

skyfire

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FCC Workshop: Innovation, Investment
& the Open Internet

Perspective of a Mobile Application Developer & Entrepreneur

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About Skyfire



▶ Breakthrough cloud computing technology

- Skyfire's browser launched 2009 after 3 years of tech development
- Allows users to watch any video on the web, including Flash, Silverlight and RealPlayer... to visit any website, not just mobile sites... opens up "long tail"
- Compresses video and pages by 70-80%.
- Very fast page load times
- 2M+ users have downloaded

▶ Silicon Valley Start-up with VC backing

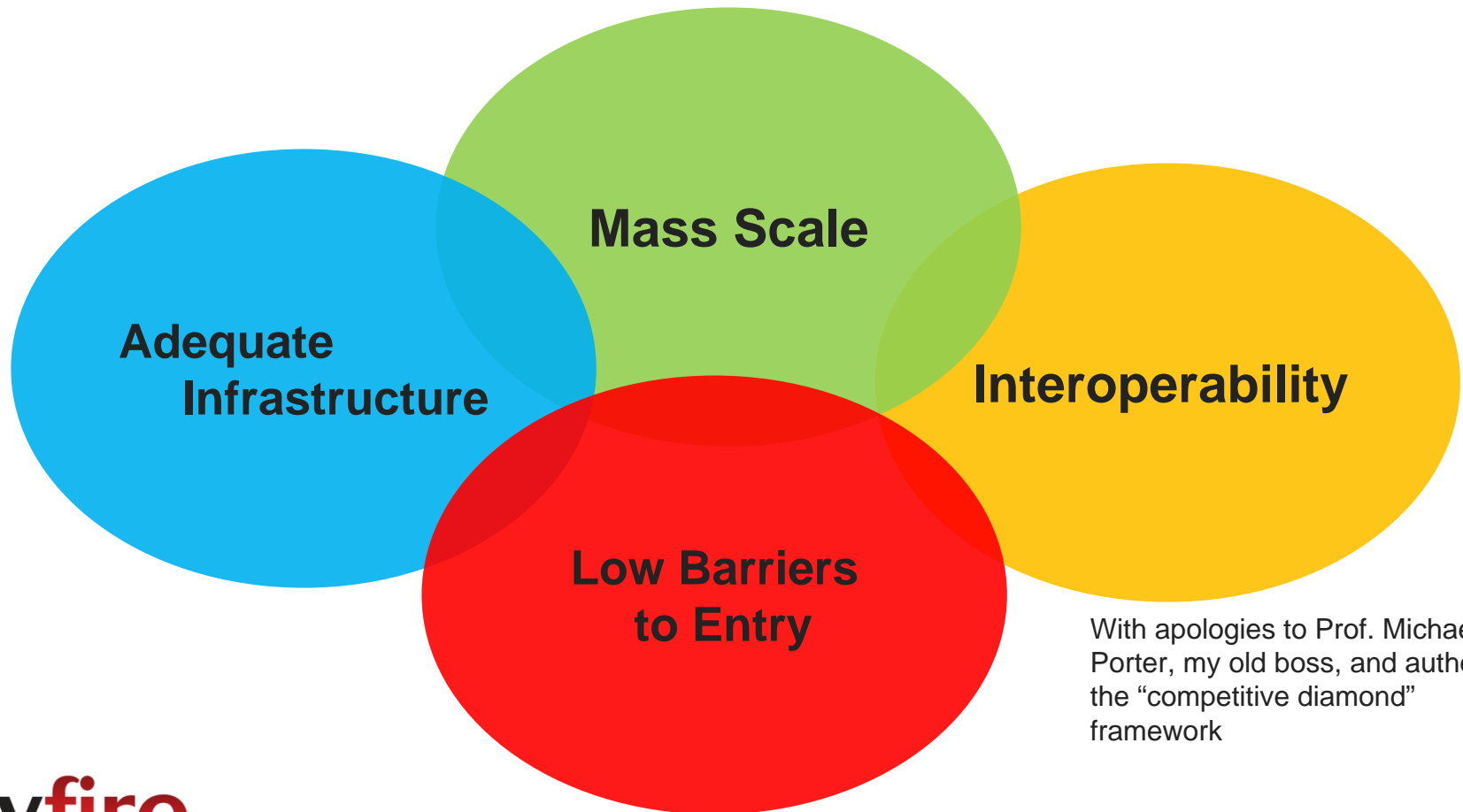
- \$23M VC funding from Lightspeed Ventures, Trinity Ventures and Matrix Partners
- 43 people, primarily engineers

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- ▶ **Features of the Internet that have given confidence and predictability for investment:**



With apologies to Prof. Michael Porter, my old boss, and author of the “competitive diamond” framework



- ▶ Compared to “regular” internet, difficulties innovating on more “closed” mobile internet.
 - Three types of obstacles below you wouldn’t necessarily face if you were developing on the wired network.
- ▶ **1) Freedom for consumer to choose apps & defaults**
 - Uncertainty about passing an App Store approval process with vague rules; no direct download and installation allowed on some phones.
 - *We’ve seen Opera not allowed to list in App Store.*
 - Consumers do not always have the **power to set the default browser** on their own phones. Without that power, companies like Skyfire have a much harder time improving on the status quo.
 - *Imagine the outcry if Dell prohibited Firefox on a PC. Remember the MSFT IE actions which led to government action re Windows.*
 - Skyfire has to date held back from developing for iPhone because of **Apple’s rule against duplicate functionality** and opposition to Adobe Flash playing on the iPhone. This is a limit on Skyfire’s ability to improve the browsing experience.



▶ 2) Lack of transparency & consistency on network management practices... *and* discriminatory requirements for specific protocols:

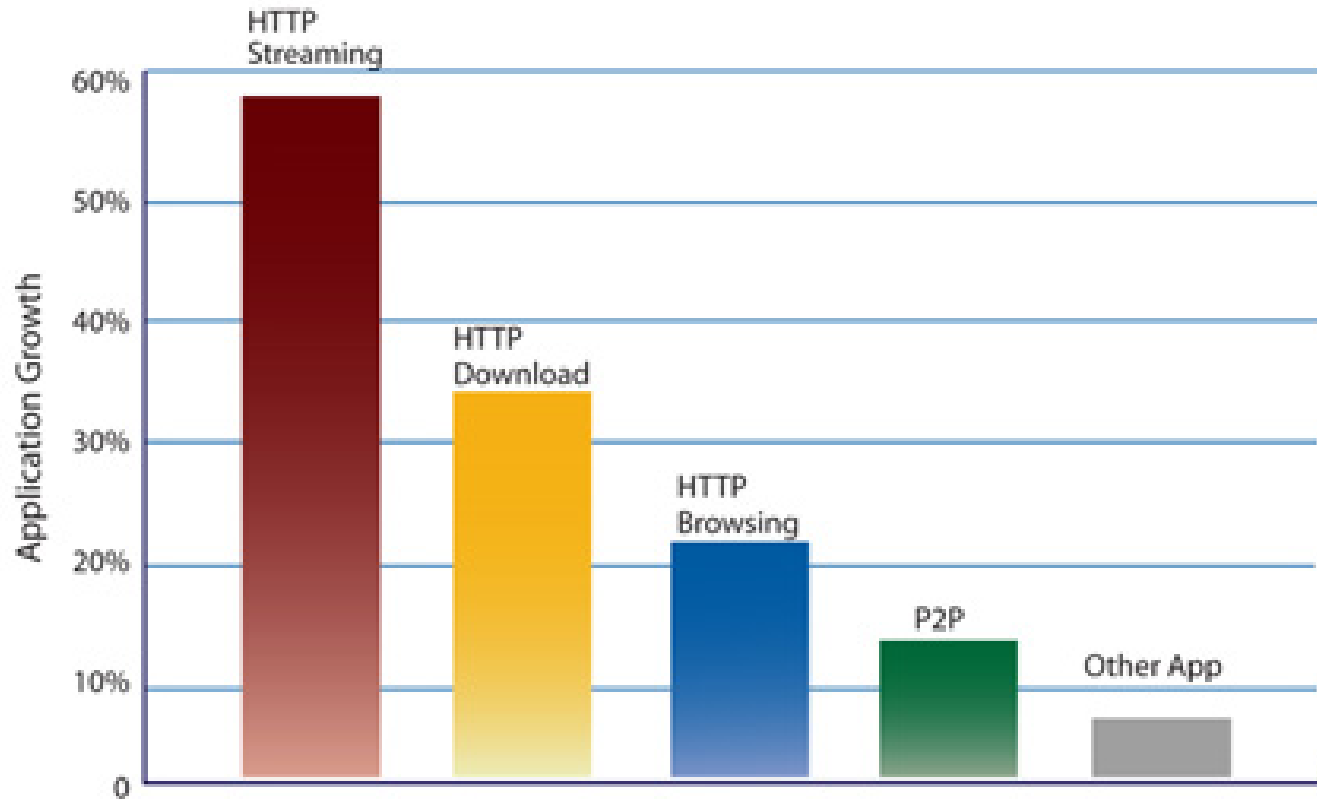
- The carriers block certain ports (e.g., Verizon blocks port 80; the audio port often blocked, etc.), varies by carrier around the world.
- Further, the carriers don't disclose their port blocking practices.
 - *Figuring out what's going on, and how to work around it, eats up resources that would otherwise go to more productive innovation.*
- Carriers often throttle RTSP streaming video, and aren't transparent about it.
- Latest obstacle: Apple requiring any new apps with video to use Apple's preferred version of HTTP live streaming protocol. **No other common video protocols allowed.**



▶ **3) Uncertainty on non-discriminatory and adequate data throughput:**

- Difficulties with congested networks well known; we believe will only get worse over next two years.
- In the interest of free speech, innovation, and competition, **non-discrimination should be the hallmark of network management.**
 - As an application developer, we respect the need to protect fragile network against “data hogs.” Only proper solution is tiers and metered pricing models, based on data usage in peak / off-peak periods.
- **Equal access to carrier co-location and business terms:**
 - If big players like Google/YouTube get to locate servers forward in operator networks, or get their packets prioritized, small companies like Skyfire would face a high barrier to entry or fair competition. Even if Skyfire were able to strike prioritization or co-locating deals with mobile networks, the cost of negotiating contracts would be on another drain on resources.

“Mobile Warming” Underway: An Inconvenient Truth



Application Growth Global
Quarterly growth (Q2/09) in mobile data globally broken down by main applications

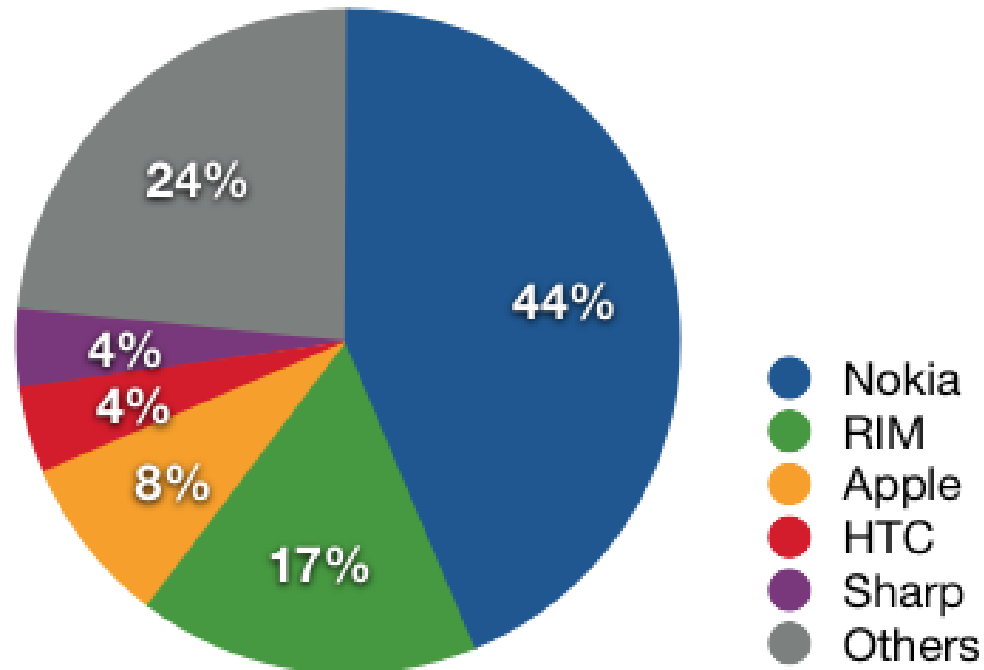
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Browsers Provide Key Interoperability to Enable Competition



- ▶ **92%** of global smartphones are **NOT** iPhones...
- ▶ Publishers can't be expected to build and maintain apps for each OS/hardware permutation and version. Browsers are simpler. **Build once, deploy widely.**

Worldwide smartphone market share 2008



Source: Gartner, March, 2009

Trade-off inherent between interests of application developers and network owners?



- ▶ **First of all, we need each other.**
 - Data usage drives ARPU for carriers, their main source of revenue growth. Apps and mobile web are the carrot attracting subscribers to sign up for a data plan— A virtuous cycle.
- ▶ **With fair competition and proper pricing based on *actual* load on network resources, the market can work.**
- ▶ **As an entrepreneur and part of a VC-backed start-up, we believe there is a compelling case that a government interest exists...**
 - Key to preserving free competition and the open internet on mobile.
 - Will mean better products for consumers, better pricing, more jobs and investment in the US.