



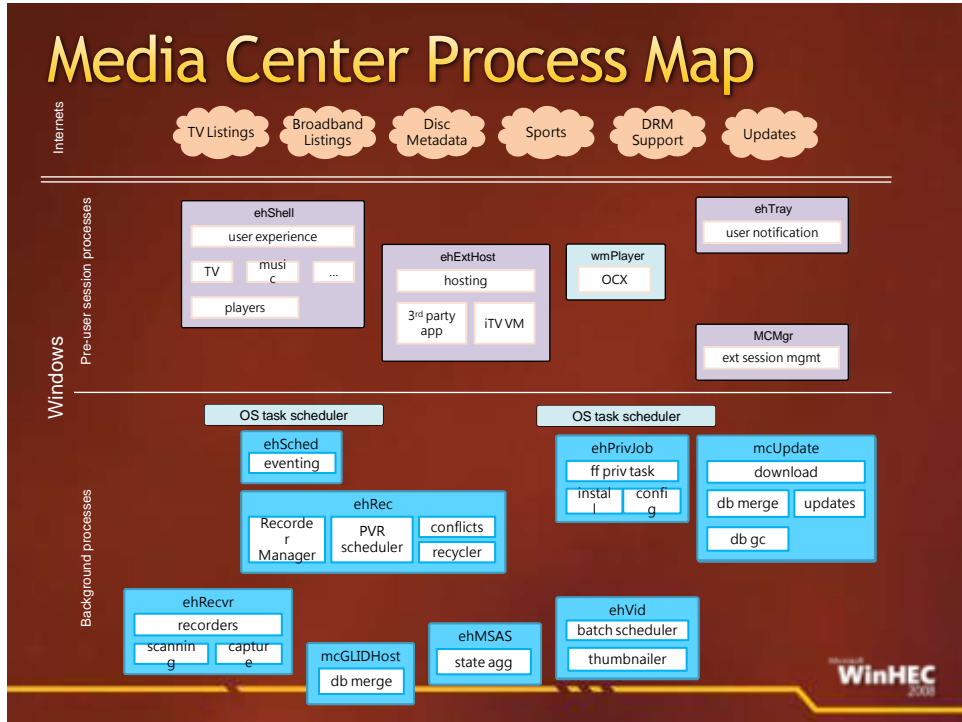
# Agenda

- Architecture
- TV First Run
- Live TV
- Recorded TV
- Tuners
- Video Playback - Non TV
- Detailed Stack

Microsoft  
WinHEC  
2008

## → Architecture

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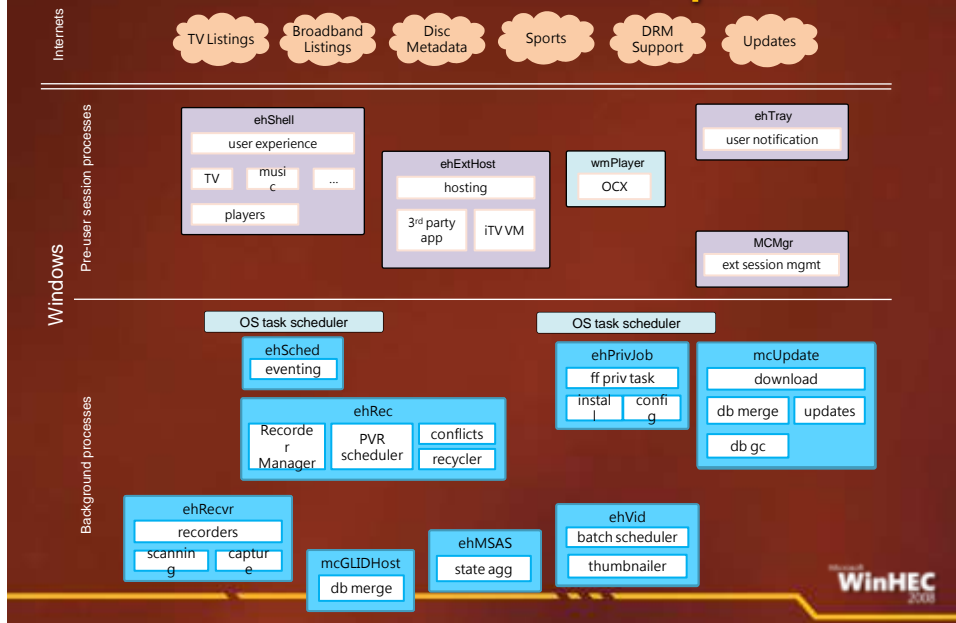


# TV First Run Summary

- Detects installed tuners
- Takes user input to determine geographic settings
- Will automatically configure tuners
- Also allows for manual configuration
- Initializes EPG settings
- Initializes DRM on tuner (optional)



# TV First Run Process Map



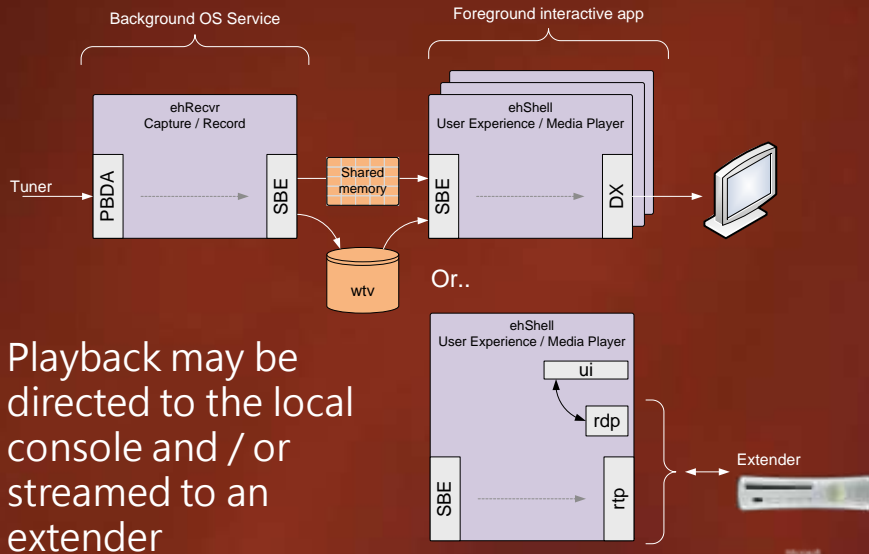


## Live TV Summary

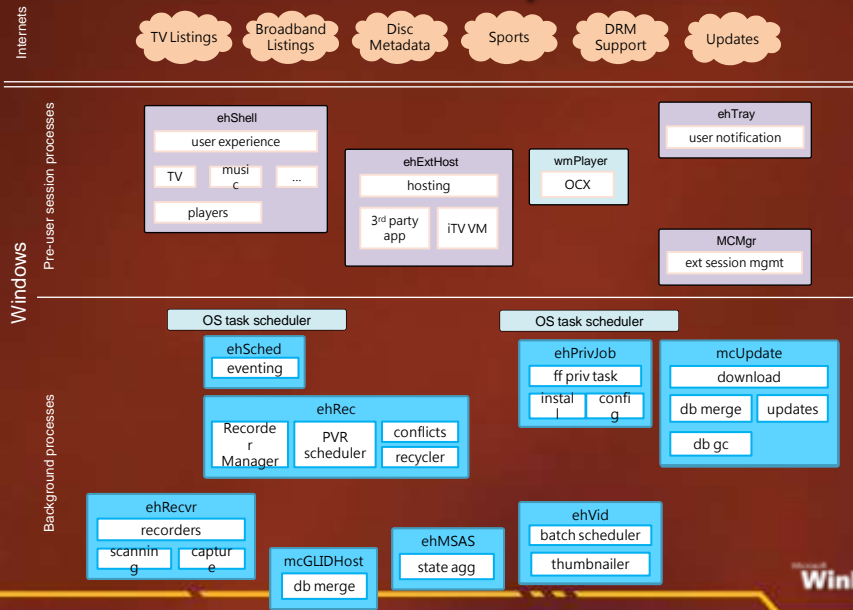
- Uses configured tuners only
- Captures output of tuner, processes it and stores it to a temp file on disk
- Playback then streams from temp file
  - allows for pause, rewind and other PVR functionality during Live TV

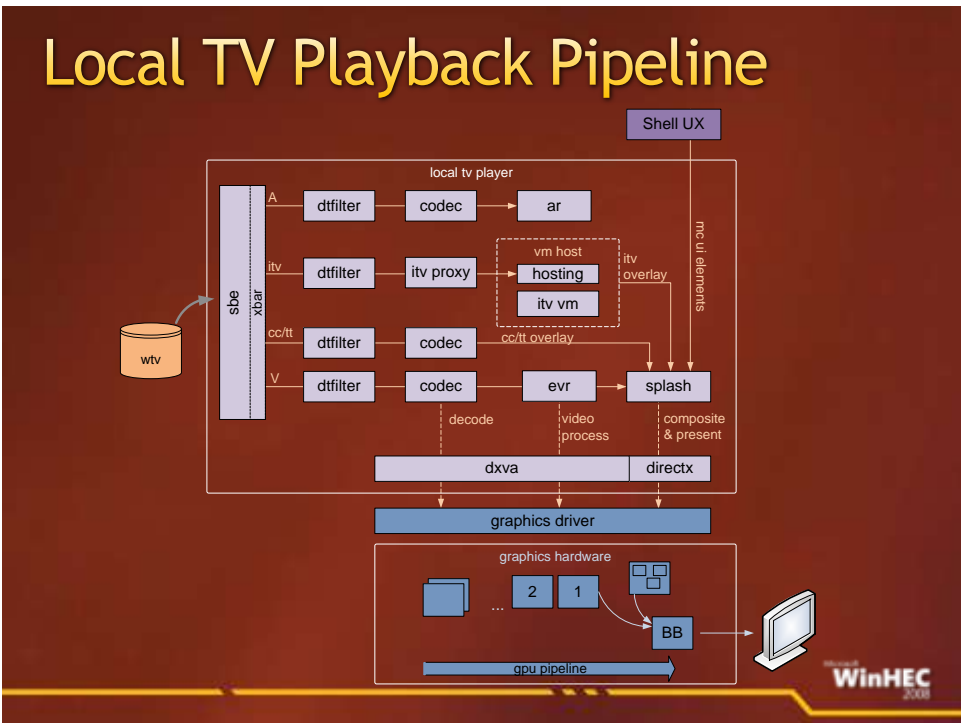
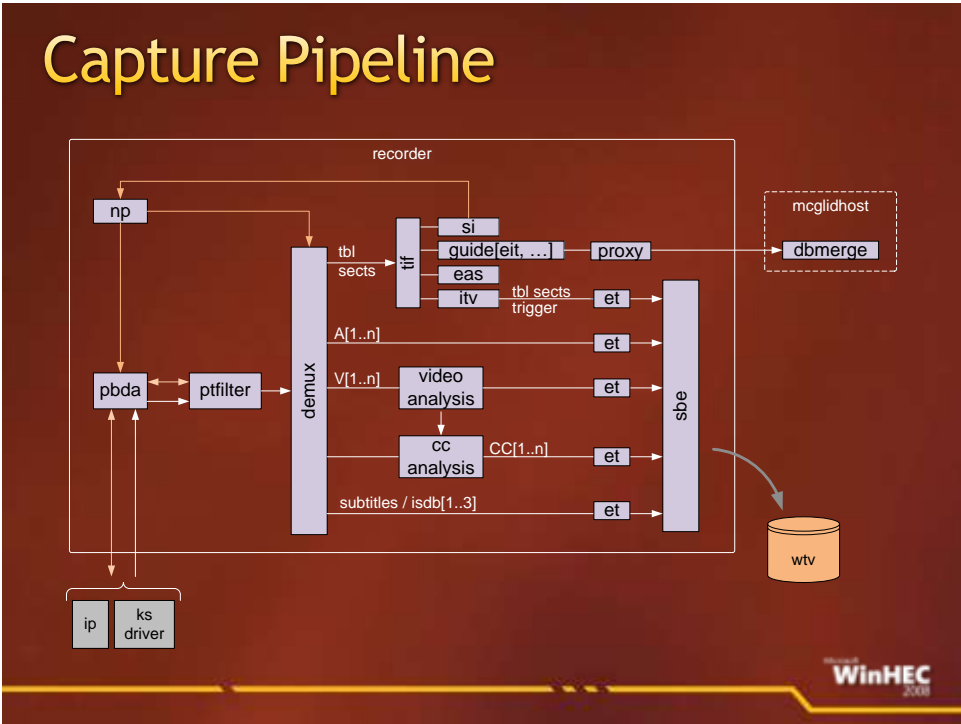
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# Media Center Live TV Pipeline



# Live TV Process Map







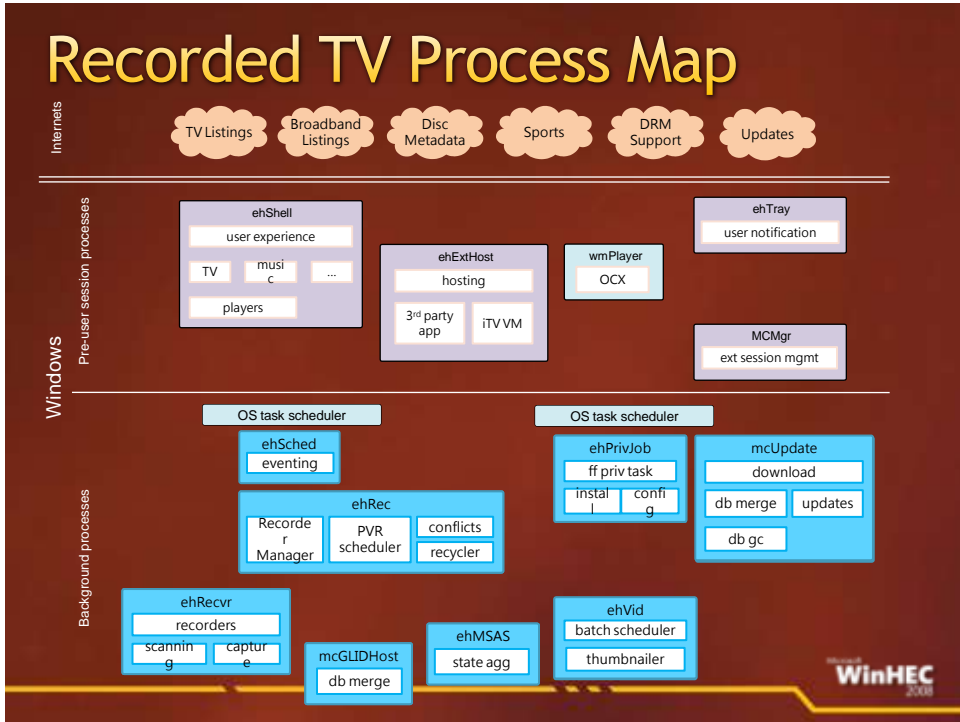


## Recorded TV Summary

- Uses configured tuners only
- Captures output of tuner, processes it and stores it to a permanent file on disk
- File is processed after recording is complete, thumbnails are generated and metadata is populated into the file attributes
- Provides for one time and recurring recordings

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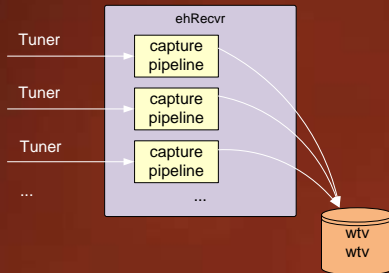
# Tuners

Additional Detail Not Covered Elsewhere

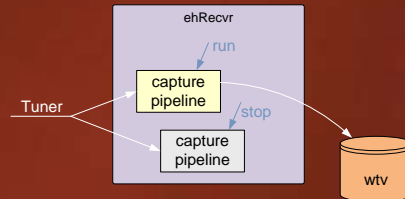
The slide features a decorative background with a red and yellow color scheme, including a stylized 'T' logo on the left and a circular graphic on the right. The WinHEC 2008 logo is located in the bottom right corner.

# Traditional and Hybrid Tuners

## N Tuners



## Hybrid Tuner



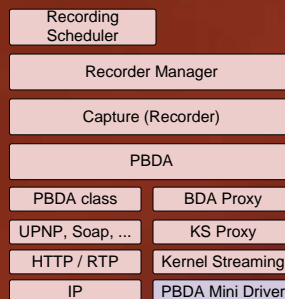
- Win7 introduces support for hybrid tuners
- Notice that there are two capture pipelines built for a hybrid tuner
- Only one pipeline will be active at a time

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# PBDA stack

## Two options

- Soap / RTP over IP to tuner
- Windows PBDA Mini Driver



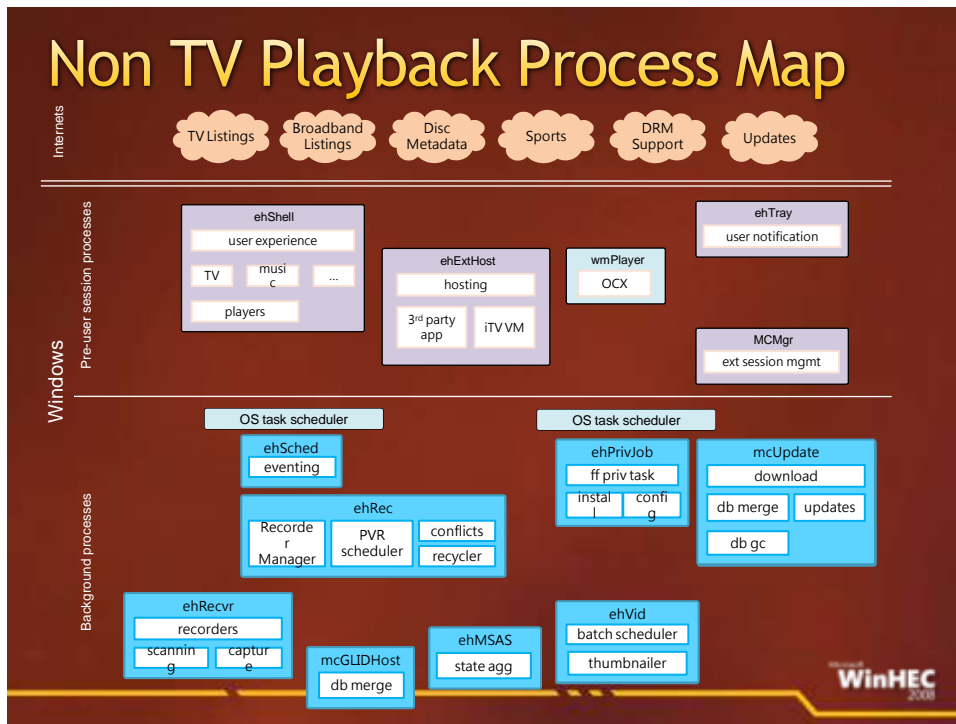
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## Non TV Playback Summary

- Non TV playback for most files go through an extensibility host, in a separate process
- The extensibility host keeps third party applications from crashing Windows Media Center
- Any third party can write an extensibility application
- Most non TV playback goes through Windows Media Player OCX by default

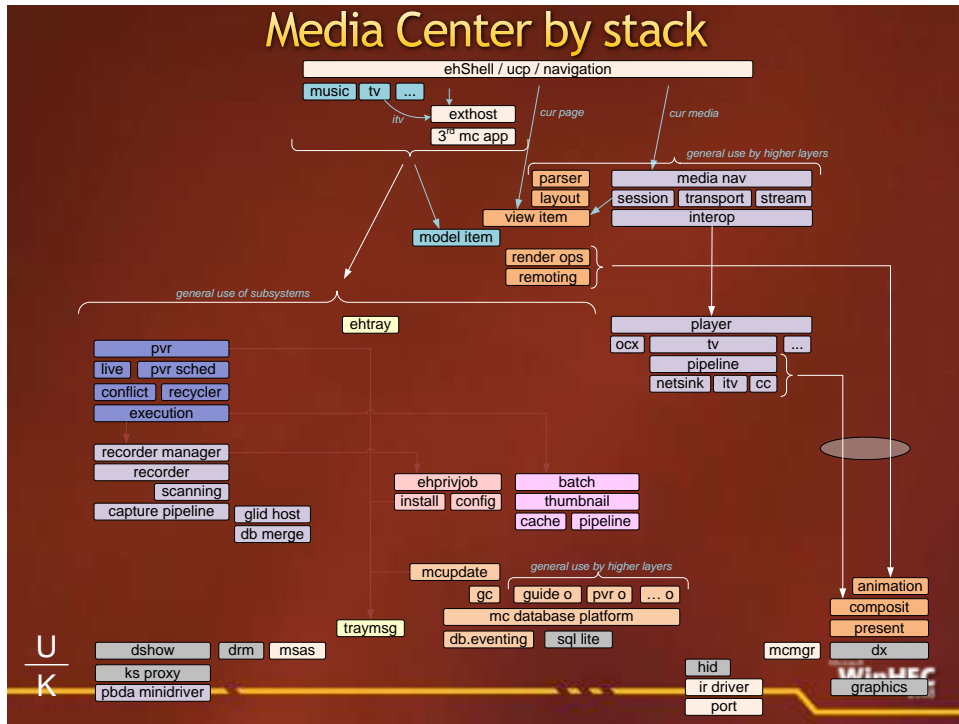
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## Detailed Stack

How Windows Media Center is implemented in more detail

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## Call To Action

- Adopt digital TV formats
- Embrace PBDA for your Windows Media Center digital TV solutions
  - Get the PBDA specification
  - License the Windows Media Digital Rights Management porting kit
  - Develop your PBDA capable tuners
- Engage now to be ready for Windows 7

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