

The FCC's Universal Service and Intercarrier Compensation Reform Order

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Answer you these questions three



What is its name?

What is its quest?

What is the airspeed velocity of an unladen swallow?

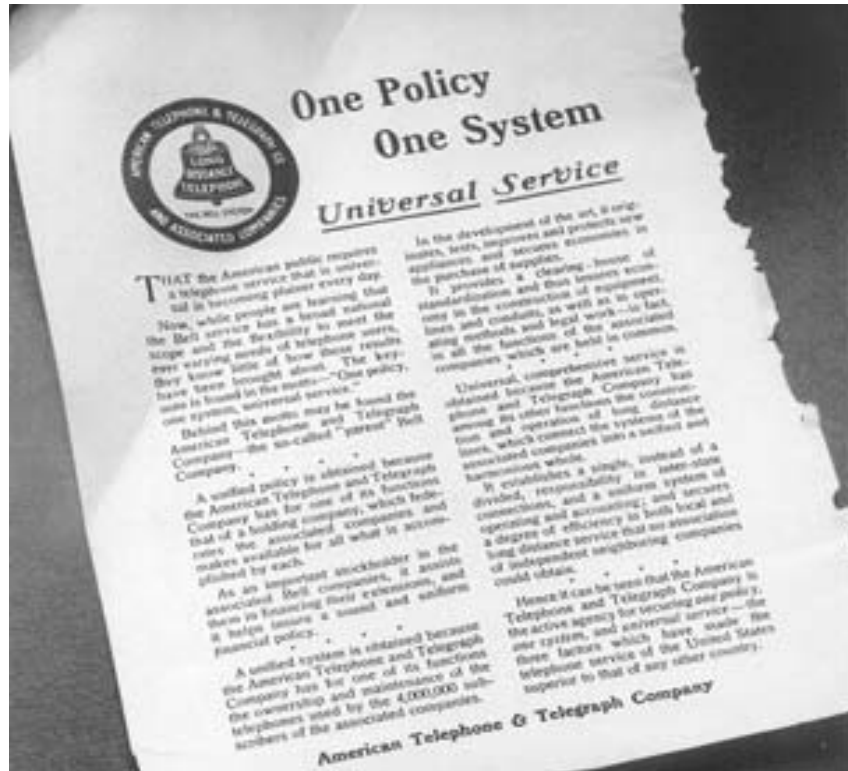
Connect America Fund (CAF)

Rationalize universal service and intercarrier compensation

European Swallow ~24 mph; African Swallow ~24 mph*

*<http://style.org/unladenswallow/>

“One system, one policy, universal service”



1908 Advertisement



Theodore Vail

Background on Universal Service

- Subsidy program to support local telephone service in rural and high-cost areas
- ‘Classic AT&T’ overpriced services long distance, business, and urban customers to subsidize rural residential local service
- Following divestiture, ILECs (only) received support from funding added onto access charges (which only IXCs paid)
- 1996 Act mandated that FCC update USF for a competitive landscape and make subsidies explicit
- FCC has tinkered with the system ever since
 - All providers of *telecommunications* pay into a fund
 - Support is distributed to eligible telecommunications carriers (ETCs):
 - Large ILECs: To the extent costs, as revealed by an economic model, exceed the national average
 - Small ILECs: To the extent embedded (book) costs exceed the national average
 - Wireless and other competitive ETCs: Same amount of support, on a per-line basis, that ILEC receives in the same area (“identical support rule”)
- Attempts at reform span the last 10 years; zero sum game so political economy of reform very difficult

Background on Intercarrier Compensation

- Two components
 - **Access charges**: Billed by LECs to carriers (principally IXCs) that originate or terminate non-local (long distance) traffic on their networks
 - **Reciprocal compensation**: Charges for terminating local traffic originated by another carrier
- Key elements and distinctions
 - Calling party's network pays
 - Local versus non-local -> access versus reciprocal compensation
 - Interstate versus intrastate -> different access tariffs (rates)
- Problems
 - Same functions billed at different rates, depending on jurisdiction and type of traffic (arbitrary)
 - Invites arbitrage and gamesmanship
 - Carrier incentive to impose costs on other carriers (rather than their own customers)
 - Incentive to keep receiving compensation undermines transition to IP networks

Goals of Connect America Fund

- Preserve and Advance Voice Service
- Ensure Universal Availability of Voice and Broadband to homes, businesses and community anchor institutions
- Ensure universal availability of mobile voice and broadband where Americans live, work and travel
- Ensure reasonably comparable rates for broadband and voice services
- Minimize universal service contribution burden on consumers and businesses

Overview of Order

- Changes to universal service system
 - Transform the existing telephony subsidy system into a system supporting broadband deployment and availability
 - Firm budget: \$4.5 billion per year
 - All USF recipients affected
 - Explicit Mobility Fund created
- Changes to intercarrier compensation
 - All access charges and reciprocal compensation phase down to zero (“bill-and-keep”) over 6-8 years
 - Default CMRS-LEC interconnection rate is zero, effective immediately

Connect America Fund, WC Docket 10-90 et. Al, FCC 11-161. Order 489 pages; 270 pages of attachments

Overview of Presentation

- Changes for ILEC support
- Changes for Mobility Support
 - Phase I Mobility Fund
 - Phase II Mobility Fund
 - Transition of existing CETC support
- Intercarrier compensation reform
 - Transition to bill-and-keep
 - IP interconnection
 - Traffic pumping
 - Other issues
- Further Notice of Proposed Rulemaking (“FNPRM”)
 - Formulation of Phase II Mobility Fund
 - Reductions to rate-of-return ILECs’ support
 - Framework for IP interconnection
 - Other issues

USF Changes for Large (“Price Cap”) ILECs

- Phase-out of support in study areas with unsubsidized terrestrial competitor (e.g., cable)
- New support based on a new cost model (tbd)
- To receive support, ILEC must make statewide commitment to deploy broadband throughout supported area
- If ILEC declines to make statewide commitment, reverse auction
- Five-year term of support (followed by reverse auction)

USF Changes for Small (“Rate of Return”) ILECs

- Support eliminated where unsubsidized terrestrial competitor (e.g., cable) provides voice and broadband to 100% of a study area; comment sought on partial coverage
- New cost controls for rate-of-return methodology
 - Reimbursable capital and operating expenses limited by algorithm
 - Corporate operations expense limitations from high cost loop support (HCLS) applied to interstate cost loop support (ICLS)
 - USF phased out to support ILEC rates below a national rate floor
 - Support over \$250/line/month eliminated
 - Safety Net Additive support eliminated
- Study area waiver process streamlined (could facilitate consolidation of RILECs)
- Comment sought on elimination of rate-of-return regulation altogether

USF Changes for Mobile Carriers

Phase I Mobility Fund

- One-time fund of \$300M (opex)
- One provider per area
- Awarded by auction to jump-start 4G deployment
 - Preference for single round, sealed bid – but open to alternatives
- Auction expected in 3Q2012
 - PN on procedures expected in 1Q2012
- Who can participate in auction
 - ETC status for relevant area (near-term rush possible at state commissions)
 - Access to spectrum in relevant area (license or lease)
 - Certification of financial and technical capability
 - No prior commitment to deploy 3G or better in same area by 12/31/2012

USF Changes for Mobile Carriers

Phase I Mobility Fund (cont.)

- Obligations of auction winners
 - Deploy 3G or better (must specify)
 - 3G: outdoor minimum 200 kbps / 50 kbps (2 year build-out)
 - 4G: outdoor minimum 768 kbps / 200 kbps (3 year build-out)
 - Latency sufficiently limited to allow VoIP
 - Capacity / usage limits comparable to urban offerings
 - Coverage requirements to be determined by Bureaus, validated by submission of a drive test at end of build-out period
 - Collocation and data roaming requirements
 - Offer “reasonably comparable rates” (to be determined by Bureaus)
- Obligations of all support recipients
 - Voice and broadband (including standalone voice)
 - Price and speed reporting requirements
 - Rates “reasonably comparable” with urban rates
 - COLR (state?)

USF Changes for Mobile Carriers

Phase I Mobility Fund (cont.)

- Only “unserved areas” will be auctioned
 - Census Blocks (“CBs”) – granular areas
 - Geographic center of CB (“centroid”) is unserved by EV-DO, EV-DO Rev A, UMTS/HSPA, or better
 - Per American Roamer data
 - Pre-auction opportunity to challenge list of unserved CBs
- Bids formulated on a “dollars per unit” basis
 - Units = number of *road miles* in the CB (*not* pops!)
 - Rationale: Other funding for fixed providers will serve residential/business locations; Mobility Fund should promote service where people are mobile
- Bid selection criteria tbd by Bureau following PN
 - PN expected in 1Q2012

USF Changes for Mobile Carriers

Phase II Mobility Fund

- Ongoing support (opex, capex)
- \$500M per year
 - Of which up to \$100M is set aside for Alaska and Tribal areas
- Precise parameters of mechanism to be determined by Bureaus following comments on FNPRM
 - FCC proposes to use an auction similar to Phase I
 - Comment also sought on model-based and RFP-like approaches
- Projected to begin disbursing support in approximately 3Q2013

USF Changes for Mobile Carriers

Existing CETC Support Phased Out

- “Baseline” support established at 2011 levels
 - Baseline may not exceed \$3,000 per line for the year
- Support frozen at baseline, and phased out over five years
 - 1/1/12 – 6/30/12: Baseline amount
 - 7/1/12 – 6/30/13: 80% of baseline
 - 7/1/13 – 6/30/14: 60% of baseline
 - 7/1/14 – 6/30/15: 40% of baseline
 - 7/1/15 – 6/30/16: 20% of baseline
 - 7/1/16 – onward: no support
- Identical Support Rule eliminated

Intercarrier Compensation Transition to Bill-and-Keep (B&K)



- December 30, 2011: default reciprocal compensation (interconnection) rate for non-access traffic exchanged between CMRS carriers and all LECs is zero
 - No automatic right to re-negotiate existing agreements, but this is a “change of law” that may trigger rights under existing agreements
 - POIs with RoR ILECs must be on RoR ILEC network
- Most terminating access charges and all reciprocal compensation charges will be capped at current levels on December 30, 2011, and then reduced to zero over a transition period beginning July 1, 2012
 - For larger (“price cap”) ILECs (as well as all CMRS carriers, and CLECs in price-cap ILEC territory) – 7 year transition
 - For smaller (“rate of return”) ILECS (and CLECs in their territory) – 9 year transition
 - Access charges for transport rate elements
 - Capped effective December 30, 2011
 - Price cap ILECs: Transitioned downward as above where terminating LEC owns the tandem
 - Rate-of-return ILECs: Transitioned to interstate rate level

Intercarrier Compensation

IP Interconnection and Traffic Pumping

- IP-to-IP interconnection
 - FCC expects “all carriers to negotiate in good faith in response to requests for IP-to-IP interconnection for the exchange of voice traffic” and expects such negotiations “to result in interconnection arrangements between IP networks for the purpose of exchanging voice traffic”
 - FNPRM seeks comment on a comprehensive framework for IP interconnection
- Traffic pumping measures implemented
 - RLECs and CLECs must reduce interstate access tariffs to the lowest interstate switched access rate of a price cap LEC in the state if they have:
 - A revenue sharing agreement; *and* either
 - A three-to-one ratio of terminating-to-originating traffic in any month, *or*
 - More than a 100% increase in traffic volume in any month, measured year-over-year

Intercarrier Compensation

New Rules for VoIP & Phantom Traffic

- VoIP-PSTN traffic subject to rate caps as of December 30, 2011
 - “Toll” VoIP-PSTN traffic: interstate access rates, and the phase-down of rates described above
 - “Local” VoIP-PSTN traffic: Reciprocal compensation rates, and the phase-down of rates described above (including CMRS B&K)
- New traffic signaling rules
 - Service providers (including CMRS carriers) that originate interstate or intrastate traffic on the PSTN, or that originate inter- or intrastate interconnected VoIP traffic destined for the PSTN, will now be required to transmit the telephone number associated with the calling party to the next provider in the call path.
 - When CMRS carriers serve as intermediate providers in a call path, they must pass calling party number or charge number signaling information they receive from other providers unaltered, to subsequent providers in the call path

Key FNPRM Issues:

Formulation of Phase II Mobility Fund

- Phase II auction design
 - Areas eligible for support (unserved)
 - Bidding unit areas; aggregation of bidding areas
 - Term of support
 - Eligibility
 - Public interest obligations
 - Speed (776/200; low latency)
 - Deployment milestones
 - Collocation and data roaming
 - Reasonable comparability of rates
- Model instead of auction?
 - Model design
- Recipients' reporting requirements

FNPRM Key Issues:

Obligations of All Support Recipients

- Broadband speed measurement program
 - Access network to end-user interface
- Study of voice and broadband rates
 - Reasonable comparability
- Interconnection requirements beyond ICC rules
- Financial guarantees to support obligations
- Penalties

FNPRM Key Issues

Changes to ILEC support

- Rate of return re-prescription
 - Current 11.25% return on investment
- Eliminating support in competitive areas
- Recovery of additional costs
 - Interstate allocation based on broadband adoption rate
 - Middle-mile costs

FNPRM Key Issues: Intercarrier Compensation

- IP interconnection framework
 - FCC authority
 - Scope of traffic covered
 - All voice traffic
 - VoIP traffic
 - Other IP traffic
 - Regulations versus commercial negotiations
- Transition of remaining rate elements to B&K
 - Transit
 - Originating

Cui Bono?

States have appealed: Ohio, Pennsylvania, Vermont, NASUCA

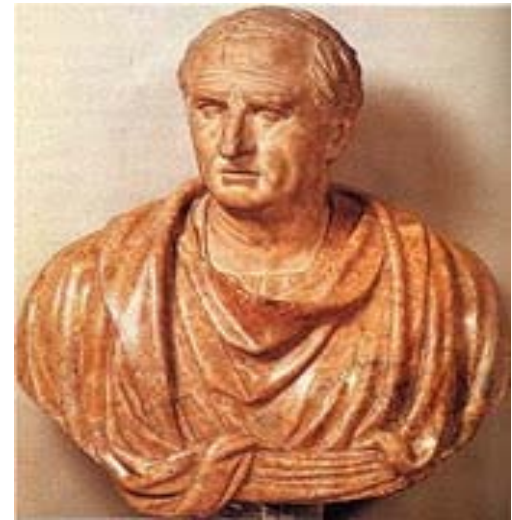
Rural Cellular Carriers Appealed: Cellular South, Halo Wireless

RLECS: NTCA, Direct Communications Cedar Valley

VoIP Carrier: Core Communications

AT&T appeals ICC issue

10th Circuit Wins Appellate Lottery



New Contribution
Factor: 17.9%