Thematic Summary of PESTLE Analysis Comments

Lane County Regional Broadband Planning Strategic Worksessions

June, 2019

PESTLE

Political	Examine **political** factors such as taxes, environmental regulations, and zoning restrictions.	Examine **economic** factors such as interest rates, inflation rate, exchange rates, the financial and stock markets, and the job market.	**Economic**
Social	Examine **social** factors such as gender, race, age, income, disabilities, educational attainment, employment status, and religion.	Examine **technological** factors such as servers, computers, networks, software, database technologies, wireless capabilities, and availability of Software as a Service.	**Technological**
Legal	Examine **legal** factors such as trade laws, labor laws, environmental laws, and privacy laws.	Examine **environmental** factors such as green initiatives, ethical issues, weather patterns, and pollution.	**Environmental**

Political Considerations

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Funding (6)

- Funding and Support removal/increase
- Eugene allocated funds aligned with telecom development
- Expected services have unfunded costs
- Figure out how to get money for dig once opportunity
- Ongoing issue of acquiring funds
- Support for more rural access, but not a lot of will to fund

Communications (6)

- Leverage Metro TV to capture history establish messaging
- Marketing and business opportunities
- People want more privacy and sense that they're losing that ability
- Quality of life
- Take historical messaging into growth of regional technology messaging
- Broadband is growing in awareness for local and state elected officials

Governance (5)

- Every change in leadership a potential risk to support
- Create consistent staffing to stabilize programs
- Coordinated program to manage development
- Developing intergovernmental team to support telecom
- Establish regional coordination monitoring leadership

Policy (4)

- Growing demand for open access and open data
- Need for greater security
- Political leadership support necessary
- Access/Equity/Cost/Flexibility

State/National (3)

- Leadership towards rewriting telecom act more local government protection
- Leverage League of Oregon cities to monitor telecom issues
- Potential state realignment to advance telecom projects

Cooperation (2)

- Intergovernmental relations vs degrade / disband
- Improving intergovernmental relationships

Organizational (1)

- New city manager / restructuring of departmental organization

Economic Considerations

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Cost (10)

- Cost of construction to the demarcation point
- Cost of labor for installations is expensive
- Federal grant programs available for rural areas
- Identify funding sources for initial construction
- No current sustainable funding source
- Upfront costs for construction / installation
- Price of telecom constantly changing
- What is revenue model for fiber supplier (public utility?)
- Competition drives costs down
- Requires specialized labor to install

Demand (6)

- Connectivity as a need for business
- Demands on fiber and supportive tech
- Eventual recession could undermine momentum of program
- Momentum and interest are on the rise
- Wide diversity of economic sectors need telecom
- Telecom has become an essential service

Impact (6)

- Spurs economic multiple (adds value, allows expanded activity)
- Proven economic benefits
- Talent attraction | quality of life
- Tech makes possible diversity of employment opportunities
- There are economic benefits to fiber related end uses (telehealth)
- Home business development tied to good telecom

Economic Profile (4)

- Regional economy
- Shift to knowledge base economy
- Talent recruitment a problem, education can't keep up
- Local training of workforce available

Trends (4)

- Foreign trade issues (tariffs)
- Instability of economic climate causes planning problems
- Technology costs are dropping
- Issue of copper theft

Public/Private (2)

- Public sector good at building infra, private good at services
- ROI for private ISP create a barrier for rural development

Social Considerations

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Social Profile (11)

- Broad socio-economic range
- Broadband adoption doesn't break down by age or gender
- Capture Lane livability ideas stakeholders
- Demographic that doesn't feel the need for broadband is aging out
- Differing levels of availability / access
- Until rural broadband develops, the rural urban divide will remain of grow
- Young demographic (University) could drive demand
- Younger generation is developing expectations of instant access
- Resistance to wireless / 5G technology
- Lack of knowledge about value of telecom
- Rural areas need services but also more funding

Messaging (10)

- Articulate benefits on 3 levels community, family, personal
- Change conversation from present use to potential use
- Change conversations on broadband as a luxury to broadband as a common good
- Leverage LCOG services for community outreach
- Education campaign success by transparency and interactivity
- Outreach to communities of all kinds
- Reach out to school districts for job training / validation of value of broadband
- Tailor market messages to target groups (young / old)
- Use social outreach groups for communication
- Use Universities to expand outreach

Equity (5)

- Equality of access does not address equity issues
- Diversity of community not always reflected in decisions
- Low income families cannot afford access
- Everybody wants internet
- Broadband can be an equalizer

Technological Considerations

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Deployment Notes (8)

- Identify technical build out to align appropriate last mile (fiber, wireless, mix?)
- Identify technical build out to get ubiquitous services to the premise
- Higher capacity per fiber increases last mile speed
- Figure out who owns conduit and fiber
- Right sizing equipment based on cost, use, capacity etc.
- Increased storage demands = increased bandwidth demand
- Micro-trenching drastically reduces install costs
- Redundant routes and documentation

Profile of Fiber-Optic (5)

- Close to future proof
- Fiber offers a lot of options
- Future proofing bandwidth
- Pricing for EQ going down
- Bottleneck in manufacturing fiber production

Support/Expertise (4)

- On the job training to run / splice fiber lines
- Construction of fiber is complex
- Tech relatively plug and play
- Remote tech support allows companies to serve larger areas

5G/IOT (3)

- 5G expansion
- Accelerated 5G deployments / need for high speed mobile
- Future technologies demand more bandwidth (IOT/5G/etc.)

Users (3)

- Tech consumer education (value, safety, etc.)
- Public awareness - desirable
- People don’t want to pay for it

Existing Tech (2)

- Current tech is sufficient - on the market
- GPON / DWDM make expansion faster / cheaper

Other (2)

- Wireless last mile quick to deploy but limited speed
- Oregon is a data center hub (PDX, Hillsboro)

Legal Considerations

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Private Sector (6)

- Burdensome regulation and obligations associated with federal grant conditions
- Lack of clarity on current dig once policies
- Need to develop more consistency / coherence in planning for “dig once “
- Currently no clear legal impediment to local actions on telecom
- Anti-trust laws can prevent coordination
- Private public agreements are complex and challenging from a legal perspective

Municipal (4)

- Ongoing need for cities to protect their legal rights
- Negotiations on IRUs
- Obligations and implications for infrastructure ownership, risks, uses, fees, access
- Threat of national and state restrictions on public activities

FCC (3)

- FCC regulation changes are enabling private investment in small cell and 5G
- FCC regulation changes preempting local control and decision making authority
- Expedited FCC / 5G small cell regulations

General (3)

- Patchwork of laws (net neutrality, privacy)
- Getting beyond legal silos focused on short term local perspectives
- Huawei restrictions

Grants (1)

- Burdensome regulation and obligations associated with federal grant conditions

Environmental Considerations

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Reduced Carbon Footprint (6)

- Reduced carbon footprint (telecommuting, telepresence)
- New medium for transportation
- Can reduce transportation load
- Fiber is not a rare earth mineral
- More equipment means more electricity, lower fiber power draw may compensate
- Options for alternate distribution of population

Impacts (real or perceived) (5)

- Disaster issues with deployment methodology (ice for overhead, earthquakes for underground, etc)
- Impact of construction (boring, spoils, etc.)
- Infrastructure recoverability in a significant natural disaster
- Mitigate damage to soil as trenching occurs
- Perceived threat of technology to humans

General (5)

- Access to resources not before available due to remote locations
- Fiber can be buried
- Fiber can piggyback existing infrastructure (ease to put in place)
- Fiber is environmentally friendly one and done
- More access to cloud services allowing innovation, remote processing, disaster recovery, etc.

Vs. Copper (3)

- Maintenance - copper = high, fiber = lower
- Environmental benefit of fiber vs copper or wireless lifespan, RF, Etc.

Wireless (2)

- Educate general public about wireless facts
- More studies needed on wireless effects