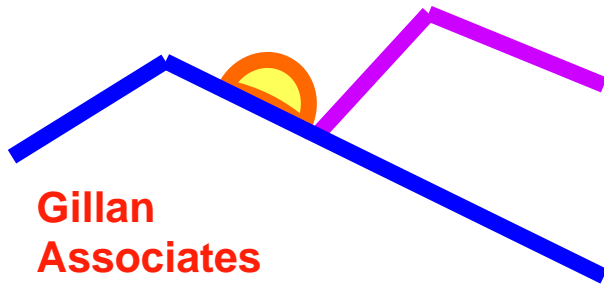
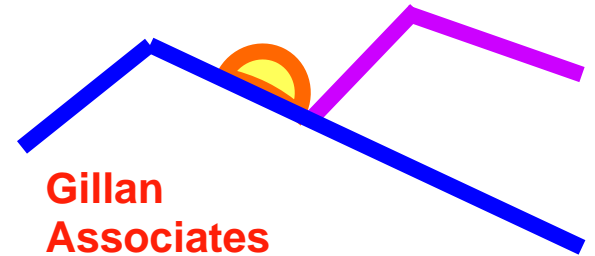


# What Can (Must) the States Do About Broadband



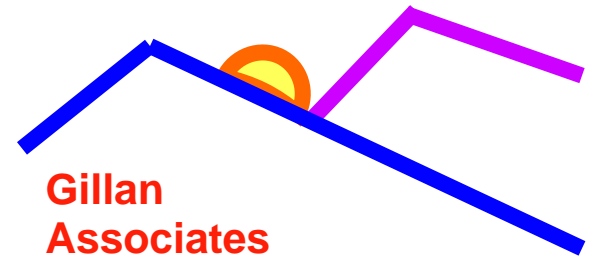
**Joe Gillan**  
**February 2, 2011**

# What Can States Do?

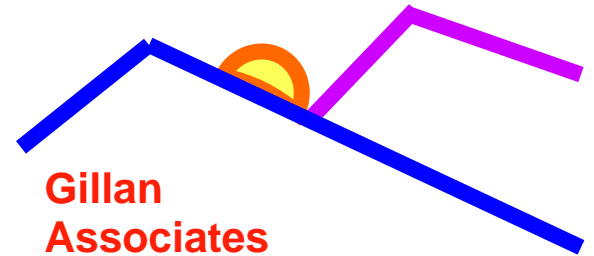


- Small pipes, small issues.
- Big pipes, big issues.

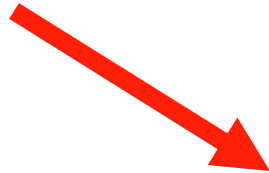
# What Areas?



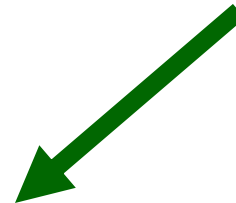
- Interconnection.
- Universal Service.



**“The Internet”  
(Best Efforts)**

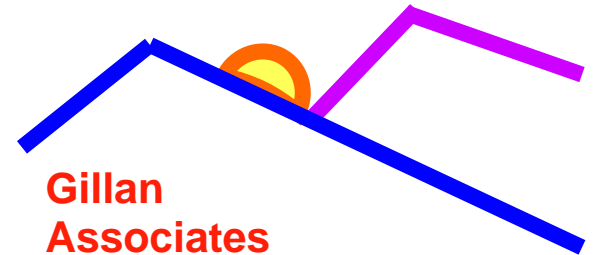


**“The PSTN”  
(Managed)**



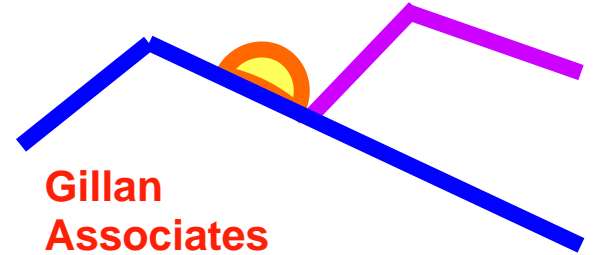
**NextGen Network is a Common Platform**

# Next Generation Networks:

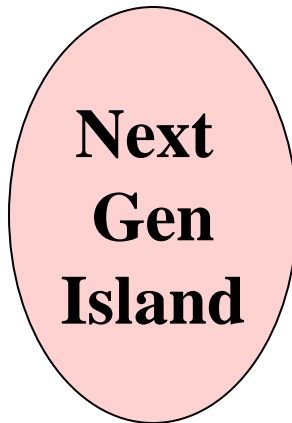


- Are *packet*-based (and, in practice, rely on many of the same protocols employed by the Internet);
- Have the ability to assign a *specific* routing priority to voice service (and are thus able to support defined service quality); and,
- Operate in a manner that defines the service *independently* of the transport technology.

# The NextGen Evolution



Gillan  
Associates



Next  
Gen  
Island

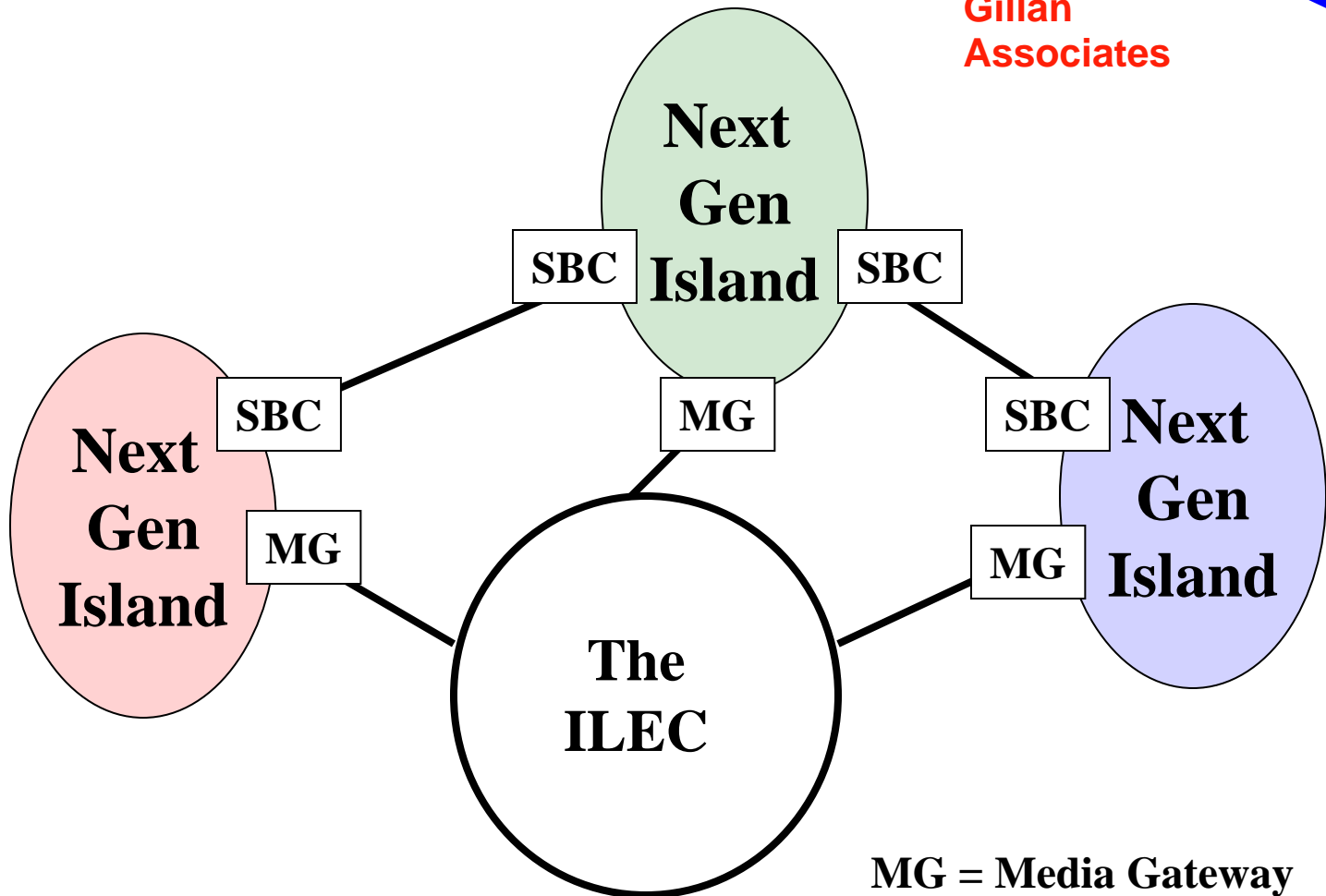
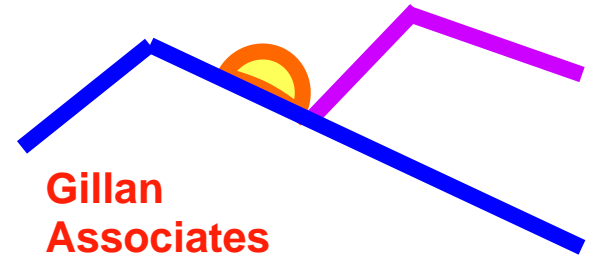


Next  
Gen  
Island



Next  
Gen  
Island

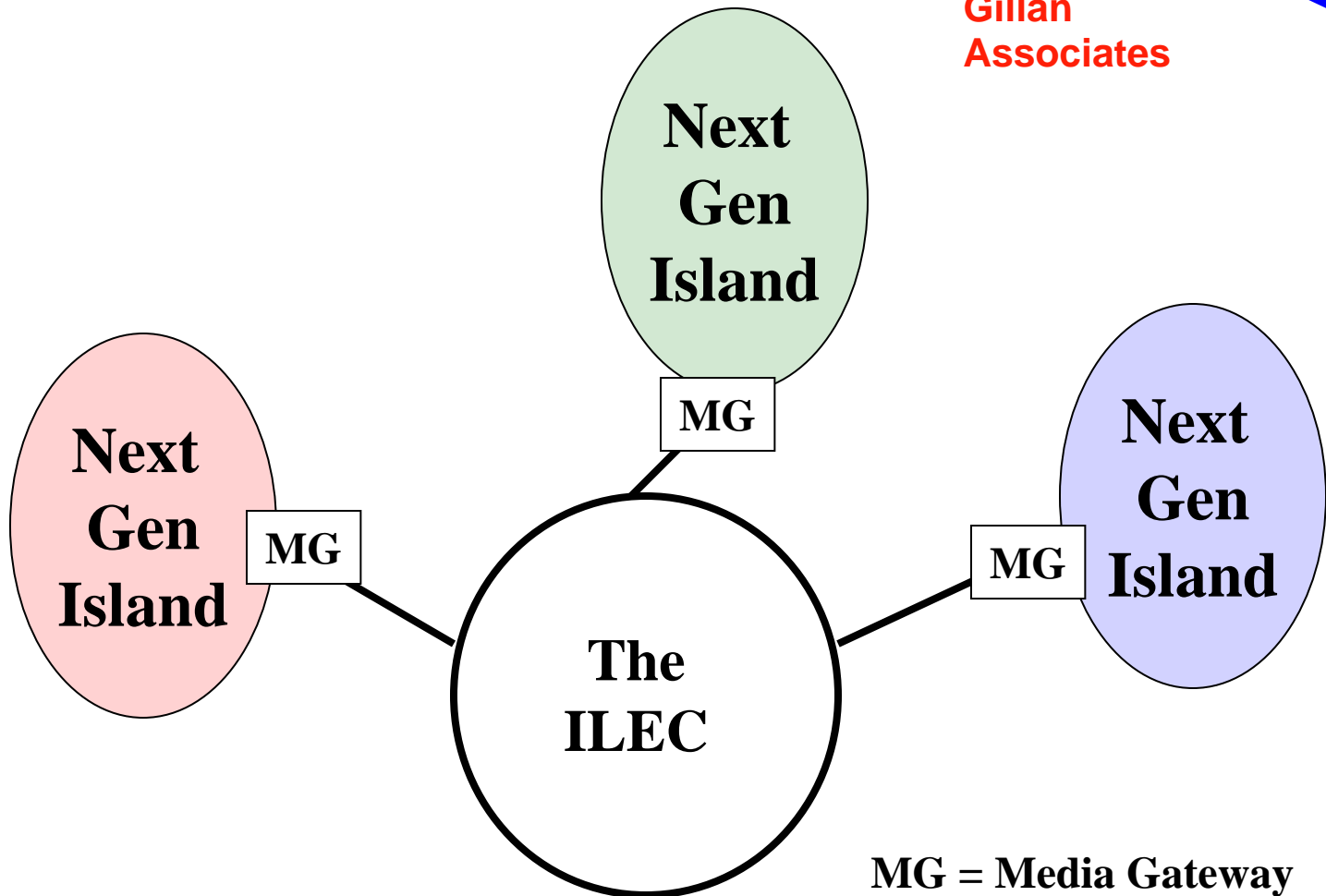
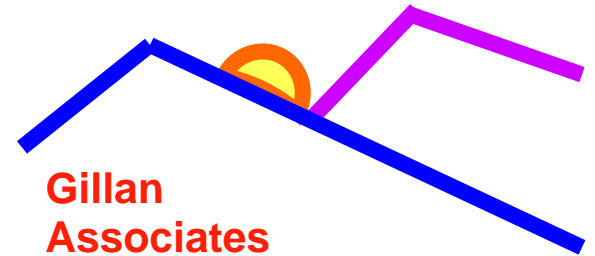
# The NextGen Evolution



**MG = Media Gateway**

**SBC = Session Border Controller**

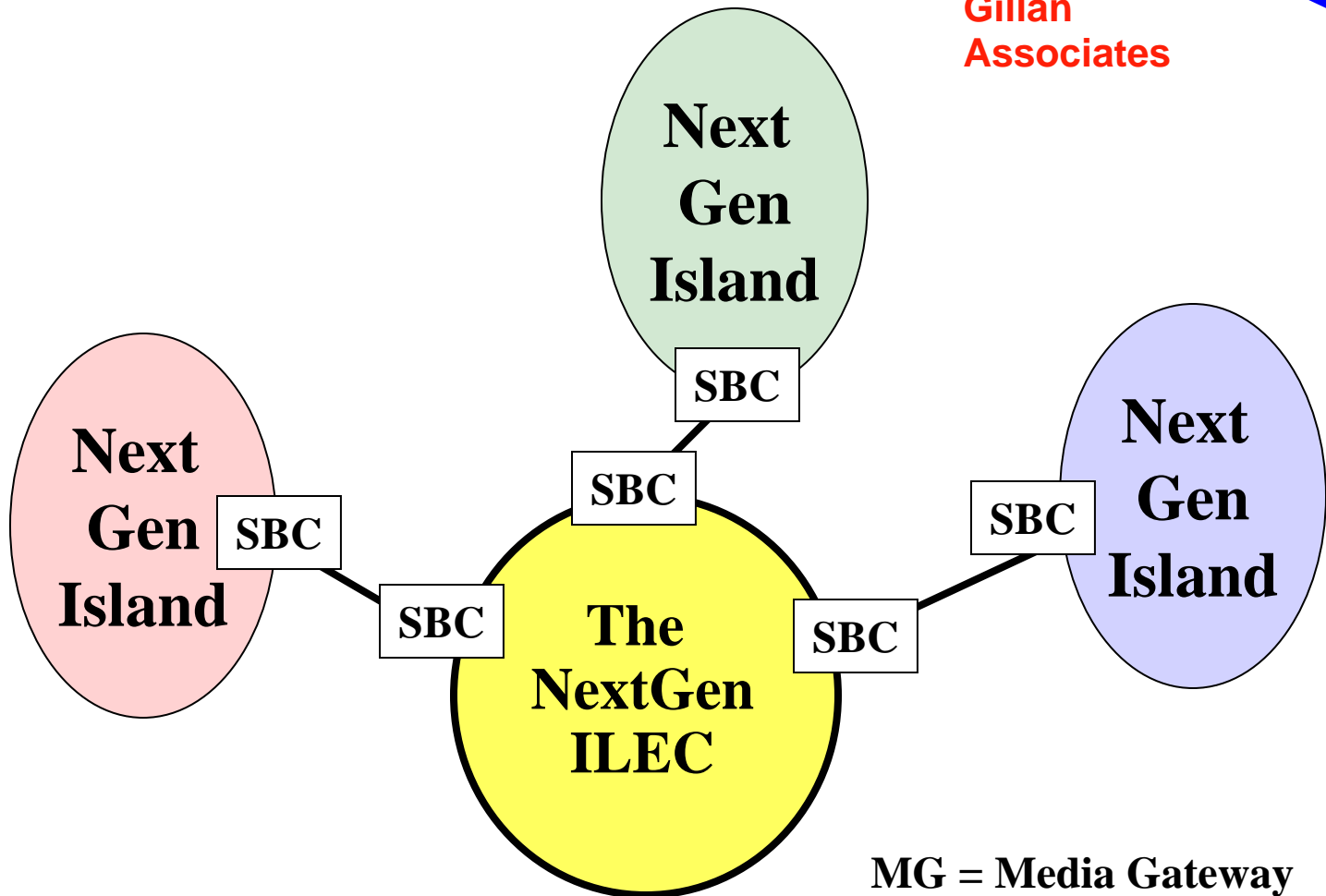
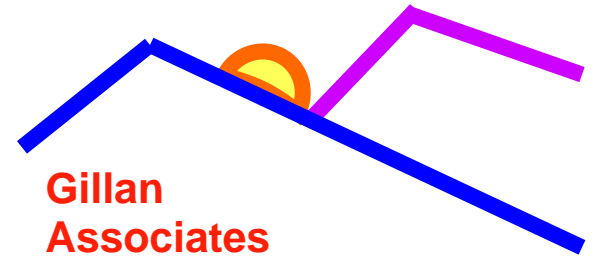
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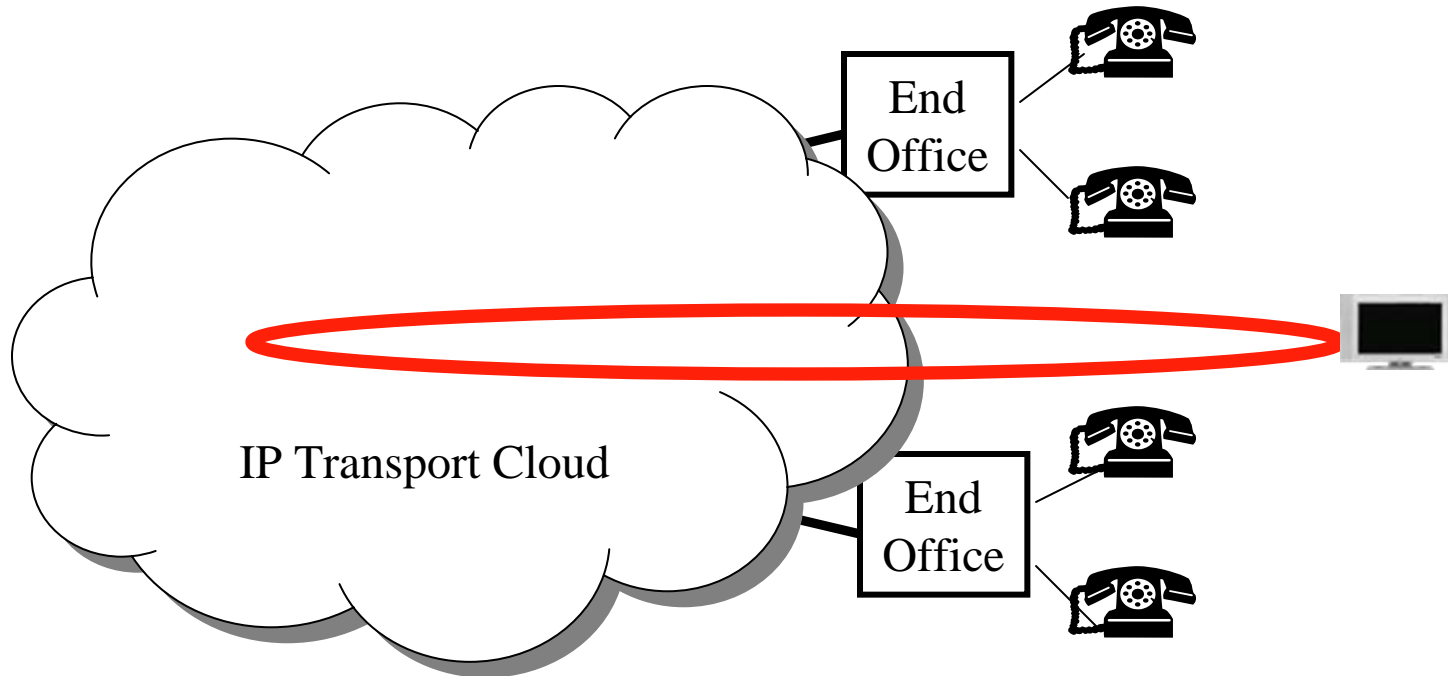
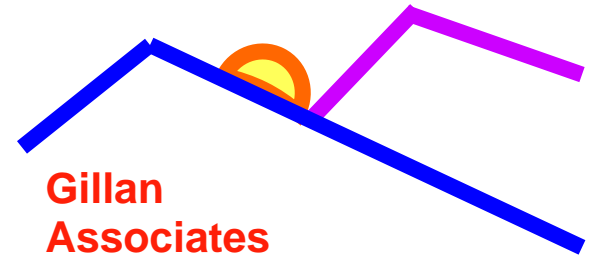
# The NextGen Evolution



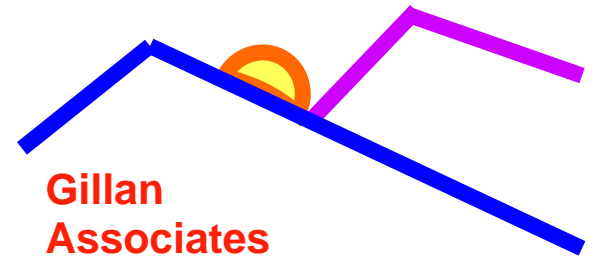
**MG = Media Gateway**

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# Evolution of the Traditional Network

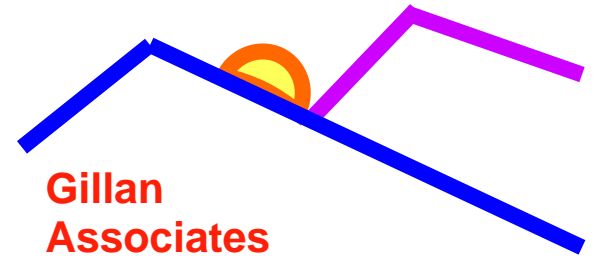


# Why is there an issue?

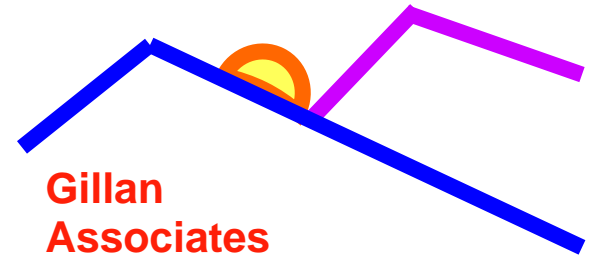


- If all networks were of the same size and market position, voluntary interconnection and traffic exchange should benefit all equally.

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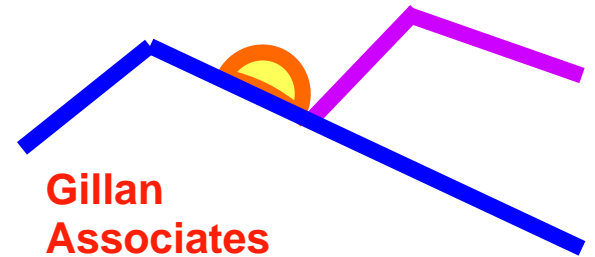


- If all networks were of the same size and market position, voluntary interconnection and traffic exchange should benefit all equally.
- Where one network is larger than another, the larger network views interconnection as providing greater value to the smaller network.



## Facts

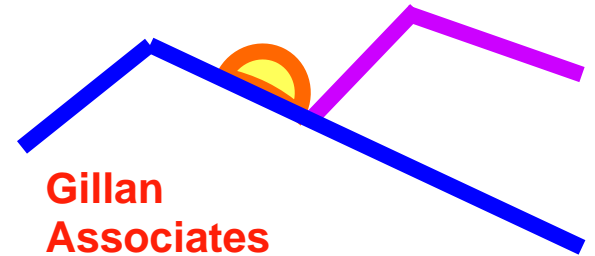
- Traffic volumes are determined by communities-of-interest.
- The largest community-of-interest is the “local community.”
- Traffic between carriers serving the same “local community” is the largest and most competitively significant.



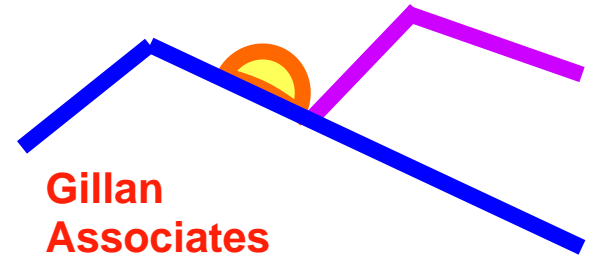
# Implication

- The incumbent local exchange carrier – in particular, a metropolitan RBOC – is the largest traffic exchange partner whether you want them to be or not.

# More Facts/Implications

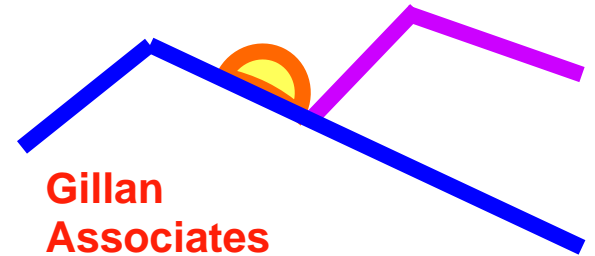


- Cable MSOs did not develop “regions” to exploit any particular shared community-of-interest.



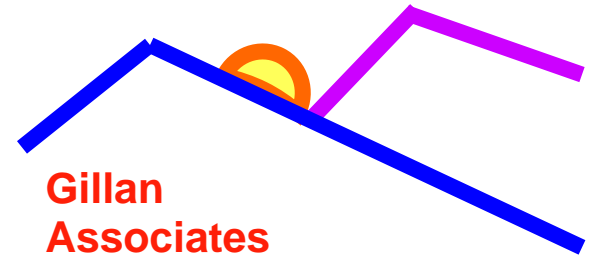
## More Facts/Implications

- Cable MSOs did not develop “regions” to exploit any particular shared community-of-interest.
- Relatively small opportunity to develop a “cable-to-cable” interconnection model (generally limited to long distance traffic proportional to market share).



## More Facts/Implications

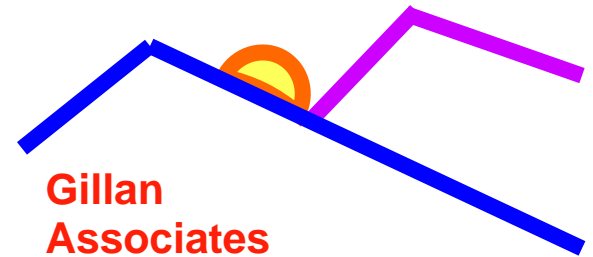
- Small ILECs typically have interconnection profile that is highly skewed towards the ILEC serving a metropolitan market.



## More Facts/Implications

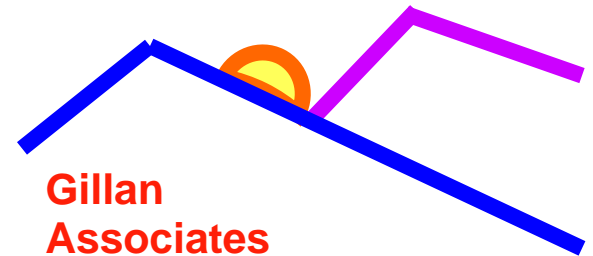
- Small ILECs typically have interconnection profile that is highly skewed towards the ILEC serving a metropolitan market.
- Small ILECs face leverage problem similar to CLECs or Cable entrants – they need the interconnection more than the RBOC.

# The Next Generation Interconnection Issues



- Where should there be interconnection?
- What should be the geographic scope of traffic exchange?
- How to guarantee service quality across multiple IP networks?
- Compensation

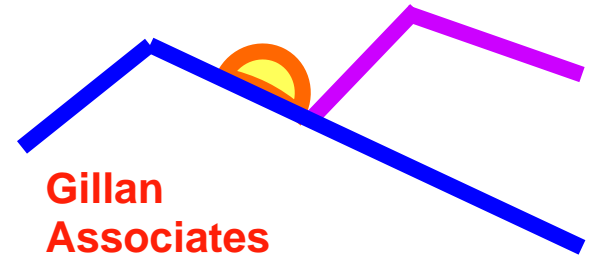
# Universal Broadband



- Goal is universal broadband.
- Subsidy should be directed to areas where there is not a business case to deploy broadband.

**Easy to Say, Hard to Implement**

# Broadband USF Issues



- There is no obligation to serve; there is no rate regulation. What is the social contract for public subsidy?
- What makes the “business case” for broadband?
- Who will judge need? Who will distribute the support?

**If not the States, then Who?**