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To stimulate greater investment of any sort, California has to change the way it regulates and taxes businesses in general, and remove legal, structural and policy barriers to construction of new assets. That's another debate, though. Specifically, Californian policy regarding broadband infrastructure and services needs to be rationalised in order to meet the needs of the 21st century.

The example of wireless policy

A good starting point is to look at the the wireless industry. Regulation is split into two largely independent policy areas: 1. creation and physical management of the infrastructure – technical regulation of the allocation and use of spectrum – and 2. operational regulation – oversight of business practices and services provided to the public.

Except for increasingly limited local land use discretion, technical regulation is the sole province of the federal government and is run according to transparent, evidenced-based engineering principles. Design specifications and capital requirements are predictable and infrastructure plans are long term and quickly implemented on a national scale.

Spectrum is allocated for broadly defined purposes. Technical requirements, such as power levels, antenna design and non-interference measures, are established and enforced. Standards may be set with a particular sort of service in mind, but any service that fits within these parameters is allowed by the technical regulators.

Access to spectrum – which is held in the public trust – is managed openly and competitively. The one major restriction on spectrum auctions, for example, are rules which are intended to prevent any single company from gaining monopoly control of the market.

Otherwise, regulation is based on the type of service, and not on the underlying technology or the ancestry of the company providing it. AT&T and Sprint have to meet the same requirements for voice service, for example, even though one is a legacy facilities-based telephone company and the other is not, and one uses GSM and the other CMDA technology.

Although volumes have been written about the deficiencies of the wireless regulatory regime in the U.S., it has produced a national, competitive and highly innovative market that continues to attract billions of dollars in capital investment every year. If the wireline industry could only do as well, our problems would be solved.

Three things California can do

California is large enough and our economy is advanced enough to support independent telecommunications policy making – we don't have to wait for the federal government to step in. To that end, if, as the question is posed, I were a "benign absolute ruler", I'd take the following steps:

1. In recent decisions regarding the California Advanced Services Fund, the California Public Utilities Commission has made useful and workable distinctions between middle and last mile broadband infrastructure, requiring open access on transparent terms to the former and non-discriminatory access to the latter. These principles should be universally extended to publicly owned telecommunications assets, such as conduit and rights of way, and to privately owned assets that were built or obtained with the assistance of

public rents. Ownership of publicly subsidised or sanctioned infrastructure should not be a means to protect service providers from competition.

2. Current Californian policy regarding construction of and access to broadband infrastructure is based on antiquated distinctions between the types of services provided. In the past, technology determined service and vice versa: telephone networks were necessarily continental-scale, narrow-band voice systems run on pairs of copper wire, while wide band television service was delivered via coaxial cable and limited by physics and programming distribution rights to local markets. Public policy evolved – correctly at the time – to accommodate the unique characteristics of each. But those conditions no longer obtain. Regardless of heritage or current business model, all telecommunications companies should be subject to the same rules regarding access to civil infrastructure, including pole routes and conduit, access to telecommunications facilities such as middle mile fiber and last mile copper, and technical standards for building, maintaining and operating networks. Services should be similarly (and, I would argue, lightly) regulated according to the functionality delivered to end users, without regard to underlying technology.

3. In order to build broadband infrastructure in California, investors must navigate a patchwork of local, regional and statewide policies and largely autonomous regulatory authorities. Incumbents, large and small, use this jurisdictional incoherence to protect themselves from competition, often with the active cooperation of local decision makers. Small, disruptive and self-interested groups can use state laws, such as the California Environmental Quality Act, and byzantine local permit processes, to stall or completely kill broadband infrastructure upgrades. Private investment follows swift and certain decisions. To attract new sources of broadband investment, California must rationalise broadband infrastructure construction policy into a technically-focused, independently administered statewide regime, much as the FCC regulates spectrum access and use.

Control of political or policy-making processes, whether gained with lobbyists and cash today or woven with red tape and practice over the years, cannot determine who is allowed to build California's future, if it is to be built at all.

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