Study of the Effects of the

Texas State-Issued Video Franchise Law

On Fiber to the Home Deployments

and Video Competition

For

The Fiber to the Home Council

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I. Executive Overview

The Fiber-to-the-Home Council (FTTH Council) secured the services of RVA Render & Associates LLC (RVA), a market research firm frequently involved in advanced broadband related market research, to conduct an objective study to determine the impact of the Texas State-Issued Video Franchise Law (SB 5). SB 5 is the first of a group of eight recently enacted state laws designed to streamline the video franchising process.[1] It was passed by the Texas Legislature and then signed by the Governor on September 7, 2005. RVA's study examined the effects of the new law on the Texas market for cable (television or video) services delivered over FTTH (sometimes referred to as video enabled FTTH in this report).[2]

RVA conducted a telephone census of all sixteen (16) of the known FTTH providers in Texas. A total of eleven (11) are "triple play" providers and offer voice, video, and data services to their customers. It was determined that four (4) of the other five (5) Texas FTTH providers will likely not offer video in the foreseeable future because they each utilize FTTH to serve fewer than 200 customers, and most of their fiber served customers reside in very low population density settings.

The study found that 82% of all Texas FTTH video providers believe that the new law (SB 5) is accelerating their deployments of video enabled FTTH within Texas. Further, a total of 100% of providers who offer video enabled FTTH to at least 3,000 homes or more also share this belief.[3] Specific reasons for these conclusions include perceptions that the new law, by ending time-consuming and expensive negotiations with municipalities for franchises, is substantially decreasing the costs of entry and operation, by eliminating unreasonable and unrelated requests during negotiations, and lowering ongoing costs to administer franchise agreements.

The study also found that the actual increase in video enabled FTTH since enactment of the new law has been dramatic. Video enabled FTTH has grown 8 times faster in Texas than it has in the rest of the

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1 The other states enacting new laws are: California, Indiana, Kansas, New Jersey, North Carolina, South Carolina, and Virginia.

2 The study focused only on FTTH deployments – and not on other deep fiber advanced broadband networks – since these are the main deployments involving new entrants following enactment of SB 5.

3 Many of the providers interviewed also believe the new law will accelerate the deployment of other types of advanced broadband networks, including Fiber to the Node networks.

country since SB 5 was signed into law. While this is strong circumstantial evidence, it should be noted that the study finds that not all this growth is directly attributable to the new law. Based on service provider input, it is clear that Texas video enabled FTTH would have grown somewhat faster than the rest of the country even without the new law, but it is also absolutely clear from this study that the growth has been far greater in Texas because of SB 5.

Several FTTH video providers stated they believe the new law has substantially benefited the Texas consumer in terms of more video choice, resulting in lower prices and better product offerings.

II. Detailed Methodology of Study

RVA's research plan for this study went beyond a normal sampling approach by conducting interviews among all known and suspected Texas FTTH providers (census approach). Based on lists assembled from vendor referrals, press releases, and other industry data, a total of 22 interviews were conducted with representatives of potential FTTH providers. A total of 16 businesses were confirmed as being current providers of FTTH, with some others having future plans to deploy FTTH.

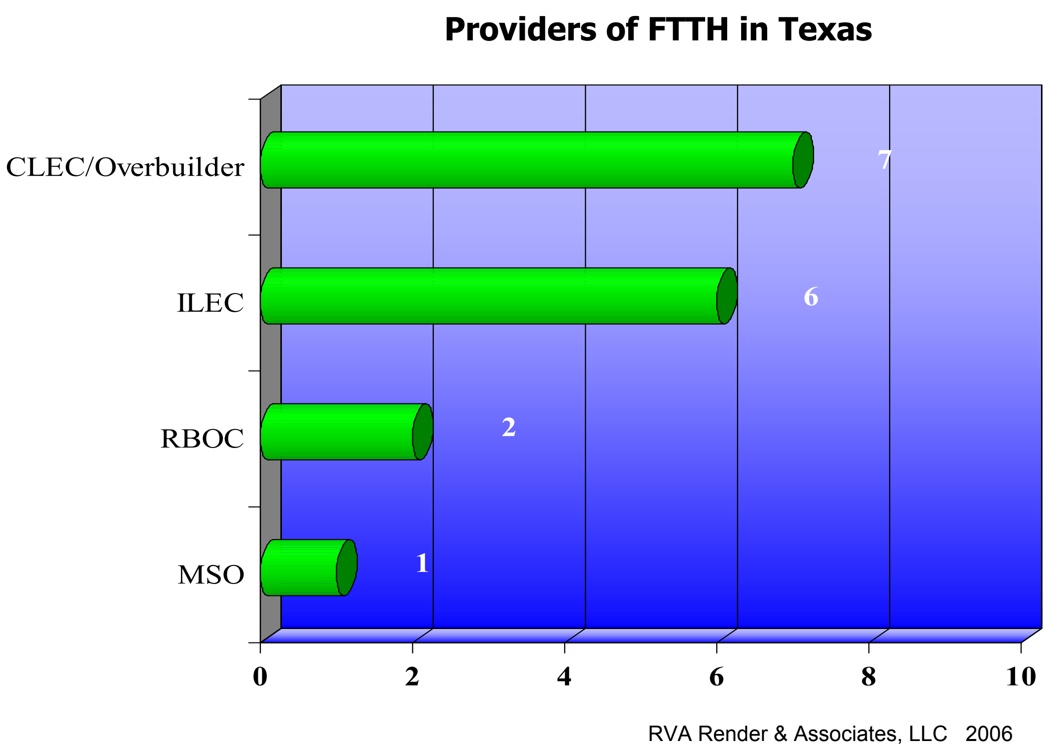
All those interviewed were cooperative and helpful, and most provided both perceptual and deployment numbers, with the exception of AT&T, which provided perceptual information but not deployment figures - not uncommon for large entities, especially those early in the life of new initiatives. Therefore, while deployment numbers for most providers quoted in this report are based upon direct verification from the providers, the figures used for AT&T are based on the secondary observations of vendors and others. [1]

Finally, it should be noted that the study focused on FTTH because most new video entrants to the Texas market to date have chosen that architecture. Another new architecture for video delivery, fiber-to-the-node, is in an earlier stage of deployment and therefore unlikely to yield as much insight as to the effect of the new video franchise law.

[1] These estimates are certainly subject to some potential deviation from actual deployment figures. However, this possible variance should not have any substantial or tangible effect on the findings of this study.

III. Demographics of Sample: Background of FTTH Providers in Texas

RVA identified a total of 16 entities currently providing FTTH to consumers in Texas. These providers represent a variety of service provider types: 7 CLEC/Overbuilders, 6 ILECs, 2 RBOCs, and 1 MSO. [1] Two regional Bell operating companies, Verizon and AT&T, are involved, as are six other ILECs that are independent telephone providers serving generally rural areas. CLEC/Overbuilders represent rural ILECs who are expanding their reach into neighboring territory, traditional telephone CLECs, those from the Cable TV overbuilding tradition, and new entities formed specifically to offer the triple play over FTTH. The one Texas MSO involved purchased their system in a new housing development from a CLEC/Overbuilder.



A. FTTH Providers Not Providing Video (5)

There are five Texas FTTH providers who do not presently provide video over FTTH. Only one of them plans to offer video in the future.

[1] CLEC: Competitive Local Exchange Carrier; ILEC: Incumbent Local Exchange Carrier; RBOC: Regional Bell Operating Company; MSO: Multiple Service Operator (typically, a traditional cable television company operating multiple services).

1. FTTH Providers Not Planning to Offer Video (4)

Four providers offer FTTH to very rural, low density areas (including ranchland and Native American reservations), and have an extremely small number of subscribers. The average number of subscribers served by these providers is only 124 each. In some of these cases, FTTH is providing the very first fixed wireline service the customer has ever had, i.e. no service, or only radio based service, was previously available. (The ability of fiber to transmit signals for long distances without electronic re-amplification made fixed wireline feasible.)

Cable or video services delivery is not seriously being considered by these four providers because, among other factors, the cost of building a video head-end to serve such a small number of customers is not currently practical.

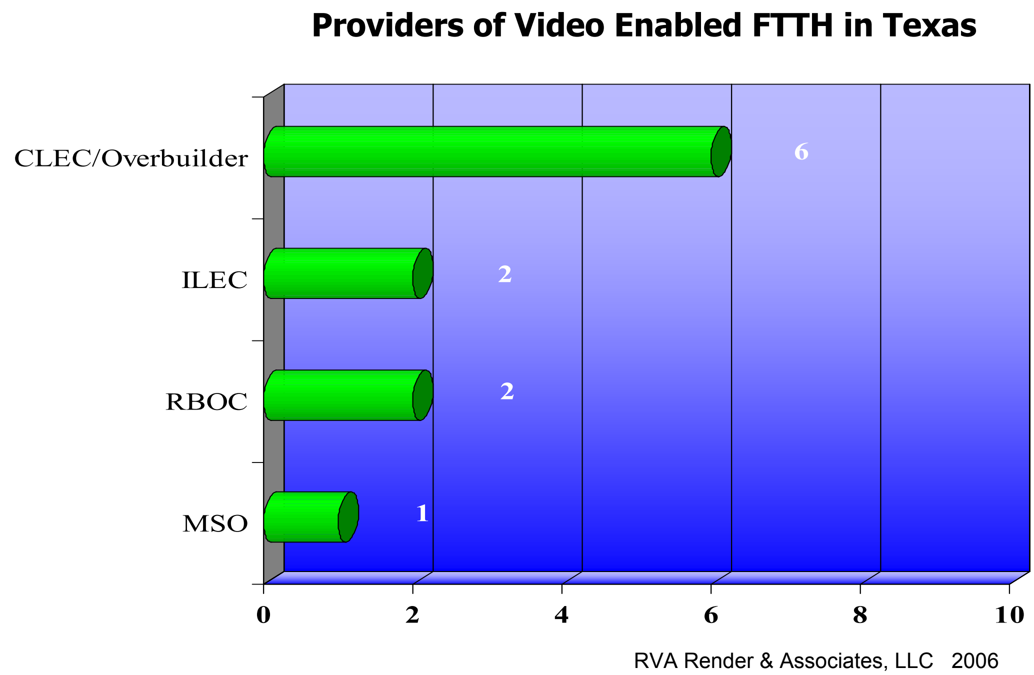
There is one additional provider with non video enabled FTTH service to 42 rural customers in one area of Texas, but this provider also serves video enabled FTTH service to 1,950 suburban customers in another area of Texas and is included in the video provider list below.

2. FTTH Providers Planning to Offer Video in the Future (1)

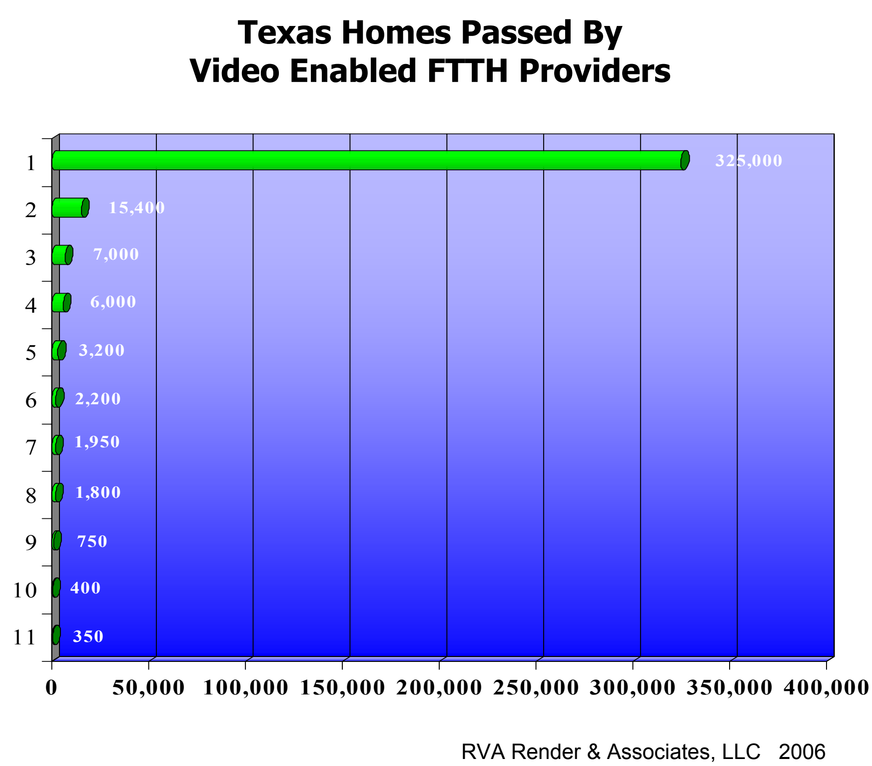
One other FTTH provider with over 3,000 homes passed for voice and data service is considering offering video. The delay in offering video related to a variety of factors, including finding a source for video content.

B. FTTH Providers Offering Video (11)

The primary focus of this study is to review FTTH providers offering video. A total of 11 companies currently provide video over FTTH infrastructure to consumers in Texas.



As of December 1, 2006, television service has been offered to 364,050 homes by FTTH providers in Texas.



The average number of customers offered television service by these providers is 33,095. By far, the largest FTTH provider in Texas is Verizon, which currently passes around 325,000 homes with FIOS TV and will soon pass 400,000. This provider dwarfs all others by a considerable margin. Excluding Verizon, the average number of customers offered television service is 3,905 per provider.

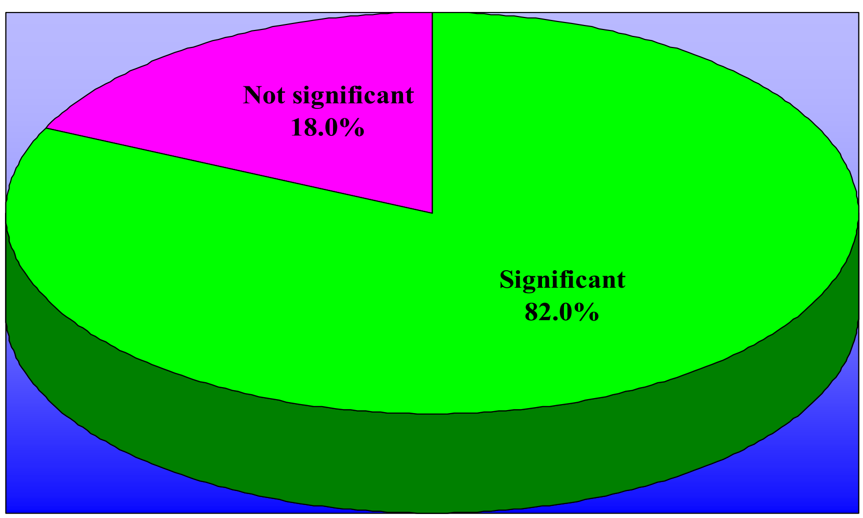
The method of video delivery in Texas FTTH systems is through both RF over a dedicated wavelength and IPTV over the dedicated data wavelength.

IV. Review of Findings

A. Perceptions that Texas State-Issued Video Franchise Law Is Accelerating Deployments

A total of 82% of all video enabled FTTH providers agree the State-Issued Video Franchise Law is accelerating their deployment of video enabled FTTH in Texas.

Percent Agreeing SB 5 is Important and Significant in Accelerating Their Deployment of Video FTTH



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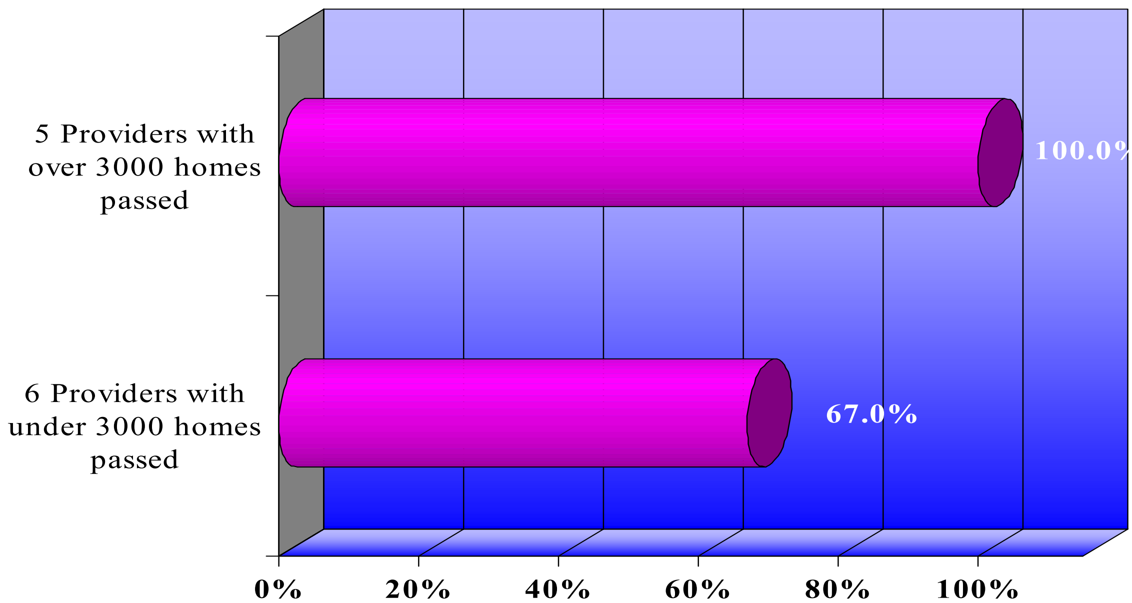
Larger providers are more likely to say SB 5 is important than smaller providers.[1]

Percent Agreeing SB 5 is Important and Significant in Accelerating Their Deployment of Video FTTH (By Size of Provider)



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B. Reasons FTTH Providers Find Texas State-Issued Video Franchise Law Beneficial

Nine providers believe the new law is accelerating their deployment and gave a variety of reasons why in an open end format interview.

Answers can generally be categorized as follows:

1. Allows Faster Market Entry (larger providers)

Many providers, especially those covering large geographic areas and those already committed to expanding their coverage of video, noted that going city by city to obtain

[1] One small provider said the new law was not relevant since it did not plan to expand. Another small provider said it only planned to expand to adjacent towns where it already had good relationships and perceived no problems in obtaining video franchises.

franchises takes considerable time and is “an extremely unwieldy process.” One of the large providers calculated that it takes an average of 18 months to achieve an individually negotiated franchise, even when considerable time, attention and priority is given to obtaining these franchises.

2. Facilitates Expansion (smaller providers)

While larger providers tend to think of the new law in terms of accelerating deployment efforts already in place, many smaller providers tend to think of the new law as opening up the possibility of providing service in expanded service areas. Several smaller providers said that while they have not yet greatly increased their deployment efforts, they are reviewing opportunities for possible expansion or are now considering expansion in a much wider geographic region.

3. Less Expensive Market Entry

Conducting negotiations with individual municipalities was noted to be quite costly by several of the provider representatives. Providers noted that to obtain individual franchises, they often have to send expensive legal council and top executives to a series of meetings held in individual cities, especially when considering the frequent efforts of incumbent cable TV providers to oppose or slow those proceedings. There is also said to be considerable research and documentation involved in preparing each franchise request.

4. Less Expensive to Administer Franchises

One large provider found it considerably less expensive to administer municipal franchises on an ongoing basis when the fees and procedures are more consistent and uniform, given statewide franchise legislation.

5. Elimination of Special Requests

Though noting that it is less of an issue in Texas than other states, larger providers said one result of city-by-city negotiations is sometimes "outrageous requests" for items not related in any way to the cable TV franchise issue. These requests were said to range from requests to purchase Christmas decorations to building sports parks.

6. Elimination of Build-Out Requirements

One smaller provider said it was originally saddled with onerous build-out requirements in its target area. The provider was concerned that the timing required for the build-out was unreasonable considering the size of the deployment and capitalization of their network. The provider representative said, with SB 5, it still plans to deploy to the same area, as well as to other areas in Texas, but will do so based on prudent internal business analysis for each opportunity.

Larger providers said they occasionally had requests to serve entire communities with voice, video, and data service, even in areas they did not currently cover. These providers felt the statewide law had helped avoid this potential problem.

7. Increase in Customer Choice

Several providers spoke of the new law in terms of increasing consumer choice. One noted, "Over 108 statewide video franchise applications have already been granted by the Texas PUC. Over 660 communities now have choices – some for the first time ever." Others said the result for consumers in Texas has been more resulting competition, thus, a better product for consumers.

Some providers spoke of actively competing with other cable companies and satellite TV providers in their local area. Strategies for success mentioned included keeping prices reasonable, increasing the channel lineup, increasing local programming offerings, increasing the number of high definition channels available, offering video on demand, improving response time for repairs when needed, and generally improving customer service.

8. Economic Benefit to Texas

Some providers believe the new law already has increased investment in Texas by as much as $1 Billion. Besides investment in video enabled FTTH, some noted there has been considerable investment in video over DSL via fiber-to-the-node (FTTN) by AT&T. Also, several cable TV companies and MSOs have applied for statewide video franchising licenses that many believe has resulted in expanded coverage. (It was not within the scope of this study to actually verify the expansion of video offered over FTTN or Hybrid Fiber Coax.)

C. Deployment Results Since SB 5 Enacted

Since enactment of the new law, the number of consumers being offered competing cable services in Texas has increased dramatically. The number of consumers offered video over FTTH increased from 18,000 to 364,000 in just 14 months. This represents a growth rate of 1,815%.

According to data from other RVA studies, during the same time period the total number of U.S. consumers offered video over FTTH (excluding Texas consumers) increased from 324,164 to 1,436,162 (240% growth rate). While this also represents healthy growth, Texas grew 8 times faster than the rest of the country since the enactment of SB 5.

Households Offered Video Over FTTH

	Texas	Other States	Total U.S.
Sept 1, 2005	18,070	326,164	344,234
December 1, 2006	364,050	1,436,162	1,800,212
Growth Rate	1,814.67%	240.32%	322.96%

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Approximately 4.5% of Texas households currently have the option of receiving television over FTTH compared to 1.5% of other U.S. households.

Percent of All Households Offered Video Over FTTH

	Texas	Other States	Total U.S.
Sept 1, 2005	0.23%	0.32%	0.31%
December 1, 2006	4.50%	1.50%	1.70%

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While this growth rate is extremely impressive, it should be noted that there could be other factors involved in driving this growth. Based on our interviews, Verizon and AT&T had fairly significant plans to deploy video in Texas prior to the enactment of SB 5. In order to isolate the effect of the new law, we asked Verizon (the largest provider of video enabled FTTH in Texas) about their deployment plans prior to the passage of SB 5.

Verizon had negotiated individual municipal franchises with four municipalities representing approximately 60,000 potential households as of the date SB 5 was signed into law. Though it did not yet offer video, Verizon was already well along with implementation to some of these households, had started in other areas, and had started planning for implementation in still others.

After enactment of SB 5, Verizon quickly obtained a state-issued franchise to serve a number of other municipalities, thus raising the total number of potential homes passed with video to nearly 400,000 households. Construction followed, and as of December 1, 2006, an estimated 325,000 homes were offered video via FTTH, with more to soon follow.

Without the new law, Verizon believes it would have served the original 60,000 and perhaps completed negotiations with a few more cities in time to complete construction and implementation by December 1, 2006. Thus, without the new law, it believes it could have offered video to 60,000 or slightly more homes – which is far below the actual 325,000 now served.

V. Conclusions

This study verifies that the vast majority of FTTH providers who are offering cable services believe that the enactment of the Texas State-Issued Video Franchise Bill (SB 5) is accelerating their deployment plans. The study also shows that video enabled FTTH has grown very rapidly since the enactment of the law, and that this high rate of growth was significantly influenced by passage of SB 5.