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Challenges to communications regulation posed by technology convergence

The big regulatory challenge: convergence



Telephone network



Cell phone networks



Cable tv networks



Internet

Open vs. closed models



Telephone network

Title II



Cell phone networks

Title II / III



Cable tv networks

Title VI



Internet

Title II

Device attachment



Telephone network

Carterfone



Cell phone networks

Open Internet



Cable tv networks

CableCard



Internet

Open Internet

Universal service



Telephone network

USF



Cell phone networks

USF (mobility)



Internet
Everything-Over-IP



Cable tv networks

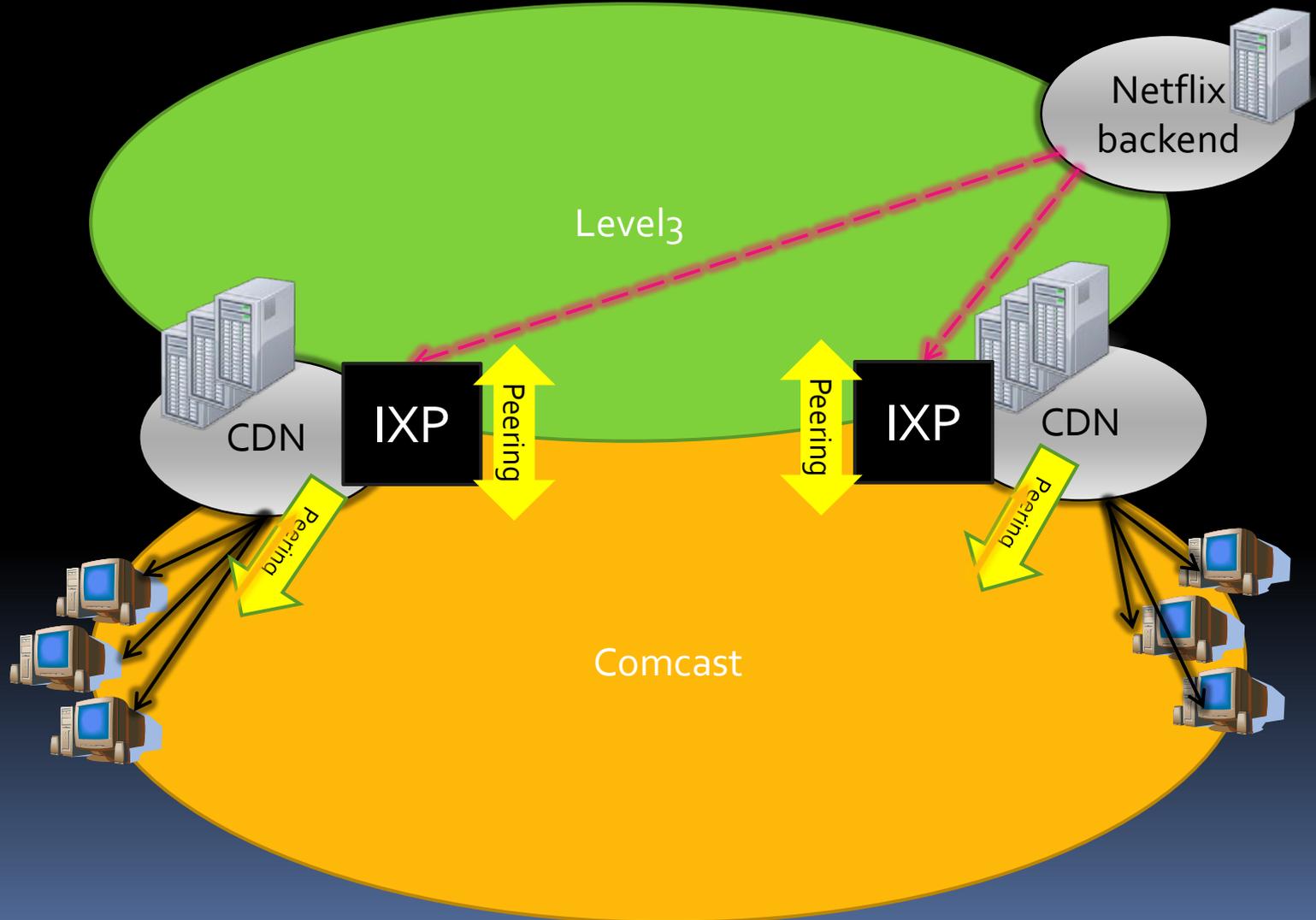
(cross-
subsidies)



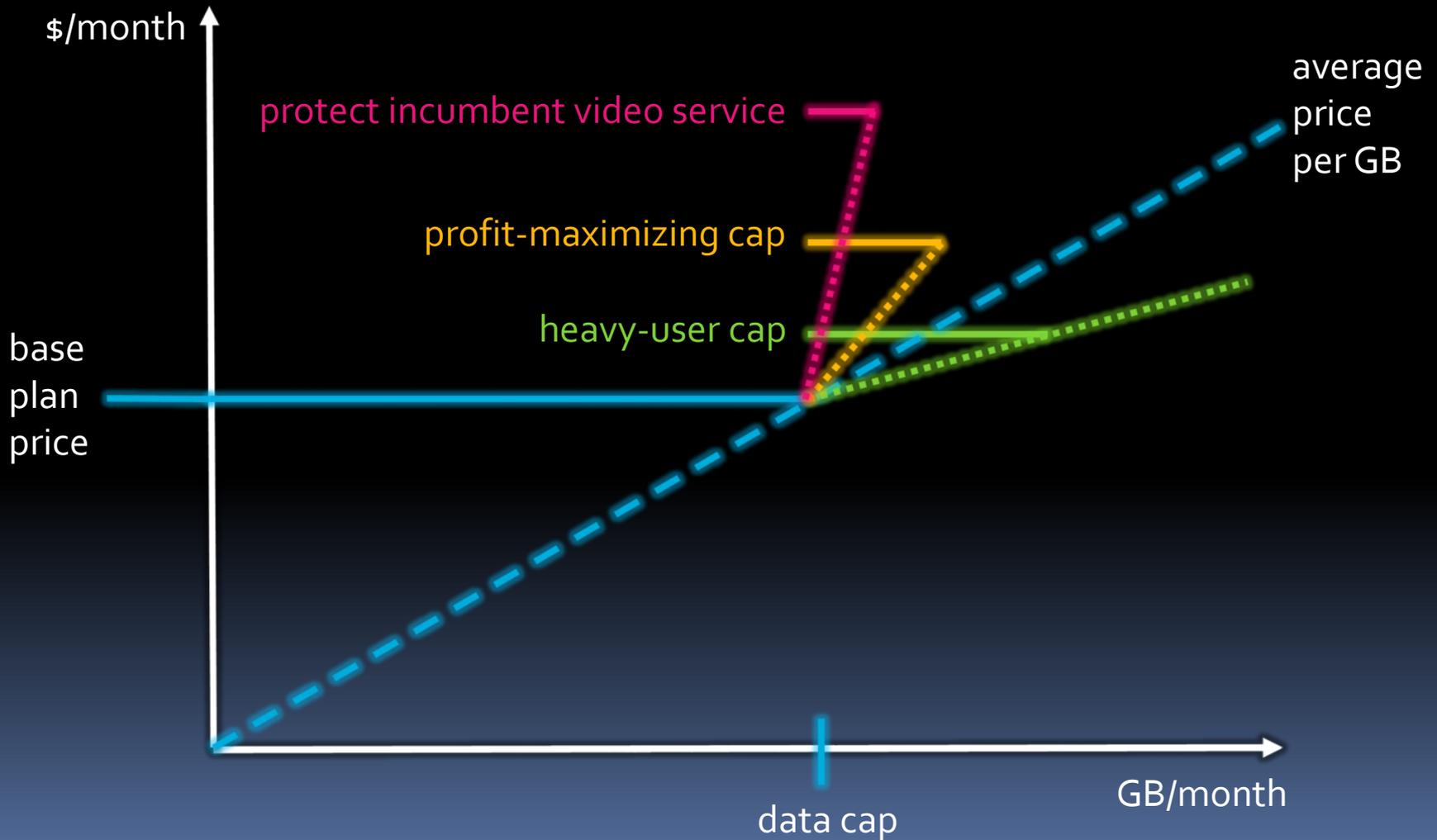
Internet

USF
(broadband)

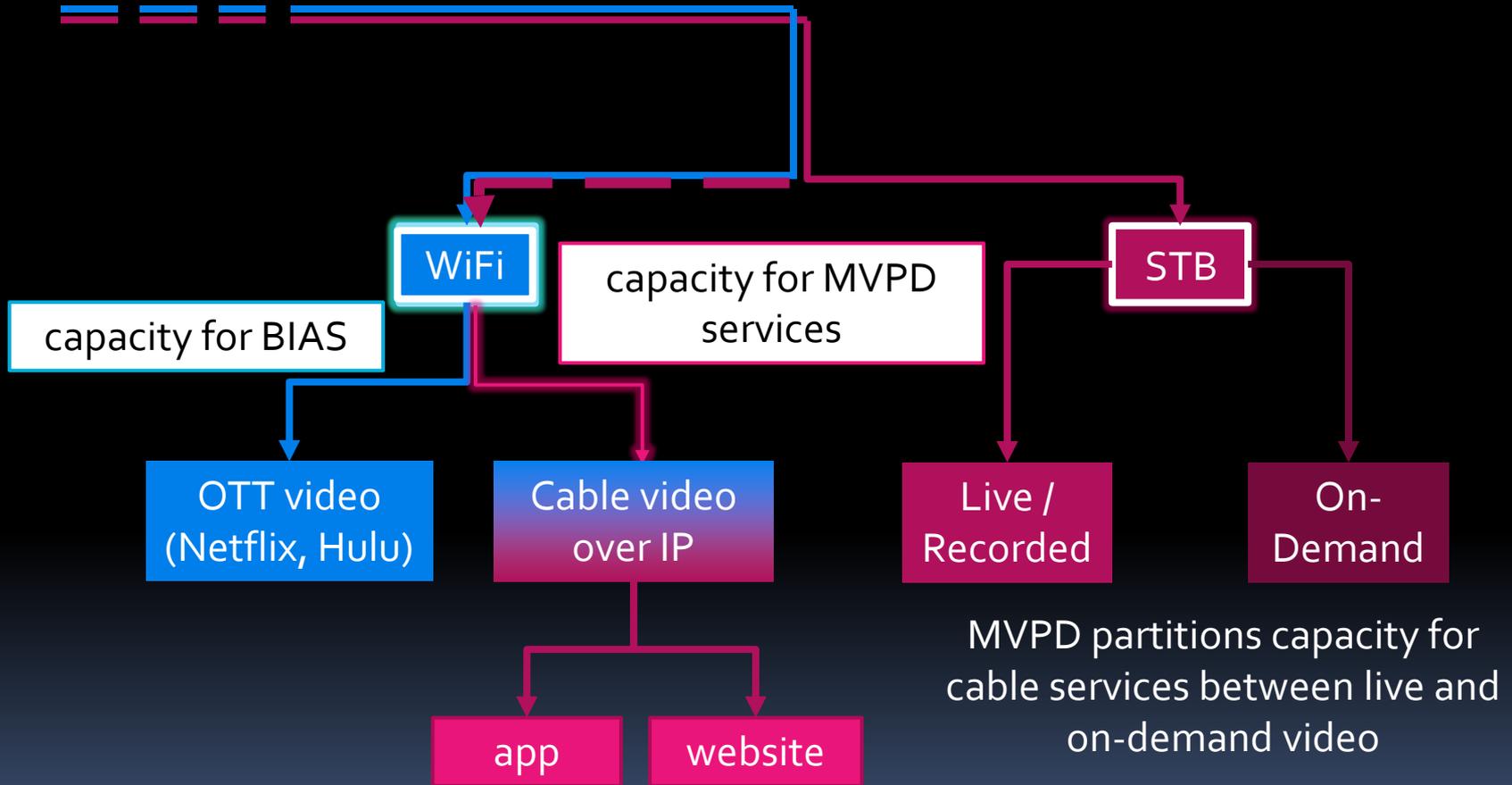
Challenge: Where does the Title II service begin?



Challenge: Using one service to protect another



Challenge: What services fall under which Title?



MVPD may claim cable video over IP does *not* use BIAS capacity, and is thus *not* counted against data cap

Challenge: Application-specific treatment

- Modification of content
 - Video transcoding
 - Web caching
 - Image compression
- Throttling based on class of application
 - video streaming
 - video downloads
 - music streaming
 - gaming
 - tethering
 - application-based capacity allocation
- Zero rating