

Who am I?



- Ian Cleary
- Joined Level 3 in June 2010
- Telecom since 1996 17 years
- Internet since 1998 15 years
- Carrier since 1999 14 years
- Career history encompasses; Sales, Product, Business Development
- I am a carrier Internet guy... and I can fix your VW



What will we investigate today?

- Challenges in the peering paradigm
- Possible paths forward
- Bringing together AS3356 and AS3549





Challenges to the peering world we all love



- Packet flow ratio as a measurement of value contribution
- Legislation
- Commercially-focused IX resorts
- IP Transit in long-term decline?



Challenges of the transit market

- Market price is compressing still at 20%+ per year
- Eyeball networks are consolidating
- Content networks are still exploding
- Big content networks are investing in infrastructure, but cannot get into the "tier-1 club"
- Market opportunity for transit providers is content network customers





We think that the answer is not one thing



- We need to change the value contribution model for settlement-free peering
 - <u>http://www.level3.com/en/legal/ip-traffic-exchange-policy/</u>
- Transit providers need to help ISP networks overcome the challenge inherent in the ISP "all you can eat" model
 - <u>http://www.level3.com/en/solutions/</u> industry/wholesale/cable-operators/

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Possible paths forward

ALLEM SEATTLE PROVIDENCE FRANKFURT HOLLYWOOD LISBON MACON OCALA ZURICH RICH NON CARLISLE GLASGOW ST LOUIS MILAN EXETER BARQUISIMETO PHOENIX READING VIENNA GH NUREMBERG SANTO DOMINGO WICHITA NEW HAVEN DRESDEN BASEL LITTLE ROCK SAN BER ALNESVILLE LAS VEGAS PRINCETON GENEVA PORTLAND SANTA ANA FAYETTEVILLE LECESTER L FELD EDINBURGH BATON ROUGE VIRGINIA BEACH WARSAW AMARILLO SANTIAGO NORFOLK OAKL DERBY TOPEKA CLEARWATER MADRID MANCHESTER GUAYAQUIL HAMBURG DETROIT BELO HORIZON CASBOURG COLUMBIA LEXINGTON TURIN OXFORD CHESAPEAKE BARCELONA MUNICH NASHVILLE ERSBURG MEDFORD SACRAMENTO BETHESDA LAREDO MENDOZA VENICE MEXICO CITY EVERETT ENOS AIRES LIMA BRATISLAVA TORONTO CHICAGO VALENCIA STOCKHOLM CLEVELAND BATH ANT NINAH ARLINGTON RENO ARMENIA HONG KONG ALLENTOWN NEW YORK BERLIN UTICA VANCOUVE K CORDOBA INVERNESS MONTREAL BALBOA SAN ANTONIO LIVERPOOL ROTTERDAM BILBAO MEMP ON STUTTGART MIAMI FREDERICKSBURG SALISBURY SYRACUSE ANAHEIM MAZATLAN SCOTTSDALE E DUBLIN HOUSTON INDIANAPOLIS TULSA BUCHAREST PHILADELPHIA TUCSON COLOGNE SAN JUZ SAN DIEGO BOGOTA MONTRERY NASSAU SAO PAULO COLUMBUS GUADALAJARA SYDNEY CORPUS AZOO LANCASTER TOULOUSE MILWAUKEE SALT LAKE CITY DURHAM EL PASO PRAGUE TOLEDO FRE R BROOKHAVEN ORLANDO PALO ALTO BOSTON BRASILIA IRVINE SALEM DAYTONA BEACH HANOVER CHEYENNE SPOKANE BRIGHTON STAMFORD PENSACOLA SAN FRANCISCO EUGENE BREMEN DEACH HANOVER CHEYENNE SPOKANE BRIGHTON STAMFORD PENSACOLA SAN FRANCISCO EUGENE BUEFFALO SUNNYVALE CARDIFF BURLINGTON DES MOINES ST PAUL CUNCINNATI LOUISVILLE BUFFALO SUNNYVALE CARDIFF BURLINGTON DES MOINES ST PAUL CUNCINATI LOUISVILLE BUFFALO SUNNYVALE CARDIFF VORK GREEN BAY JACKSON COPENHAGEN HARTFORD NERGUI DALLAS DAYTON DISTANBUL MADISON TOKYO HE CARDIFF VORK GREEN BAY JACKSON COPENHAGEN HARTFORD STANBUL MADISON TOKYO HE



What and why?

What

- Internet Localization is a unique proposition
- Internet transit and CDN infrastructure deployment in the ISP network
- 4U (2Gbps) or Full-rack (7Gbps) appliance sizes

Why

- Minimise the cost of traffic exchange
- Minimise bit-mile-burden in the ISP network
- Maximise performance for end-users
- Maximise revenue opportunity by reselling CDN suite of services





There he is, he's in the room...



- 36 month term
- Full routes AS3356 transit with SLA
- 10GbE port + 2Gbps from appliance = 12Gbps
- €Competitive Monthly charge
- €Competitive Get connected fee
- Save backbone bit-miles
- Launch your own CDN proposition and generate €s

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AS migrations

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AS integration

- Our networks
 - AS3356 fast switched Ethernet core
 - AS3549 MPLS core
- Our strategy
 - Focus AS3356 on Internet services
 - Focus AS3549 on private services
 - Migrate Internet customers to AS3356
- Our timeline
 - Top traffic and complex customers during 2013
 - Work with customer needs



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Thank you.

ian.cleary@level3.com / +44 7429 298975

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