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## TUNISIA BUSINESS REFORM AND COMPETITIVENESS PROJECT

# Workshop sur le Service Universel L' Expérience Américaine

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## Main Points

- Universal Service is a way to provide service where the free market will not
  - Because the cost of providing service is too high (usually in rural areas)
  - Because low-income customers cannot afford it (often in urban areas)



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## Main Points

- Universal Service is valuable for the telecom industry and for society
  - The value of the network increases as the number of customers increases
  - Increased service deployment also promotes economic growth and social cohesion
- Service (for some customers) is subsidized



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## Main Questions

- What kind of service will be subsidized?
- Who will provide it?
- How will it be paid for?



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## Executive Summary

- Our story starts more than a century ago
- Short recommendation: do not do things the way we did
- US system mainly subsidizes service in “High Cost” areas
- Until recently, only supported fixed line voice service
- Traditionally gave money to incumbent monopolists
- Funding from rates deliberately set above cost



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## History of Universal Service in the USA

- US telephone industry has always been private
  - Virtually every other nation had state owned telephone system
- Like every other country, US telephone service was traditionally a monopoly
- AT&T provided local service to about 80% of the country and provided long distance
- Hundreds of smaller, independent companies served the remaining 20% of the country



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## History of Universal Service in the USA

- First use of term “Universal Service” in USA
  - AT&T agreed to interconnect its long distance network to all independent telephone companies
- A very limited concept of “Universal Service”
  - What? – long distance service wherever there is local service
  - Who? – AT&T (interconnected to local phone companies)
  - How is it paid for? – customers pay for long distance and local carriers pay to connect to AT&T’s network



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## History of Universal Service in the USA

- Over time, telephone penetration steadily increased
- AT&T and local phone companies had an economic incentive to increase the size of the network
- AT&T also had a legal incentive to expand
  - The US Government occasionally filed anti-trust suits against AT&T
  - AT&T extended concept of Universal Service to keep the Government happy





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## History of Universal Service in the USA

- Communications Act adopted in 1934, created FCC
- Purpose of Act is “to make available, so far as possible, to all the people of the United States a rapid, efficient, nationwide, and worldwide wire and radio communication service with adequate facilities at reasonable charges.”
- Communications Act established a policy for Universal Service for the first time
  - But it didn't tell AT&T what to do or how to pay for it



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## History of Universal Service in the USA

- Eventually, Universal Service meant availability of local telephone service to all US households (What)
  - In 1920 approximately 35% of households had telephone service
  - By 1950 over 60% of households had telephone service
  - By 1980 over 90% of households had telephone service



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## History of Universal Service in the USA

- How was Universal Service Financed?
- Cross-subsidy
  - AT&T (and regulators) decided to keep prices low for local residential telephone service by making long distance customers pay the cost
  - FCC and states agreed to increase allocation of costs of local network to long distance
  - Most long distance calls were made by businesses
  - State regulators also subsidized residential rates by setting higher rates for business customers



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## History of Universal Service in the USA

- How was Universal Service Financed?
- High long distance rates were used to keep basic local service affordable in High Cost areas
- It is very expensive to provide service where population density is low – example: Wyoming
  - Over 253,000 square km
  - Population 584,153
  - 5.85 people per square kilometer
  - Very mountainous, harsh winters



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## History of Universal Service in the USA

- This process was managed by AT&T through a process known as “Separations and Settlement”
  - AT&T divided revenues from long distance calls with local companies, both its own (Bell Companies) and others (Independent companies)
  - Until early 1980s this process received little regulatory oversight



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## History of Universal Service in the USA

- Long distance rates were high
  - 1950: 5 minute call from New York to Los Angeles cost \$3.70 (\$35.34, adjusted for inflation)
- Over time, rates came down as usage increased and long distance competition began, but they were still high in order to subsidize local service in high cost areas
- The economic cost of a long distance call is trivial
- The expensive parts of the network are local infrastructure whose costs don't increase with increased use



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## History of Universal Service in the USA

- Summary of Bell System Universal Service regime
- Local telephone service was subsidized by long distance rates that were far above cost
- Not very transparent
  - The FCC and public did not know exact amount of the subsidy because this was an internal matter between AT&T and local companies
- But this system helped to produce very high levels of residential telephone subscribership (over 90% of households)



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## History of Universal Service in the USA

- This system was not sustainable
- Long distance competition emerged in late 1970s
- “Divestiture” of Bell System on January 1, 1984
  - AT&T agreed to give up local phone companies to settle another anti-trust case
  - AT&T became a long distance company only
- Long distance competitors did not pay to subsidize local service





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## History of Universal Service in the USA

- The FCC created a new system for long distance companies to pay part of cost of local networks – Access Charges (How)
- All long distance companies paid access charges (Who)
  - Access charges were fees AT&T and its competitors paid to use the local telephone network for long distance calls
  - Access charges were set to include Universal Service charges



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## History of Universal Service in the USA

- Universal Service under Access Charge system included two programs for residential (not business) customers
- High Cost Fund
  - To keep rates low in places like Wyoming
- Lifeline Fund
  - To allow phone companies to offer inexpensive, basic local telephone service to very low income customers
- (What)
- High Cost Fund far larger than Lifeline



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## Universal Service in Telecom Act

- Congress adopted Telecommunications Act in 1996
- Most comprehensive revision of Communications Act since 1934
- Act opened local telephone market to competition and allowed Bell Companies to provide long distance if they opened markets to local competition



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## Universal Service in Telecom Act

- Telecommunications Act also established new framework for Universal Service
- Sec. 254 sets principles for Universal Service
  - Quality services at affordable rates
  - Access to advanced services in all areas of Nation
  - High cost and low income customers have reasonably comparable access to services available in urban areas



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## Universal Service in Telecom Act

- Sec. 254 principles (continued)
  - All telecom providers make equitable contributions to Universal Service
  - Funding mechanisms should be adequate and predictable
  - Schools, libraries, and health care facilities should have access to advanced services



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## Universal Service in Telecom Act

- “Universal service is an evolving level of telecommunications services” to be defined by FCC periodically
- Support services that are
  - Essential to education, public health and safety
  - Subscribed to by substantial majority of customers
  - Being deployed in public networks by carriers



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# Universal Service in Telecom Act

- Four main programs (What)
  - High Cost Fund (Now called Connect America Fund)
  - Lifeline
  - Schools and Libraries
  - Rural Health Care



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# Universal Service in Telecom Act

- High Cost Fund (HCF)
  - Provides support for basic telephone service in traditional “high cost” rural and remote areas
  - Total amount of HCF is now \$4.5 Billion per year





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# Universal Service in Telecom Act

## ■ Lifeline Fund

- Provides subsidy of up to \$10 per month to households with income of less than 135% of the Federal poverty level (currently about \$32,000 for a family of four)
- In some states, Lifeline can be used to subsidize cell phone service
- About 17 million households benefit from the subsidy
- Lifeline Fund amounted to \$1.8 Billion in 2013



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# Universal Service in Telecom Act

## ■ Schools and Libraries Fund

- Provides subsidy of 20% to 90% of cost of telecom and Internet service for schools and libraries
- Amount of subsidy is based on need
- Fund amounted to \$2.2 Billion in 2013
- Since 1998, total spending of Schools and Libraries Fund has been over \$26 Billion



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# Universal Service in Telecom Act

## ■ Rural Health Care

- Subsidizes telemedicine services by paying for video-conferencing services and high-speed Internet access for doctors and hospitals
  - Internet access subsidy allows rural hospitals to pay same rates as urban hospitals
- \$417 Million spent on telemedicine networks in 42 states
- In 2013, subsidies were \$159 Million



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## Universal Service in Telecom Act

- Who can receive USF support?
- “Eligible Telecommunications Carriers” (ETC)
  - A “common carrier” (basically a phone company) can be designated to be an ETC by the telecom regulator in the state where the service is to be provided
  - The FCC can, on request, designate a common carrier that is not regulated by the state commission to be an ETC (this means wireless carriers)



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## Universal Service in Telecom Act

- ETCs are required to provide services supported by the Universal Service Fund throughout the state
- Must advertise availability of services throughout the state



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## Universal Service in Telecom Act

- Universal Service Fund is managed by the Universal Service Administrative Company (USAC)
  - USAC projects revenues for interstate and international revenues for telephone and VOIP providers
  - These companies, both fixed and wireless, contribute a percentage of their interstate and international revenues to the USF
  - USAC then disburses money to ETCs to pay for the subsidies provided by HCF, Lifeline, Schools and Libraries and Rural Health Care
- Combined, these programs cost more than \$8.5 Billion last year



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## USF Reform

- In 2011 the FCC adopted a major order to reform USF
- “The universal service challenge of our time is to ensure that all Americans are served by networks that support high-speed Internet access”
- Despite hundreds of billions of dollars in investment, about 5% of households lack access to terrestrial broadband



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## USF Reform

- Reform intended to make Universal Service support more efficient and effective
- High Cost Fund renamed Connect America Fund to support broadband deployment in unserved areas
- Imposed \$4.5 Billion cap on CAF
- Created a new Mobility Fund to support deployment of wireless broadband networks in unserved areas with up to \$500 Million per year





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## USF Reform

- In 2011, the FCC required that carriers that receive funding to support broadband deployment must provide download speeds of at least 4 mbps
- In December 2014 the FCC increased this to 10 mbps



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## Additional Broadband Support

- In 2009, Congress adopted the American Reinvestment and Recovery Act (Fiscal Stimulus)
- To help get out of recession, Congress spent over \$800 Billion on infrastructure projects over 2 years
- This included over \$4 Billion for more than 200 projects to deploy broadband infrastructure
- These projects are estimated to have generated increased economic activity of up to \$21 Billion annually and created more than 22,000 long term jobs



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## Concluding Thoughts

- The US Universal Service system is too complicated
- Historically it was based on hidden subsidies
- Most Universal Service support has been used to subsidize Plain Old Telephone Service in high cost, rural areas
- Money is still mainly used to subsidize traditional phone companies
  - Other providers might operate more efficiently



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## Concluding Thoughts

- But the system has been effective at promoting residential telephone service (well over 90% penetration)
- Gradually, Universal Service has come to mean more
  - Schools and Libraries
  - Rural Health Care
  - Broadband!



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## Concluding Thoughts

- Tunisia has a chance to design a more economically efficient system
- Focus on broadband deployment to promote economic growth and competitiveness
- Find ways to control costs of universal service
  - Encourage competition in provision of Universal Service
  - Promote access at public institutions (schools, libraries, etc.)



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## Concluding Thoughts

### ■ WTO Reference Paper

“Any Member has the right to define the kind of universal service obligation it wishes to maintain. Such obligations will not be regarded as anti-competitive per se, provided they are administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary for the kind of universal service defined by the Member.”



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## Questions

- Questions or Comments?

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