

# Universal Service Fund, Loops, Lines and Miscellaneous

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# Welcome

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## Learning Objectives

- **At the end of today's class students will understand:**
  - General definition and make up of a loop
  - Different types of loop services
  - Federal Universal Service Funds
  - Basic USF Program Overview

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## Agenda

- **Loop Basics**
  - Definitions and Concepts
  - Network Components
- **A Loop by Any Other Name...**
  - Access Lines
  - Customer Premises Terminations
  - USF and Cost Study Loops
- **Federal Universal Service Funds**
  - High Cost Loop Support
  - Safety Net Additive support
  - Interstate Common Line support
  - Local Switching Support
  - Fact Sheets, Due Dates & Issues

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## The Loop

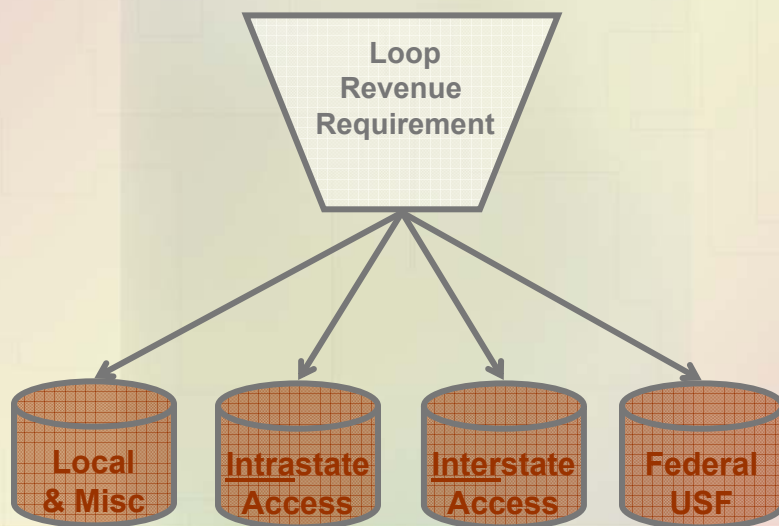
### A Basic Definition

- Loop - Pair of wires, or its equivalent, that connects a subscriber's premises and a Central Office (CO) from which the subscriber is served
  - Host or remote
  - Buried or aerial
  - Twisted pair, coax, fiber or wireless
  - Owned or leased
  - Loop concentration or dedicated loop



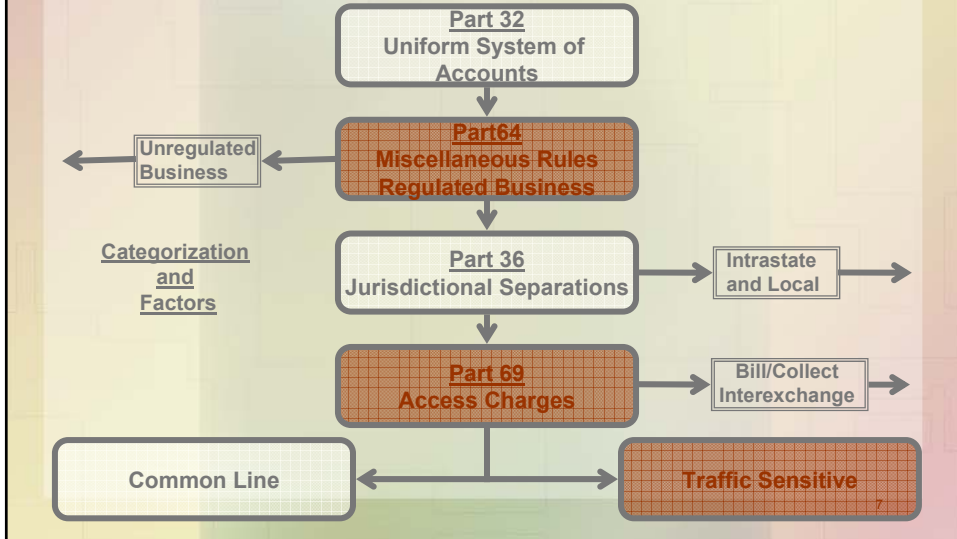
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## Loop Cost Recovery



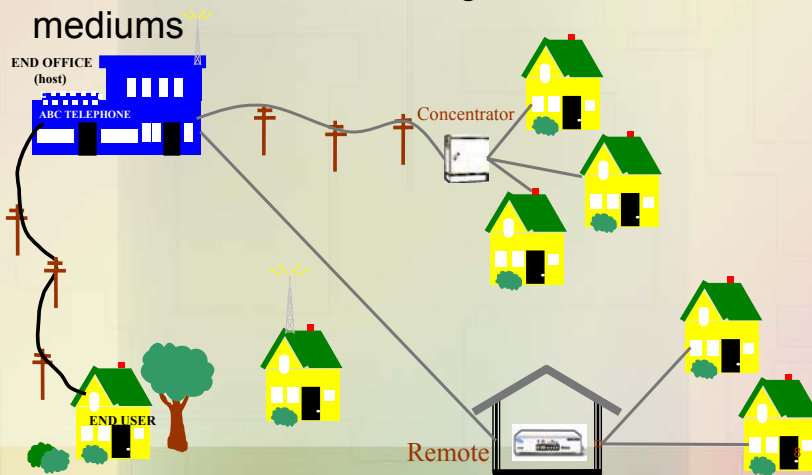
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# FCC Rules



# Loop/Line Network Components

- The loop can be provisioned in many ways using a combination of technologies and transmission mediums



## **A Loop By Any Other Name...**

- Access Lines
  - Settlements
  - USF
- Customer Premise Terminations
- USF and Cost Study Loops
  - Cost Study
  - Federal Universal Service Funds
  - Loop categorization

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## **Access Lines**

- Access Lines – A monthly or end of period count of working communication facilities that provide access services that terminate in an end office and are subject to the Subscriber Line Charge (SLC)
  - **Used for NECA pooling/settlements process**
    - Cost Companies
    - Average Schedule Companies
  - **Also used in Universal Service Fund calculations**
    - Cost Companies
    - Average Schedule Companies

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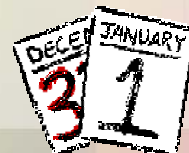
## USF and Cost Study Loops

- **USF and Cost Study Loops** – “Revenue producing” pair of wires, or its equivalent, between a customer’s station and the central office from which that station is served
  - **Revenue Producing** – The term "revenue producing" means the loop can access the local and toll networks and messages are being recorded, regardless of who the user is and whether or not the company is billing for service.
  - Non-revenue producing loops are never counted
    - Test Circuits
    - PBX battery or generator feeds
    - Spares

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## USF and Cost Study Loops

- **Cost Study Loop** – An average count of “revenue producing” pairs of wires, or its equivalent, between a customer’s station and the central office from which that station is served.
- Representative of time period covered
  - Usually average or mid-point balances



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## USF and Cost Study Loops

- USF Loops – An end of period count of “revenue producing” pairs of wires, or its equivalent, between a customer’s station and the central office from which that station is served.
- Reported on various USF Data collections forms
- Classifications described in FCC Rules (Part 36)
  - With exception of averaging vs. end of period, and treatment of UNE loops, cost study loops are counted the same as USF loops

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## USF and Cost Study Loops

- **Cost Study** - a historical compilation of a telephone company's cost of providing service
  - Submitted by an ILEC or its consultant
  - Follows FCC rules and traffic factors to categorize and jurisdictionalize financial information
  - Used as a basis for determining a cost company’s settlement



## USF and Cost Study Loops Loop Categories

- Category 1.1 – Intrastate private lines and intrastate WATS
- Category 1.2 – Interstate private line and interstate WATS
- Category 1.3 – Message Telephone Service - subscriber or common lines that are jointly used for local exchange service and exchange access for state and interstate inter-exchange services
- Total Loops – Sum of categories 1.1, 1.2 and 1.3 loops

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## USF and Cost Study Loops Loop Categories

- Category 2 – Wideband
  - A communication channel of a bandwidth equivalent to twelve or more voice grade channels. For example:
    - DS1
    - DS3
    - SDSL > 768 Kbps (Data Only)
    - ADSL (Data Only)
  - Does not include channelized services provided over a T1 facility. For example:
    - 14 voice grade services provisioned over a T1 facility
    - ISDN
    - Local Digital Transport Service (“SuperTrunk”) or like service
  - Wideband is not included in any NECA reported line/loop counts

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## Access Line vs. Loops Counting

Service	USF/CS Loops	Access Lines
Special Access (non-wideband)	✓ *	
DSL Data Only (< or = 768kbps)	✓	
Official Company Lines	✓	
Unbundled Subscriber Lines	✓ **	

\* 4-wire circuits count as 2 loops

\*\* Count 1 cost study loop if UNE revenue is netted in cost study, otherwise count zero

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## Federal Universal Service Funds

- High Cost Loop (HCL) Support
- Interstate Common Line Support (ICLS)
- Local Switching Support (LSS)
- NECA's Settlement Process, ICLS & LSS
- NECA USF Support Projections
- Other USF Support Funds/Processes

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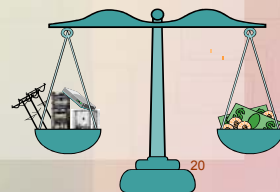
## Federal Universal Service Funds

- Federal Universal Service Fund (USF) – A series of support mechanisms established to foster the concept of “Universal Service”
  - Established in Communications Act of 1934
    - Affordable telecommunications to as many users as possible
  - Re-defined by Telecommunications Act of 1996
    - Schools and Libraries
    - Rural Health Care
    - Competition
    - Access Reform
    - Rules in FCC Part 54

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## Federal Universal Service Funds - Program Overview

- High Cost Program
  - High Cost Loop
  - Local Switching Support
  - Interstate Common Line Support
- Low Income Program
  - SLC waiver
  - Link-up
  - Toll Limitation
- Schools and Libraries Program
- Rural Health Care Program



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## **Federal Universal Service Fund - Program Overview**

- **Universal Service Administration Company (USAC)** - An organization responsible for providing the United States and its territories with affordable telecommunication services through administration of the Federal Universal Service Funds
  - Contracts industry organizations to collect data and perform administrative functions

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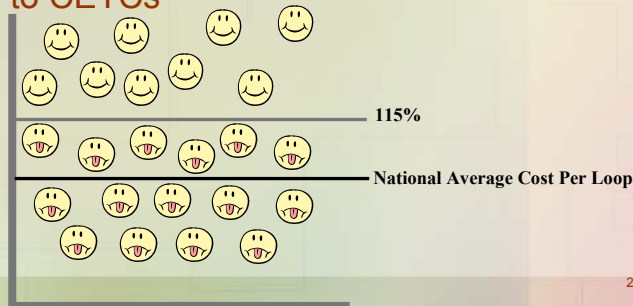
## **Federal Universal Service Fund - Program Overview**

- High Cost Funds
  - Calculation of support amounts based on loop and access line counts
  - Eligible Telecommunications Carriers (ETCs) receive support based on the incumbent LEC's support per loop
    - CETCs are CLECs that are eligible to receive USF
    - Designated by the state
    - Must offer all of the designated services throughout its serving area either through own facilities or a combination of its facilities and resale of another carrier's services [states may establish additional requirements]

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## Federal Universal Service Funds - High Cost

- **High Cost Loop (HCL) Fund** - Supports the recovery of costs for those ILECs considerably high loop costs
  - Exceeding 115% of national average
  - Portable to CETCs



## Federal Universal Service Funds - High Cost

- **HCL - Count Reporting** – all ILECS are required to submit USF loop counts to NECA
  - **Rural ILECs**
    - Study area level
    - Required annually on July 31 (line count as of 12/31 of prior year)
    - Required quarterly when CETC(s) present – otherwise optional
  - **Non-Rural ILECs**
    - Wire center level
    - Annual and quarterly required

## High Cost Loop Support (cont'd)

- NECA's role
  - Calculating the size of the HCL support fund on an annual basis
  - Calculate fund cap
  - Collecting/validating data from ILEC cost companies
  - Calculating loops and cost per loop data for Average Schedule companies

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## High Cost Loop Support (cont'd)

- NECA's role (cont'd)
  - Calculating the NACPL and study area specific SACPL
  - Calculating annual and monthly expense adjustments
  - Filing annual data collection results with USAC and the FCC
  - Forwarding expense adjustment amounts to USAC to administer actual support payments

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## Federal Universal Service Fund - High Cost

- **Local Switching Support (LSS)** - Fund established to support ILECs that serve **50,000 or fewer access lines** in order to help offset local switching costs
  - Dial Equipment Minutes (DEM) Weighting
  - Formerly recovered in Local Switching Rate
  - Portable to CETCs



## Federal Universal Service Funds - High Cost

- **LSS – Count Reporting – ILECs** serving less than 50,000 access lines must submit access line and USF loop counts (cat 1.3) annually to USAC
  - Form LSSc – Cost Companies
  - Form LSSa – Average Schedule Companies
- **Counts are projected year end**
- **NECA reports this data for its Traffic Sensitive Pool Participants**

# Local Switching Support

(cont'd)

- NECA's role
  - NECA collects and files data on behalf of Traffic Sensitive (TS) pool members
    - Estimated data filed in October for subsequent year payments
    - Trued-up data filed in December for prior year payments
- USAC calculates support based on:
  - Accounting data for Cost companies (Form LSSc)
  - Formula for Average Schedule companies (Form LSSa)

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# Local Switching Support Timeline

Type	Filing Date or Submission Date	Data Applies to Data Period	Payment Received
Initial Projection	October 1 <sup>st</sup>	Following calendar year	Monthly during following calendar year
Actual True-up	December 31 <sup>st</sup>	Prior calendar year	April of following calendar year

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## Federal Universal Service Funds - High Cost

- Interstate Common Line Support Fund – (ICLS) - Fund established to replace implicit support in the Carrier Common Line (CCL) rate
  - FCC reasoned that CCL rate was assessed in manner inconsistent with goals of the 1996 Act
  - CCL rate phased out beginning July 1, 2002 and completed on July 1, 2003



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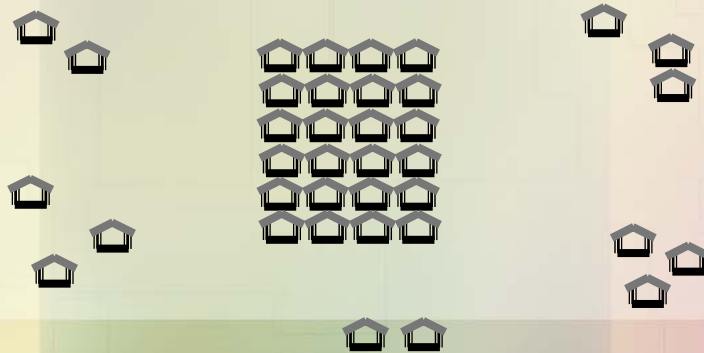
## Federal Universal Service Funds - High Cost

- ICLS – Count Reporting –
  - ILECS are required to submit access line counts annually by July 31st
    - Access line counts as of December 31st of prior year
    - ILEC must file disaggregated line counts if it has chosen to disaggregate its USF support
    - Quarterly optional for ILECs without CETC in study area
    - Quarterly required for ILECs with CETC in study area
    - USAC Form 507
  - NECA provides this information to USAC on behalf of all NECA CL pool participants

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## Federal Universal Service Funds Disaggregation

- USF Disaggregation – Rule change that allows ILECs to target certain high cost support below the study area level



## Federal Universal Service Funds Disaggregation

- Applies to HCL, LSS and ICLS
- 3 Paths
  - Path 1 - No disaggregation
  - Path 2 – Unlimited disaggregation
  - Path 3 – Limited disaggregation
- Per line support is based on plan chosen
- Loop and line reporting requirements

## **NECA Tariff #5 Loop Charges**

- Subscriber Line Charge
  - Federal Universal Service Low Income Programs
- Federal Universal Service Charge
- Local Number Portability End User Charges
- ISDN & DS-1 Channel Service Line Port Charges

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## **Federal Universal Service Funds - Low Income Programs**

- **Low Income Programs** – A series of Federal USF programs implemented to defray SLCs, LNP, toll restriction and local service charges for eligible low income subscribers
  - **Created by FCC order**
  - **Modified by Access Reform orders**
  - **Consumer qualification**
    - Established by State Commission
    - In absence of state commission guidelines, subscriber must qualify for: Medicaid; food stamps; Social Security Income; Federal Public Housing Assistance; or the Low Income Home Energy Assistance Program

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## **Federal Universal Service Funds - Low Income Programs**

- **SLC Waiver Support**

- Federal amounts range between \$5.25 and \$9.50 per month depending on actions of authorities in each state
  - For most NECA Common Line Pooling ILECS, the minimum amount is \$ 8.25
- Residents of Native American Indian and Alaskan Native Tribal communities may qualify for enhanced support up to an additional \$25.00
- Waived amounts should be included in SLC revenue reported to the NECA Pool

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## **Federal Universal Service Charge**

- Federal Universal Service Fund programs were initially funded (pre 1996 Telecom Act) by the nation's largest interexchange carriers
  - 0.5% of nationwide presubscribed lines
- Currently funded (post 1996 Telecom Act) by all interstate telecommunications services providers
  - ILECs, CLECs, IXCs, wireless, interconnected VoIP providers, operator services, paging, payphone providers, etc.
  - Based on carrier's forecasted collected revenue
  - USF contribution expenses for NECA ILECs can only be recovered through the Federal Universal Service Charge (FUSC)

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## Federal Universal Service Charge

- NECA FUSC does not apply to:
  - Interstate access charges assessed to TSPs who already contribute to the USF fund and who will bundle those services with their own service
  - POTS, custom calling or other services offered out of an ILEC's local tariff
  - Intrastate access charges
  - Long distance
  - ISP Internet service\*
  - Cellular
- Non-ILEC USF assessment recovery is not NECA business for pooling settlements

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\* ISPs incur FUSC charges as end user customers

## Federal Universal Service Charge

- **Low income subscribers exempt from FUSC assessed on basic lifeline services (SLC & LNP)**
  - Would be assessed FUSC on DSL, ISDN Line Port charge or other non-basic interstate access charges
- **CENTREX treatment**
  - Prior to April 1, 2003 - 1:9 equivalency assessment
    - \$0.05 per station line
  - After April 1, 2003 - 1:1 assessment
    - $\$9.20 \text{ SLC} \times 11.2\% \text{ FUSC} = \$1.03$  per station line
  - NECA introduced an optional multi-line charge with rate banding to re-establish 1:9 equivalency

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# High Cost Loop Support Timeline

Type	Filing Date or Submission Date	Data Applies To Data Period	Payment Received	Submission Criteria (if applicable)
Annual Data Submission	July 31 <sup>st</sup>	As of December 31 <sup>st</sup> of the previous year	Monthly during the following year	Mandatory for all ILECs
Quarterly Updates	March 30 <sup>th</sup>	As of September 30 <sup>th</sup> of the previous year	Monthly during 3 <sup>rd</sup> and 4 <sup>th</sup> quarters of the following year	Voluntary
	September 30 <sup>th</sup>	As of March 31 <sup>st</sup> of the current year	Monthly during the following year	
	December 30 <sup>th</sup>	As of June 30 <sup>th</sup> of the current year	Monthly during the 2 <sup>nd</sup> , 3 <sup>rd</sup> and 4 <sup>th</sup> quarters of the following year	
State Certifications	October 1 <sup>st</sup>	Applies to following calendar year	N/A	Mandatory for all ILECs to receive support

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# NECA USF Support Projections



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## **NECA USF Support Projections**

- **NECA projections calculated using:**
  - USAC Quarterly FCC Filings
  - Prior month USAC actual payments
- **Projections are reconciled to actual payment data each month:**
  - LSS and ICLS adjustments:
    - NECA pool companies reflected in subsequent month settlements
    - Non-pool companies reflected on current month revised statements
  - Most other support adjustments will be reflected on the current month's revised statements

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## **NECA USF Support Projections (cont'd)**

- **Adjustments resulting from payment reconciliations:**
  - Net Negatives
  - Reconciliation of actual cash received to cash expected per payment data files
  - Invoice company adjustments
  - Red Light
  - Change in Form 498 Elections

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# **Loop/Access Line Types and Services**

## **Loops/Line Service Types**

- Line/Service Descriptions and Issues
- SLC Assessment
- Counting
  - Loops
  - 1.3 and Total Loops
  - Access Lines
  - CPTs

## Loops/Line Service Types

- Residential & Business
- Loop/Line Features
  - Toll Restriction
  - “No Picks”
  - Hunting
  - Call Forwarding
  - Donated Lines
  - Temporary Suspension
  - Employee Concession
- Party Lines
- Pay Stations
- ISDN & DS1 Channel Services
- PBX
- Direct Inward/Outward Dial
- Tie Lines
- OPX/OPS
- Centrex
- Mobile/PCS
- BETRS/RRS
- Remotes/Concentrators
- DSL
- VoIP Services
- Special Access / FX / WATS
- Exchange Access to an ISP
- Voice Mail Lines

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## Conclusion

- **Loop Basics**
  - Definitions and Concepts
- **A Loop by Any Other Name...**
  - Access Lines
  - Customer Premises Terminations
  - USF and Cost Study Loop
- **Universal Service Funds**
  - Basics



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