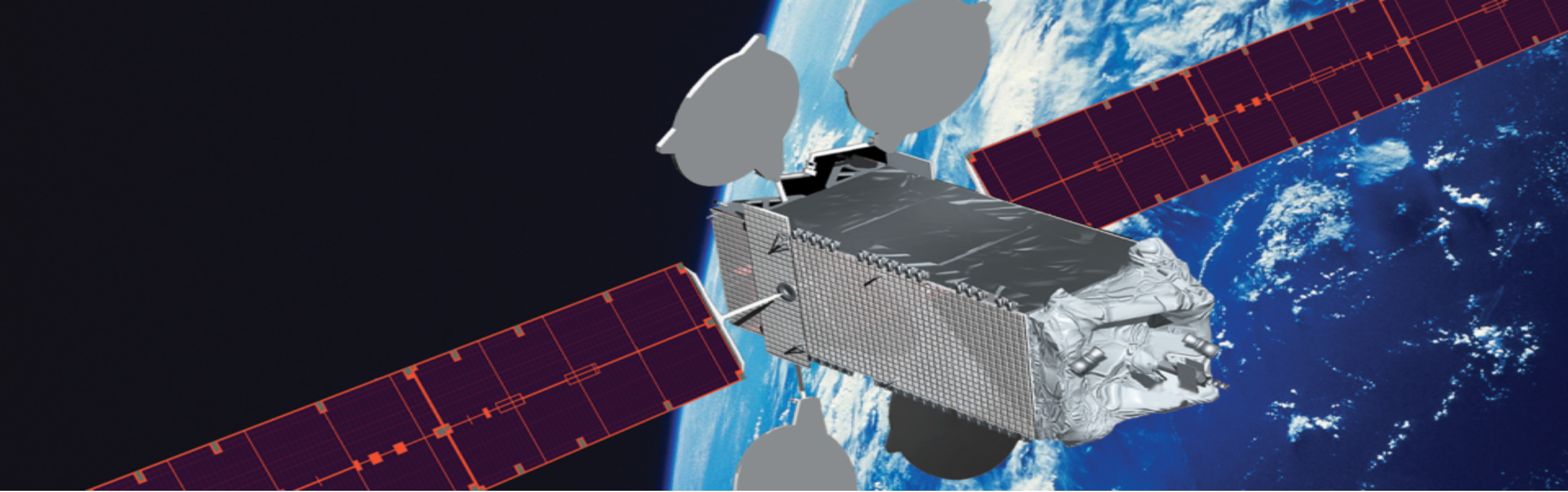


Satellite Networks Pose New Benefits for OTT Service Distribution

Mark M. Myslinski
May 22, 2015



Intelsat is the Leading Global Provider of Commercial Satellite Services

Largest satellite operator in terms of revenue (\$2.5B in 2014), capacity and geographic reach

Global fleet of approximately 50 in-service satellites covering 99% of the Earth's populated regions, including access to approximately 200 countries and territories

Our fleet is complemented by the IntelsatOne® network, which consists of more than 36,000 miles of fiber that connects our teleports and PoPs

Media Delivery Strengths

- 29 of our satellites feature premium regional video neighborhoods
- More than 30 DTH platforms delivering programming to over 31 million subscribers
- IntelsatOne infrastructure provides end-to-end control, flexibility and customer outsourcing
- Over 5,000 channels, with nearly 700 in HD

Intelsat is a preferred media industry partner

Select Customers



Revenue Potential for OTT Services

Chart 02: Do you see offering OTT services as a viable revenue opportunity today?
(all survey respondents)

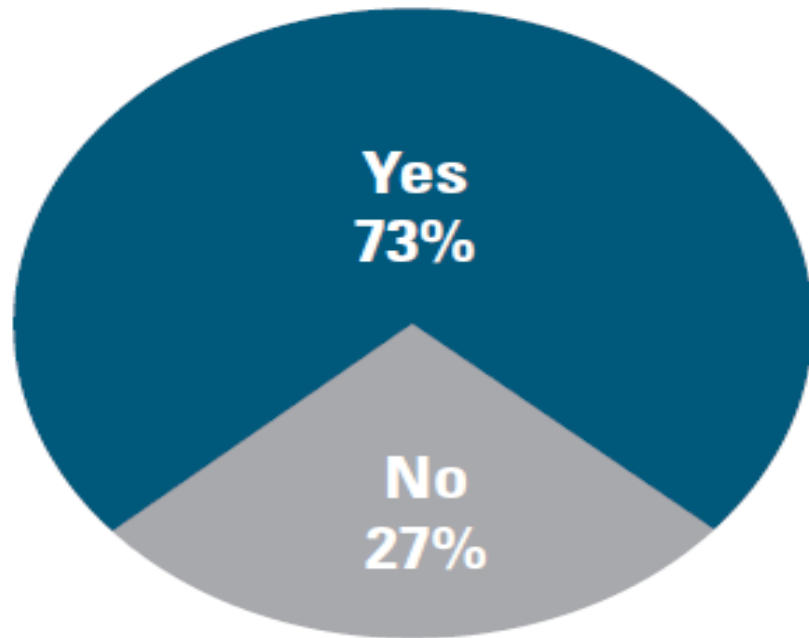
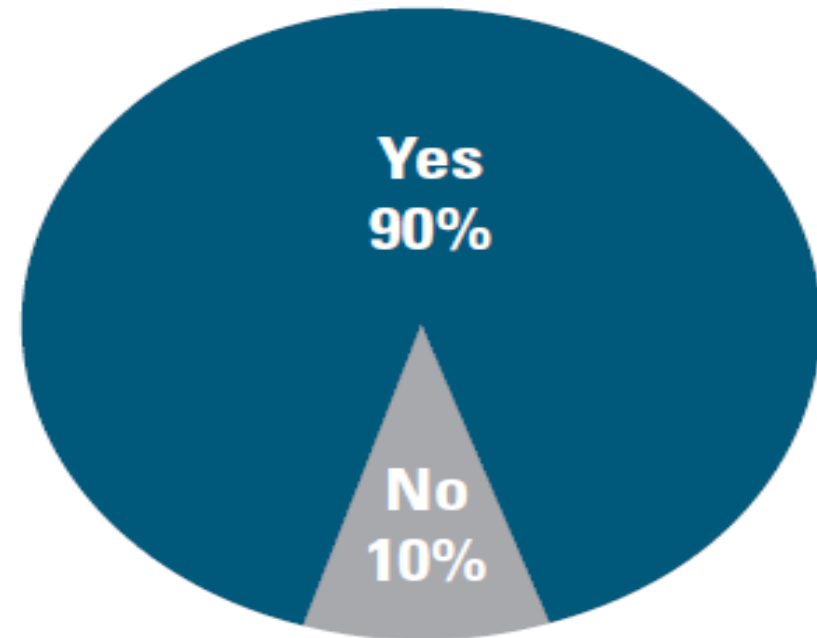
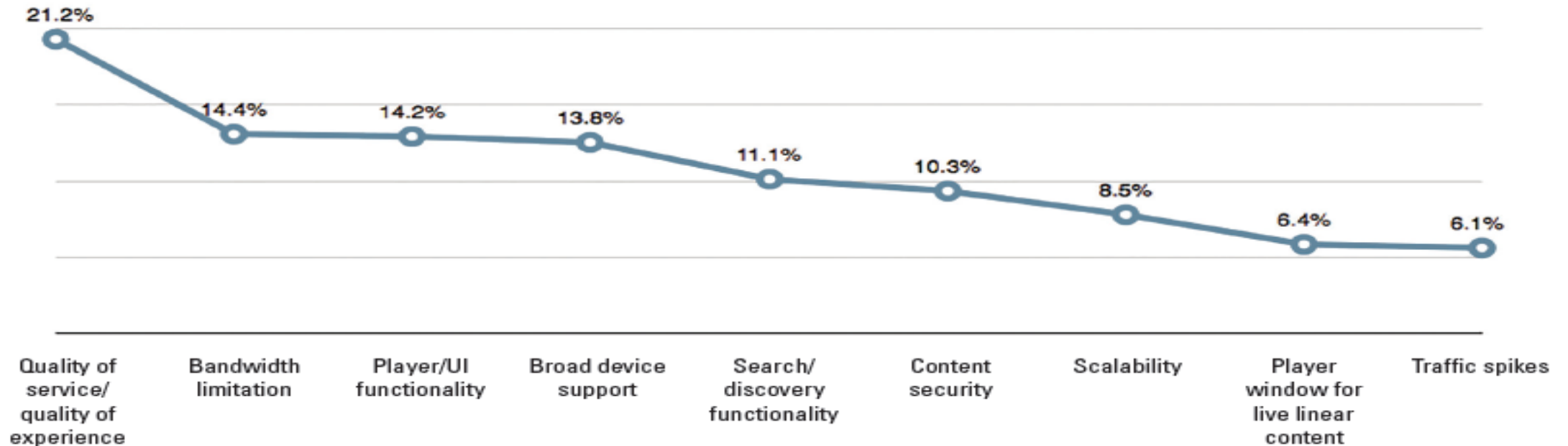


Chart 03: Do you see offering OTT services as a viable revenue opportunity today?
(currently offering OTT services)



Most Significant Technical Challenges

Chart 06: What are the most significant technical challenges for your business in offering OTT services today?



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and Unisphere Research,
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May 2015

Most Important Performance Factors

Chart 07: What performance-based metrics drive your OTT business decisions?

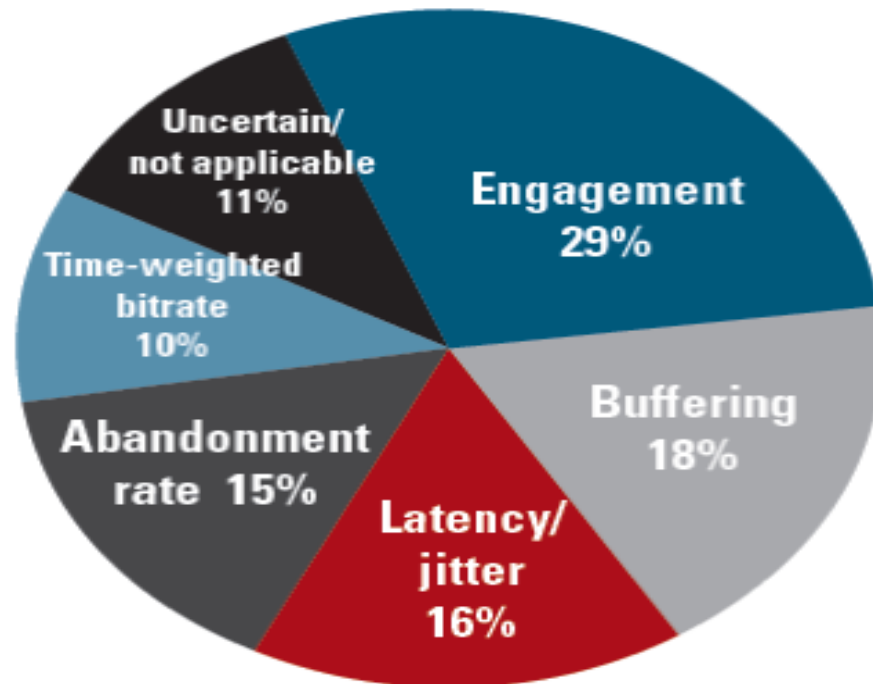
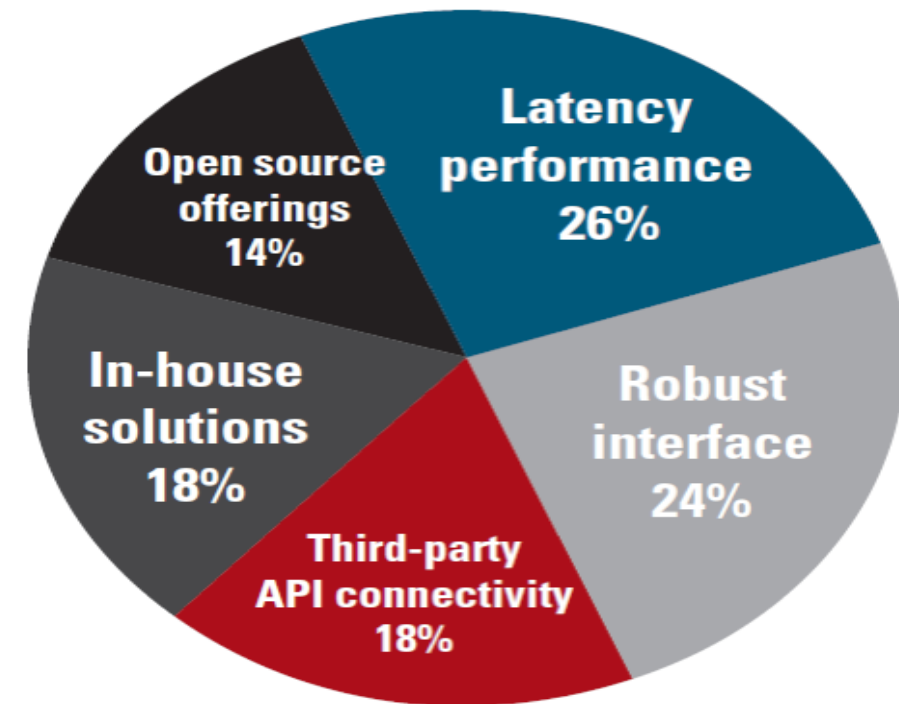


Chart 09: Which of the following are important with regards to your OTT solution set?



Importance of Live/Linear Programming

Chart 14: How important is live event content (e.g., sporting events, awards shows) acquisition to your business plan?

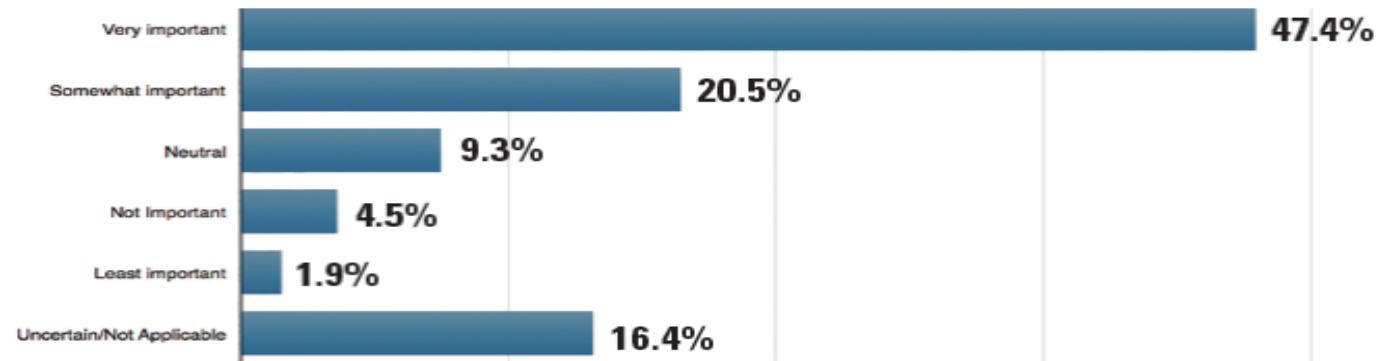
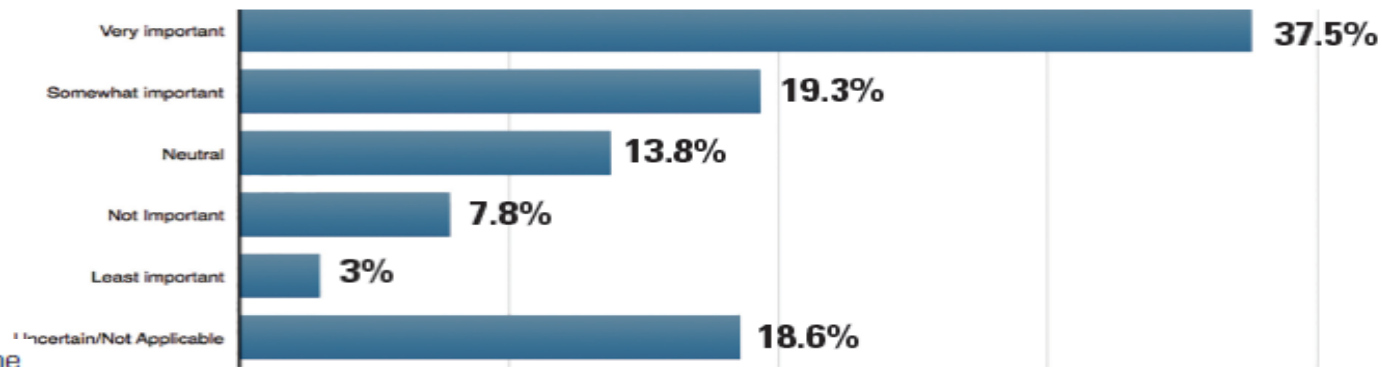


Chart 15: How important is live-linear content (e.g., broadcast TV channels, local "must carry" stations) acquisition to your business plan?



Monetization Strategies

Chart 10: Which of the following are part of your current OTT monetization strategy?

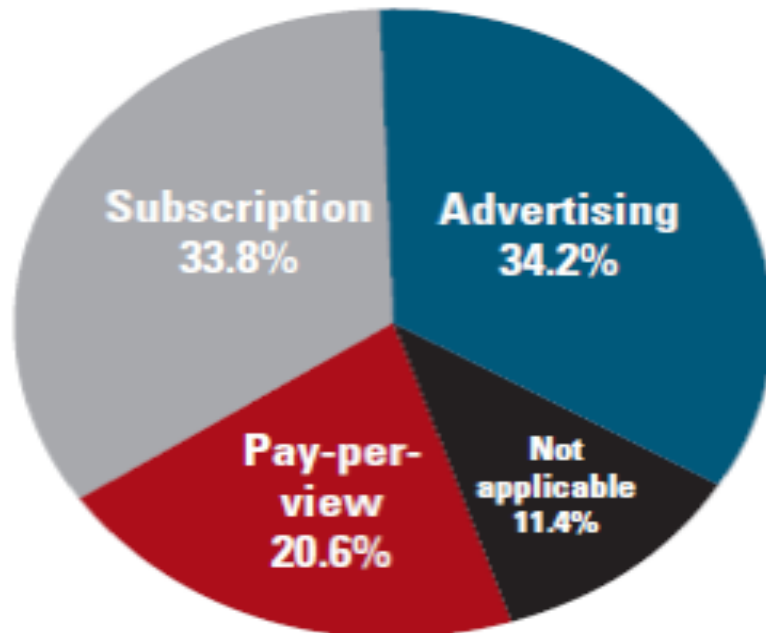
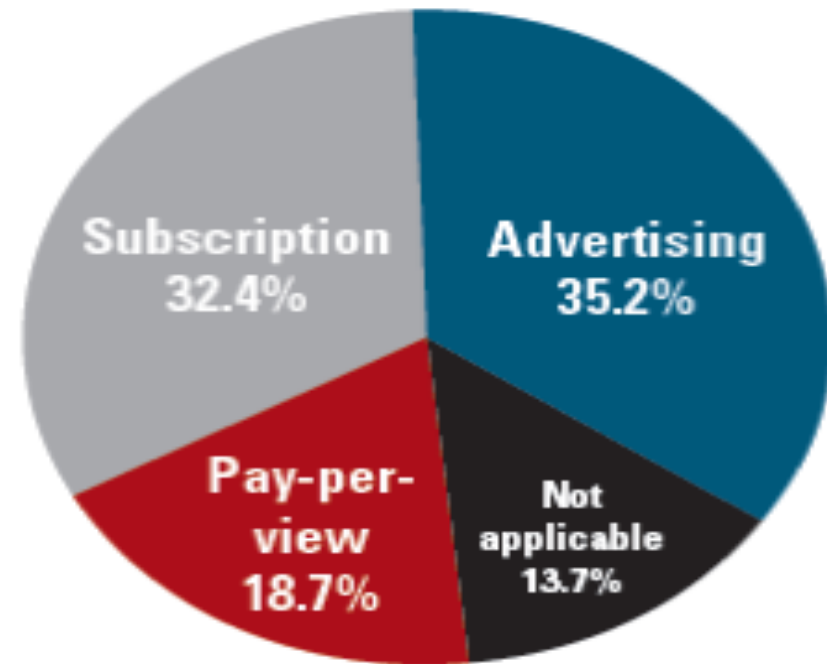


Chart 19: How do you plan to monetize OTT services in the next 12 months?



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Background

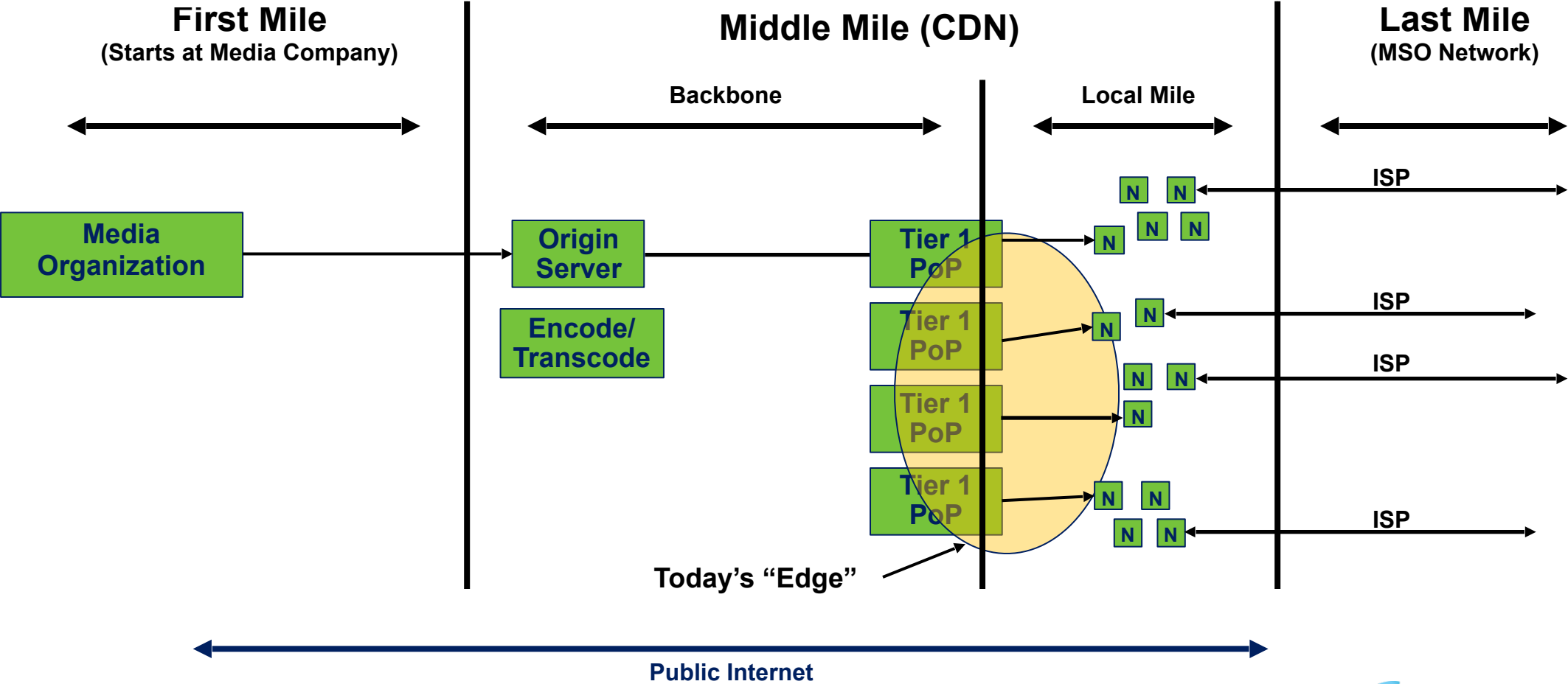
- Over-the-Top (OTT) service distribution a direct to consumer service deliverable by CDNs
- Commercial CDNs predominantly rely on the Internet, a “network of networks” for worldwide distribution
- The current infrastructure has enabled multiscreen services as a viable business, although largely as on-demand services
- Multiscreen live/linear events such as the Olympics and FIFA World Cup show great potential for mass audiences that could be served by advertising
- As OTT services continue to scale, including with live/linear services, current infrastructure has limits for sustainable QoS - key factor for advertising models

The Challenges of Live/Linear Services

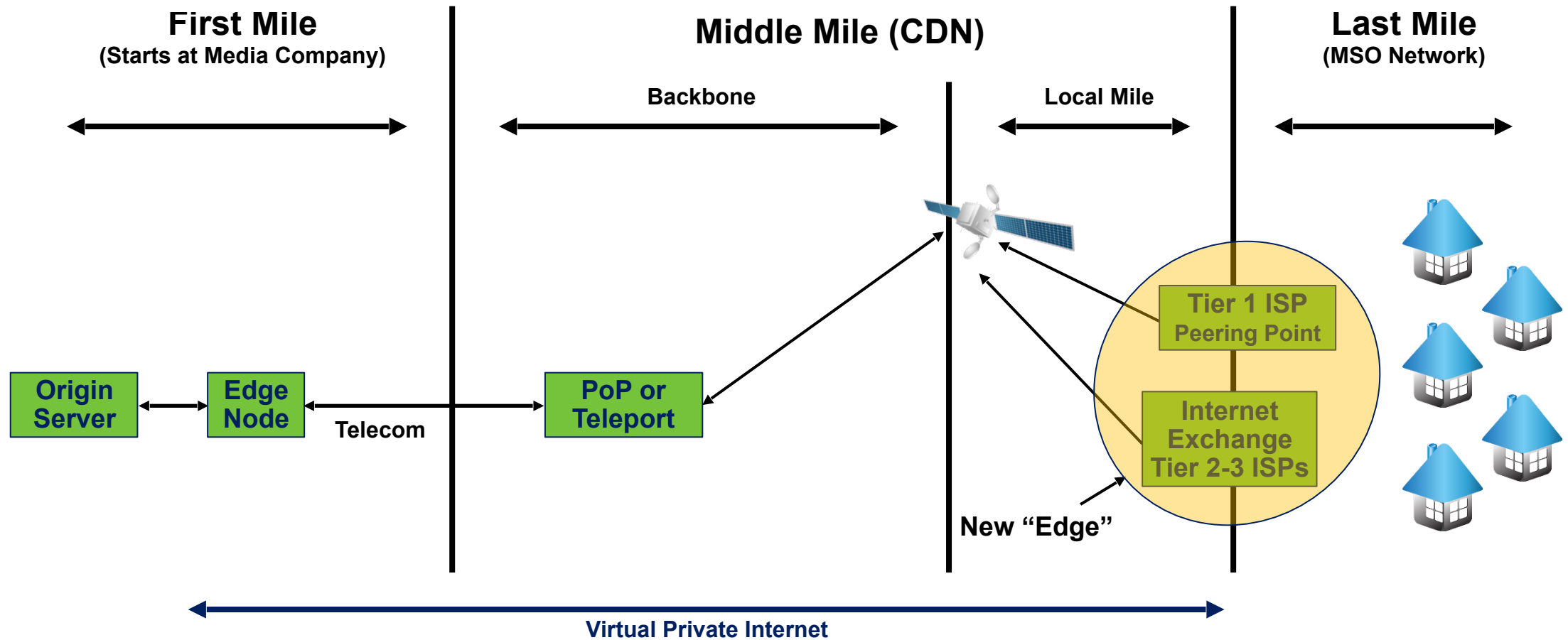
- An advertising-based live/linear model requires a quality of service that is *consistently* high to maintain viewer's engagement throughout the programming and the advertising
- As audience sizes vary greatly, current CDN cost models that are variable cannot support advertising-based business models
- Peering costs and bandwidth manageability key components to successful OTT services delivery today

The location of a content delivery network's "edge" can play a significant role in controlling costs and insuring QoS

Today's "Edge" and the Internet



Creating a New Edge

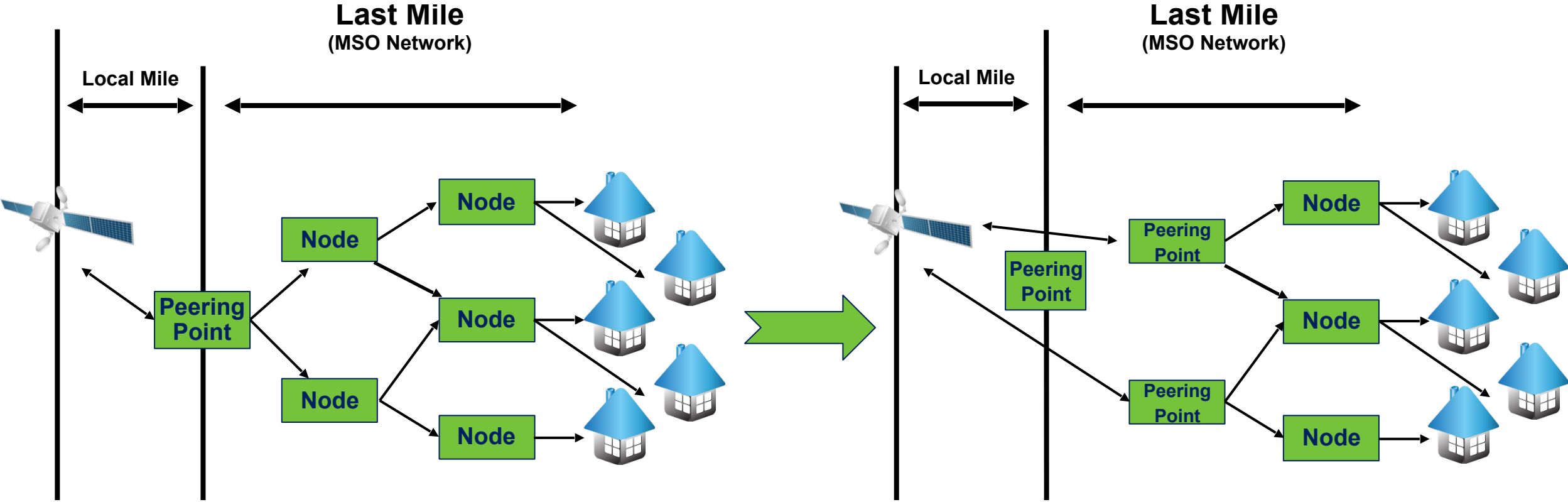


As Premium Programming Proliferates

- The primary goal is to support mass audiences for success of live/linear advertising-based models
- The category of live/linear services would include establishment of 24x7 programming and using premium (primetime) programming
- Consider the following (US statistics for top 10 networks / programmers):
 - The average TV household minute for one channel, is between 500k and 1.5M viewers
 - Assuming 10% penetration of OTT services would be between 50k and 150k viewers to second screens
 - Multiple providers with multiple channels each
 - Potential for this programming to have successful programming overlapping, such as during primetime

The ingress into the last mile must be managed efficiently to support successful technical and business models for premium programming

The Distributed Peering Concept



Summary

- Satellite can provide homogeneous, private network delivery to the last mile
- A satellite network using multicast for live linear services combined with a single peering layer can lead to more stabilized costs for delivery and more simply managed QoS
- A satellite-based approach may be used to ease traffic ingress into the last mile, and create a more unified scaling architecture across both the middle mile and last miles
- This approach may help stabilize quality of service for OTT services into the last mile
- This distribution model is designed to de-risk the media company business models for advertising-based, live/linear premium programming services

This model to entice media companies to bring new premium programming and increased traffic into the region