

Part 1 - IU13 Local and Long Distance Program Webinar Series

Understanding Your Bill: Local and Long Distance Telephone Service

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Topics Covered

- Breaking Down Your Bill: Understanding Telephone Service Rate Structure
- What's Changed? Industry Disruptors and Emerging Telco Landscape
- Today's Telephone Provider Choices
- Avenues to Save: VoIP Pricing Models
- Next Steps
- Q&A



Look Familiar?

Telco “geekspeak”:

CLEC - Competitive Local Exchange Carrier

PRI - Primary Rate Interface

CTX - Centrex

POTS - Plain old Telephone Service

DID - Directed Inward Dial

ISDN - Integrated Services Digital Network

SERVICES

7 BUSINESS LINE
1 CLEC PRI ACCESS VARIABLE
20 20 NUMBER DID BLOCK
4 CTX 51-100 LNS BASIC SVC 5 YRS
201 DIRECT IN DIAL POTS NUMBER ID
4 NUMBER OF DIRECTORIES
9 NON-PUBLISHED SERVICE
1 E-RATE SCHL/LBRY DISC FY 16-17
10 20 NUM DID BLK CONT RATE VAR
4 BLOCK 9XX CALLS
1 PRI CALL-BY-CALL/CID-VAR
1 CLEC PRI BKUP CHANNEL-VARIABLE
1 ISDN 5 YR PRIM RATE INTRFC BUS
1 REMOTE CALL FORWARDING BUS
TOTAL SERVICES

SURCHARGES AND OTHER FEES

FCC END USER ISDN PORT-PRI
ACCESS CHARGE PER FCC ORDER
FCC ACCESS CHG CENTREX BUSINES
ACCESS RECOVERY CHARGE MLC
ACCESS RECOVERY CHARGE PRI
911 SERVICE
FEDERAL UNIVERSAL SERVICE FEE
PA RELAY SURCHARGE
TOTAL SURCHARGES AND OTHER FEES



Breakdown of Your Telephone Bill

- **FCC Allowable Cost Recovery Charges (a.k.a. “Fees”)**
 - **Access Recovery Charge (ARC)** - Cost recovery mechanism for local carriers to address intercarrier compensation regimes, instituted July 1, 2012. Allows ILEC to assess fees on residential and business lines, typically \$1-\$2 per line, subject to annual increase based on carrier (price cap or rate-of-return).
 - **Subscriber Line Charge (SLC)** - Fee structure established by FCC as cost recovery mechanism for carrier network maintenance. The FCC has capped the SLC charges. This charge may appear as “FCC Charge for Network Access,” “Federal Line Cost Charge,” “Interstate Access Charge,” “Federal Access Charge,” “Interstate Single Line Charge,” “Customer Line Charge” or “FCC-Approved Customer Line Charge.” The FCC sets the maximum allowable Federal Subscriber Line Charge.
 - The multiline business SLC combined with the multiline business ARC may not exceed \$12.20 per month.
 - **State public service commissions** regulate access charges for intrastate (within a state) calls. In some states, a state subscriber line charge may appear on customer bills.



Breakdown of Your Telephone Bill

- **Taxes**
 - **Federal Excise Tax** - This three percent tax is now applied only to local service billed separately from long distance service
 - **State and Local Tax** - These taxes are imposed by state, local, and municipal governments on goods and services. They may also appear as “gross receipts” taxes on your bill



Breakdown of Your Telephone Bill

- **Universal Service Charges**

- **The Universal Service Fund (USF)** provides support to promote access to telecommunications services at reasonable rates for those living in rural and high-cost areas, income-eligible consumers, rural health care facilities, and schools and libraries.
- All telecommunications service providers and certain other providers of telecommunications must contribute to the federal USF based on a percentage of their interstate and international end-user telecommunications revenues. These companies include wireline phone companies, wireless phone companies, paging service companies, and certain Voice over Internet Protocol (VoIP) providers.
- Some consumers may notice a “Universal Service” line item on their telephone bills. This line item appears when a company chooses to recover its USF contributions directly from its customers by billing them this charge. The FCC does not require this charge to be passed on to customers. Each company makes a business decision about whether and how to assess charges to recover its Universal Service costs. These charges usually appear as a percentage of the consumer’s phone bill. Companies that choose to collect Universal Service fees from their customers cannot collect an amount that exceeds their contribution to the USF. They also cannot collect any fees from a Lifeline program participant.



Breakdown of Your Telephone Bill

- **911, LNP, and TRS Charges**
 - **911** – Charge imposed by local governments to help pay for emergency services such as fire and rescue.
 - **Local Number Portability (LNP)** – Telephone number portability allows residential and business customers to retain, at the same location, their existing local telephone numbers when switching from one telephone service provider to another. Companies may assess fees to recover the costs that they incur in providing number portability. Fees may vary by company, and some companies may not charge any fees. These fees are not taxes.
 - **Telecommunications Relay Service (TRS)** – Charge to help pay for the relay center that transmits and translates calls for people with hearing or speech disabilities.



Breakdown of Your Telephone Bill

- **Other Charges**
 - **Directory Assistance** – Any charges for placing 411 or (area code) 555-1212 directory assistance calls.
 - **Monthly Calling Plan Charge** – Charge applicable to any monthly calling plan such as unlimited long distance calling on your wireline bill or unlimited minutes on your wireless bill.
 - **Operator Assisted Calls** – Charges for any calls connected by an operator. Rates for these calls generally are higher than rates for unassisted calls.
 - **Features Charges** – Both wireline and wireless telephone companies offer features such as call forwarding (transferring incoming calls to another telephone number); three-way calling (holding an incoming call, placing a call to a second number, and allowing three parties to participate); call waiting (providing a signal during an ongoing call to notify that another party is calling the subscriber); voice mail (message service much like an answering machine); and Caller Identification (Caller ID) (allowing the subscriber to view the telephone number of an incoming call on a display screen). With Caller ID, non-listed or non-published numbers may be displayed unless the non-listed or non-published subscriber requests that they not be.



Breakdown of Your Telephone Bill

- **Other Charges**

- **Minimum Monthly Charge** – A minimum monthly charge assessed by some long distance companies even if you don't make long distance calls.
- **"Single Bill" Fee** – Charge for combining local and long distance charges onto one bill. This fee is not mandated by the FCC and is not an FCC charge. Some companies waive the fee for customers who pay bills online or by credit card. Customers can avoid the charge by arranging for separate billing from their long distance telephone company.

Source: <https://www.psc.state.md.us/telecommunications/understanding-telephone-bill-charges/>

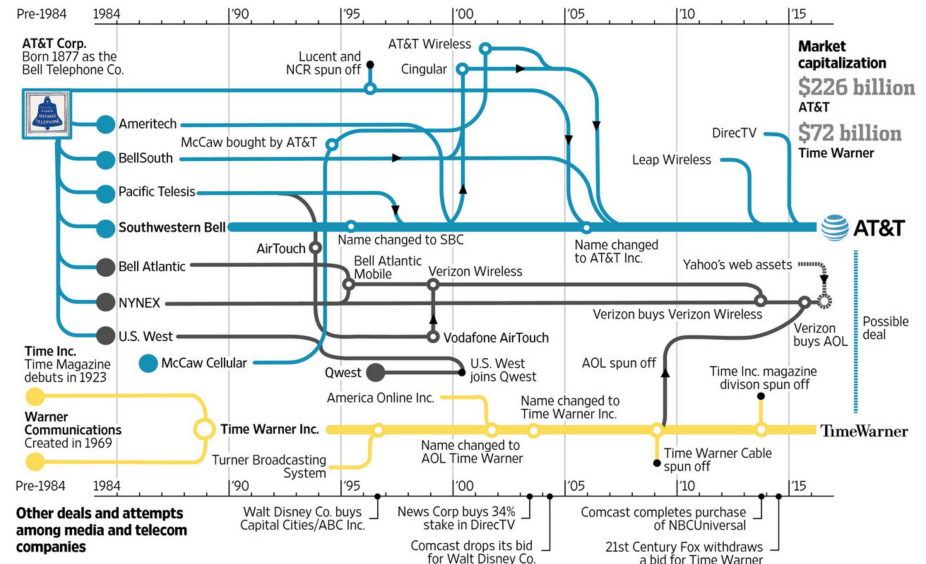


Industry Disruptors 1980-2000

- Antitrust breakup of AT&T in 1982
 - Allowed to retain LD business
 - Split to 7 regional carriers
- Telecommunications Act of 1996
 - Let **anyone** enter the communications industry
 - ILEC (incumbent Local Exchange Carrier) and CLEC (Competitive Local Exchange Carrier) takes form
- Revenue model disruption
- Transition from circuit switching to packet switching
- The “mobile user” is born

Converging Destinies

AT&T and Time Warner have reached an agreement to merge after decades of consolidation and deals in the telecommunication and media industries.



Source: staff and news reports

THE WALL STREET JOURNAL.

Industry Disruptors 2000-present

- Carrier-friendly regulatory environment
- Need for bandwidth
- Broadband growth
- Growth in wireless data (WiFi, Cellular)
- Protocol convergence
- Widespread Voice over IP (VoIP) competition
 - Consumer
 - Enterprise
- Internet as “critical infrastructure”

fios[✓]
by verizon

Telesystem

xfinity

voip
US

CALLcentric[™]

Vonage

Ooma

magicJack

8x8

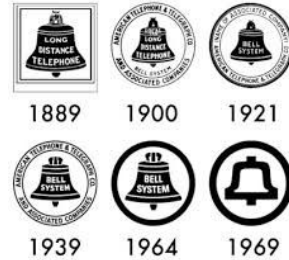


Emerging Telco Landscape for Schools

- Discounts phased out for telephone services outlined in [E-Rate Modernization Order in 2015](#)
 - 20% incremental phase out began funding year 2015
 - No e-rate discounts for voice service after June 30, 2019
- Territorial competition between traditional LECs
 - ILEC - Incumbent Local Exchange Carrier - Verizon, Windstream, Frontier
 - CLEC - Competitive Local Exchange Carrier - Zito, XO Communications, or ILEC operating as CLEC in a region
- Territories become irrelevant
 - VoIP not subject to FCC Title II “common carrier” classification; relies on “free lunch” for last mile
 - Business VoIP carriers need not operate according to stringent regulatory boundaries, reducing costs
 - Can operate over existing IP network using dedicated or shared bandwidth over existing equipment
 - Long distance is frequently included

A Brief History of “The Phone” in Schools

- Highly centralized service
- End-to-end carrier managed
- Available only in offices
- Limited access via switchboard
- Long distance only for a few
- One phone number per campus
- Teachers made calls from the office or conference room



The New Reality of “The Phone” in Schools

- Classroom phones
- Voicemail
- Roaming between shared rooms
- Long distance for everyone
- “The end of the dial tone?”
 - Cell phones
 - Softphones





Telephone Provider Choices for Schools

- Traditional carrier provided, tariff-rate service
 - Offered via telephone company
 - Copper circuits, ISDN, PRI or analog POTS
 - Requires on-site PBX
- Centrex
 - Offered via telephone company
 - Voice carried over copper to site
 - PBX functionality provided by telephone company
- **Business-class Voice over IP (VoIP) service**
 - Offered via cable (DOCSIS), carrier ethernet, or cloud (“BYOI”)
 - Voice traffic carried over IP network (yours or provider’s)
 - Requires on-site or cloud hosted PBX
 - “Per channel” rate options becoming more popular
 - Fewer fees, generally



VoIP Telephony Pricing Models/Terminology

- By minute - Per minute usage cost
- By channel - Unlimited duration of calls over set number of lines (channels in the SIP world)

Add-on services:

- By DID (Direct Inward Dial) - Price per incoming direct phone number to your PBX
 - With or without E911 service
- Long distance most always included (lower 48 states)
- NO LONGER CONCERNED about IntraLATA, IntraState, National call posture



Building a Unified Communications (UC) Plan

- What are your objectives?
 - MRC reduction
 - Lower TCO
 - Public safety
 - Enhancing communication for an increasingly mobile workforce
 - Telework/Remote Access
 - Mobile Access - Anywhere, Anytime
- Who are your stakeholders? Decisionmakers?
 - RFP/RFI process - Business office
 - Environment validation - Information Technology
 - Network cabling
 - Internet capacity
 - Compatibility with existing infrastructure
- Good/bad news: E-rate rules and timeline no longer apply, but no more money for telecom



Next Steps: Local & Long Distance Phone Service Provider

- Review your current phone bill and contract to identify items that you might no longer need.
 - Cutting your phone bill in half is not uncommon
- Contact your existing provider and ask for an updated quote that better match your needs.
- Shop other providers to make sure you are getting the best deal.
 - One option: IU13 Telephone Service Master Agreement with Telesystem
 - Competitive Pricing
 - IU13- Bid Compliant IU13#189-015
 - 3-Year rate lock - June 30, 2022
 - Flexible service model for small & large schools
 - Join anytime during the year
 - Ask for a quote, even if you're just curious about how it compares to your current provider.
- Review the details before committing
- Once new service is in place, verify whether you are realizing the savings you expected.



Need Information? Let Us Help You Plan for UC!



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Q&A

Upcoming webinars:

October 16, 2019 - Moving your Telephone Service to the 21st Century

October 23, 2019 - What is Next? Moving Your Telephone Project Forward

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