Transforming the Universal Service Fund & Intercarrier Compensation System for the Broadband Era

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Overview

- Wireline Competition Bureau's broadband proceedings
  - Poles, Rights of Way, Data
  - USF + ICC

- Universal Service Fund/Intercarrier Compensation
  - Today's USF/ICC system is not meeting the broadband challenge
  - February *USF ICC Transformation NPRM*
  - Comments received
  - Next steps

WCB Broadband Proceedings

- ## Broadband Acceleration Initiative
  - Pole Attachment FNPRM (5/10) and Order (4/11)
  - Broadband Acceleration Conference (2/11) and NOI (4/11)
  - Technical Advisory Council (TAC) Recommendations (4/11)

- ## Broadband Data
  - Data Innovation Initiative (ongoing)
  - Broadband Data NPRM (2/11)
  - National Broadband Map (2/11)

WCB Broadband Proceedings – USF

- ## Schools and Libraries
  - E-rate Community Use Waiver (2/10), FY 2011 NPRM (5/10) and Order (9/10)
  - EDU 2011 Off-Premises Wireless Pilot Selected Applicants (3/11)

- ## Rural Health Care
  - Reform NPRM (7/10)
  - Pilot Program Extension (5/11)

- ## Low Income
  - USF Joint Board Referral (6/10), Recommended Decision (11/10)
  - Lifeline/LinkUp Reform and Modernization NPRM (3/11)

- ## High Cost
  - Universal Service NOI and NPRM (4/10)
  - Mobility Fund NPRM (10/10)
  - Universal Service/Intercarrier Compensation Transformation NPRM (2/11)

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FCC Joint Statement On Broadband: March 2010

"[USF] and [ICC] should be comprehensively reformed to increase accountability and efficiency, encourage targeted investment in broadband infrastructure, and emphasize the importance of broadband to the future of these programs"

Universal Service Fund Supports Four Programs

Total Disbursements, 2010
100% = $7.9 Billion

Rural
Health Care

$0.1B

Schools
and
Libraries

$2.2B

$4.3B

High
Cost

Low
Income

$1.3B
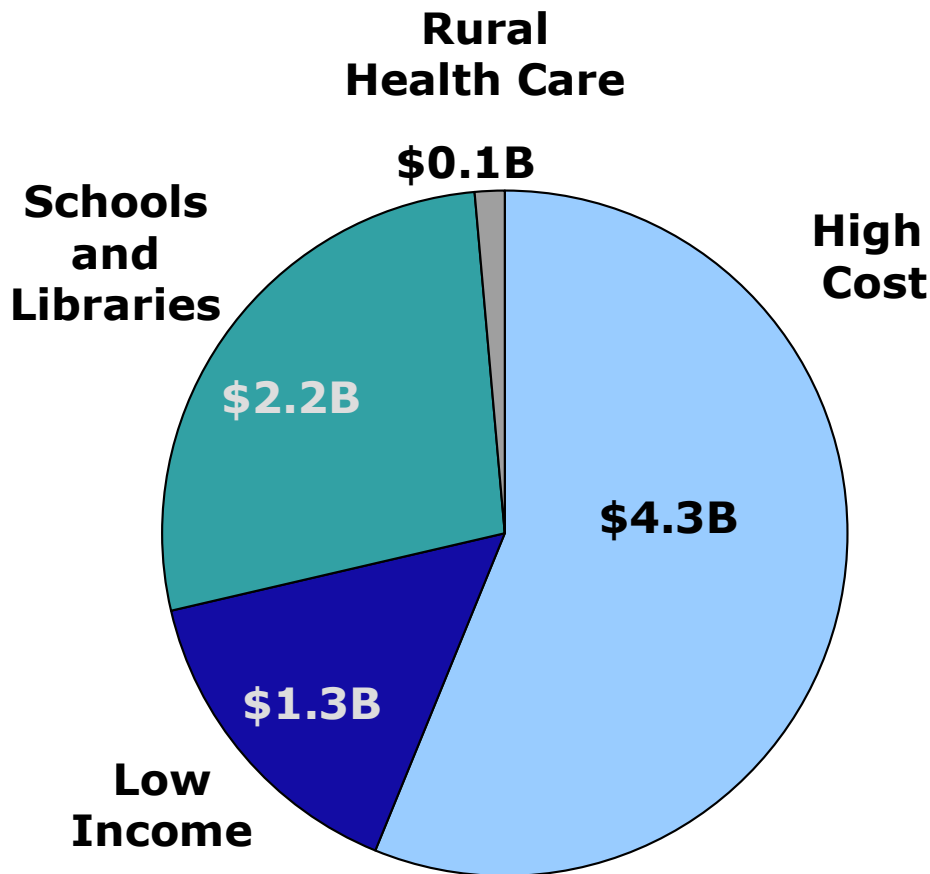
- **High Cost** focuses on service to all consumers (both residential and business) in high cost, rural and insular areas

- **Low Income (Lifeline/Link Up)** makes basic, local telephone service affordable for low-income consumers

- **Schools and Libraries (E-rate)** enables schools and libraries to connect to the Internet

- **Rural Health Care** provides reduced rates to rural health care providers

Source: USAC data

The High Cost Program, 2010:
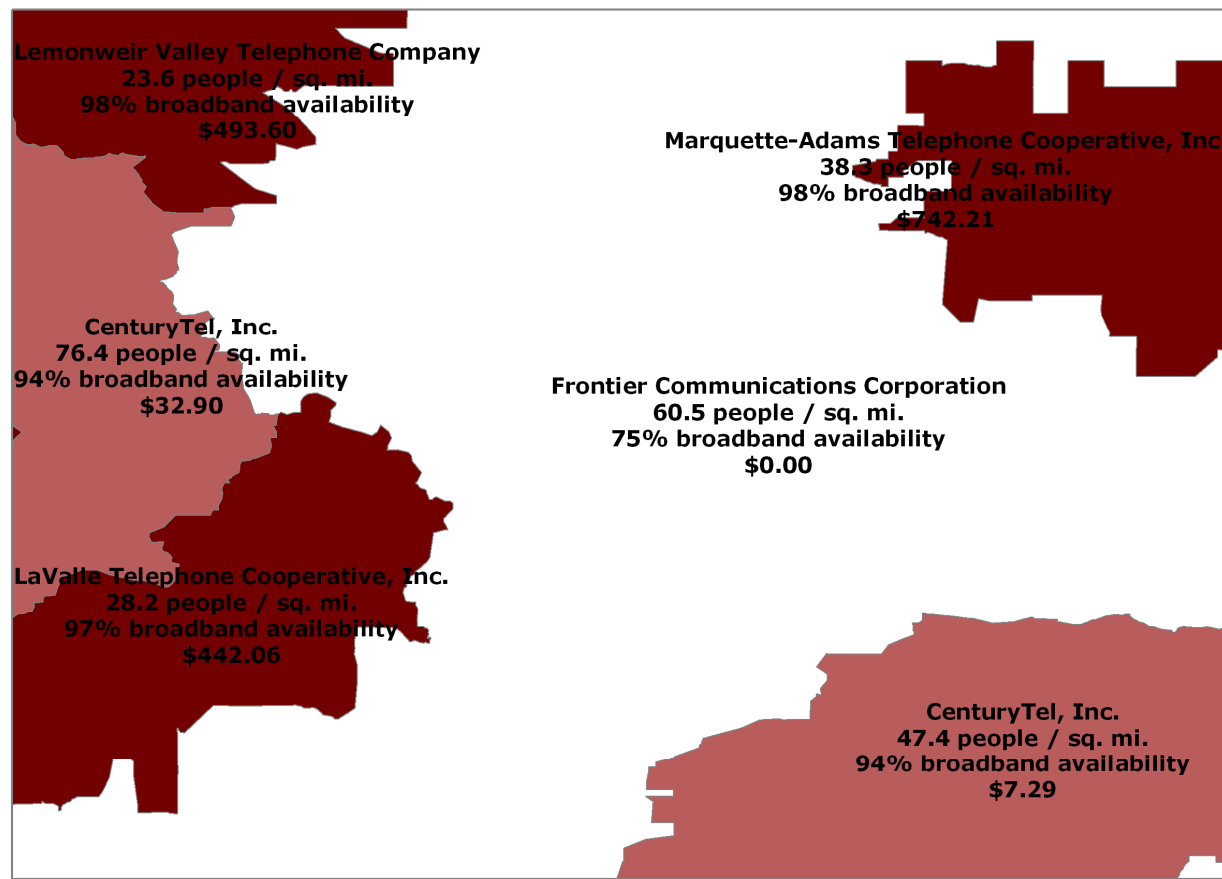## Complex, outdated, and not effectively targeted

($ in millions)	High-Cost Model Support	Interstate Access Support (capped)	High-Cost Loop Support (capped)	Local Switching Support	Interstate Common Line Support	Total
Total Support	$310	$545	$1,379	$359	$1,675	$4,268
Incumbent Support	$157	$458	$1,024	$276	$1,141	$3,055
Competitive ETC Support (capped)	$153	$88	$355	$83	$533	$1,213
Who receives	Large "non-rural" incumbents (Bell operating companies and mid-size telcos) and competitive ETCs operating in their territories	Large incumbents (price cap companies) and competitive ETCs operating in their territories	Small incumbents (mostly rate of return but some mid-size companies), and competitive ETCs operating in their territories	Small incumbents (mostly rate of return, but some price cap companies) and competitive ETCs operating in their territories	Small "rural" incumbents (rate of return companies and recent mid-size price cap converts) and competitive ETCs operating in their territories	
What it supports	Subsidizes intrastate loop, switching, and interoffice transport costs based on forward looking cost model	Interstate access revenue replacement targeted to UNE zones where carrier cannot recoup revenues through SLCs	Subsidizes intrastate loop costs based on embedded (actual) costs of the carrier	Helps cover fixed intrastate switching costs for operating companies with less than 50,000 lines	Interstate revenue recovery when SLC cap does not permit full recovery of common line revenues	

Varying support amounts contribute to a rural-rural divide

2010 Annual Per-Line Support and Broadband Availability
**Sauk County, WI and surrounding areas**

Wireline Broadband Availability (Any Speed, National Broadband Map 2010)

| less than 75% | 75-95% | 95-100% |

Lemonweir Valley Telephone Company
23.6 people / sq. mi.
98% broadband availability
$493.60

Marquette-Adams Telephone Cooperative, Inc.
38.3 people / sq. mi.
98% broadband availability
$742.21

CenturyTel, Inc.
76.4 people / sq. mi.
94% broadband availability
$32.90

Frontier Communications Corporation
60.5 people / sq. mi.
75% broadband availability
$0.00

LaValle Telephone Cooperative, Inc.
28.2 people / sq. mi.
97% broadband availability
$442.06

CenturyTel, Inc.
47.4 people / sq. mi.
94% broadband availability
$7.29

0   3   6   12   18 Miles

8

For Some Areas, Little Relationship Between How Costly A Carrier's Territory Is To Serve and How Much Support It Gets
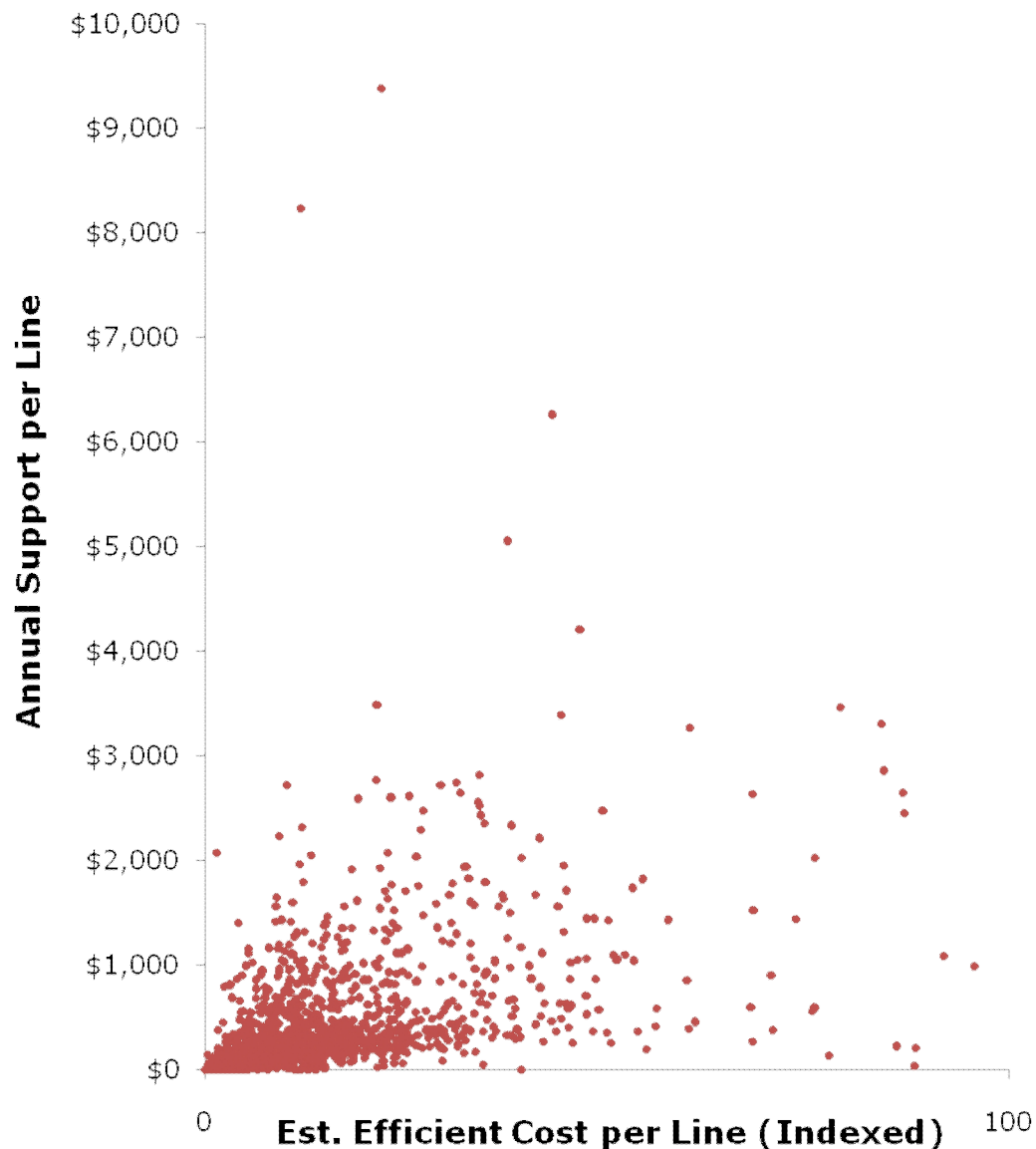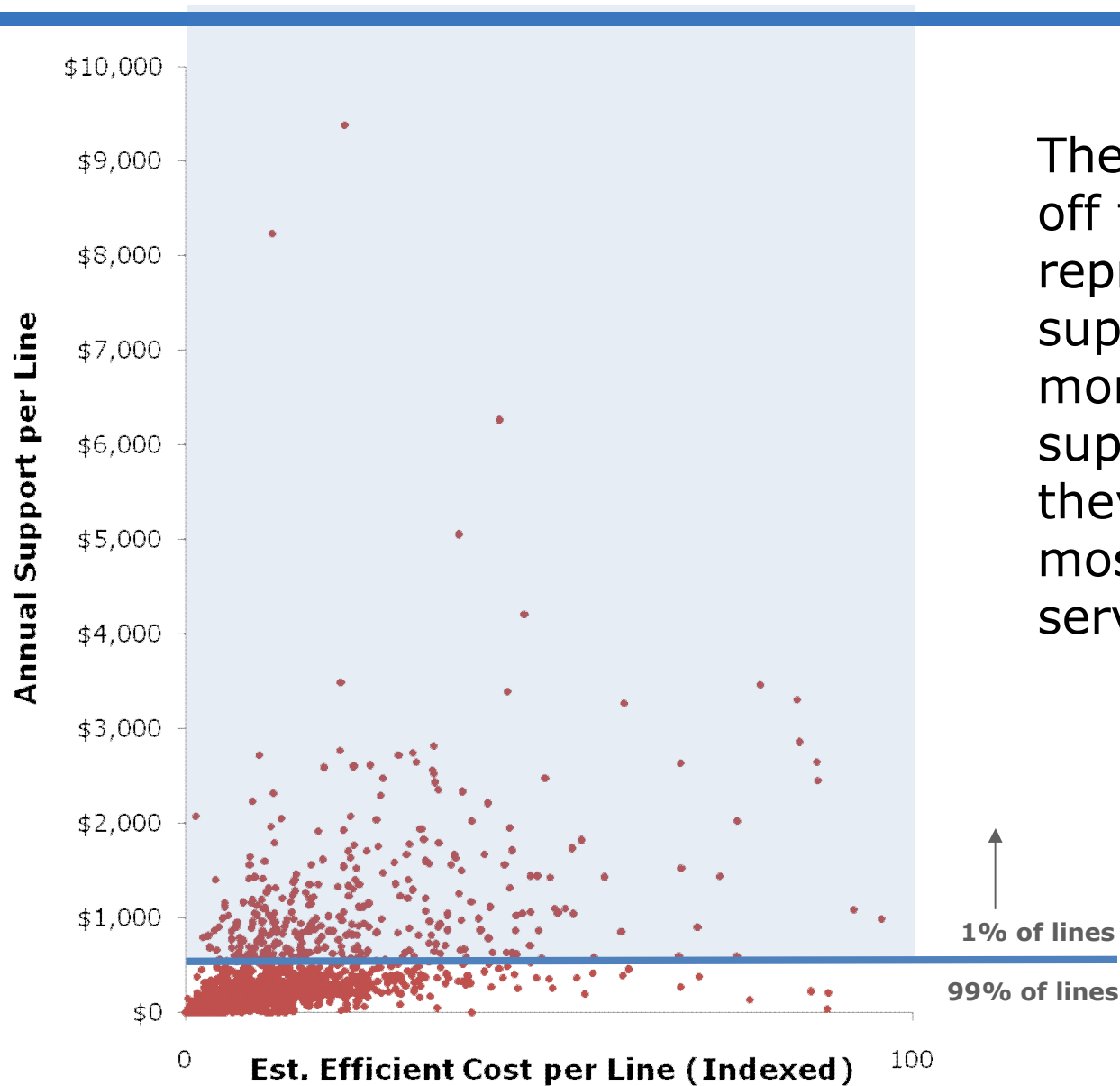

For many companies, the current rules provide no limit on total funding and no benchmarks for reasonable expenditures.

The result: some parts of rural America have state-of-the-art broadband, faster than what's available in many urban areas, while other rural areas are being left entirely behind.

Graph shows ILEC study areas only, excluding study areas for which we have inadequate cost data. Cost per line based on National Broadband Plan model, assuming greenfield build. Values shown are relative – actual costs depend on model assumptions. 10 study areas with very high support and/or cost per line not shown.

A Few Areas Get A Large Share of Total Support

Est. Efficient Cost per Line (Indexed)

Annual Support per Line

$10,000
$9,000
$8,000
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$0

0   100

1% of lines

99% of lines

These areas (and a few off the top of the chart) represent just 1% of all supported lines, but get more than 1/3 of all support – even though they are mostly not the most costly areas to serve.

Graph shows ILEC study areas only, excluding study areas for which we have inadequate cost data. Cost per line based on National Broadband Plan model, assuming greenfield build. Values shown are relative – actual costs depend on model assumptions. 10 study areas with very high support and/or cost per line not shown.

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The "Identical Support" Rule Is Inefficient

- $1.3 billion/yr in USF support goes to "competitive carriers," typically mobile phone providers.

  - These providers receive support per line identical to the incumbent carrier, regardless of actual need or cost.*

  - In many areas, this funding supports 4 or more carriers serving the same territory.

- Less than $100 million of the total support (approx. 7%) goes to areas where a small or midsize company is the only wireless provider offering service. This territory includes about 100,000 homes.

- Support for competitive carriers should be rationalized, with funding targeted to increase availability of fixed and mobile broadband.

< $100 million

$1.3 billion

* Subject to an overall cap.

Other Inefficiencies in the High Cost Program

- ## Support not targeted to areas uneconomic to serve
  - One study estimates that >$100M/year flows to companies to serve areas where competing providers offer service to all households, without any USF support

- ## Outdated rules, unintended consequences
  - "Safety net additive" support was intended to encourage new investment in networks, but today rewards companies for losing customers
  - "Local Switching Support" was intended to help small carriers purchase room-sized phone switches, but now subsidizes the largest phone companies in the country by almost $40M/year

ICC Inefficiencies

- ## ICC rates set well above costs
  - It can cost 10 times more to call a friend a few towns over than to call someone on the other side of the world

- ## Discourages investment in broadband
  - "Phantom Traffic" and "Traffic Pumping" arbitrage schemes game the system to avoid or inflate ICC payments, costing carriers hundreds of millions of dollars/year
  - Companies disincented from upgrading to IP infrastructure for fear of losing intercarrier revenues
  - Absent reform, transition to VoIP makes ICC revenue/subsidy highly unpredictable

Pillars of Reform: February NPRM

1. Reform USF and ICC to Focus on Modern Networks
   - Explicitly support universal availability of bb and voice service
   - Target funds to areas otherwise uneconomic to serve
   - Accelerate transition to IP networks

2. Fiscal Responsibility
   - Eliminate waste, inefficiency, and redundancy
   - Create incentives for efficient operations and prudent investment
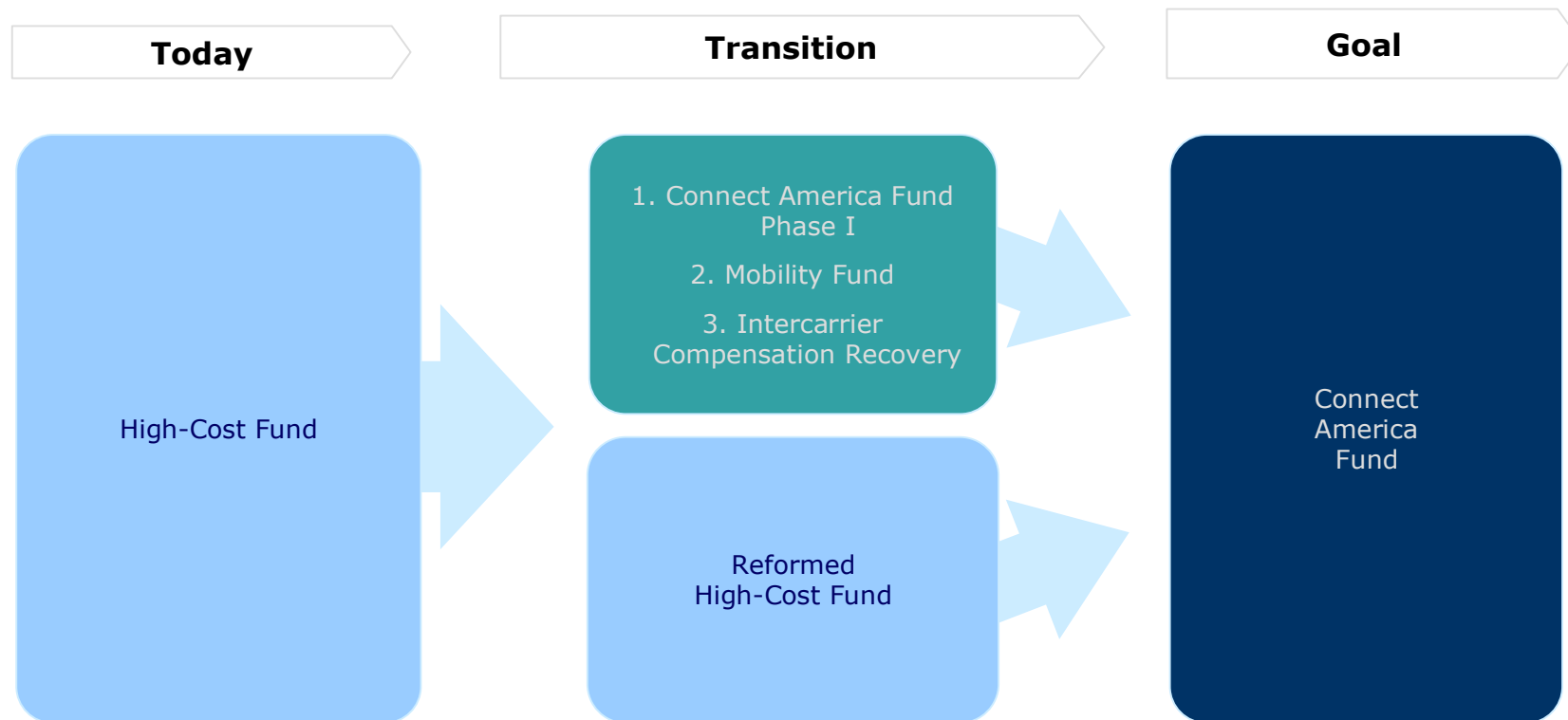   - Constrain size of fund

3. Demand Accountability
   - Improved performance metrics and obligations

4. Market-driven and Incentive-based Policies
   - Facilitate deployment of technologies/services providing maximum value to consumers at lowest possible cost

Predictable transition mechanisms – no flash cuts

Transition to the Connect America Fund

Today	Transition	Goal

High-Cost Fund

1. Connect America Fund Phase I
2. Mobility Fund
3. Intercarrier Compensation Recovery

Reformed High-Cost Fund

Connect America Fund

Commission Activities:

- Selection of long-term Connect America Fund design

- Monitoring and evaluation of initial reforms

Summary of USF NPRM Proposals

Transition current telephone-centric high-cost fund into more efficient broadband-focused Connect America Fund
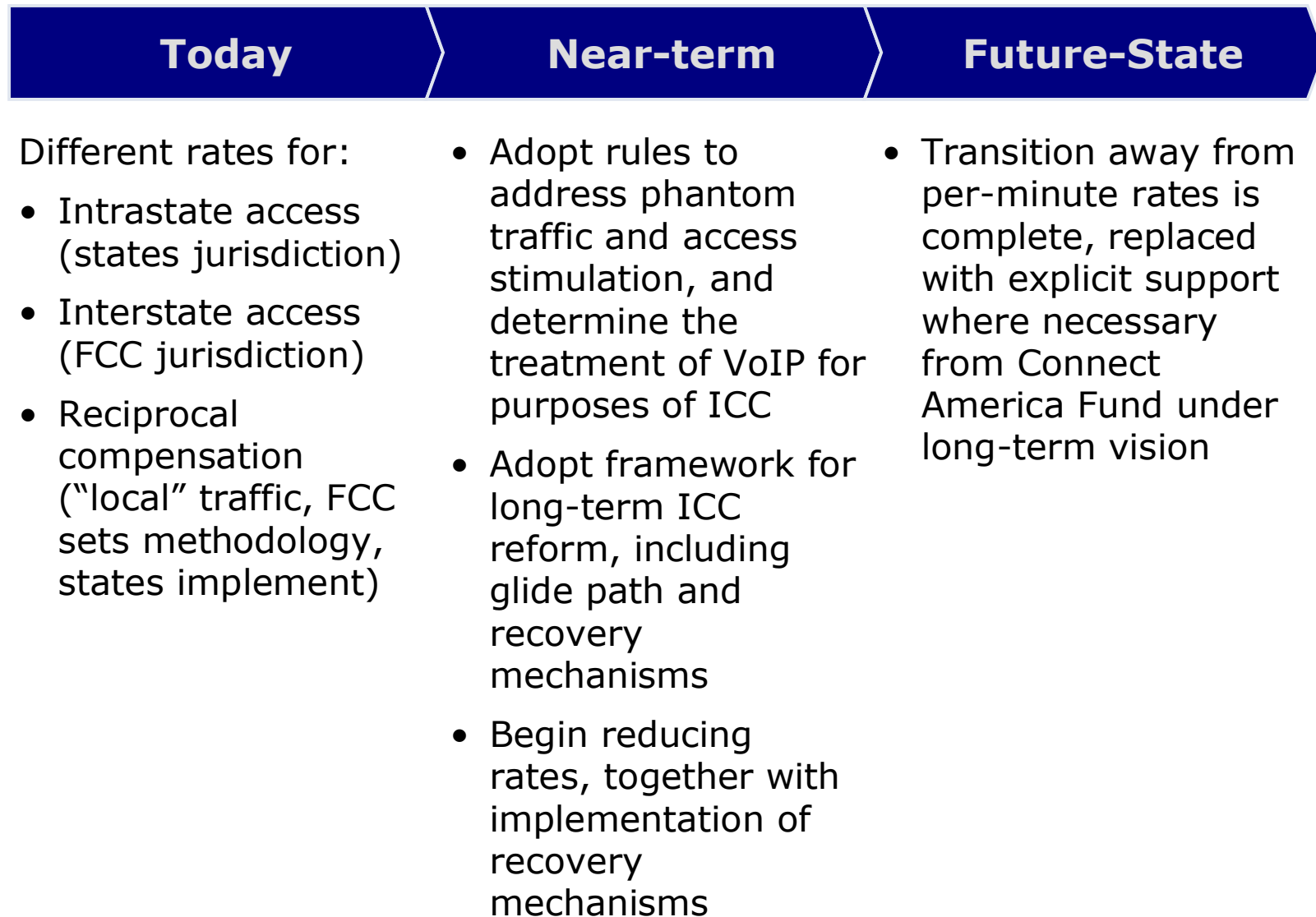
Proposed near-term reforms to improve efficiencies:
- Distribute current funds in a more equitable manner
- Eliminate outdated components of USF that provides support based on costs of old telephone technology
- Set capital and operating expense benchmarks to promote efficiency
- Set maximum per line support for carriers and require carriers requesting more per line support to justify why support over the maximum is needed
- Rationalize support provided to multiple competitive carriers serving the same geographic area
- Rationalize support for programs that have not been reevaluated in many years and may often no longer be needed to provide voice service
- Near-term, target savings to support broadband deployment in unserved areas (based on National Broadband Map and FCC Form 477 data)
  - Use of a competitive bidding process
  - Independent from existing USF support carriers receive
- Reasonable broadband performance requirements and obligations

Proposals to establish long-term Connect America Fund:
- Competitive bidding process in all areas of the country, or
- Provide incumbent right of first refusal to continue serving area with model-based support
- Seeks comment on potential continuation of modified rate of return system in some areas

Proposed Intercarrier Compensation Transition

Today	Near-term	Future-State

Different rates for:

- Intrastate access (states jurisdiction)

- Interstate access (FCC jurisdiction)

- Reciprocal compensation ("local" traffic, FCC sets methodology, states implement)

- Adopt rules to address phantom traffic and access stimulation, and determine the treatment of VoIP for purposes of ICC

- Adopt framework for long-term ICC reform, including glide path and recovery mechanisms

- Begin reducing rates, together with implementation of recovery mechanisms

- Transition away from per-minute rates is complete, replaced with explicit support where necessary from Connect America Fund under long-term vision

Summary of ICC Proposals

- Reduce wasteful and inefficient arbitrage opportunities and increase certainty of ICC payments
  - Proposed rules to address phantom traffic
  - Proposed rules to reduce access stimulation
  - Sought comment on treatment of VoIP for purposes of ICC

- Long-term, comprehensive ICC reform
  - Gradually reduce per-minute charges
    ‣ Inconsistent with IP peering and transport arrangements
  - Establish clear, predictable glide path for industry and investors
  - Establish recovery mechanisms to offset reduced revenues, as necessary

Some USF Themes From the Record to Date

1. Do unto others, but don't do to me…

2. The system works as is, and the Fund must grow to meet NBP goals

3. The system is wasteful, inefficient outdated – Make all the cuts proposed in the NPRM and shrink the Fund

4. Let us in, but please don't make it too difficult to enter

5. We're unique and need special treatment

6. Technology neutrality is "for the birds" - instead establish separate fixed and mobile broadband funds

7. Auctions will reveal the true amount of support needed - or auctions can't be trusted, so use a model

8. Get on with it – long-term reform now without a Phase 1 Connect America Fund

Some ICC Themes From the Record to Date

1. The ship is sinking, throw us a predictability lifeline

2. Address low hanging fruit, but only in a way that benefits me without any associated burdens or costs

3. ICC as marathon: take an incremental approach to reform and then reassess – or, sprint and set a date to "end the PSTN" while you are at it

4. Recovery to offset any impact of reform is absolutely necessary – or not, given other potential sources of revenue

USF/ICC Reform: From NPRM to Order

- Public Comment Period for USF/ICC Transformation NPRM (FCC 11-13)
  - ICC arbitrage issues (4/1 initial, 4/18 replies)
  - General comment period (4/18 initial, 5/23 replies)
  - State Members of USF Joint Board (5/2)

- April-May USF/ICC Workshops
  - Intercarrier Compensation, 4/6 at the FCC
  - Connect America Fund, 4/27 at the FCC
  - CAF/ICC: The Evolving Federal/State Partnership, 5/18 at the University of Nebraska at Omaha

- Reviewing the record, engaging stakeholders, and drafting an order for late summer/early fall 2011

FCC Joint Statement: March 15, 2011 Blog

"When we voted unanimously to approve the USF/ICC Transformation NPRM last month, each of us made clear that we are committed to reforming the Universal Service Fund (USF) and the Intercarrier Compensation (ICC) system, and to doing so as soon as possible.   We must eliminate waste and inefficiency and modernize USF and ICC to bring the benefits of broadband to all Americans.   We can't afford to delay."

"…reform will entail compromise and shared sacrifice, as well as shared opportunity."

"Once the record is complete in late May, we look forward to moving to an Order within a few months—it's going to be a busy spring and summer."

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Questions?

Broadband Acceleration Initiative

- **Pole Attachment Order (April 7, 2011)**

-Adopted an Order that streamlines access to pole attachments and reduces costs while protecting the vital electric power grid

-Order set a maximum timeframe of 148 days for utility companies to allow pole attachments in the communications space, with a maximum of 178 days allowed for attachments of wireless antennas on pole tops, and an extra 30 days for large orders.

- **Technical Advisory Council (April 22, 2011)**

-TAC has provided FCC with recommendations on near term actions for promoting innovation, competition, and job creation in the technology sector
  - *FCC sponsored Municipal Race-to-the-Top program*
  - *Broadband Infrastructure Executive Order*
  - *Advocacy for Rapid Tower Siting*
  - *Best Practices/Technology Outreach to State and Local Governments*
  - *Model an Online Deployment Coordination System*
  - *New Metrics to Measure Broadband Network Quality*
  - *Highlight Stranded PSTN Investments*
  - *Promote Small Cell Deployment*

Broadband Acceleration Initiative

- **Broadband Acceleration Conference (Feb. 9, 2011)**

-Federal, state and local governments, broadband providers, telecommunications carriers, tower companies, equipment suppliers, and utility companies identified opportunities to remove regulatory and other barriers to broadband buildout

- **Broadband Acceleration NOI (April 7, 2011)**

-Initiated an inquiry to collect critical information about rights-of-way and wireless facilities siting practices that may be impeding broadband investment and consider possible solutions