

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

A Report of the
Iowa Utilities Board

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1.0 INTRODUCTION

The past several years have seen rapid changes in the information technology industry. These changes have impacted everyone's life in many ways, but none more so than the use of the Internet. In a time period of approximately one decade our society has gone from the Internet being used primarily by academics and institutions of higher education, to one where over half of its citizens use the Internet on a regular basis. Not only is our society using the Internet more than in the past, they are also using it for different applications. Many of these new applications require higher speeds than what is offered by simple dial-up connections. Consequently, access to high-speed Internet technology is becoming increasingly important. However, high-speed Internet access is not available in all areas of the country and the state of Iowa. Where high-speed Internet access is available, and when it might become available, is of great concern to policymakers.

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 assessment in September 2001, and prepared a second report, "Assessing High-Speed Internet Access in the State of Iowa: Second Assessment" (Second Assessment). The IUB believes it is important to continue this effort and focus on the many issues concerning the availability of high-speed Internet access. This Third Assessment extends the discussion of the issues that were established in the first two assessments.

The primary objective of the Third Assessment is to evaluate the level of progress in the deployment of high-speed Internet technologies. Comparison of this assessment with the earlier assessments 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 Third Assessment, the survey, terms, and staff analysis employed are very similar to the methods used in the prior assessments. Also consistent with the earlier

assessments, when the report refers to the availability of high-speed Internet access in a community that does not mean the technology is available to all customers in that community. Due to factors such as system constraints and limited amounts of investment, some customers within a community will not have access to high-speed Internet while other within the same community will have access.

This report uses the same standard for “high-speed” technologies as the first two assessments. In those surveys and reports, high-speed technology was defined as technology capable of providing access services with over 200 kilobits per second (Kbps) and is consistent with the Federal Communication Commission’s (FCC) definition of high-speed Internet access. This report, like previous assessments, avoids the use of the term broadband, because the term has come to include a wide range of services and facilities that extend beyond the definition of high-speed technologies used in this report.

Section 2.0 of this report contains the conclusions established from the assessment from the January 2003 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 January 2003 survey. Section 5.0 provides a summary of the report and its findings.

2.0 CONCLUSIONS AND COMPARISONS

In January 2003, the IUB staff completed a point-in-time, community-by-community, statewide assessment of current and near-term high-speed Internet access in Iowa. IUB staff assessed telecommunication companies, cable providers, wireless providers, and satellite companies most likely to offer high-speed Internet access in Iowa. The telecommunication companies included all local exchange carriers (LECs), which consist of incumbent local exchange carriers (ILECs) and competitive local exchange carriers (CLECs).

Conclusions and Comparisons

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

The report concludes:

The deployment rate of high-speed technologies in rural and non-rural Iowa communities continues to increase at a significant rate.

- 67.8 percent of rural communities (less than 2,500 inhabitants) currently have high-speed Internet access.
- 67.5 percent of non-rural communities currently have high-speed Internet access.

Comparison with Earlier Assessment Results:

- *28 percent of rural communities had access to high-speed Internet access in 2001, and 47 percent had access in 2002.*
- *42 percent of non-rural communities had access to high-speed Internet access in 2001, and 61 percent had access in 2002.*

Rural communities are achieving a higher growth rate in the deployment of high-speed Internet technologies than non-rural communities.

- The number of rural communities with access to high-speed Internet access grew by 47.1 percent between September 2001 and January 2003.
- The number of non-rural communities with access to high-speed Internet access grew by 10.8 percent between September 2001 and January 2003.

The number of Iowa communities as of January 2003 with access to high-speed Internet technologies is significantly higher than the levels of deployment within Iowa communities during September 2001.

- The number of rural communities with access to high-speed Internet access increased from 431 in September 2001 to 634 in January of 2003.
- The number of non-rural communities with access to high-speed Internet access increased from 167 in September 2001 to 185 in January of 2003.

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

- The industry projected that 499 rural communities and 174 non-rural communities would have access to high-speed Internet access by September 2002.
- By January 2003, 634 rural communities and 185 non-rural communities had access to high-speed Internet services.

Near-term deployment schedules continue to become less aggressive as the deployment rates increase.

- The industry is projecting an increase in rural access to high-speed Internet services from the current 634 communities to 650 by January 2004.
- The industry is projecting an increase in non-rural access to high-speed Internet services from the current 185 communities to 186 by January 2004.

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

- xDSL technologies are available in 37.4 percent of the communities surveyed.
- Cable modem technologies are available in 25.8 percent of the communities surveyed.
- Wireless technologies are available in 37.2 percent of the communities surveyed.

Deployment of xDSL technologies is more prevalent in rural Iowa communities than non-rural communities.

- 40.0 percent of rural communities have access to high-speed xDSL technologies.
- 28.5 percent of non-rural communities have access to high-speed xDSL technologies.

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

- 19.9 percent of the rural communities surveyed had access to high-speed cable modem technologies.
- 46.0 percent of the non-rural communities surveyed had access to high-speed cable modem technologies.

Cable modem technology is being deployed at a significantly greater rate in rural communities than non-rural communities.

- The number of rural communities with access to high-speed cable modem technologies rose from 53 in September 2001 to 186 in January 2003.
- The number of non-rural communities with access to high-speed cable modem technologies rose from 78 in September 2001 to 126 in January 2003.

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

- 39.1 percent of non-rural communities and 36.7 percent of rural communities had access to high-speed wireless technologies in January 2003.

Access to wireless technologies is expected to increase very slowly in rural and non-rural communities.

- 36.7 percent of rural communities had access to high-speed wireless technologies in January 2003, and that is projected to increase to 37.1 percent by January 2004. Access to wireless technologies is expected to remain the same in non-rural communities.

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

- In 2001, 63 rural communities had two or more providers of high-speed Internet access. In 2003, 269 rural communities had two or more providers of high-speed Internet access.
- In 2001, 70 non-rural communities had two or more providers of high-speed Internet access. In 2003, 108 non-rural communities had two or more providers of high-speed Internet access.

Competition in the provision of high-speed Internet access is growing at a faster rate in rural communities than non-rural communities.

- 14.7 percent of rural communities had two or more providers of high-speed Internet access in 2001, and 42.4 percent of rural communities had two or more providers in 2003.
- 42.2 percent of non-rural communities had two or more providers of high-speed Internet access in 2001, and 58.4 percent of non-rural communities had two or more providers in 2003.

The level of demand for high-speed Internet technologies is greatest for xDSL and cable modem.

- In rural areas, the interest in xDSL is greater than that for cable modem and wireless.
- In non-rural areas, the interest in cable modem is greater than that for xDSL and wireless.

3.0 METHODOLOGY

Survey Design

For the Third 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 each of the following providers: LECs, cable operators, and wireless providers. Copies of the survey instruments used for the Third Assessment are included as Attachment A to this report.

Each of the surveys requested information that could be used to assess each community's current and near-term access to high-speed Internet technologies. Also, surveys gathered information pertaining to the upstream and downstream speeds attainable through the 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. Three 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 Third Assessment strives for a comprehensive depiction of high-speed Internet access across the state. The Third 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 2002. 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. Surveys were distributed to all identified cable and wireless companies providing service in the state of Iowa. Electronic versions of the surveys used in the Third Assessment were also available on the IUB web site.

4.0 THIRD ASSESSMENT FINDINGS, CONCLUSIONS, AND COMPARISONS

In January 2003, IUB staff 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 Third Assessment data and are the basis for all findings and conclusions contained in this report. This section contains five subsections which each analyze 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 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					
Third Assessment Response Rates¹					
	<i>All Providers</i>	<i>ILECs²</i>	<i>CLECs</i>	<i>Cable Providers</i>	<i>Wireless Providers</i>
Number of Providers Assessed	267	158	26	52	31
Overall Number of Assessments Returned	216	156	19	25	16
Overall Assessment Response Rate	80.9%	98.7%	73.1%	48.1%	51.6%
Number of Providers Assessed Electronically	212	147	19	23	17
Number of Assessments Returned Electronically	144	97	17	17	13
Electronic Response Rate	67.9%	66.0%	89.5%	73.9%	76.5%

The ILEC and CLEC assessments represent over 99.5 percent of Iowa's communities serving more than 99.95 percent of Iowa's telephone access lines.

In accordance with Governor Vilsack's "E-Government Initiative," a concerted effort was made to assess the majority of providers electronically. The IUB distributed 79.4 percent of the assessments through electronic mail. Nearly 68 percent of all providers responding to the assessment filed their information electronically. It is the intent of the IUB to conduct future assessments 100% electronically.

¹ Communities that were not represented in the providers' response were deemed as communities not having access to any high-speed Internet technologies.

² The high response rate from the ILECs was, in part, due to the efforts of the Iowa Telecommunications Association (ITA) and the Rural Iowa Independent Telephone Association (RIITA).

Statewide Availability of High-Speed Services

Third Assessment Conclusions Concerning the Statewide

Availability of High-Speed Internet Services:

- ✓ *The deployment rate of high-speed technologies in rural and non-rural Iowa communities continues to increase at a significant rate;*
- ✓ *Rural communities are achieving a higher growth rate in the deployment of high-speed Internet technologies than non-rural communities;*
- ✓ *The number of Iowa communities as of January 2003 with access to high-speed Internet technologies is significantly higher than the levels of deployment assessed within Iowa communities during September 2001;*
- ✓ *The industry exceeded near-term deployment schedules from the Second Assessment; and*
- ✓ *Near-term deployment schedules continue to become less aggressive as the deployment rate increases.*

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 January 2004. Attachment C of this report provides a community by community list of the same information. The assessment response captured data for 1,209 Iowa communities.³ Of the 1,209 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.⁴ The assessment identified the remaining 274 communities as non-rural.

³The list of Iowa communities includes all known rural, non-rural, and unincorporated places as of January 2003.

⁴ 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.

Analysis of Third Assessment Conclusion:

The deployment rate of high-speed technologies in rural and non-rural Iowa communities continues to increase at a significant rate.

Of the 1,209 communities included in the assessment responses, 819 Iowa communities have access to at least one type of high-speed Internet technology. Of the 819 communities that have access, 634 are rural and 185 are non-rural. Based upon current deployment schedules, an additional 17 Iowa communities will have access to at least one type of high-speed Internet technology by January 2004. This information is summarized in the following table:

Table II				
Iowa Communities With Access to High-Speed Technologies as of January 2003				
	Rural (935 Communities)		Non-Rural (274 Communities)	
	<i>Access as of January 2003</i>	<i>Access as of January 2004</i>	<i>Access as of January 2003</i>	<i>Access as of January 2004</i>
Number of Iowa Communities with Access to High-Speed Technologies	634	650	185	186
% of Iowa Communities Surveyed with Access to High-Speed Technologies	67.8%	69.5%	67.5%	67.9%

If industry deployment schedules are realized by January 2004, 69.5 percent of all rural communities and 67.9 percent of all non-rural communities will have access to at least one type of high-speed Internet technology.

Analysis of Third Assessment Conclusion:

Rural communities are achieving a higher growth rate in the deployment of high-speed Internet technologies than non-rural communities.

As illustrated below in Table III, rural communities are experiencing a higher growth rate in the deployment of high-speed Internet technologies than non-rural communities. Between September 2001 and January 2003, the number of rural communities with access to high-speed Internet technologies grew by 47.1 percent. During this same period of time, the number of non-rural communities with access to high-speed Internet technologies grew by 10.8 percent.

Table III Comparison of Iowa Communities With Access to High-Speed Technologies from September 2001 to January 2003				
	Rural*		Non-Rural**	
	<i>Access as of September 2001</i>	<i>Access as of January 2003</i>	<i>Access as of September 2001</i>	<i>Access as of January 2003</i>
Number of Iowa Communities with Access to High-Speed Technologies	431	634	167	185
% of Iowa Communities Surveyed with Access to High-Speed Technologies	47.0%	67.8%	60.9%	67.5%

*Based on 917 identified rural communities in September 2001 and 935 in 2003

**Based on 274 identified non-rural communities

Analysis of Third Assessment Conclusion:

The number of Iowa communities as of January 2003 with access to high-speed Internet technologies is significantly higher than the levels of deployment within Iowa communities during September 2001.

As indicated in Table III, the Second Assessment conducted in September 2001 demonstrated that 431 rural and 167 non-rural communities had access to high-speed Internet services. As of January 2003, 634 rural and 185 non-rural communities now have access to at least one type of high-speed Internet technology. The Third Assessment indicates that significant growth in the availability of high-speed services is being experienced statewide.

Since the inception of the IUB Assessment in July 2000, rural communities have sustained substantial growth in the deployment of high-speed services. In the July 2000 First Assessment, 28 percent of rural communities in Iowa had access to high-speed Internet services. Between July 2000 and January 2003, the number of rural Iowa communities with access to high-speed Internet services has increased from 246 to 634, which is a growth of 158 percent.

Non-rural communities with access to high-speed Internet technology continue to grow at a very stable rate. In the July 2000 First Assessment, 42 percent of non-rural Iowa communities had access to high-speed Internet services. Between July 2000 and January 2003, the number of

non-rural Iowa communities with access to high-speed Internet services has increased from 111 to 185, which is a growth of 67 percent.

Analysis of Third Assessment Conclusion:

Industry exceeded near-term deployment schedules from the Second Assessment.

The Second Assessment indicated that macroeconomic factors caused the downsizing of previous deployment schedules to more attainable levels. However, the political, social, and economic conditions of both the state and national governments appear to have had minimal impact upon industry's deployment of high-speed Internet services.

The results of the Third Assessment illustrates that industry exceeded the near-term deployment projections stated by industry in the Second Assessment. Table IV compares the deployment projections cited by industry in the Second Assessment and the "realized" deployment of high-speed Internet services to Iowa communities as of January 2003.

Table IV Comparison of September 2002 Deployment Projections and January 2003 Realized Deployment of High-Speed Internet Technologies				
	Rural*		Non-Rural**	
	<i>Projected Access as of September 2002</i>	<i>Realized Access as of January 2003</i>	<i>Projected Access as of September 2002</i>	<i>Realized Access as of January 2003</i>
Number of Iowa Communities with Access to High-Speed Technologies	499	634	174	185
% of Iowa Communities Surveyed with Access to High-Speed Technologies	54.4%	67.8%	63.5%	67.5%

*Based on 917 identified rural communities in September 2001 and 935 in 2003

**Based on 274 identified non-rural communities

In September 2001, industry projected that 499 rural and 174 non-rural communities would have access to high-speed Internet services by September 2002. The January 2003 Assessment indicates that the previous projections were exceeded, as 634 rural and 185 non-rural communities currently have access to high-speed Internet services.

Analysis of Third Assessment Conclusion:

Near-term deployment schedules continue to become less aggressive as the deployment level increases.

As Table V demonstrates, near-term deployment schedules continue to become less aggressive as the deployment level increases. This trend is consistent with the findings of the September 2001 Assessment. The correlation between deployment schedules and the actual level of deployment is not significant. The findings suggest that there is no relationship between industry projections and actual deployment.

Table V Comparison of September 2002 and January 2004 Deployment Projections of High-Speed Internet Technologies				
	Rural*		Non-Rural**	
	<i>Projected Access as of September 2002</i>	<i>Projected Access as of January 2004</i>	<i>Projected Access as of September 2002</i>	<i>Projected Access as of January 2004</i>
Number of Iowa Communities with Access to High-Speed Technologies	499	650	174	186
% of Iowa Communities Surveyed with Access to High-Speed Technologies	54.4%	69.5%	63.5%	67.9%

*Based on 917 identified rural communities in September 2001 and 935 in 2003

**Based on 274 identified non-rural communities

As a result, industry is adopting a proactive strategy of “demand response.” High-speed Internet providers are identifying communities that exhibit a potential market for high-speed Internet services and are building out the infrastructure required to provide these services. As a result, providers are satisfying current demand in the community and are establishing a foothold in the community in anticipation of future demand for high-speed services.

Availability of High-Speed Services by Technology

Third Assessment Conclusions Concerning the Availability of High-Speed Internet Services by Technology:

All Technologies:

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

xDSL:

- ✓ *Access to xDSL technology continues to be more dependent on the size of the ILEC serving the community rather than on the size of the community; and*
- ✓ *Deployment of xDSL technologies is more prevalent in rural Iowa communities than non-rural communities.*

Cable Modem:

- ✓ *Access to cable modem technology continues to be more prevalent in non-rural communities; and*
- ✓ *Cable modem technology is being deployed at a significantly 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 continues to grow at similar rates in both the rural and non-rural communities.*

Analysis of Third 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 approximately 68 percent or 819 communities in Iowa. xDSL and wireless technologies are currently in 37 percent or approximately 450 communities in Iowa. xDSL is expected to have the largest growth potential from January 2003 to January 2004 and be available in over 40 percent of Iowa communities.

Table VI				
Iowa Communities With Access to Different High-Speed Technologies as of January 2003				
	Number of Iowa Communities Surveyed with Access to High-Speed Technologies		% of Iowa Communities Surveyed with Access to High-Speed Technologies	
	Access as of January 2003	Access as of January 2004	Access as of January 2003	Access as of January 2004
Iowa Communities With Access to***:				
One or more Types of High-Speed Internet Technology	819	836	67.7%	69.1%
xDSL Technologies	452	492	37.4%	40.7%
Cable Modem Technologies	312	336	25.8%	27.8%
High-Speed Wireless Technologies	450	454	37.2%	37.6%

***Based upon 1,209 known incorporated and unincorporated Iowa Communities

Analysis of Third Assessment Conclusion:

Access to xDSL technology continues to be more dependent on the size of the ILEC serving the community rather than on the size of the community.

As Table VII indicates, communities served by small ILECs are more likely to have access to xDSL Technologies than those communities served by large ILECs. The small ILECs serving the rural communities contain the greatest percentage of availability at 68 percent, followed closely by the non-rural at 50 percent.

Table VII Iowa Communities Currently With Access to xDSL Technologies						
	Rural			Non-Rural		
	Served	High Speed Available	% of High Speed Available	Served	High Speed Available	% of High Speed Available
Large ILEC*	487	71	15%	244	63	26%
Small ILEC	448	303	68%	30	15	50%

*Large ILECs include Frontier Communications, Iowa Telecom, and Qwest.

Analysis of Third Assessment Conclusion:

Deployment of xDSL technologies is more prevalent in rural Iowa communities than non-rural communities.

As indicated in Table VIII, rural communities have seen the greatest increase in access to high-speed xDSL technologies, which has been a prevalent theme throughout the results of this most current survey. Access in rural communities to high speed xDSL technologies increased from 23 percent in September 2001 to 40 percent in January 2003. Between September 2001 and January 2003, the number of rural Iowa communities with access to high-speed xDSL technologies has increased from 212 to 374, which is a growth of 76 percent. Access to high-speed xDSL technologies in non-rural communities increased from 72 to 78, a growth of 8 percent in the same time period.

Table VIII Comparison of Iowa Communities With Access to High-Speed xDSL Technologies from September 2001 to January 2003				
	Rural*		Non-Rural**	
	Access as of September 2001	Access as of January 2003	Access as of September 2001	Access as of January 2003
Number of Iowa Communities with Access to High-Speed xDSL Technologies	212	374	72	78
% of Iowa Communities Surveyed with Access to High-Speed xDSL Technologies	23.1%	40.0%	26.3%	28.5%

*Based on 917 identified rural communities in September 2001 and 935 in 2003

**Based on 274 identified non-rural communities

By January 2004, access to high-speed xDSL technologies is projected to increase to 43 percent for rural communities and to around 33 percent for non-rural communities (Table IX).

Table IX Iowa Communities With Access to High-Speed xDSL Technologies as of January 2003 and Communities Expected to Have Access by January 2004				
	Rural (935 Communities)		Non-Rural (274 Communities)	
	<i>Access as of January 2003</i>	<i>Access as of January 2004</i>	<i>Access as of January 2003</i>	<i>Access as of January 2004</i>
Number of Iowa Communities with Access to High-Speed xDSL Technologies	374	402	78	90
% of Iowa Communities Surveyed with Access to High-Speed xDSL Technologies	40.0%	43.0%	28.5%	32.8%

Analysis of Third Assessment Conclusion:

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

As shown in Table X, access to high-speed cable modem technologies in non-rural communities could reach 50 percent by January 2004. Currently, 46 percent of non-rural communities have access to high-speed cable modem, whereas rural communities have access around 20 percent. A small increase in access to cable modem technology is projected by January 2004 for the rural communities.

Table X Iowa Communities With Access to High-Speed Cable Modem Technologies as of January 2003 and Communities Expected to Have Access by January 2004				
	Rural (935 Communities)		Non-Rural (274 Communities)	
	<i>Access as of January 2003</i>	<i>Access as of January 2004</i>	<i>Access as of January 2003</i>	<i>Access as of January 2004</i>
Number of Iowa Communities with Access to High-Speed Cable Modem Technologies	186	199	126	137
% of Iowa Communities Surveyed with Access to High-Speed Cable Modem Technologies	19.9%	21.3%	46.0%	50.0%

Analysis of Third Assessment Conclusion:

Cable modem technology is being deployed at a significantly greater rate in rural communities than non-rural communities.

As Table XI demonstrates, rural communities are seeing cable modem technology being deployed at a greater rate than non-rural communities. Between September 2001 and January 2003, the number of rural Iowa communities with access to high-speed cable modem technologies increased from 53 to 186, which is a growth of 251 percent. Access to high-speed cable modem technologies in non-rural communities increased from 78 to 126, a growth of 62 percent in the same time period. This could be an indication that the cable modem market is more mature in non-rural areas.

Table XI				
Comparison of Iowa Communities With Access to High-Speed Cable Modem Technologies from September 2001 to January 2003				
	Rural*		Non-Rural**	
	<i>Access as of September 2001</i>	<i>Access as of January 2003</i>	<i>Access as of September 2001</i>	<i>Access as of January 2003</i>
Number of Iowa Communities with Access to High-Speed Cable Modem Technologies	53	186	78	126
% of Iowa Communities Surveyed with Access to High-Speed Cable Modem Technologies	5.8%	19.9%	28.5%	46.0%

*Based on 917 identified rural communities in September 2001 and 935 in 2003

**Based on 274 identified non-rural communities

Analysis of Third Assessment Conclusion:

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

As shown in Table XII, access to high-speed wireless technologies increased significantly for both rural and non-rural communities from September 2001 to January 2003, but the level of access is greater in non-rural communities. Access to wireless technologies in non-rural communities increased from 28.5 percent in September 2001 to 39.1 percent in January 2003.

Table XII Comparison of Iowa Communities With Access to High-Speed Wireless Technologies from September 2001 to January 2003				
	Rural*		Non-Rural**	
	<i>Access as of September 2001</i>	<i>Access as of January 2003</i>	<i>Access as of September 2001</i>	<i>Access as of January 2003</i>
Number of Iowa Communities with Access to High-Speed Wireless Technologies	216	343	78	107
% of Iowa Communities Surveyed with Access to High-Speed Wireless Technologies	23.6%	36.7%	28.5%	39.1%

*Based on 917 identified rural communities in September 2001 and 935 in 2003

**Based on 274 identified non-rural communities

Analysis of Third Assessment Conclusion:

Access to wireless technologies is expected to increase very slowly in both rural and non-rural communities.

Table XIII shows access to wireless technologies is projected to have slow or no growth from January 2003 to January 2004. The wireless industry is expected to add service to 4 rural communities, with no new communities expected gain access to wireless technology in non-rural areas.

Table XIII Iowa Communities With Access to High-Speed Wireless Technologies as of January 2003				
	Rural (935 Communities)		Non-Rural (274 Communities)	
	<i>Access as of January 2003</i>	<i>Access as of January 2004</i>	<i>Access as of January 2003</i>	<i>Access as of January 2004</i>
Number of Iowa Communities with Access to High-Speed Wireless Technologies	343	347	107	107
% of Iowa Communities Surveyed with Access to High-Speed Wireless Technologies	36.7%	37.1%	39.1%	39.1%

Concentration and Competition for High-Speed Services

- ✓ *Competition in the provision of high-speed Internet access is increasing in both rural and non-rural communities; and*
- ✓ *Competition in the provision of high-speed Internet access is growing at a faster rate in rural communities than non-rural communities.*

Analysis of Third Assessment Conclusion:

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

Table XIV shows the number of competitors in Iowa communities with high-speed Internet access has increased from September 2001 to January 2003. There were only 63 rural communities with two or more competitors in September 2001. Currently there are 269 communities with 2 or more competitors, 48 communities with 3 competitors, 9 communities with 4 competitors, and 1 with 5 or more competitors. In non-rural communities there were 70 with 2 or more competitors in September 2001, now there are 108 communities with 2 or more competitors, 43 communities with 3 competitors, 9 communities with 4 competitors, and 4 with 5 or more competitors.

Table XIV				
Comparison of the Number of Competitors in Iowa Communities with High-Speed Internet Access between September 2001 to January 2003				
Number of Providers	Rural*		Non-Rural**	
	<i>Communities as of September 2001</i>	<i>Communities as of January 2003</i>	<i>Communities as of September 2001</i>	<i>Communities as of January 2003</i>
0	487	301	108	89
1	367	365	96	77
2	62	211	54	52
3	1	48	16	43
4	0	9	0	9
5 or more	0	1	0	4

*Based on 917 identified rural communities in September 2001 and 935 in 2003

**Based on 274 identified non-rural communities

Analysis of Third Assessment Conclusion:

Competition in the provision of high-speed Internet access is growing at a faster rate in rural communities than non-rural communities.

As shown in Table XIV, the number of rural communities with more than one provider grew by 334 percent from September 2001 to January 2003 whereas the number of non-rural communities with more than one provider grew by 54 percent. The number of rural communities with no competitors was 53 percent in September 2001 and has decreased to 32 percent in January 2003.

Level of demand for high-speed services

Analysis of Third Assessment Conclusions:

The level of demand for high-speed internet technologies is greatest for xDSL and cable modem.

As Table XV demonstrates, the level of demand for, or interest in, high-speed Internet technologies is greatest for xDSL. Rural customer demand and inquiries are in the low to medium range for xDSL and low for both cable modem and wireless. Non-rural customer demand and inquiries is greatest for cable modem and wireless.

Table XV				
Comparison of Level of Demand for High-Speed Internet Technologies				
	Rural*		Non-Rural**	
	(935 Communities)		(274 Communities)	
	<i>Customer Inquiries</i>	<i>Customer Demand</i>	<i>Customer Inquiries</i>	<i>Customer Demand</i>
xDSL	Low/Medium	Medium	Medium	Low/Medium
Cable Modem	Low	Low	Medium	Medium
Wireless	Low	Low	Low/Medium	Low/Medium

5.0 SUMMARY

The deployment of high-speed Internet technologies in the state of Iowa is still a “work in progress”. This Third Assessment, like the previous assessments, creates a snapshot of the current availability of high-speed Internet technologies across the state of Iowa.

The results of the Third Assessment, when compared to the 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. Nearly 68 percent of rural and non-rural communities had access to at least one type of high-speed Internet technology by January 2003. This is a significant increase from the First Assessment when 28 percent of the rural communities and 42 percent of the non-rural communities had access to high-speed Internet services.

The interest in, and the need for, applications that can only be accessed via high-speed Internet technologies will continue to grow in Iowa and the rest of the country. The deployment of these technologies will be critical to the economic and social vitality of Iowa. The questions of how and when these technologies will be delivered will continue to be discussed by policymakers and the information industry 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

ISDN – Integrated Services Digital Network

ITA – Iowa Telecommunications Association

IUB – Iowa Utilities Board

Kbps – Thousand Bits Per Second

LEC – Local Exchange Carrier

LMDS – Local Multipoint Distribution System

Mbps – Million Bits Per Second

MMDS – Multipoint Multichannel Distribution System

NECA – National Exchange Carrier Association

NTCA – National Telephone Cooperative Association

NTIA – National Telecommunications and Information Administration

RIITA – Rural Iowa Independent Telephone Association

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



STATE OF IOWA

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

IOWA UTILITIES BOARD
IOWA DEPARTMENT OF COMMERCE

January 30, 2003

Name
Company Name
Address 1
Address 2

Dear Name:

The Iowa Utilities Board (IUB) is developing a third assessment on the statewide availability of high-speed Internet access. The IUB's two previous assessments, conducted in July 2000 and September 2001, indicate that Iowa is experiencing significant progress in the deployment of high-speed Internet services. The third assessment will gauge the deployment of these services and further the discussion of the technical and policy issues concerning the availability of high-speed Internet technologies in Iowa.

The IUB's third assessment will survey all entities capable of providing high-speed broadband Internet access services in Iowa; including facility based local exchange carriers, cable providers, and wireless companies. The survey will assess the immediate availability and the corresponding level of demand for these services by geographic region of the state.

Results and findings of the IUB's third assessment will be contained in a report entitled, "Assessing High-Speed Internet Access in the State of Iowa: Assessment III." This report will be submitted to the legislative oversight committee of the legislative council in the spring of 2003. The first and second assessments are available on the Utilities Board's website at www.state.ia.us/iub.

To complete the third assessment, the Iowa Utilities Board requests your assistance by 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 are attached, if necessary. (Not all of the columns have drop-down boxes, some are just text or number fields and there is one check box). Please take a few minutes to complete the enclosed surveys and return them by **February 17, 2003**, (either electronically or through conventional mail) to:

Ryan Stensland, Utilities Analyst
Iowa Utilities Board
350 Maple Street
Des Moines, IA 50319
E-Mail: ryan.stensland@iub.state.ia.us
Phone: 515-242-0218 Fax: 515-281-5329

Your input is vitally important to the success of third assessment. All information will be aggregated on an industry basis only.

Thank you for your assistance in this third assessment.

Sincerely,

/s/ Diane Munns
Diane Munns, Chairman

/s/ Mark O. Lambert
Mark O. Lambert, Board Member

/s/ Elliott G. Smith
Elliott G. Smith, Board Member

IOWA UTILITIES BOARD BROADBAND INTERNET ACCESS SURVEY FOR LECs

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.

"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: Ryan Stensland

Phone: (515) 242-0218

E-Mail: ryan.stensland@iub.state.ia.us

IOWA UTILITIES BOARD BROADBAND INTERNET ACCESS SURVEY FOR CABLE PROVIDERS

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 Cable 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 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 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: Ryan Stensland

Phone: (515) 242-0218

E-Mail: ryan.stensland@iub.state.ia.us

IOWA UTILITIES BOARD BROADBAND INTERNET ACCESS SURVEY FOR WIRELESS PROVIDERS

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 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 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)	
			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 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: Ryan Stensland

Phone: (515) 242-0218

E-Mail: ryan.stensland@iub.state.ia.us

ATTACHMENT B

MAPS

Iowa Utilities Board Broadband Technology Map for xDSL, Cable Modem and Wireless Service

- Broadband Available January 2003
- Broadband Proposed January 2004

Iowa Utilities Board Broadband Technology Map for xDSL Service

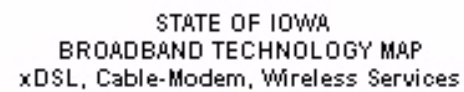
- Broadband Available January 2003
- Broadband Proposed January 2004


Iowa Utilities Board Broadband Technology Map for Cable Modem Service


- Broadband Available January 2003
- Broadband Proposed January 2004

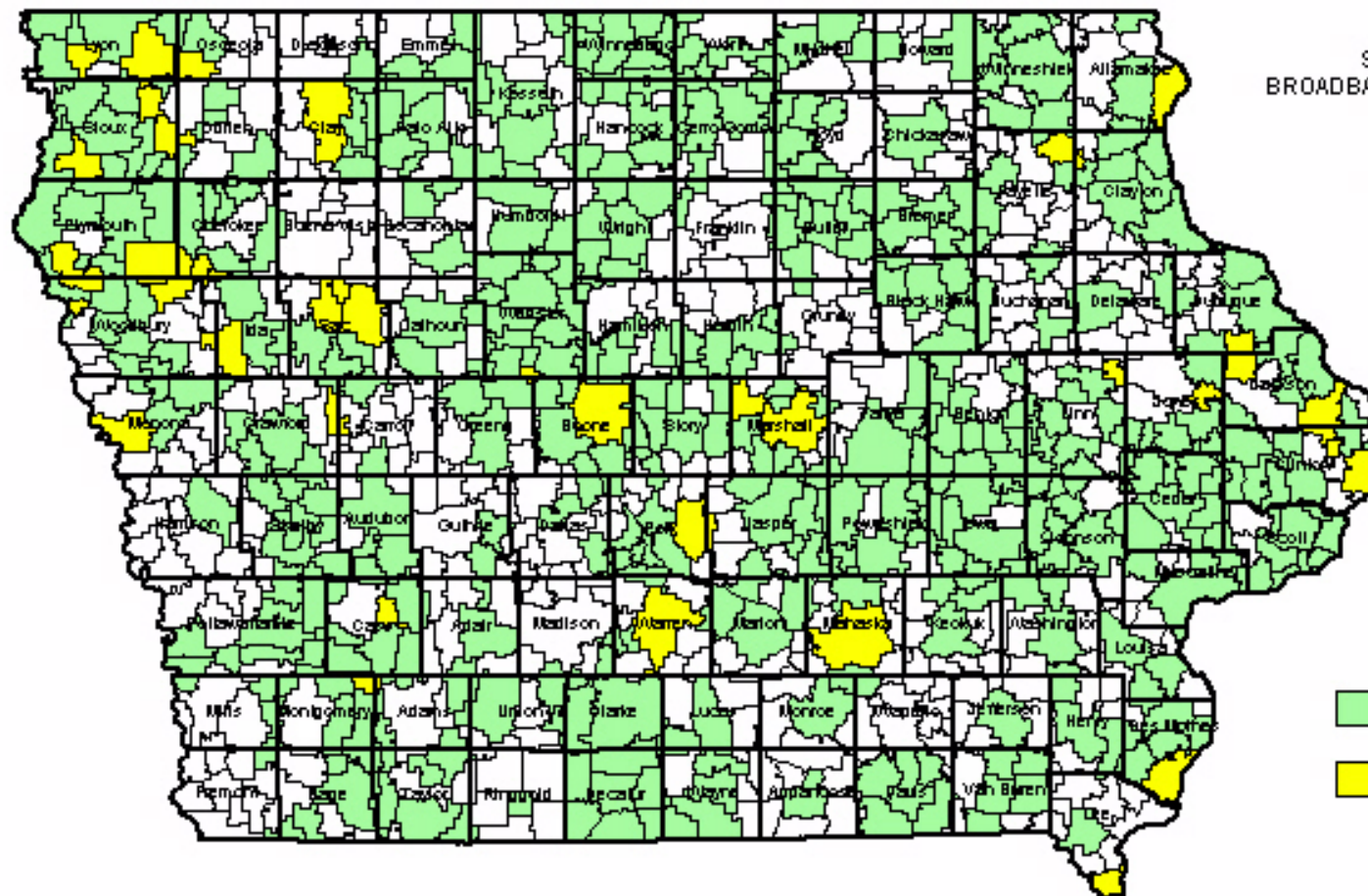
Iowa Utilities Board Broadband Technology Map for Wireless Service

- Broadband Available January 2003
- Broadband Proposed January 2004



 Broadband Available

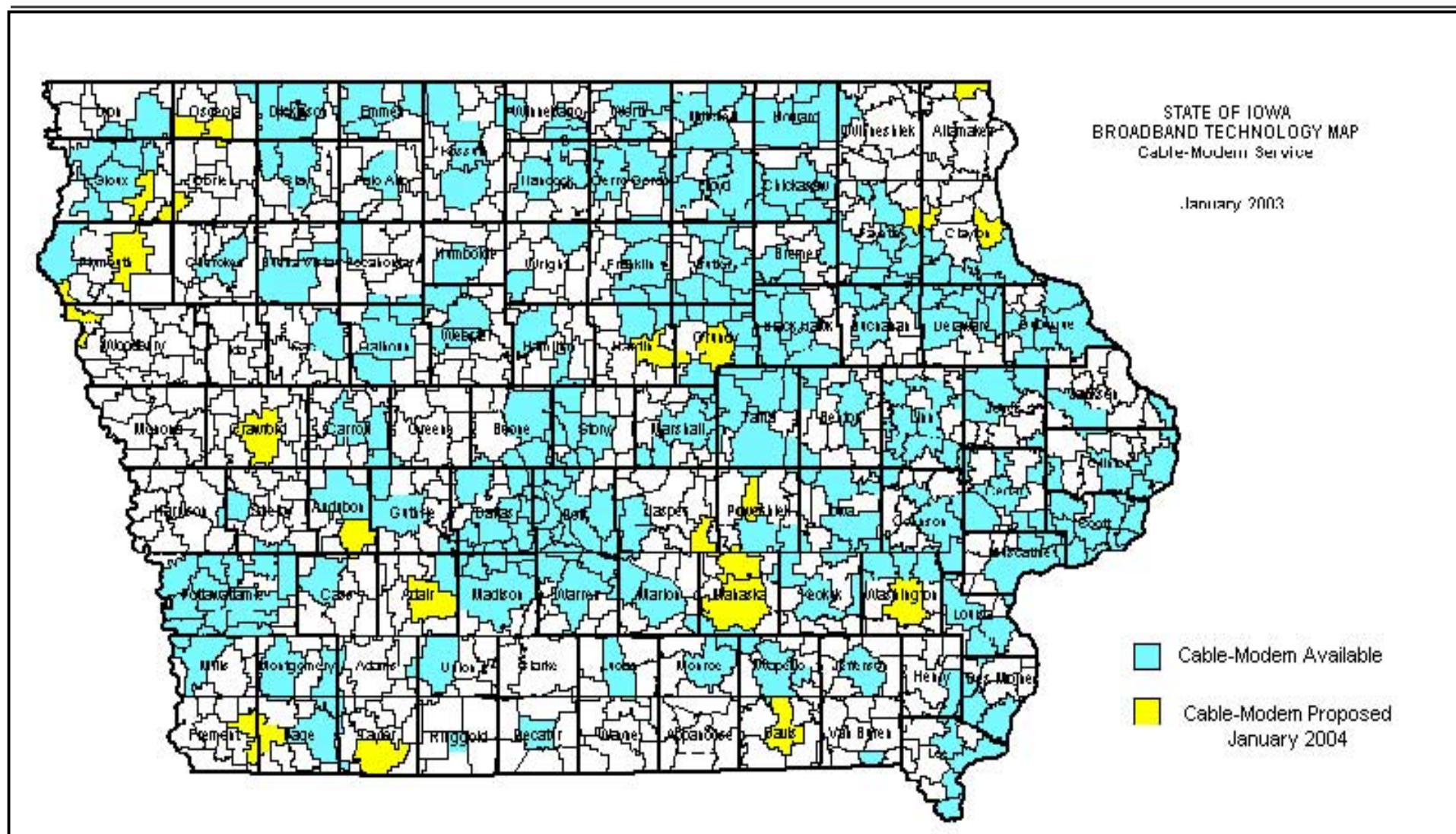
 Broadband Proposed
January 2004

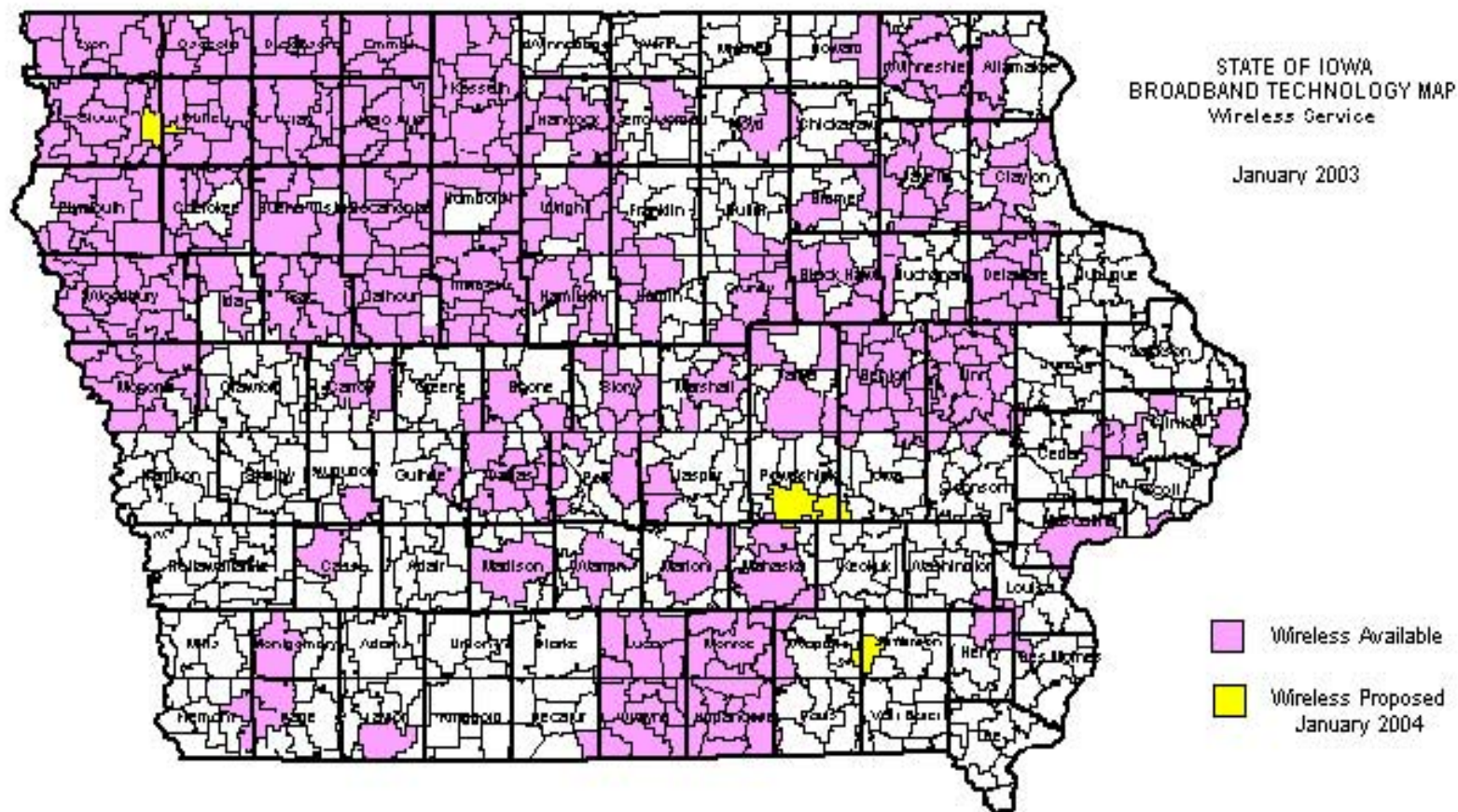


STATE OF IOWA
BROADBAND TECHNOLOGY MAP
xDSL Service

January 2003

- xDSL Available
- xDSL Proposed
January 2004





ATTACHMENT C

Third Assessment of Iowa Communities Accessing High-Speed Technologies
(As of January 2003)

Third Assessment of Iowa Communities Accessing High-Speed Internet Technologies

County Name	Community Name	Pop. Code	<u>xDSL Technology</u>		<u>Cable Modem Technology</u>		<u>Wireless Technology</u>	
			Access to xDSL Technology	Access to xDSL Technology	Access to Cable Modem Technology	Access to Cable Modem Technology	Access to Wireless Technology	Access to Wireless Technology
			as of Jan-03	by Jan-04	As of Jan-03	by Jan-04	as of Jan-03	by Jan-04
Adair	Greenfield	R	X			X		
Adams	Brooks	R	X					
Adams	Corning	R	X		X			
Adams	Mercer Center	R	X					
Adams	Nevinville	R	X					
Adams	Nodaway	R	X					
Allamakee	Harper's Ferry	R		X				
Allamakee	New Albin	R	X			X		
Allamakee	Postville	R					X	
Allamakee	South Spring Grove	R	X					
Allamakee	Waterville	R	X					
Allamakee	Waukon	U					X	
Appanoose	Brazil	R					X	
Appanoose	Centerville	U	X				X	
Appanoose	Cincinnati	R					X	
Appanoose	Exline	R					X	
Appanoose	ICONIUM	R					X	
Appanoose	JEROME	R					X	
Appanoose	Moravia	R					X	
Appanoose	Moulton	R					X	
Appanoose	Mystic	R					X	
Appanoose	Numa	U					X	
Appanoose	Plano	R					X	
Appanoose	Rathbun	U					X	
Appanoose	Udell	R					X	
Appanoose	Unionville	R					X	
Audubon	Audubon	R	X		X			

Third Assessment of Iowa Communities Accessing High-Speed Internet Technologies

County Name	Community Name	Pop. Code	<u>xDSL Technology</u>		<u>Cable Modem Technology</u>		<u>Wireless Technology</u>	
			Access to xDSL Technology as of Jan-03	Access to xDSL Technology by Jan-04	Access to Cable Modem Technology as of Jan-03	Access to Cable Modem Technology by Jan-04	Access to Wireless Technology as of Jan-03	Access to Wireless Technology by Jan-04
Audubon	Brayton	R	X					
Audubon	Exira	R	X			X	X	
Benton	Atkins	R	X				X	
Benton	Belle Plaine	U	X		X		X	
Benton	Blairstown	R	X				X	
Benton	Garrison	R	X				X	
Benton	Keystone	R	X				X	
Benton	Luzerne	U					X	
Benton	Mount Auburn	R					X	
Benton	Newhall	R	X		X		X	
Benton	Norway	R	X				X	
Benton	Shellsburg	R	X				X	
Benton	Urbana	R	X				X	
Benton	Van Horne	R	X				X	
Benton	Vinton	U			X		X	
Benton	Walford	R					X	
Benton	Watkins	R					X	
Black Hawk	Cedar Falls	U	X		X		X	
Black Hawk	Dunkerton	R	X					
Black Hawk	Elk Run Heights	U			X			
Black Hawk	Gilbertville	U			X			
Black Hawk	Hudson	R			X		X	
Black Hawk	La Porte City	R	X		X		X	
Black Hawk	Raymond	U			X			
Black Hawk	Washburn	U			X			
Black Hawk	Waterloo	U	X		X		X	
Boone	Beaver	R	X					
Boone	Boone	U		X	X			

Third Assessment of Iowa Communities Accessing High-Speed Internet Technologies

County Name	Community Name	Pop. Code	<u>xDSL Technology</u>		<u>Cable Modem Technology</u>		<u>Wireless Technology</u>	
			Access to xDSL Technology as of Jan-03	Access to xDSL Technology by Jan-04	Access to Cable Modem Technology as of Jan-03	Access to Cable Modem Technology by Jan-04	Access to Wireless Technology as of Jan-03	Access to Wireless Technology by Jan-04
Boone	Boxholm	R	X					
Boone	Madrid	U	X		X		X	
Boone	Ogden	R	X				X	
Boone	Pilot Mound	R	X					
Bremer	Denver	R			X			
Bremer	Janesville	R	X		X			
Bremer	Plainfield	R	X					
Bremer	Readlyn	R	X					
Bremer	Sumner	R	X		X		X	
Bremer	Tripoli	R	X					
Bremer	Waverly	U	X		X		X	
Buchanan	Aurora	R	X		X			
Buchanan	Fairbank	R			X		X	
Buchanan	Hazleton	R			X			
Buchanan	Independence	U			X			
Buchanan	Jesup	R	X				X	
Buchanan	Lamont	R			X			
Buchanan	Quasqueton	R	X					
Buchanan	Stanley	R	X					
Buchanan	Winthrop	R						
Buena Vista	Albert City	R			X		X	
Buena Vista	Alta	U			X		X	
Buena Vista	Lakeside	U			X		X	
Buena Vista	Linn Grove	R					X	
Buena Vista	Marathon	R					X	
Buena Vista	Newell	R					X	
Buena Vista	Rembrandt	R					X	
Buena Vista	Sioux Rapids	R					X	

Third Assessment of Iowa Communities Accessing High-Speed Internet Technologies

County Name	Community Name	Pop. Code	<u>xDSL Technology</u>		<u>Cable Modem Technology</u>		<u>Wireless Technology</u>	
			Access to xDSL Technology as of Jan-03	Access to xDSL Technology by Jan-04	Access to Cable Modem Technology as of Jan-03	Access to Cable Modem Technology by Jan-04	Access to Wireless Technology as of Jan-03	Access to Wireless Technology by Jan-04
Buena Vista	Storm Lake	U			X		X	
Buena Vista	Sulphur Springs	U					X	
Buena Vista	Truesdale	U					X	
Butler	Allison	R	X		X			
Butler	Aplington	R	X		X			
Butler	Aredale	R	X					
Butler	Bristow	R	X					
Butler	Clarksville	R	X		X			
Butler	Dumont	R	X					
Butler	Greene	R	X		X			
Butler	New Hartford	R			X		X	
Butler	Parkersburg	R			X		X	
Butler	Shell Rock	R	X		X			
Calhoun	Farnhamville	R	X				X	
Calhoun	Jolley	R					X	
Calhoun	Knierim	R	X				X	
Calhoun	Knoke	R					X	
Calhoun	Lake City	R	X		X		X	
Calhoun	Lohrville	R					X	
Calhoun	Manson	R			X		X	
Calhoun	Pomeroy	R			X		X	
Calhoun	Richard	R					X	
Calhoun	Rinard	R					X	
Calhoun	Rockwell City	R	X		X		X	
Calhoun	Somers	R	X				X	
Calhoun	Yetter	R					X	
Carroll	Breda	R	X					
Carroll	Carroll	U			X		X	

Third Assessment of Iowa Communities Accessing High-Speed Internet Technologies

County Name	Community Name	Pop. Code	<u>xDSL Technology</u>		<u>Cable Modem Technology</u>		<u>Wireless Technology</u>	
			Access to xDSL Technology as of Jan-03	Access to xDSL Technology by Jan-04	Access to Cable Modem Technology as of Jan-03	Access to Cable Modem Technology by Jan-04	Access to Wireless Technology as of Jan-03	Access to Wireless Technology by Jan-04
Carroll	Coon Rapids	R			X			
Carroll	Glidden	R			X		X	
Carroll	Templeton	R	X					
Carroll	Wiley	U						
Cass	Anita	R	X					
Cass	Atlantic	U			X		X	
Cass	Cumberland	R	X					
Cass	Griswold	R	X					
Cass	Lewis	R	X					
Cass	Marne	R	X					
Cass	Massena	R	X					
Cass	Wiota	R		X				
Cedar	Bennett	R	X				X	
Cedar	Clarence	R	X					
Cedar	Durant	R	X		X			
Cedar	Lowden	R	X		X		X	
Cedar	Mechanicsville	R	X					
Cedar	Stanwood	R	X		X			
Cedar	Tipton	U	X		X			
Cedar	West Branch	R	X		X			
Cerro Gordo	Burchinal	R	X					
Cerro Gordo	Cartersville	R	X					
Cerro Gordo	Clear Lake	U	X		X			
Cerro Gordo	Dougherty	R	X					
Cerro Gordo	Mason City	U	X		X		X	
Cerro Gordo	Meservey	R					X	
Cerro Gordo	Plymouth	R	X					
Cerro Gordo	Thornton	R	X					

Third Assessment of Iowa Communities Accessing High-Speed Internet Technologies

County Name	Community Name	Pop. Code	<u>xDSL Technology</u>		<u>Cable Modem Technology</u>		<u>Wireless Technology</u>	
			Access to xDSL Technology as of Jan-03	Access to xDSL Technology by Jan-04	Access to Cable Modem Technology as of Jan-03	Access to Cable Modem Technology by Jan-04	Access to Wireless Technology as of Jan-03	Access to Wireless Technology by Jan-04
Cerro Gordo	Ventura	R	X		X		X	
Cherokee	Aurelia	R	X				X	
Cherokee	Cherokee	U			X			
Cherokee	Cleghorn	R	X				X	
Cherokee	Larrabee	R	X				X	
Cherokee	Marcus	R	X				X	
Cherokee	Meriden	R	X				X	
Cherokee	Quimby	R	X				X	
Cherokee	Washta	R		X			X	
Chickasaw	Fredericksburg	R			X		X	
Chickasaw	Ionia	U					X	
Chickasaw	Lawler	R			X			
Chickasaw	Nashua	R			X			
Chickasaw	New Hampton	U	X		X			
Clarke	Murray	R	X					
Clarke	Osceola	U	X					
Clarke	Woodburn	R						
Clay	CORNELL	R					X	
Clay	Dickens	R	X				X	
Clay	Everly	R			X		X	
Clay	Fostoria	U			X		X	
Clay	Gillett Grove	R	X				X	
Clay	Greenville	U					X	
Clay	LANGDON	U					X	
Clay	Peterson	R					X	
Clay	Rossie	U					X	
Clay	Royal	R					X	
Clay	Spencer	U		X	X		X	

Third Assessment of Iowa Communities Accessing High-Speed Internet Technologies

County Name	Community Name	Pop. Code	<u>xDSL Technology</u>		<u>Cable Modem Technology</u>		<u>Wireless Technology</u>	
			Access to xDSL Technology as of Jan-03	Access to xDSL Technology by Jan-04	Access to Cable Modem Technology as of Jan-03	Access to Cable Modem Technology by Jan-04	Access to Wireless Technology as of Jan-03	Access to Wireless Technology by Jan-04
Clay	Webb	R	X				X	
Clayton	Clayton	R	X			X		
Clayton	Clayton Center	R	X					
Clayton	Communia	R	X					
Clayton	Elkader	R	X				X	
Clayton	Elkport	R	X		X			
Clayton	Farmersburg	R	X				X	
Clayton	Garber	R	X		X			
Clayton	Garnavillo	R	X			X		
Clayton	Giard	R	X					
Clayton	Guttenberg	R	X					
Clayton	Littleport	R	X					
Clayton	Luana	R	X				X	
Clayton	Marquette	R	X					
Clayton	McGregor	R	X				X	
Clayton	Mederville	R	X					
Clayton	Millville	R	X					
Clayton	Monona	R	X					
Clayton	Osborne	R	X					
Clayton	Oster Dock	R	X					
Clayton	Saint Olaf	R	X					
Clayton	Strawberry Point	R			X		X	
Clayton	Volga	R			X			
Clinton	Calamus	R	X				X	
Clinton	Camanche	U			X		X	
Clinton	Clinton	U		X	X		X	
Clinton	Delmar	R	X				X	
Clinton	DeWitt	R	X		X			

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Clinton	Goose Lake	R		X				
Clinton	Grand Mound	R	X					
Clinton	Lost Nation	R	X					
Clinton	Low Moor	R			X			
Clinton	Wheatland	R	X		X		X	
Crawford	Arion	R	X					
Crawford	Buck Grove	R	X					
Crawford	Charter Oak	R	X					
Crawford	Deloit	U	X					
Crawford	Denison	U	X			X		
Crawford	Dow City	R	X					
Crawford	Manilla	R	X					
Crawford	Westside	R		X				
Dallas	Adel	U			X		X	
Dallas	BOONEVILLE	R			X			
Dallas	Dallas Center	R			X		X	
Dallas	DeSoto	R			X			
Dallas	Dexter	R			X			
Dallas	Granger	R			X		X	
Dallas	Minburn	R	X				X	
Dallas	Perry	U			X		X	
Dallas	Redfield	R			X		X	
Dallas	Van Meter	R			X			
Dallas	Waukee	U	X		X		X	
Dallas	Woodward	R	X		X			
Davis	Bloomfield	U	X			X		
Davis	Drakesville	R	X					
Davis	Floris	R	X					

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Davis	Mark	R	X					
Davis	Pulaski	R	X					
Decatur	Davis City	R	X					
Decatur	Garden Grove	R	X					
Decatur	Grand River	R	X					
Decatur	Lamoni	R	X					
Decatur	Leon	R	X		X			
Decatur	Weldon	R	X					
Decatur	Woodland	R						
Delaware	Colesburg	R			X		X	
Delaware	Delaware	R					X	
Delaware	Delhi	R					X	
Delaware	Dundee	R					X	
Delaware	Earlville	R			X		X	
Delaware	Edgewood	R			X		X	
Delaware	Greeley	R			X		X	
Delaware	Hopkinton	R					X	
Delaware	Manchester	U	X		X		X	
Delaware	Masonville	U					X	
Delaware	ONIEDA	R					X	
Delaware	Ryan	R					X	
Delaware	SAND SPRINGS	U					X	
Delaware	PETERSBURG	R					X	
Des Moines	Burlington	U		X	X			
Des Moines	Danville	R	X		X			
Des Moines	DODGEVILLE	R	X					
Des Moines	KINGSTON	R	X					
Des Moines	Mediapolis	R	X					

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Des Moines	Middletown	U			X			
Des Moines	SPERRY	R	X					
Des Moines	West Burlington	U			X			
Dickinson	Arnolds Park	R			X		X	
Dickinson	Lake Park	R			X		X	
Dickinson	Milford	R			X		X	
Dickinson	Okoboji	R			X		X	
Dickinson	Orleans	U			X		X	
Dickinson	Spirit Lake	U			X		X	
Dickinson	Superior	R					X	
Dickinson	Terril	R	X				X	
Dickinson	TRIBOJI BEACH	U					X	
Dickinson	Wahpeton	R			X		X	
Dickinson	West Okoboji	R					X	
Dubuque	Asbury	R			X			
Dubuque	Bernard	R		X				
Dubuque	Dubuque	U	X		X			
Dubuque	Epworth	R			X			
Dubuque	Farley	R			X			
Dubuque	Peosta	U			X			
Dubuque	Sageville	U			X			
Dubuque	Sherrill	U			X			
Dubuque	Worthington	R						
Dubuque	Zwingle	U	X					
Dubuque	Cascade	R	X		X			
Dubuque	Dyersville	U	X		X			
Emmet	Armstrong	R	X		X		X	
Emmet	Dolliver	R					X	

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Emmet	Estherville	U			X		X	
Emmet	Gruver	U					X	
Emmet	MAPLE HILL	U					X	
Emmet	Ringsted	R	X				X	
Emmet	Wallingford	R	X		X		X	
Fayette	Arlington	R			X		X	
Fayette	Clermont	R		X				
Fayette	Elgin	R	X			X		
Fayette	Fayette	R			X		X	
Fayette	Hawkeye	R	X				X	
Fayette	Maynard	R			X		X	
Fayette	Oelwein	U			X		X	
Fayette	Oran	R	X					
Fayette	Saint Lucas	R			X		X	
Fayette	Wadena	R			X			
Fayette	West Union	R			X		X	
Fayette	Westgate	R			X		X	
Floyd	Charles City	U			X		X	
Floyd	Floyd	R	X		X			
Floyd	Marble Rock	R	X					
Floyd	Nora Springs	R	X		X			
Floyd	Rockford	R	X		X			
Floyd	Rudd	R	X					
Franklin	Alexander	R	X				X	
Franklin	CHAPIN	R	X					
Franklin	Hampton	U			X			
Franklin	Popejoy	R					X	
Franklin	Sheffield	R			X			

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Fremont	Imogene	R	X					
Greene	Churdan	R	X					
Greene	Jefferson	U	X					
Greene	Paton	R	X					
Greene	Rippey	R					X	
Greene	Scranton	R	X					
Grundy	Beaman	R			X		X	
Grundy	Conrad	R			X		X	
Grundy	Dike	R			X		X	
Grundy	Grundy Center	U				X	X	
Grundy	Reinbeck	R			X		X	
Guthrie	Guthrie Center	R			X			
Guthrie	Menlo	R	X					
Guthrie	Panora	R	X				X	
Guthrie	Stuart	R			X			
Guthrie	Yale	R						
Hamilton	Blairsburg	R					X	
Hamilton	Ellsworth	R	X				X	
Hamilton	Jewell	R			X		X	
Hamilton	Kamrar	R	X				X	
Hamilton	Randall	R			X			
Hamilton	Stanhope	R	X					
Hamilton	Stratford	R	X					
Hamilton	Webster City	U			X		X	
Hamilton	Williams	R						
Hancock	Britt	R			X		X	
Hancock	Corwith	R	X				X	
Hancock	Crystal Lake	R	X				X	

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Hancock	DUNCAN	R			X		X	
Hancock	Garner	U	X		X		X	
Hancock	Goodell	R					X	
Hancock	Hayfield	U					X	
Hancock	Kanawha	R	X					
Hancock	Klemme	R	X				X	
Hancock	Mills	R					X	
Hancock	Woden	R	X					
Hardin	Ackley	R			X			
Hardin	Alden	R					X	
Hardin	Buckeye	R					X	
Hardin	Eldora	U	X			X		
Hardin	Garden City	R	X					
Hardin	Hubbard	R	X				X	
Hardin	Iowa Falls	U			X		X	
Hardin	New Providence	R	X					
Hardin	Radcliffe	R	X					
Hardin	Steamboat Rock	R	X					
Hardin	Whitten	R						
Harrison	Woodbine	R	X					
Henry	Mount Pleasant	U	X					
Henry	Mount Union	R					X	
Henry	New London	R	X		X			
Henry	Olds	R					X	
Henry	Swedesbug	R					X	
Henry	Wayland	R	X					
Henry	Westwood	U						
Henry	Winfield	R					X	

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Henry	Yarmouth	R					X	
Howard	Cresco	U	X		X		X	
Howard	Elma	R			X			
Howard	Lime Springs	R			X			
Humboldt	Bode	R	X				X	
Humboldt	Bradgate	R					X	
Humboldt	Dakota City	U	X		X		X	
Humboldt	Gilmore City	R					X	
Humboldt	Hardy	R					X	
Humboldt	Humboldt	U	X		X			
Humboldt	Livermore	R	X				X	
Humboldt	Ottosen	R					X	
Humboldt	Pioneer	R					X	
Humboldt	Renwick	R					X	
Humboldt	Rutland	U					X	
Humboldt	Thor	R	X				X	
Ida	Arthur	R	X					
Ida	Battle Creek	R		X				
Ida	Holstein	R	X				X	
Ida	Ida Grove	R	X				X	
Iowa	Amana	R	X		X			
Iowa	Ladora	R	X					
Iowa	Marengo	U	X		X			
Iowa	Middle Amana	R			X			
Iowa	Millersburg	R	X					
Iowa	North English	R	X		X			
Iowa	Victor	R	X					
Iowa	West Amana	R			X			

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Iowa	Williamsburg	U	X		X			
Jackson	Andrew	R	X					
Jackson	Baldwin	R	X					
Jackson	Bellevue	R	X					
Jackson	La Motte	R	X					
Jackson	Maquoketa	U			X			
Jackson	Miles	R	X					
Jackson	Monmouth	R	X					
Jackson	Preston	R		X				
Jackson	Sabula	R			X			
Jackson	Saint Donatus	U	X					
Jackson	Spragueville	R		X				
Jackson	Springbrook	R		X				X
Jasper	Baxter	R	X					
Jasper	Colfax	R			X		X	
Jasper	Kellogg	R	X					
Jasper	Killduff	R	X					
Jasper	Lynnville	R	X					
Jasper	Monroe	R	X					
Jasper	Newton	U	X					
Jasper	Prairie City	R			X		X	
Jasper	Sully	R	X			X		
Jefferson	Batavia	R						X
Jefferson	Fairfield	U	X		X			
Johnson	Carl	R	X					
Johnson	Coralville	U	X		X			
Johnson	Frytown	R	X					
Johnson	Hills	R	X					

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Johnson	Iowa City	U	X		X			
Johnson	Lone Tree	R			X			
Johnson	North Liberty	U	X		X			
Johnson	Oxford	R	X					
Johnson	Sharon Center	R	X					
Johnson	Solon	R	X		X			
Johnson	Swisher	R	X					
Johnson	Tiffin	R	X					
Johnson	University Heights	U			X			
Jones	Anamosa	U			X			
Jones	Martelle	R	X					
Jones	Monticello	U			X			
Jones	Morley	R	X					
Jones	Olin	R	X					
Jones	Onslow	R		X				
Jones	Oxford Junction	R	X		X			
Jones	Wyoming	R	X					
Keokuk	Keota	R			X			
Keokuk	Keswick	R	X					
Keokuk	Kinross	R	X					
Keokuk	Sigourney	R	X		X			
Keokuk	South English	R	X					
Keokuk	Webster	R	X		X			
Keokuk	What Cheer	R			X			
Kossuth	Algona	U	X		X		X	
Kossuth	Bancroft	R			X		X	
Kossuth	Burt	R	X		X		X	
Kossuth	Fenton	R	X				X	

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Kossuth	Irvington	R					X	
Kossuth	Lakota	R					X	
Kossuth	Ledyard	R					X	
Kossuth	Lone Rock	R	X				X	
Kossuth	LOTTS CREEK	R					X	
Kossuth	LuVerne	R					X	
Kossuth	Saint Benedict	R					X	
Kossuth	Saint Joseph	R					X	
Kossuth	Stevens	R	X				X	
Kossuth	Swea City	R			X		X	
Kossuth	Titonka	R					X	
Kossuth	Wesley	R					X	
Kossuth	Whittemore	R					X	
Lee	Donnellson	R	X					
Lee	Fort Madison	U			X			
Lee	Keokuk	U		X	X			
Lee	Montrose	R			X			
Lee	West Point	R			X			
Lee	WEVER	U						
Linn	Alburnett	R	X				X	
Linn	Bertram	U			X		X	
Linn	Cedar Rapids	U	X		X		X	
Linn	Center Point	R			X		X	
Linn	Central City	R	X		X		X	
Linn	Coggon	R					X	
Linn	Ely	R	X				X	
Linn	Fairfax	R	X		X		X	
Linn	Hiawatha	U			X		X	

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Linn	LA FAYETTE	R					X	
Linn	Lisbon	R	X		X		X	
Linn	Marion	U			X		X	
Linn	Mount Vernon	U			X		X	
Linn	Palo	R	X		X		X	
Linn	Paris	R					X	
Linn	Prairieburg	R		X			X	
Linn	Robins	U			X		X	
Linn	Springville	R	X				X	
Linn	TODDVILLE	U			X		X	
Linn	Troy Mills	R					X	
Linn	Viola	R	X				X	
Linn	Walker	R					X	
Linn	Whitter	R	X				X	
Louisa	Columbus Junction	R	X		X			
Louisa	Morning Sun	R	X		X			
Louisa	Wapello	R	X		X			
Louisa	Wyman	R					X	
Lucas	Chariton	U	X		X		X	
Lucas	Derby	R	X				X	
Lucas	Lucas	R					X	
Lucas	OAKLEY	R					X	
Lucas	Russell	R					X	
Lucas	Williamson	R					X	
Lyon	Alvord	R		X			X	
Lyon	Doon	R			X		X	
Lyon	George	R		X	X		X	
Lyon	Inwood	R	X				X	

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Lyon	Larchwood	R	X				X	
Lyon	Lester	R	X				X	
Lyon	Little Rock	R	X				X	
Lyon	Rock Rapids	U	X				X	
Madison	Earlham	R			X			
Madison	Saint Charles	R	X					
Madison	Truro	R	X					
Madison	Winterset	U			X		X	
Mahaska	Fremont	R					X	
Mahaska	New Sharon	R	X			X	X	
Mahaska	Oskaloosa	U		X		X	X	
Mahaska	University Park	U		X		X	X	
Marion	Bussey	R			X			
Marion	Hancock	R	X					
Marion	Knoxville	U	X					
Marion	Pella	U	X				X	
Marion	PERSHING	R			X			
Marion	Pleasantville	R	X		X			
Marshall	Albion	R	X					
Marshall	Clemons	R		X				
Marshall	Gilman	R	X					
Marshall	Green Mountain	R	X		X			
Marshall	Haverhill	R	X					
Marshall	Laurel	R	X					
Marshall	LeGrand	R			X			
Marshall	Liscomb	R	X					
Marshall	Marshalltown	U		X	X		X	
Marshall	Melbourne	R	X		X		X	

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Marshall	Rhodes	R			X			
Marshall	Saint Anthony	R		X				
Marshall	State Center	R	X					
Mills	Emerson	R	X					
Mills	Glenwood	U				X		
Mills	Henderson	R	X					
Mills	Silver City	U			X			
Mitchell	Osage	U			X			
Mitchell	Riceville	R	X		X			
Mitchell	Saint Ansgar	R	X		X			
Mitchell	Stacyville	R	X		X			
Monona	Blencoe	R					X	
Monona	Castana	R	X				X	
Monona	Mapleton	R	X				X	
Monona	Moorhead	R					X	
Monona	Onawa	U		X			X	
Monona	Rodney	R	X				X	
Monona	Turin	R					X	
Monona	Ute	R					X	
Monona	Whiting	R					X	
Monroe	Albia	U	X		X		X	
Monroe	Avery	U					X	
Monroe	Georgetown	U					X	
Monroe	Lovilia	R					X	
Monroe	Melrose	R					X	
Montgomery	Elliott	R	X					
Montgomery	Grant	R		X				
Montgomery	Red Oak	U			X		X	

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Montgomery	Stanton	R	X					
Montgomery	Villisca	R	X		X			
Muscatine	Fruitland	U			X			
Muscatine	Muscatine	U	X		X		X	
Muscatine	West Liberty	U	X					
Muscatine	Wilton	U	X		X			
O'Brien	Archer	R	X				X	
O'Brien	Calumet	R	X				X	
O'Brien	Gaza	R					X	
O'Brien	Germantown	R					X	
O'Brien	Hartley	R					X	
O'Brien	Moneta	R					X	
O'Brien	Paullina	R					X	
O'Brien	Primghar	R					X	
O'Brien	Sanborn	R	X				X	
O'Brien	Sheldon	U					X	
O'Brien	Sutherland	R	X				X	
Osceola	ALLENDORF	U					X	
Osceola	Ashton	R		X		X	X	
Osceola	Cloverdale	U					X	
Osceola	Harris	R			X		X	
Osceola	May City	R					X	
Osceola	Melvin	R				X	X	
Osceola	Ocheyedan	R					X	
Osceola	Sibley	U	X				X	
Page	Bethesda -Region	R	X					
Page	Clarinda	U	X		X			
Page	Coin	R	X					

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Page	Essex	R					X	
Page	Northboro	R	X					
Page	Shenandoah	U				X	X	
Palo Alto	Ayrshire	R	X				X	
Palo Alto	Curlew	R	X				X	
Palo Alto	Cylinder	R					X	
Palo Alto	DePew	R					X	
Palo Alto	Emmetsburg	U	X		X		X	
Palo Alto	Graettinger	R	X				X	
Palo Alto	Mallard	R					X	
Palo Alto	Rodman	R					X	
Palo Alto	Ruthven	R	X				X	
Palo Alto	West Bend	R	X				X	
Plymouth	Akron	R	X		X		X	
Plymouth	Brunsville	R	X				X	
Plymouth	Craig	R	X				X	
Plymouth	Hinton	R	X				X	
Plymouth	James	U					X	
Plymouth	Kingsley	R		X			X	
Plymouth	LeMars	U	X			X	X	
Plymouth	Merrill	R					X	
Plymouth	Oyens	U	X				X	
Plymouth	Remsen	R	X				X	
Plymouth	Seney	U	X				X	
Plymouth	Struble	R	X				X	
Plymouth	West Akron	R					X	
Plymouth	Westfield	R					X	
Pocahontas	Fonda	R					X	

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Pocahontas	Havelock	R	X				X	
Pocahontas	Laurens	R			X		X	
Pocahontas	Palmer	R	X				X	
Pocahontas	Plover	R	X				X	
Pocahontas	Pocahontas	R					X	
Pocahontas	Rolfe	R					X	
Pocahontas	Varina	R					X	
Polk	Alleman	R					X	
Polk	Altoona	U		X	X		X	
Polk	Ankeny	U	X		X			
Polk	Avon	U					X	
Polk	Berwick	R			X			
Polk	Bondurant	U			X		X	
Polk	Clive	U	X		X			
Polk	Des Moines	U	X		X			
Polk	Grimes	U			X		X	
Polk	Johnston	U			X		X	
Polk	Mitchellville	U			X		X	
Polk	Pleasant Hill	U			X			
Polk	Polk City	R			X			
Polk	Runnells	R			X			
Polk	Urbandale	U	X		X		X	
Polk	West Des Moines	U	X		X		X	
Polk	Windsor Heights	U						
Pottawattamie	Avoca	R	X		X			
Pottawattamie	Bentley	R			X			
Pottawattamie	Carson	R	X		X			
Pottawattamie	Carter Lake	U			X			

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Pottawattamie	Council Bluffs	U	X		X			
Pottawattamie	Crescent	R			X			
Pottawattamie	Loveland	U			X			
Pottawattamie	Macedonia	R			X			
Pottawattamie	McClelland	R	X		X			
Pottawattamie	Minden	R			X			
Pottawattamie	Neola	R			X			
Pottawattamie	Oakland	R	X		X			
Pottawattamie	Treynor	R	X		X			
Pottawattamie	Underwood	R			X			
Pottawattamie	Walnut	R	X		X			
Pottawattamie	Weston	R			X			
Poweshiek	Brooklyn	R	X					
Poweshiek	Deep River	R			X			X
Poweshiek	Grinnell	U	X					
Poweshiek	Guernsey	R	X					
Poweshiek	Hartwick	R	X					
Poweshiek	Malcom	R				X		
Poweshiek	Montezuma	R	X		X			X
Poweshiek	Searsboro	R	X					
Ringgold	Mount Ayr	R	X		X			
Sac	Auburn	R					X	
Sac	Carnarvon	R					X	
Sac	Early	R		X			X	
Sac	Lake View	R	X				X	
Sac	Lytton	R					X	
Sac	Nemaha	R		X			X	
Sac	Odebolt	R	X				X	

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Sac	Sac City	R		X	X		X	
Sac	Schaller	R					X	
Sac	ULMER	R					X	
Sac	Wall Lake	R	X				X	
Scott	Bettendorf	U			X			
Scott	Buffalo	U			X			
Scott	Davenport	U	X		X			
Scott	Dixon	R			X			
Scott	Donahue	R	X					
Scott	Eldridge	U	X		X			
Scott	LeClaire	U	X		X			
Scott	Long Grove	U	X		X			
Scott	McCausland	R	X		X			
Scott	Mount Joy	U			X			
Scott	New Liberty	U			X			
Scott	Panorama Park	U			X			
Scott	Parkview	R	X		X			
Scott	Princeton	U			X			
Scott	Riverdale	U			X			
Scott	Walcott	R			X			
Shelby	Defiance	R	X					
Shelby	Earling	R	X					
Shelby	Elk Horn	R	X					
Shelby	Harlan	U	X					
Shelby	Irwin	R	X					
Shelby	Jacksonville	R	X					
Shelby	Kirkman	R	X					
Shelby	Panama	R			X			

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Shelby	Westphalia	R	X					
Sioux	Alton	R	X				X	
Sioux	Boyden	R		X	X		X	
Sioux	Carmel	U					X	
Sioux	Chatsworth	R					X	
Sioux	East Hudson	R	X				X	
Sioux	Granville	R	X			X	X	
Sioux	Hawarden	R	X				X	
Sioux	Hospers	R		X			X	
Sioux	Hull	R	X		X		X	
Sioux	Ireton	R		X	X		X	
Sioux	Matlock	R	X				X	
Sioux	Maurice	R	X				X	
Sioux	Orange City	U	X			X	X	
Sioux	Perkins	R					X	
Sioux	Rock Valley	U	X		X		X	
Sioux	Sioux Center	U	X		X		X	
State of Minnesota	Hesper (S. Mabel, IA)	R	X					
Story	Ames	U	X		X			
Story	Cambridge	R			X		X	
Story	Collins	R					X	
Story	Colo	R	X				X	
Story	Gilbert	U			X		X	
Story	Huxley	R	X		X			
Story	Kelley	R	X					
Story	Maxwell	R					X	
Story	Nevada	U	X		X		X	
Story	Roland	R	X				X	

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Story	Sheldahl	R			X			
Story	Slater	R			X		X	
Story	Story City	U	X		X		X	
Story	Zearing	R	X					
Tama	Clutier	R	X					
Tama	Dysart	R	X		X		X	
Tama	Elberon	R	X					
Tama	Garwin	R			X			
Tama	Gladbrook	R			X		X	
Tama	Tama	U			X		X	
Tama	Toledo	U	X		X		X	
Tama	Traer	R			X			
Taylor	Bedford	R	X			X	X	
Taylor	Blockton	R	X					
Taylor	Lenox	R	X					
Taylor	New Market	R	X					
Taylor	Sharpsburg	R	X					
Union	Creston	U	X		X			
Union	Lorimor	R	X					
Union	Thayer	R	X					
Van Buren	Bentonsport	R	X					
Van Buren	Birmingham	R	X					
Van Buren	Bonaparte	R	X					
Van Buren	Cantril	R	X					
Van Buren	Keosauqua	R	X					
Van Buren	Mount Sterling	R			X			
Van Buren	Stockport	R	X					
Wapello	Agency	R			X			

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Wapello	Blakesburg	R					X	
Wapello	Eddyville	R	X		X		X	
Wapello	Ottumwa	U			X			
Warren	Carlisle	U			X			
Warren	Cumming	U			X			
Warren	Hartford	U			X			
Warren	Indianola	U		X	X		X	
Warren	Norwalk	U			X			
Warren	Saint Marys	R	X					
Washington	Crawfordsville	R					X	
Washington	Kalona	R	X		X			
Washington	Riverside	R			X			
Washington	Washington	U	X			X		
Washington	Wellman	R	X		X			
Wayne	Allerton	R	X				X	
Wayne	Bethlehem	R					X	
Wayne	Cambria	R					X	
Wayne	Clio	R					X	
Wayne	Confidence	R					X	
Wayne	Corydon	R	X				X	
Wayne	Humeston	R					X	
Wayne	Lineville	R	X				X	
Wayne	Millerton	R	X				X	
Wayne	Promise City	R					X	
Wayne	Seymour	R					X	
Webster	Badger	R	X				X	
Webster	Barnum	R	X				X	
Webster	Callender	R	X				X	

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Webster	Clare	R	X		X		X	
Webster	Coalville	R	X				X	
Webster	Dayton	R	X				X	
Webster	Duncombe	R	X				X	
Webster	Fort Dodge	U	X		X		X	
Webster	Gowrie	R	X				X	
Webster	Harcourt	R	X				X	
Webster	Lanyon	R		X			X	
Webster	Lehigh	R	X				X	
Webster	Moorland	R	X		X		X	
Webster	Otho	R	X		X		X	
Webster	Vincent	R	X				X	
Winnebago	Buffalo Center	R	X		X			
Winnebago	Lake Mills	R	X					
Winnebago	Leland	R	X		X			
Winnebago	Rake	R	X					
Winnebago	Scarville	R	X					
Winnebago	Thompson	R	X					
Winnebago	Forest City	U	X		X			
Winneshiek	Burr Oak	R	X				X	
Winneshiek	Calmar	R					X	
Winneshiek	Castalia	R					X	
Winneshiek	Decorah	U	X				X	
Winneshiek	Fort Atkinson	R	X					
Winneshiek	Frankville	R					X	
Winneshiek	Ossian	R	X				X	
Winneshiek	Ridgeway	R	X				X	
Woodbury	Anthon	R					X	

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Woodbury	Bronson	R	X				X	
Woodbury	Climbing Hill	R	X				X	
Woodbury	Correctionville	R					X	
Woodbury	Cushing	R					X	
Woodbury	Danbury	R					X	
Woodbury	Holly Springs	R					X	
Woodbury	Hornick	R	X				X	
Woodbury	Lawton	R	X				X	
Woodbury	Luton	R					X	
Woodbury	Moville	R	X				X	
Woodbury	Oto	R	X				X	
Woodbury	Pierson	R		X			X	
Woodbury	Port Neal	R					X	
Woodbury	Salix	R					X	
Woodbury	Sergeant Bluff	U					X	
Woodbury	Sioux City	U		X			X	
Woodbury	Sloan	R					X	
Woodbury	Smithland	R	X				X	
Worth	Fertile	R	X					
Worth	Grafton	R	X					
Worth	Hanlontown	R	X					
Worth	Joice	R	X					
Worth	Kensett	R	X		X			
Worth	Manly	R			X			
Worth	Northwood	R			X			
Worth	South Emmons	R	X					
Wright	Belmond	U	X		X		X	
Wright	Clarion	U	X				X	

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Wright	Dows	R					X	
Wright	Eagle Grove	U	X		X		X	
Wright	Galt	U					X	
Wright	Goldfield	R	X				X	
Wright	Holmes	U					X	
Wright	Rowan	R					X	
Wright	Tara	R					X	
Wright	Woolstock	R	X					
State of Illinois	Mercer County						X	
State of Minnesota	Fairmont						X	
State of Minnesota	Rushmore						X	
State of Minnesota	Bricelyn		X					
State of Minnesota	Harmony		X					
State of Wisconsin	Prairie du Chien						X	