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## **Presentation to BITS and Cullen International IP Interconnections**

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**February 2<sup>nd</sup> 2017**

# Cogent is a Global Tier1 Transit Provider



- 2,330+ On-Net buildings
  - 1,585 multi-tenant office buildings (US only)
  - 694 Carrier neutral and 51 Cogent data centers
- 41 countries and over 5,900 connected ASN's
- 29,300+ metro fiber miles
- 56,700+ intercity fiber route miles
- Long-haul capacity up to 960 Gbps
- Transatlantic capacity over 1,200 Gbps across multiple cables/routes

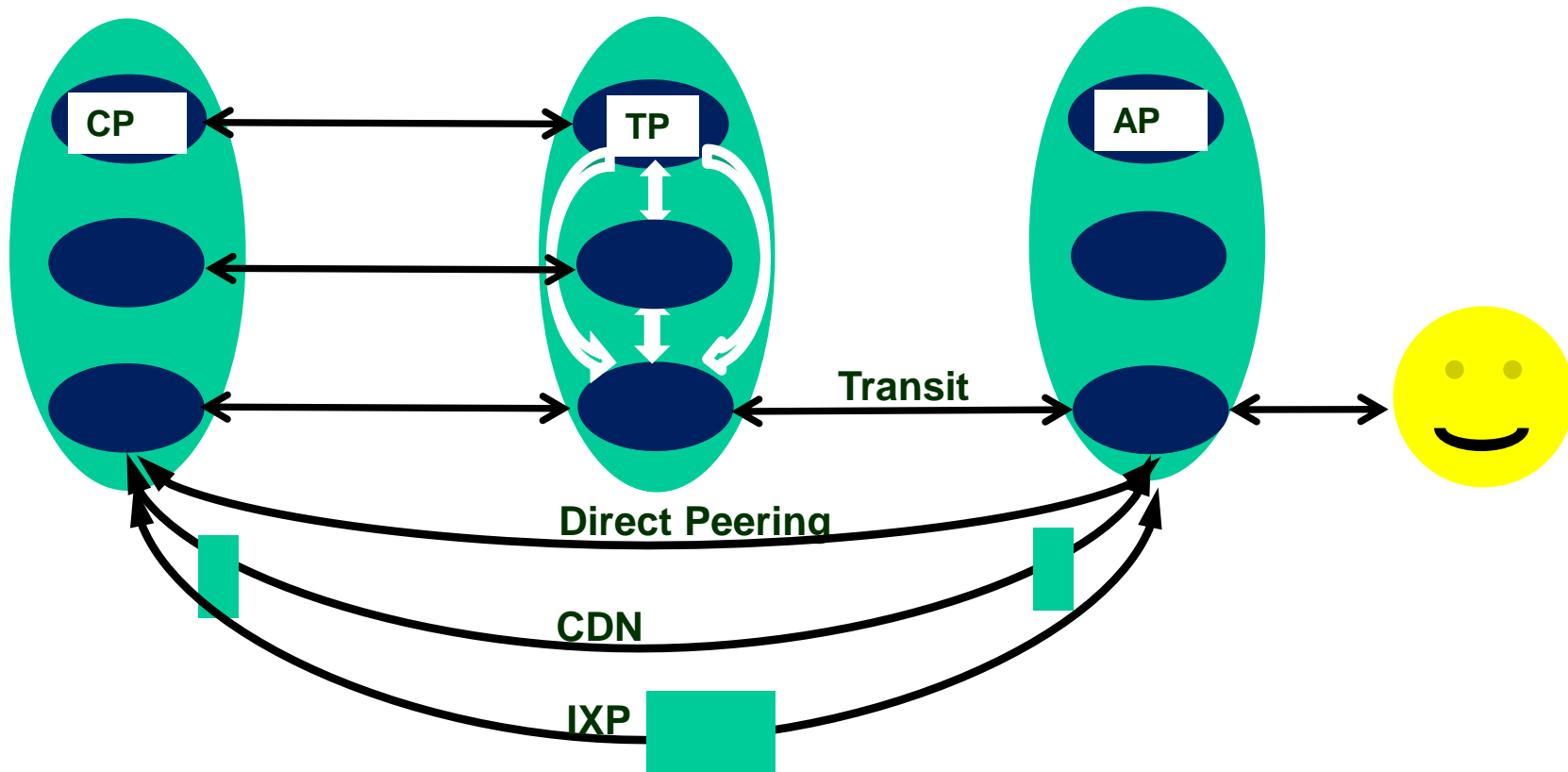
**Internet is a Network of Networks, so Interconnections are critical to its existence**

# The Global Picture

Services /  
Contenus

Transit/Peering

Accès



Transit is the only « many-to-many » connectivity method  
Only alternative to other « one-to-one » types of connection

=> Independent Decision Making for all CP and AP

# Transit = Only Universal Connectivity method

It is all about **prefix propagation** and simple financial common sense.

The need to be paid to carry traffic dictates where prefixes are propagated.

- From peer => Transit network => peer is a **NO**
- From peer => Transit network => **paying client** (and their clients) is a YES
- From **paying client** => network => **paying clients** (and their clients) is a YES  
=> **peers** is a YES

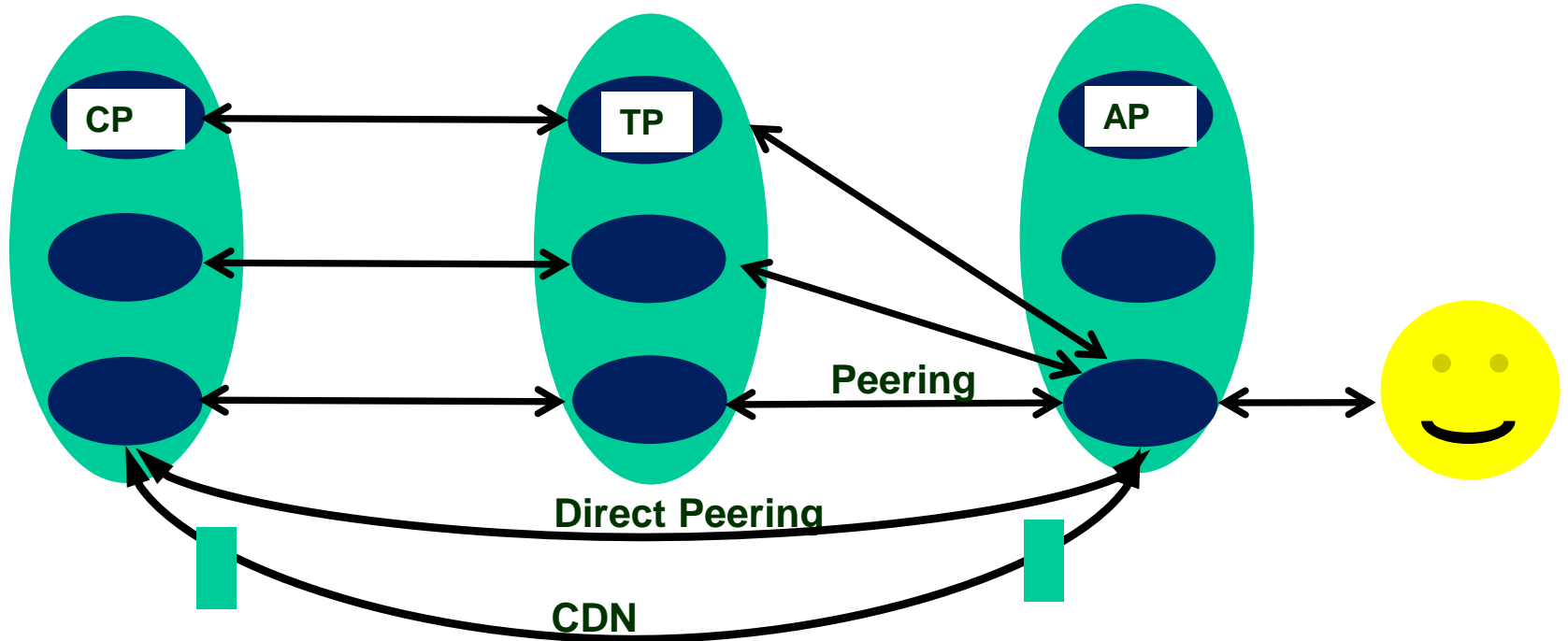
Transit has a **multiplier effect** with paying client prefixes being propagated to all peers, and then to all their respective clients (direct and indirect)

Transit Prices are in constant decline, they act as a cap for all other connectivity methods.

Content Services

Transit/Peering

Access



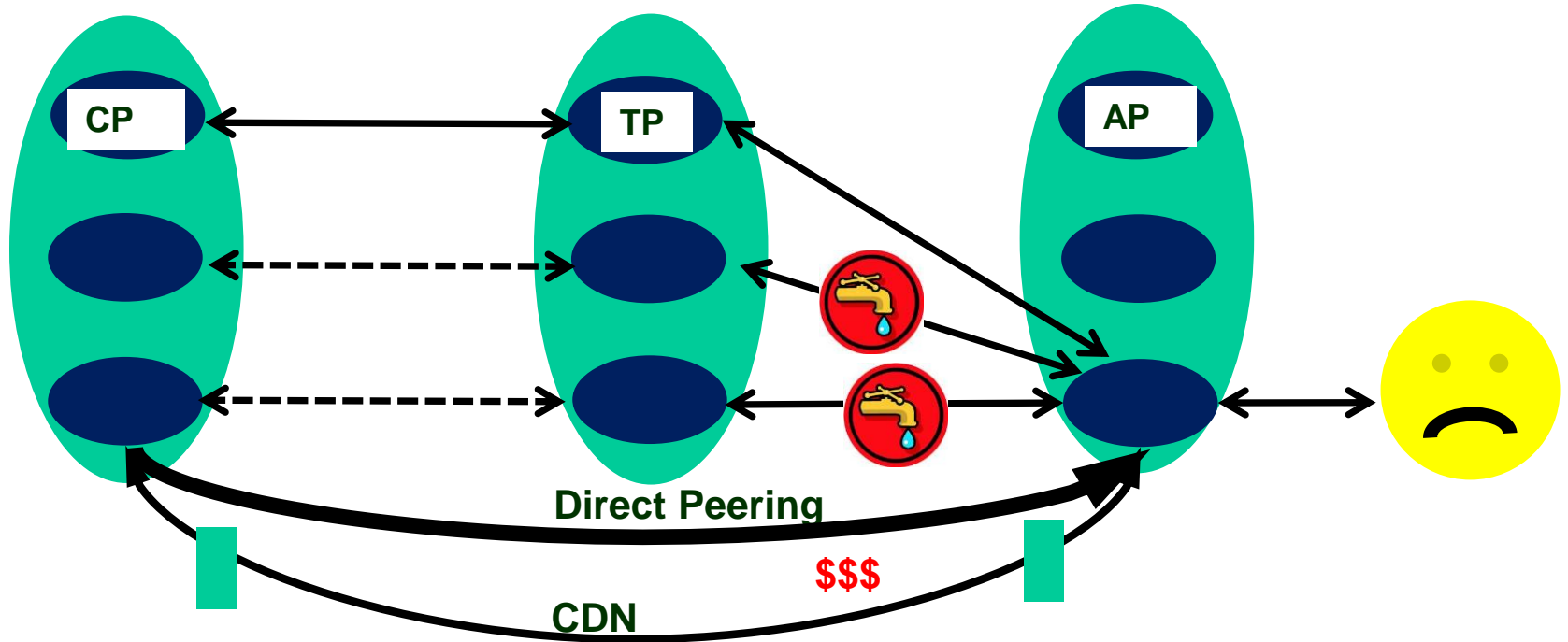
**Prefix propagation between Transit Providers disappears**

Each Content Provider must buy multiple “transit” from the preselected AP upstream providers

Services /  
Contenus

Transit/Peering

Accès



# Peering Prefixes are propagated to clients only

## Without a proper alternative way to reach end-users,

- Commercials are dictated by respective market powers.
  - Opportunity for termination fee / tax to be collected by AP.
  - Opportunity for “fast” v/s artificially congested “slow” lane.
  - Opportunity to develop own services behind walled garden.
  - Opportunity to raise prices for content creation.
  - Opportunity to steer end user behavior towards pre-agreed applications
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- Bandwidth is **no longer a price driven commodity**
  - Content providers loses **economic independence** when selecting transit providers
  - Internet becomes a series of **parallel silos** linked to specific destinations.
  - Specific destinations can have **different prices**
  - Universal connectivity disappears
  - Bandwidth is no longer a commodity

This is no longer the Internet...

What is needed is simple...

## “One Proper Default Transit Alternative”



- Non-Congested
- Local (no tromboning)
- To/From all internet endpoints



Transit bought by AP's, whose prefixes are propagated to all internet. Other internet actors can reach them and keep their economic independence when selecting their own Transit Provider.

“Transit” cannot be confused with “transit”. The later allows AP to peer only and restrict their prefix propagation to silos. CP are forced to buy from the peers preselected by AP's. This is merely indirect paid peering.

**This is not a Proper Default Transit Alternative.**

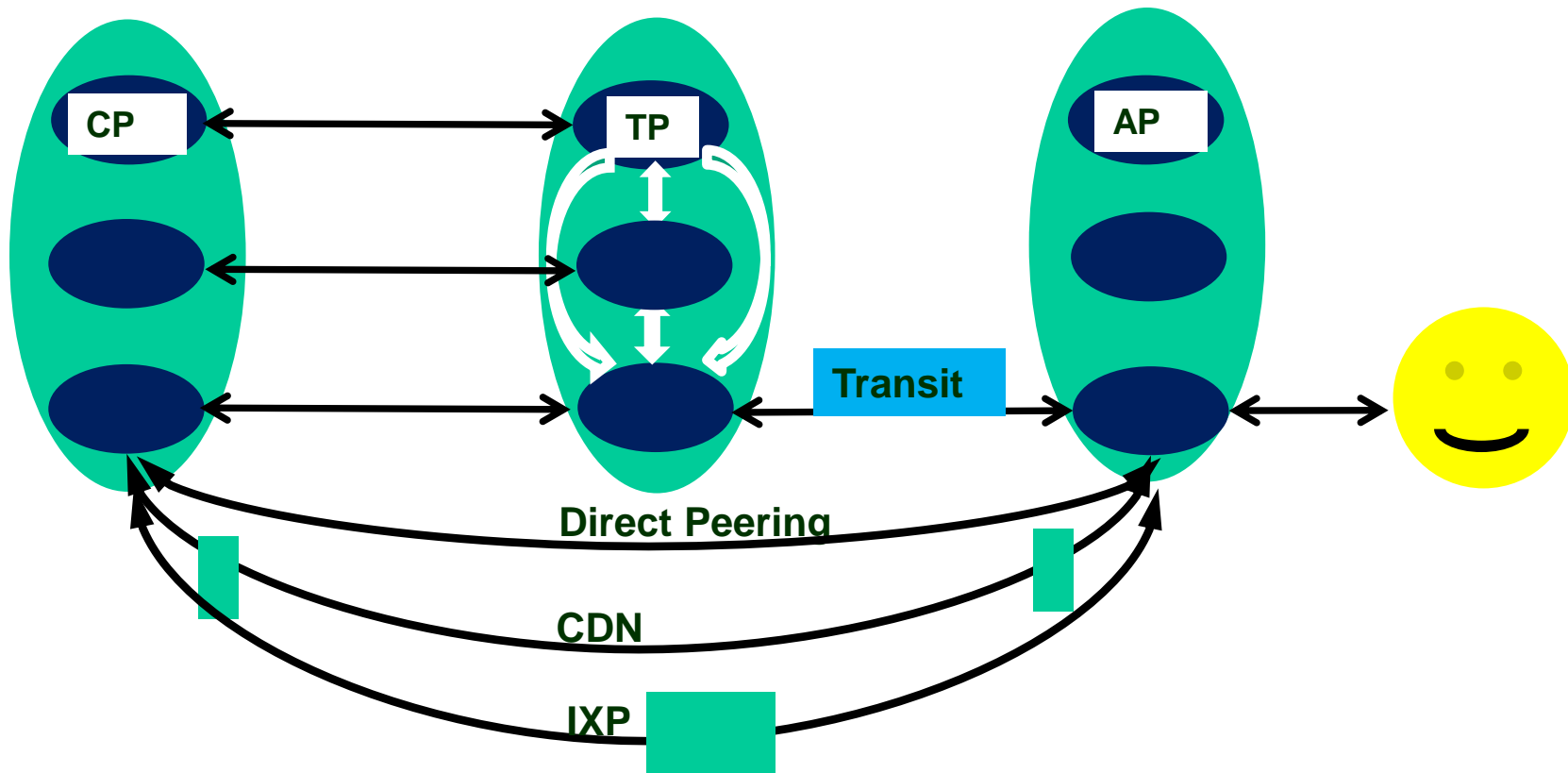


# The Global Picture

Services /  
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**Preserve at least one Proper Default Transit Alternative**  
**=> Independent Decision Making for all CP and AP**

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