RUBICON

Win Markets.

Platforms, ecosystems, and the future of software

Michael Mace, April 7, 2009

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About Rubicon

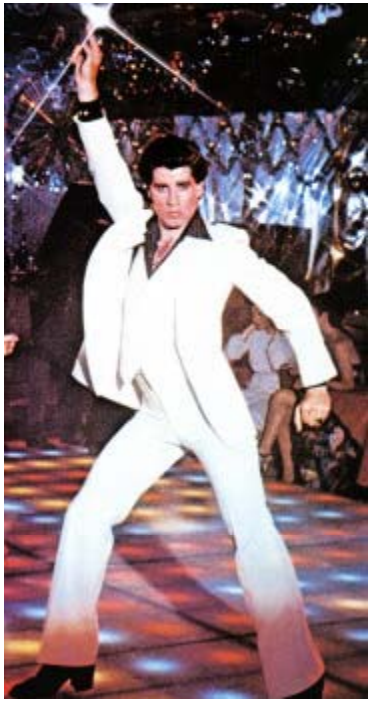
- **Help high tech organizations win markets through business and market strategy**
  - Since 1999
  - Practices: define, deliver, defend, optimize

RUBICON

About me

- **Macintosh software developer**
- **Apple**
  - Director of Mac platform marketing
  - Director of customer & competitive analysis
- **Palm/PalmSource**
  - VP of product planning
  - Chief competitive officer

Everybody wants a platform



Google Maps

facebook

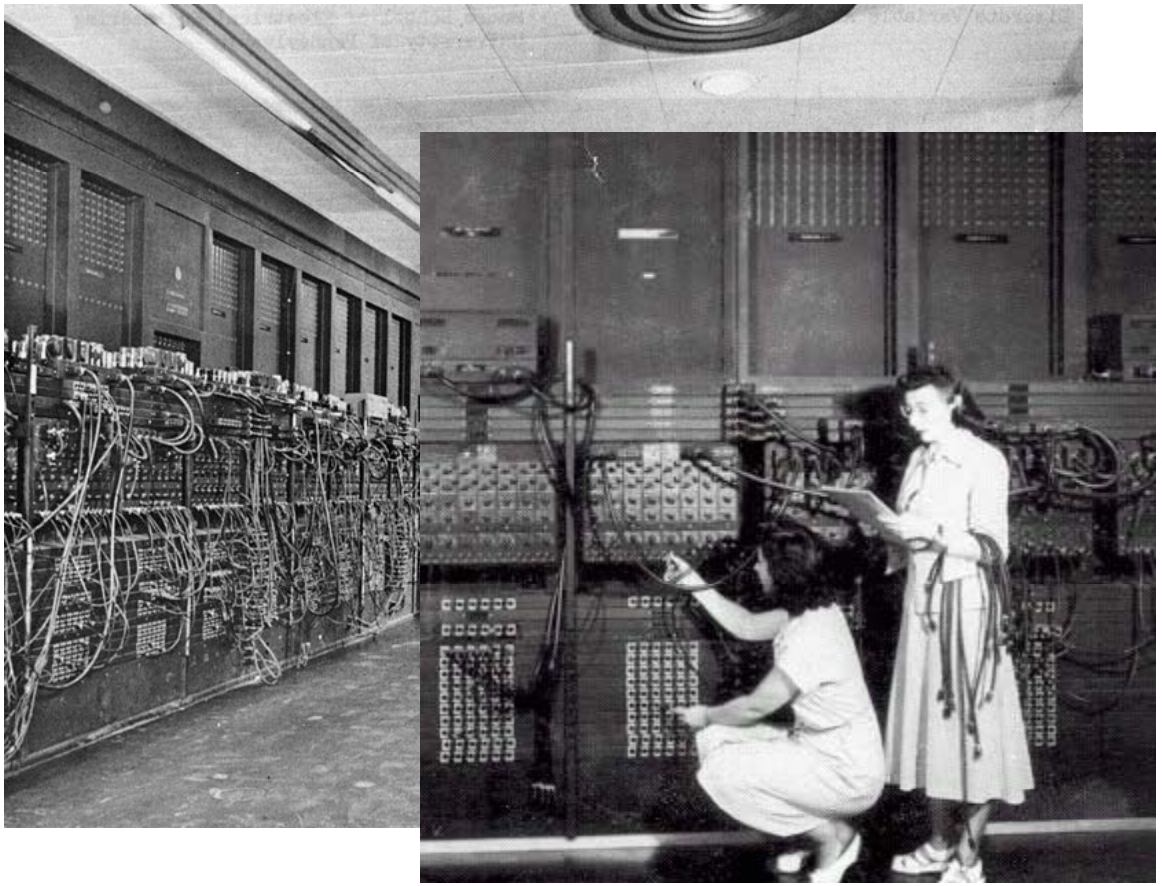
Where did this "platform" thing come from in the first place?

Agenda

- A quick history of software platforms
- What makes a platform win?
- Where will the industry go next?

We remember hardware better than software

- What's the first electronic computer?
- ENIAC, 1946



What was the first business computer?

J. Lyons & Co.

J. Lyons & Co.

- 30,000 employees
- 150m meals a year
- 36 miles of Swiss roll a day

- ...all on paper

1951: The first business computer

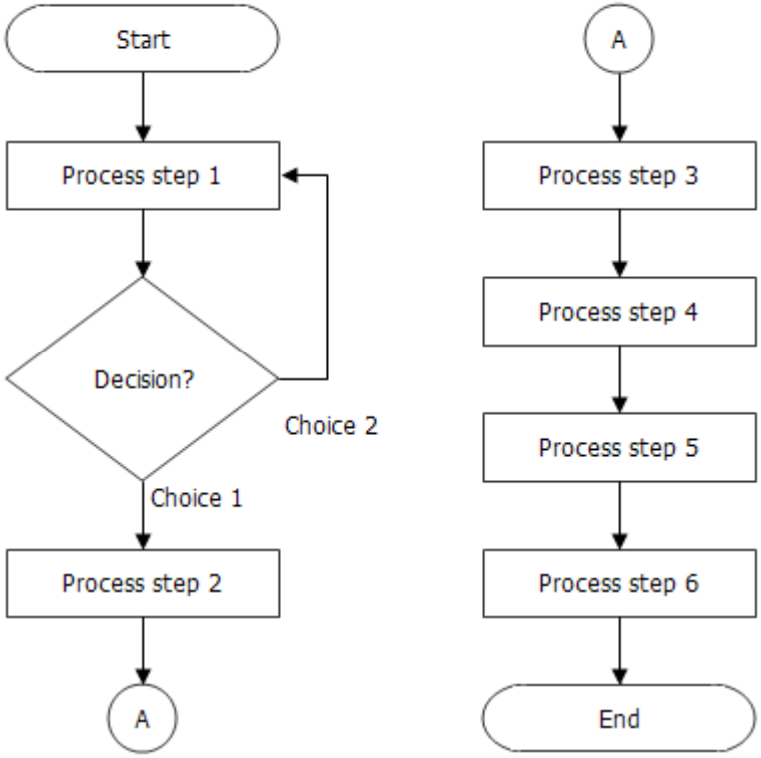
- **Lyons LEO, 1951**
  - Paid Cambridge $5k
  - 5,000 square feet, 4k of memory weighing half a ton
  - Payroll, inventory, order management...
    - Processed an employee's wages in 1.5 seconds (vs. 8 minutes)
- **Lyons spun out as a computer company**

David Caminer, the first business app programmer / systems analyst

Software was synonymous with hardware

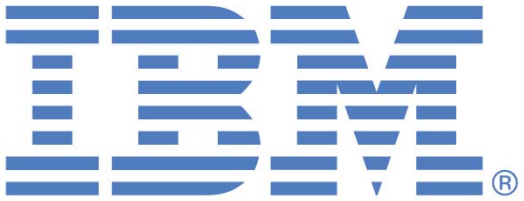
- **First verified use of term "software"**
- **John Tukey, 1958**
  - Statistician
    - Princeton and Bell Labs
  - Helped design the U2
  - Popularized the term "bit"

What was the first third party app?

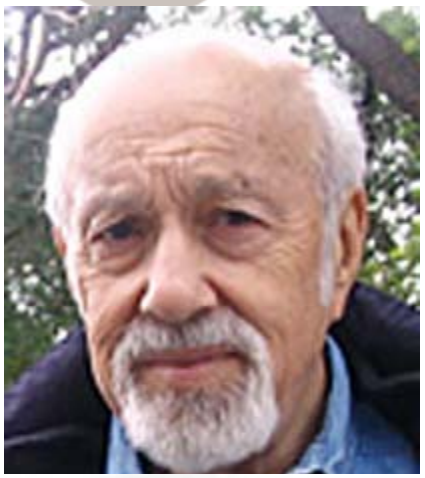


The first third-party app

- **Applied Data Research Autoflow, 1964**
  - An automatic flowcharting program
    - Also the first patented software
  - RCA first, then IBM
  - IBM: free clone
  - US government antitrust suit, 1969
  - January 1, 1970: IBM unbundles



The first third-party app



- **Martin Goetz**
  - Project Manager, Autoflow
  - Holder of first software patent
- **Mike Guzik**
  - Lead programmer, Autoflow

COMPUTERWORLD

THE NEWSWEEKLY FOR THE COMPUTER COMMUNITY

First Patent Is Issued for Software, Full Implications Are Not Yet Known

7090 or User-Designed Codes Work on System

Computerworld, June1968

1970s: Rise of the killer app

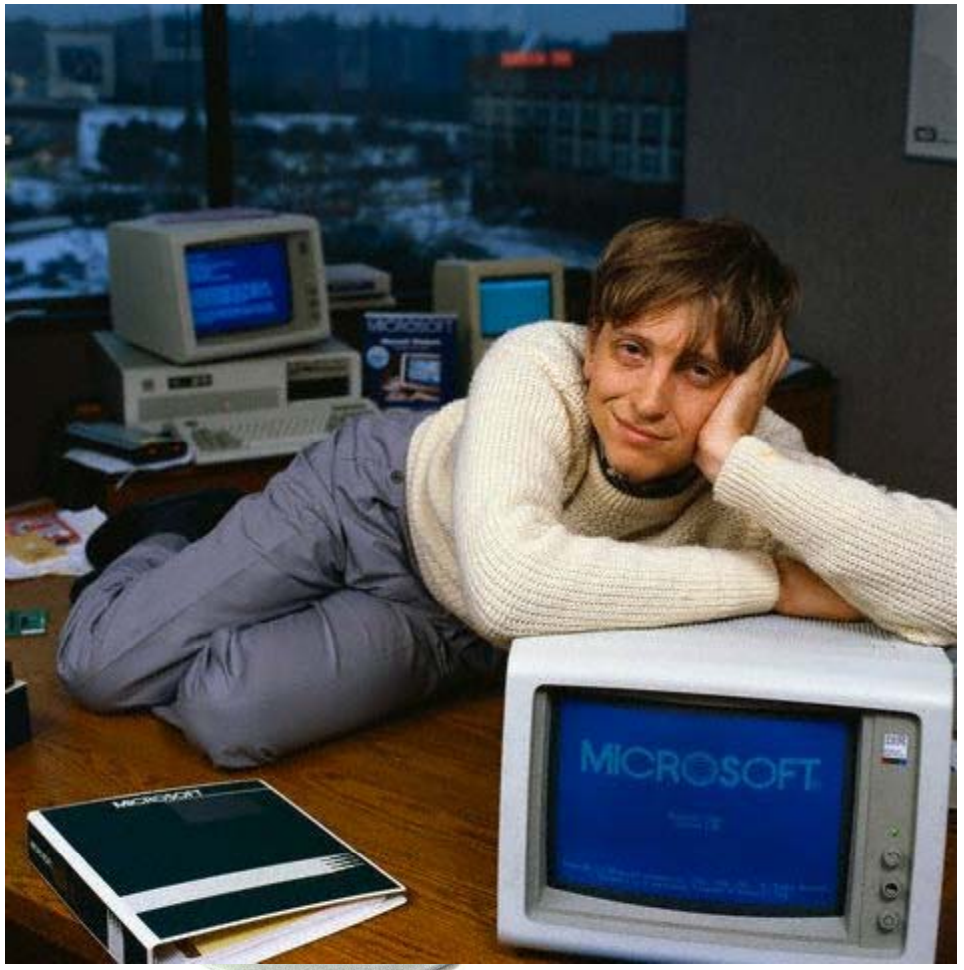
1979: VisiCalc

- **"Visicalc could some day become the software tail that wags (and sells) the personal computer dog."**
  - Ben Rosen, later the founder of Compaq, writing as an analyst with Morgan Stanley

Dan Bricklin at the West Coast Computer Faire, May 1979

1980s: Separation of OS from hardware

- **August 1980**
  - IBM signs Microsoft to supply the OS for its new computer
- **August 1981**
  - IBM PC ships
- **1982**
  - Microsoft licenses MS-DOS to 50 hardware manufacturers



Agenda

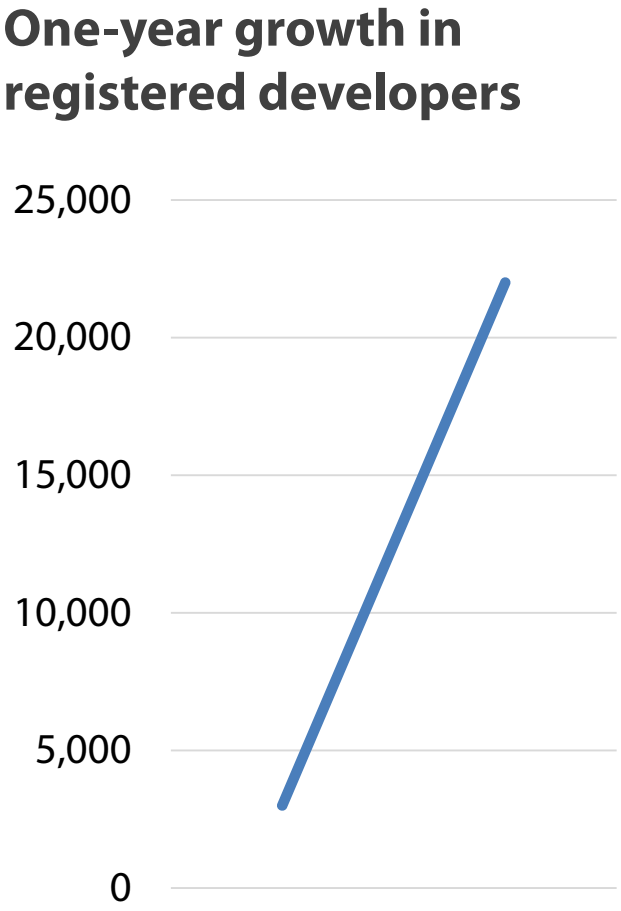
- A quick history of software platforms
- **What makes a platform win?**
- **Where will the industry go next?**

The web discovers APIs

- **Mashups**

Mobile discovers APIs

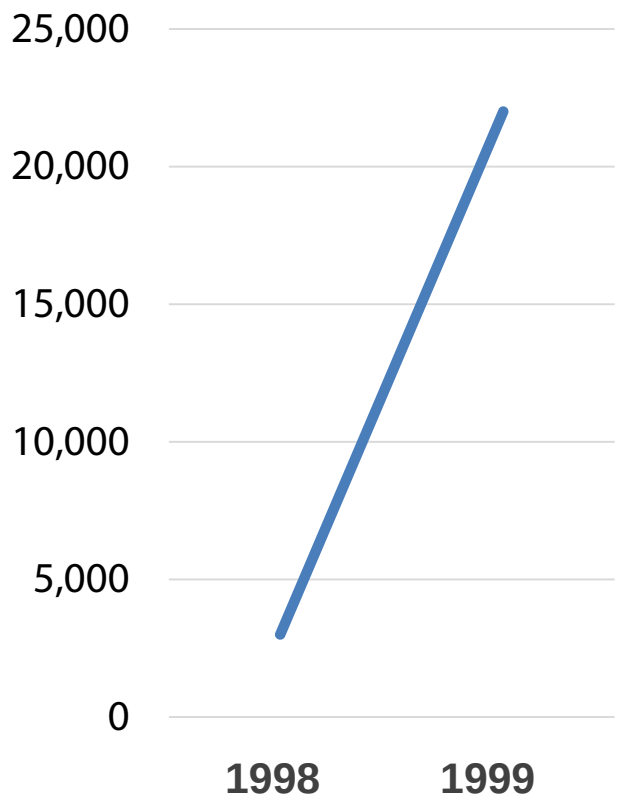
- **Intense interest due to recent successes of a certain mobile device**



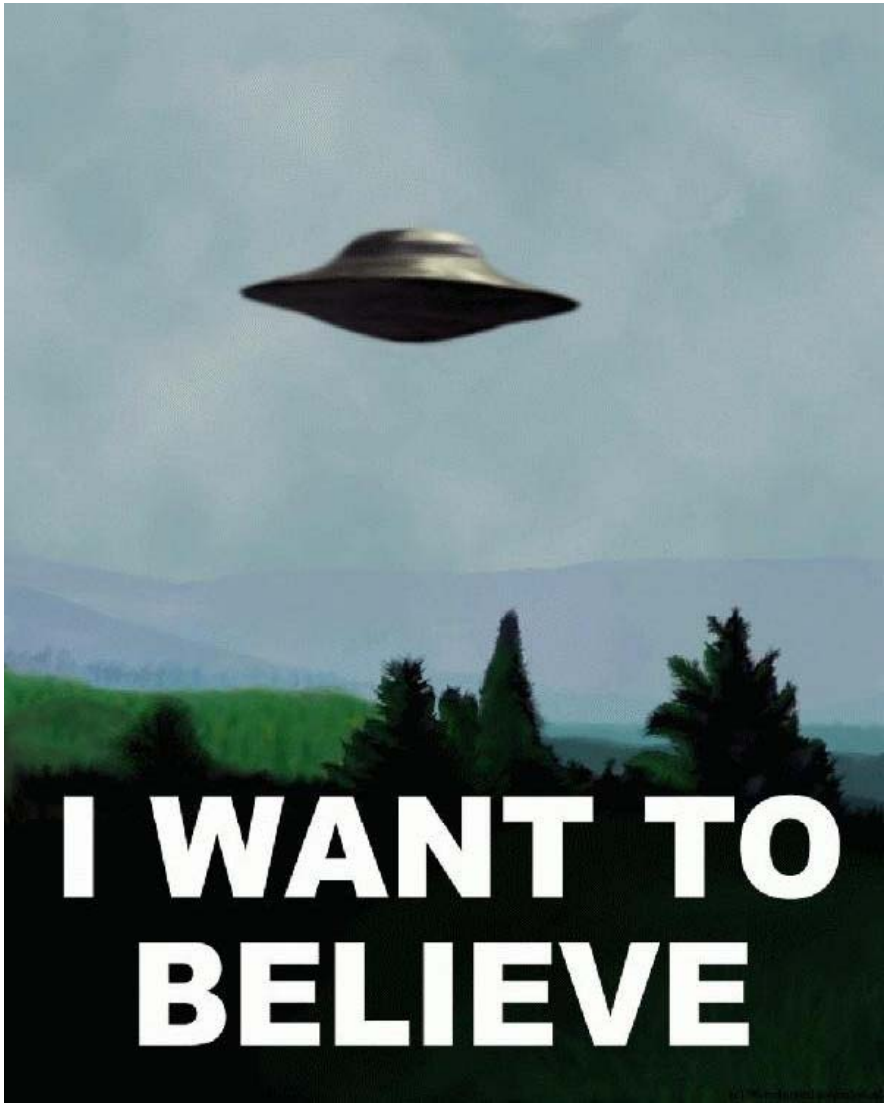
Mobile discovers APIs

- **Intense interest due to recent successes of a certain mobile device**

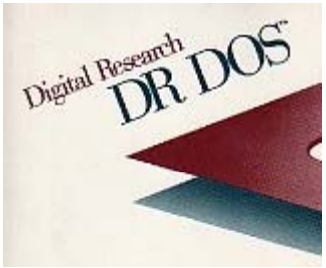
One-year growth in registered Palm developers



"That's unfair"



Reality: Most platforms fail



Definition of failure depends on your goal

- Give me a marketing boost over the competition
- Get developers to add features I don't have time to develop
- Address user problems and sub-markets that neither of us could have tackled alone

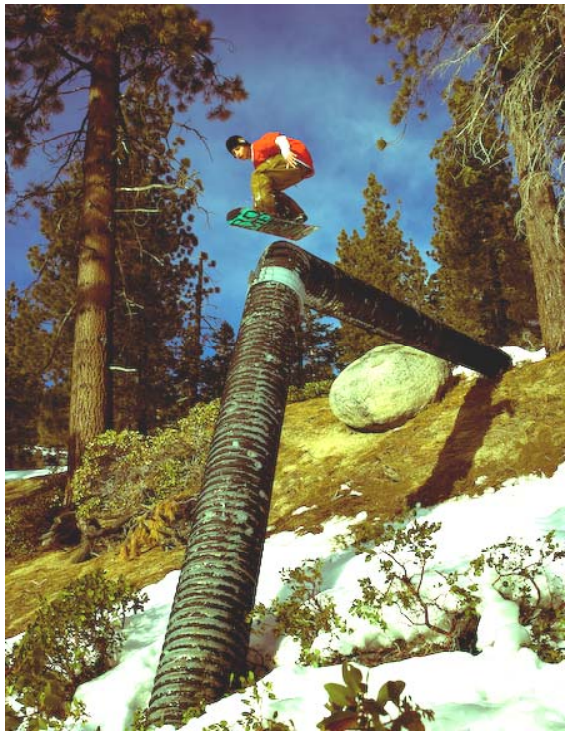
Need for developers

Don't care

Care somewhat

Care a lot

What motivates developers?



How platforms fail

facebook

Almost impossible to monetize

palm

Windows Mobile

Apps hard to find
Store financials outrageous

Inconsistent APIs (raises cost)
Very hard to get on device

The PC and Windows

- **The Rise**
  - IBM drives belief in large user base
  - Hardware architecture permits powerful apps (for the time)
  - Open APIs
  - Clone licensing drives additional growth; virtuous circle
- **The Decline**
  - Microsoft preys on successful software developers
  - Intel and Microsoft can't coordinate innovation

The less friction, the more apps

- **Easy to develop**
  - Powerful APIs, great documentation and support, uses existing tools/languages, easy to debug
- **Easy to sell**
  - No artificial barriers, easy discovery, marketing, installation, billing, reasonable financials
- **Large user base**
  - Or the belief that it'll get large

Pluses and minuses of iPhone ecosystem

	Strength	Weakness
APIs	Very capable	App functionality limited
Develop-ment	Familiar if you're a Mac developer	Nonstandard; Java and Flash missing
Store	Built in, pretty good terms	Arbitrary screening by Apple, price pressure
User base	Perception of world domination, high traffic seen by websites	(Will it continue to grow?)

The ultimate ecosystem doesn't yet exist

- **Advantages of an integrated platform**
  - Great discovery, billing, support, APIs
- **Advantages of web app development**
  - Lots of Ajax-style tools, instant deployment, huge user base, write once run anywhere

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Opportunity in disaggregation

1940s 1950s 1960s 1970s 1980s 1990s 2000s

- Computers
- Software that lets computers do multiple tasks
- Independent software
- OS platforms separated from hardware
- Platforms separated from OS

"The Network is the Computer"

Application → Windows → PC hardware

Application → Solaris or Java → Sparc servers

Problems

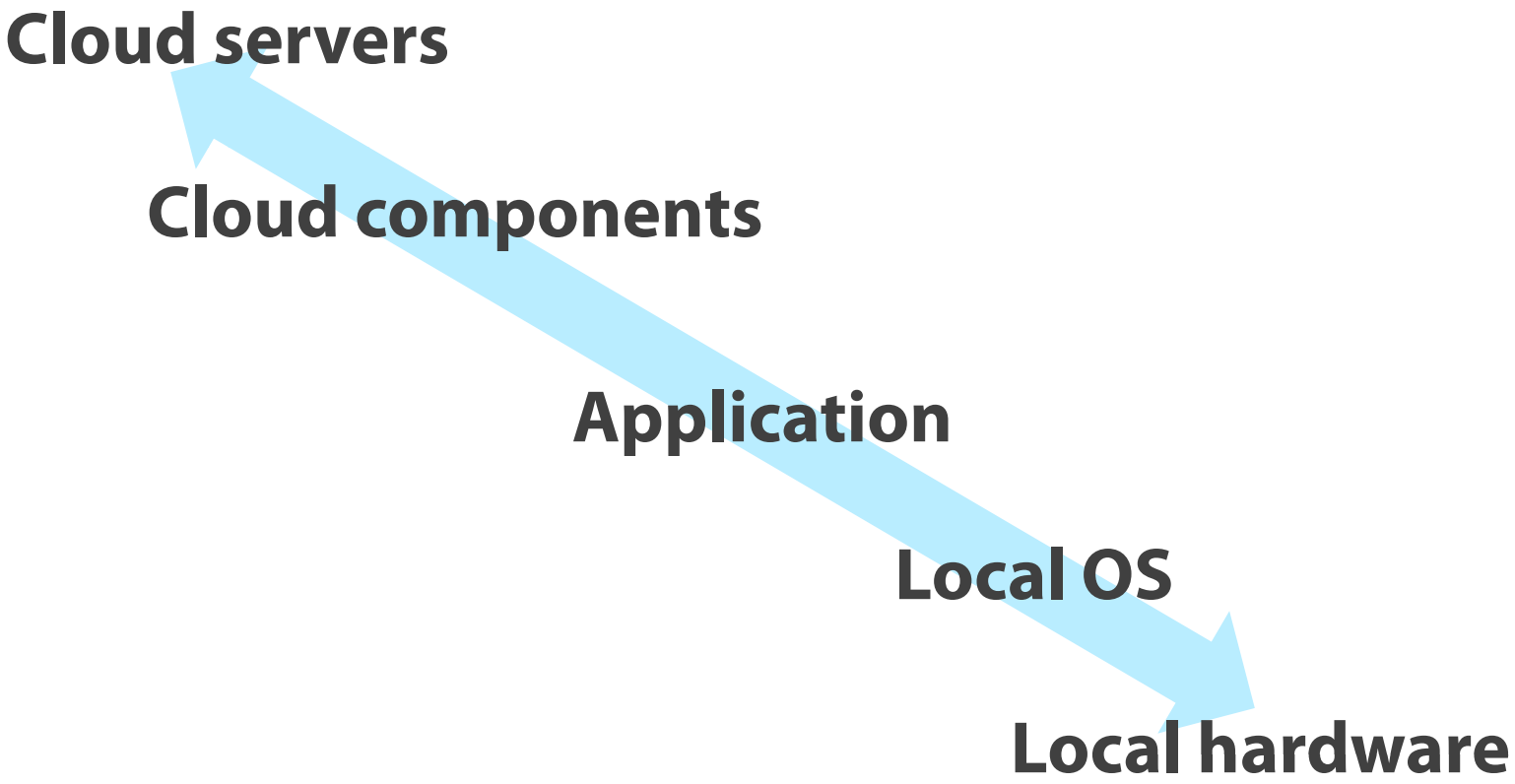
- **Latency**
- **Richness of APIs**
- **Access to on-device features and data**

- **Mobile makes it worse**
  - Limited bandwidth
  - Limited capacity
  - Limited coverage
  - High latency
  - High cost
  - Battery life

Next: The OS disaggregates

Application **Local OS** **Local hardware**

The Meta-Platform is the Computer



Remember

- **If you're a developer**
  - "Which platform gives me the best long-term business proposition?"
- **If you're a platform vendor**
  - "How can I create a better ecosystem than the other guy?"
- **Opportunity: Disaggregating the OS**
  - Balancing local and cloud OS services

Discussion

- mike@rubiconconsulting.com
- http://mobileopportunity.blogspot.com

LYONS

J. LYONS & CO. LTD. CADBY HALL, LONDON, W.14

tariff

SODA FOUNTAIN

This Week's Special:

COFFEE NUT SUNDAE 6D

Coffee Fudge, Vanilla Pola-Maid, Ground Walnuts and Topping

ICE CREAM (Pola-Maid)

STRAWBERRY or VANILLA 2d, 4d & 6d

(Chocolate Sauce, 1d extra)

SUNDETTES

LOGANBERRY, BANANA, PEACH or PEAR 4d

FANCY SUNDAES

CHOCOLATE or COFFEE MARSHMALLOW 6d

CHOCOLATE or COFFEE NUT ... 6d

WALNUT, MAPLE FLAVOURED ... 6d

FRUIT SUNDAES

MIXED FRUIT ... 6d

PINEAPPLE ... 6d

LOGANBERRY ... 6d

RASPBERRY ... 8d

ICE CREAM SODAS

STRAWBERRY, RASPBERRY, LEMON or ORANGE 4½d

PHOSPHATES

STRAWBERRY, RASPBERRY, LEMON or ORANGE 2½d & 3½d

SPECIALS

BANANA, PEACH or PEAR MELBA 6d

MERINGUE GLACE ... 6d

SPONGE NEAPOLITAN ... 8d

BANANA SPLIT or GOLDEN GLEAM 9d

ALPINE GLOW ... 9d

ROCKY MOUNTAIN ... 10d

COUPE JACQUE ... 10d

KNICKERBOCKER GLORY ... 1/-

PARFAITS

LOGANBERRY ... 8d

MIXED FRUIT ... 8d

CHOCOLATE or COFFEE ... 10d

CHOCOLATE FRUIT ... 10d

RASPBERRY ... 10d

MILK DRINKS

COLD

SHAKES—STRAWBERRY, RASPBERRY, COFFEE or CHOCOLATE ... 4½d

HORLICKS—COFFEE ... 5d

CHOCOLATE ... 6d

(With Ice Cream, 3d extra)

ICED COFFEE ... 3d & 5d

MILK AND ICE CREAM ... 6d

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BREAD, ROLLS, ETC.

BUSKS ... each ½d

ROLLS (White or Brown) ... 1d

BREAD & BUTTER (White or HOVIS) 2 slices 1d; 4 slices 2d

BREAD (White or HOVIS) per por. 1d

BREAD, TOASTED (White or HOVIS) per person, 1 slice 1d; 2 slices 1½d

BUNS, CAKES, ETC.

SULTANA TEA CAKE ... each 1½d

BUN, CURRANT ... ,, 1d

BUN, FRUIT ... ,, 2d

BUN, BATH ... ,, 2d

BUN, CHELSEA ... ,, 2d

PARTY BUNS ... ,, 2d

SCONE, PLAIN ... ,, 1d

CAKE: GENOA, ALMOND per por. 2½d

RICH FRUIT ... ,, 3d

PASTRIES, ETC.

SPONGE CAKE, DOUGH-NUT, SHORTBREAD ... each 1d

BAKEWELL TART ... ,, 1½d

ASSORTED TEA PLANS ... ,, 1½d

KUP KAKE ... ,, 2d

JAM SANDWICH ... per por. 2d

MACAROON ... each 2½d

SWISS ROLL ... per por. 2½d

FRENCH CREAM SANDWICH ... 3d

FRENCH PASTRY ... each 3d

JAMS AND PRESERVES

MARMALADE, JAMS, VIROL per por. 2d

BISCUITS

SMALL CABIN ... per packet 1d

DIGESTIVE ... per packet 1d & 2d

SYMBOL WHEATEN ... per packet 2d

MARIE ... ,, 2d

SHORTCAKE ... ,, 2d

TOASTED GOODS

TOAST (White or HOVIS) per person, 1 slice 1½d; 2 slices 2½d

SULTANA TEA CAKE ... each 3d

BUN, CURRANT ... ,, 2½d

BUN, FRUIT ... ,, 3½d

BUN, BATH ... ,, 3½d

SCONE, PLAIN ... ,, 3½d

MUFFIN ... ,, 3½d

CRUMPETS (2) ... ,, 3½d

LYONS TOASTED WELSH CRUMPET 3d

EGG (Poached) on Toast, one slice 6½d; two slices 7½d

EGGS (2) (Poached) on Toast, two slices 1/9d

SARDINE on Toast, one slice 2½d; two slices 4½d

SARDINES (2) on Toast two slices 6½d

GRILLED TOMATOES on Toast, one slice 4½d

(Margarine of the finest quality used on the above Toasted Items)

SPAGHETTI on Toast, one slice 2½d; two slices 4d

SPAGHETTI on Welsh Rabbit, one slice 4½d; two slices 7½d

WELSH RABBIT, one slice 3d; two slices 5d

WELSH RABBIT with Poached Egg on one slice 8d

WELSH RABBIT with Poached Egg on two slices 10d

BAKED BEANS on Toast, one slice 3½d; two slices 5½d

NOTICE is hereby given that margarine of the finest quality will be served with all goods except bread and butter.

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Trusted Advisors to high-tech firms seeking to transform their visions into strategies, strategies into plans, and plans into results.

Practices:

Define / Design / Defend / Optimize

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