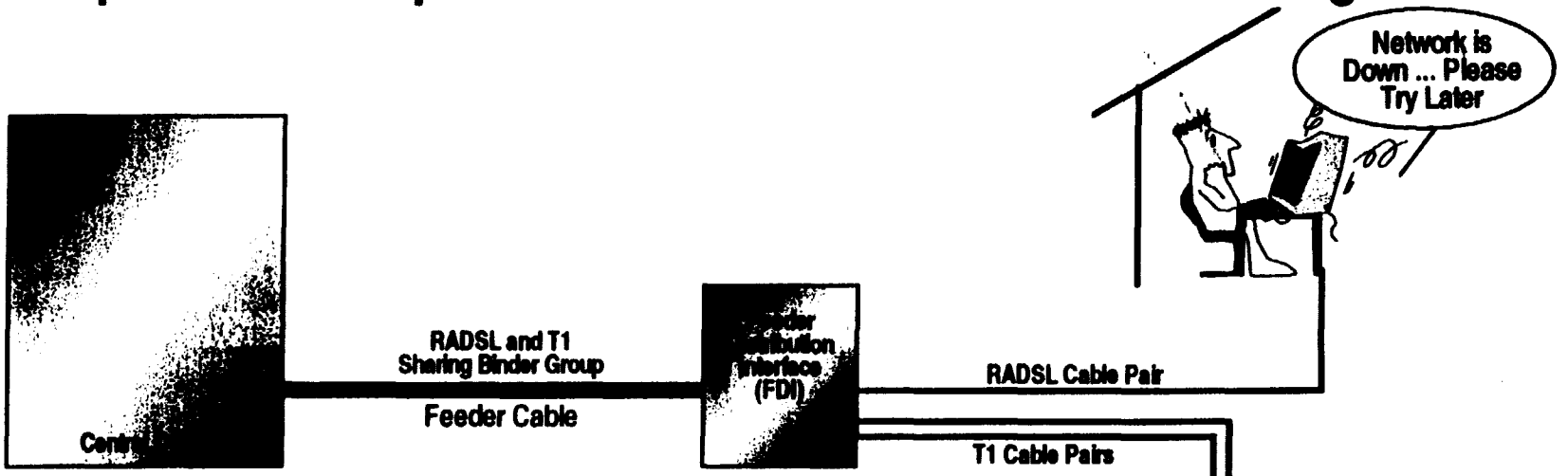
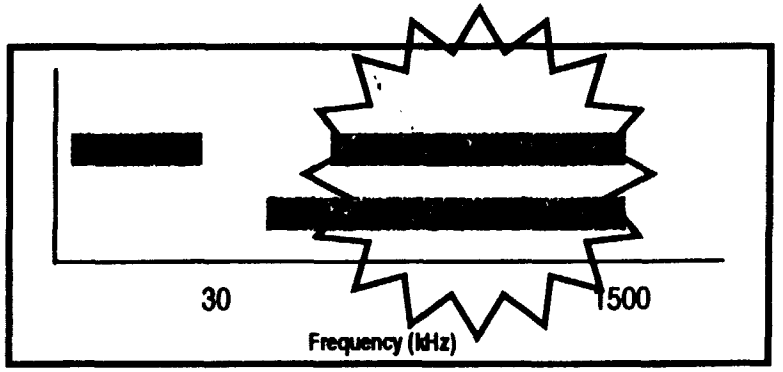
U S WEST Spectrum Management

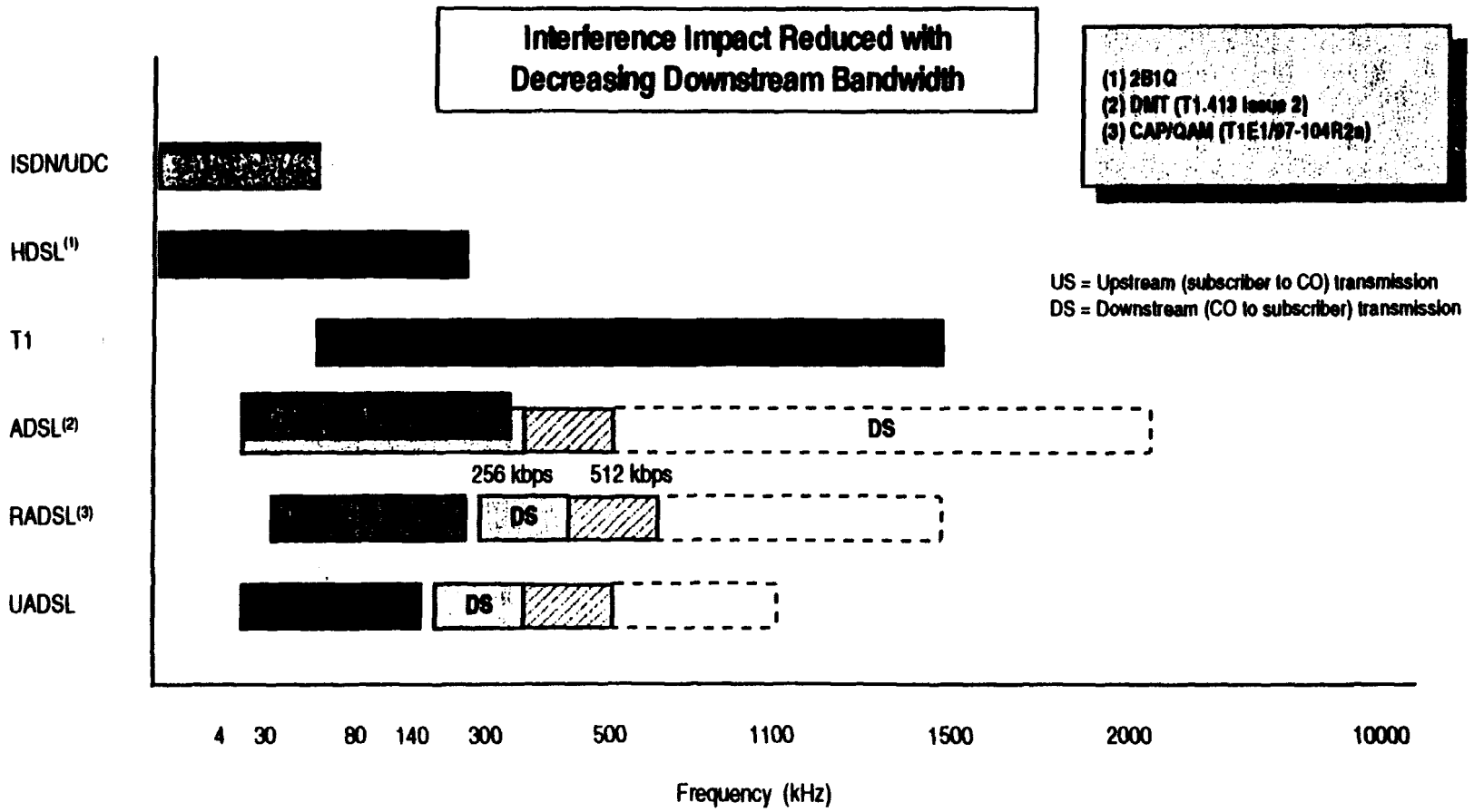
Spectral Overlap = Interference = Possible Service Outage





U S WEST Spectrum Management

Interference is Ultimately Determined by Mass Market Usage



U S WEST Spectrum Management

U S WEST Plan to Ensure Spectrum Compatibility

- Bellcore has defined Power Spectral Density (PSD) masks for new xDSL systems (ADSL, UADSL, RADSL) to achieve compatibility with each other as well as with existing systems (ISDN, HDSL, UDC)
- PSD criteria will apply to all carriers that plan to use unbundled loops to provide xDSL based services
    - Ensures minimal performance impact to all xDSL systems

U S WEST Spectrum Management

Summary

- Deployment of xDSLs will cause sever crosstalk if not properly managed in the loop plant
- If not properly designed, the crosstalk level can be high enough to interrupt service
- Standard PSD masks are emerging to help manage this issue
- DSL technology installed on loops provided by U S WEST must conform to the PSD masks.

Actions

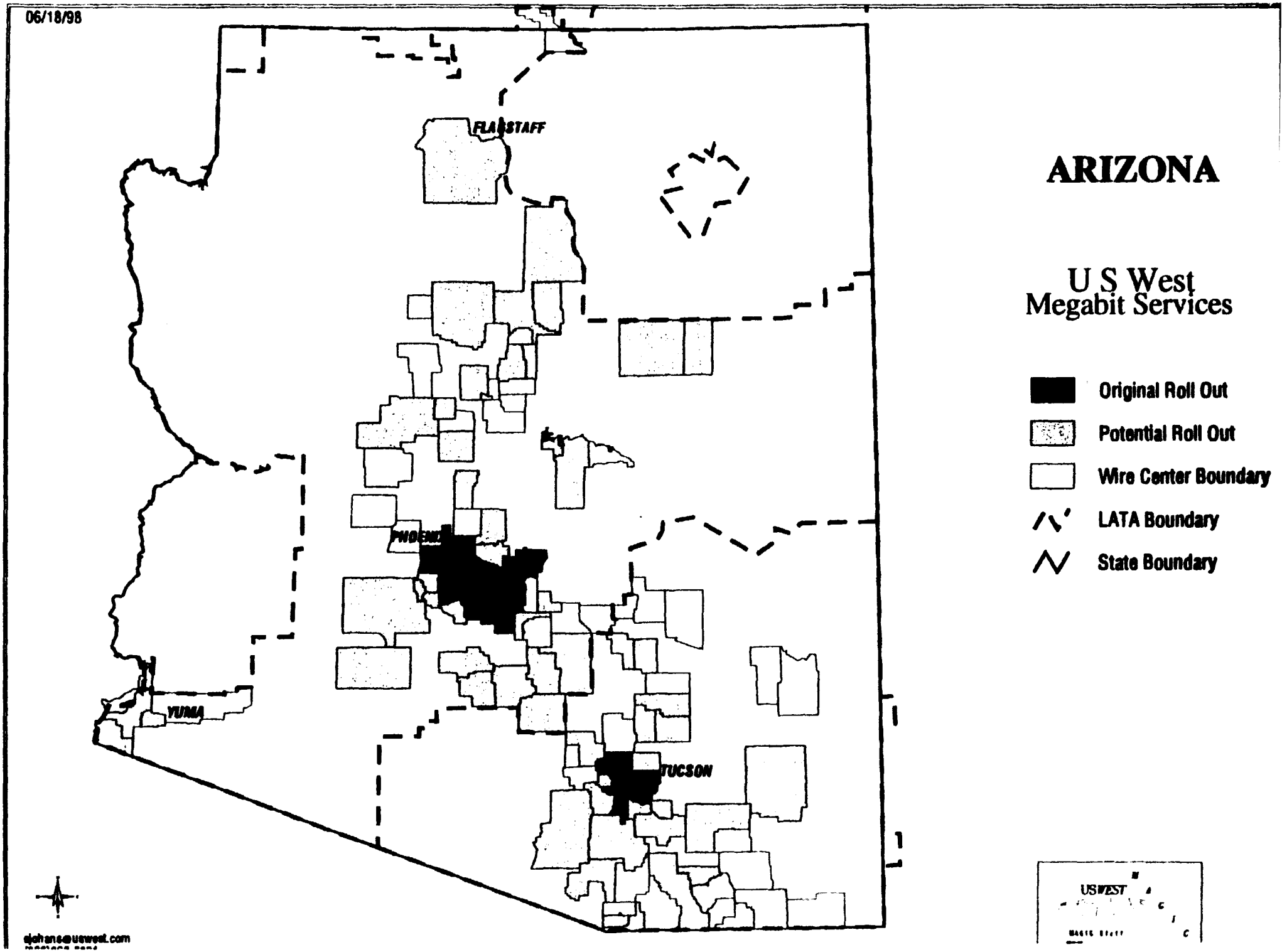
- U S WEST must apply the requirements of PSD masks on itself and on CLECs using unbundled loops to maintain the service quality of the copper network
- Unbundled loops must be qualified for xDSL (using PSD masks) under new unbundled loop tariffs
- Continue field and lab testing of RADSL crosstalk impacts
- Continue to work through T1E1.4 and UAWG forums to address PSD standards.

US WEST
Switched Access
Minutes of Use
January 1998

7/21/98

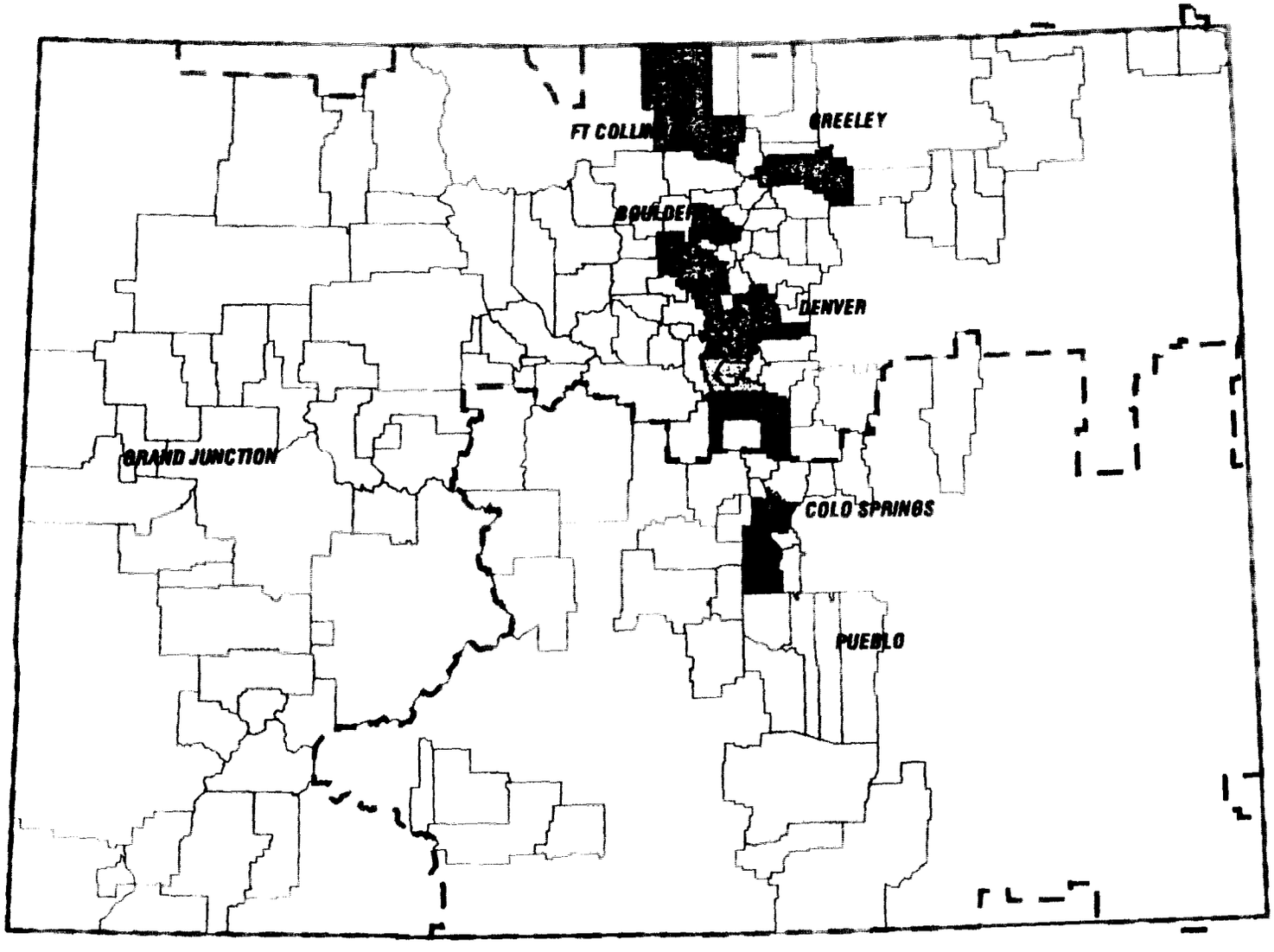
State	Lata's per State in US West's Region	Interstate Total	Intrastate Interlata Total	Intrastate-interlata total/interstate total
ARIZONA	2	791,079,850	83,802,251	11.00%
COLORADO	2	800,330,316	87,133,488	11.00%
IOWA	4	246,287,267	83,030,437	34.00%
MINNESOTA	4	461,145,969	160,509,859	35.00%
MONTANA	2	102,894,246	21,827,128	21.00%
NORTH DAKOTA	2	58,022,944	11,506,218	20.00%
NEBRASKA	2	138,254,892	36,479,870	26.00%
OREGON	2	329,462,535	83,413,446	25.00%
WASHINGTON	2	582,651,580	105,484,524	18.00%

06/18/98

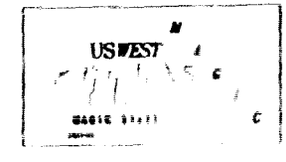

FLAGSTAFF
PHOENIX
YUMA
TUCSON
ARIZONA
U S West
Megabit Services
Original Roll Out
Potential Roll Out
Wire Center Boundary
LATA Boundary
State Boundary
USWEST
dphans@uswest.com

COLORADO

U S West Megabit Services



- Original Roll Out
- Potential Roll Out
- Wire Center Boundary
- LATA Boundary
- State Boundary



sjohans@uswest.com

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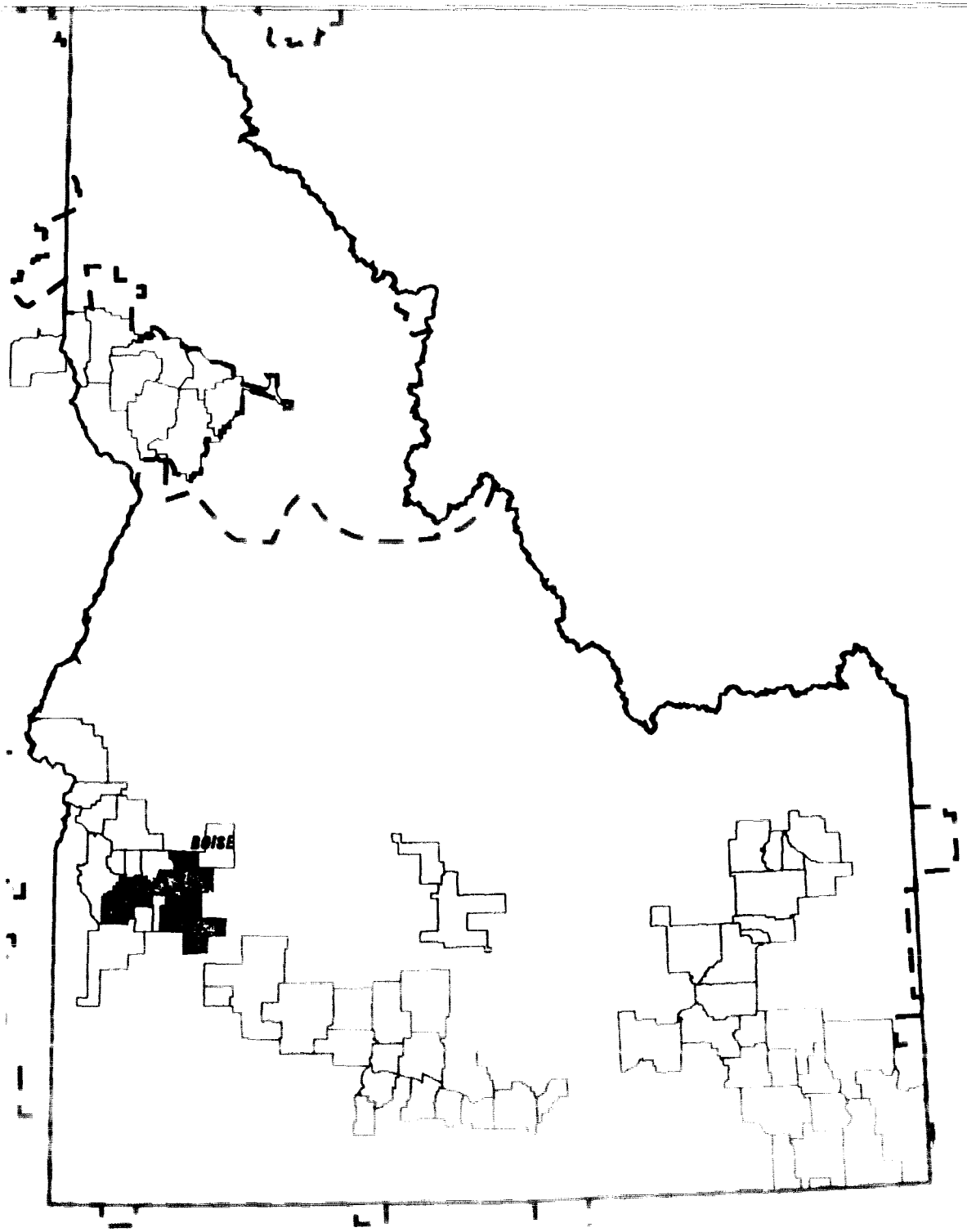


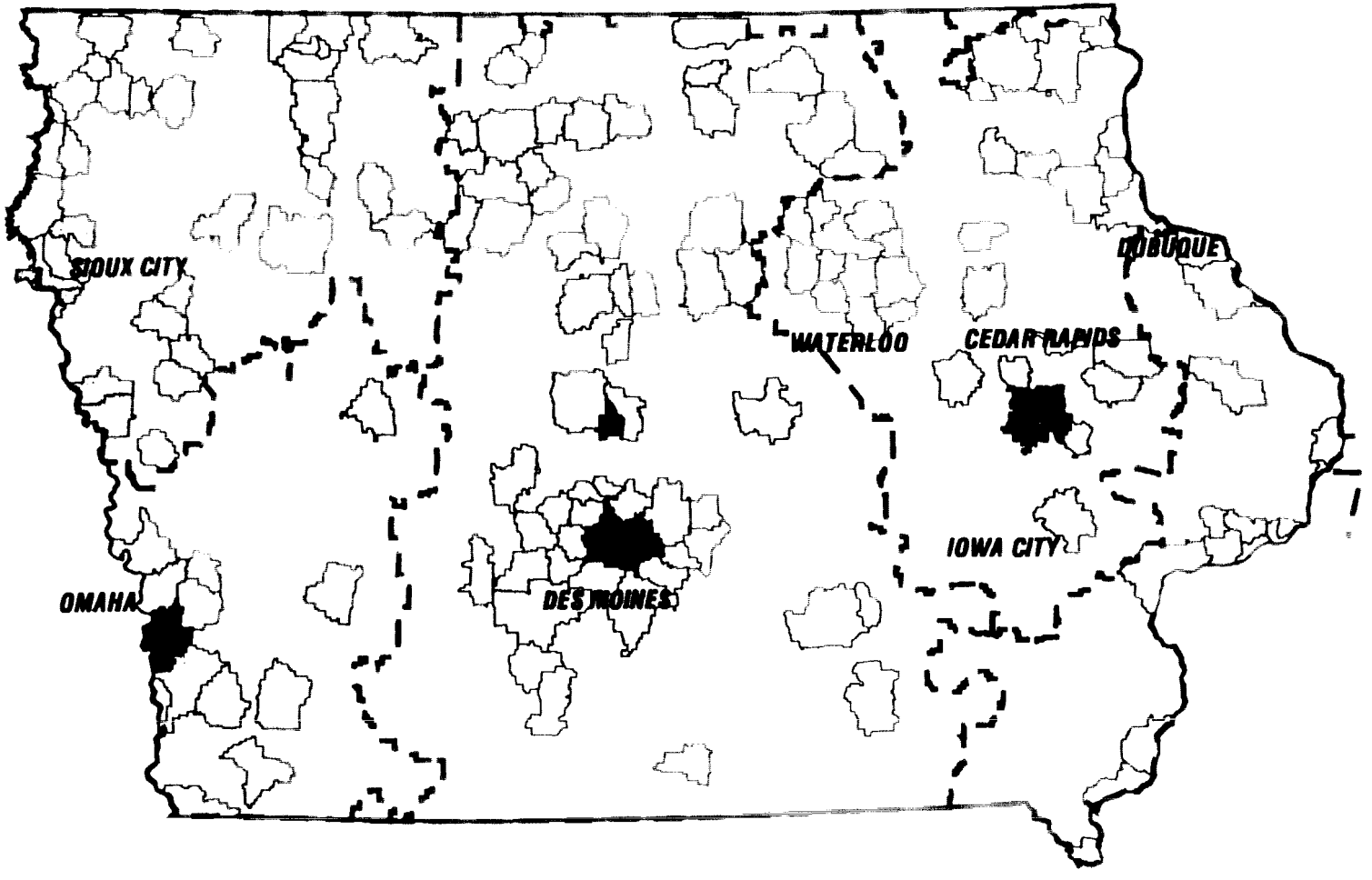
IDAHO

U S West
Megabit Services

- Original Roll Out
- Potential Roll Out
- Wire Center Boundary
- LATA Boundary
- State Boundary

ejohans@uswest.com

06/18/98

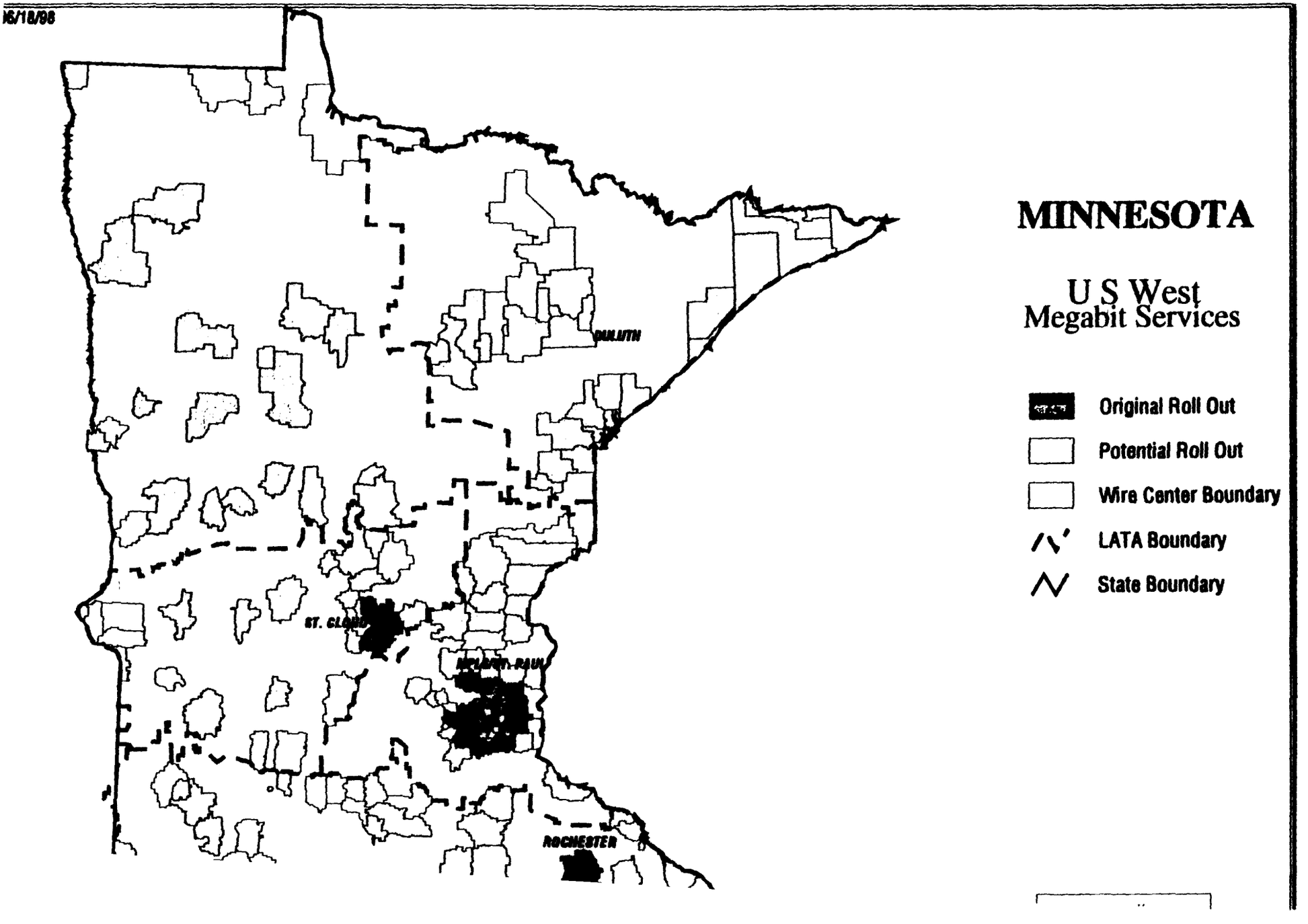


IOWA

U S West Megabit Services

- Original Roll Out
- Potential Roll Out
- Wire Center Boundary
- LATA Boundary
- State Boundary

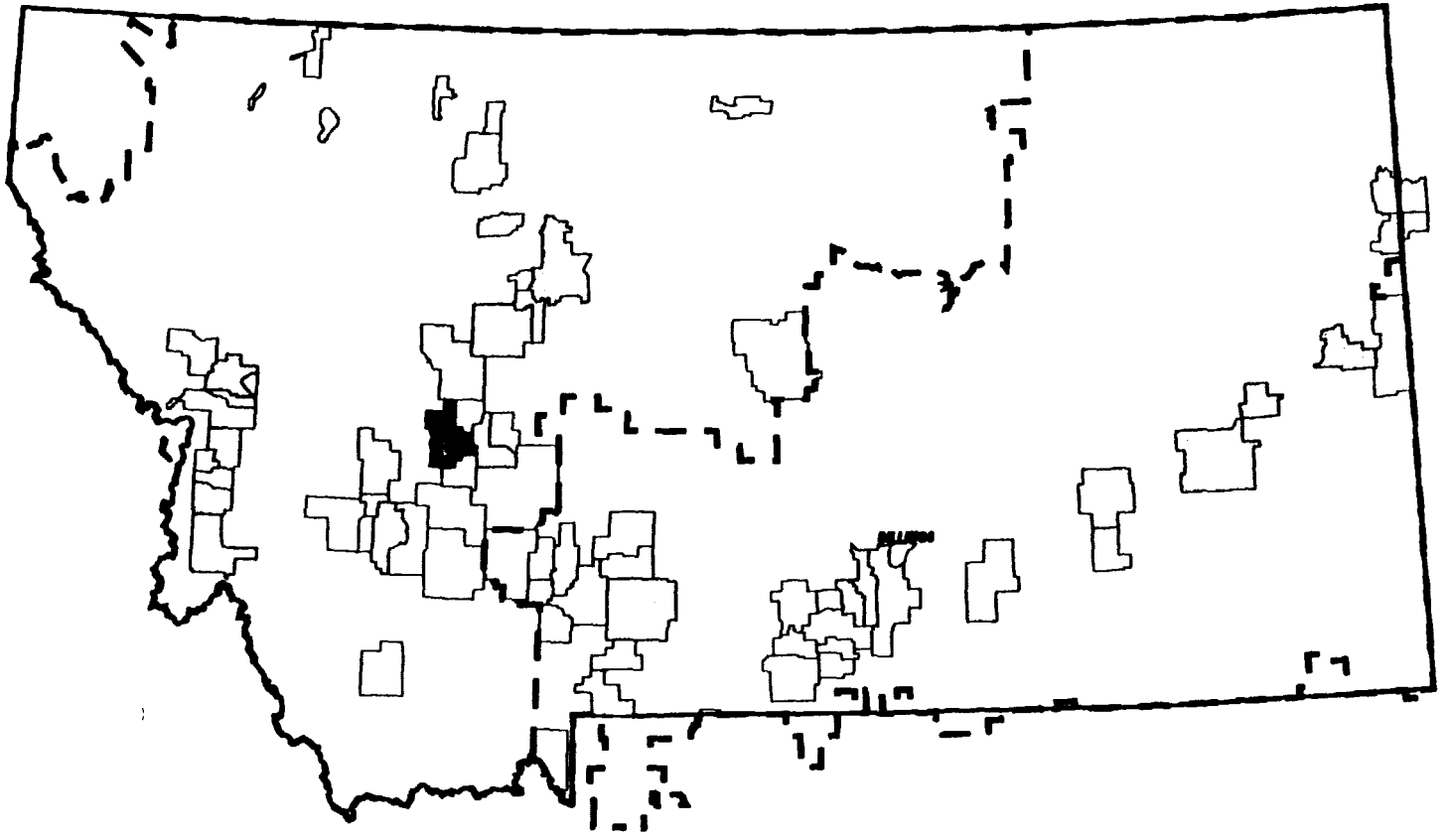
US WEST


6/18/98
MINNESOTA
U S West
Megabit Services
Original Roll Out
Potential Roll Out
Wire Center Boundary
LATA Boundary
State Boundary
DULUTH
ST. CLOUD
ROCHESTER

06/18/98

MONTANA

U S West Megabit Services



- Original Roll Out
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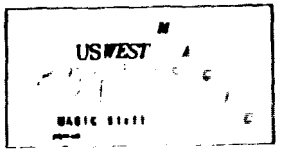
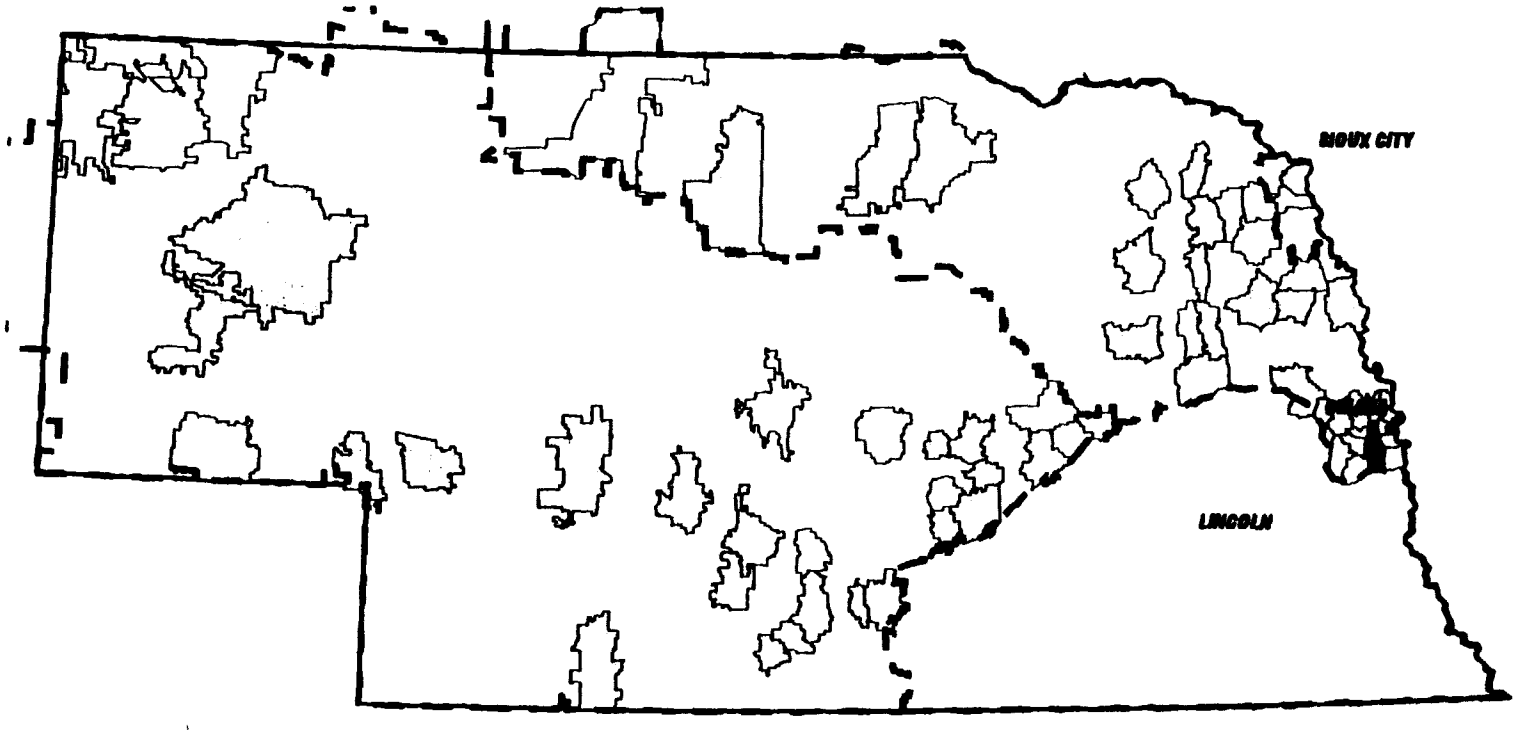
- State Boundary



06/18/98

NEBRASKA

U S West Megabit Services



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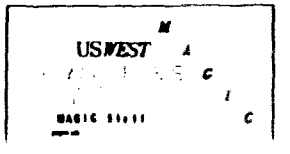

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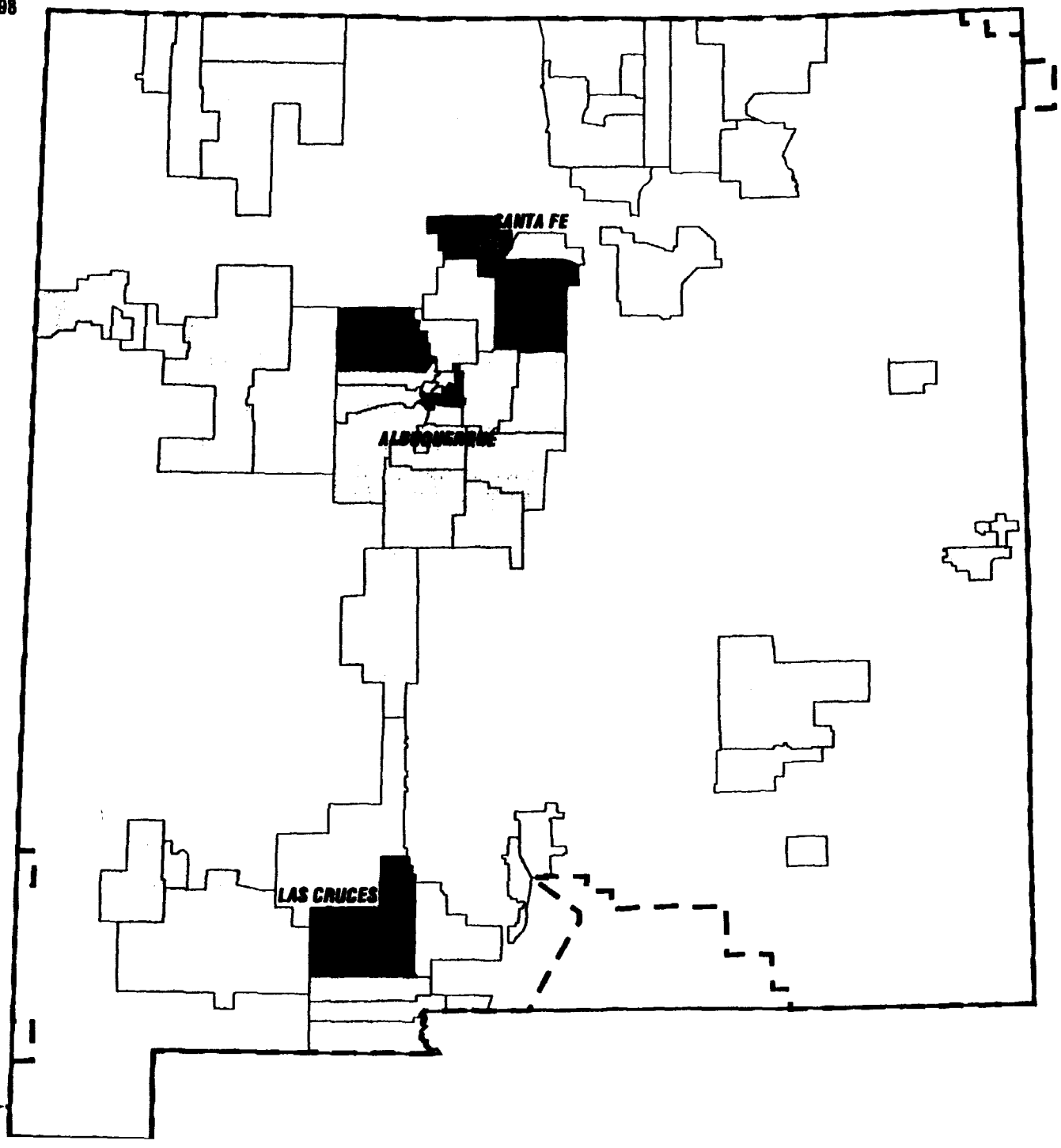

NEW MEXICO

U S West
Megabit Services

- Original Roll Out
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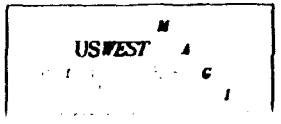
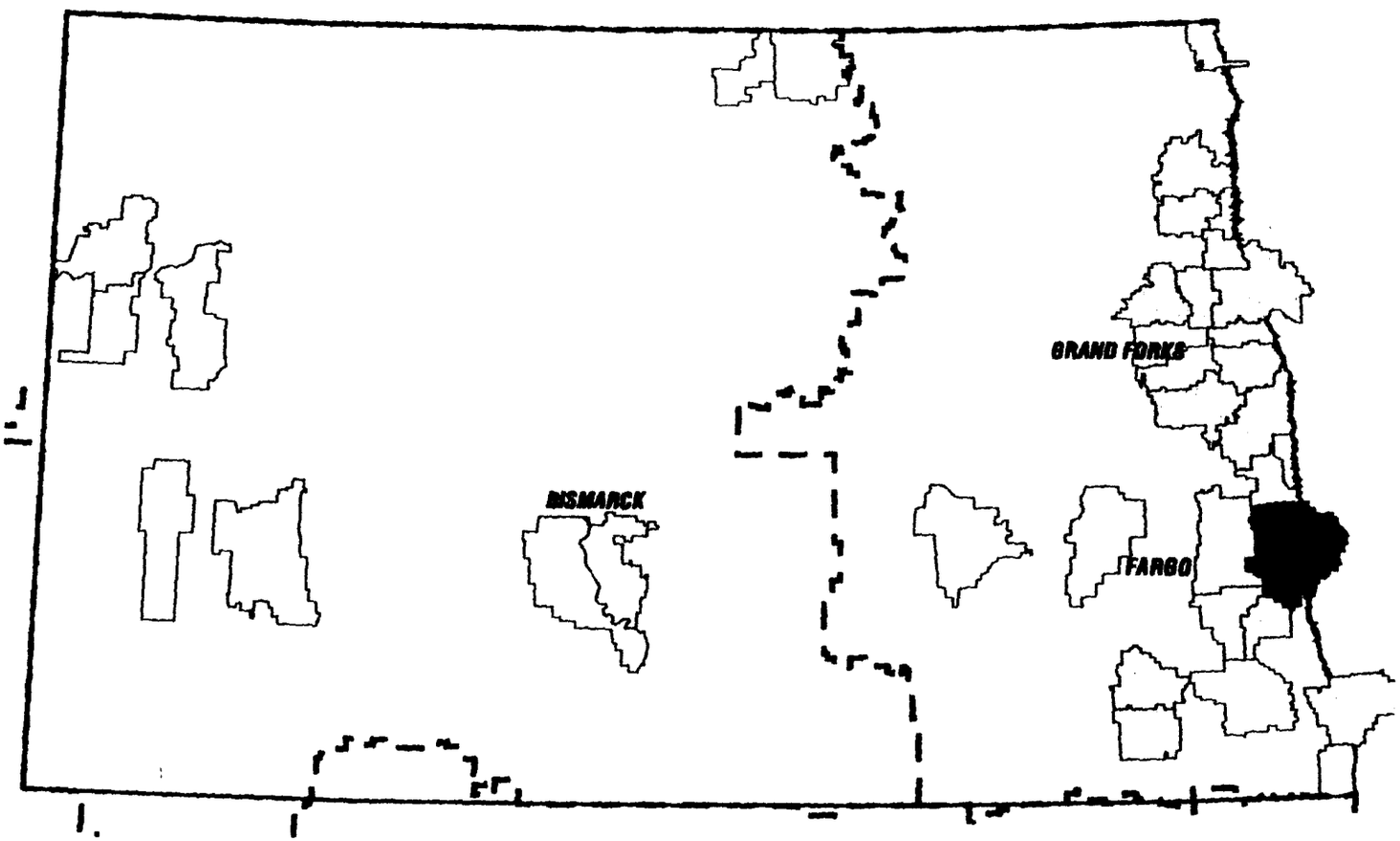
- State Boundary



NORTH DAKOTA

U S West
Megabit Services



- Original Roll Out
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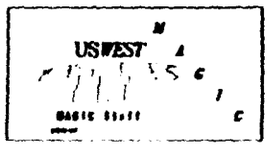

ajohans@uswest.com

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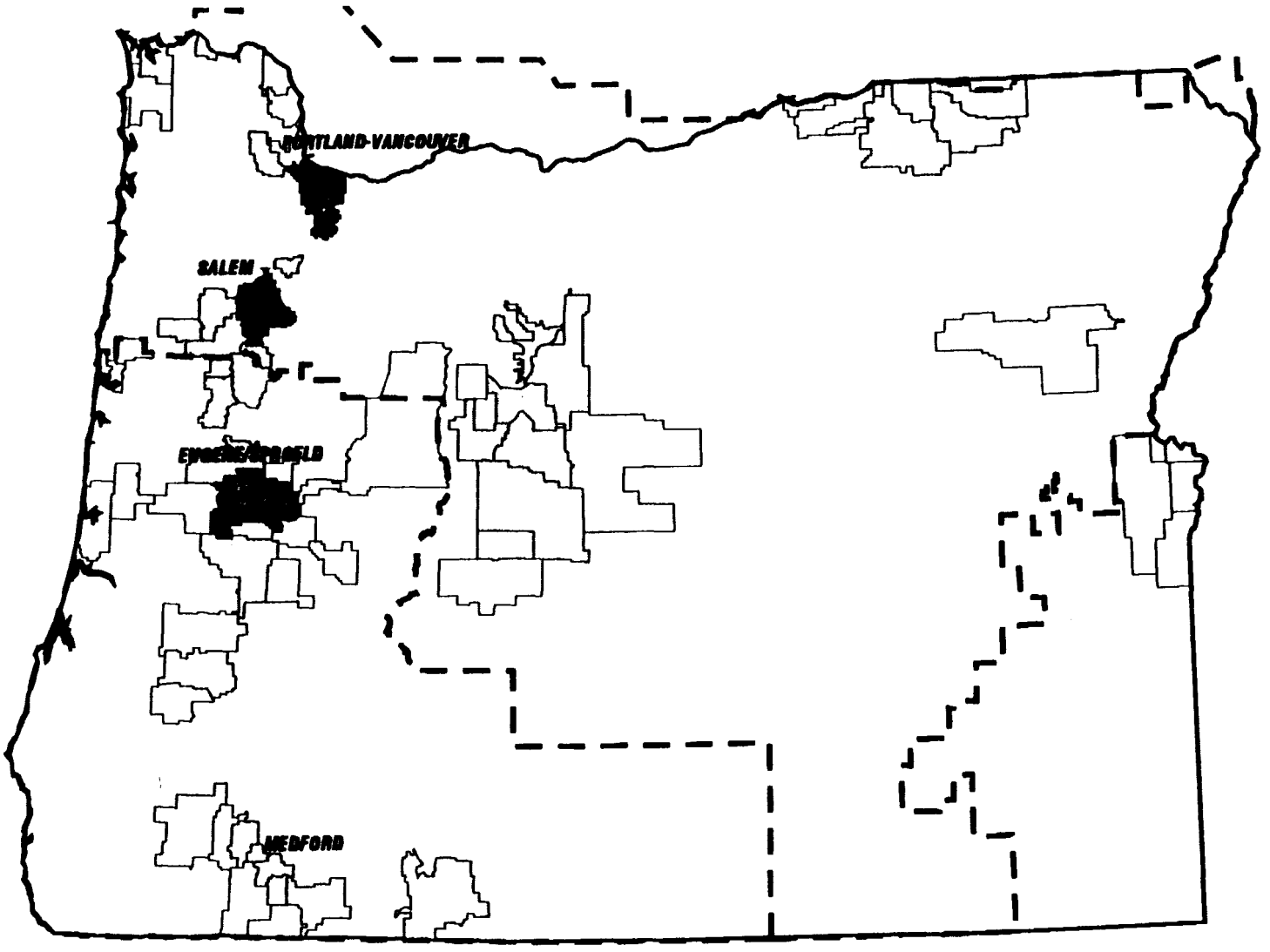

OREGON

U S West Megabit Services

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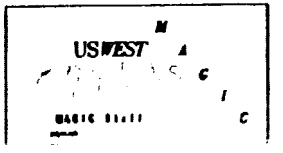
- State Boundary



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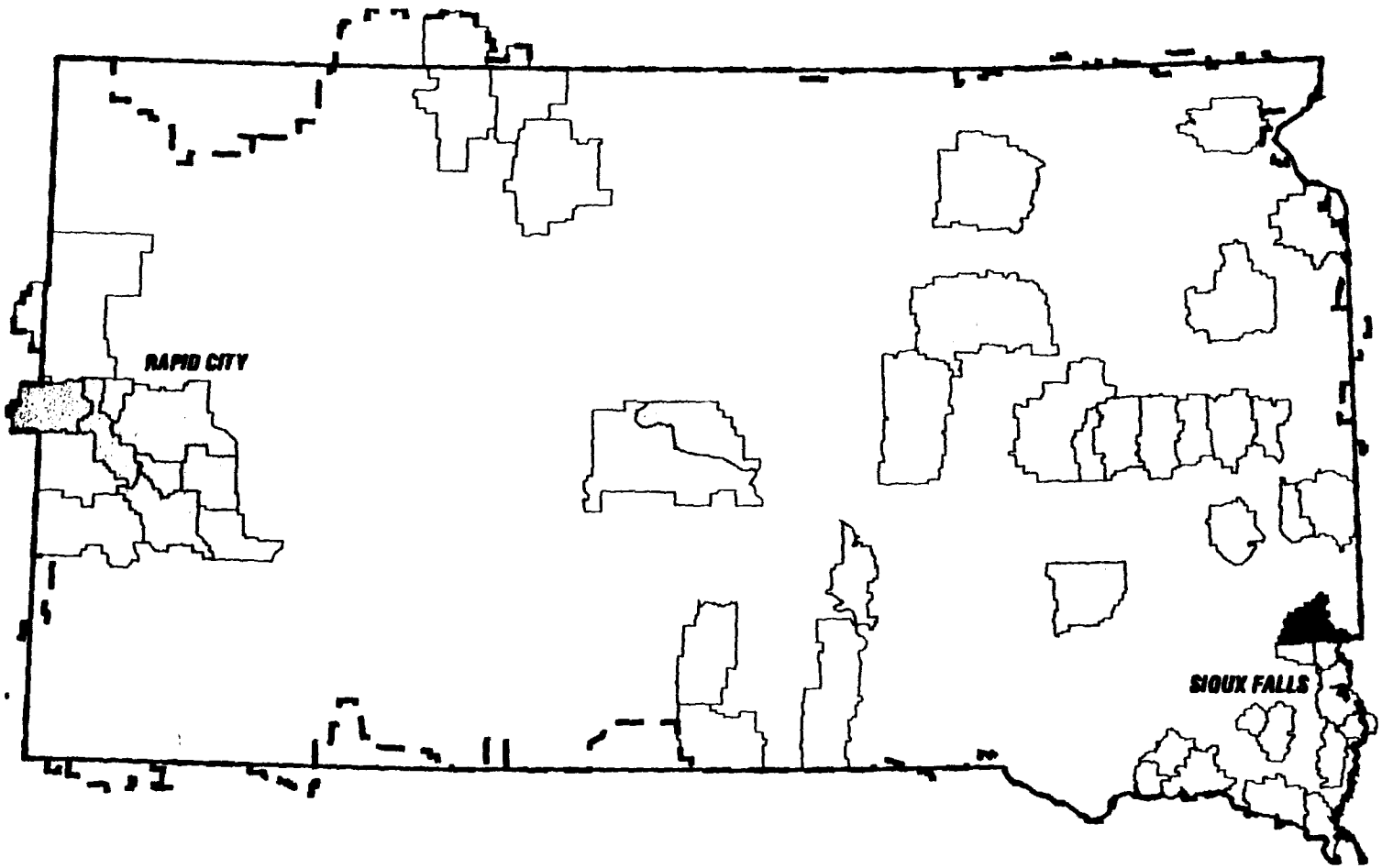

SOUTH DAKOTA

U S West
Megabit Services

- Original Roll Out
- Potential Roll Out
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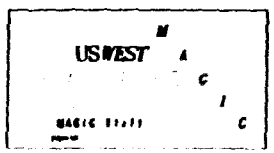
- LATA Boundary
- State Boundary



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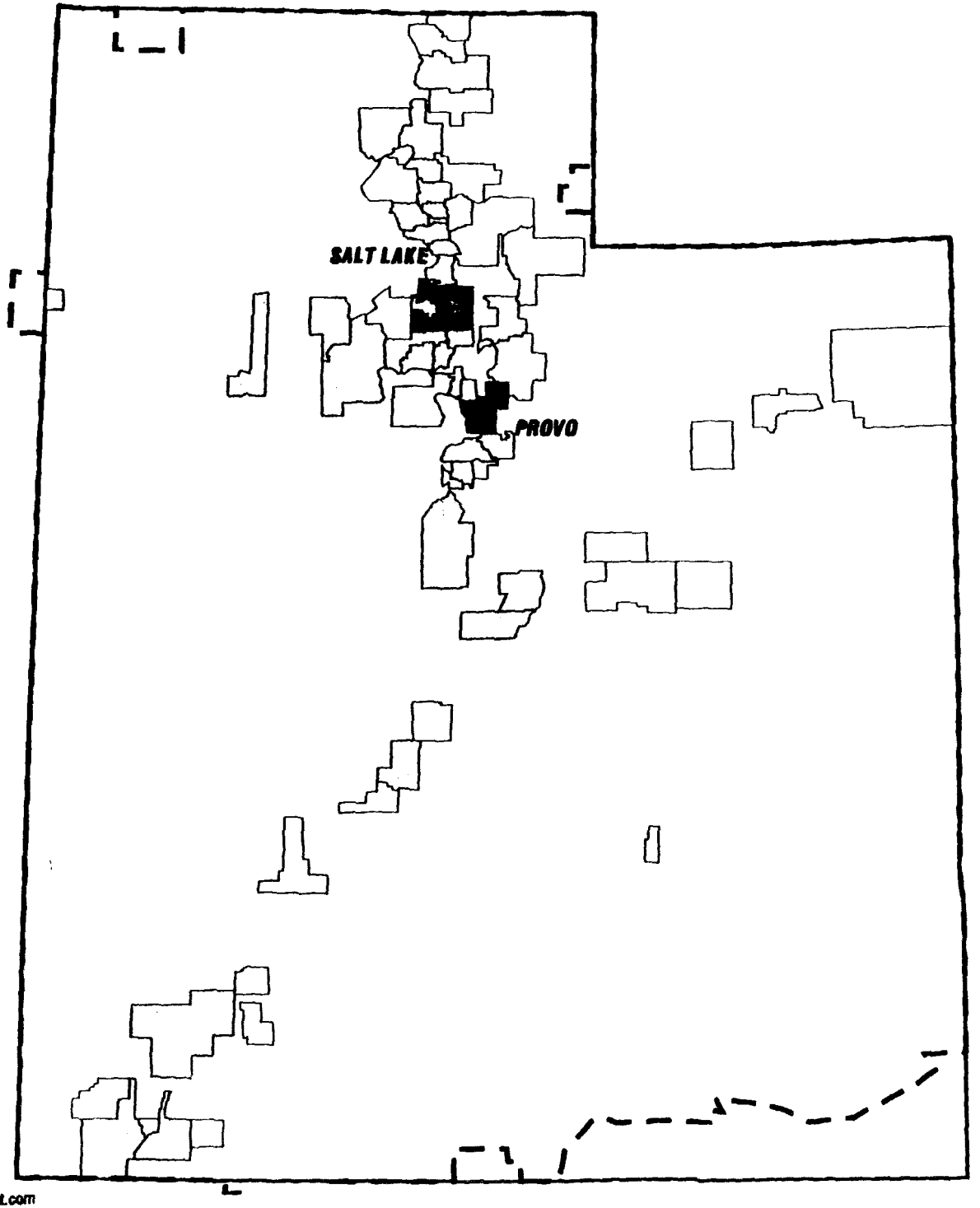

UTAH

U S West Megabit Services

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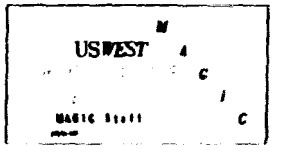
- State Boundary



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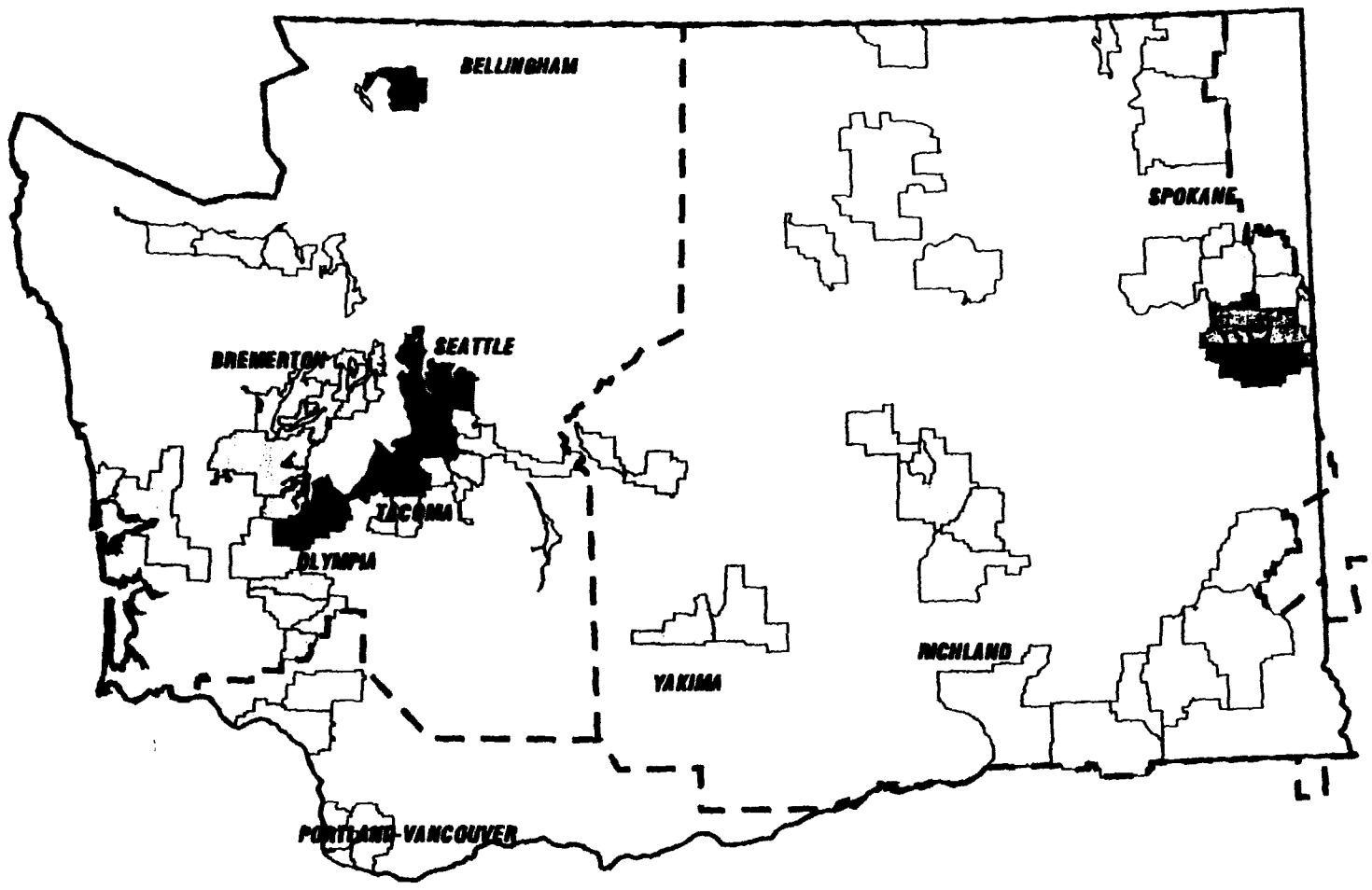

WASHINGTON

U S West Megabit Services

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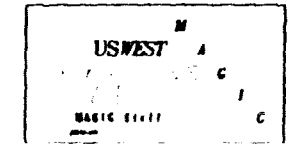
- State Boundary



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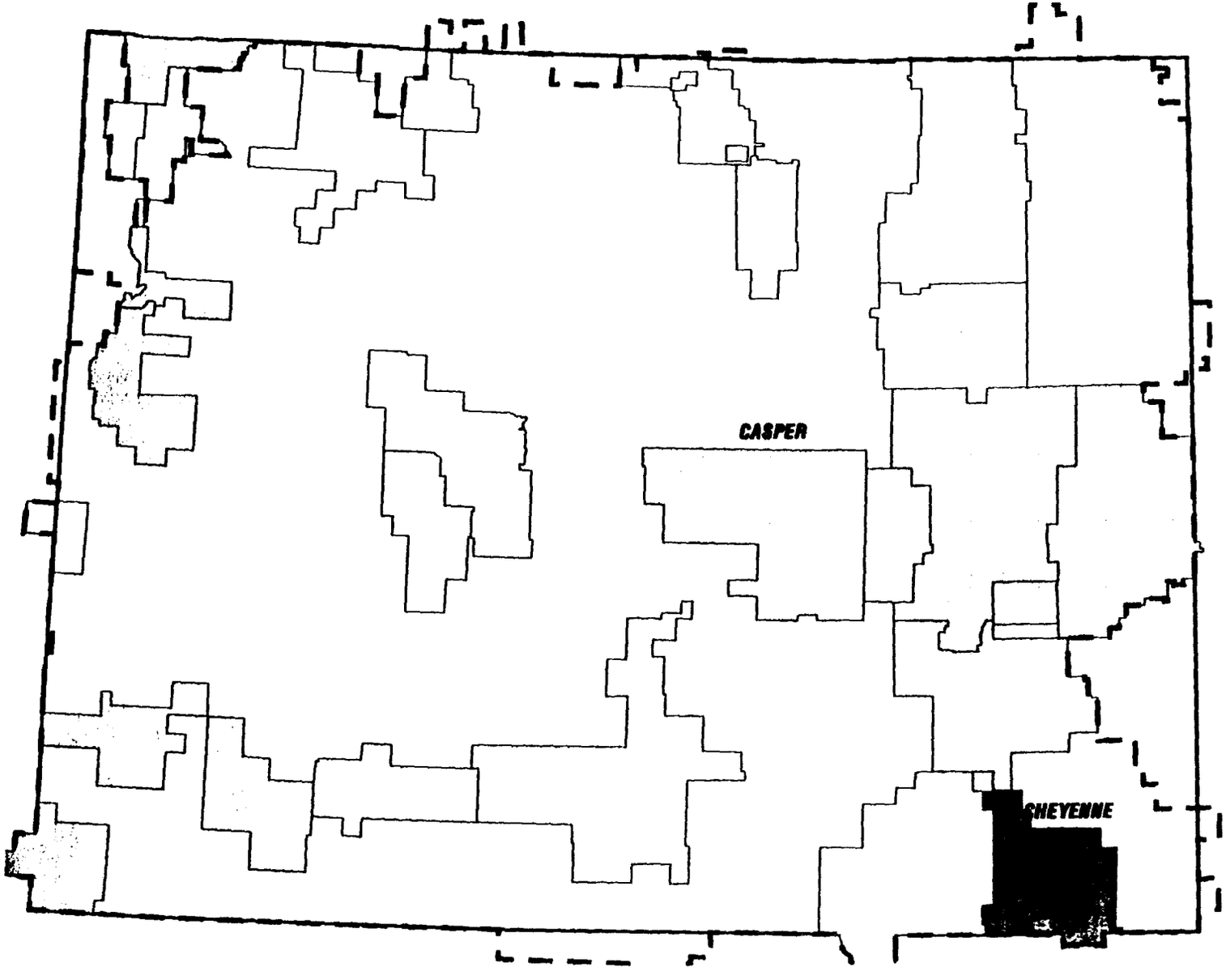

WYOMING

U S West Megabit Services

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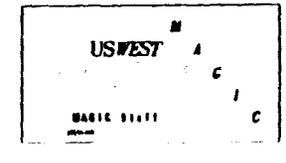
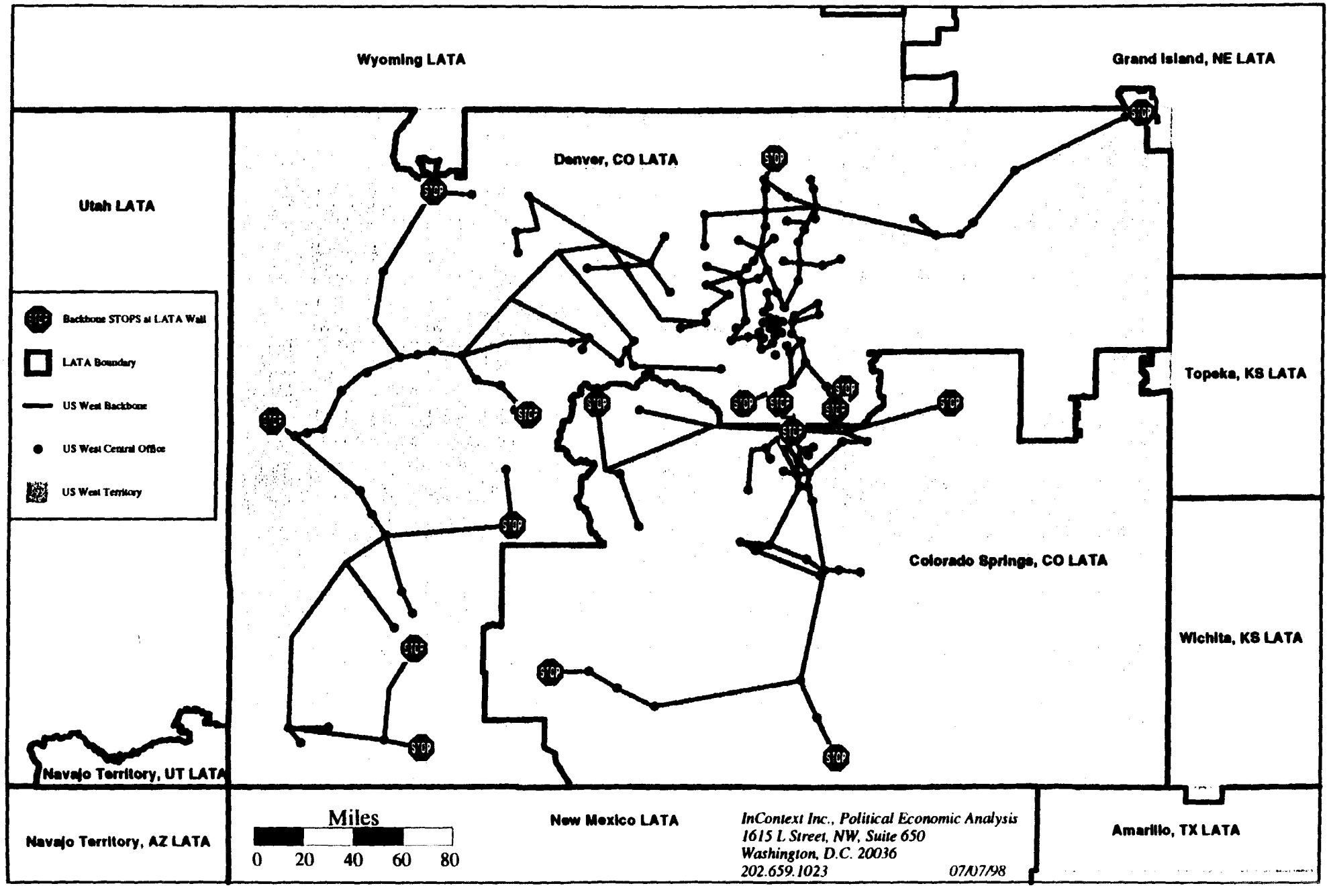
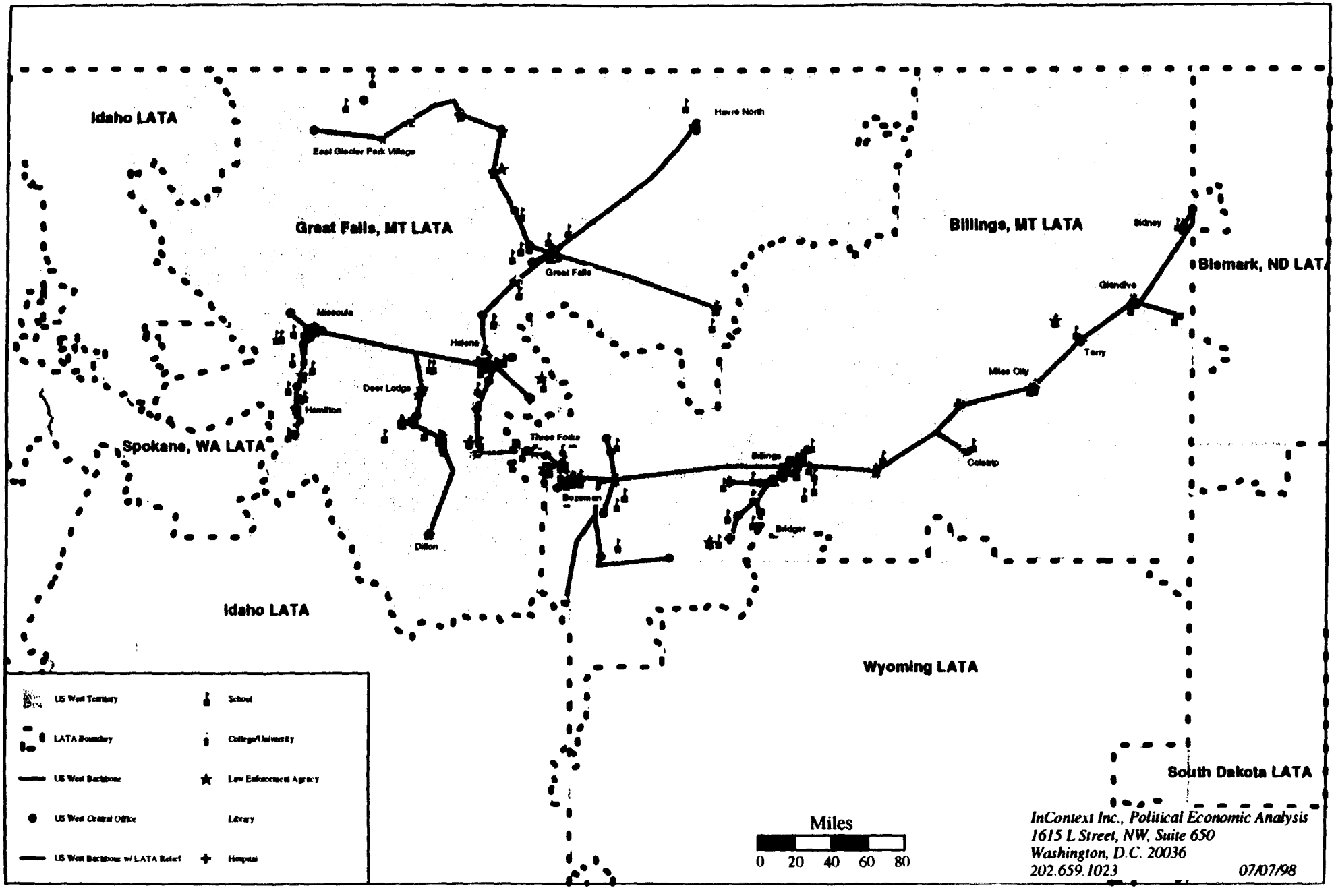


djohanse@uswest.com

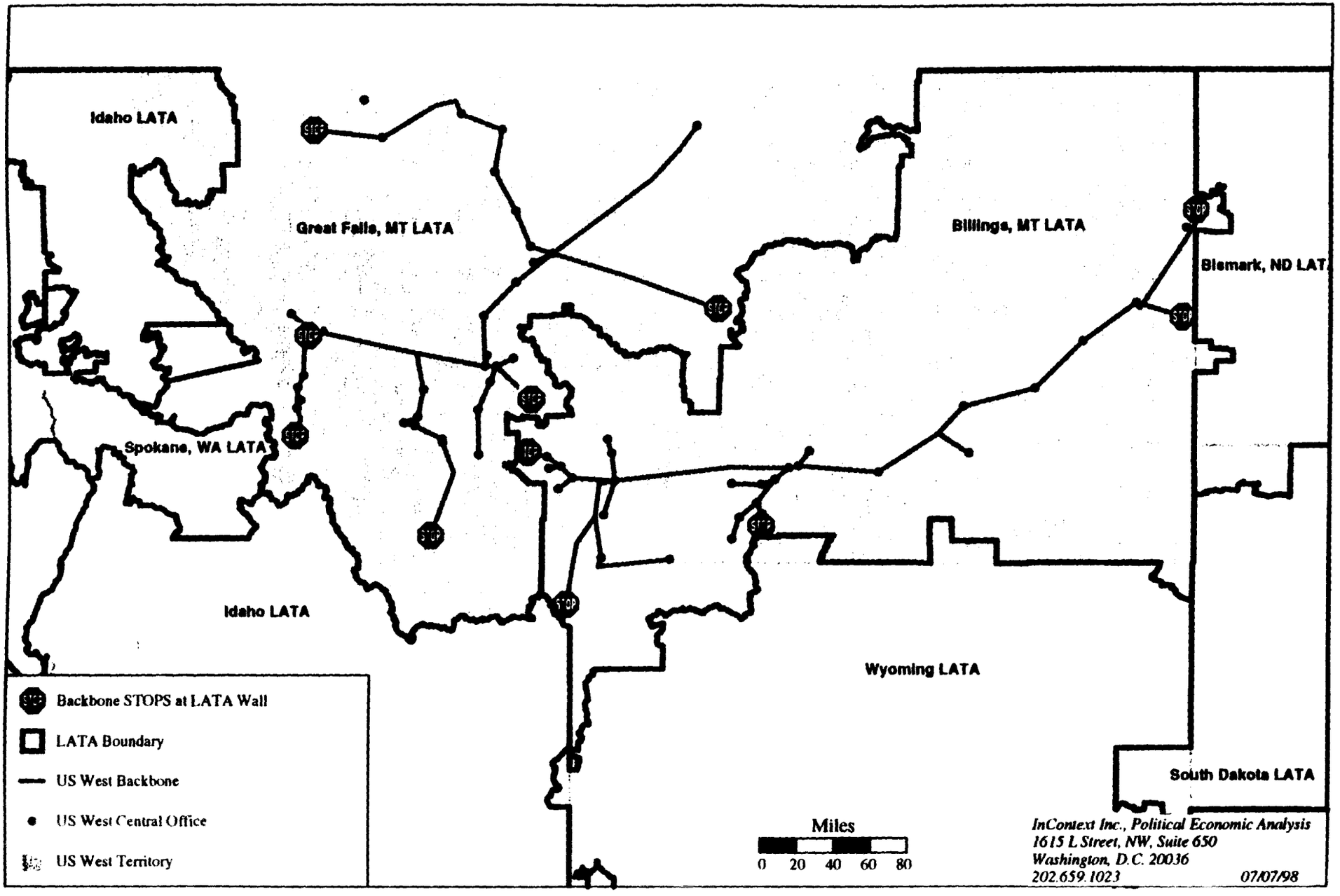
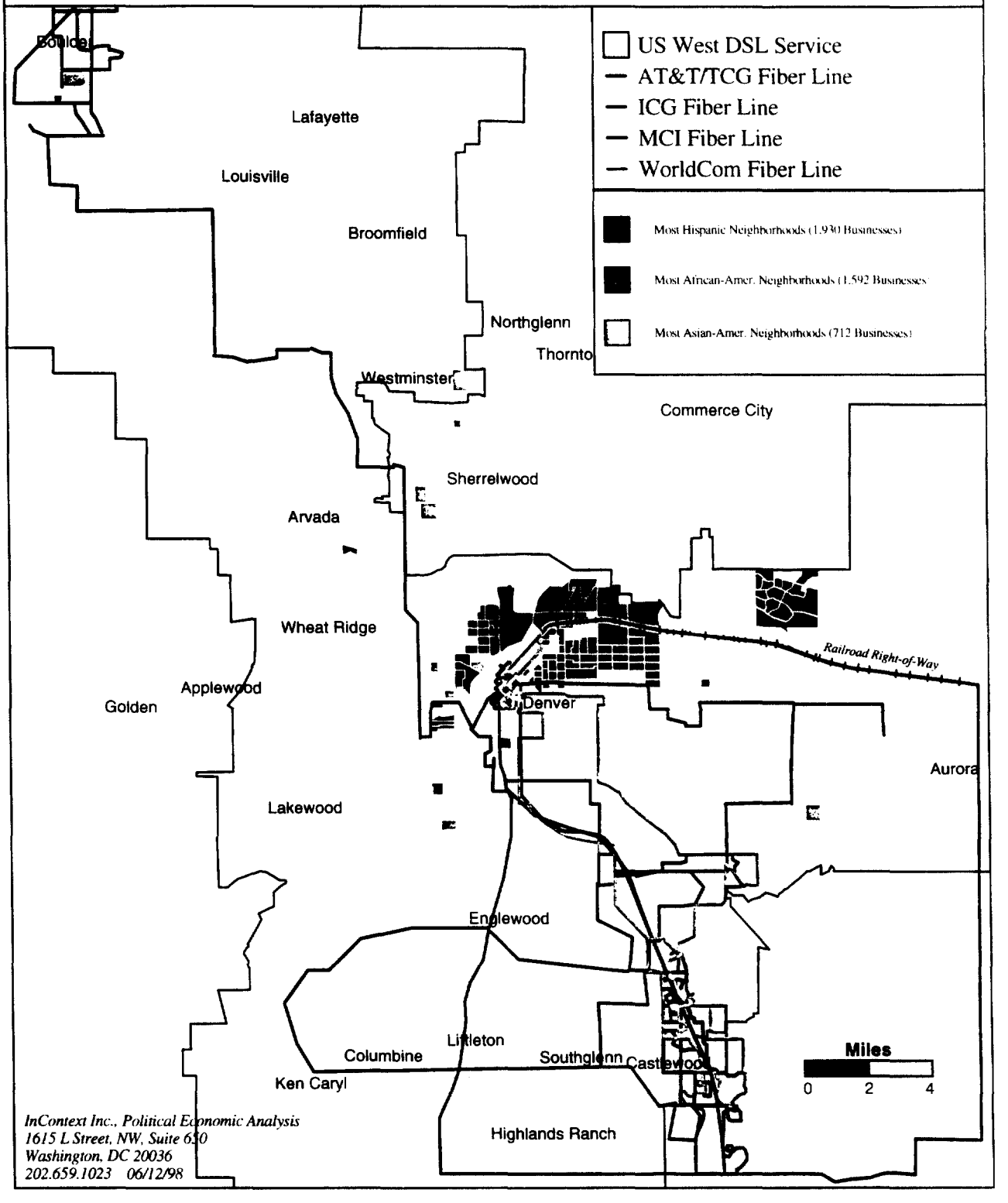
LATA Lines = Walls Preventing Communication in Colorado



Who Could Get Advanced Telecommunications Services in Montana If LATA Walls Come Down



LATA Lines = Walls Preventing Communication in Montana



Where ICG, AT&T/TCG, MCI & WorldCom Provide Local Telephone Service in Denver and Where They Do Not & Where US West Provides Advanced Telecommunications Service