



Digital Music Services

Core-Edge Working Group Semi-Annual Workshop

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Outline

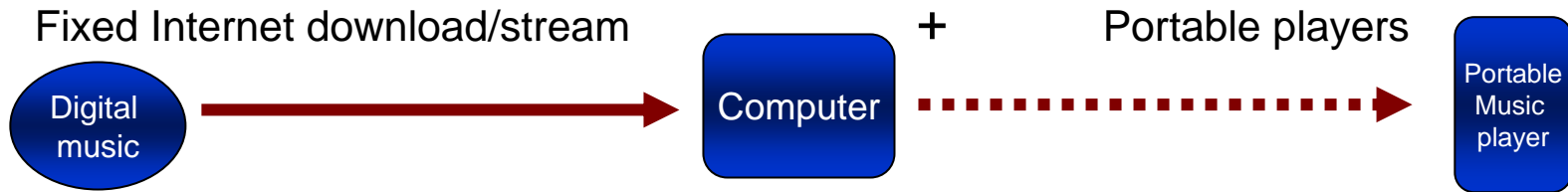
- Evolution of digital music research
- Overview of today's digital music services
- Control points
- Control point constellations
- Triggers and scenarios



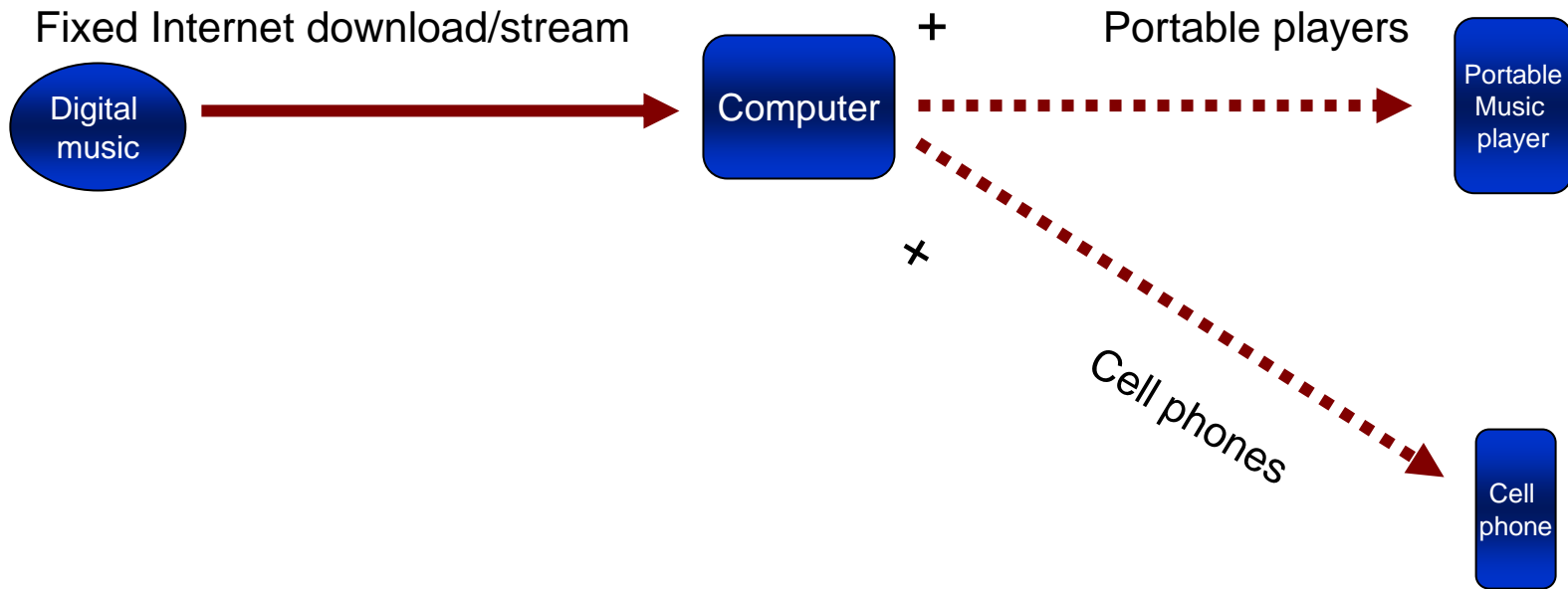
Evolution of digital music research

- **September 2004**
 - Scope of research limited to online PC-download services (P2P and Web)
 - Analysis focused on centralized (client/server) vs decentralized (P2P) services and the tension between authorized and unauthorized services
- **January 2005**
 - Scope expands to include online streaming services and mobile (cell phone) services
- **May 2005**
 - Scope expands further to include multi-channel (Internet + cellular) offerings
 - Control points & constellations have changed
 - Analysis is focused on the shift from fixed online to mobile services

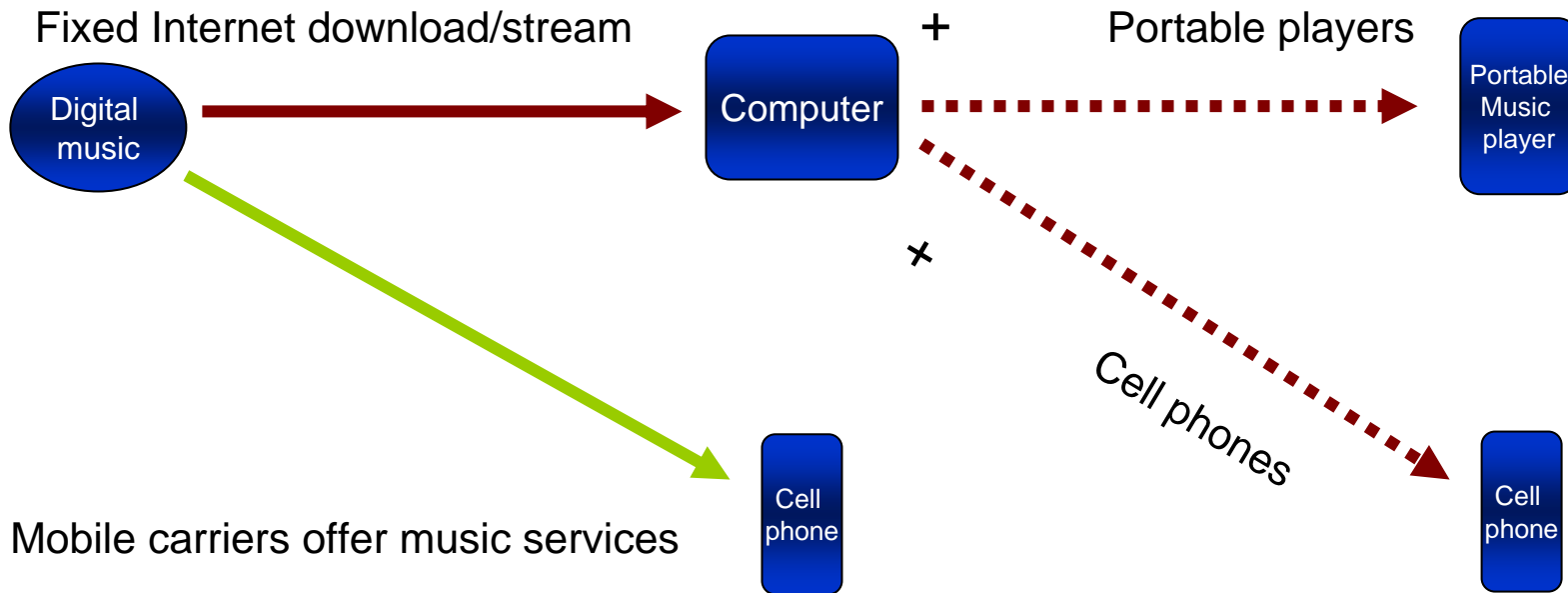
Overview of today's digital music services



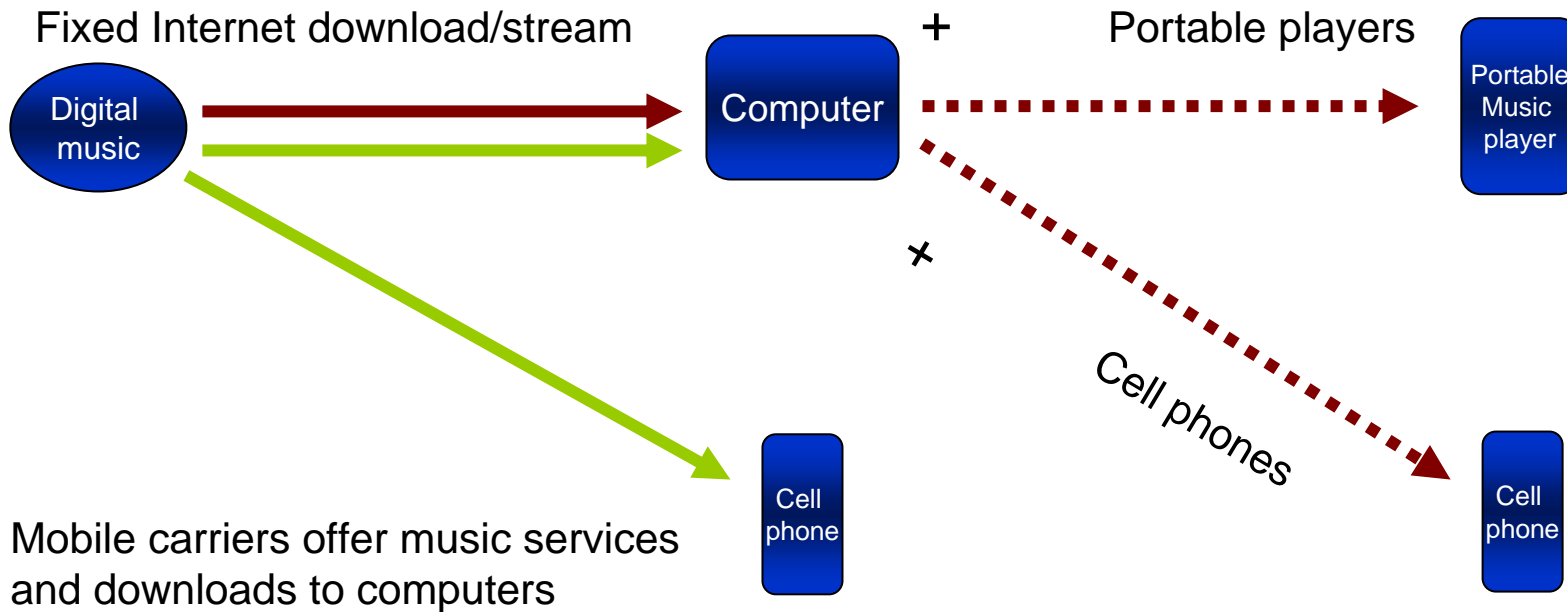
Overview of today's digital music services



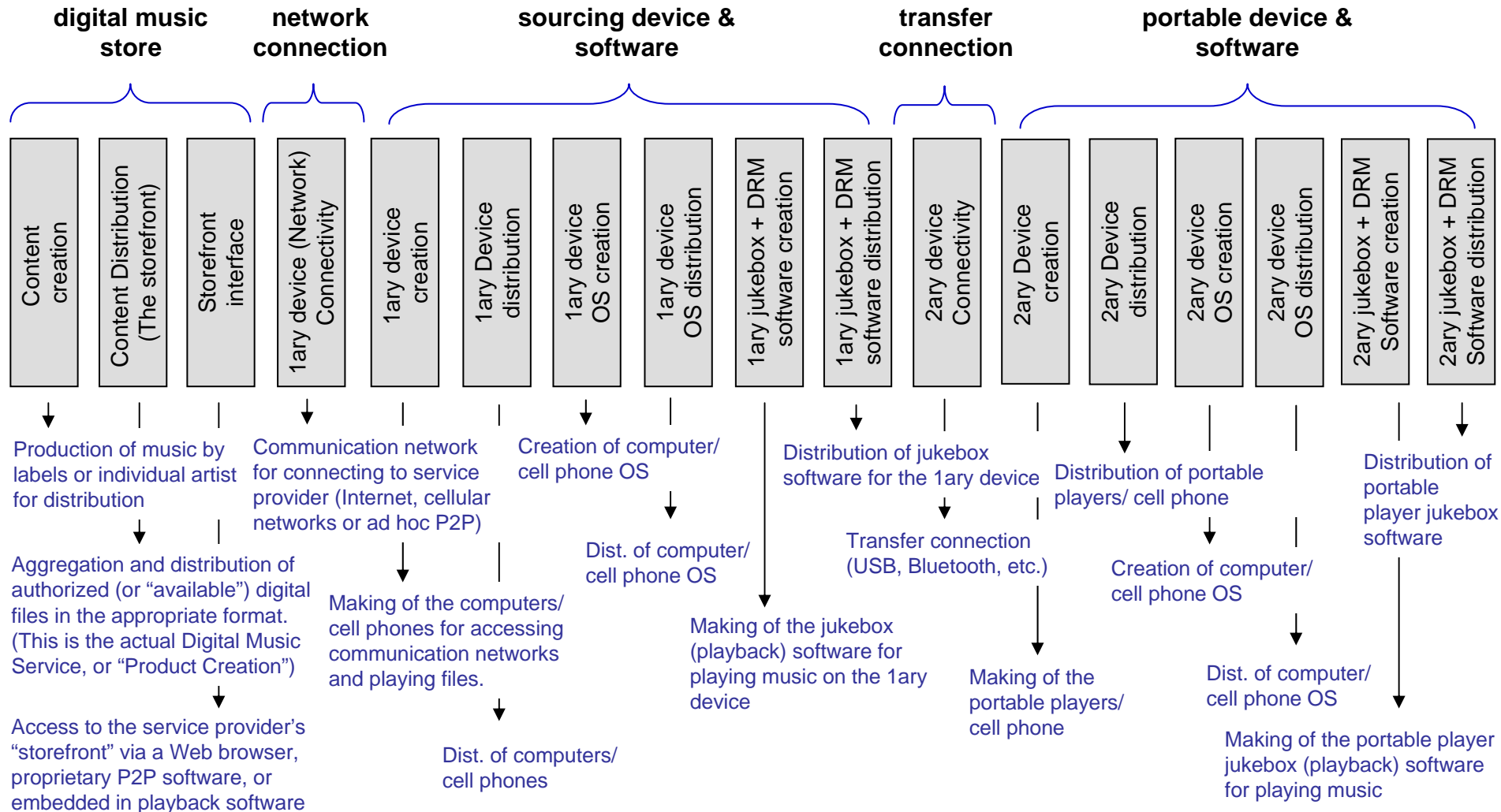
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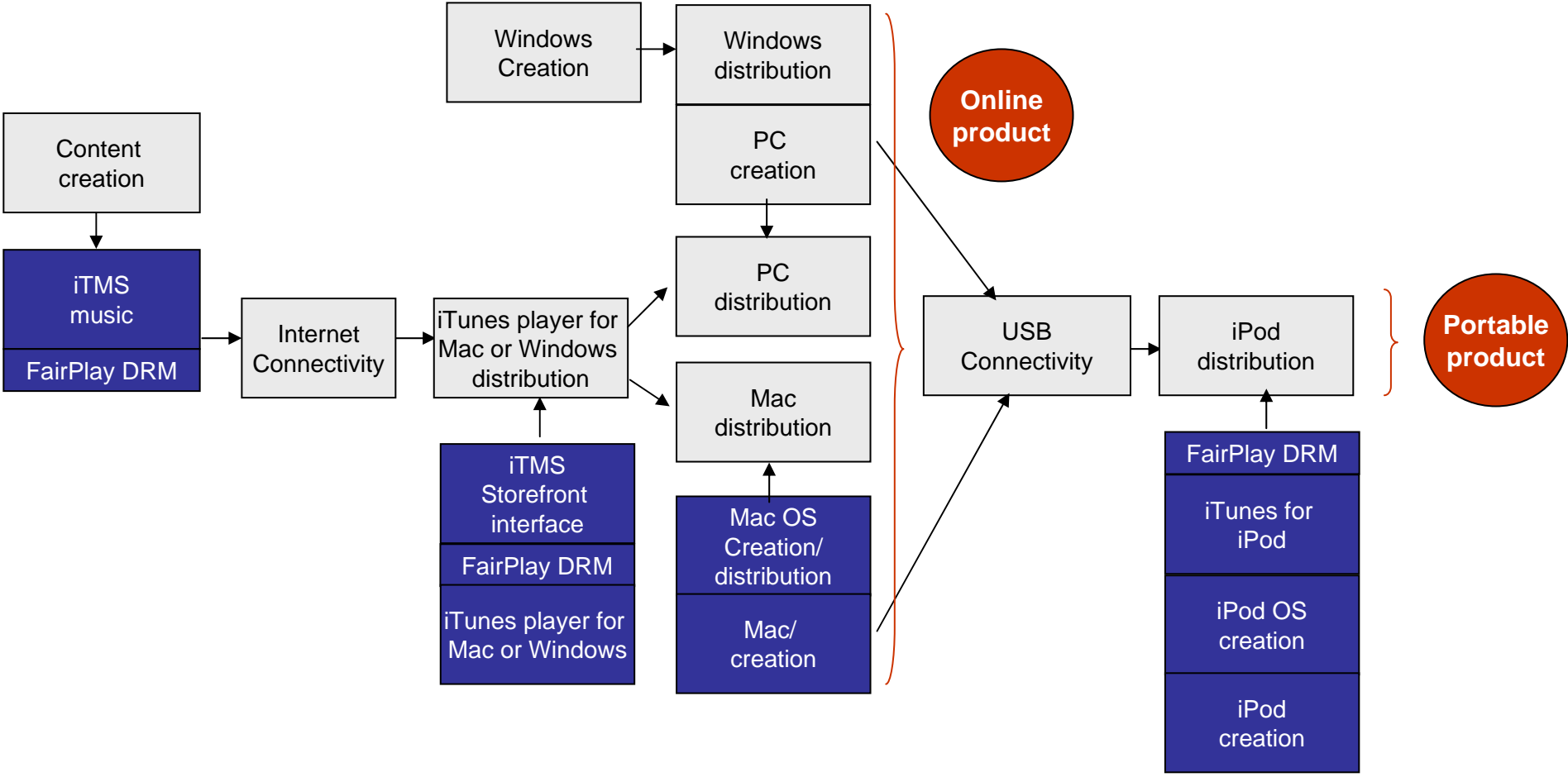
Overview of today's digital music services



Control points

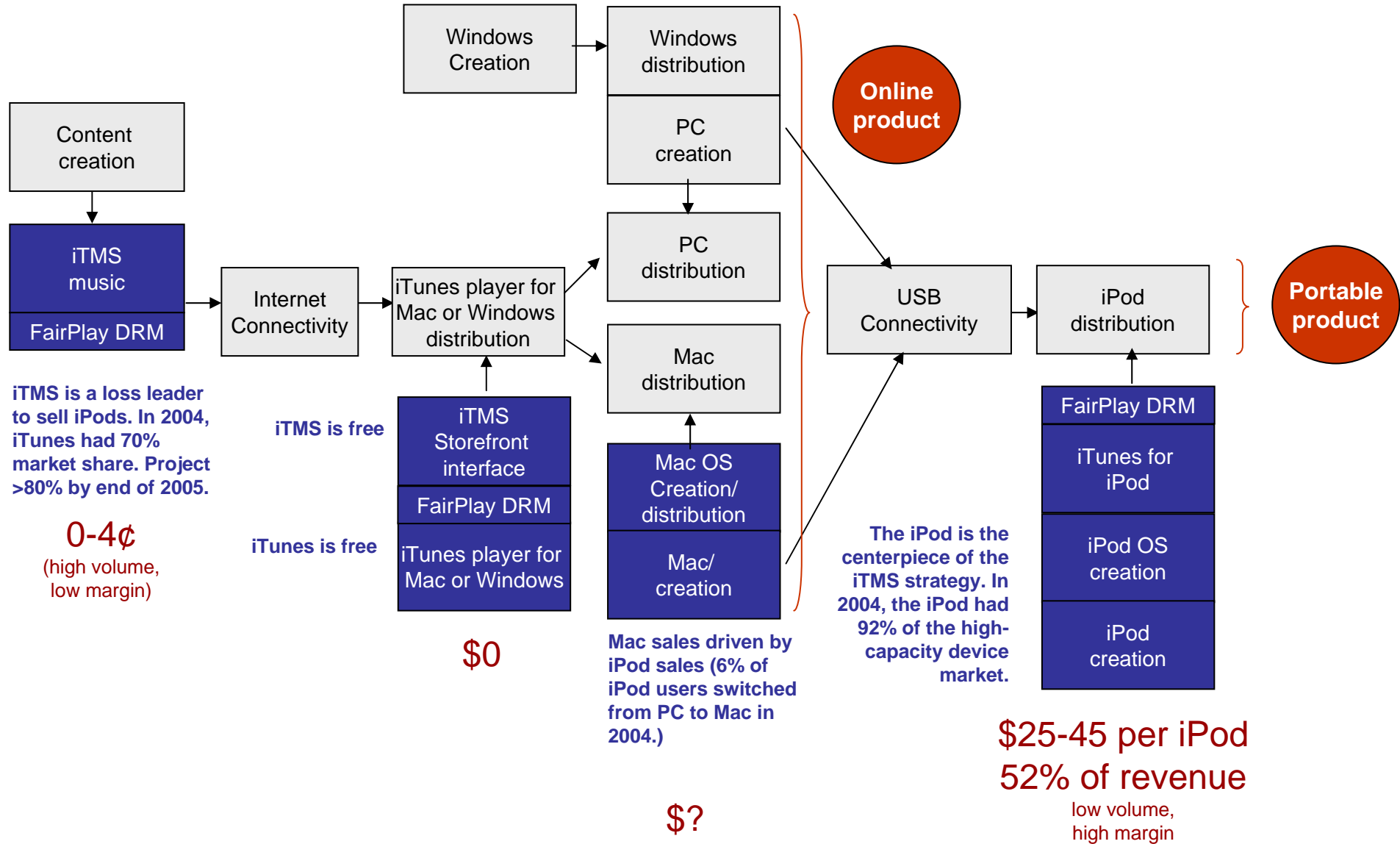


Control point constellations – e.g., iTunes Music Store



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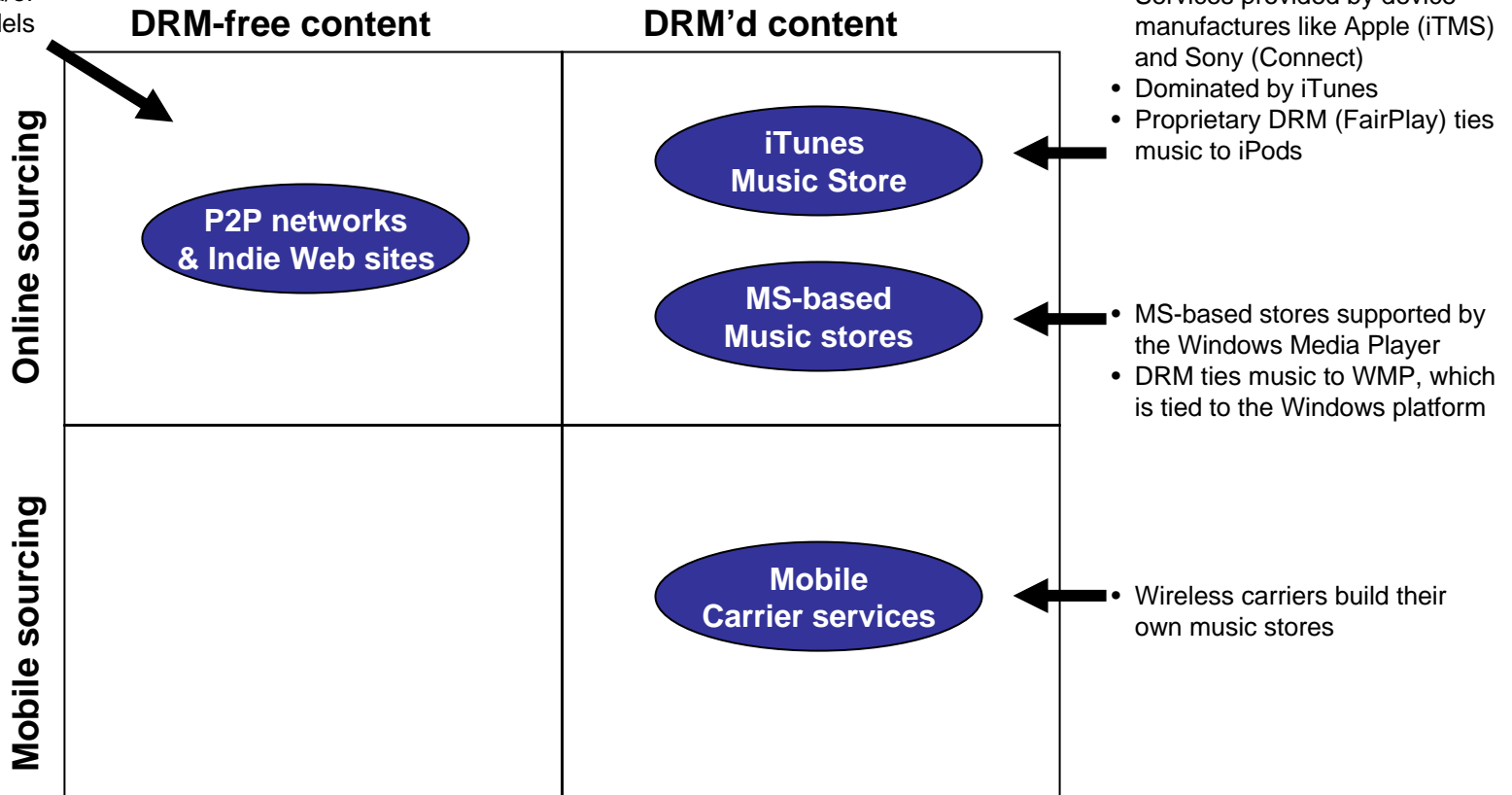
Value annotation (preliminary)



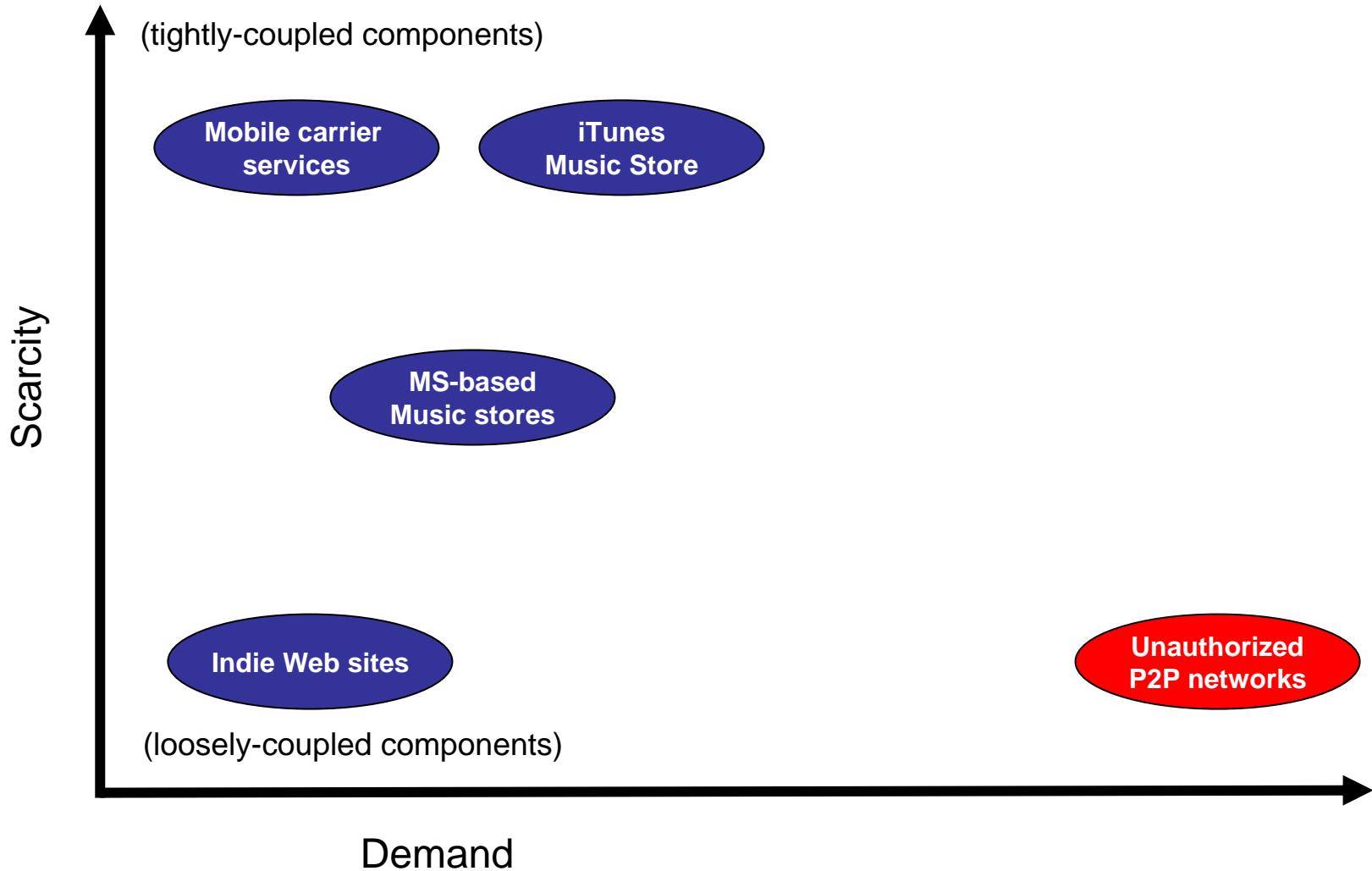
Control point constellations

Key categories

User-controlled networks and independent artists/ labels support "free" and/or untethered music models



Relative Coreness of Digital Music Services





Triggers – threatening the iPod model

- iTunes + iPod model dominates (authorized) digital music today
- The model is based on the dominance of the iPod as the destination device
- Two key triggers threaten the popularity of the iPod
 1. MS PlaysForSure initiative
 - WMP-supported online stores and devices are endorsed with the PlaysForSure logo
 - Brings an end-to-end perception to MS-based services
 - PlaysForSure stores + PlaysForSure devices
 - iPod may lose some market share to MS-PFS devices
 - Related trigger – MS Janus enables portable subscription services
 2. Device convergence
 - As handsets improve, expect the cell phone to replace the iPod as the primary device for mobile *playback*
 - As networks improve, the cell phone may also replace the computer as the primary device for mobile *sourcing*
 - Related triggers – ringtones (& radio) help transform the phone into a musical device



Scenarios – how will Apple respond?

1. license FairPlay DRM

- to other handset manufacturers
 - iTunes music playable on other portable devices
- to handset manufacturers
 - Apple has licensed FairPlay to Motorola
 - Without mobile sourcing, carriers are resisting

2. Create an iPhone

- Apple makes its own phone that replaces the iPod
- The smaller iPods are marketed as a complementary device (not a substitute) for music only
- Without mobile sourcing, carriers would resist this too

3. Create an iPhone + mobile network

- Apple bypasses carriers
- iPhone + Apple MVNO
- iPhone + WiFi/WiMax