

**SHIFMAN'S UNIVERSAL SERVICE AND
INTERCARRIER COMPENSATION
REFORM PLAN**

**A White Paper To The
State Members
Of The
Federal-State Joint Board
On
Universal Service**

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DISCLAIMER

THIS WHITE PAPER HAS BEEN PREPARED BY MEMBERS OF THE STATE STAFF OF THE FEDERAL-STATE JOINT BOARD ON UNIVERSAL SERVICE AND ITS CONSULTANTS IN ORDER TO ASSIST THE RELEVANT DELIBERATIONS OF THE STATE MEMBERS OF THE JOINT BOARD. THE ANALYSIS AND VIEWS EXPRESSED IN THIS WHITE PAPER ARE THOSE OF THE AUTHORS AND DO NOT REFLECT THE FORMAL POSITIONS OR OPINIONS OF THE REMAINING STATE STAFF, STATE MEMBERS, OR GOVERNMENTAL/NON-GOVERNMENTAL ENTITIES THAT CURRENTLY EMPLOY THESE AUTHORS.

Shifman's Universal Service and Intercarrier Compensation Reform Plan

I. Objectives

- A. Discourage traffic pumping
- B. Reduce or eliminate phantom traffic
- C. Eliminate incentives for access arbitrage
- D. End the identical support rule
- E. No increase in total rates (bills) for wireline customers
- F. Minimal increase in the total fund size
- G. Meet obligation under Section 254 for comparable service

II. Intercarrier Compensation Changes

- A. Unify all intercarrier compensation, including reciprocal compensation, access, and local (including bill and keep trunks).
 - 1. Unified rate to be a single rate for any terminating carrier. Rates are higher for high-cost companies. Rates not lower than \$0.0005 nor more than \$0.0500.
 - 2. Four (4) rate zones will be established in each state: COLR-urban, COLR-rural, COLR-very rural, ISP and other.
 - 3. Originating carrier either hauls and terminates itself or pays another carrier to haul and terminate. Meet point arrangements now in place will continue.
 - 4. Lost intercarrier revenues (intra and inter) are measured once, upon cutover, for support purposes.
- B. Solve traffic pumping:
 - 1. ILEC pumping can be solved one of two ways:
 - a. Update access billing determinants (e.g. minutes of use) frequently (daily or hourly). Similar to dynamic pricing of electricity.
 - b. Where a carrier has had an increase of more than 10% in traffic, it must justify that growth to USAC. Growth in access lines would be an allowable reason.
 - 2. CLEC pumping can be solved by two measures:

- a. Developing a low ISP rate for intercarrier compensation. This eliminates the incentive to pump minutes.
 - b. Ending the CLEC access rates mirroring rule that allows CLECs to charge access rates equal to ILEC access rates.
3. Solve phantom traffic by requiring payments for all terminating calls, including local calls. Payments due 30 days after service provided and invoice sent. Payor identity will depend on traffic characteristics. Payor will be the responsible party identified by billing information provided to the terminating carrier (using packet identification for VoIP or SS-7 in PSTN). If there is no such responsible party identified, the upstream party handing off the call is responsible (analogy to banks clearing checks).

III. USF Broadband Incentive Plan

- A. Redefine supported services to include broadband.
- B. Everything is combined jurisdictionally. The plan is “interstate.” There is no longer a need for separation of costs or revenues. There is only one omni-jurisdictional rate on any telephone bill.
- C. All existing high-cost mechanisms are repealed, including HCL, LSS, Model, IAS, ICLS.
 1. Existing support amounts become a base input for new system.
- D. Conditions of support
 1. ETCs must meet COLR obligations.
 2. One ETC per geographic area
 3. All future support conditioned on delivering broadband.
 4. Support for broadband increases as broadband (1.5 Mbps) availability percentage increases.
 5. USF support to zero if not fully DSL capable by 2013.
 6. No USF support for price cap carriers. PC carriers can form rate of return study area if a substantial amount of the service area is rural. This creates an incentive for companies to improve service.
- E. Competitive ETCs
 1. End identical support. This frees up dollars to allow increased support for broadband.

2. USAC or FCC can engage in rate case if they believe a USF recipient is over-earning

F. USAC will operate four high-cost funds:

1. Network Access Fund
2. Exceptional Support Fund
3. Broadband Stimulus Fund
4. Mobility Fund

IV. The Network Access Fund

A. Financial sources for the fund:

1. All carriers pays one Network Access Charge (NAC)
 - a. Nomadic VoIP and wireless providers pay one NAC per telephone number.
 - b. Other providers pay one NAC per customer location (same definition as Lifeline).
 - c. Special access users pay on per-line basis (subject to discussion).
2. For ILEC bills:
 - a. SLC disappears and SLC revenue goes to \$0.
 - b. Carrier may automatically increase local rates to cover its NAC Charge liabilities.
 - c. Federal USF rate gets lower on ILEC bills.
3. NAC Rate

$$(1) \text{NACRate} = \text{NACRev} / (\text{NACUnits})$$

$$(2) \text{NACRev} = \text{NAC Support}$$

$$(3) \text{NACUnits} = \text{cust. locations} + \text{charged tel\#s} + \text{special access lines}$$

B. Distribution of funds by USAC. Support only to COLRs. Every ILEC becomes a cost company for purposes of distribution.

$$\text{NAC Support} = \text{ICC losses (gains)} + \text{SLC Losses} + \text{FUSF losses} + \text{SUSF losses}$$

1. Price cap companies. One calculation carries forward indefinitely.
2. Non-price cap companies. Support is calculated every year. Investment based on public funds is treated as customer-contributed investment.

- C. Network Access Fund is transitional and will be replaced by a capacity-based fund in the future.

V. Broadband Stimulus Fund

- A. Size of fund based on empirical study of costs of ubiquitous broadband. Study reports on costs to build out to each of 90%, 95% and 100% broadband capability.
- B. Financial sources for the fund:
 - 1. Broadband surcharge % on NAC charges.
- C. Distribution of funds by USAC
 - 1. Conditions for support
 - a. Only be provided to broadband POLRs.
 - b. Funds provided only where business model precludes broadband deployment.
 - c. Must deliver 3 Mbps at all times in all weather.
 - d. Facilities must carry others' packets on a nondiscriminatory basis.
 - 2. Amount of support. Grant fund for capex. Awarded on a project-by-project basis as needed where NAC isn't sufficient.

VI. Mobility Fund

- A. National study to size the fund.
- B. Financial sources for the fund:
 - 1. Mobility surcharge % on NAC charges.
- C. Distribution of funds by USAC
 - 1. Conditions for support:
 - a. Must allow others to use towers constructed with public funds.
 - b. Must provide service in areas with no mobility service.
 - 2. Amount of support. Grant funds for capex, with provision for O&M where expected O&M is over 3 times national average.

VII. Exceptional Support Fund

- A. Purpose is to be a safety net.
- B. Financial sources for the fund:

1. Outlier surcharge % on NAC charges.
- C. Distribution of funds by USAC only where:
1. State has found that there is an extraordinary revenue requirement that is not met by other support amounts. Especially transport and high-cost switching.
 2. State has described that requirement to USAC and NECA, making an adequate record.
- D. Fund gets all of the following revenue from ETCs: SLC; intercarrier compensation, access, all interstate cost support mechanisms (LTS, ICLS, IAS), all existing USF for intrastate costs (HCL, LSS, model-based support).