Zone Registry for Publishers of TZ data
2. Define a Time Zone Service protocol so standard TZ data can be distributed from Providers to Consumers
3. Work out a plan of succession for Olson data - host mailing list and ftp archive on a well established site - perhaps ISOC?
4. Make sure time zone data is "secure" - digital signatures





# Summary

- ◆ We want a long term solution for time zone data
- ◆ Must be secure, reliable, and timely
- ◆ Registry for publishers so source of data can be relied on
- ◆ Internet-wide time zone service to make distribution simple and fast and scaleable
- ◆ Promote common apis and libraries for accessing and managing the data