ASSESSING HIGH-SPEED INTERNET ACCESS IN THE STATE OF IOWA: FOURTH ASSESSMENT

A Report of the
Iowa Utilities Board

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1.0 INTRODUCTION

The advancements made in the information technology industry continue to impact all of our lives to some degree. The advancements made in Internet technologies are no different. While there was once a time when the Internet was interesting, because it was dazzling, it is now a normalized part of life for about two-thirds of the U.S. population. For some, it has become an integral part of work or school. For others, it is a primary means to stay in touch with family and friends. And for still others, it is a source of entertainment and diversion.[1] Since the Internet is being used for many different applications, it has become increasingly important that high-speed Internet is accessible to everyone rather than simple dial-up connections.

According to the National Telecommunications & Information Administration's report in September 2004, the proportion of U.S. households with broadband Internet connections more than doubled from 9.1 percent in September 2001 to 19.9 percent in October 2003. They also noted a shift in the technology used. In 2001, two-thirds of broadband households used cable modem service (66.4 percent). By October 2003, cable modem households dropped to 56.4 percent and the remaining households were using other types of connections. It is also interesting to note that persons with broadband at home also engage in more types of activities online, particularly in the areas of entertainment, banking, purchasing products or services, and obtaining information. The report also noted that although the rate in Internet penetration among rural households (54.1 percent) is similar to that in urban areas (54.8 percent), the proportion of Internet users with home broadband connections remained much lower in rural areas (24.7 percent) than in urban areas (40.4 percent).[2]

In Iowa, high-speed Internet access is not available in all areas. The current and projected availability of high-speed Internet technologies is a concern of the citizens of Iowa as well as a concern for policymakers.

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[1]Pew Internet & American Life Project, "America's Online Pursuits: The changing picture of who's online and what they do," Mary Madden, December 22, 2003, page 90.

[2] The National Telecommunications & Information Administration (a division of the U.S. Department of Commerce), "A Nation Online: Entering the Broadband Age," September 2004. They define broadband and services and facilities with speeds over 200 kbps in at least one direction.

In addition, the availability of high-speed Internet expands competitive choice for telecom consumers through an emerging technology known as Voice over Internet Protocol (VoIP). VoIP uses the Internet as the transmission medium for telephone calls instead of the public switched telephone network.[3] Several companies are using this technology to reach consumers in Iowa; however, its growth is limited by the availability of high-speed Internet access.

In an effort to assess the availability of high-speed Internet access in the state of Iowa, the Iowa Utilities Board (IUB) and the Iowa Department of Economic Development (IDED) submitted a joint report to the Legislative Oversight Committee of the Legislative Council in October 2000. The report assessed the statewide availability of high-speed Internet access, and recommendations were tendered that could potentially ensure access to high-speed Internet service in rural Iowa. The report, "Assessing High-Speed Internet Access in the State of Iowa" (First Assessment), was in compliance with Senate File 2433 (S.F. 2433). In response to recommendations contained in the First Assessment, the IUB conducted a Second and Third Assessment in September 2001 and January 2003, respectively.

The primary objective of the Fourth Assessment is to evaluate the level of progress in the deployment of high-speed Internet technologies. Comparison of this assessment with the earlier efforts is critical if a clear perspective on the developing availability of high-speed access in all parts of the state is desired. Consistency between the assessments is also essential. In the Fourth Assessment, the survey, terms, and staff analysis employed are very similar to the methods used in the prior assessments. This report is also consistent with the earlier assessments when it refers to the availability of high-speed Internet access in a community, in that it does not mean the technology is available to all customers in that community. Due to factors such as distance, line quality, and limited amounts of investment, some customers within a community will not have access to high-speed Internet while others within the same community will have access.

This report continues to use the same standard for "high-speed" technologies as the previous assessments. High-speed technology is defined as technology capable of

[3] http://www.webopedia.com/TERM/V/VoIP.html

providing access services with over 200 kilobits per second (kbps), this being consistent with the Federal Communication Commission's (FCC) definition of high-speed Internet access. The FCC in its section 706 reports to Congress, as well as this Board, acknowledges that 200 kilobits per second is merely the "first generation" of this technology.[4] The focus of this report is to determine where this "first generation" technology is available in Iowa. This report, like previous assessments, avoids the use of the term "broadband", because it has come to include a wide range of services and facilities that extend beyond the definition of high-speed technologies used in this report.

The IUB appreciates the cooperation and survey responses from the participating local exchange carriers, cable providers, and wireless service providers. Also, a special thank you is extended to Mary Wegner, State of Iowa Librarian, and Alan Schmitz, State of Iowa Library Online Coordinator. They assisted in this assessment by sharing additional information that was collected during their work documenting high-speed Internet options for Iowa public libraries. This information helped to complete the list of service providers for the state.

Section 2.0 of this report contains the conclusions established from the assessment of the July 2004 survey data. Section 3.0 describes the survey design and the methodology used to compile the data. Section 4.0 provides a detailed analysis of the data collected from the July 2004 survey. Section 5.0 provides data from the FCC's June 8, 2004 report. The section compares the Iowa results to the National results. Section 6.0 provides a summary of the report and its findings.

2.0 CONCLUSIONS AND COMPARISONS

In July 2004, the IUB completed a point-in-time, community-by-community, statewide assessment of current and near-term high-speed Internet access in Iowa. The IUB assessed telecommunications companies, cable providers, wireless providers, and satellite companies most likely to offer high-speed Internet access in Iowa. The telecommunications companies included all local exchange carriers (LECs), which

[4] Federal Communications Commission, "Availability of Advanced Telecommunications Capability in the United States FCC 04-208, GN Docket No. 04-54," Fourth Report to Congress, September 9, 2004.

consist of incumbent local exchange carriers (ILECs) and competitive local exchange carriers (CLECs).

The following conclusions were reached based on industry responses to the IUB staff survey. The comparisons are based on information obtained from the first three assessments and the results of the current assessment.

The report concludes:

The deployment rates of high-speed technologies in rural and non-rural Iowa communities continue to increase.

- 679 out of 935 rural communities, or 72.6 percent, currently have high-speed Internet access.
- 199 out of 273 non-rural communities, or 72.9 percent, currently have high-speed Internet access.

Comparison with Earlier Assessment Results

⇒ 246 out of 879 rural communities, or 28 percent, had high-speed Internet access in 2000; 431 out of 917 rural communities, or 47 percent, had access in 2001; and 634 out of 935 rural communities, or 68 percent, had access in 2003.

⇒ 111 out of 266 non-rural communities, or 42 percent, had high-speed Internet access in 2000; 167 out of 274 non-rural communities, or 61 percent, had access in 2001; and 185 out of 274 non-rural communities, or 68 percent, had access in 2003.

Non-rural communities are achieving a slightly higher rate of deployment of high-speed Internet technologies than rural communities.

- The number of rural communities with high-speed Internet access increased from 634 in January 2003 to 679 in July 2004, or by 7.1 percent.
- The number of non-rural communities with high-speed Internet access increased from 185 in January 2003 to 199 in July 2004, or by 7.6 percent.

Comparison with Earlier Assessment Results

⇒ The number of rural communities with high-speed Internet access increased from 431 in September 2001 to 634 in January 2003, or by 47.1 percent.

⇒ The number of non-rural communities with high-speed Internet access increased from 167 in September 2001 to 185 in January 2003, or by 10.8 percent.

The industry exceeded the near-term deployment schedules from the Third Assessment.

- As of July 2004, 679 out of 935 rural communities and 199 out of 273 non-rural communities had access to high-speed Internet technologies.
- The industry projected that 650 out of 935 rural communities and 186 out of 274 non-rural communities would have access to high-speed Internet technologies by January 2004.

Near-term deployment rates are more aggressive that those in previous assessments.

- The industry is projecting that an additional 110 out of the 935 rural communities will have access to high-speed Internet services by July 2005. The number of rural communities is projected to increase from 679 to 789 by July 2005.
- The industry is projecting an additional 4 out of the 73 non-rural communities will have access to high-speed Internet services. The number of non-rural communities is projected to increase from the current 199 communities to 203 by July 2005.

Comparison with Earlier Assessment Results

⇒ In January 2003, the industry projected an increase in rural access to high-speed services from 634 communities to 650, or 16 communities, by January 2004.

⇒ In January 2003, the industry projected an increase in non-rural access to high-speed services from 185 communities to 186, or 1 community, by January 2004.

xDSL and wireless technologies have the greatest presence within Iowa communities.

- xDSL technologies are available in 623 out of 1208 Iowa communities, or 51.6 percent.

- Wireless technologies are available in 417 out of 1208 Iowa communities, or 34.5 percent.
- Cable modem technologies are available in 348 out of 1208 Iowa communities, or 28.8 percent.

Overall, deployment of xDSL technologies is increasing more rapidly in rural communities than in non-rural communities.

- The number of rural communities with access to xDSL technologies increased from 212 in September 2001 to 498 in July 2004. This is an increase of 286 communities or 135 percent.
- The number of non-rural communities with access to xDSL technologies increased from 72 in September 2001 to 125 in July 2004. This is an increase of 53 communities or nearly 74 percent.

Access to cable modem technology continues to be more prevalent in non-rural communities.

- 196 out of 935 rural communities, or 20.9 percent, had access to high-speed cable modem technologies.
- 152 out of 273 non-rural communities, or 55.7 percent, had access to high-speed cable modem technologies.

Comparison with Earlier Assessment Results

⇒ In January 2003, 186 out of 935 rural communities, or 19.9 percent, had access to high-speed cable modem technologies.

⇒ In January 2003, 126 out of 274 non-rural communities, or 46.0 percent, had access to high-speed cable modem technologies.

Overall, cable modem technology is being deployed at a greater rate in rural communities than in non-rural communities.

- Between September 2001 and July 2004, the number of rural communities with access to high-speed cable modem technology increased from 53 to 196 communities. This is an increase of 143 communities, or 270 percent.
- Between September 2001 and July 2004, the number of non-rural communities with access to high-speed cable modem technology increased from 78 to 152 communities. This is an increase of 74 communities, or 95 percent.

Access to wireless technologies is greater in non-rural communities than in rural communities.

- 316 out of 935 rural communities, or 33.8 percent, had access to high-speed wireless service as of July 2004.
- 101 out of 273 non-rural communities, or 37.0 percent, had access to high-speed wireless service as of July 2004.

Access to wireless technologies is expected to increase very slowly in rural and not at all in non-rural communities.

- 316 out of 935 rural communities, or 33.8 percent, had access to high-speed wireless technologies in July 2004, and that is projected to increase to 325 rural communities, or 34.8 percent, by July 2005.
- Access to wireless technologies for non-rural communities is expected to remain the same from July 2004 to July 2005 at 101 out of 273 communities, or 37.0 percent.

Competition in the provision of high-speed Internet access is increasing in both rural and non-rural communities.

- As of July 2004, 310 out of 935 rural communities, or 33.2 percent, had two or more providers of high-speed Internet technologies.
- 132 out of 273 non-rural communities, or 48.4 percent, had two or more providers of high-speed Internet technologies as of July 2004.

Comparison with Earlier Assessment Results

⇒ In 2001, 63 out of 917 rural communities, or 6.9 percent, and in 2003, 269 out of 935 rural communities, or 28.8 percent, had two or more providers of high-speed Internet access.

⇒ In 2001, 70 out of 274 non-rural communities, or 25.5 percent, and in 2003, 108 out of 274 non-rural communities, or 39.4 percent, had two or more providers of high-speed Internet access.

The level of demand for high-speed Internet technologies is greatest for cable modem in the non-rural communities.

- In rural areas, the demand for cable modem is less than xDSL or wireless.
- In non-rural areas, the demand for cable modem is greater than xDSL or wireless.

3.0 METHODOLOGY

Survey Design

For the Fourth Assessment, survey instruments were designed to collect point-in-time information that could be used to assess the availability of high-speed Internet access on a community-by-community basis. Surveys were designed for the following providers: LECs, cable operators, and wireless providers. Copies of the survey instruments used for the Fourth Assessment are included as Attachment A to this report.

The surveys requested information that could be used to assess each community's current and near-term access to high-speed Internet technologies. Also, the surveys gathered information pertaining to the upstream and downstream speeds attainable through applicable technologies. Specifically, the surveys inquired if the applicable technologies exceeded the 200 kbps threshold. The surveys also collected data on the level of customer inquiries and demand for the relevant technologies. The levels were defined as the company's customer-based rate of inquiry and demand: low (3 percent or less), medium (between 4 percent and 19 percent), or high (20 percent or greater). Respondents were also asked to identify communities in which they planned to deploy high-speed services within the next 12 months.

Survey Distribution

Like the previous assessments, the Fourth Assessment strives for a comprehensive depiction of the high-speed Internet access across the state. The Fourth Assessment includes all ILEC, CLEC, wireless, satellite, and cable companies providing service in the state. Surveys were sent to all certified ILECs and CLECs serving any access lines in Iowa during the year. The IUB does not certify nor retain records on cable and wireless companies providing service in the state. Distribution lists were compiled from information provided by various cable and wireless associations and industry contacts. Electronic versions of the surveys used in the Fourth Assessment were also available on the IUB Web site.

4.0 FOURTH ASSESSMENT FINDINGS, CONCLUSIONS, AND COMPARISONS

In July 2004, IUB completed a point-in-time, community-by-community, statewide assessment of current and near-term high-speed Internet access in Iowa. The following tables are a compilation of the Fourth Assessment data and form the basis for all

findings and conclusions contained in this report. This section contains five subsections, each of which analyzes a particular element of the assessment data. These subsections include: response rate, statewide availability of high-speed services, availability of high-speed services by technology, concentration of and competition for high-speed services, and the level of demand for high-speed services.

Response Rate

The following table summarizes the assessment response rate:

Table I
Fourth Assessment Response Rate[5]

	All Providers	ILECs	CLECs	Cable Providers	Wireless Providers
Number of Providers Assessed	311	152	68	44	47
Overall Number of Assessments Returned	268	146	57	34	31
Overall Assessment Response Rate	**86.2%**	**96.1%**	**83.8%**	**77.3%**	**66.0%**
Number of Providers Assessed Electronically	300	152	66	39	43
Number of Assessments Returned Electronically	207	105	46	29	27
Electronic Response Rate	**77.2%**	**71.9%**	**80.7%**	**85.3%**	**87.1%**

In accordance with Governor Vilsack's "E-Government Initiative, "a concerted effort was made to survey the majority of the providers electronically. The IUB distributed 300 out of 311 surveys, or 96.5 percent, through electronic mail. For the Third Assessment, 212 out of 267 surveys, or 79.4 percent, were distributed electronically. Of those responding to the Fourth Assessment, 207 out of 268, or 77.2 percent, filed their information electronically, while 45 providers (16.8 percent) sent their responses via mail, and 16 providers (6 percent) returned their responses via facsimile.

While the response rate for the ILECs in the Fourth Assessment was down 2.6 percent from that of the Third Assessment, the overall response rate was higher. In total, 268 out of 311 providers responded to the Fourth Assessment for a response rate of 86.2 percent. This compares to 216 out of 267 providers, or 80.9 percent, responding to the Third Assessment.

[5] Communities that were not represented in the providers' response were deemed as communities not having access to any high-speed Internet technologies.

Statewide Availability of High-Speed Services

- √ The deployment rates of high-speed technologies in rural and non-rural Iowa communities continue to increase;
- √ Non-rural communities are achieving a slightly higher rate of deployment of high-speed Internet technologies than rural communities;
- √ The industry exceeded near-term deployment schedules from the Third Assessment; and,
- √ Near-term deployment rates are more aggressive than those in previous assessments.

Discussion of Conclusions

Attachment B of this report provides maps of the state of Iowa that show the areas where high-speed Internet technologies are available for each type of technology and where they are projected to be available by July 2005. Attachment C of this report provides a community-by-community list of the same information. The assessment response captured data for 1,208 Iowa communities.[6] Of the 1,208 Iowa communities represented in the assessment, 935 of the communities are identified as rural. Rural communities are defined as those Iowa communities with less than 2,500 inhabitants that are not served by an urban exchange.[7] The assessment identified the remaining 273 communities as non-rural.

Fourth Assessment Conclusion:

The deployment rates of high-speed technologies in rural and non-rural Iowa communities continue to increase.

Of the 1,208 communities included in the assessment responses, 878 Iowa communities, or 72.7 percent, have access to at least one type of high-speed Internet

[6] The list of Iowa communities included all known rural, non-rural, and unincorporated places as of July 2004.

[7] The definition of "rural" in this report is a variation of the Census Bureau's definition of rural. The Census Bureau's definition includes all communities with fewer than 2,500 inhabitants as well as areas outside of communities including farmland, ranch land, and wilderness. The Census Bureau's definition of rural also includes suburban developments that are close to an urban area. Inclusion of these suburban communities may provide misleading results. As a result, this report only defines communities as rural if the community population is less than 2,500 inhabitants and is not served by an urban exchange. Population data was acquired from the 2000 U.S. Census.

technology. Of the 878 communities having access, 679 are rural and 199 are non-rural. Based on current deployment schedules, an additional 114 Iowa communities will have access to at least one type of high-speed Internet technology by July 2005. The information is summarized in the following table:

Table II
Iowa Communities with Access to High-Speed Technologies as of July 2004

	Rural (935 Communities)		Non-Rural (273 Communities)	
	Access as of July 2004	Projected Access by July 2005	Access as of July 2004	Projected Access by July 2005
Number of Iowa Communities with Access to High-Speed Technologies	679	789	199	203
% of Iowa Communities Surveyed with Access to High-Speed Technologies	72.6%	84.4%	72.9%	74.4%

If industry deployment schedules are realized by July 2005, 789 out of 935 rural communities, or 84.4 percent, and 203 out of 273 non-rural communities, or 74.4 percent, will have access to at least one type of high-speed Internet technology.

Fourth Assessment Conclusion:

Non-rural communities are achieving a slightly higher rate of deployment of high-speed Internet technologies than rural communities.

As illustrated below in Table III, non-rural communities are experiencing a slightly higher rate of deployment of high-speed Internet technologies than rural communities. Between January 2003 and July 2004, the number of non-rural communities with access to high-speed Internet technologies increased from 185 in January 2003 to 199 in July 2004. This is an increase of 14 communities or 7.6 percent. During the same period, the number of rural communities with access to high-speed Internet technologies increased from 634 to 679. This is an increase of 45 communities or 7.1 percent.

Table III Comparison of Iowa Communities with Access to High-Speed Technologies from January 2003 to July 2004				
	Rural*		Non-Rural**	
	Access as of January 2003	Access as of July 2004	Access as of January 2003	Access as of July 2004
Number of Iowa Communities with Access to High-Speed Technologies	634	679	185	199
% of Iowa Communities Surveyed with Access to High-Speed Technologies	67.8%	72.6%	67.5%	72.9%

*Based on 935 identified rural communities in January 2003 and July 2004.
**Based on 274 identified non-rural communities in January 2003 and 273 in July 2004.

Fourth Assessment Conclusion:

The industry exceeded the near-term deployment schedules from the Third Assessment.

The results of the Fourth Assessment illustrates that industry exceeded the near-term deployment projections stated by industry in the Third Assessment. Table IV compares the deployment projections cited by industry in the Third Assessment and the "realized" deployment of high-speed Internet services to Iowa communities as of July 2004.

Table IV Comparison of January 2004 Deployment Projections and July 2004 Realized Deployment of High-Speed Internet Technologies				
	Rural*		Non-Rural**	
	Projected Access by January 2004	Realized Access as of July 2004	Projected Access by January 2004	Realized Access as of July 2004
Number of Iowa Communities with Access to High-Speed Technologies	650	679	186	199
% of Iowa Communities Surveyed with Access to High-Speed Technologies	69.5%	72.6%	67.9%	72.9%

*Based on 935 identified rural communities in January 2004 and July 2004.
**Based on 274 identified non-rural communities in January 2004 and 273 in July 2004.

In January 2003, industry projected that 650 rural and 186 non-rural communities would have access to high-speed Internet services by January 2004. The July 2004 Assessment indicates that those projections were exceeded, as 679 rural and 199 non-rural communities currently have access to high-speed Internet services.

Fourth Assessment Conclusion:

Near-term deployment rates are more aggressive than those in the previous assessments.

In previous assessments projected deployment rates were less aggressive as the deployment level increased. However, in the Fourth Assessment, near-term deployment rates are significantly more aggressive than in the Third Assessment. The change in the deployment trend is primarily due to one provider striving to have xDSL deployed to 100 percent of its exchanges by mid-year 2005.

As the data in Table V shows, in January 2003, the industry projected that 650 rural communities and 186 non-rural communities would have high-speed Internet access within 12 months. This was an overall increase of 2.1 percent. In July 2004 the industry projected that 789 rural communities and 203 non-rural communities would have high-speed Internet access within 12 months. This would be an increase of 12.9 percent over the current number of communities with access to high-speed Internet services

Table V
Comparison of January 2004 Deployment Projections and July 2005 Deployment Projections of High-Speed Internet Technologies

	Rural*		Non-Rural**	
	Projected Access by January 2004	Projected Access by July 2005	Projected Access by January 2004	Projected Access by July 2005
Number of Iowa Communities with Access to High-Speed Technologies	650	789	186	203
% of Iowa Communities Surveyed with Access to High-Speed Technologies	69.5%	84.4%	67.9%	74.4%

*Based on 935 identified rural communities in January 2004 and July 2005.
**Based on 274 identified non-rural communities in January 2004 and 273 in July 2005.

Availability of High-Speed Services by Technology

All Technology:

√ *xDSL and wireless technologies have the greatest presence within Iowa communities.*

xDSL:

√ *Overall, deployment of xDSL technologies is increasing more rapidly in rural communities than non-rural communities.*

Cable Modem:

√ *Access to cable modem technology continues to be more prevalent in non-rural communities; and,*

√ *Overall, cable modem technology is being deployed at a greater rate in rural communities than non-rural communities.*

Wireless (Licensed and Unlicensed):

√ *Access to wireless technologies is greater in non-rural communities than in rural communities; and,*

√ *Access to wireless technologies is expected to increase very slowly in rural communities and not at all in non-rural communities.*

Fourth Assessment Conclusion:

xDSL and wireless technologies have the greatest presence within Iowa communities.

As shown in Table VI, one or more types of high-speed Internet technology are currently available in 878 out of 1208 communities in Iowa, or approximately 73 percent. xDSL is available in 623 communities in Iowa, or approximately 52 percent. Wireless is available in approximately 417 Iowa communities, or 35 percent. xDSL is expected to have the largest growth from July 2004 to July 2005 and be available in nearly 70 percent of Iowa communities. The driving force of xDSL's expected growth comes from one ILEC striving to have xDSL deployed to 100 percent of its exchanges by mid-year 2005. The majority of its exchanges are rural.

Table VI Iowa Communities with Access to Different High-Speed Technologies as of July 2004				
	Number of Iowa Communities Surveyed with Access to High-Speed Technologies		% of Iowa Communities Surveyed with Access to High-Speed Technologies	
Iowa Communities with Access to:**	Access as of July 2004	Projected Access by July 2005	Access as of July 2004	Projected Access by July 2005
One or More Types of High-Speed Internet Technology	878	992	72.7%	82.1%
xDSL Technologies	623	843	51.6%	69.8%
High-Speed Wireless Technologies	417	426	34.5%	35.3%
Cable Modem Technologies	348	357	28.8%	29.6%

** Based on the 1208 known incorporated and unincorporated Iowa Communities.

Fourth Assessment Conclusion:

Overall, deployment of xDSL technologies is increasing more rapidly in rural communities than in non-rural communities.

Access in rural communities to high-speed xDSL technologies increased from 23.1 percent in September 2001 to 40.0 percent in January 2003 and to 53.3 percent in July 2004. Between September 2001 and July 2004, the number of rural Iowa communities with access to high-speed xDSL technologies has increased from 212 to 498, a growth of 135 percent. Between January 2003 and July 2004, the number of non-rural communities with access to high-speed xDSL technologies increased 60 percent. Overall, between September 2001 and July 2004, the number of non-rural Iowa communities with access to high-speed xDSL technologies has increased from 72 to 125, a growth of nearly 74 percent.

Table VII Comparison of Iowa Communities with Access to High-Speed xDSL Technologies from September 2001 to July 2004				
	Rural*		Non-Rural**	
	Access as of September 2001	Access as of July 2004	Access as of September 2001	Access as of July 2004
Number of Iowa Communities with Access to High-Speed xDSL Technologies	212	498	72	125
% of Iowa Communities Surveyed with Access to High-Speed xDSL Technologies	23.1%	53.3%	26.3%	45.8%

*Based on 917 identified rural communities in September 2001 and 935 July 2004.
**Based on 274 identified non-rural communities in September 2001 and 273 in July 2004.

By July 2005, the number of rural communities with access to high-speed xDSL technologies is projected to increase from 498 to 697 communities, or to over 74 percent. The number of non-rural communities is projected to increase from 125 to 145, or to over 53 percent.

Table VIII
Iowa Communities with Access to High-Speed xDSL Technologies as of July 2004 and Communities Expected to Have Access by July 2005

	Rural (935 Communities)		Non-Rural (273 Communities)	
	Access as of July 2004	Projected Access by July 2005	Access as of July 2004	Projected Access by July 2005
Number of Iowa Communities with Access to High-Speed xDSL Technologies	498	697	125	145
% of Iowa Communities Surveyed with Access to High-Speed xDSL Technologies	53.3%	74.5%	45.8%	53.1%

Fourth Assessment Conclusion:

Access to cable modem technology continues to be more prevalent in non-rural communities.

As shown in Table IX, 152 out of 273 non-rural Iowa communities, or 55.7 percent, had access to high-speed cable modem technologies as of July 2004. At the same time, 196 out of 935 rural Iowa communities, or 20.9 percent, had access to high-speed cable modem technologies. A small increase (under 5 percent) in access to cable modem technology is projected by July 2005 for the rural communities, while no increase is projected for the non-rural communities.

Table IX Iowa Communities with Access to High-Speed Cable Modem Technologies as of July 2004 and Communities Expected to Have Access by July 2005				
	Rural (935 Communities)		Non-Rural (273 Communities)	
	Access as of July 2004	Projected Access by July 2005	Access as of July 2004	Projected Access by July 2005
Number of Iowa Communities with Access to High-Speed Cable Modem Technologies	196	205	152	152
% of Iowa Communities Surveyed with Access to High-Speed Cable Modem Technologies	20.9%	21.9%	55.7%	55.7%

Fourth Assessment Conclusion:

Overall, cable modem technology is being deployed at a greater rate in rural communities than in non-rural communities.

As Table X demonstrates, rural communities are seeing cable modem technology being deployed at a greater rate than non-rural communities. Between September 2001 and July 2004, the number of rural Iowa communities with access to high-speed cable modem technologies increased from 53 to 196, an increase of 270 percent. Access to high-speed cable modem technologies in non-rural communities increased from 78 to 152, a growth of nearly 95 percent.

Access to high-speed cable modem technology for Iowa communities has seen tremendous growth since 2001; but since January 2003, there has been a much more modest growth. The number of rural communities with high-speed cable modem technology grew from 186 in January 2003 to 196 in July 2004, an increase of 5.4 percent. There were 126 non-rural communities with access to high-speed cable modem technology in January 2003 and 152 in July 2004, a growth of 20.6 percent.

Table X Comparison of Iowa Communities with Access to High-Speed Cable Modem Technologies from September 2001 to July 2004				
	Rural*		Non-Rural**	
	Access as of September 2001	Access as of July 2004	Access as of September 2001	Access as of July 2004
Number of Iowa Communities with Access to High-Speed Cable Modem Technologies	53	196	78	152
% of Iowa Communities Surveyed with Access to High-Speed Cable Modem Technologies	5.8%	20.9%	28.5%	55.7%

*Based on 917 identified rural communities in September 2001 and 935 in July 2004.
**Based on 274 identified non-rural communities in September 2001 and 273 in July 2004.

Fourth Assessment Conclusion:

Access to wireless technologies is greater in non-rural communities than in rural communities.

As shown in Table XI, access to high-speed wireless technologies increase significantly for both rural and non-rural communities from September 2001 to July 2004, but the level of access is greater in non-rural communities. The number of non-rural communities with access to wireless technologies increased from 78 out of 274 communities, or 28.5 percent, in September 2001 to 101 out of 273 communities, or 37.0 percent, in July 2004. The number of rural communities with access to high-speed wireless technologies increased from 216 out of 917 communities, or 23.6 percent, in September 2001 to 316 out of 935 communities, or 33.8 percent, in July 2004.

Table XI Comparison of Iowa Communities with Access to High-Speed Wireless Technologies from September 2001 to July 2004				
	Rural*		Non-Rural**	
	Access as of September 2001	Access as of July 2004	Access as of September 2001	Access as of July 2004
Number of Iowa Communities with Access to High-Speed Wireless Technologies	216	316	78	101
% of Iowa Communities Surveyed with Access to High-Speed Wireless Technologies	23.6%	33.8%	28.5%	37.0%

*Based on 917 identified rural communities in September 2001 and 935 in July 2004.
**Based on 274 identified non-rural communities in September 2001 and 273 in July 2004.

Fourth Assessment Conclusion:

Access to high-speed wireless technologies is expected to increase very slowly in rural and not at all in non-rural communities.

Table XII shows access to high-speed wireless technologies is projected to have slow or no growth from July 2004 to July 2005. The wireless industry is expected to add high-speed service to only 9 rural communities, with no new communities expected to gain access to high-speed wireless technologies in non-rural areas.

Table XII
Iowa Communities with Access to High-Speed Wireless Technologies as of July 2004 and Communities Expected to Have Access by July 2005

	Rural (935 Communities)		Non-Rural (273 Communities)	
	Access as of July 2004	Projected Access by July 2005	Access as of July 2004	Projected Access by July 2005
Number of Iowa Communities with Access to High-Speed Wireless Technologies	316	325	101	101
% of Iowa Communities Surveyed with Access to High-Speed Wireless Technologies	33.8%	34.8%	37.0%	37.0%

Concentration and Competition for High-Speed Services

Fourth Assessment Conclusion:

Competition in the provision of high-speed Internet access is increasing in both rural and non-rural communities.

Table XIII shows the number of competitors in Iowa communities providing high-speed Internet services has increased from January 2003 to July 2004. Even more striking is the increase from September 2001. There were only 63 out of 917 rural communities, or 6.9 percent, with two or more competitors in September 2001. This compares to 269 out of 935, or 28.8 percent, in January 2003 and 310 out of 935, or 33.2 percent, in July 2004. In non-rural areas, there were 70 out of 274 communities, or 25.5 percent, that had two or more competitors in September 2001, 108 out of 274 communities, or 39.4 percent, in January 2003, and 132 out of 273 communities, or 48.4 percent, in July 2004.

Another measure of the increasing access of high-speed Internet service in Iowa is the decreasing number of communities that have no providers. In September 2001, 301 out of 935 rural communities, or 53.1 percent, had no provider of high-speed Internet service. By July 2004 that number had dropped to 256 out of 935 rural communities, or 27.4 percent. For non-rural communities, 89 out of 274 communities, or 39.4 percent, had no high-speed Internet service in September 2001, whereas in July 2004, 74 out of 273 communities, or 27.1 percent of non-rural communities had no high-speed Internet provider.

Table XIII
Comparison of the Number of Competitors in Iowa Communities with High-Speed Internet Access between January 2003 to July 2004

	Rural*		Non-Rural**	
Number of Providers	Communities as of January 2003	Communities as of July 2004	Communities as of January 2003	Communities as of July 2004
0	301	256	89	74
1	365	369	77	67
2	211	218	52	53
3	48	72	43	36
4	9	18	9	20
5 or more	1	2	4	23

*Based on 935 identified rural communities in January 2003 and July 2004.
**Based on 274 identified non-rural communities in January 2003 and 273 in July 2004.

Level of Demand for High-Speed Services

Assessment Conclusion:

The level of demand for high-speed Internet technologies is greatest for cable modem in non-rural communities.

As Table XIV demonstrates, the level of demand for, or interest in, high-speed Internet technologies is greatest for cable modem in non-rural communities. Rural customers' demand and inquiries is greatest for wireless and xDSL while low for cable modem technologies. The demand level for these technologies appears to follow the current availability of the technology in the rural and non-rural areas. This is especially evident when looking at the demand and availability for cable-modem technology.

Table XIV Comparison of Level of Demand for High-Speed Internet Technologies				
	Rural		Non-Rural	
	Customer Inquiries	Customer Demand	Customer Inquiries	Customer Demand
xDSL	Low/Medium	Low/Medium	Medium	Low/Medium
Cable Modem	Low	Low	High	High
Wireless	Medium	Medium	Medium	Medium

5.0 NATIONAL DATA

On December 22, 2004, the Federal Communications Commission (FCC) released its report "High-Speed Services for Internet Access: Status as of June 30, 2004." The report summarizes data filed on FCC Form 477 as of June 30, 2004. The FCC requires state-level data from providers with at least 250 high-speed connections in the state whereas the IUB survey attempts to compile data from all providers regardless of the number of high-speed connections they have in the state.

Data reported in the summary charts within the FCC report is based primarily on the number of high-speed lines by state or by the type of technology. The IUB survey tries to compile similar data, but respondents are given the option of providing the number of lines, the percent of their market share, or to respond that the information is confidential. Therefore, a direct comparison of the IUB High-Speed Internet Access Survey and the FCC data is not possible.

This section compares the Iowa results from the FCC data with that of the National results. The numbers in the tables are taken from the FCC's December 2004 report.

Top 6 States - Number of Providers of High-Speed Lines by Technology as of June 30, 2004

(Over 200 kbps in at least one direction)

	ADSL	Cable	Other*	Total (Unduplicated)
Texas	29	12	35	51
Iowa	***30***	***17***	***31***	***50***
Georgia	23	19	29	50
Minnesota	22	12	26	45
California	19	12	28	44
Illinois	22	8	27	42
Average Nationwide	12	6	16	25

*Includes wireline technologies other than asymmetric digital subscriber line (ADSL), optical fiber-to the subscriber's premises, satellite, and terrestrial wireless systems.

The above table shows that Iowa is ranked number two in the nation when it comes to the number of providers of high-speed lines. This is probably due to the large number of incumbent telephone companies Iowa has when compared to other states.

High-Speed Lines by Technology as of June 30, 2004

(Over 200 kbps in at least one direction)

	ADSL	Cable	Other*
Iowa	28.54%	65.83%	5.63%
Nationwide	35.12%	57.28%	7.60%

*Includes wireline technologies other than asymmetric digital subscriber line (ADSL), optical fiber-to the subscriber's premises, satellite, and terrestrial wireless systems.

According to the IUB survey, cable modem technology is more prevalent in non-rural communities, which may be an indication of why the percentage of the cable technology in Iowa is higher than the national average.

The IUB survey reports at the community level, rather than the number of high-speed lines. It notes that xDSL is available in 623 out of 1208 communities, or 51.6 percent while wireless is available in 417 out of 1208 communities, or 34.5 percent. Cable modem technologies are available in 348 out of 1208 communities, or 28.8 percent. This would seem to contradict the FCC data. The FCC data is taking the number of high-speed lines for the technology divided by the total number of high-speed lines in the state, whereas the IUB study is just looking at whether a technology is available in a particular community.

Overall Growth Percent of All High-Speed Lines
(Over 200 kbps in at least one direction)

	From December 2003 to June 2004	From June 2003 to June 2004
Iowa	20.03%	41.63%
Nationwide	14.98%	38.36%

Growth Percent of ADSL High-Speed Lines
(Over 200 kbps in at least one direction)

	From December 2003 to June 2004	From June 2003 to June 2004
Iowa	35.98%	66.51%
Nationwide	19.86%	48.51%

Growth Percent of Cable High-Speed Lines
(Over 200 kbps in at least one direction)

	From December 2003 to June 2004	From June 2003 to June 2004
Iowa	15.43%	35.39%
Nationwide	13.05%	35.87%

The FCC data for the 6 months of December 2003 to June 2004 indicate the growth rate for high-speed lines in Iowa exceeded the National average. The data for the 12 months of June 2003 to June 2004 also shows the growth rate for high-speed lines in Iowa exceeded the National average except in cable technology where it was just below the National average.

Although the FCC data above is not directly comparable to the IUB survey data, the FCC data seems to indicate that near-term deployment schedules were less aggressive as the overall deployment rates increase. The data from the July 2004 IUB survey would be comparable to the FCC data if not for plans of one incumbent provider. Due to the efforts of that provider, the data from the IUB survey indicates a more aggressive deployment rate for the next 12 months.

High-Speed Lines by Type of User as of June 30, 2004
(Over 200 kbps in at least one direction)

	Residential & Small Businesses	Other*
Iowa	95.65%	4.35%
Nationwide	92.70%	7.30%

*Includes medium and large business, institutional and governmental customers.

The FCC data in the table above shows the breakdown of high-speed users. The IUB survey does not capture data that distinguishes between residential/small business lines or 'other' lines.

Percentage of Zip Codes with High-Speed Lines in Service as of June 30, 2004

(Over 200 kbps in at least one direction)

	Number of Providers										
	Zero	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten or More
Iowa	17%	24%	21%	13%	10%	8%	4%	3%	1%	0%	0%
Nationwide	6%	14%	17%	15%	12%	8%	6%	4%	4%	3%	12%

The IUB survey is compiled by community rather than by zip code so the data is not directly comparable. The IUB survey results as of July 2004 show that 330 of the 1208 communities (27.3%) have no high-speed Internet providers, 436 communities (36.1%) have one provider, 271 communities (22.4%) have two providers, 108 communities (8.9%) have three providers, 38 communities (3.1%) have four providers, and 25 communities (2.1%) have more than five providers.

6.0 SUMMARY

The deployment of high-speed Internet technologies in the state of Iowa continues to best be described as a "work in progress." The Fourth Assessment measures the progress by creating a snapshot of the current availability of high-speed Internet technologies across the state of Iowa.

The results of the Fourth Assessment, when compared to earlier assessments, clearly indicate that progress continues to be made in the deployment of high-speed Internet technologies. The presence of xDSL, cable modems, wireless (licensed and unlicensed), and satellite technologies among rural and non-rural Iowa communities continues to increase. Over 72 percent of the 935 rural communities and nearly 73 percent of the 273 non-rural communities had access to at least one type of high-speed Internet technology as of July 2004. This compares to 67.8 percent of the 935 rural communities and 67.5 percent of the 274 non-rural communities with high-speed Internet access in January 2003.

As Iowans continue to blend the use of the Internet into their daily lives, the need for and interest in the deployment of high-speed Internet will continue to grow. It will be critical to the economic and social vitality of Iowa that this technology be available to all areas of the state. The policymakers and the information industry will continue to discuss how and when high-speed Internet technologies will be delivered as the state seeks to ensure high-speed Internet access is available for all Iowans.

LIST OF ACRONYMS

Bps – Bits Per Second

CLEC – Competitive Local Exchange Carrier

DSL – Digital Subscriber Line

FCC – Federal Communications Commission

IDED – Iowa Department of Economic Development

ILEC – Incumbent Local Exchange Carrier

IUB – Iowa Utilities Board

Kbps – Thousand Bits Per Second

LEC – Local Exchange Carrier

xDSL – Family of Digital Subscriber Line Services

ATTACHMENT A

SURVEY INSTRUMENTS

Iowa Utilities Board Broadband Internet Access Survey Cover Letter

Iowa Utilities Board Broadband Internet Access Survey for LECs

Iowa Utilities Board Broadband Internet Access Survey for Wireless Providers

Iowa Utilities Board Broadband Internet Access Survey for Cable Providers

Fields of Opportunities

STATE OF IOWA

THOMAS J. VILSACK
GOVERNOR
SALLY J. PEDERSON
LT. GOVERNOR

IOWA UTILITIES BOARD
IOWA DEPARTMENT OF COMMERCE

July 1, 2004

The Iowa Utilities Board (IUB) continues to evaluate the availability of high-speed Internet access in the state. Senate File 2433 initiated the original assessment conducted in July 2000. Follow-up assessments were conducted in September 2001 and January 2003. As with the previous assessments, this one will measure the continued deployment of these services and compare them to the previously recorded results. Additionally, this assessment will provide further information for issues related to technical and policy concerns in Iowa.

Similar to the prior assessments, this study will survey all entities capable of providing high-speed broadband Internet access services in Iowa, including facilities-based local exchange carriers, cable providers, and wireless companies. This survey will assess the immediate availability of these services by geographic region of the state

Once completed, the results and conclusions of the IUB's fourth assessment will be contained in a report entitled, "Assessing High-Speed Internet Access in the State of Iowa: Assessment IV." This report, when finished, will be available with the previous reports on the Utilities Board's Web site at www.state.ia.us/iub.

In order to successfully complete the fourth assessment, the Utilities Board needs your help in responding to the attached surveys, which are also available online at www.state.ia.us/iub. The attached surveys are in Word format and you can respond to the survey by utilizing the "drop-down boxes" in each of the applicable columns. Additional sheets can be attached if necessary. We ask that you to take a few minutes to complete the enclosed surveys and return them by **July 30, 2004,** (either electronically or through conventional mail) to:

Brenda Biddle, Utility Analyst
Iowa Utilities Board
350 Maple Street
Des Moines, IA 50319
E-Mail: brenda.biddle@iub.state.ia.us
Phone: 515-242-0218 Fax: 515-281-5329

Your input is crucial to the success of the fourth assessment. All information will be aggregated on an industry basis only.

Finally, in order to maintain an updated contact database for future assessments, please complete the top portion of the survey and check the applicable box even if you do not currently provide high-speed Internet service greater than 200 Kbps in the state of Iowa.

Thank you for your prompt assistance in this fourth assessment.

Sincerely,

Diane Munns, Chairperson Mark Lambert, Board Member Elliott Smith, Board Member

IOWA UTILITIES BOARD BROADBAND INTERNET ACCESS SURVEY FOR LOCAL EXCHANGE CARRIERS (LECs) AS OF JULY 1, 2004

Company Name: _____ Contact Person: _____

Address: _____ Fax #: _____

E-Mail Address: _____ Telephone #: _____

1. Does your company currently provide xDSL Services greater than 200 Kbps in the State of Iowa? **(Mark Applicable Response) Yes** ☐ **No** ☐

2. Please use the worksheet format to provide the following information for **EACH Community** served in Iowa. Additional sheets are necessary if you serve more than 10 communities.

a) List All **Communities** Served by the LEC	**b)** List the Corresponding **Telephone Exchange** that Serves this Community	**c)** In what **Capacity** Does your Company Serve this Community (ILEC, CLEC, or Other)	**d)** Total Number of Access Lines in this Community (Round to nearest 100)*	**e)** Do you Currently Offer this Community Access to xDSL Services (Yes, No, NA)	**f)** Number of Access Lines **Currently** Providing xDSL Services to Customers in this Community (% Option)	**g)** Number of Access Lines that **Can be Equipped** to Provide xDSL Services to Customers in this Community within 30 days (% Option)	**h)** Do You Plan to Offer xDSL Services Greater than 200 Kbps in this Community within the Next 12 Months (Yes, No, NA)	**i)** Does the Data Speed Exceed 200 Kbps (Yes, No, NA)		**j)** Assess the Relationship Between Customers and xDSL Services in this Community (Low, Medium, High)	
								Down-Stream	**Up-Stream**	**Customer Inquiries****	**Customer Demand*****
1)											
2)											
3)											
4)											
5)											
6)											
7)											
8)											
9)											
10)											

*** If you do not want the number of access lines by community released, please mark "confidential" in this cell and provide the percentage of access lines in all relevant columns. If you are using the % option, please use the % sign after each number.**

"Customer inquiries" for xDSL services greater than 200 Kbps is defined as: **Low (received 3% or less inquiries); **Medium** (received between 4% and 19% inquiries); or **High** (received 20% or greater inquiries).

***"**Customer demand**" for xDSL services greater than 200 Kbps is defined as: **Low** (3% or less of customers are subscribed to xDSL services); **Medium** (between 4% and 19% of customers are subscribed to xDSL services); or **High** (20% or greater of customers are subscribed to xDSL services).

3. Please attach any marketing materials or price schedules related to your company's line of xDSL services to this assessment.

IUB Contact: Brenda Biddle **Phone: (515) 242-0218** **E-Mail: brenda.biddle@iub.state.ia.us**

IOWA UTILITIES BOARD BROADBAND INTERNET ACCESS SURVEY FOR WIRELESS PROVIDERS AS OF JULY 1, 2004

Company Name: _____ Contact Person: _____

Address: _____ Fax #: _____

E-Mail Address: _____ Telephone #: _____

1. Does your company currently provide wireless data services greater than 200 Kbps (similar to xDSL in the wireline industry) in the State of Iowa? **(Mark Applicable Response) Yes** ☐ **No** ☐

2. Please use the worksheet format to provide the following information for **EACH Community** served in Iowa. Additional sheets are necessary if you serve more than 10 communities.

a) List All **Communities** Served by the Wireless Provider *(Also, Please include **ALL** Communities in which your Company Plans to Provide Wireless Technologies within the Next 12 Months)*	**b)** Does this Community Currently have Access to Broadband Internet Service Using Wireless Technologies (Yes, No, NA)	**c)** Total Number of Customers in this Community (Round to nearest 100)*	**d)** Number of Customers **Currently** Receiving Broadband Internet Using Wireless Technologies in this Community					**e)** Do You Plan to Offer Broadband Internet Access Greater than 200 Kbps Using Wireless Technologies in this Community within the Next 12 Months (Yes, No, NA)	**i)** Does the Data Speed Exceed 200 Kbps (Yes, No, NA)		**j)** Assess the Relationship Between Customers and Broadband Internet Services Using Wireless Technologies in this Community (Low, Medium, High)	
			MMDS	**LMDS**	**Satellite**	**Unlicensed Spread Spectrum**	**Other** *(Please Identify)*		**Down-Stream**	**Up-Stream**	**Customer Inquiries***	**Customer Demand****
1)												
2)												
3)												
4)												
5)												
6)												
7)												
8)												
9)												
10)												

*"**Customer inquiries**" for wireless services greater than 200 Kbps is defined as: **Low** (received 3% or less inquiries); **Medium** (received between 4% and 19% inquiries); or **High** (received 20% or greater inquiries).
"Customer demand**" for wireless services greater than 200 Kbps is defined as: **Low** (3% or less of customers are subscribed to wireless services); **Medium** (between 4% and 19% of customers are subscribed to wireless services); or **High** (20% or greater of customers are subscribed to wireless services).

3. Please attach any marketing materials or price schedules related to your company's line of wireless services to this assessment.

IUB Contact: Brenda Biddle **Phone: (515) 242-0218** **E-Mail: brenda.biddle@iub.state.ia.us**

IOWA UTILITIES BOARD BROADBAND INTERNET ACCESS SURVEY FOR CABLE PROVIDERS AS OF JULY 1, 2004

Company Name: _____ Contact Person: _____

Address: _____ Fax #: _____

E-Mail Address: _____ Telephone #: _____

1. Does your company currently provide cable modem data services greater than 200 Kbps (similar to xDSL in the wireline industry) in the State of Iowa? **(Mark Applicable Response)**
Yes ☐ **No** ☐

2. Please use the worksheet format to provide the following information for **EACH Community** served in Iowa. Additional sheets are necessary if you serve more than 10 communities.

a) List All **Communities** Served by the Cable Provider *(Also, Please include **ALL** Communities in which your Company Plans to Provide Cable Modem Technologies within the Next 12 Months)*	**b)** Does this Community Currently have Access to Broadband Internet Service Using Cable Modems (Yes, No, NA)	**c)** Total Number of Customers in this Community (Round to nearest 100)*	**d)** Number of Customers **Currently** Accessing Broadband Internet Using Cable Modems in this Community	**e)** Do You Plan to Offer Broadband Internet Access Greater than 200 Kbps Using Cable Modems in this Community within the Next 12 Months (Yes, No, NA)	**i)** Does the Data Speed Exceed 200 Kbps (Yes, No, NA)		**j)** Assess the Relationship Between Customers and Broadband Internet Services Using Cable Modems in this Community (Low, Medium, High)	
					Down-Stream	**Up-Stream**	**Customer Inquiries***	**Customer Demand****
1)								
2)								
3)								
4)								
5)								
6)								
7)								
8)								
9)								
10)								

*"**Customer inquiries**" for cable modem services greater than 200 Kbps is defined as: **Low** (received 3% or less inquiries); **Medium** (received between 4% and 19% inquiries); or **High** (received 20% or greater inquiries).
"Customer demand**" for cable modem services greater than 200 Kbps is defined as: **Low** (3% or less of customers are subscribed to cable modem services); **Medium** (between 4% and 19% of customers are subscribed to cable modem services); or **High** (20% or greater of customers are subscribed to cable modem services).
3. Please attach any marketing materials or price schedules related to your company's line of cable modem services to this assessment.

IUB Contact: Brenda Biddle **Phone: (515) 242-0218** **E-Mail: brenda.biddle@iub.state.ia.us**

ATTACHMENT B

MAPS

Iowa Utilities Board High-Speed Internet Technology Map for: xDSL, Cable Modem and Wireless Service

- Communities with High-Speed Internet Available as of July 2004
- Communities with High-Speed Internet Proposed by July 2005

Iowa Utilities Board High-Speed Internet Technology Map for xDSL Service

- Communities with High-Speed xDSL Available as of July 2004
- Communities with High-Speed xDSL Proposed by July 2005

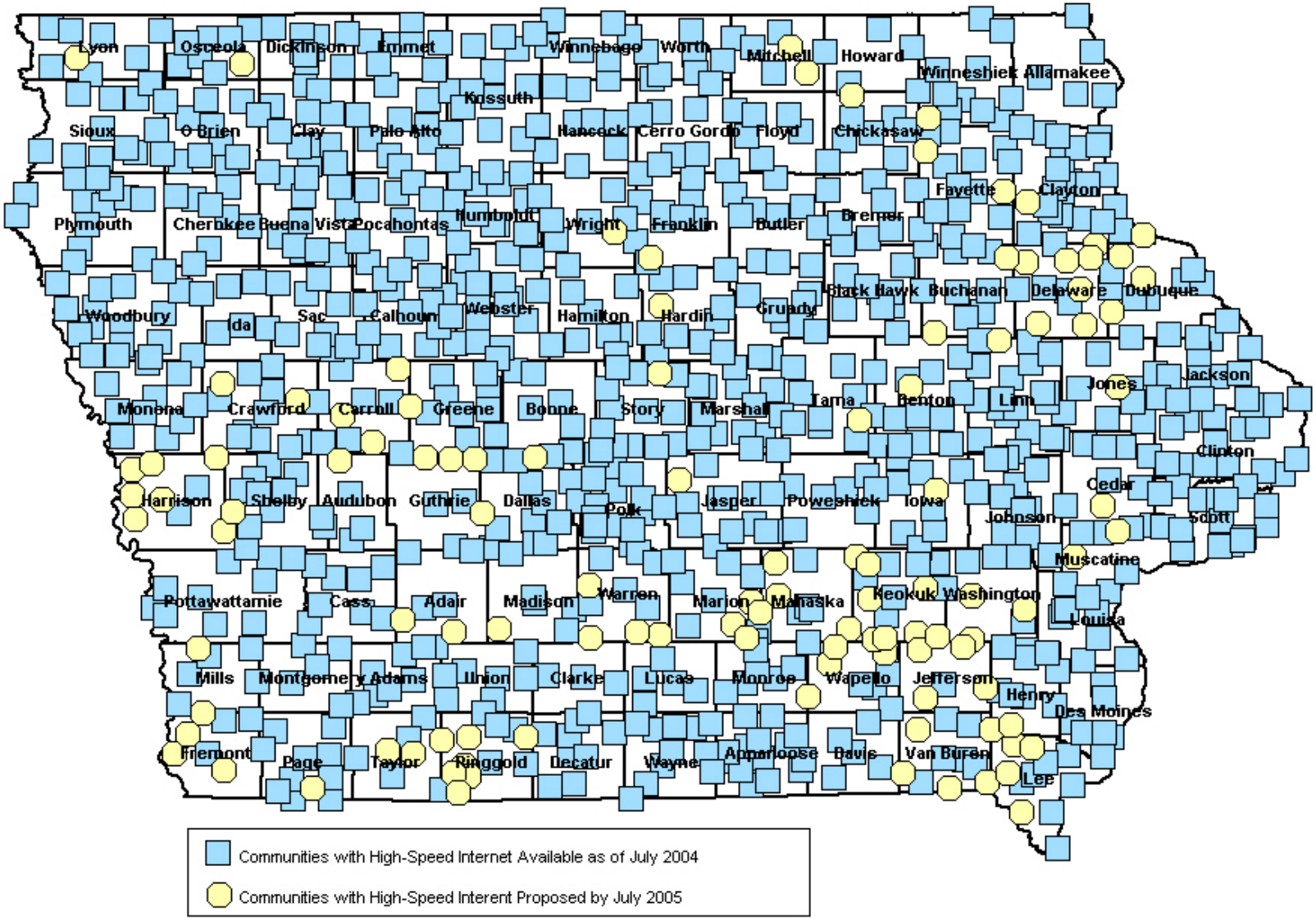
Iowa Utilities Board High-Speed Internet Technology Map for Cable-Modem Service

- Communities with High-Speed Cable-Modem Available as of July 2004
- Communities with High-Speed Cable-Modem Proposed by July 2005

Iowa Utilities Board High-Speed Internet Technology Map for Wireless Service

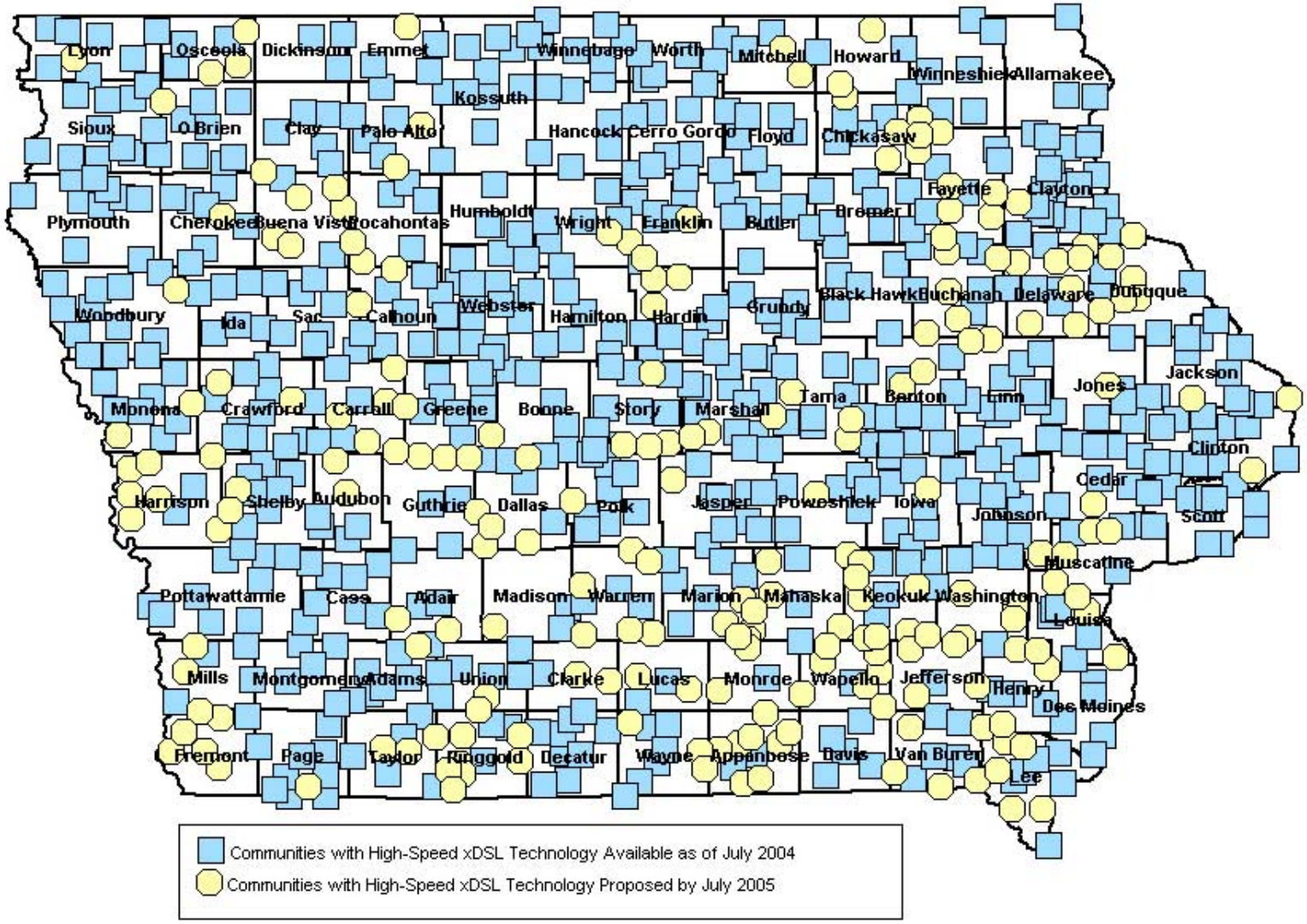
- Communities with High-Speed Wireless Available as of July 2004
- Communities with High-Speed Wireless Proposed by July 2005

STATE OF IOWA
High-Speed Technology Map
xDSL, Cable-Modem, and Wireless Services
July 2004



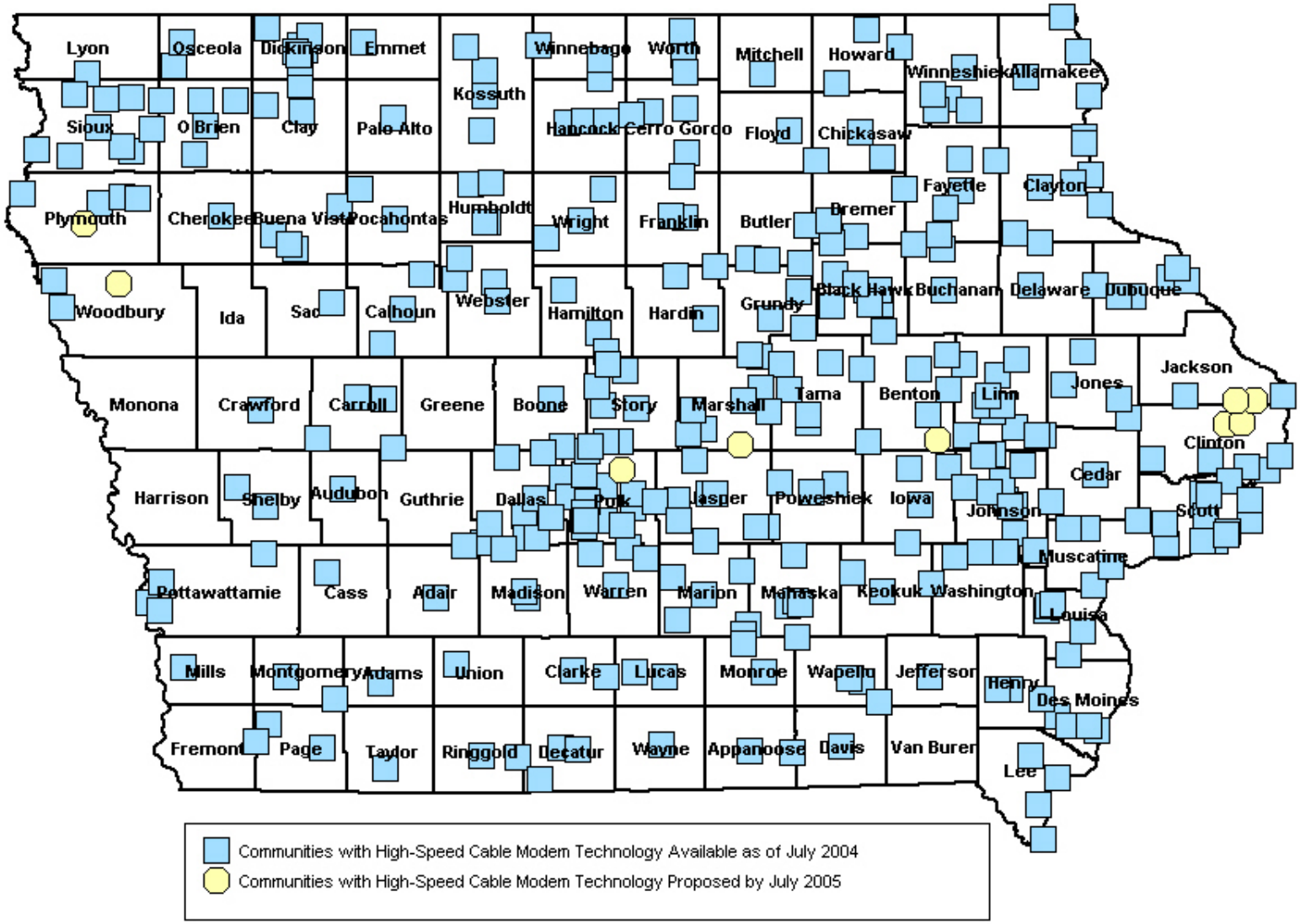
Availability of high-speed Internet access in a community does not mean the technology is available to all customers in that community.

STATE OF IOWA
High-Speed Technology Map
xDSL Service
July 2004



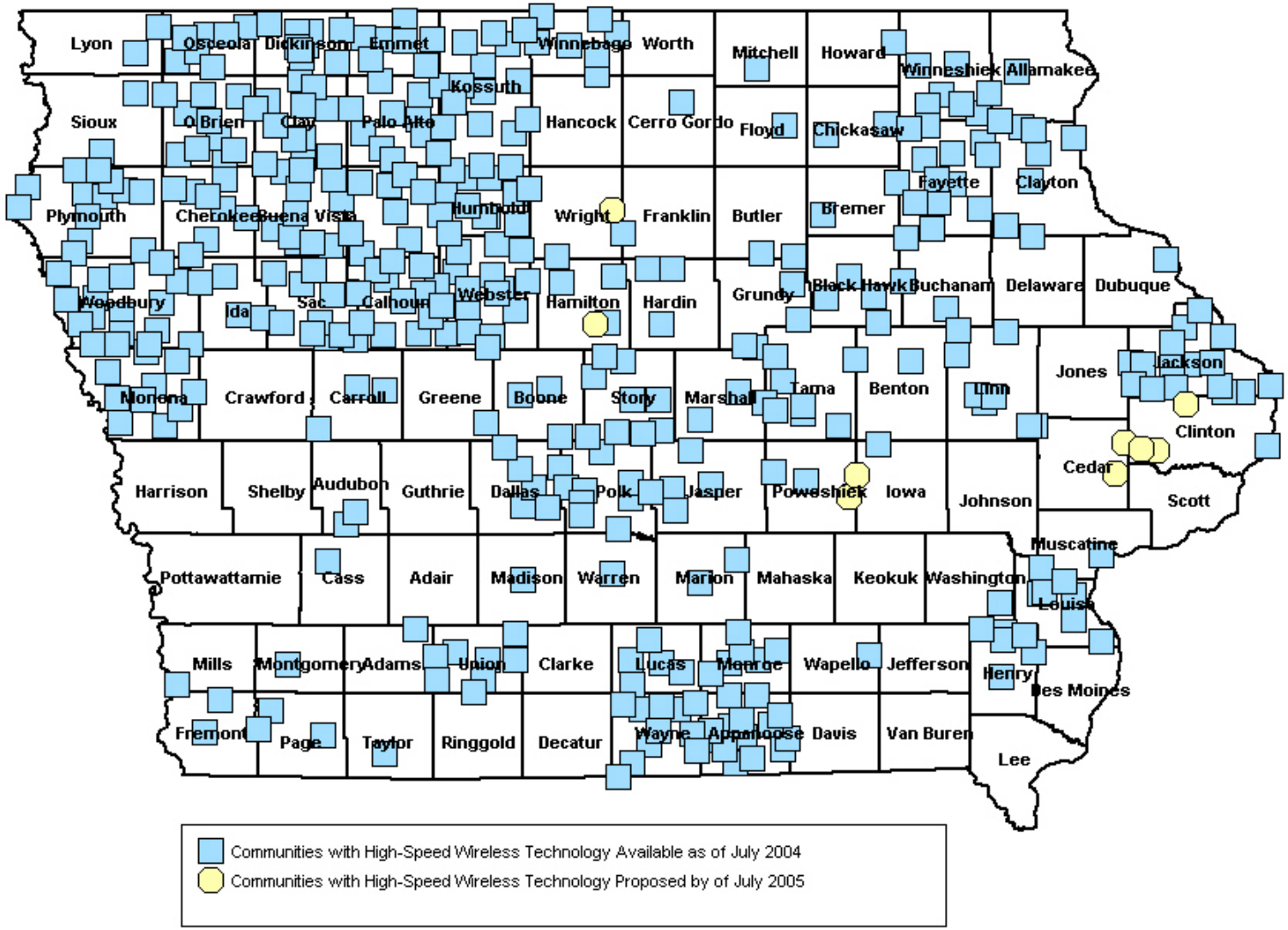
Availability of high-speed Internet access in a community does not mean the technology is available to all customers in that community.

STATE OF IOWA
High-Speed Technology Map
Cable-Modem Service
July 2004



Availability of high-speed Internet access in a community does not mean the technology is available to all customers in that community.

STATE OF IOWA
High-Speed Technology Map
Wireless Service
July 2004



Availability of high-speed Internet access in a community does not mean the technology is available to all customers in that community.

ATTACHMENT C

Fourth Assessment of Iowa Communities Accessing High-Speed Technologies

(As of July 2004)

FOURTH ASSESSMENT OF IOWA COMMUNITIES ACCESSING HIGH-SPEED TECHNOLOGIES								
			xDSL Technologies		Cable Modem Technologies		Wireless Technologies	
County Name	Community Name	Pop. Code	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05
Adair	Adair	R	X	X				
Adair	Bridgewater	R		X				
Adair	Fontanelle	R	X	X				
Adair	Greenfield	R	X	X	X	X		
Adair	Orient	R		X				
Adams	Brooks	R	X	X				
Adams	Carbon	R	X	X				
Adams	Corning	R	X	X	X	X		
Adams	Mercer Center	R	X	X				
Adams	Nevinville	R	X	X				
Adams	Nodaway	R	X	X				
Adams	Prescott	R	X	X				
Allamakee	Hanover	U						
Allamakee	Harper's Ferry	R	X	X	X	X		
Allamakee	Lansing	R			X	X		
Allamakee	New Albin	R	X	X	X	X		
Allamakee	Postville	R					X	X
Allamakee	Rossville	U						
Allamakee	South Spring Grove	R	X	X				
Allamakee	Waterville	R	X	X				
Allamakee	Waukon	U			X	X	X	X
Appanoose	Brazil	R						
Appanoose	Centerville	U	X	X	X	X	X	X
Appanoose	Cincinnati	R		X			X	X
Appanoose	Exline	R		X			X	X
Appanoose	Iconium	R					X	X
Appanoose	Jerome	R					X	X
Appanoose	Moravia	R		X			X	X
Appanoose	Moulton	R					X	X
Appanoose	Mystic	R		X			X	X
Appanoose	Numa	U	X	X			X	X
Appanoose	Plano	R		X			X	X
Appanoose	Rathbun	U		X			X	X

Availability of high-speed Internet access in a community does not mean the technology is available to all customers in that community.

FOURTH ASSESSMENT OF IOWA COMMUNITIES ACCESSING HIGH-SPEED TECHNOLOGIES								
			xDSL Technologies		Cable Modem Technologies		Wireless Technologies	
County Name	Community Name	Pop. Code	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05
Appanoose	Udell	R		X			X	X
Appanoose	Unionville	R		X			X	X
Audubon	Audubon	R		X	X	X		
Audubon	Brayton	R	X	X			X	X
Audubon	Exira	R	X	X			X	X
Audubon	Gray	R		X				
Audubon	Hamlin	R						
Audubon	Kimballton	R	X	X				
Audubon	Ross	R						
Benton	Atkins	R						
Benton	Belle Plaine	U	X	X	X	X		
Benton	Blairstown	R	X	X				
Benton	Garrison	R	X	X				
Benton	Keystone	R	X	X				
Benton	Luzerne	U	X	X				
Benton	Mount Auburn	R						
Benton	Newhall	R	X	X	X	X		
Benton	Norway	R	X	X		X		
Benton	Shellsburg	R	X	X	X	X		
Benton	Urbana	R	X	X	X	X		
Benton	Van Horne	R	X	X				
Benton	Vinton	U		X	X	X	X	X
Benton	Walford	R						
Benton	Watkins	R						
Black Hawk	Cedar Falls	U	X	X	X	X		
Black Hawk	Dewar	U						
Black Hawk	Dunkerton	R	X	X				
Black Hawk	Elk Run Heights	U			X	X		
Black Hawk	Evansdale	U			X	X		
Black Hawk	Gilbertville	U			X	X	X	X
Black Hawk	Hudson	R			X	X	X	X
Black Hawk	La Porte City	R	X	X	X	X	X	X
Black Hawk	Raymond	U			X	X		

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FOURTH ASSESSMENT OF IOWA COMMUNITIES ACCESSING HIGH-SPEED TECHNOLOGIES								
			xDSL Technologies		Cable Modem Technologies		Wireless Technologies	
County Name	Community Name	Pop. Code	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05
Black Hawk	Washburn	U			X	X		
Black Hawk	Waterloo	U	X	X	X	X	X	X
Boone	Jordan	R						
Boone	Napier	U						
Boone	Beaver	R						
Boone	Berkley	R						
Boone	Boone	U	X	X	X	X	X	X
Boone	Boxholm	R	X	X				
Boone	Fraser	R						
Boone	Luther	R	X	X				
Boone	Madrid	U	X	X	X	X	X	X
Boone	Ogden	R					X	X
Boone	Pilot Mound	R	X	X				
Bremer	Bremer	U						
Bremer	Buck Creek	R						
Bremer	Denver	R			X	X		
Bremer	Frederkia	R	X	X				
Bremer	Horton	R						
Bremer	Janesville	R	X	X	X	X		
Bremer	Plainfield	R	X	X				
Bremer	Readlyn	R	X	X				
Bremer	Sumner	R	X	X	X	X	X	X
Bremer	Tripoli	R	X	X				
Bremer	Waverly	U	X	X	X	X	X	X
Buchanan	Aurora	R	X	X				
Buchanan	Brandon	R		X				
Buchanan	Fairbank	R	X	X	X	X	X	X
Buchanan	Hazleton	R		X	X	X		
Buchanan	Independence	U		X	X	X		
Buchanan	Jesup	R	X	X			X	X
Buchanan	Lamont	R		X				
Buchanan	Littleton	R						
Buchanan	Quasqueton	R	X	X				

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Buchanan	Rowley	R		X			X	X
Buchanan	Stanley	R	X	X				
Buchanan	Winthrop	R	X	X				
Buena Vista	Albert City	R		X	X	X	X	X
Buena Vista	Alta	U		X	X	X	X	X
Buena Vista	Lakeside	U			X	X	X	X
Buena Vista	Linn Grove	R	X	X			X	X
Buena Vista	Marathon	R		X			X	X
Buena Vista	Newell	R	X	X			X	X
Buena Vista	Rembrandt	R		X			X	X
Buena Vista	Sioux Rapids	R					X	X
Buena Vista	Storm Lake	U		X	X	X	X	X
Buena Vista	Sulphur Springs	U					X	X
Buena Vista	Truesdale	U					X	X
Butler	Allison	R	X	X				
Butler	Aplington	R	X	X	X	X		
Butler	Aredale	R	X	X				
Butler	Austinville	R						
Butler	Bristow	R	X	X				
Butler	Clarksville	R	X	X				
Butler	Dumont	R	X	X				
Butler	Greene	R	X	X				
Butler	New Hartford	R			X	X	X	X
Butler	Parkersburg	R			X	X	X	X
Butler	Shell Rock	R	X	X	X	X		
Butler	Sinclair	R						
Calhoun	Farnhamville	R	X	X			X	X
Calhoun	Jolley	R	X	X			X	X
Calhoun	Knierim	R	X	X			X	X
Calhoun	Knoke	R					X	X
Calhoun	Lake City	R	X	X	X	X	X	X
Calhoun	Lohrville	R	X	X			X	X
Calhoun	Manson	R	X	X	X	X	X	X

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			xDSL Technologies		Cable Modem Technologies		Wireless Technologies	
County Name	Community Name	Pop. Code	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05
Calhoun	Pomeroy	R		X			X	X
Calhoun	Richard	R					X	X
Calhoun	Rinard	R					X	X
Calhoun	Rockwell City	R	X	X	X	X	X	X
Calhoun	Somers	R	X	X			X	X
Calhoun	Yetter	R	X	X			X	X
Carroll	Arcadia	R						
Carroll	Breda	R	X	X				
Carroll	Carroll	U	X	X	X	X	X	X
Carroll	Coon Rapids	R		X	X	X		
Carroll	Dedham	R		X				
Carroll	Glidden	R		X	X	X	X	X
Carroll	Halbur	R		X				
Carroll	Lanesboro	R		X				
Carroll	Lidderdale	R						
Carroll	Manning	R	X	X	X	X	X	X
Carroll	Maple River Junction	U						
Carroll	Mount Carmel	U						
Carroll	Ralston	R		X				
Carroll	Roselle	U						
Carroll	Templeton	R	X	X				
Carroll	Willey	U						
Cass	Anita	R	X	X				
Cass	Atlantic	U	X	X	X	X	X	X
Cass	Cumberland	R	X	X				
Cass	Griswold	R	X	X				
Cass	Lewis	R	X	X				
Cass	Lyman	R						
Cass	Marne	R	X	X				
Cass	Massena	R	X	X				
Cass	Wiota	R	X	X				
Cedar	Bennett	R	X	X				X
Cedar	Buchanan	U						

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Cedar	Cedar Bluff	U						
Cedar	Clarence	R	X	X				
Cedar	Downey	R						
Cedar	Durant	R	X	X	X	X		
Cedar	Lowden	R	X	X				X
Cedar	Massillion	R						
Cedar	Mechanicsville	R	X	X				
Cedar	Rochester	R		X				
Cedar	Springdale	R						
Cedar	Stanwood	R	X	X				
Cedar	Sunbury	R						
Cedar	Tipton	U	X	X	X	X		
Cedar	West Branch	R	X	X	X	X		
Cerro Gordo	Burchinal	R						
Cerro Gordo	Cartersville	R						
Cerro Gordo	Clear Lake	U	X	X	X	X		
Cerro Gordo	Dougherty	R	X	X				
Cerro Gordo	Mason City	U	X	X	X	X	X	X
Cerro Gordo	Meservey	R	X	X				
Cerro Gordo	Plymouth	R	X	X				
Cerro Gordo	Rock Falls	R						
Cerro Gordo	Rockwell	R	X	X	X	X		
Cerro Gordo	Swaledale	R	X	X				
Cerro Gordo	Thornton	R	X	X				
Cerro Gordo	Ventura	R	X	X	X	X		
Cherokee	Aurelia	R	X	X			X	X
Cherokee	Cherokee	U		X	X	X	X	X
Cherokee	Cleghorn	R	X	X			X	X
Cherokee	Larrabee	R	X	X			X	X
Cherokee	Marcus	R	X	X			X	X
Cherokee	Meriden	R	X	X			X	X
Cherokee	Quimby	R	X	X			X	X
Cherokee	Washta	R	X	X			X	X

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Chickasaw	Alta Vista	R		X				
Chickasaw	Bassett	U						
Chickasaw	Bradford	U						
Chickasaw	Fredericksburg	R		X	X	X		
Chickasaw	Ionia	U	X	X			X	X
Chickasaw	Lawler	R		X			X	X
Chickasaw	Nashua	R			X	X		
Chickasaw	New Hampton	U	X	X	X	X		
Chickasaw	North Washington	R	X	X				
Clarke	Murray	R	X	X				
Clarke	Osceola	U		X	X	X		
Clarke	Woodburn	R		X	X	X		
Clay	Cornell	R					X	X
Clay	Dickens	R	X	X			X	X
Clay	Everly	R			X	X	X	X
Clay	Fostoria	U			X	X	X	X
Clay	Gillett Grove	R	X	X				
Clay	Greenville	U					X	X
Clay	Langdon	U					X	X
Clay	Peterson	R		X			X	X
Clay	Rossie	U					X	X
Clay	Royal	R	X	X			X	X
Clay	Spencer	U	X	X	X	X	X	X
Clay	Webb	R	X	X			X	X
Clayton	Clayton	R	X	X	X	X		
Clayton	Clayton Center	R	X	X				
Clayton	Communia	R	X	X				
Clayton	East Amana	R						
Clayton	Elkader	R	X	X	X	X	X	X
Clayton	Elkport	R	X	X				
Clayton	Farmersburg	R	X	X			X	X
Clayton	Garber	R	X	X				
Clayton	Garnavillo	R	X	X	X	X		

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Clayton	Giard	R	X	X				
Clayton	Guttenburg	R	X	X	X	X		
Clayton	Littleport	R	X	X				
Clayton	Luana	R	X	X			X	X
Clayton	Marquette	R	X	X	X	X		
Clayton	McGregor	R	X	X	X	X	X	X
Clayton	Mederville	R	X	X				
Clayton	Millville	R	X	X				
Clayton	Monona	R	X	X			X	X
Clayton	North Buena Vista	R		X				
Clayton	Osborne	R	X	X				
Clayton	Osterdock	R	X	X				
Clayton	Saint Olaf	R						
Clayton	Strawberry Point	R	X	X	X	X	X	X
Clayton	Volga	R		X				
Clinton	Andover	R						
Clinton	Bryant	R						
Clinton	Calamus	R	X	X				X
Clinton	Camanche	U			X	X		
Clinton	Charlotte	R	X	X		X		
Clinton	Clinton	U	X	X	X	X	X	X
Clinton	Delmar	R	X	X				X
Clinton	DeWitt	R	X	X	X	X		
Clinton	Elvira	R						
Clinton	Elwood	R	X	X				
Clinton	Goose Lake	R	X	X		X		
Clinton	Grand Mound	R	X	X				
Clinton	Lost Nation	R	X	X				
Clinton	Low Moor	R		X	X	X		
Clinton	Toronto	R						
Clinton	Welton	R	X	X				
Clinton	Wheatland	R	X	X	X	X		X
Crawford	Arion	R	X	X				
Crawford	Aspinwall	R	X	X				

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Crawford	Boyer	R						
Crawford	Buck Grove	R	X	X				
Crawford	Charter Oak	R	X	X				
Crawford	Deloit	U	X	X				
Crawford	Denison	U	X	X	X	X		
Crawford	Dow City	R	X	X				
Crawford	Kiron	R	X	X				
Crawford	Manilla	R	X	X				
Crawford	Ricketts	R		X				
Crawford	Schleswig	R	X	X				
Crawford	Vail	R		X				
Crawford	Westside	R	X	X				
Dallas	Adel	U			X	X	X	X
Dallas	Booneville	R						
Dallas	Bouton	R		X				
Dallas	Dallas Center	R			X	X	X	X
Dallas	Dawson	U	X	X				
Dallas	DeSoto	R		X	X	X		
Dallas	Dexter	R		X	X	X		
Dallas	Granger	R			X	X	X	X
Dallas	Linden	R		X				
Dallas	Minburn	R	X	X			X	X
Dallas	Perry	U	X	X	X	X	X	X
Dallas	Redfield	R		X	X	X		
Dallas	Van Meter	R			X	X		
Dallas	Waukee	U	X	X	X	X	X	X
Dallas	Woodward	R	X	X	X	X		
Davis	Bloomfield	U	X	X	X	X		
Davis	Drakesville	R	X	X				
Davis	Floris	R	X	X				
Davis	Mark	R	X	X				
Davis	Pulaski	R	X	X				
Davis	Troy	R						
Davis	West Grove	R						

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Decatur	Davis City	R	X	X				
Decatur	Decatur City	R	X	X	X	X		
Decatur	Garden Grove	R	X	X				
Decatur	Grand River	R	X	X				
Decatur	Lamoni	R	X	X	X	X		
Decatur	Leon	R	X	X	X	X		
Decatur	LeRoy, MN (Bailey, IA)	R						
Decatur	Pleasanton	R						
Decatur	Van Wert	R	X	X				
Decatur	Weldon	R	X	X				
Decatur	Woodland	R						
Delaware	Colesburg	R		X				
Delaware	Delaware	R	X	X				
Delaware	Delhi	R	X	X				
Delaware	Dundee	R		X				
Delaware	Earlville	R		X				
Delaware	Edgewood	R	X	X	X	X	X	X
Delaware	Greeley	R		X				
Delaware	Hopkinton	R		X				
Delaware	Manchester	U	X	X	X	X		
Delaware	Masonville	U	X	X				
Delaware	Oneida	R						
Delaware	Ryan	R		X				
Delaware	Sand Springs	U						
Delaware	Petersburg	R						
Des Moines	Burlington	U	X	X	X	X		
Des Moines	Danville	R	X	X	X	X		
Des Moines	Dodgeville	R						
Des Moines	Kingston	R	X	X				
Des Moines	Kossuth	R						
Des Moines	Mediapolis	R	X	X				
Des Moines	Middletown	U			X	X		
Des Moines	Sperry	R	X	X				
Des Moines	West Burlington	U			X	X		

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Dickinson	Arnolds Park	R			X	X	X	X
Dickinson	Lake Park	R			X	X	X	X
Dickinson	Milford	R			X	X	X	X
Dickinson	Okoboji	R			X	X	X	X
Dickinson	Orleans	U			X	X	X	X
Dickinson	Spirit Lake	U	X	X	X	X	X	X
Dickinson	Superior	R	X	X			X	X
Dickinson	Terril	R	X	X			X	X
Dickinson	Triboji Beach	U					X	X
Dickinson	Wahpeton	R			X	X	X	X
Dickinson	West Okoboji	R			X	X	X	X
Dubuque	Asbury	R			X	X		
Dubuque	Balltown	U						
Dubuque	Bankston	R		X				
Dubuque	Bernard	R	X	X				
Dubuque	Cascade	R	X	X				
Dubuque	Center Grove	U						
Dubuque	Centralia	U						
Dubuque	Dubuque	U	X	X	X	X		
Dubuque	Durango	U						
Dubuque	Dyersville	U	X	X	X	X		
Dubuque	Epworth	R		X	X	X		
Dubuque	Farley	R		X	X	X		
Dubuque	Graf	U						
Dubuque	Holy Cross	R		X				
Dubuque	Keywest	U						
Dubuque	Luxemburg	R		X				
Dubuque	New Vienna	R	X	X				
Dubuque	Peosta	U						
Dubuque	Peru	R		X				
Dubuque	Rickardsville	U						
Dubuque	Sageville	U			X	X		
Dubuque	Sherrill	U						

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Dubuque	Worthington	R		X				
Dubuque	Zwingle	U	X	X				
Emmet	Armstrong	R	X	X			X	X
Emmet	Dolliver	R		X			X	X
Emmet	Estherville	U			X	X	X	X
Emmet	Gruver	U					X	X
Emmet	Maple Hill	U					X	X
Emmet	Ringsted	R	X	X			X	X
Emmet	Wallingford	R	X	X			X	X
Fayette	Alpha	R		X				
Fayette	Arlington	R		X			X	X
Fayette	Clermont	R	X	X			X	X
Fayette	Donnan	R						
Fayette	Eldorado	R						
Fayette	Elgin	R	X	X	X	X	X	X
Fayette	Fayette	R	X	X	X	X	X	X
Fayette	Hawkeye	R	X	X			X	X
Fayette	Maynard	R		X	X	X	X	X
Fayette	Oelwein	U		X	X	X	X	X
Fayette	Oran	R	X	X				
Fayette	Randalia	R		X			X	X
Fayette	Saint Lucas	R		X			X	X
Fayette	Wadena	R		X				
Fayette	Waucoma	R		X			X	X
Fayette	West Union	R			X	X	X	X
Fayette	Westgate	R	X	X			X	X
Floyd	Charles City	U	X	X	X	X	X	X
Floyd	Colwell	U						
Floyd	Floyd	R	X	X				
Floyd	Marble Rock	R	X	X				
Floyd	Nora Springs	R	X	X				
Floyd	Rockford	R	X	X				
Floyd	Rudd	R	X	X				

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Franklin	Alexander	R	X	X				
Franklin	Chapin	R	X	X				
Franklin	Coulter	R	X	X				
Franklin	Faulkner	R						
Franklin	Geneva	U		X				
Franklin	Hampton	U		X	X	X		
Franklin	Hansell	U						
Franklin	Latimer	R	X	X				
Franklin	Popejoy	R		X				
Franklin	Sheffield	R	X	X	X	X		
Fremont	Bartlett	R						
Fremont	Farragut	R						
Fremont	Hamburg	R						
Fremont	Imogene	R	X	X				
Fremont	Percival	R		X				
Fremont	Randolph	R		X			X	X
Fremont	Riverton	R		X				
Fremont	Sidney	R		X			X	X
Fremont	Tabor	R		X				
Fremont	Thurman	R		X				
Greene	Adaza	R						
Greene	Churdan	R	X	X				
Greene	Cooper	U	X	X				
Greene	Dana	R	X	X				
Greene	Farlin	U	X	X				
Greene	Grand Junction	R	X	X				
Greene	Jefferson	U	X	X				
Greene	Paton	R	X	X				
Greene	Rippey	R		X			X	X
Greene	Scranton	R	X	X				
Grundy	Beaman	R	X	X	X	X	X	X
Grundy	Conrad	R	X	X	X	X	X	X
Grundy	Dike	R			X	X	X	X

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Grundy	Grundy Center	U	X	X	X	X		
Grundy	Holland	U	X	X				
Grundy	Morrison	U	X	X				
Grundy	Reinbeck	R	X	X	X	X	X	X
Grundy	Stout	R						
Grundy	Wellsburg	R	X	X				
Guthrie	Bagley	R		X				
Guthrie	Bayard	R		X				
Guthrie	Casey	R						
Guthrie	Guthrie Center	R	X	X				
Guthrie	Herndon	R						
Guthrie	Jamaica	R		X				
Guthrie	Menlo	R	X	X				
Guthrie	Monteith	R						
Guthrie	Panora	R	X	X				
Guthrie	Stuart	R			X	X		
Guthrie	Yale	R						
Hamilton	Blairsburg	R						
Hamilton	Ellsworth	R	X	X			X	X
Hamilton	Jewell	R			X	X		X
Hamilton	Kamrar	R	X	X				
Hamilton	Randall	R	X	X	X	X		
Hamilton	Stanhope	R	X	X				
Hamilton	Stratford	R	X	X				
Hamilton	Webster City	U	X	X	X	X	X	X
Hamilton	Williams	R					X	X
Hancock	Britt	R			X	X		
Hancock	Corwith	R	X	X				
Hancock	Crystal Lake	R	X	X				
Hancock	Duncan	R			X	X		
Hancock	Garner	U	X	X	X	X		
Hancock	Goodell	R						
Hancock	Hayfield	U						

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Hancock	Hutchins	R						
Hancock	Kanawha	R	X	X				
Hancock	Klemme	R	X	X				
Hancock	Miller	R						
Hancock	Mills	R						
Hancock	Woden	R	X	X				
Hardin	Ackley	R			X	X		
Hardin	Alden	R		X			X	X
Hardin	Buckeye	R		X				
Hardin	Cleves	R						
Hardin	Eldora	U	X	X	X	X		
Hardin	Garden City	R	X	X				
Hardin	Gifford	U						
Hardin	Hubbard	R	X	X			X	X
Hardin	Iowa Falls	U		X	X	X	X	X
Hardin	Lawn Hill	R						
Hardin	New Providence	R	X	X				
Hardin	Owasa	U						
Hardin	Radcliffe	R	X	X				
Hardin	Steamboat Rock	R	X	X				
Hardin	Union	R	X	X				
Hardin	Whitten	R						
Harrison	Dunlap	R		X				
Harrison	Little Sioux	R		X				
Harrison	Logan	R	X	X				
Harrison	Magnolia	R		X				
Harrison	Missouri Valley	U						
Harrison	Modale	R		X				
Harrison	Mondamin	R		X				
Harrison	Persia	R		X				
Harrison	Pisgah	R		X				
Harrison	River Sioux	R						
Harrison	Woodbine	R	X	X				

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FOURTH ASSESSMENT OF IOWA COMMUNITIES ACCESSING HIGH-SPEED TECHNOLOGIES								
			xDSL Technologies		Cable Modem Technologies		Wireless Technologies	
County Name	Community Name	Pop. Code	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05
Henry	Coppock	R						
Henry	Hillsboro	R		X				
Henry	Mount Pleasant	U	X	X	X	X	X	X
Henry	Mount Union	R		X			X	X
Henry	New London	R	X	X	X	X		
Henry	Olds	R		X			X	X
Henry	Rome	U	X	X				
Henry	Salem	R		X				
Henry	Swedesburg	R					X	X
Henry	Trenton	R						
Henry	Wayland	R	X	X			X	X
Henry	Westwood	U	X	X	X	X		
Henry	Winfield	R		X			X	X
Henry	Yarmouth	R						
Howard	Chester	R						
Howard	Cresco	U	X	X	X	X	X	X
Howard	Elma	R		X	X	X		
Howard	Lime Spring	R		X	X	X		
Howard	Protivin	R	X	X				
Humboldt	Bode	R			X	X	X	X
Humboldt	Bradgate	R					X	X
Humboldt	Dakota City	U	X	X	X	X	X	X
Humboldt	Gilmore City	R					X	X
Humboldt	Hardy	R					X	X
Humboldt	Humboldt	U	X	X	X	X	X	X
Humboldt	Livermore	R	X	X	X	X	X	X
Humboldt	Ottosen	R					X	X
Humboldt	Pioneer	R					X	X
Humboldt	Renwick	R					X	X
Humboldt	Rutland	U					X	X
Humboldt	Thor	R	X	X			X	X
Ida	Arthur	R	X	X			X	X
Ida	Battle Creek	R	X	X				

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Ida	Galva	R	X	X				
Ida	Holstein	R	X	X			X	X
Ida	Ida Grove	R	X	X			X	X
Iowa	Amana	R	X	X	X	X		
Iowa	Conroy	R		X				
Iowa	Koszta	R						
Iowa	Ladora	R	X	X				
Iowa	Marengo	U	X	X	X	X		
Iowa	Middle Amana	R						
Iowa	Millersburg	R	X	X				
Iowa	North English	R	X	X	X	X		
Iowa	Parnell	U	X	X				
Iowa	Victor	R	X	X				X
Iowa	West Amana	R						
Iowa	Williamsburg	U	X	X	X	X		
Jackson	Andrew	R					X	X
Jackson	Baldwin	R	X	X			X	X
Jackson	Bellevue	R	X	X			X	X
Jackson	Canton	U					X	X
Jackson	Emeline	U					X	X
Jackson	Fulton	U					X	X
Jackson	Hurstville	U					X	X
Jackson	La Motte	R	X	X			X	X
Jackson	Maquoketa	U		X	X	X	X	X
Jackson	Miles	R	X	X		X	X	X
Jackson	Monmouth	R	X	X			X	X
Jackson	Nashville	R					X	X
Jackson	Otter Creek	R	X	X			X	X
Jackson	Preston	R	X	X		X	X	X
Jackson	Sabula	R		X	X	X	X	X
Jackson	Saint Donatus	U	X	X			X	X
Jackson	Spragueville	R	X	X			X	X
Jackson	Springbrook	R	X	X			X	X

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Jasper	Baxter	R	X	X	X	X	X	X
Jasper	Colfax	R			X	X	X	X
Jasper	Galesburg	R						
Jasper	Ira	R						
Jasper	Kellogg	R	X	X				
Jasper	Killduff	R	X	X				
Jasper	Lamb's Grove	U	X	X	X	X		
Jasper	Lynnville	R	X	X	X	X		
Jasper	Mingo	R		X				
Jasper	Monroe	R	X	X	X	X		
Jasper	Newton	U	X	X	X	X	X	X
Jasper	Oakland Acres	U	X	X				
Jasper	Prairie City	R			X	X	X	X
Jasper	Reasnor	R	X	X				
Jasper	Sully	R	X	X	X	X		
Jasper	Valeria	R						
Jasper	Vandalia	R						
Jefferson	Abingdon	R						
Jefferson	Batavia	R						
Jefferson	Fairfield	U	X	X	X	X		
Jefferson	Libertyville	R		X				
Jefferson	Linby	R						
Jefferson	Lockridge	R		X				
Jefferson	Packwood	R		X				
Jefferson	Pleasant Plain	R		X				
Johnson	Carl	R	X	X				
Johnson	Coralville	U	X	X	X	X		
Johnson	Frytown	R						
Johnson	Hills	R	X	X	X	X		
Johnson	Iowa City	U	X	X	X	X		
Johnson	Lone Tree	R		X	X	X		
Johnson	North Liberty	U	X	X	X	X		
Johnson	Oasis	R						

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Johnson	Oxford	R	X	X	X	X		
Johnson	Sharon Center	R	X	X				
Johnson	Shueyville	R			X	X		
Johnson	Solon	R	X	X	X	X		
Johnson	Swisher	R	X	X	X	X		
Johnson	Tiffin	R	X	X	X	X		
Johnson	University Heights	U			X	X		
Jones	Amber	U						
Jones	Anamosa	U			X	X		
Jones	Center Junction	R		X				
Jones	Fairview	U						
Jones	Hale	R						
Jones	Langworthy	U						
Jones	Martelle	R	X	X				
Jones	Monticello	U			X	X		
Jones	Morley	R						
Jones	Olin	R	X	X				
Jones	Onslow	R	X	X				
Jones	Oxford Junction	R	X	X	X	X		
Jones	Oxford Mills	R						
Jones	Scotch Grove	U						
Jones	Stone City	U						
Jones	Wyoming	R	X	X	X	X		
Keokuk	Delta	R		X				
Keokuk	Gibson	R		X				
Keokuk	Harper	R		X				
Keokuk	Hayesville	R	X	X				
Keokuk	Hedrick	R		X				
Keokuk	Keota	R	X	X	X	X		
Keokuk	Keswick	R	X	X				
Keokuk	Kinross	R	X	X				
Keokuk	Martinsburg	R		X				
Keokuk	Ollie	R		X				

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Keokuk	Pekin	R						
Keokuk	Richland	R		X				
Keokuk	Sigourney	R	X	X	X	X		
Keokuk	South English	R	X	X				
Keokuk	Tallyrand	R						
Keokuk	Thornburg	R		X				
Keokuk	Webster	R						
Keokuk	What Cheer	R		X	X	X		
Kossuth	Algona	U	X	X	X	X	X	X
Kossuth	Bancroft	R	X	X	X	X	X	X
Kossuth	Burt	R	X	X	X	X	X	X
Kossuth	Fenton	R	X	X			X	X
Kossuth	Lakota	R	X	X			X	X
Kossuth	Ledyard	R	X	X			X	X
Keokuk	Pekin	R						
Kossuth	Lone Rock	R	X	X			X	X
Kossuth	Lotts Creek	R					X	X
Kossuth	LuVerne	R					X	X
Kossuth	Saint Benedict	R					X	X
Kossuth	Saint Joseph	R					X	X
Kossuth	Stevens	R	X	X			X	X
Kossuth	Swea City	R	X	X	X	X	X	X
Kossuth	Titonka	R	X	X			X	X
Kossuth	Wesley	R					X	X
Kossuth	Whittemore	R					X	X
Lee	Argyle	R		X				
Lee	Denmark	R	X	X				
Lee	Donnellson	R	X	X				
Lee	Fort Madison	U	X	X	X	X		
Lee	Franklin	R	X	X				
Lee	Houghton	R		X				
Lee	Keokuk	U	X	X	X	X		
Lee	Montrose	R		X	X	X		

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Lee	Primrose	R		X				
Lee	Saint Paul	R		X				
Lee	West Point	R	X	X	X	X		
Lee	Wever	U						
Linn	Alburnett	R	X	X	X	X		
Linn	Bertram	U			X	X		
Linn	Cedar Rapids	U	X	X	X	X	X	X
Linn	Center Point	R			X	X	X	X
Linn	Central City	R	X	X	X	X		
Linn	Coggon	R					X	X
Linn	Ely	R	X	X				
Linn	Fairfax	R	X	X	X	X		
Linn	Hiawatha	U	X	X	X	X	X	X
Linn	LaFayette	R						
Linn	Lisbon	R	X	X	X	X	X	X
Linn	Marion	U	X	X	X	X	X	X
Linn	Mount Vernon	U			X	X	X	X
Linn	Palo	R	X	X				
Linn	Paris	R						
Linn	Prairieburg	R	X	X				
Linn	Robins	U			X	X		
Linn	Springville	R	X	X				
Linn	Toddville	U						
Linn	Troy Mills	R		X				
Linn	Viola	R	X	X				
Linn	Walker	R		X			X	X
Linn	Whitter	R	X	X				
Louisa	Columbus City	R	X	X	X	X		
Louisa	Columbus Junction	R	X	X	X	X	X	X
Louisa	Cotter	R						
Louisa	Fredonia	R	X	X	X	X	X	X
Louisa	Grandview	R		X			X	X
Louisa	Letts	R		X			X	X

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Louisa	Morning Sun	R	X	X	X	X		
Louisa	Oakville	R		X			X	X
Louisa	Wapello	R	X	X	X	X	X	X
Louisa	Wyman	R						
Lucas	Chariton	U	X	X	X	X	X	X
Lucas	Derby	R	X	X			X	X
Lucas	Lucas	R		X	X	X	X	X
Lucas	Oakley	R					X	X
Lucas	Russell	R		X			X	X
Lucas	Williamson	R		X			X	X
Lyon	Alvord	R		X				
Lyon	Doon	R	X	X	X	X		
Lyon	George	R	X	X	X	X	X	X
Lyon	Inwood	R	X	X				
Lyon	Larchwood	R	X	X				
Lyon	Lester	R	X	X				
Lyon	Little Rock	R	X	X			X	X
Lyon	Rock Rapids	U	X	X				
Madison	Bevington	U						
Madison	Earlham	R			X	X		
Madison	East Peru	R						
Madison	Macksburg	R		X				
Madison	Patterson	U						
Madison	Saint Charles	R	X	X				
Madison	Truro	R	X	X				
Madison	Winterset	U			X	X	X	X
Mahaska	Barnes City	R						
Mahaska	Beacon	U			X	X		
Mahaska	Cedar	R						
Mahaska	Fremont	R		X				
Mahaska	Keomah Village	U						
Mahaska	Lacey	U						
Mahaska	Leighton	R		X				

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Mahaska	New Sharon	R	X	X	X	X		
Mahaska	Oskaloosa	U	X	X	X	X		
Mahaska	Peoria	R		X				
Mahaska	Rose Hill	R						
Mahaska	Taintor	R						
Mahaska	University Park	U			X	X		
Marion	Attica	R		X				
Marion	Bussey	R		X	X	X		
Marion	Columbia	R						
Marion	Dallas	R			X	X		
Marion	Flagler	U						
Marion	Hamilton	R		X	X	X		
Marion	Hancock	R	X	X				
Marion	Harvey	U		X				
Marion	Knoxville	U	X	X	X	X	X	X
Marion	Marysville	R		X				
Marion	Melcher	R	X	X	X	X		
Marion	Otley	R	X	X				
Marion	Pella	U	X	X	X	X	X	X
Marion	Pershing	R						
Marion	Pleasantville	R	X	X	X	X		
Marion	Swan	R	X	X				
Marion	Tracy	R		X				
Marshall	Albion	R	X	X				
Marshall	Bangor	R						
Marshall	Clemons	R	X	X				
Marshall	Ferguson	R	X	X				
Marshall	Gilman	R	X	X				
Marshall	Green Mountain	R	X	X	X	X		
Marshall	Haverhill	R	X	X				
Marshall	La Moille	U						
Marshall	Laurel	R	X	X		X		
Marshall	LeGrand	R		X	X	X	X	X

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Marshall	Liscomb	R	X	X				
Marshall	Marietta	U						
Marshall	Marshalltown	U	X	X	X	X	X	X
Marshall	Melbourne	R		X	X	X	X	X
Marshall	Rhodes	R		X	X	X		
Marshall	Saint Anthony	R	X	X				
Marshall	State Center	R	X	X	X	X		
Marshall	Van Cleve	R						
Mills	Emerson	R	X	X				
Mills	Glenwood	U		X	X	X		
Mills	Hastings	R						
Mills	Henderson	R	X	X				
Mills	Malvern	R						
Mills	Mineola	U		X				
Mills	Pacific Junction	R						
Mills	Silver City	U	X	X				
Mills	Strahan	R						
Mitchell	Carpenter	R	X	X				
Mitchell	Little Cedar	R		X				
Mitchell	McIntire	R						
Mitchell	Meyer	R						
Mitchell	Mitchell	U						
Mitchell	New Haven	R		X				
Mitchell	Orchard	U						
Mitchell	Osage	U			X	X	X	X
Mitchell	Riceville	R	X	X				
Mitchell	Saint Ansgar	R	X	X				
Mitchell	Stacyville	R	X	X				
Mitchell	Toeterville	R						
Monona	Blencoe	R		X			X	X
Monona	Castana	R	X	X			X	X
Monona	Mapleton	R	X	X			X	X
Monona	Moorhead	R	X	X			X	X

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			Access as of July-04	Access by July-05	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05
Monona	Onawa	U	X	X			X	X
Monona	Rodney	R					X	X
Monona	Soldier	R	X	X			X	X
Monona	Turin	R	X	X			X	X
Monona	Ute	R		X			X	X
Monona	Whiting	R	X	X			X	X
Monroe	Albia	U	X	X	X	X	X	X
Monroe	Avery	U					X	X
Monroe	Georgetown	U					X	X
Monroe	Hiteman	R					X	X
Monroe	Lovilia	R		X	X	X	X	X
Monroe	Melrose	R		X			X	X
Montgomery	Coburg	U						
Montgomery	Elliot	R	X	X				
Montgomery	Grant	R	X	X				
Montgomery	Red Oak	U	X	X	X	X	X	X
Montgomery	Stanton	R	X	X				
Montgomery	Villisca	R	X	X	X	X		
Muscatine	Atalissa	R		X	X	X		
Muscatine	Montpelier	U						
Muscatine	Moscow	R		X				
Muscatine	Muscatine	U	X	X	X	X	X	X
Muscatine	Nichols	R		X				
Muscatine	Stockton	U	X	X				
Muscatine	West Liberty	U	X	X	X	X		
Muscatine	Wilton	U	X	X				
O'Brien	Archer	R	X	X			X	X
O'Brien	Calumet	R	X	X			X	X
O'Brien	Gaza	R					X	X
O'Brien	Germantown	R					X	X
O'Brien	Hartley	R	X	X	X	X	X	X
O'Brien	Moneta	R					X	X
O'Brien	Paullina	R	X	X	X	X	X	X
O'Brien	Primghar	R	X	X	X	X	X	X

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O'Brien	Sanborn	R	X	X	X	X	X	X
O'Brien	Sheldon	U		X	X	X	X	X
O'Brien	Sutherland	R	X	X			X	X
Osceola	Allendorf	U					X	X
Osceola	Ashton	R	X	X	X	X	X	X
Osceola	Bigelow, MN (S. Bigelow, IA)	R					X	X
Osceola	Cloverdale	U					X	X
Osceola	Harris	R		X			X	X
Osceola	May City	R		X				
Osceola	Melvin	R		X			X	X
Osceola	Ocheyedan	R	X	X			X	X
Osceola	Sibley	U	X	X	X	X	X	X
Page	Bethesda -Region	R						
Page	Bingham	U						
Page	Blanchard	R	X	X				
Page	Braddyville	R	X	X				
Page	Clarinda	U	X	X	X	X	X	X
Page	Coin	R	X	X				
Page	College Springs	R		X				
Page	Essex	R			X	X	X	X
Page	Hawleyville	U						
Page	Hepburn	U	X	X				
Page	Northboro	R	X	X				
Page	Shambaugh	R	X	X				
Page	Shenandoah	U	X	X	X	X	X	X
Page	Yorktown	U	X	X				
Palo Alto	Ayrshire	R	X	X			X	X
Palo Alto	Curlew	R	X	X			X	X
Palo Alto	Cylinder	R		X			X	X
Palo Alto	Depew	R					X	X
Palo Alto	Emmetsburg	U	X	X	X	X	X	X
Palo Alto	Graettinger	R	X	X			X	X
Palo Alto	Mallard	R		X			X	X

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Palo Alto	Rodman	R					X	X
Palo Alto	Ruthven	R	X	X			X	X
Palo Alto	West Bend	R	X	X			X	X
Plymouth	Akron	R	X	X	X	X	X	X
Plymouth	Brunsville	R	X	X			X	X
Plymouth	Craig	R	X	X			X	X
Plymouth	Hinton	R	X	X			X	X
Plymouth	James	U					X	X
Plymouth	Kingsley	R	X	X			X	X
Plymouth	LeMars	U	X	X	X	X	X	X
Plymouth	Merrill	R				X	X	X
Plymouth	Oyens	U	X	X	X	X	X	X
Plymouth	Remsen	R	X	X	X	X	X	X
Plymouth	Senely	U	X	X			X	X
Plymouth	Struble	R	X	X			X	X
Plymouth	West Akron	R					X	X
Plymouth	Westfield	R					X	X
Pocahontas	Fonda	R		X			X	X
Pocahontas	Havelock	R	X	X			X	X
Pocahontas	Laurens	R			X	X	X	X
Pocahontas	Palmer	R	X	X			X	X
Pocahontas	Plover	R	X	X			X	X
Pocahontas	Pocahontas	R			X	X	X	X
Pocahontas	Rolfe	R	X	X			X	X
Pocahontas	Varina	R		X			X	X
Polk	Alleman	R	X	X			X	X
Polk	Altoona	U	X	X	X	X	X	X
Polk	Ankeny	U	X	X	X	X		
Polk	Avon	U					X	X
Polk	Berwick	R						
Polk	Bondurant	U			X	X	X	X
Polk	Clive	U			X	X		
Polk	Des Moines	U	X	X	X	X		

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			xDSL Technologies		Cable Modem Technologies		Wireless Technologies	
County Name	Community Name	Pop. Code	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05
Polk	Elkhart	R	X	X		X		
Polk	Enterprise	U						
Polk	Farrar	R						
Polk	Grimes	U		X	X	X	X	X
Polk	Johnston	U			X	X	X	X
Polk	Mitchellville	U			X	X	X	X
Polk	Pleasant Hill	U			X	X		
Polk	Polk City	R			X	X		
Polk	Rising Sun	U						
Polk	Runnells	R						
Polk	Saylorville	U						
Polk	Urbandale	U	X	X	X	X	X	X
Polk	West Des Moines	U	X	X	X	X	X	X
Polk	Windsor Heights	U			X	X		
Pottawattamie	Avoca	R	X	X	X	X		
Pottawattamie	Bentley	R						
Pottawattamie	Carson	R	X	X				
Pottawattamie	Carter Lake	U	X	X	X	X		
Pottawattamie	Council Bluffs	U	X	X	X	X		
Pottawattamie	Crescent	R			X	X		
Pottawattamie	Loveland	U						
Pottawattamie	Macedonia	R						
Pottawattamie	Manawa	U	X	X				
Pottawattamie	McClelland	R	X	X				
Pottawattamie	Minden	R	X	X				
Pottawattamie	Neola	R						
Pottawattamie	Oakland	R	X	X				
Pottawattamie	Treynor	R	X	X				
Pottawattamie	Underwood	R						
Pottawattamie	Walnut	R	X	X				
Pottawattamie	Weston	R						
Poweshiek	Brooklyn	R	X	X	X	X		
Poweshiek	Deep River	R						

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Poweshiek	Ewart	R						
Poweshiek	Forest Home	R						
Poweshiek	Grinnell	U	X	X	X	X	X	X
Poweshiek	Guernsey	R	X	X				X
Poweshiek	Hartwick	R	X	X				
Poweshiek	Malcom	R		X	X	X	X	X
Poweshiek	Montezuma	R						
Poweshiek	Searsboro	R	X	X				
Ringgold	Beaconsfield	R		X				
Ringgold	Benton	R		X				
Ringgold	Delphos	R		X				
Ringgold	Diagonal	R		X				
Ringgold	Ellston	R	X	X				
Ringgold	Kellerton	R		X	X	X		
Ringgold	Maloy	R		X				
Ringgold	Mount Ayr	R	X	X	X	X		
Ringgold	Redding	R		X				
Ringgold	Tingley	R	X	X				
Sac	Auburn	R	X	X			X	X
Sac	Carnarvon	R					X	X
Sac	Early	R	X	X			X	X
Sac	Lake View	R	X	X			X	X
Sac	Lytton	R		X			X	X
Sac	Nemaha	R	X	X			X	X
Sac	Odebolt	R	X	X			X	X
Sac	Sac City	R	X	X	X	X	X	X
Sac	Schaller	R	X	X			X	X
Sac	Ulmer	R					X	X
Sac	Wall Lake	R	X	X			X	X
Scott	Bettendorf	U	X	X	X	X		
Scott	Big Rock	R						
Scott	Blue Grass	U			X	X		
Scott	Buffalo	U			X	X		

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Scott	Davenport	U	X	X	X	X		
Scott	Dixon	R	X	X				
Scott	Donahue	R	X	X				
Scott	Eldridge	U	X	X	X	X		
Scott	LeClaire	U	X	X	X	X		
Scott	Long Grove	U	X	X	X	X		
Scott	Maysville	U						
Scott	McCausland	R	X	X	X	X		
Scott	Mount Joy	U			X	X		
Scott	New Liberty	U	X	X				
Scott	Panorama Park	U			X	X		
Scott	Parkview	R	X	X	X	X		
Scott	Plainview	R						
Scott	Princeton	U	X	X	X	X		
Scott	Riverdale	U			X	X		
Scott	Walcott	R			X	X		
Shelby	Botna	R						
Shelby	Corley	R						
Shelby	Defiance	R	X	X				
Shelby	Earling	R	X	X				
Shelby	Elk Horn	R	X	X				
Shelby	Harlan	U	X	X	X	X		
Shelby	Irwin	R	X	X				
Shelby	Jacksonville	R	X	X				
Shelby	Kirkman	R	X	X				
Shelby	Panama	R		X	X	X		
Shelby	Portsmouth	R		X				
Shelby	Shelby	R	X	X				
Shelby	Tennant	R	X	X				
Shelby	Westphalia	R	X	X				
Sioux	Alton	R	X	X	X	X		
Sioux	Boyden	R	X	X	X	X	X	X
Sioux	Carmel	U						

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County Name	Community Name	Pop. Code	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05	Access as of July-04	Access by July-05
Sioux	Chatsworth	R						
Sioux	East Hudson	R	X	X				
Sioux	Granville	R	X	X				
Sioux	Hawarden	R	X	X	X	X		
Sioux	Hospers	R	X	X	X	X		
Sioux	Hull	R	X	X	X	X		
Sioux	Ireton	R	X	X	X	X		
Sioux	Matlock	R	X	X				
Sioux	Maurice	R	X	X			X	X
Sioux	Orange City	U	X	X	X	X		
Sioux	Perkins	R						
Sioux	Rock Valley	U	X	X	X	X		
Sioux	Sioux Center	U	X	X	X	X		
Story	Ames	U	X	X	X	X		
Story	Cambridge	R		X	X	X	X	X
Story	Collins	R		X			X	X
Story	Colo	R	X	X			X	X
Story	Fernald	U						
Story	Gilbert	U			X	X	X	X
Story	Huxley	R	X	X	X	X		
Story	Iowa Center	R						
Story	Kelley	R	X	X				
Story	Maxwell	R		X			X	X
Story	McCallsburg	R		X				
Story	Nevada	U	X	X	X	X	X	X
Story	Roland	R	X	X	X	X	X	X
Story	Sheldahl	R	X	X	X	X		
Story	Shipley	U						
Story	Slater	R	X	X	X	X	X	X
Story	Story City	U	X	X	X	X	X	X
Story	Zearing	R	X	X				
Tama	Buckingham	R						
Tama	Chelsea	R		X			X	X

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Tama	Clutier	R	X	X				
Tama	Dysart	R	X	X	X	X	X	X
Tama	Elberon	R	X	X				
Tama	Garwin	R		X	X	X	X	X
Tama	Gladbrook	R	X	X	X	X	X	X
Tama	Haven	R						
Tama	Irving	R						
Tama	Lincoln	R	X	X				
Tama	Montour	R	X	X			X	X
Tama	Tama	U	X	X	X	X	X	X
Tama	Toledo	U	X	X	X	X	X	X
Tama	Traer	R	X	X	X	X		
Tama	Vining	R		X				
Taylor	Athelstan	R						
Taylor	Bedford	R	X	X	X	X	X	X
Taylor	Blockton	R	X	X				
Taylor	Clearfield	R		X				
Taylor	Conway	R		X				
Taylor	Gravity	R		X				
Taylor	Lenox	R	X	X				
Taylor	New Market	R	X	X				
Taylor	Sharpsburg	R	X	X				
Union	Afton	R	X	X			X	X
Union	Arispe	R		X			X	X
Union	Creston	U	X	X	X	X	X	X
Union	Cromwell	U	X	X			X	X
Union	Kent	R	X	X			X	X
Union	Lorimor	R	X	X			X	X
Union	Shannon City	R		X			X	X
Union	Spaulding	R					X	X
Union	Thayer	R	X	X			X	X
Van Buren	Bentonsport	R	X	X				
Van Buren	Birmingham	R	X	X				

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Van Buren	Bonaparte	R	X	X				
Van Buren	Cantril	R	X	X				
Van Buren	Douds	R		X				
Van Buren	Farmington	R		X				
Van Buren	Keosauqua	R	X	X				
Van Buren	Leando	R						
Van Buren	Milton	R		X				
Van Buren	Mount Sterling	R		X				
Van Buren	Stockport	R	X	X				
Wapello	Agency	R		X	X	X		
Wapello	Bladensburg	R		X			X	X
Wapello	Blakesburg	R		X				
Wapello	Chillicothe	R		X				
Wapello	Eddyville	R	X	X	X	X		
Wapello	Eldon	R		X	X	X		
Wapello	Farson	R		X				
Wapello	Highland Center	R						
Wapello	Kirkville	R		X				
Wapello	Ottumwa	U	X	X	X	X		
Warren	Ackworth	U						
Warren	Beech	R						
Warren	Carlisle	U		X	X	X		
Warren	Cumming	U						
Warren	Hartford	U		X	X	X		
Warren	Indianola	U	X	X	X	X	X	X
Warren	Lacona	R		X				
Warren	Lakewood	U						
Warren	Liberty Center	R		X				
Warren	Martensdale	R		X				
Warren	Milo	R	X	X				
Warren	New Virginia	R		X				
Warren	Norwalk	U			X	X		
Warren	Palmyra	U						

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Warren	Prole	U						
Warren	Saint Marys	R	X	X				
Warren	Sandyville	U						
Warren	Spring Hill	U						
Washington	Ainsworth	R		X				
Washington	Brighton	R		X				
Washington	Crawfordsville	R		X			X	X
Washington	Daytonville	R						
Washington	Haskins	R						
Washington	JoeTown	R						
Washington	Kalona	R	X	X	X	X		
Washington	Richmond	R						
Washington	Riverside	R	X	X	X	X		
Washington	Rubio	R						
Washington	Washington	U	X	X	X	X		
Washington	Wellman	R	X	X	X	X		
Washington	West Chester	R		X				
Wayne	Allerton	R	X	X			X	X
Wayne	Bethlehem	R					X	X
Wayne	Cambria	R	X	X			X	X
Wayne	Clio	R	X	X			X	X
Wayne	Confidence	R					X	X
Wayne	Corydon	R	X	X	X	X	X	X
Wayne	Humeston	R		X			X	X
Wayne	Lineville	R	X	X			X	X
Wayne	Millerton	R	X	X			X	X
Wayne	Promise City	R		X			X	X
Wayne	Seymour	R		X			X	X
Webster	Badger	R	X	X			X	X
Webster	Barnum	R	X	X	X	X	X	X
Webster	Callender	R	X	X			X	X
Webster	Clare	R	X	X	X	X	X	X
Webster	Coalville	R	X	X			X	X

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Webster	Dayton	R	X	X			X	X
Webster	Duncombe	R	X	X			X	X
Webster	Fort Dodge	U	X	X	X	X	X	X
Webster	Gowrie	R	X	X			X	X
Webster	Harcourt	R	X	X			X	X
Webster	Lanyon	R	X	X			X	X
Webster	Lehigh	R	X	X			X	X
Webster	Moorland	R	X	X			X	X
Webster	Otho	R	X	X	X	X	X	X
Webster	Vincent	R	X	X			X	X
Winnebago	Buffalo Center	R	X	X	X	X	X	X
Winnebago	Forest City	U	X	X	X	X	X	X
Winnebago	Lake Mills	R	X	X			X	X
Winnebago	Leland	R	X	X	X	X	X	X
Winnebago	Rake	R	X	X			X	X
Winnebago	Scarville	R	X	X			X	X
Winnebago	Thompson	R	X	X			X	X
Winneshiek	Burr Oak	R	X	X			X	X
Winneshiek	Calmar	R			X	X	X	X
Winneshiek	Castalia	R					X	X
Winneshiek	Decorah	U	X	X	X	X	X	X
Winneshiek	Fort Atkinson	R	X	X	X	X	X	X
Winneshiek	Frankville	R					X	X
Winneshiek	Highlandville	R	X	X				
Winneshiek	Jackson Junction	R		X				
Winneshiek	Ossian	R	X	X	X	X	X	X
Winneshiek	Ridgeway	R	X	X				
Winneshiek	South Harmony	R	X	X				
Winneshiek	Spillville	R			X	X		
Winneshiek	Freeport	U						
Woodbury	Anthon	R					X	X
Woodbury	Bronson	R	X	X			X	X
Woodbury	Climbing Hill	R	X	X			X	X

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Woodbury	Correctionville	R		X			X	X
Woodbury	Cushing	R	X	X			X	X
Woodbury	Danbury	R					X	X
Woodbury	Holly Springs	R					X	X
Woodbury	Hornick	R	X	X			X	X
Woodbury	Lawton	R	X	X			X	X
Woodbury	Luton	R					X	X
Woodbury	Moville	R	X	X		X	X	X
Woodbury	Oto	R	X	X			X	X
Woodbury	Pierson	R	X	X			X	X
Woodbury	Port Neal	R					X	X
Woodbury	Salix	R	X	X			X	X
Woodbury	Sergeant Bluff	U	X	X	X	X	X	X
Woodbury	Sioux City	U	X	X	X	X	X	X
Woodbury	Sloan	R	X	X			X	X
Woodbury	Smithland	R	X	X			X	X
Worth	Fertile	R	X	X				
Worth	Grafton	R	X	X				
Worth	Hanlontown	R	X	X				
Worth	Joice	R	X	X				
Worth	Kensett	R	X	X	X	X		
Worth	Manly	R			X	X		
Worth	Northwood	R			X	X		
Worth	South Emmons	R	X	X				
Wright	Belmond	U	X	X	X	X		
Wright	Clarion	U	X	X	X	X		
Wright	Cornelia	U						
Wright	Dows	R		X			X	X
Wright	Eagle Grove	U	X	X	X	X		
Wright	Galt	U		X				
Wright	Goldfield	R	X	X				
Wright	Holmes	U						
Wright	Rowan	R	X	X				X

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Wright	Tara	R	X	X				
Wright	Woolstock	R	X	X			X	X
State of Minnesota	Adams, MN (South Adams, IA)	R						
State of Minnesota	Hesper (S. Mabel)	R	X	X				
State of Minnesota	Kiester, MN (Amund, IA)	R						
State of Minnesota	Lyle, MN (Mona, IA)	R						
State of Missouri	North Hopkins	R						
	Ashworth	R						
	California Junction	U						
	Guss	R						
	Hill City	U						
	Northwest	R						
	Paris (Bunch)	R						
	Reeds	R						

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