



July 13 2006,  
2:40-3:15pm

Kevin Dillon  
Chair IPSF

## IPsphere FORUM

THE BUSINESS OF IP

# Extending IP Services across multiple jurisdictions

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## Truisms

- There will never be one network run by a single operator capable of global (or even national) any-any connectivity
  - Federated model is what we will always have & must make work - both technically & commercially
- Internet has delivered an extremely well architected, universally agreed approach to federating connectivity
  - WWW successes demonstrate (powerfully) the benefits of pan-jurisdiction connectivity
- There is - as yet - no similar consensus approach to federating service capabilities beyond connectivity
  - Cross-jurisdiction QoS, trust, SLA etc.
- Agreed framework for offering & invoking of capabilities pan-jurisdiction is technically achievable
  - Enlightened self-interest is the critical commercial motivator



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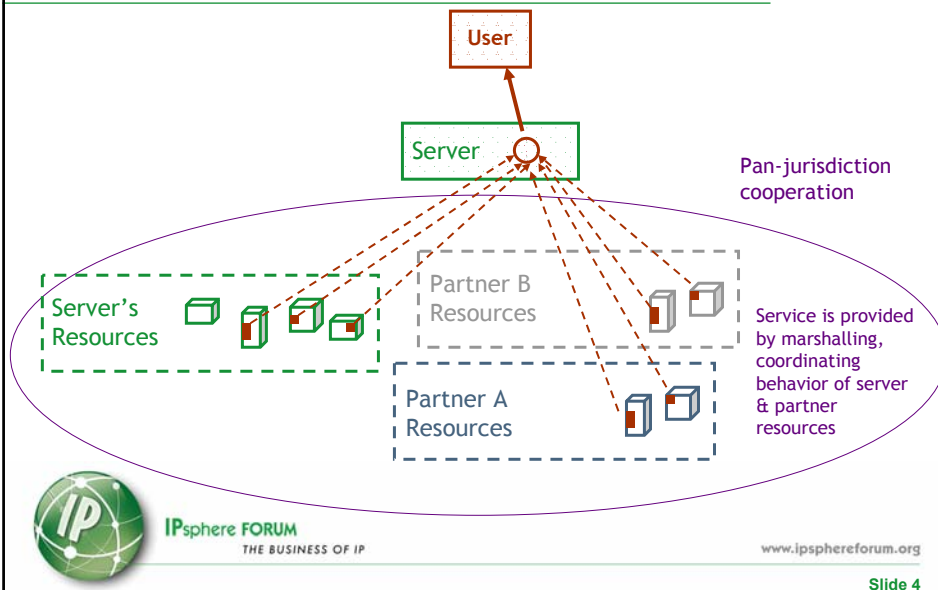
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# IPsphere Forum membership



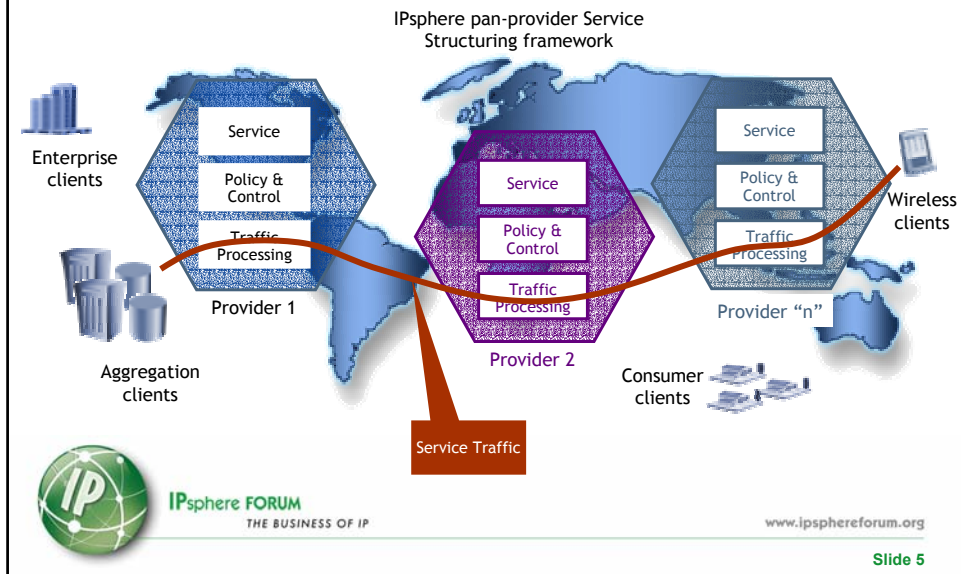
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# Pan-jurisdiction Services



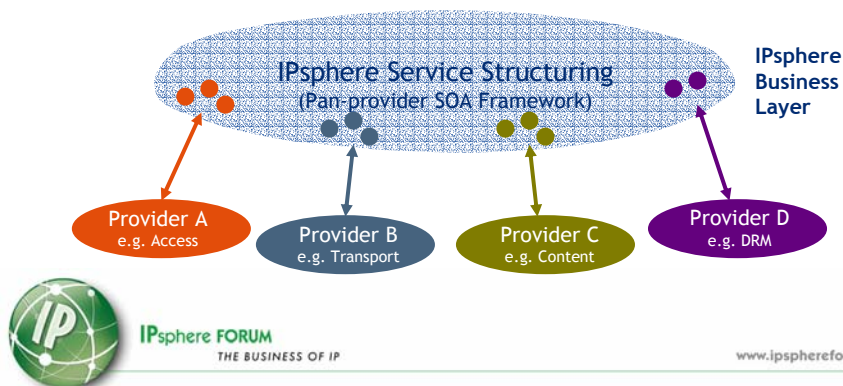
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# The IPsphere Model



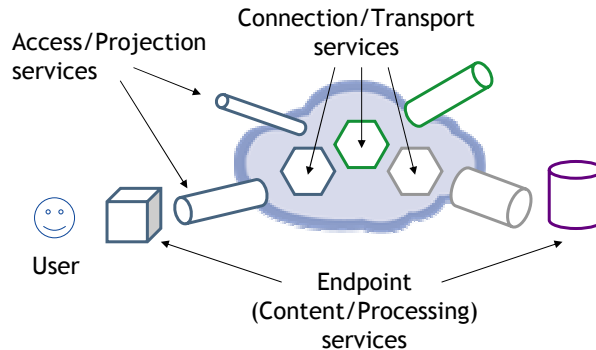
## Register, Discover, Select, & Use

1. Individual providers register service "element" offers
2. "Serving" entity discovers technical service "elements" required of others
3. Assess, negotiate commercial terms for use of "element" in the overall service
4. Individual providers execute per their "element" offers when invoked by server



# Service Elements

## Physical View



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# SOA relevance to IPsphere

- Composition approach that connects the functional units of an solution, called services, through well-defined interfaces and contracts between these services. SOA also emphasizes loose coupling between services. Loose coupling precludes undocumented interactions between services, for example through shared data, and it also supports the independent evolution of interfaces
- A service's interface is defined in a way that is independent of the hardware platform, the operating system, hosting middleware and the programming language used to implement the service. This allows services, built on a variety of systems, to interact with each other in a uniform and universal manner. In addition, the solutions' interfaces and services are expressed using business terms and concepts - they are not technology focused
- The benefit of a loosely-coupled system is in its agility - its ability to accommodate changes in the structure and implementation of the internals of a service. By contrast, tight coupling means that the interfaces between the different components of an application are dependent on the form of implementation, making the system brittle when changes are made to components
- The agile nature of loosely-coupled systems serves the need of a business to adapt rapidly to changes in policies, business environment, product offerings, partnerships and regulatory requirements

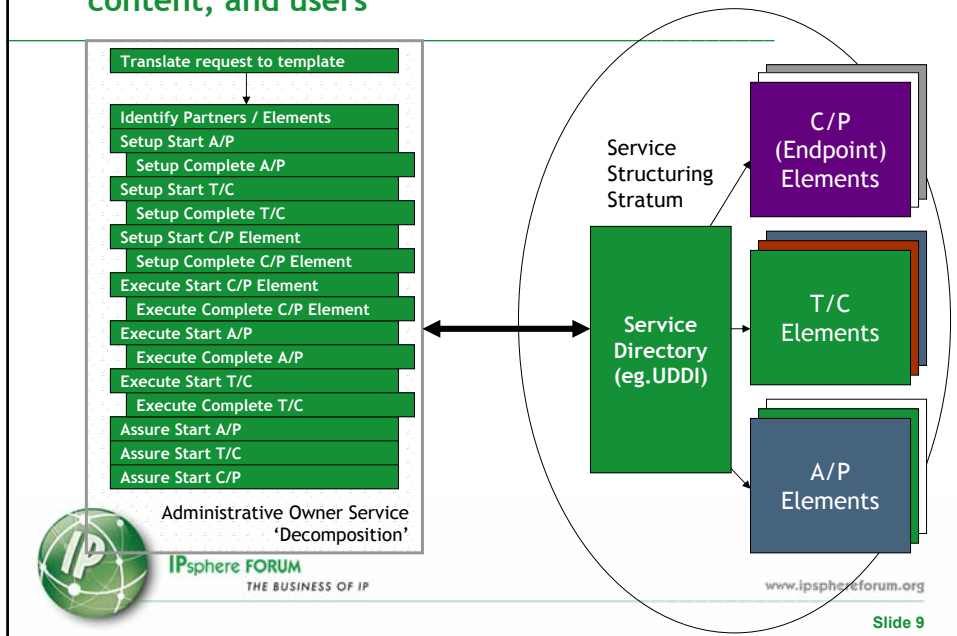


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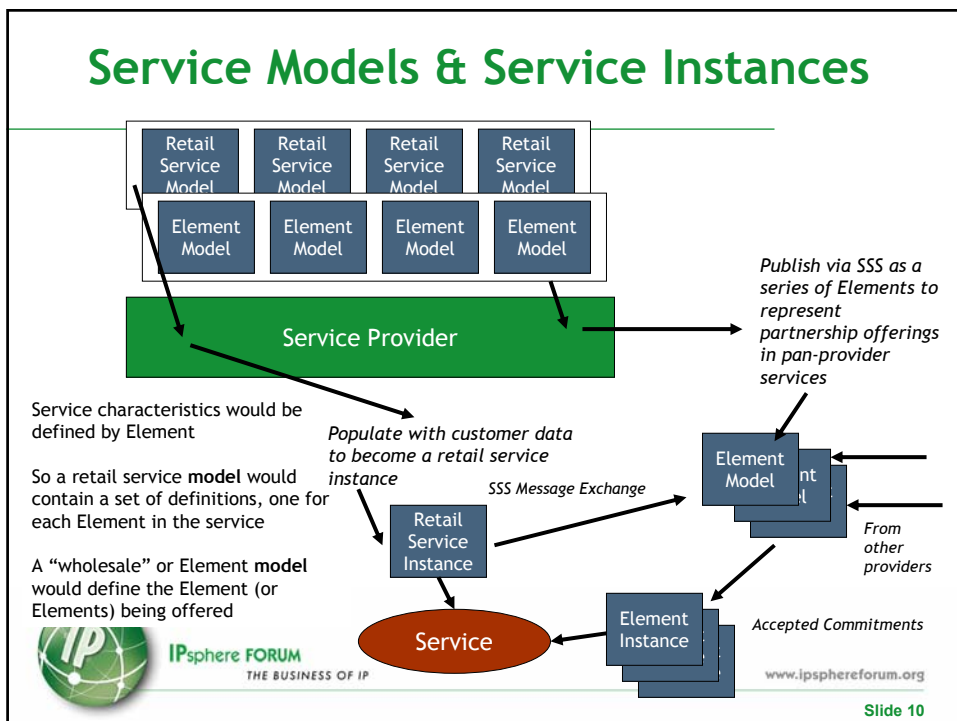
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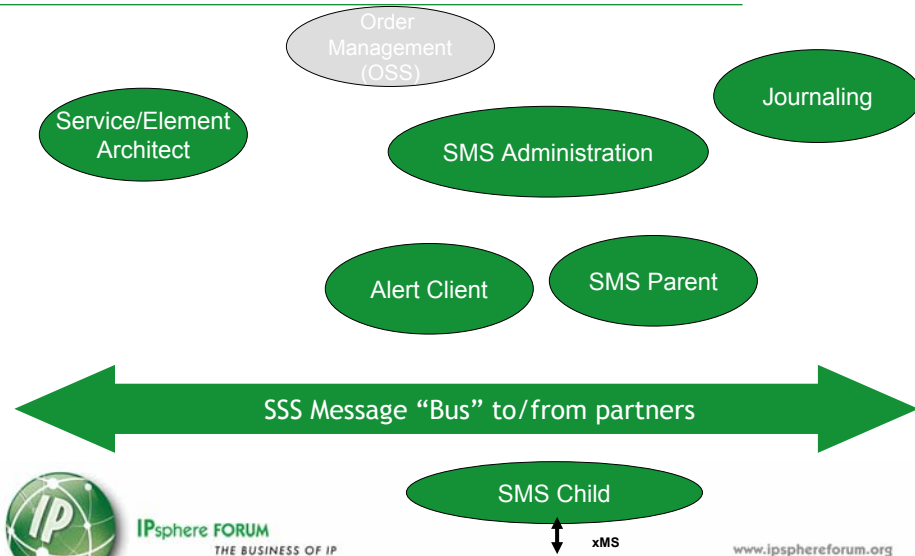
## SOA framework coordinating access, transport, content, and users



## Service Models & Service Instances

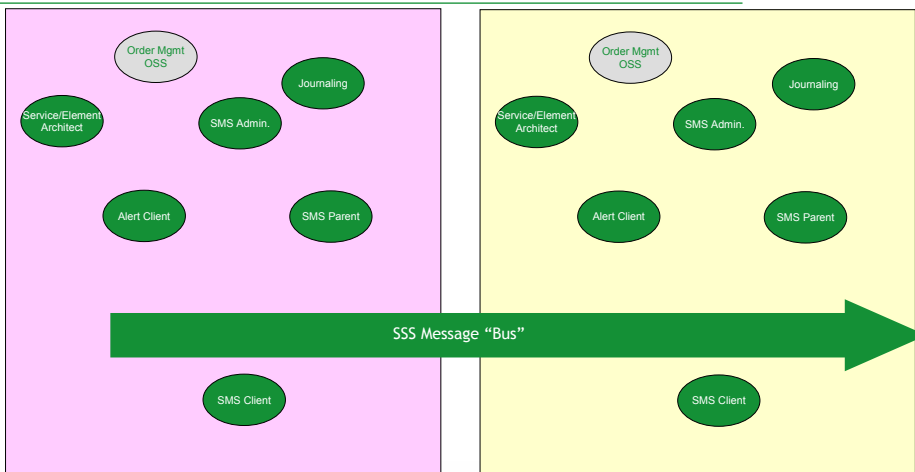


# IPsphere Object Model Detail



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# Object Model pan-jurisdiction



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# Object Functions

- Order management (OSS)
- Service / Element Architect
- SMS Administration
- SMS Parent
- SMS Child
- SMS Message Bus
- Alert Client
- Journaling



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# IPsphere Activities 2006

|             | Q1 06                     | Q2 06                                                | Q3 06                                                                    | Q4 06                                |
|-------------|---------------------------|------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------|
| Workshops   | IPSF Burbank<br>Feb 13-15 | IMS I Paris<br>IPSF Sophia<br>Antipolis<br>May 15-17 | Object Model<br>Sunnyvale<br>IMS II<br>Ottawa<br>IPSF Oslo<br>Sept 12-14 | IPSF London<br>Dec 11-13             |
| Publication |                           | IPsphere<br>commercial<br>framework                  | Release I<br>technical<br>framework                                      | Release II<br>technical<br>framework |
| Showcasing  |                           | Tokyo Reference<br>Implementation                    |                                                                          | London<br>Showcase I                 |
| Liaisons    |                           | ITU-T                                                | TBA: HGI IETF LAP 3GPP ETSI GSMA<br>MFA OASIS GGF TMF BSF                |                                      |



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# IPsphere...

- From misalignment to cooperation
- Framework supports diverse commercial arrangements
- Agile and flexible
- Technology demonstrations have already taken place
- First release of specifications by end of year
- Supported by leading service providers & suppliers



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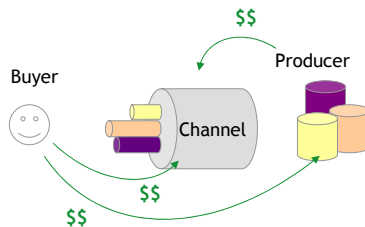
Thank You

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## Channel characteristics determine commercial potential



\$\$ can flow in multiple directions & proportions

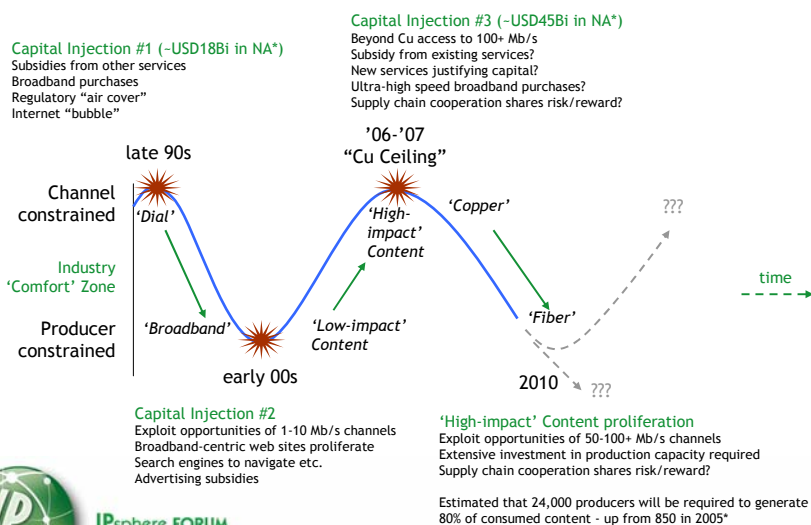


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## Inter-dependant investment cycles



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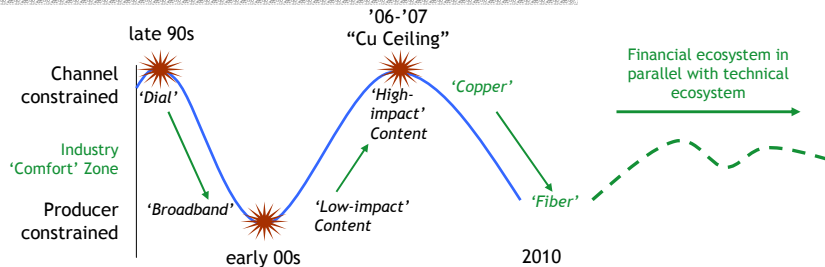
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\* Source: CIMI Corporation

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## Cooperating to reduce risks & accelerate rewards

At peaks & troughs the entire supply side (i.e. both channels & producers) are at financial risk; one stakeholder's opportunity is constrained by capital need of the other



IPsphere aim is a market-linked mechanism which relieves extremes, mitigates risks to the overall industry



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