

Policy Enabled Subscriber Management In Triple Play



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Quick Bio

- 16 years with Alcatel
- Worked in NL, DL, FR and US.
Now in Canada
- Network and service management
(R&D, R&I, sales, PLM)
- Previous role: research unit manager
Next Generation NSM
- Current role: triple play product
& solution marketing mgr

Triple Play Transformation What is it About?

1 From unbundled services to triple play service bundles

- One stop shopping for Voice, HSI, IPTV, multimedia services

2 From service dedicated to a converged IP infrastructure

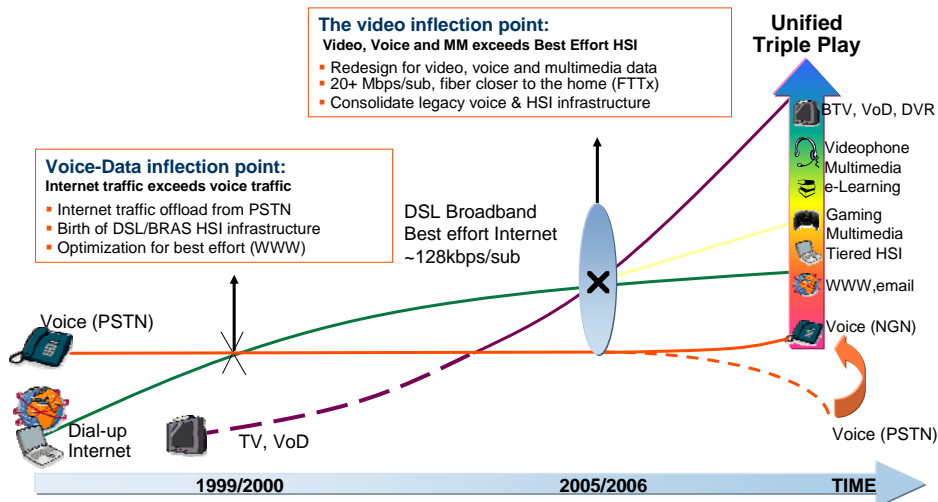
- Common, converged Triple Play service delivery infrastructure

3 From operational silos to converged service operation

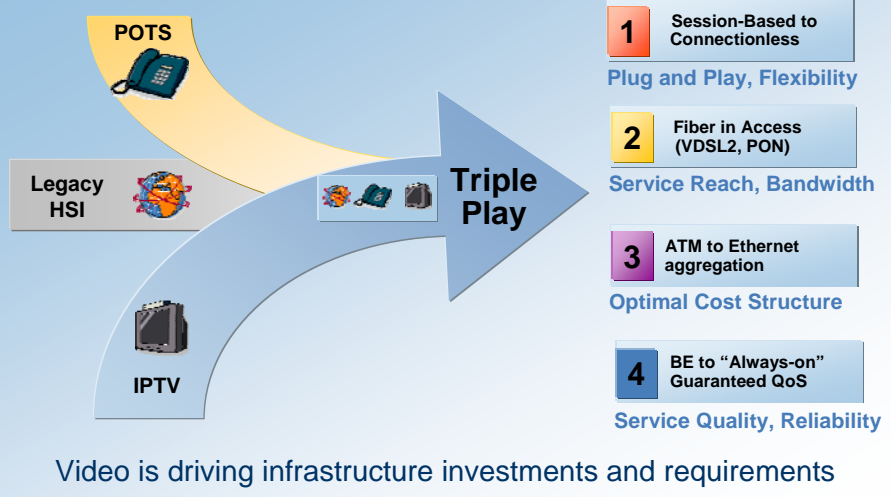
- Unified subscriber and services control for Triple Play

How do we get there?

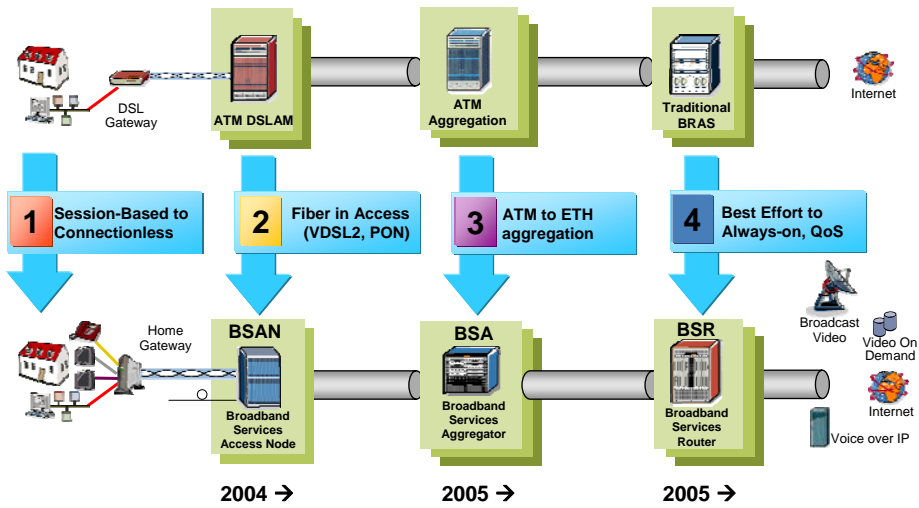
IPTV and the Video Inflection Point



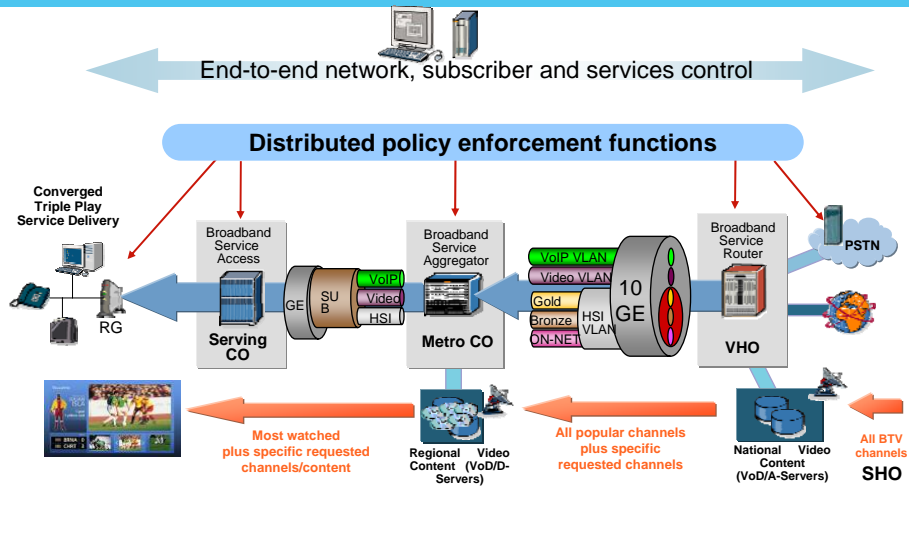
Unified Triple Play Service Delivery Network Transformation and Technology Shifts



Network infrastructure transformation



Triple Play Subscriber Services Control Distributed Policies, Centralized Management



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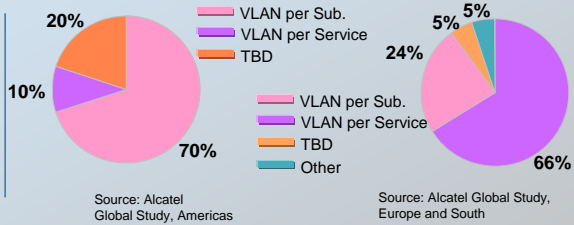
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Triple Play Service Delivery - Alcatel Global Study

Connectivity Models

What we have learned:

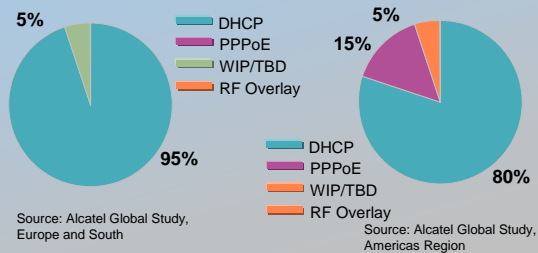
- Connectivity models vary drastically
- Need to support any mode of operation within same architecture.



Authentication Choices

What we have learned:

- Vast majority of telco. deployments use DHCP for video
- Vast majority of cable deployments use DHCP for all services
- Need to facilitate AAA integration



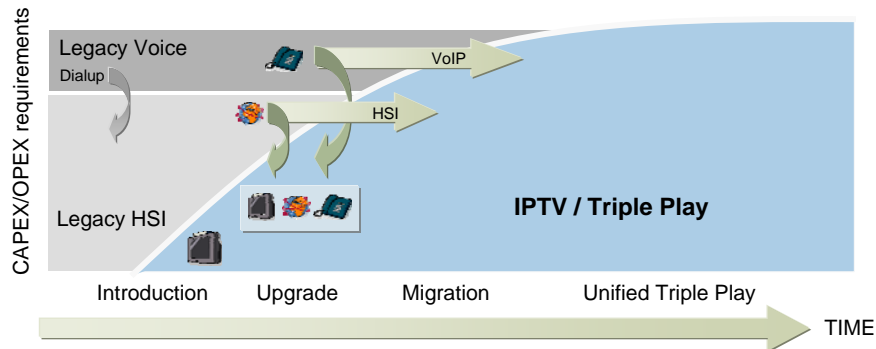
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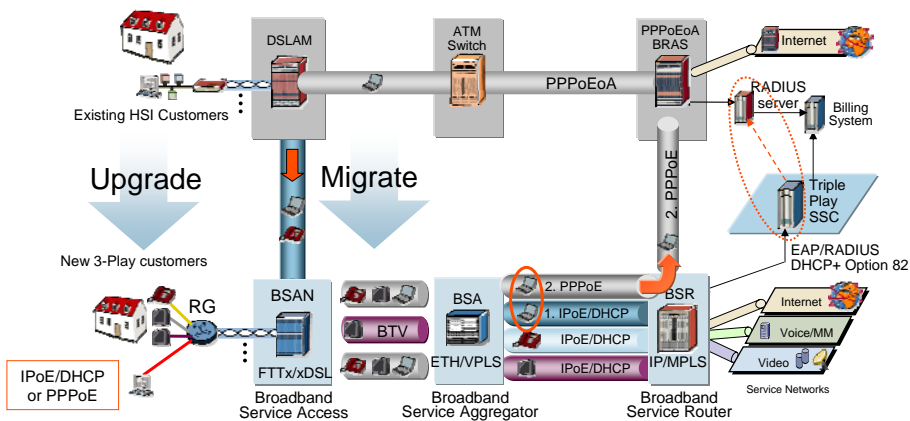
Managing the Transformation to Unified Triple Play Generating New Revenues While Optimizing Cost Synergies

Triple Play Transformation Process:

- Introduce target infrastructure needed for IPTV/3Play service coverage (deploy)
- Integrate & leverage installed base assets where/when needed (cap-and-grow)
- Upgrade or migrate legacy services/users with minimal disruptions (phase-out)



IPTV/Triple Play Introduction and Legacy HSI migration



PPPoE legacy interworking at forwarding & control plane (AAA)

Unified Subscriber Management Key for a Triple Play Convergence Strategy

Unified Subscriber Management

- One profile per user for all services
- Simplifies setup, sign-on, customer care and billing
- Centralized control minimizes OPEX
- Facilitate legacy migration



122327625352
John Doe
Auth Server: 127.0.0.1
Organization: Bizzy

Triple Play Profile
Username: Option82
VoIP, Elite HSI, Video

HSI remote access
Access profile: PMOHSI

Wireless Profile
Access profile: CityCell2
Locations: London only

User Profile

Single billing identity and user profile

1 Triple Play Service Profile:
IPTV, VoIP, HSI (IPoE/DHCP)

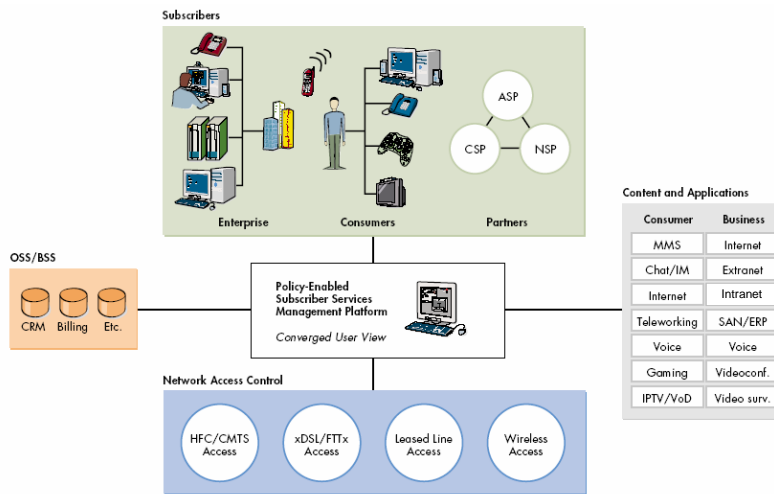
2 Legacy HSI Profile:
PPPoE/RADIUS

3 Wireless access profile:
802.1x EAP/RADIUS

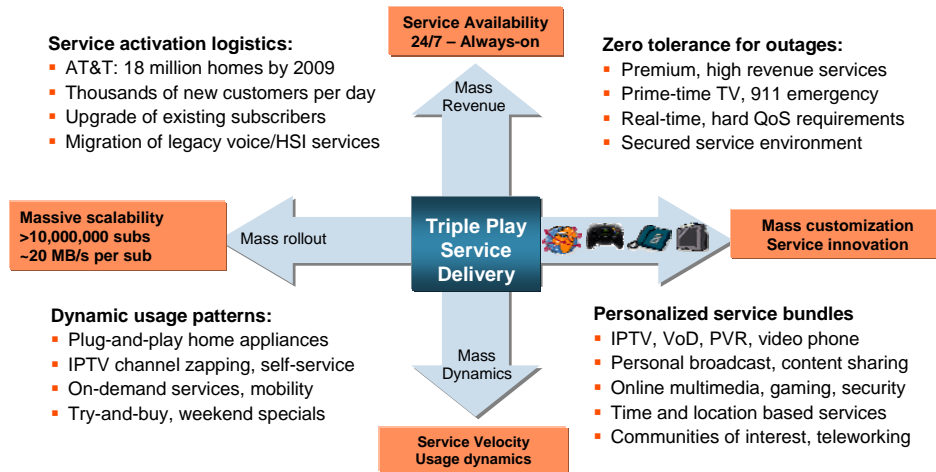
... Other profiles ...

Supporting various access policies for a given service

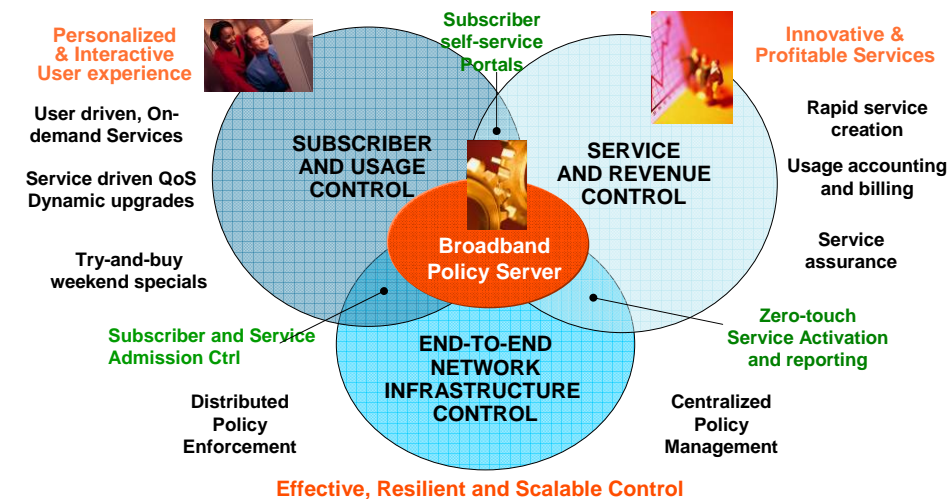
Triple Play Subscriber and Service Delivery Control



Unified Triple Play Service Delivery Multi-Dimensional Scalability Factors



Orchestrating Subscribers, Services and Resources Closing the Loop with a Policy Enabled Control Plane



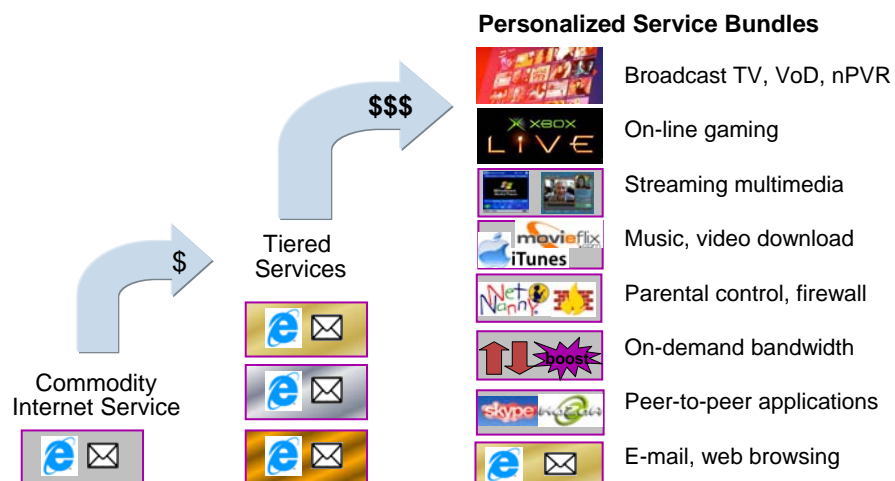
Triple Play Subscriber and Service Control The Broadband Policy Server as a Key Enabler

Towards “zero-touch” Triple Play service delivery:

- **Process automation and integration to streamline operations**
 - Vertically from the OSS layer to the network control plane
 - Horizontal from the end-user to application and service infrastructure
- **Process orchestration and conflict resolution to master quality**
 - Many subscribers and valuable services sharing the same network
 - Arbitrate needs of subscribers, service provider and network resources
 - Applying policy-based decision logic for control flexibility and speed
- **Centralized Policy Management and Control**
 - Consistent and efficient definition of control policies
 - Scalable and reliable policy distribution end-to-end
 - Facilitate service assurance and trouble shooting

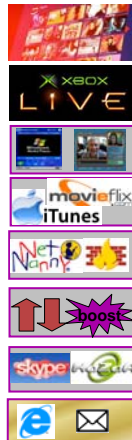
Speeding up processes
while retaining fine-grain control

Delivering an Innovative User Experience Commodity Wholesale is Out, Personalized Services are in



Empowering End-users in Expressing Their Needs Subscriber Portals and Service Velocity

Choice



Self-service portals



**Personal
Simple
Fast**

- User account management and self subscription
- One-stop shopping, on-demand service delivery
- Weekend specials, try-and-buy, instant gratification

Requirements Summary

A one-stop shopping experience at home

- Single user account with single sign-on for all triple play services
- Customer self-service and on-demand service activation
- Plug-and-play configuration, dynamic service upgrades

Integrated subscriber management and dynamic admission control

- Authenticate and authorize user devices and subscriber access
- Enabling multi-service access and - authentication policy control
- Ensure secure and reliable usage of services (security, QoS, bandwidth)

Multi dimensional control scalability

- Mass rollout, user and service dynamics, choice and reliability
- Combining speed with fine grain control flexibility

Centralized policy control over
Subscribers, Services and Resources

Rethinking Subscriber Management for Triple Play Key Take Aways

- 1** IPTV driven technology shifts and architecture transformation
 - > Retain centralized control while distributing policy enforcement
- 2** User expectations shifting to personalized, on-demand services
 - > Subscriber self-service, one-stop shopping, integrated billing
- 3** Operational needs shifting to multi-dimensional scalability
 - > Robust, policy-based control integration and orchestration
- 4** Business needs for a non-disruptive transformation to Triple Play
 - > Managed migration of legacy HSI subscribers and services

