



P2P to Service Routing



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Landscape Today

- Media-rich applications and services become pervasive
 - Unique & evolving bindings between media/apps/subs/devices
- Content Providers and Integrators are looking to:
 - Concentrate core business, content production, aggregation and syndication
 - Monetize content and evolve business models
- P2P networks enable mass distribution of content to the end user with widely varying controls and monetization
- SPs are searching for methods to satisfy both the consumer and their value chain while meeting the Content Provider needs

Access SP P2P Observation

Issues

- Illegal Content perception
- Threatens traditional delivery
- Upstream Link Saturation
- Transit Cost Increase
- Limited participation in value add

Containment

- Traffic Management
- Peering Concepts with current equip
- Build out Network / Upgrades
- P2P Caching
- Compete w / OTT Players

Collaborate

- From co-marketing to Integration of Services
- Optimised Delivery: CDN, QoS, Multicast, Quota exemption
- Improved Access to TV & Mobile / STB / GW
- Web Services network interface
- Precision Advertising

DEPLOY

- Media Aware Network – H-P2P
- Create Own TTM App value Chain
- Peering at Service Level
- Offer open optimized access to peers, i.e,
 - Storage Savings, higher quality
 - Lower cost of delivery

Service Routing & Service Node

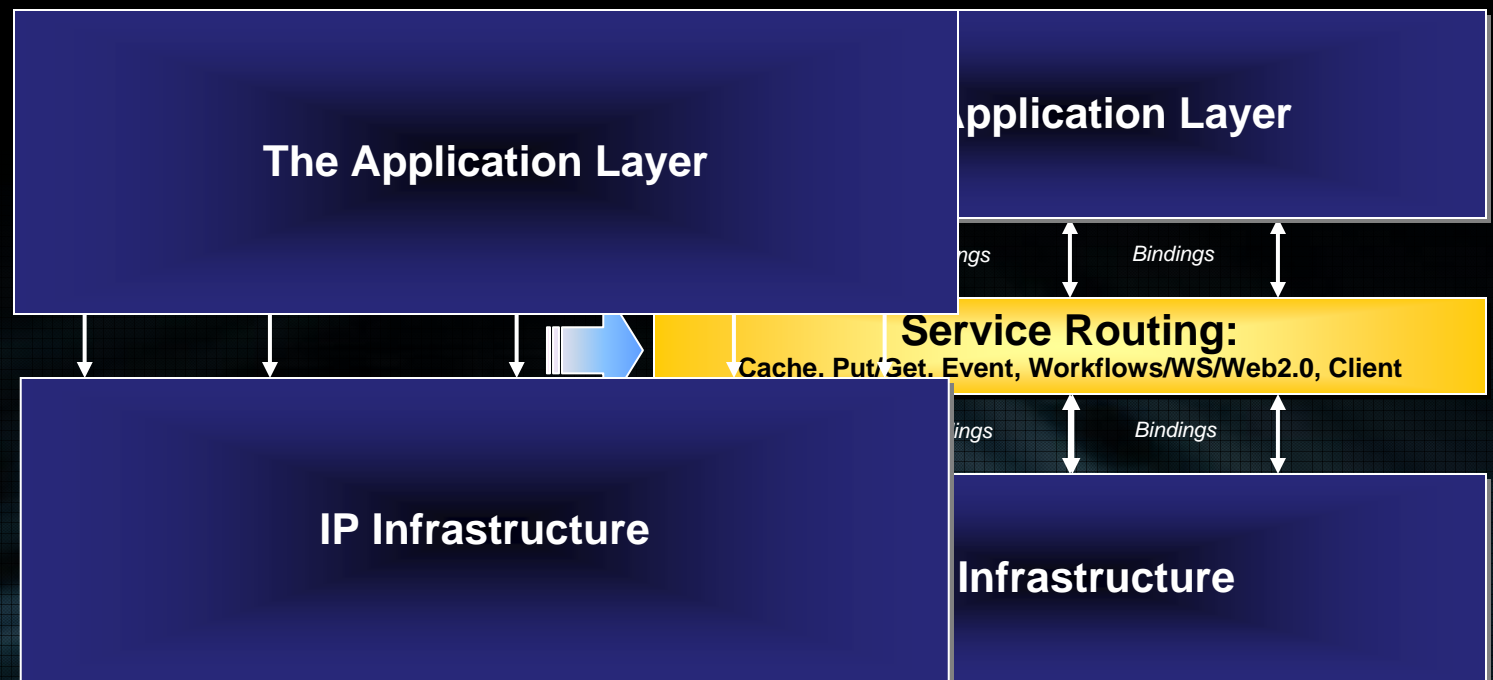
Advantages and Benefits

- New paradigm replaces technology stretch
Service Routing leverages infrastructure-based P2
- Enables key new relationships and business models
Form strategic partnerships to learn, deploy, accelerate & evolve
Renewed focus on core competencies
- Substantial CapEx and OpEx efficiencies
- Capture new revenue streams and migrate on value chain
- Faster time-to-market with powerful development model and flexible infrastructure
- Seamless bridge to future media/apps/services evolution

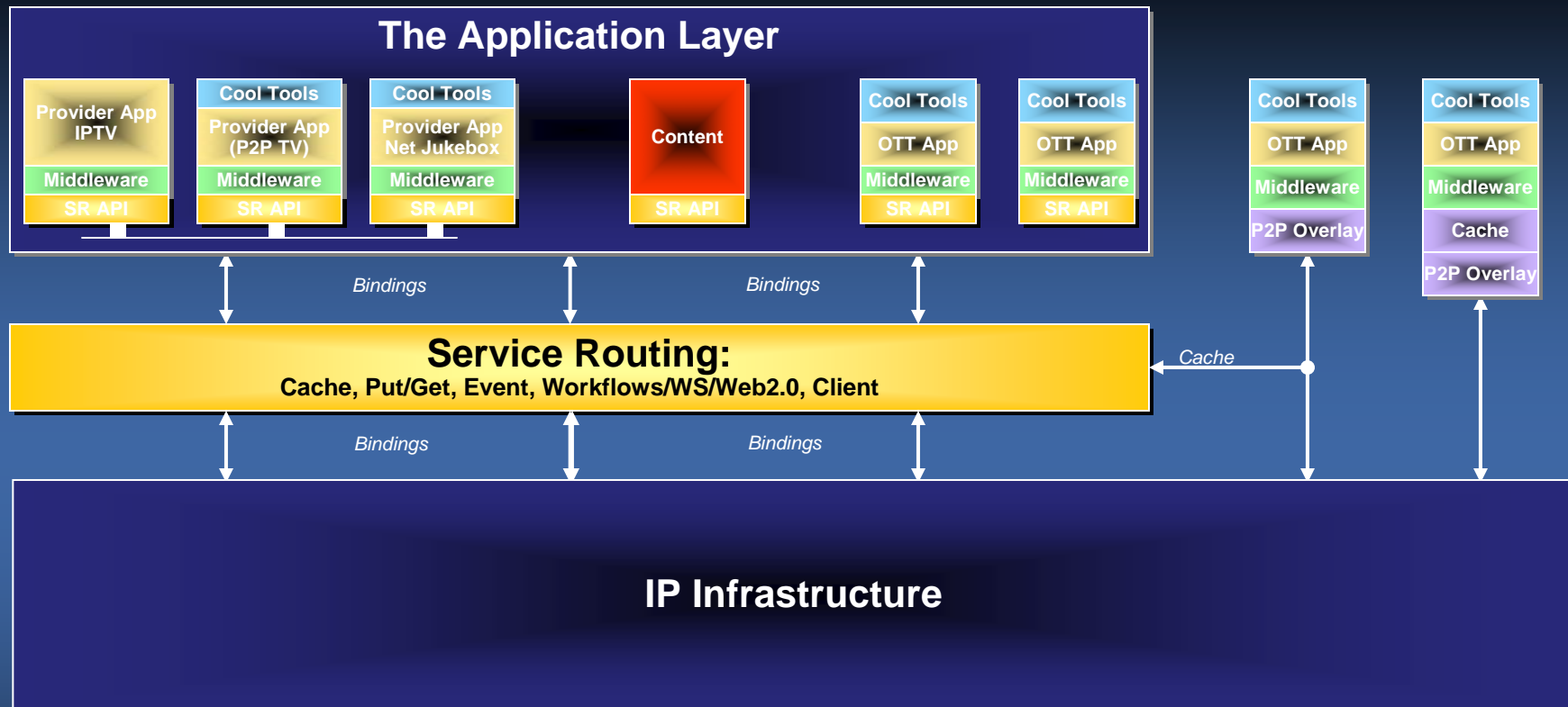
New Media Optimized Routing Paradigm and Thin Layer Implementation

Today's Structure:

New Structure:

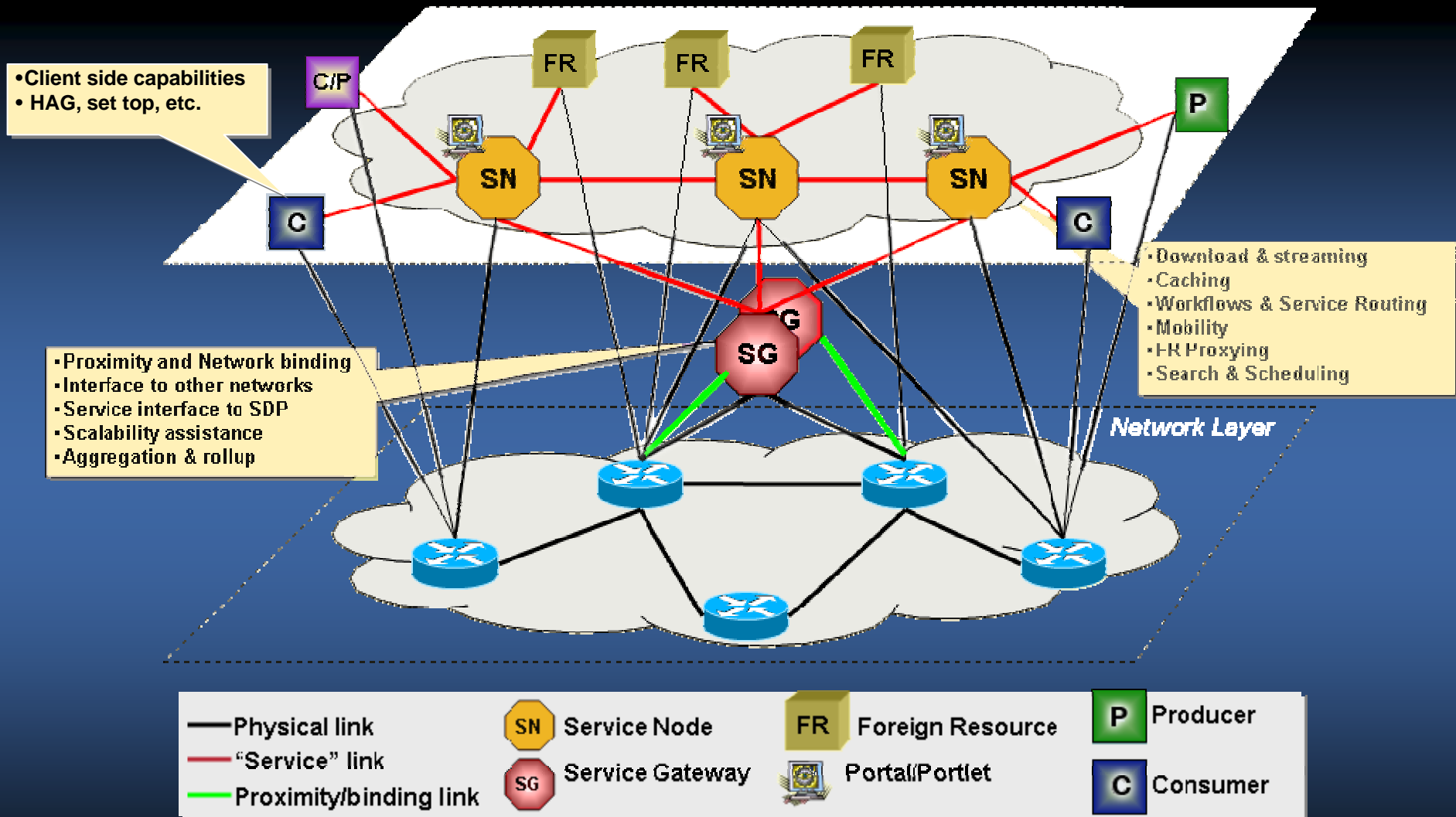


New Media Optimized Routing Paradigm and Thin Layer Implementation



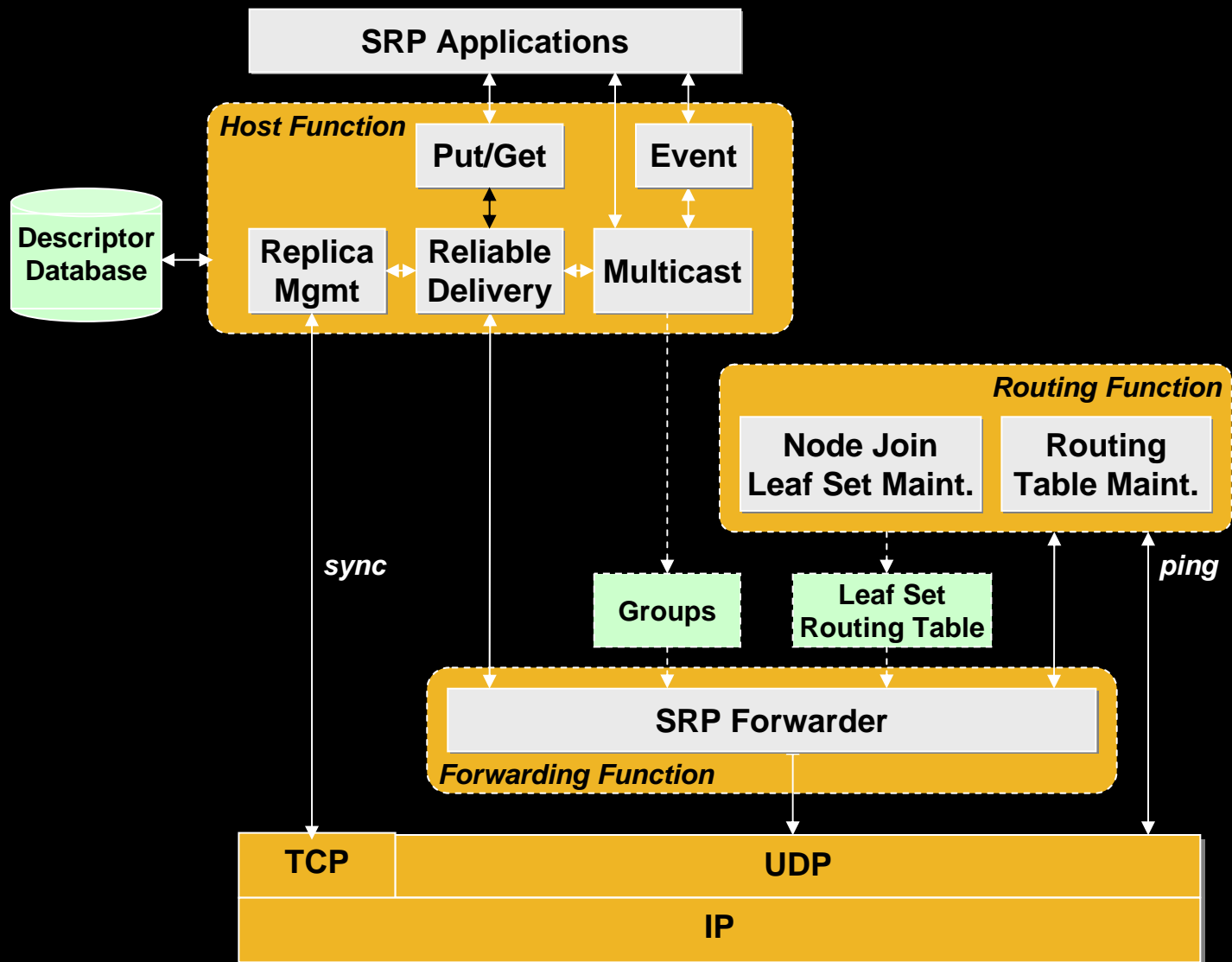
Service Routing: Key Elements

Service Node, Service Gateway and Foreign Resources



programmable by SPs, OTPs, CAs and CP's <-> integrate unique IP

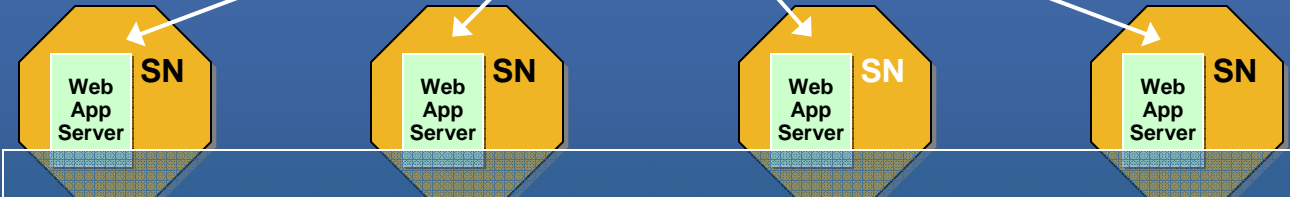
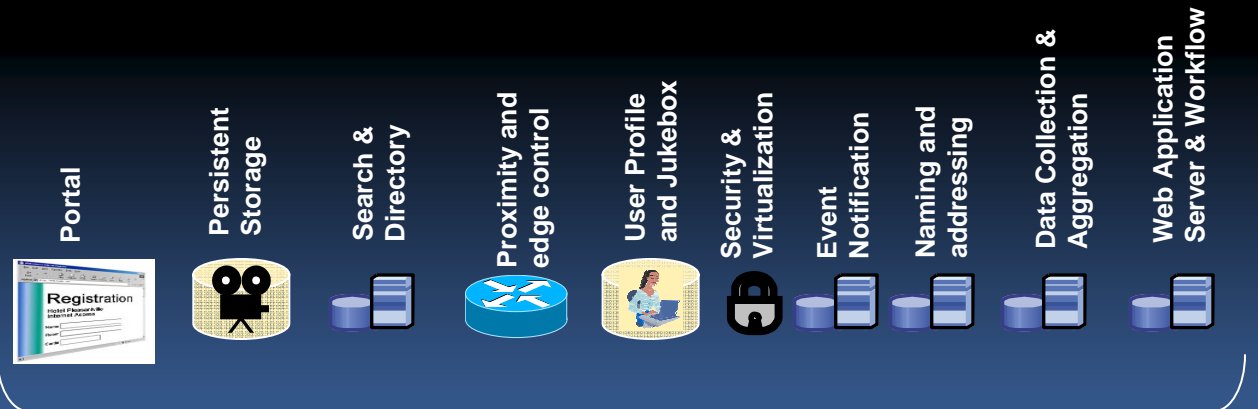
Service Routing Protocol – Leveraging DHT Technology



Scaling Services, Not Servers

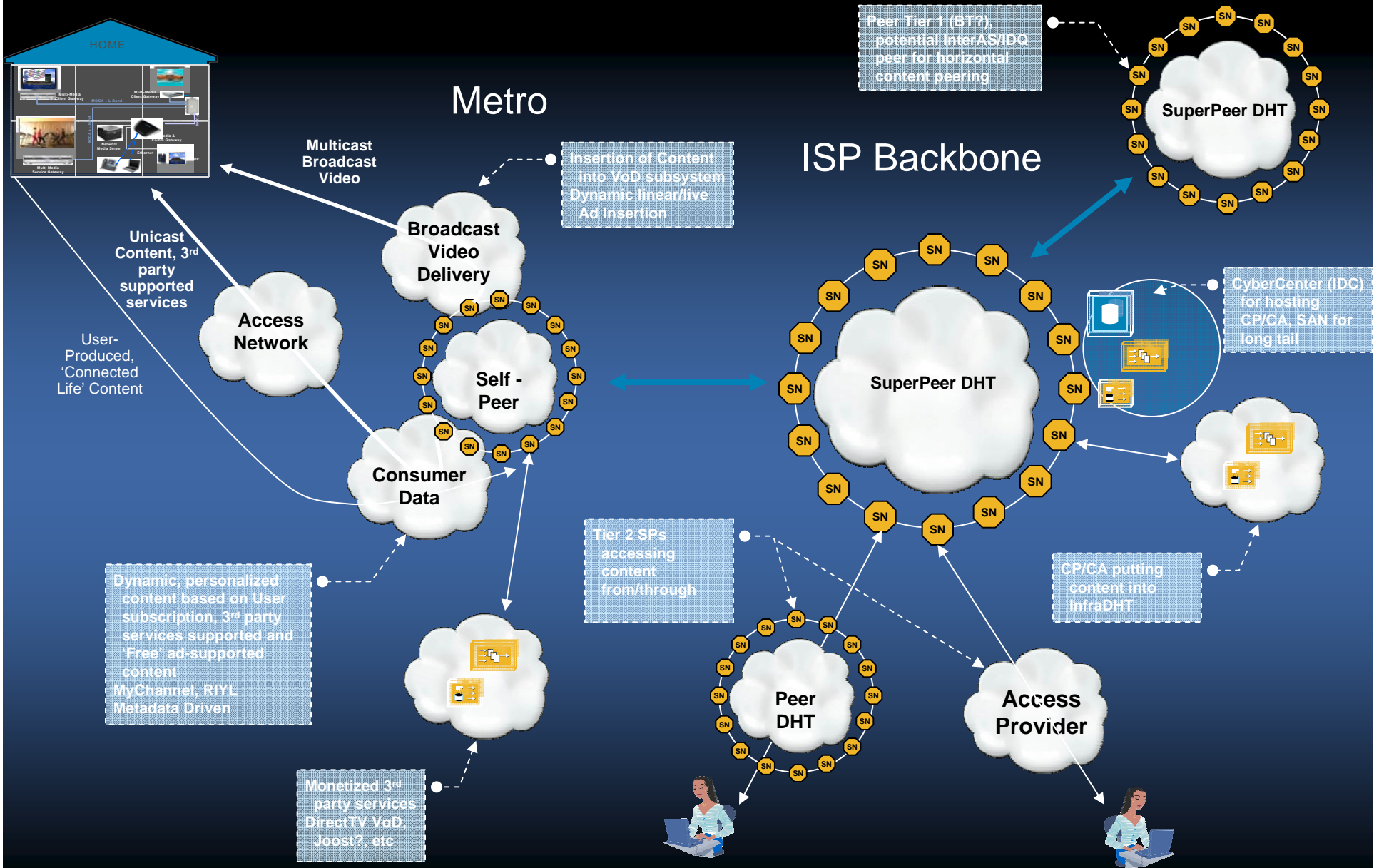
Distribute, Integrate and scale with Overarching P2P Paradigm

- Registration Portal
- Media Vault
- Search
- CDN
- Measurements & GLB
- User Profiles
- Security -> AAA/SSO, PKI, etc.
- DRM
- DNS
- Accounting Billing, OSS/BSS
- Web Application Server
- Presence & Location

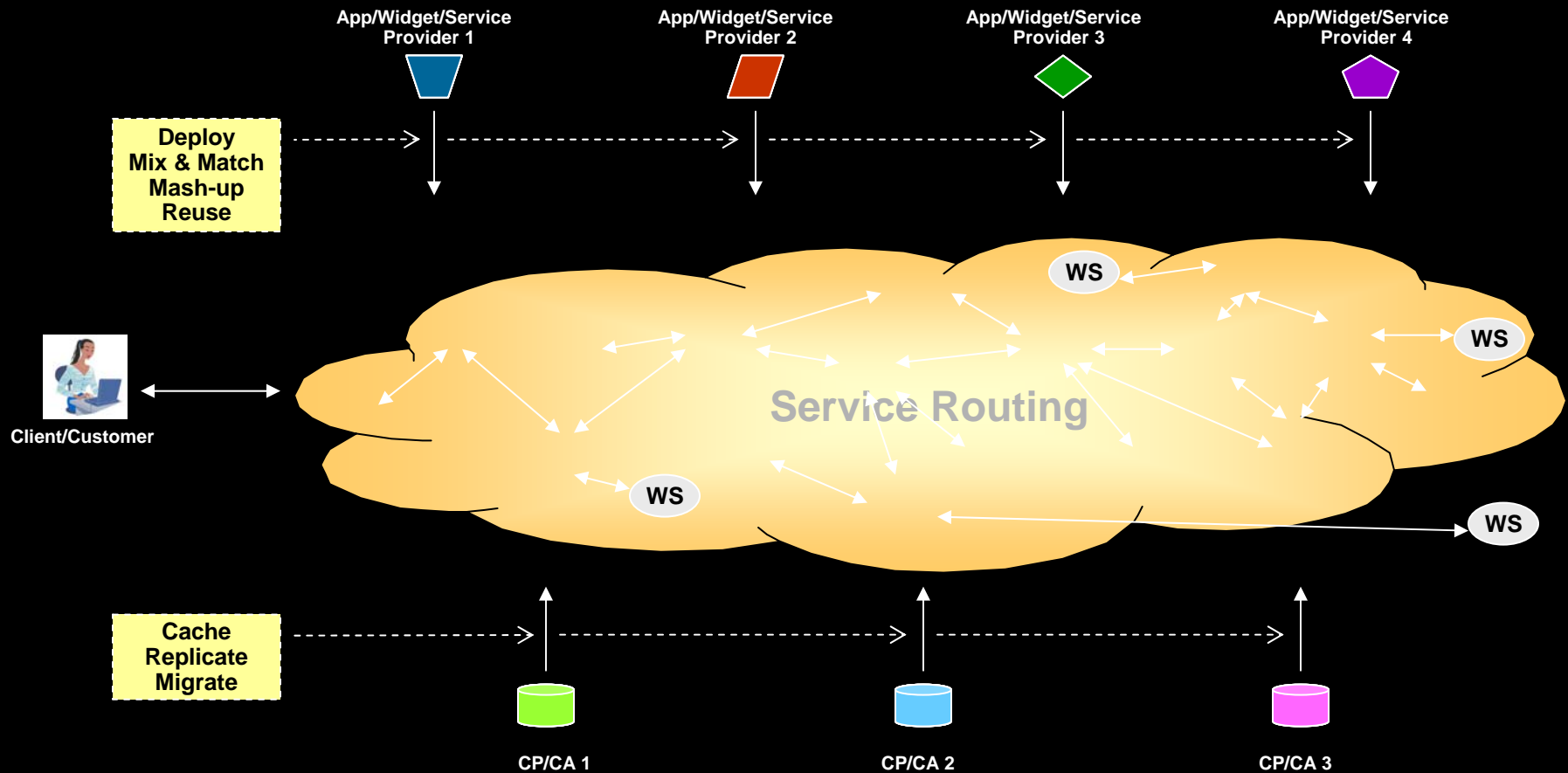


Service Routing:
Programmable, Self-Organizing, Self-Optimizing, Self-Tuning, Self-Healing p2p Infrastructure

Potential Provider Models - Capstone



Service Networking - Recap



- Migration from monolithic apps
- Web 2.0 acceleration platform
- CDN is one application of Service Routing

				Widgets, Apps, Services
	Existing in-network & external web services			
	Content (replicated, cached, etc.)			

Potential Topics Collaboration

- **Network Search**
- **Network Security: DDoS and Self certification**
- **Lights out network management**
- **Presence and location layered on DHT**
- **Name/address/hierarchy**
- **Next generation media/apps/services**
- **Alternative business models and analysis**

New Models of Collaboration between industry, government and academia - the possibilities are limitless



Data Collection and Recommendations

drive intelligent cacheing of non-linear branches

