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SUMMARY

This document provides the Report Definition for FCC Report 43-07, the ARMIS Annual Infrastructure Report, which must be provided annually by study area. It contains the following:

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All kilometers and all access lines must be entered in whole numbers. All switches, tandems, hosts, remotes, interfaces, circuit lines, carrier links, terminations, channels, copper pairs, and fiber strands must be entered in whole numbers.

All fields must be populated. If a data field equals the quantity zero, enter the numeral zero in that field. This is the only proper use of zero in this report. If a filing carrier has a waiver applicable to a certain field, it must treat the data for that field as "Irretrievable" and footnote the reason for that entry (including a cite to the waiver, and a note as to its duration). Items which need not be reported because they do not apply are designated by N/A. DO NOT override N/As. If a reporting carrier should wish to apply data to a field containing an N/A, the carrier should enter the amount(s) and an explanation as a footnote to the field. The amount(s) must not be entered in an N/A'd field.

REMEMBER: Footnotes are mandatory in Table II for Rows 0410, 0460 and 0484. Footnotes are mandatory for all "Irretrievable" entries, and for any data entry containing UNE Data.

When errata occur, carriers must include in the transmittal letter a brief statement indicating the reason for the errata. Other explanatory notes must be included in the footnote section of the filing.

NOTICE: The ARMIS Infrastructure Report collects data designed to capture trends in telephone industry infrastructure development under price cap regulation and improves and standardizes existing reporting requirements for this purpose. The ARMIS Infrastructure Report specifies information requirements in a consistent format and is essential to the FCC to monitor service quality under price cap regulation. Your response is mandatory.

Public reporting burden for this collection of information is estimated to average 168 hours per response, including the time for reviewing instructions, searching existing data sources, gathering

and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Federal Communications Commission, Office of Managing Director, Washington, D.C. 20554.

An agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid control number.

FCC Report 43-07  
 ARMIS INFRASTRUCTURE REPORT

COMPANY: XXXXXXXXXXXXXXXX  
 STUDY AREA: XXXXXXXXXXXXXXXX  
 PERIOD: From mmm yyyy To mmm yyyy  
 COSA: XXXX

XXXX Version  
 Submission XXX  
 TABLE I  
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**TABLE I – SWITCHING EQUIPMENT**

ROW	CLASSIFICATION	Total Study Area (a)	Within MSA (b)	Non-MSA (c)
<u>SWITCHES/LINES IN SERVICE:</u>				
0110	Total Switches		N/A	N/A
0111	Local Switches			
0112	Tandems		N/A	N/A
0113	Host Switches			
0114	Remote Switches (Stand Alone Only)			
0120	Total Number Access Lines in Service			
<u>TYPE OF SWITCH:</u>				
0150	Total NDSPC Switches		N/A	N/A
0160	NDSPC Lines Served			
0170	Total DSPC Switches		N/A	N/A
0180	DSPC Lines Served			
<u>SWITCHING CAPABILITY:</u>				
0230	Total Switches Equipped with SS7		N/A	N/A
0240	Local Switches Equipped with SS7			
0250	Tandems Equipped with SS7		N/A	N/A
0270	Total Switches Equipped with ISDN		N/A	N/A
0280	Local Switches Equipped with ISDN			
0290	Tandems Equipped with ISDN		N/A	N/A
0300	Lines Served by ISDN Switches			
0311	Basic Rate ISDN (BRI) Interfaces Equipped			
0312	Primary Rate ISDN (PRI) Interfaces Equipped			

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COMPANY: XXXXXXXXXXXXXXXX  
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XXXX Version  
 Submission XXX  
 TABLE I I  
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**TABLE II – TRANSMISSION FACILITIES**

ROW	CLASSIFICATION	Total Study Area (d)
<u>SHEATH KILOMETERS:</u>		
0320	Total Sheath Kilometers	
0321	Copper	
0322	Fiber	
0323	Other	
<u>INTEROFFICE WORKING FACILITIES:</u>		
0330	Total Circuit Links	
<u>LOOP PLANT – CENTRAL OFFICE TERMINATIONS:</u>		
0370	Total Working Channels	
0380	Copper	
0381	Baseband	
0382	Analog Carrier	
0383	Digital Carrier	
0390	Fiber Digital Carrier	
0410	Other	
0420	Total Equipped Channels	
0430	Copper	
0431	Baseband	
0432	Analog Carrier	
0433	Digital Carrier	
0440	Fiber Digital Carrier	
0460	Other	
<u>OTHER TRANSMISSION FACILITY DATA:</u>		
0470	Copper Prs. Term. Main or Other Equiv. Frame (Loop Plant Only)	
0480	Fiber Strands Term. in the CO (Loop Plant Only)	
0482	DS1s Term. at Customer Premises	
0484	Fiber Term. at Customer Premises at DS3 Rate or Higher	
0485	Hybrid Fiber/Metallic Loop Interface Locations	
0486	Switched Access Lines Served from Interface Locations	
0487	Total xDSL Term. at Customer Premises	
0488	xDSL Term. at Customer Premises via Hybrid Fiber/Metallic Interface Locations	
0490	Subscriber Lines Capable of ISDN	

## Infrastructure Report

## General Instructions

For the purposes of this report, the terms access lines, lines and lines in service are used interchangeably. Any row/column data entry which contains UNE data must be accompanied by an explanatory footnote identifying the types of UNEs (e.g., “UNE-P”) that are included.

## Table I

## General Instructions

Switches - Switches are assemblies of equipment and software designed to establish connections among lines or between lines and trunks. Switches include tandems, local, class 5 switching machines and any associated remote switching machines; e.g., a host end office and its three associated remote switches will be reported as four switches. However, the remote terminals of concentrators and Integrated Digital Loop Carrier systems are not reported in this table, because they are not switching entities. There may be more than one switch per central office or wire center.

Lines in Service - Access lines include all classifications of local exchange telephone service including, but not limited to, individual lines, party line access, PBX access, Centrex access, Coin access, Foreign Exchange access and WATS access. Access lines, as defined herein, is a more inclusive term than billable access lines, as defined in the ARMIS 43-01 Report. See row instructions for Rows 2090 through 2140 of the ARMIS 43-01 Report for the definition of billable access lines. Report all access lines in whole numbers.

## Row Instructions

Row 0110 - Total Switches - Enter in whole numbers, the total quantity of local and tandem switches. This amount is equal to the sum of Rows 0150 and 0170. Local switches include both host switches and their associated remote switches. Remote switches to be included in the total switches count are those described in the general definition of a remote switch.<sup>1</sup> A remote switch can generally be described as a switch that has no connection to the facilities network except through its host switch. The host provides the processing capabilities and certain control functions for the remote switch under the direction of the host central processor, and controls the remote switch over a pair of dedicated data links.

Note: Since some switches are used for both local and tandem switching, the sum of Rows 0111 and

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<sup>1</sup> See *Adjustments to Price Cap Carriers' Service Quality and Infrastructure Reports in ARMIS*, CC Docket No. 87-313, Public Notice, 7 FCC Rcd 3591 (Com. Car. Bur. 1992). Technically concise definitions of “host” and “remote” switches are found in the *Local Exchange Routing Guide*.

0112 may be greater than the amount entered on this row. For example, if there are 6 local switches, 4 tandem switches and 5 switches that are used for both local and tandem switching, Row 0111 would equal 11 local switches, Row 0112 would equal 9 switches, and Row 0110 would equal 15 switches. In this case, the sum of Rows 0111 and 0112 (20) would be greater than the amount of total switches (15).

Also, since we are asking only for the number of remote switches with stand-alone capability in Row 0114, this quantity will be less than the number of remote switches included in Row 0110. This is because Row 110 includes the total of both stand-alone and non stand-alone remote switches. For example, if there are 16 total remote switches, where 7 have stand-alone capability and 9 do not, the quantity entered on Row 0114 (7) would be less than the number of remote switches included in Row 0110 (16).

Row 0111 - Local Switches - Enter in whole numbers, the total quantity of switches used as local switches. Local switches encompass switches with no subtending remote switches, as well as host switches and their associated remote switches (both stand-alone and non stand-alone).

Row 0112 - Tandems - Enter in whole numbers, the total quantity of switches that perform tandem switching.

Row 0113 - Host Switches - Enter in whole numbers, the total quantity of host switches. A host switch is a switch that serves one or more remote switches.

Row 0114 - Remote Switches (Stand-Alone Only) - Enter in whole numbers, the total quantity of remote stand-alone switches. Include on this row, only those remote switches that are equipped to operate in a stand-alone fashion (i.e., able to operate if the host fails, or if the data links to the host fail) to be able to provide more limited service. Remote switches that are not within this description, i.e., those that are non stand-alone remote switches, should not be included on this row.

Note: A remote switch can generally be described as a switch that has no connection to the facilities network except through its host switch. The host provides the processing capabilities and certain control functions for the remote switch under the direction of the host central processor, and controls the remote switch over a pair of dedicated data links. All types of remote switches, i.e., both stand-alone and non stand-alone, are included with the switch counts in Row 0110 and Row 0111. However, Row 0114 excludes remote switches that are incapable of providing stand-alone operation when the host switch fails.

Row 0120 - Total Number Access Lines In Service - Enter in whole numbers, the total quantity of access lines in service. This amount is equal to the sum of Rows 0160 and 0180.

Type of Switch - Types of switches include Non-Digital Stored Program Controlled (NDSPC) and Digital Stored Program Controlled (DSPC).

Row 0150 - Total NDSPC Switches - Enter in whole numbers, the total quantity of local and tandem

Non-Digital Stored Program Controlled switches.

Row 0160 - NDSPC Lines Served - Enter in whole numbers, the total quantity of lines served by Non-Digital Stored Program Controlled switches.

Row 0170 - Total DSPC Switches - Enter in whole numbers, the total quantity of local and tandem Digital Stored Program Controlled switches.

Row 0180 - DSPC Lines Served - Enter in whole numbers, the total quantity of lines served by Digital Stored Program Controlled switches.

Row 0230 - Total Switches Equipped with SS7 - Enter in whole numbers, the total quantity of local and tandem switches equipped with SS7.

Row 0240 - Local Switches Equipped with SS7 - Enter in whole numbers, the total quantity of switches used as local switches that are equipped with SS7.

Row 0250 - Tandems Equipped with SS7 - Enter in whole numbers, the total quantity of switches that perform tandem switching and are equipped with SS7.

Row 0270 - Total Switches Equipped with ISDN - Enter in whole numbers, the total quantity of local and tandem switches that are equipped with ISDN. Since some switches are used for both local and tandem switching, the sum of Rows 0280 and 0290 may be greater than the amounts entered on this row (see example, Row 0110).

Row 0280 - Local Switches Equipped with ISDN - Enter in whole numbers, the total quantity of local switches that are equipped with ISDN.

Row 0290 - Tandems Equipped with ISDN - Enter in whole numbers, the total quantity of switches with tandem capability that are equipped with ISDN.

Row 0300 - Lines Served by ISDN Switches - Enter in whole numbers, the total quantity of lines served by switches equipped with ISDN. Do not include in this count lines that could be connected to switches equipped with ISDN.

Row 0311 - Basic Rate ISDN (BRI) Interfaces Equipped - Basic rate ISDN consists of two Bearer Channels at 64 Kilobits/second and one Delta Channel at 16 kilobits/second. Quantities reflected are the number of (2B + D) BRI interfaces equipped. This amount represents actual interfaces equipped with ISDN. Enter in whole numbers.

Row 0312 - Primary Rate ISDN (PRI) Interfaces Equipped - Equivalent primary rate ISDN interfaces are generally configured as 23 Bearer Channels and one Delta Channel all at 64 kilobits/second. Quantities reflected are the number of equivalent PRI (23B + D) ISDN interfaces equipped, excluding interoffice PRI ISDN interfaces. This amount represents actual interfaces

equipped with ISDN. Enter in whole numbers.

## Table II

Row 0320 - Total Sheath Kilometers - The total length in kilometers of all loop and interoffice cables (Plant in Service – Account 2410) without regard to the number of pairs. Use whole numbers. Row 0320 shall equal the sum of Rows 0321, 0322, and 0323.

Row 0321 - Copper - Enter the number of sheath kilometers of twisted pair copper cable. Use whole numbers.

Row 0322 - Fiber - Enter the number of sheath kilometers of fiber. Use whole numbers.

Row 0323 - Other - Enter the number of sheath kilometers of aluminum, coaxial, and all other sheath kilometers not included in Rows 0321 or 0322. Use whole numbers.

Row 0330 - Total Circuit Links - A circuit link is that link that exists between points A and B where voice frequency/DS0 cross-connects and/or analog/digital conversion (collectively referenced here as conversion) occurs. Circuit links are counted as follows: If there is a circuit between A and B with no intermediate conversions, count one circuit link for each voice frequency equivalent channel. If there is a circuit between A and B with one intermediate conversion, count two circuit links for each voice frequency equivalent channel. Similarly, two intermediate conversions between A and B would result in three circuit links per voice equivalent channel. Enter in whole numbers.

LOOP PLANT - CENTRAL OFFICE TERMINATIONS – The quantities reported in Rows 0370 through 0460, expressed as 4 kHz channels, refer to facilities that connect end user customers with their serving wire centers / central offices. This measure also includes the “local channel” portions of Special Access / private line / special services connecting end user customers with their serving wire centers or central offices. However, “Local Loop Plant” excludes facilities connecting serving wire centers / central offices to interexchange carrier (IXC) or other access customer points of presence (POP) because these channels are considered interoffice circuits. For Row 0390, working fiber digital carrier, and Row 0440, equipped fiber digital carrier, do not include channel counts for optical carrier that is terminated at end user/customer premises. Instead, count channels from these systems, as instructed, in Row 0484, Fiber Terminated at Customer Premises at DS3 Rate or Higher.

Row 0370 - Total Working Channels - Working Channels are on a 4 kHz bandwidth (single voice channel) basis. Working channels originating from a remote switch are treated the same as if the channels originated in the host central office. This amount equals the sum of Rows 0380, 0390 and 0410. Enter in whole numbers.

Row 0380 - Copper - Enter the number of working channels on copper facilities and systems. Use whole numbers. This amount equals the sum of Rows 0381, 0382 and 0383.



Row 0381 - Baseband - Enter the number of working channels on copper baseband facilities. Use whole numbers. Do not include copper facilities used to provide the carrier systems reported in Row 0382, Analog Carrier, and in Row 0383, Digital Carrier.

Row 0382 - Analog Carrier - Enter the number of working channels on copper analog carrier systems. Use whole numbers.

Row 0383 - Digital Carrier - Enter the number of working channels on copper-fed digital loop carrier systems. Use whole numbers.

Row 0390 - Fiber Digital Carrier - Enter the number of working channels on fiber-fed digital loop carrier systems. Use whole numbers. Do not include DS-1 or higher speed services to the customer premises, even if provided via fiber-fed digital loop carrier systems. Count the DS-1 services in Row 0482, DS1s Terminated at Customer Premises, and the higher speed services in Row 0484, Fiber Terminated at the Customer Premises at DS3 Rate or Higher.

Row 0410 - Other - Enter the number of other working channels. Use whole numbers. **Explain the data entered here in a footnote.**

Row 0420 - Total Equipped Channels - Equipped channels are on a 4 kHz bandwidth (single voice channel) basis. Equipped channels originating from a remote switch are treated the same as if the channels originated in the host central office. This amount equals the sum of Rows 0430, 0440 and 0460. Use whole numbers.

Row 0430 - Copper - Enter the number of equipped channels on copper facilities and systems. Use whole numbers. This amount equals the sum of Rows 0431, 0432 and 0433.

Row 0431 - Baseband - Enter the number of equipped channels on copper baseband facilities. Use whole numbers. Do not include copper facilities used to provide the carrier systems reported in Row 0432, Analog Carrier, and in Row 0433, Digital Carrier.

Row 0432 - Analog Carrier - Enter the number of equipped channels on copper analog carrier systems. Use whole numbers.

Row 0433 - Digital Carrier - Enter the number of equipped channels on copper-fed digital loop carrier systems. Use whole numbers.

Row 0440 - Fiber Digital Carrier - Enter the number of equipped channels on fiber-fed digital loop carrier systems. Use whole numbers. Do not include DS-1 or higher speed services to the customer premises, even if provided via fiber-fed digital loop carrier systems.

Row 0460 - Other - Enter the number of other equipped channels. Use whole numbers. **Explain the data entered here in a footnote.**

Row 0470 - Copper Pairs Terminated at the Main or Other Equivalent Frame (Loop Plant Only) - Enter the number of copper pairs terminated at the main frame or other equivalent frame in whole numbers. Include working and spare copper pairs regardless of their use (baseband facility or carrier system). Note: the quantity reported here in physical units is not equivalent to quantities expressed elsewhere in this report as 4 kHz channels. For example, count as two the number of physical pairs used to support a 24 channel digital loop carrier system provided on two pairs of copper wires in Row 0470, but count as 24 the number of derived channels on those pairs in Row 0383.

Row 0480 - Fiber Strands Terminated in the Central Office (Loop Plant Only) - Enter the number of individual fiber strands terminated in central offices in whole numbers.

Row 0482 - DS1s Terminated at Customer Premises - Enter the number of individual DS1 systems terminated at the customer's premises, other than trials. Enter in whole numbers.

Row 0484 - Fiber Terminated at Customer Premises at DS3 Rate or Higher - Enter the number of individual DS3 systems and, for systems higher than DS3, the number of equivalent DS3 systems provided over fiber strands, other than trials. **Footnote the number of individual systems provided over fiber strands terminated at the customer's premises at a higher than DS3 rate, if any.** Enter in whole numbers.

Row 0485 - Hybrid Fiber/Metallic Loop Interface Locations - Enter the number of locations other than central office locations where an interface between fiber cable and copper pairs or coaxial cable exists. Include fiber to the curb locations, fiber to the pedestal locations, and other similar locations with a fiber/metallic interface capable of providing broadband services.

Row 0486 - Switched Access Lines Served from Interface Locations - Enter the number of switched access lines reported in Row 0120 that are physically routed through the interface locations reported in Row 0485.

Row 0487 - Total xDSL Terminated at Customer Premises - Enter the total number of incumbent LEC-provided working digital subscriber lines terminated at customers' premises locations. Include lines provided over metallic loop facilities and lines provided over a combination of fiber and metallic loop facilities, where such lines terminate in either incumbent LEC-provided or customer-provided termination equipment. The total should include only those lines that are totally provided by the incumbent LECs.

Row 0488 - xDSL Terminated at Customer Premises via Hybrid Fiber/Metallic Interface Locations - Enter the number of customer-premises-terminated working digital subscriber lines that are provided through a hybrid fiber/metallic interface location included in Row 0485.

Row 0490 - Subscriber Lines Capable of ISDN - Enter in whole numbers, the quantity of working subscriber lines (loop plant between customer locations and their serving central offices) that meet all current transmission parameters for basic rate (2B+D) ISDN without additional engineering.

(Transmission parameters include resistance, attenuation, absence of loading coils, bridged taps, etc.) This quantity shall include all lines currently providing ISDN, and shall also include lines served by all wire centers in the study area, including those from switches not capable of providing ISDN. The number must reflect the operations as of the end of the reporting year (Dec. 31, XXXX).

## Infrastructure Report

### Column Descriptions

#### Table I

Column (a) - Total Study Area - This column represents the total study area. A study area usually consists of a telephone company's service territory in a given state, although telephone companies occasionally have more than one study area in a particular state. Enter the facilities in the total study area in this column. This amount should equal Column (b) plus Column (c).

Column (b) - Within MSA - This column represents all MSAs served within the study area. MSAs, or Metropolitan Statistical Areas, are designated by the Office of Management and Budget in a list following each decennial census. An MSA is a Core-Based Statistical Area associated with at least one urbanized area that has a population of at least 50,000. The Metropolitan Statistical Area comprises the central county or counties containing the core, plus adjacent outlying counties having a high degree of social and economic integration with the central county as measured through commuting. See 65 Fed. Reg. 82228 (2000). Enter the facilities within any MSA in the Study Area in this column.

Column (c) - Non-MSA - This column represents all areas which lie outside of any MSA. Enter the facilities in the Study Area which are located outside of any MSA.

#### Table II

Column (d) - Total Study Area - See description for Table I, Column (a).