

IPTV World 2009

So Much Content, So Little Time: *The New Model of Convergence for Today's Digital Subscriber*

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Presentation agenda

- Review the problem: **“So Much Content, So Little Time...”**
 - The history of television choice
 - How the Internet changed things
 - Past attempts to address the problem via convergence
- Discuss a *better* solution:
 - A new model of convergence
 - Review the model
 - Define “convergence of experience”
 - Driving **recommendations** using the model
 - Logical review and solution overview

- **Today, more than any time before:**
 - The viewer is presented with more digital media viewing choices
 - Competition for viewing time is at an all-time high
 - Viewers are turning away from the television and spending more time on the Internet
 - Viewers have an increased number of platforms and devices for viewing digital media

The key to understanding why recommendations are now so critically important is to review the past in order to see how we got where we are today...

- **Television's early history**
 - Like radio before it, television started out as a broadcast medium
 - Viewers were forced to watch programs when broadcasters aired them
 - Programming choices were limited to a few channels and a few hours a day
 - In its early days, programming was performed live and televised by local broadcasters
 - Technological advancements like the studio-quality video tape recorder brought increased hours of daily programming and paved the way for the national broadcasters we still know today

- **In the early days, television viewers:**
 - Had limited choice of a few broadcast programs
 - Were forced to watch when programs were televised
- **All that changed when technology and the industry introduced:**
 - Cable television widespread (1970s)
 - Home video cassette recorder mass-marketed (late 1970s)
 - Videotape rental stores (early 1980s)
 - Pay-per-view cable television (1980s)
 - Satellite and later DTH satellite television (1980s, 1990s)
 - DVD (late 1990s)
 - Digital video on-demand (2000s)

- **Television circa 1960**
 - 5 channels on average, depending on locale
 - 16 hours of programming per channel, per-day, on average
 - *At most a few dozen new programs each day*
 - Only 5 program choices (1 per channel) at any given moment
- **Television circa 2009**
 - 300+ digital channels
 - 24 hours of programming per channel, per day
 - DVR lets viewer watch programs when they want
 - Thousands of new channel-based programs on any given day
 - Tens of thousands of on-demand titles available
 - Hundreds of thousands of DVDs available for rent, purchase

Choices went from a handful at any point in time to tens of thousands

- Even with all the changes and the countless choices facing today's viewer some things haven't changed:
 - Television continues to be a *“lean-back”* experience
 - Television remains a *read-only (RO) medium*

These are the key concepts that differentiate television from other digital media platforms

- **Rise of the “Information Superhighway”**
 - The introduction of the personal computer in the 1970s was of little threat to the television
 - Online service companies like CompuServe, GEnie and Prodigy came on the scene in the 1980s and early 1990s and were niche at best
 - Windows 95 introduced first mainstream OS with TCP stack and Internet Browser “built-in” that same year
 - AOL and MSN competed for dial-up customers with smaller ISPs during the late 1990s
 - Broadband to the home made the Internet ubiquitous by the end of the millennium

In less than 15 years the Internet went from something only a few had heard of to an information and digital media distribution conduit used by the majority...

- **The progression of the Internet:**
 - Started out as a "lean-back" experience with users viewing websites (channel surfing and web surfing not that different)
 - Shopping websites like Amazon became phenomena due to "long tail" (mid 1990s)
 - People started online diaries and vanity sites (late 1990s)
 - 'Blogging sites like Blogger.com take off at the dawn of the new century; Internet becomes "lean-forward" and Read/Write (RW)

During its mainstream growth the Internet has morphed from a passive, read-only medium, to a highly interactive read-write medium.

It is engaging...

- **Enter YouTube and Social Networking**
 - YouTube comes on the scene in 2005, purchased by Google in 2006
 - That same year YouTube video views hit more than 100 million per day
 - Viewers not only watch, but they contribute their own videos
 - Facebook, Twitter take social networking to new levels and create a new cultural pastime
 - *Teens spend 31 hours a week online...*

- **31 hours per week online**
 - 9h spent communicating with friends via instant message and social networks
 - 3h10m minutes doing homework
 - 2h on YouTube
 - 1h40m spent viewing pornography
 - 1h35m spent studying diets and weight loss
 - 1h22m on medical sites for illnesses and puberty
 - 1h15m spent strolling through dating sites
 - 1h30m spent checking out family planning and pregnancy information
 - 1h spent researching cosmetic surgeries

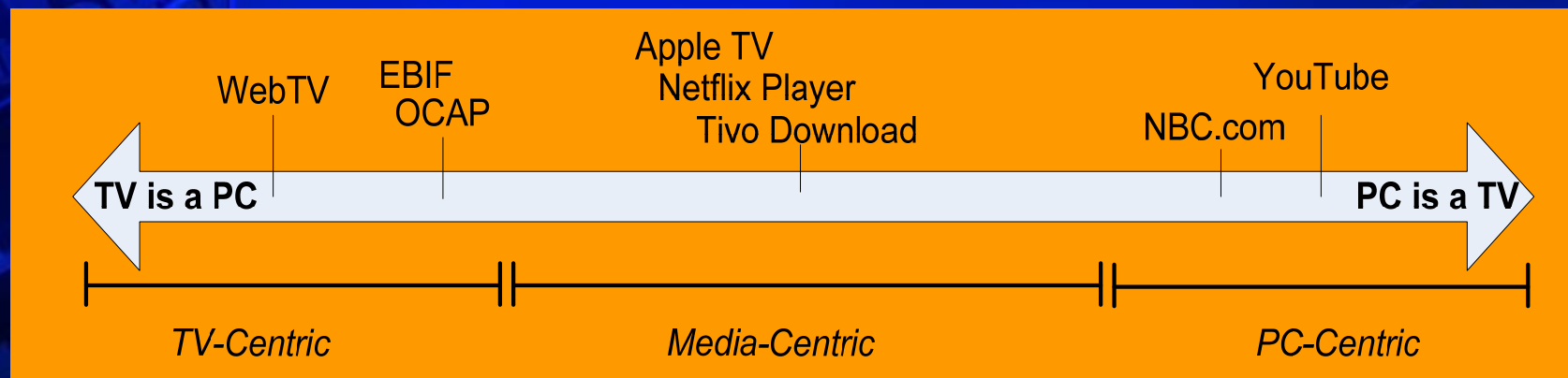
source: www.cybersentinel.co.uk

- Nielsen ratings in 2008 indicate that the average viewer *still* watches 4h45m per day of television (33h15m per week)
- The above doesn't account for time spent playing video game consoles or viewing personal media devices
- Studies also show that teens in homes with broadband watch fewer hours of television per day than their peers in homes without broadband

Put simply, today's subscriber spends a dramatic amount of time online, contributing to social networks and messaging, etc., and that time is likely to continue to cut into television viewing

- **The PC as a device and the Internet as a medium have both competed with the television for “hours and eyes”.**
- **Attempts to fight this trend have included convergence strategies that bring PC and Internet functionality to the television.**
- **It is worthwhile to better understand these past convergence themes...**

- Past convergence attempts have promised to *unify* the personal computer and the television
- Attempts have included:
 - WebTV (making the TV more like a PC)
 - YouTube, Hulu (making the PC more like a TV)
 - Media Centric devices like Netflix Player, Apple TV (something in the middle)



- **The results (to date):**
 - Convergence has not *converged* anything
 - The PC is still the best “lean-forward” platform
 - The television is still the richest “lean-back” platform
 - New media-centric devices have emerged to exploit cheap, ubiquitous broadband distribution but they each offer proprietary services and siloed content
 - Mobile devices provide niche viewing when “on the go,” but have the most limited content choices (and quality of experience) available

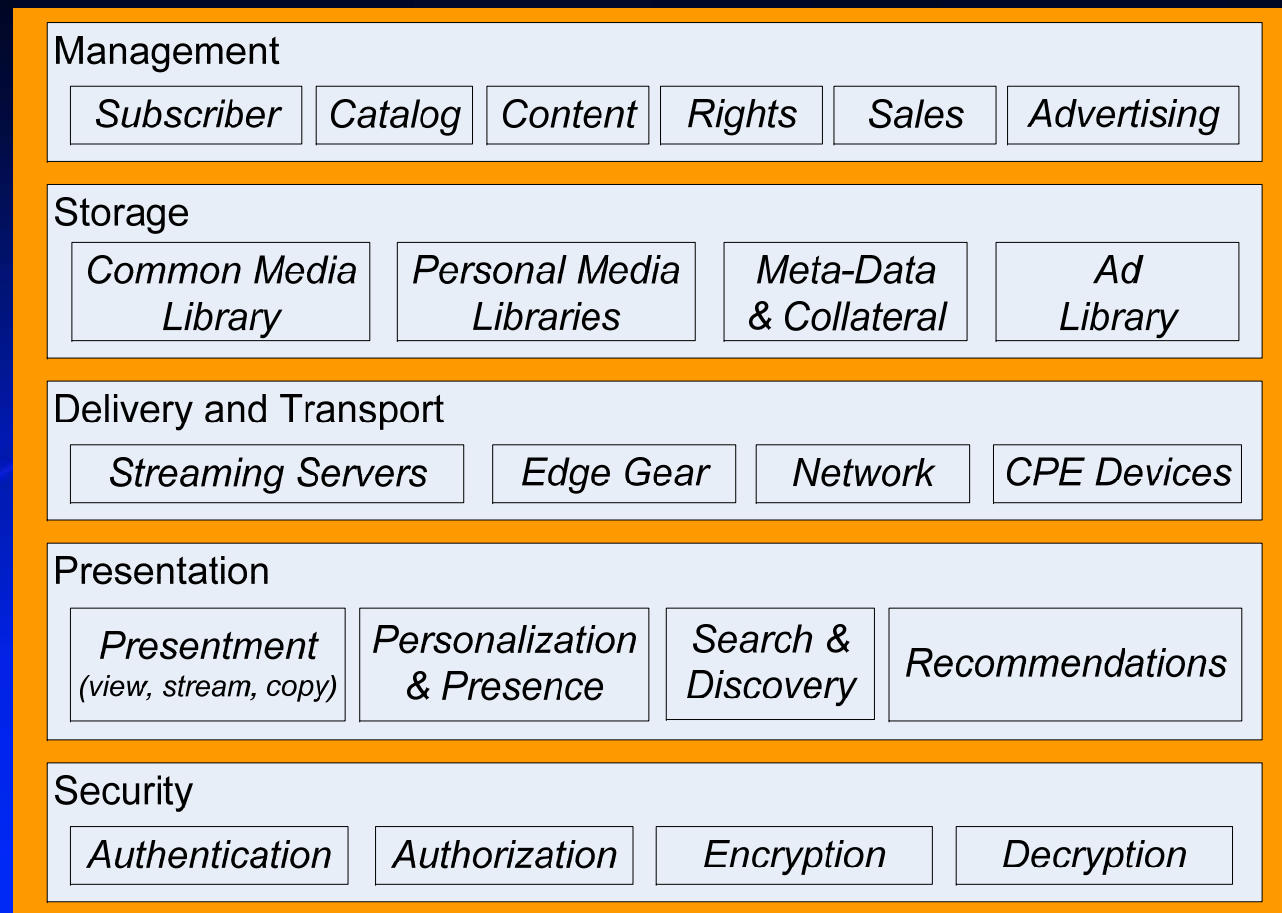
These past attempts at “platform convergence” have provided limited success...

Keys to a better model are:

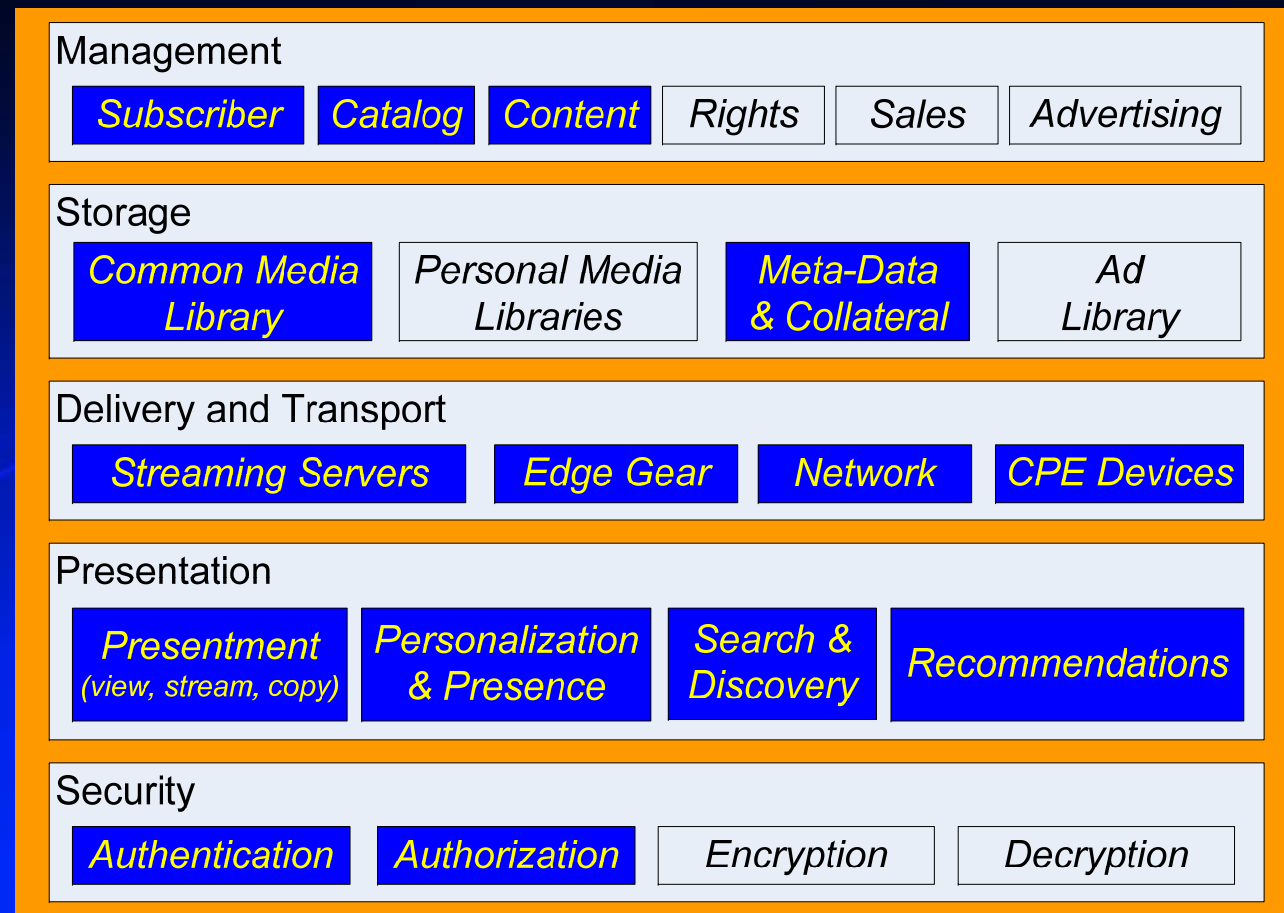
- Model best comprised of **functional areas** (management, storage, delivery & transport, presentation and security) that are **logical**
- Said functional **areas are cross-platform** (set-top, PC, mobile device)
- Existing platforms continue to do what they do best:
 - **Lean-back viewing on the television**
 - **Lean-forward search, shopping and social networking on the PC**
 - **On-the-go access to media, the Internet and social networks on mobile device but with some restrictions**
- Functional areas and **system components must come together in order to deliver real-world functionality...**

The key to convergence isn't in converging the platform, but in converging the experience...

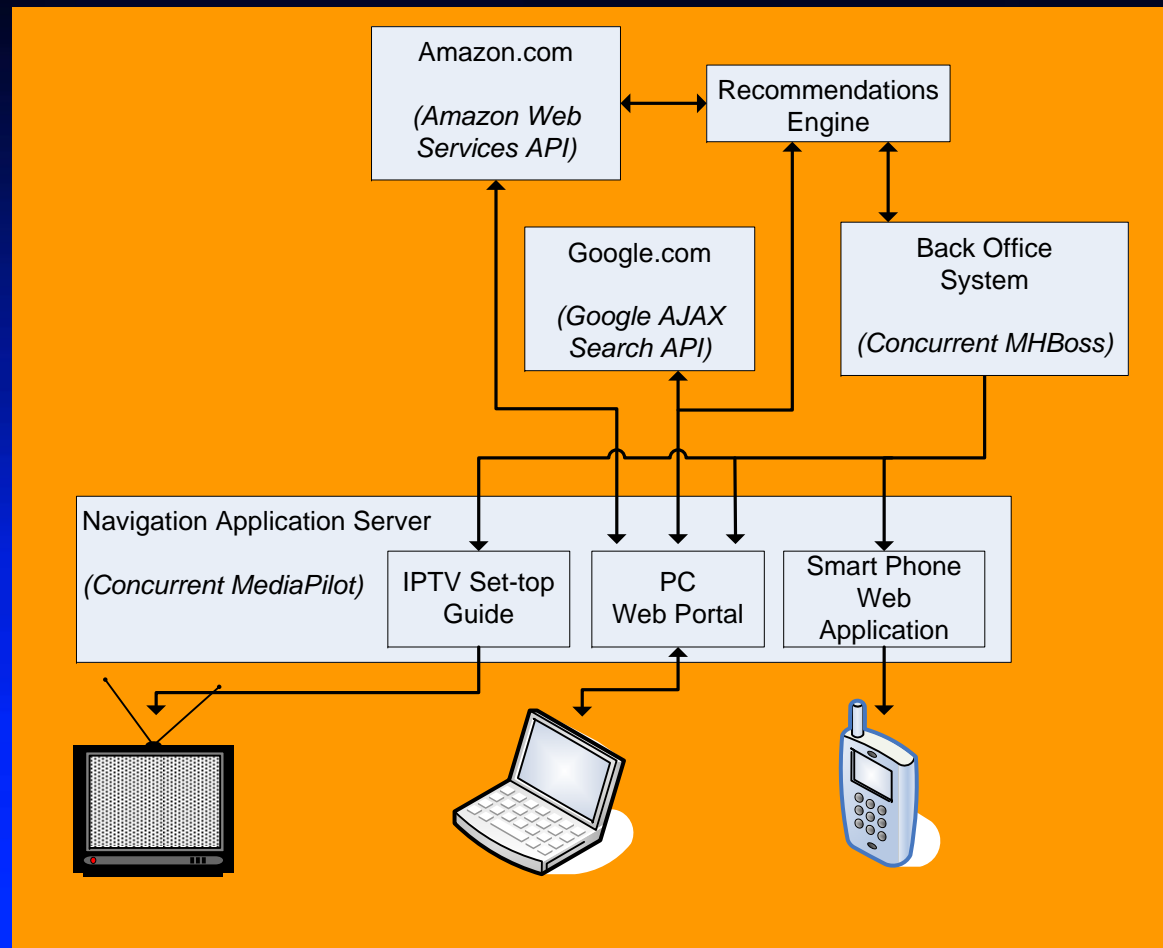
- Convergence of experience requires a new model:



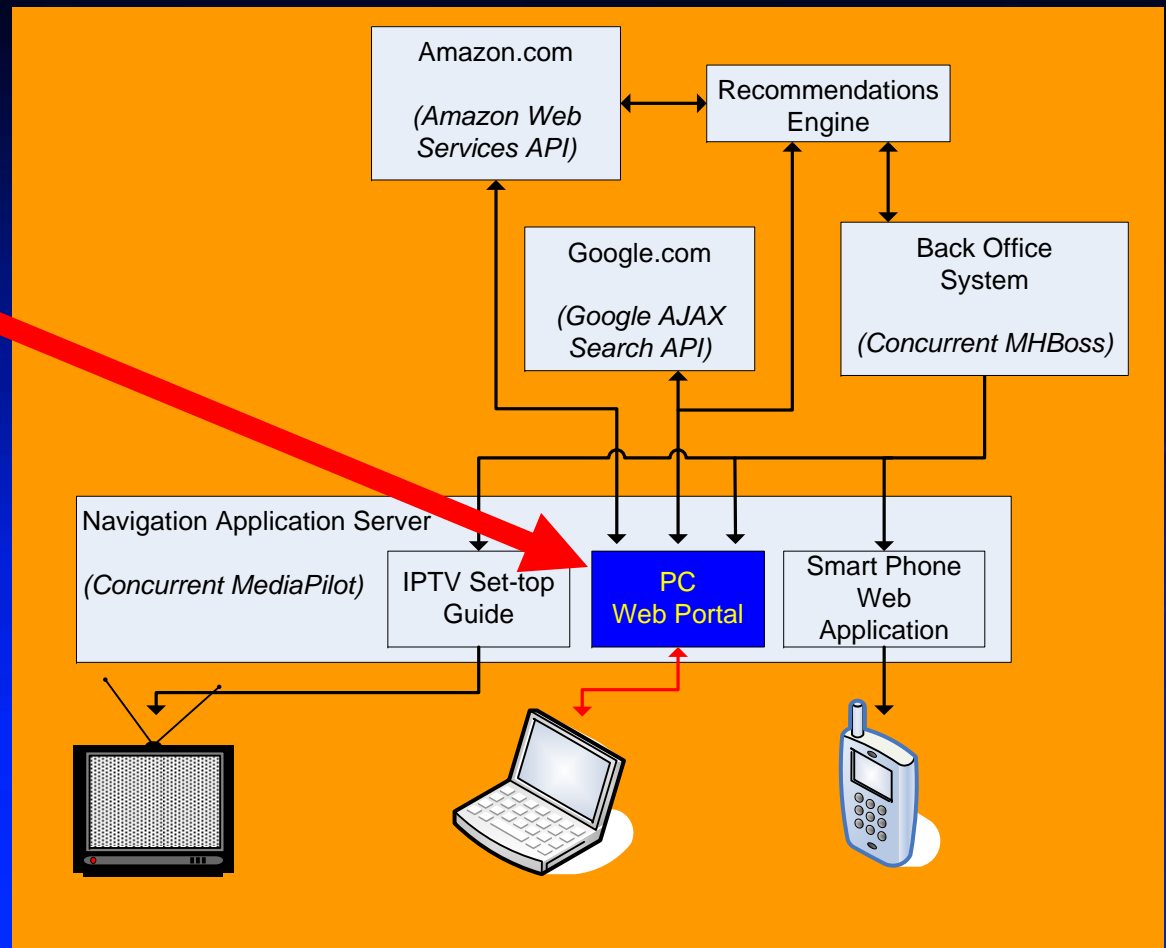
- See the model in action by considering a real-world use case: **Recommendations**



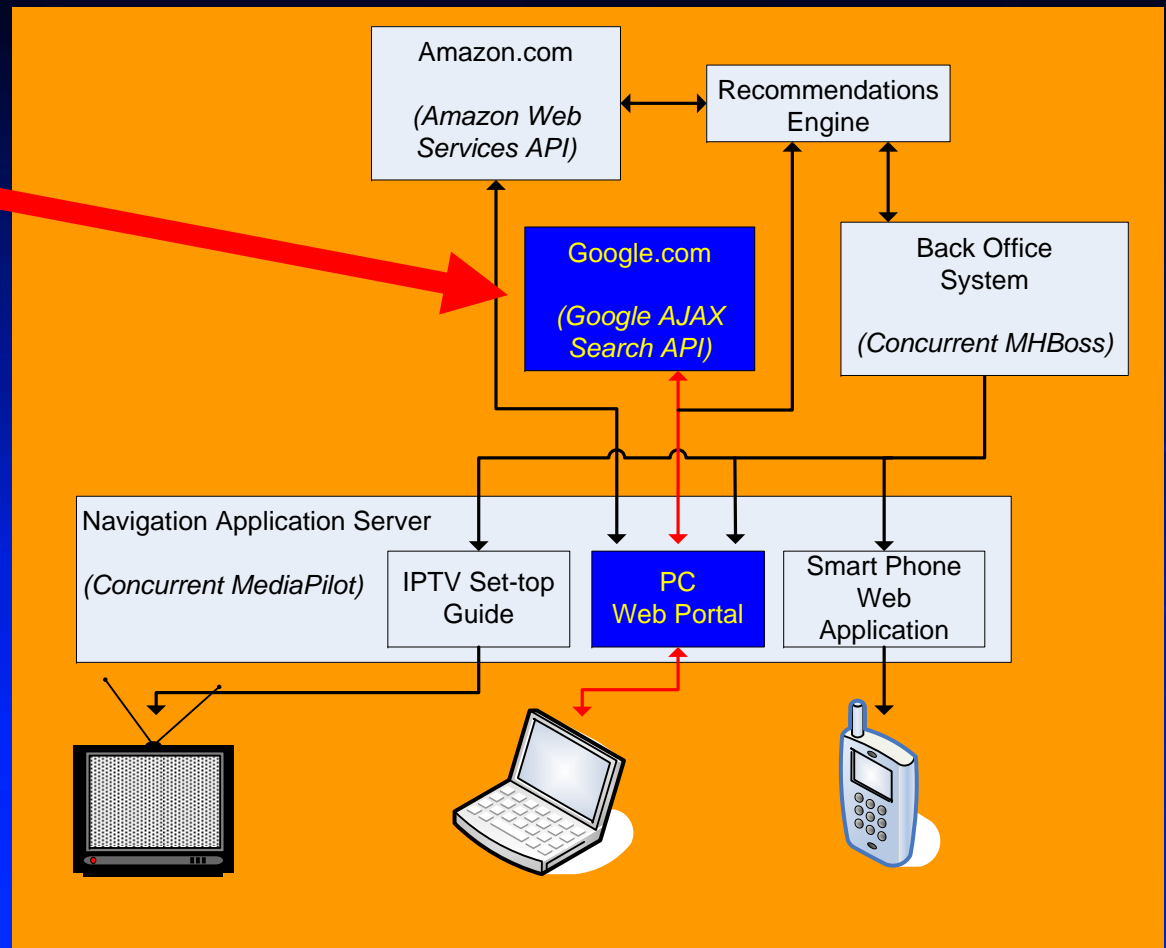
Consider a more “physical” model



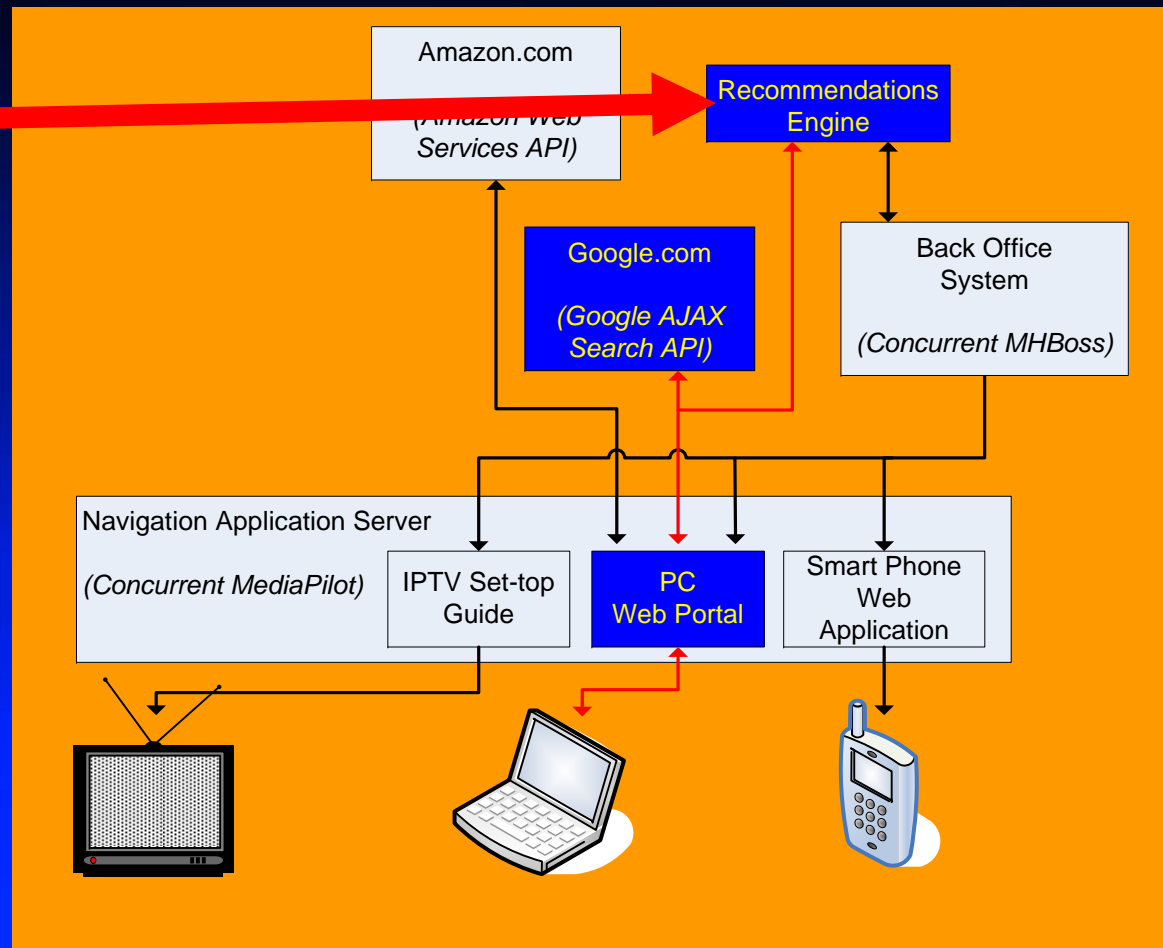
Web search capability provided on custom web portal



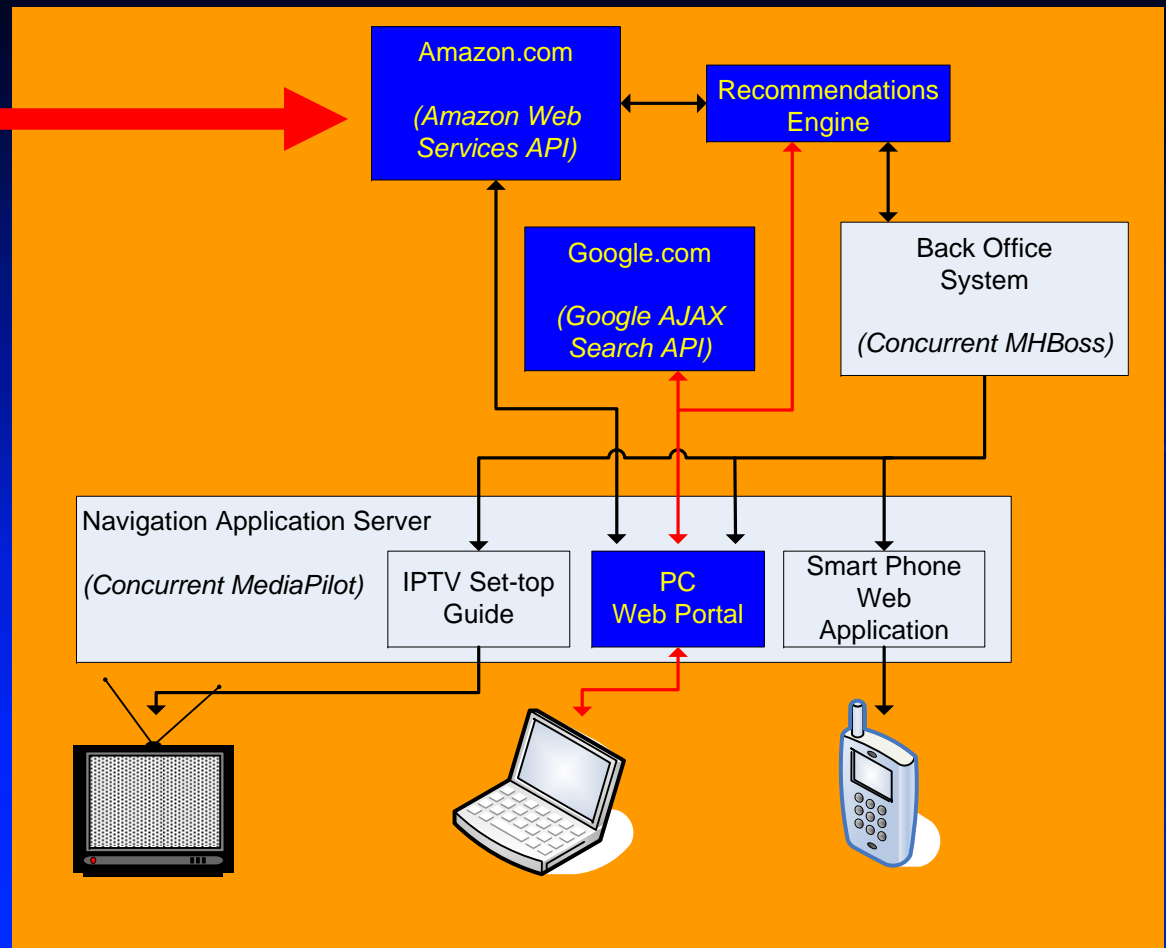
Search performed by Google through use of Google AJAX Search API



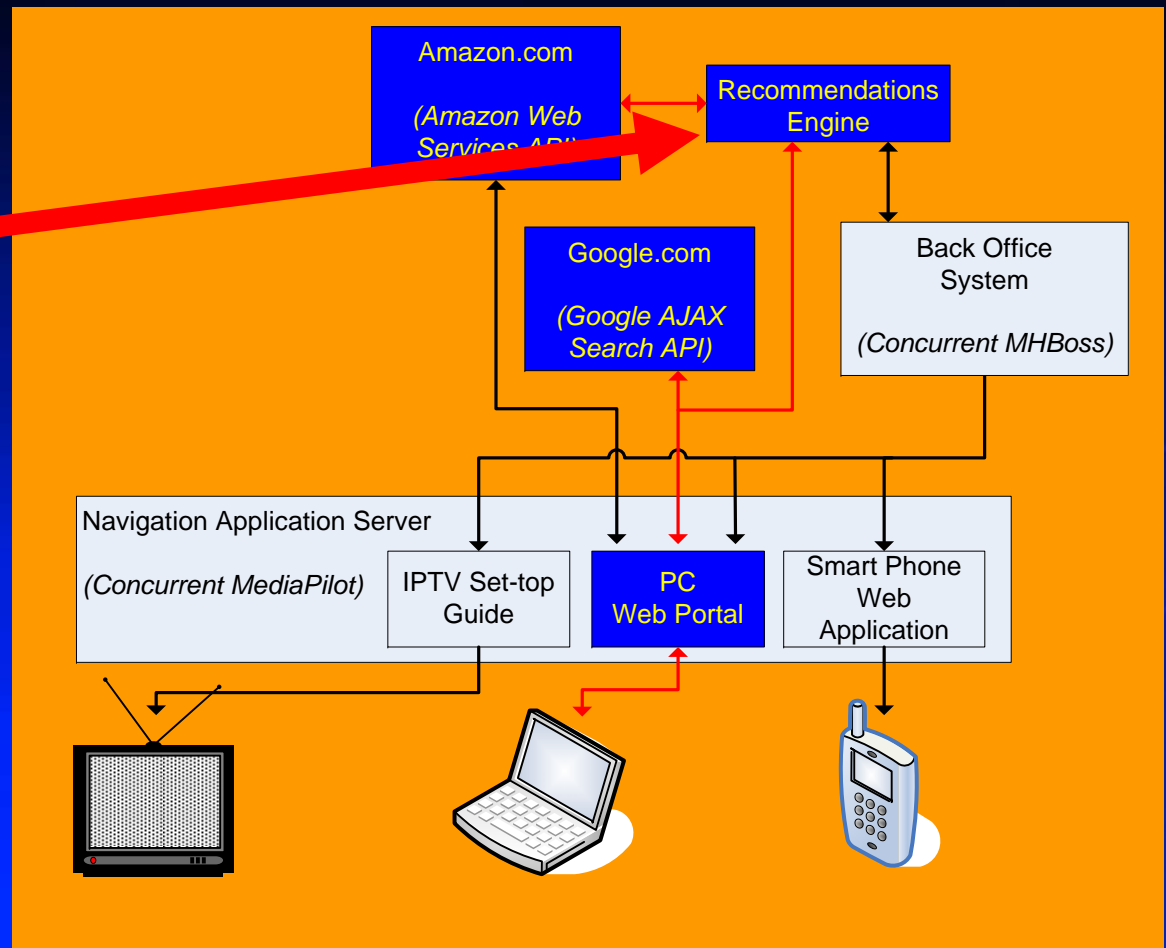
Search terms are communicated to Recommendations Engine



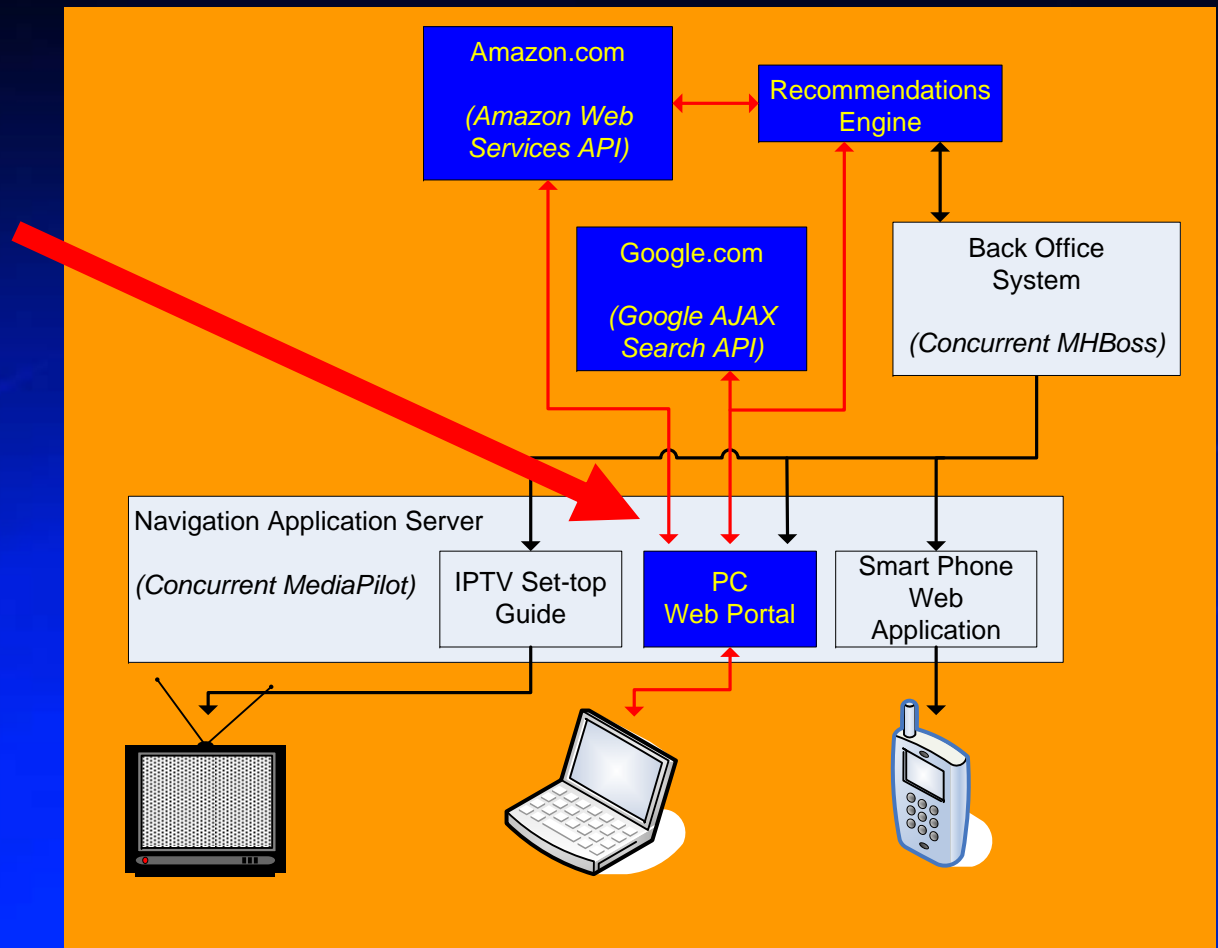
Subscriber shops at Amazon.com and adds item to “Wish List”



Recommendations Engine pulls "Wish List" from Amazon

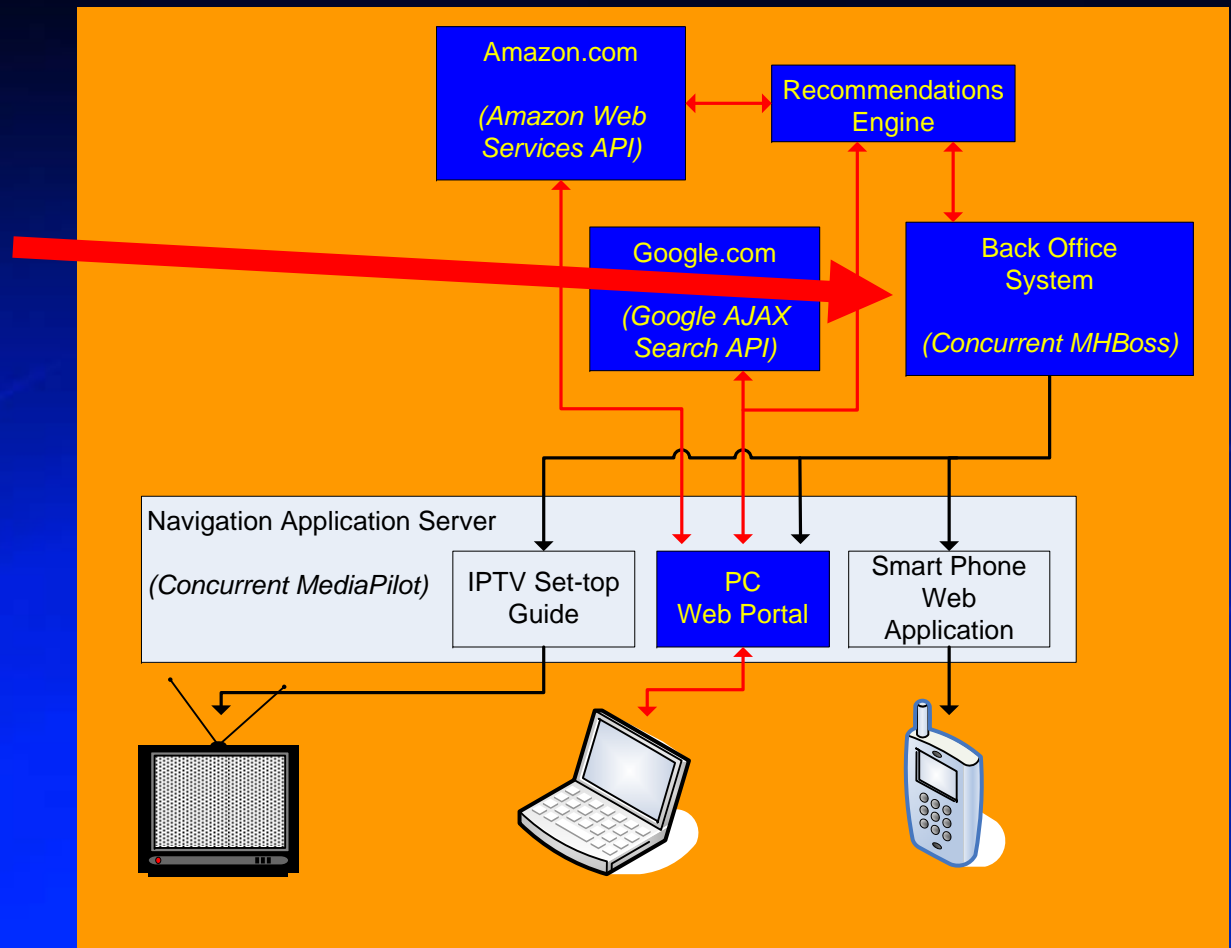


Amazon "Wish List" items and order status also available for display in Web Portal

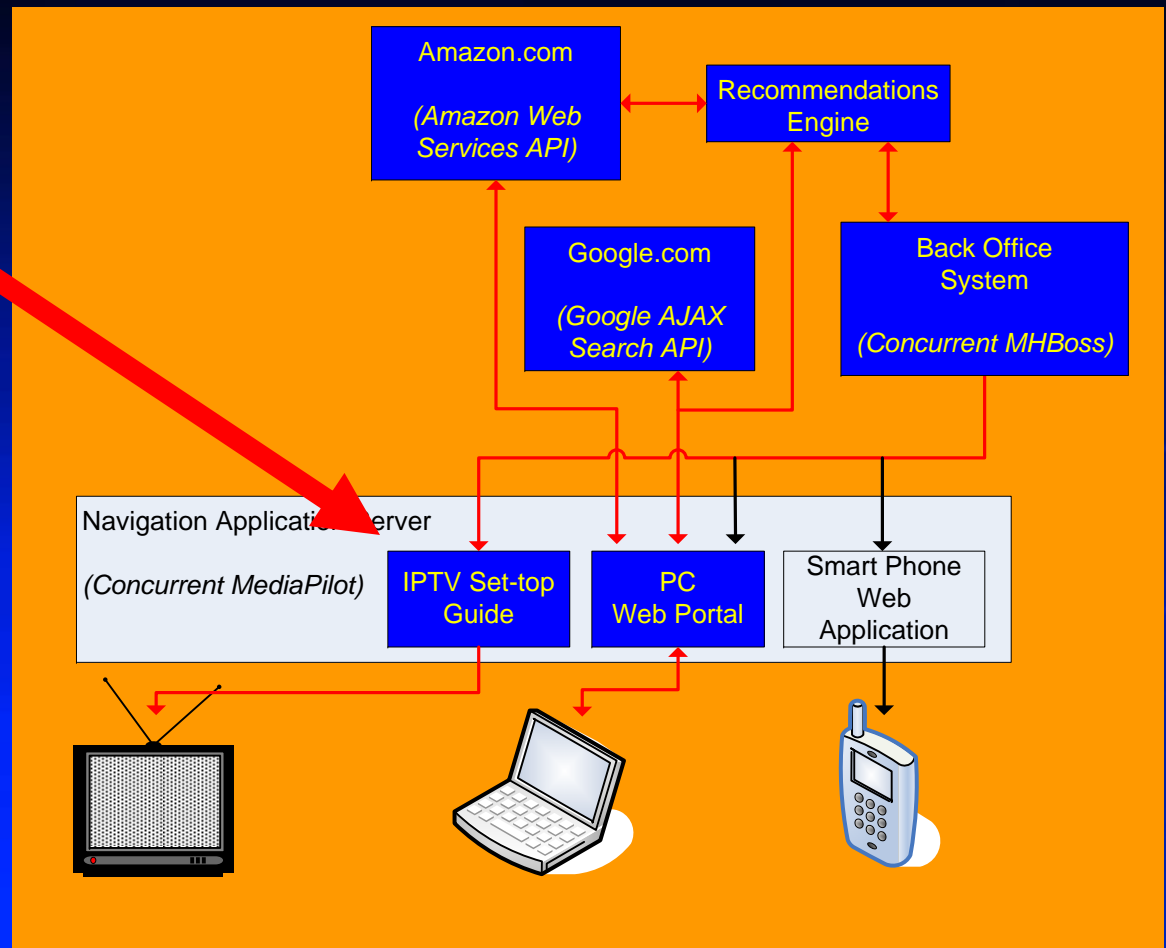


Backoffice system provides program inventory and past viewing information to Recommendations Engine and...

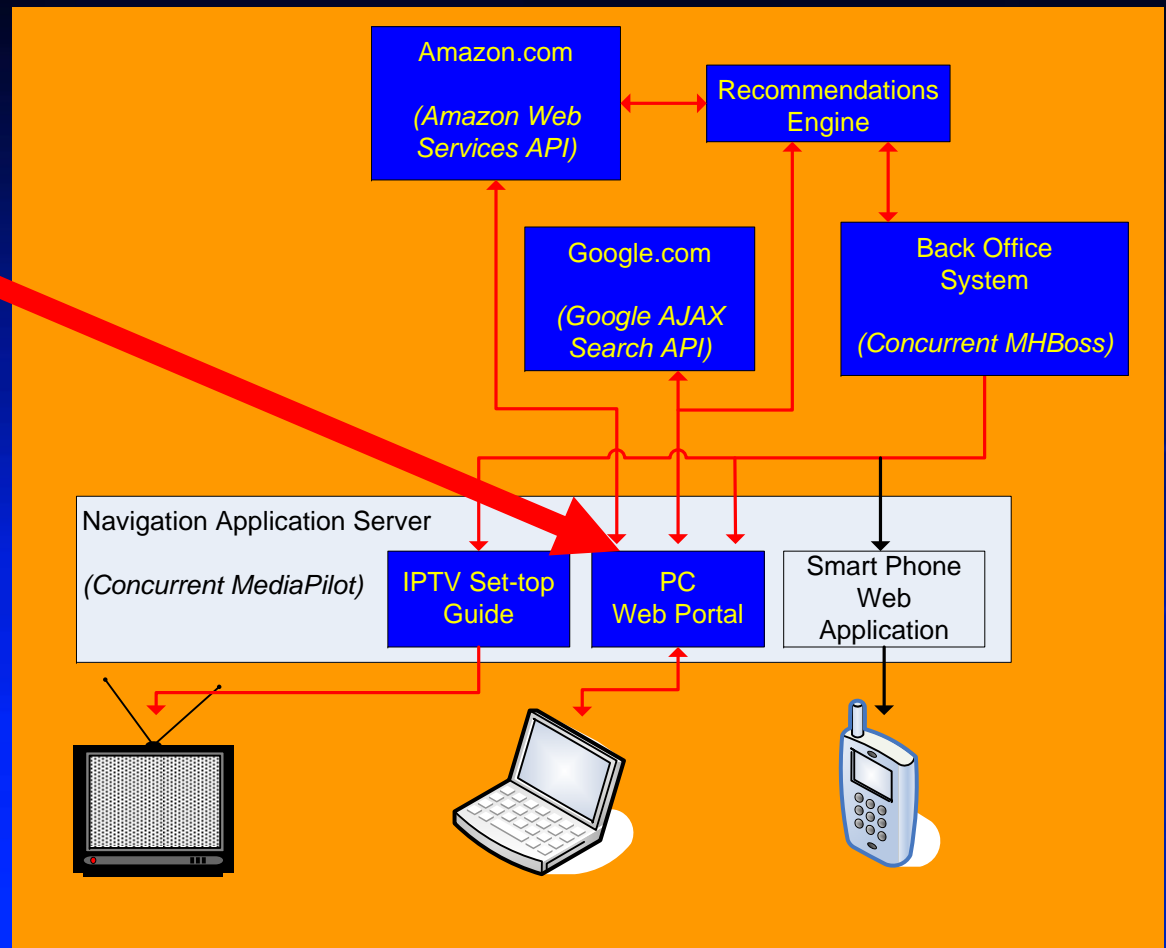
... obtains recommendations based on subscriber interests



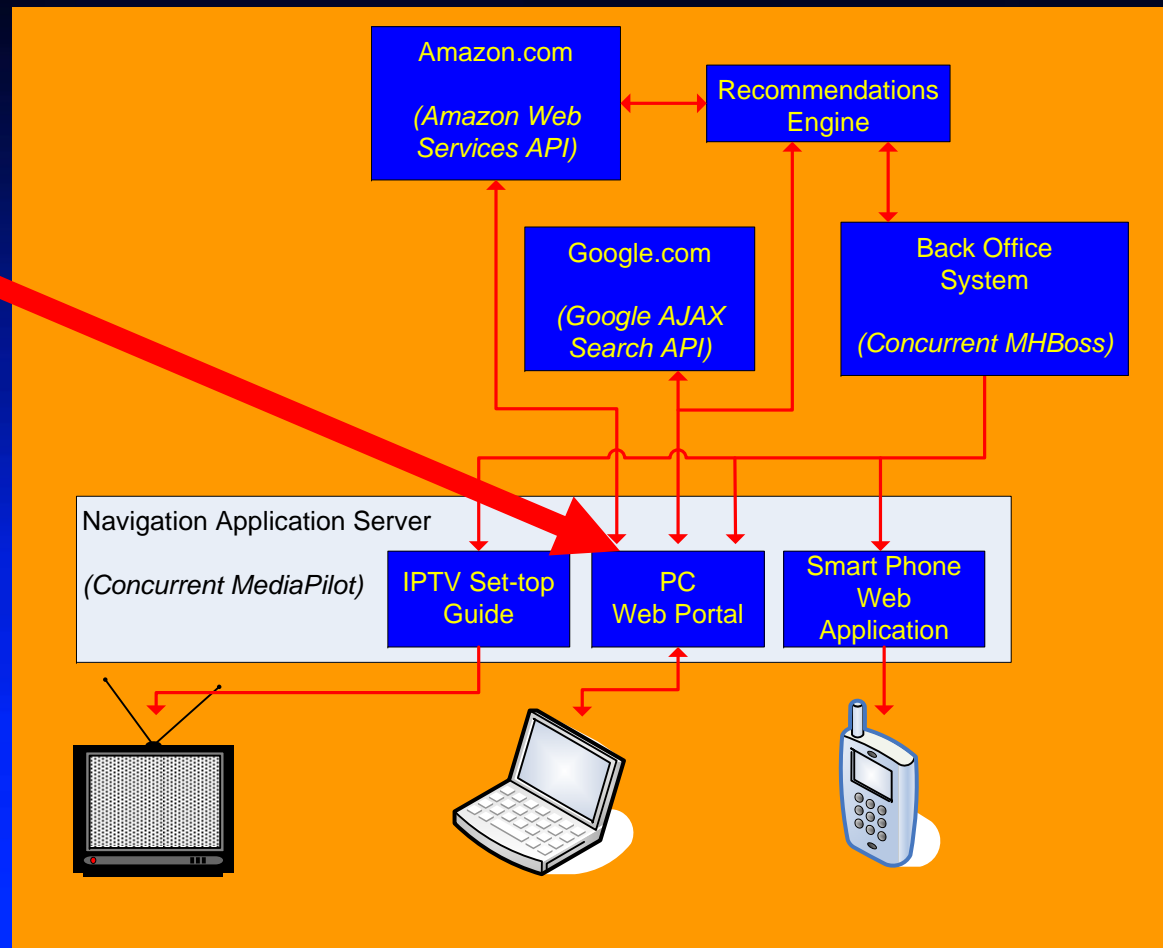
IPTV viewers see list of timely recommendations based on shopping and search interests



PC Web Portal can also display list of recommended on-demand titles, including those that can be streamed to PC



Recommended list
of titles available
on mobile device
as well



What you should take-away:

- Finding “what to watch” at any moment in time is too daunting without recommendations, but luckily, by delivering a converged experience across platforms and devices a recommended list of available titles is possible
- Convergence of experience means not trying to put all functions on all platforms and devices
- Instead, let the platforms and devices do what they do best, and...
- ...share information across platforms and devices so that...
- ...the experiences from one platform and device “spill over” into and enhance other platforms and devices

Additional points to consider

- **Products and standards exist today (Google AJAX Search API, Amazon Web Services API, COTS Recommendation Engines) so you don't have to develop everything**
- **More and more subscribers are consuming and contributing digital media on multiple platforms using multiple devices**
- **Subscribers want content, experience and often functionality silos to be torn down (where it makes sense)**
- **The time for deploying such products and solutions is now...**

Any Questions?