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**IOWA NETWORK SERVICES, INC.
d/b/a AUREON NETWORK SERVICES**

IOWA NETWORK ACCESS DIVISION

DESCRIPTION AND JUSTIFICATION

COST SUPPORT MATERIAL

TARIFF REVIEW PLAN

JULY 1, 2022 ANNUAL ACCESS CHARGE TARIFF FILING

JUNE 16, 2022

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IOWA NETWORK ACCESS DIVISION

INTERSTATE ACCESS TARIFF FILING

**PROSPECTIVE PERIOD
JULY 1, 2022 – JUNE 30, 2023**

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IOWA NETWORK ACCESS DIVISION

FCC Tariff Filing

June 16, 2022

INTRODUCTION, OVERVIEW, AND RATE DEVELOPMENT

I. INTRODUCTION

This filing supports Iowa Network Access Division d/b/a Aureon (“Aureon” or the “Company”) Tariff F.C.C. No. 1 submitted in accordance with the Federal Communications Commission’s (“FCC”) Order, *In the Matter of July 1, 2022 Annual Access Charge Tariff Filings*, Order, DA 22-407, WC Docket No. 22-108 (rel. April 15, 2022). That Order establishes procedures for the 2022 filing of annual access charge tariffs and Tariff Review Plans (“TRPs”) for incumbent local exchange carriers (“ILECs”) subject to price cap regulation, as well as rate-of-return ILECs subject to Section 61.39, and dominant carriers (like Iowa Network Access Division) subject to Section 61.38 of the Commission’s rules. The requirements for summary cost support material to support the annual access charge filings are presented in the Commission’s Order, *In the Matter of July 1, 2022 Annual Access Charge Tariff Filings*, Order, DA 22-494, WC Docket No. 22-108 (rel. May 9, 2022). Aureon also submits materials consistent with the Commission’s *Second Rate Order* issued on February 28, 2019,¹ which directed Aureon to, among other things, (1) include complete cost support and explanatory materials; (2) provide a comprehensive and well-defined database of third-party sales for DS-3 transport service (including the customer, detailed service description including identifying the rate elements that comprise the service, service dates, number of circuits, mileage, and per-circuit rate), and to provide an explanation regarding how this information should inform the calculation of fair market value in evaluating the Filed Lease Expense; and (3) apply a reasonable methodology to convert its inventory of Ethernet circuits to physical rings so that ring-miles can be allocated to the Ethernet circuits (and, thus, to nonregulated activity).²

Consistent with the *Second Rate Order*, Aureon is providing cost support that includes justification for the allocation of cable and wire facilities (“CWF”) between centralized equal access (“CEA”) service and other services, (i.e., between regulated and nonregulated activities) based on Part 64 allocation principles as detailed in the *Second Rate Order*. Specifically, the use of DS-3 circuit counts is being used as the primary allocation factor as required by the FCC. In conjunction with this process, an updated complete circuit inventory was conducted by Aureon and included with this tariff filing. Because Aureon’s circuit and lease data contains proprietary and confidential information that is not generally available to the public, that information is being filed confidentially pursuant to the *Protective Order*³ issued in the tariff investigation proceeding leading to the adoption of the *Second Rate Order*.

¹ *In re Iowa Network Access Division Tariff F.C.C. No. 1*, Memorandum Opinion and Order, WC Docket No. 18-60, Transmittal No. 38, FCC 19-14 (rel. Feb. 28, 2019) (“*Second Rate Order*”).

² *Id.* at ¶¶ 13, 18, 35.

³ *In re Iowa Network Access Division Tariff F.C.C. No. 1*, Protective Order, WC Docket No. 18-60, Transmittal No. 36, DA 18-294 (rel. Mar. 26, 2018) (“*Protective Order*”).

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The accompanying supporting material contains the introduction, overview, rate development narrative, access rate development, and corresponding cost support material to be filed with the Commission on June 16, 2022.

II. OVERVIEW

Section 2 presents a summary of the proposed supported rate. The cost study supports a rate of \$0.00510 per minute-of-use (“MOU”), and Aureon’s supported switched transport rate of \$0.00510 per MOU is projected to generate annual switched transport revenues of \$2,778,339. When combined with nonrecurring revenues of \$15,000, and \$54,965 of originating 8YY revenue at the FCC mandated rate of \$0.001 for toll free traffic, total test period revenues are projected in the amount of \$2,848,304, resulting in a return of 9.75% on interstate investments for the projected twelve-month period ending June 30, 2023.

However, Aureon proposes to maintain its existing switched transport rate of \$0.00411 per MOU. Aureon’s existing switched transport rate of \$0.00411 per MOU is projected to generate annual switched transport revenues in the amount of \$2,241,003 ($\$0.00411 \times 545,256,147 \text{ MOUs} = \$2,241,003$). When combined with nonrecurring revenues of \$15,000, and \$54,965 of originating 8YY revenue, total test period revenues are projected in the amount of \$2,310,968, resulting in a return of -6.44% on interstate investments for the projected twelve-month period ending June 30, 2023.

Interstate CEA MOUs decreased at a rate of -46.28% during 2021 to 286,336,179 from 532,983,193 in 2020. For the 12 month test period ending June 30, 2023, i.e., from July 1, 2022 to June 30, 2023, Aureon is projecting interstate CEA minutes of 600,220,987 MOUs. The change in interstate traffic MOUs for the projected test period results from a review of the monthly traffic volumes from January 2021 to April 2022, which showed that Aureon experienced a material decrease in minutes, and a decrease is expected to carry forward into the test period. It is important to note that Aureon is expected to experience a one-time increase in traffic in May 2022 of approximately 26 million MOUs, and Aureon expects to have another one-time increase in traffic in June 2022 of approximately 6 million MOUs. Those one-time traffic increases are anticipated to be maintained through the entire test period and are incorporated into Aureon’s traffic projections. However, the general trend of month-over-month decreases in traffic are expected to continue during the relevant test period. Section 61.38(b)(1)(ii) requires carriers filing a tariff change pursuant to the ILEC rules to submit a “study containing a projection of costs for a representative 12 month period”.⁴ Thus, using a 12 month test period from July 1, 2022 to June 30, 2023 complies with the requirement to use a 12 month projection of costs.

Because the Commission has not adopted procedures specifically for the preparation of cost support material filed by CEA service providers, Aureon has tailored the procedures for ILECs to reflect the unique characteristics of a CEA network. Aureon has developed its cost support consistent with the following ILEC rate regulations:

⁴ 47 C.F.R. § 61.38(b)(1)(ii).

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- A) Financial reporting is in accordance with the *Uniform Systems of Accounts and Financial Reporting Requirements of Class A and Class B Telephone Companies*, CC Docket 78-196 (“*Part 32 Order*”) and subsequent revisions to the Part 32 rules.
- B) Jurisdictional allocation is in accordance with Federal Communications Commission’s Rules adopted in CC Docket Nos. 78-72, 80-286, 86-297 and FCC Docket 87-134 released August 18, 1987 (“*Part 36 Order*”) and all subsequent revisions to the Part 36 rules.
- C) CEA rate development is performed in accordance with CC Docket No. 87-113 released August 18, 1987 (“*Part 69 Conformance Notice*”) and subsequent modifications including CC Docket No. 00-256, Second Report and Order and Notice of Proposed Rulemaking, 16 FCC Red 19613 (2001) (“*Rate-of-Return Access Charge Reform Order*”).

The proposed CEA tariff rate maintains the method of charging for interstate CEA service by a single non-distance-sensitive rate element. Aureon proposes to maintain its CEA switched transport rate of \$0.00411 per minute.

III. RATE DEVELOPMENT

A. Affiliate Transaction Rule

In the *Second Rate Order*, the FCC determined that Aureon’s Filed Lease Expense was an affiliate transaction in which a nonregulated division (Aureon’s Network Division) is providing a service leasing facilities to a regulated division (Aureon’s Access Division), even though the two divisions are part of a single legal entity that is a dominant carrier.⁵ Accordingly, if Aureon was regulated as an ILEC and not a competitive local exchange carrier (“CLEC”), ILEC FCC rule 32.27 would require Aureon to evaluate its Filed Lease Expense against a ceiling determined by the lower of fair market value of the lease or the fully-distributed costs of the facilities. Those calculations are explained and summarized below, and show that the Filed Lease Expense is both less than the estimated baseline for the market value of the lease (based upon the prices for non-regulated DS-3 transport service that Aureon has sold to third parties) and less than the fully-distributed costs of the facilities. The details of those calculations are contained in Excel spreadsheets. To the extent those spreadsheets contain proprietary, confidential information, they will be filed under seal and submitted directly to staff.

1. Fair Market Value

In the *Second Rate Order*, the FCC determined that the sales and pricing of unregulated DS-3 transport services would be useful for determining a “baseline” for the fair market rate for

⁵ *Second Rate Order* ¶ 9.

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regulated CEA transport service.⁶ The Commission further stated that the fair market value might need to be adjusted upwards to account for the superior features of CEA transport service.⁷ Consistent with the FCC's order, Aureon compiled a list of customers that currently purchase DS-3 circuits from Aureon, along with the rates paid and the mileage of each DS-3 circuit. Unregulated DS-3 circuits are sold on a flat-rate, monthly basis, and therefore, there are no minutes-of-use associated with those lines. Although the unregulated DS-3 circuits do not all have the robust features that are typically provided with CEA service, Aureon did not make an upward adjustment to its fair market value calculation in Approaches A and B below to reflect the value of the more robust features provided by CEA.

a. Aureon's Unregulated DS-3 Leases

Aureon is submitting a confidential Excel spreadsheet with this filing titled "Aureon (Confidential) Database of DS-3 Pricing 02172022.xlsx" containing third party DS-3 sales consistent with the FCC's *Second Rate Order* directing Aureon to submit a "database of third-party sales for DS-3 transport service." The database is contained in the first tab titled "Complete List 02-2022". The data contained in the "Aureon (Confidential) Database of DS-3 Pricing 02172022.xlsx" spreadsheet was obtained from Aureon's billing system. Those records contained the price for each rate element for the circuits in the leases, i.e., the rate charged for transport, entrance facilities, multiplexing ("MUX"), ports, and cross-connects. Some of the DS-3 leases contained charges for transport only, while others contained additional rate elements. When Aureon determined the baseline fair market rate for unregulated DS-3 transport (see methodologies below), Aureon used the entire cost of each of the DS-3 leases to determine the average rate for DS-3 transport. Some of those leases were bare transport leases, and some leases contained other rate elements, such as entrance facilities, MUX/port, or cross-connect charges, depending on the needs of the customers.

One of the most significant differences between CEA transport service and unregulated DS-3 leases is that CEA transport service is provided using "channelized" DS-3 circuits, whereas unregulated DS-3 leases are generally provided using "unchannelized" DS-3 circuits. A channelized DS-3 circuit is one that is created using a portion of the total bandwidth of an optical carrier circuit, per DS-3 channel. In order to create each channelized DS-3 circuit, a MUX or a port is required on either end of the channel. The MUX or port is used to "partition" a portion of the optical circuit's total bandwidth to create a single "channel" for use by an individual DS-1 circuit. The rate charged by Aureon for a single MUX or a port is the same – **[[BEGIN CONFIDENTIAL]]** █████ **[[END CONFIDENTIAL]]** per MUX or port. An unchannelized DS-3 circuit is a single standalone "pipe" of bandwidth that may not necessarily require a MUX or port on either end of the circuit. With the exception of **[[BEGIN CONFIDENTIAL]]** █████ **[[END CONFIDENTIAL]]** of the DS-3 leases, all of the other circuit leases in the DS-3 database are unchannelized DS-3 circuits.

The unregulated DS-3 leases that are most comparable to CEA transport service are the channelized DS-3 leases because they are provided using the same type of channelized circuits

⁶ *Id.* ¶ 16.

⁷ *Id.*

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transport charges for those circuits, i.e., charges other than transport were excluded in the average revenue-per-circuit calculation. This results in average transport-only revenue-per-circuit of **[[BEGIN CONFIDENTIAL]]** ██████████ **[[END CONFIDENTIAL]]**, and average transport-only amounts billed per-mile of **[[BEGIN CONFIDENTIAL]]** ██████████ **[[END CONFIDENTIAL]]**. It is important to note that because MUX/port charges were stripped out of the calculation (and some of the leases did originally include MUX/port charges, and some did not), two MUX/port charges needed to be added back in to each circuit as an adjustment to make the circuits comparable to CEA transport service. As discussed above, CEA transport service requires the use of a MUX or a port on both ends of the circuit because the DS-3 circuits for CEA transport service are channelized DS-3 circuits. Without the use of MUX/ports, the bandwidth of the optical carrier circuit cannot be channelized into distinct DS-3 circuits, thus it is appropriate to include two MUX/port charges for each circuit. This results in an adjusted average transport-only revenue-per-circuit of **[[BEGIN CONFIDENTIAL]]** ██████████ **[[END CONFIDENTIAL]]**, and average transport-only amounts billed per-mile of **[[BEGIN CONFIDENTIAL]]** ██████████ **[[END CONFIDENTIAL]]**. Both of these amounts are greater than those calculated using Approach A and Approach B, confirming that those methodologies are more conservative and result in a lower fair market value for the intracompany lease rate than if the supplemental analysis were used.

In order to validate that the transport rates are not skewed due to unregulated DS-3 leases that include additional rate elements, Aureon conducted another analysis in the fourth tab titled “Non-Chan No Other Rate Elements.” This worksheet includes leased DS-3 circuits that only charge for transport, and excludes leases that have charges for other rate elements. The calculations on this worksheet show that the average revenue-per-circuit for transport-only DS-3 leases is **[[BEGIN CONFIDENTIAL]]** ██████████ **[[END CONFIDENTIAL]]**, and average transport-only amounts billed per-mile of **[[BEGIN CONFIDENTIAL]]** ██████████ **[[END CONFIDENTIAL]]**. Those amounts are similar to the averages shown in the third tab of the workbook, and demonstrate that Aureon has not improperly skewed the transport charges due to DS-3 leases that also have other rate elements. Because these DS-3 circuits do not have MUX/port charges, those charges need to be added to the calculation of the averages to compare those rates to those for CEA transport service. This results in an adjusted average transport-only revenue-per-circuit of **[[BEGIN CONFIDENTIAL]]** ██████████ **[[END CONFIDENTIAL]]**, and adjusted average transport-only amounts billed per-mile of **[[BEGIN CONFIDENTIAL]]** ██████████ **[[END CONFIDENTIAL]]**. Both of these amounts are also greater than those calculated using Approach A and Approach B, confirming that those methodologies are more conservative and result in a lower fair market value for the intracompany lease rate than if the supplemental analysis were used.

The fifth tab titled “DS3 List w_Transport” is similar to the third tab (“Non-Chan w_Transport Cost”), except that the spreadsheet in the fifth tab includes all **[[BEGIN CONFIDENTIAL]]** ██████████ **[[END CONFIDENTIAL]]** of the leased DS-3 circuits (the third tab excluded the channelized DS-3 circuit leases). All rate elements, including MUX/ports, were removed from the initial calculation, and an adjustment to add MUX/ports to make the leased circuits comparable to the DS-3 circuits used for CEA transport service was performed. Aureon

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included this tab so that the average revenue-per-circuit and average amounts billed per-mile could be determined using all of the leased circuit data. The calculations on this worksheet show that the average revenue-per-circuit for all DS-3 leases is **[[BEGIN CONFIDENTIAL]]** **[[END CONFIDENTIAL]]**, and average transport-only amounts billed per-mile of **[[BEGIN CONFIDENTIAL]]** **[[END CONFIDENTIAL]]**. Those amounts are substantially similar to the averages found in tab three. Adjustments to add two MUX/port charges for each DS-3 leased circuit results in an adjusted average revenue-per-circuit amount of **[[BEGIN CONFIDENTIAL]]** **[[END CONFIDENTIAL]]**, and adjusted average transport-only amounts billed per-mile of **[[BEGIN CONFIDENTIAL]]** **[[END CONFIDENTIAL]]**. Both of these amounts are greater than those calculated using Approach A and Approach B, confirming that those methodologies are more conservative and result in a lower fair market value for the intracompany lease rate than if the supplemental analysis were used.

Finally, on the sixth tab of the workbook titled “Channelized DS3s,” this worksheet contains an analysis of only the channelized DS-3 leased circuits. **[[BEGIN CONFIDENTIAL]]** **[[END CONFIDENTIAL]]**. However, Aureon includes this analysis for the purpose of completeness. The calculations on this worksheet show that the average revenue-per-circuit for channelized DS-3 leases (with all rate elements removed other than transport) is **[[BEGIN CONFIDENTIAL]]** **[[END CONFIDENTIAL]]**, and average transport-only amounts billed per-mile of **[[BEGIN CONFIDENTIAL]]** **[[END CONFIDENTIAL]]**. As before, MUX/port charges must be added back in to result in an average rate that is comparable to CEA transport service. This results in an adjusted average revenue-per-circuit of **[[BEGIN CONFIDENTIAL]]** **[[END CONFIDENTIAL]]**, and average amounts billed per-mile of **[[BEGIN CONFIDENTIAL]]** **[[END CONFIDENTIAL]]**. Both of these amounts are greater than those calculated using Approach A and Approach B, confirming that those methodologies are more conservative and result in a lower fair market value for the intracompany lease rate than if the supplemental analysis were used.

In summary, all of the supplemental analyses of the rates charged by Aureon for unregulated DS-3 circuit leases result in average amounts that are greater than those used in Approaches A and B below. If Aureon had used the averages calculated in its supplemental analyses to determine the baseline fair market value for the intracompany lease rate, a higher intracompany lease charge would have resulted, confirming the methodologies used by Aureon are reasonable.

b. Calculation of Baseline Fair Market Value of CEA Transport Service Using Two Different Approaches.

In order to determine the baseline for the fair market value of CEA transport service based on unregulated DS-3 circuit rates, Aureon determined the average mileage of those circuits (93.26 miles), the total annual revenue derived from those circuits (\$1,624,952), the average amount billed per mile (\$15.64), and the average revenue per circuit (\$1,458.61). Aureon then calculated the baseline for the estimated fair market value for CEA transport service using two different

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methodologies, which are shown on the “Network Lease – Cost Market Comp” tab of the spreadsheet filed with this submission. A summary of the fair market value calculations is as follows:

The first methodology – Approach A – used the average monthly rate for unregulated DS-3 circuits (\$1,458.61) as the basis for the fair market value calculation. That amount was multiplied by the total number of CEA DS-3 circuits to calculate the baseline for the monthly lease cost for CEA transport service priced at the unregulated DS-3 rate. That result was then multiplied by 12 to calculate the annual fair market value. Pursuant to the FCC’s rules for ILECs, the lower of fair market value and fully distributed cost was included in the revenue requirement(s) for the PYCOS and TYCOS periods.

The second methodology – Approach B – used the average per-mile cost for unregulated DS-3 circuits (\$15.64), as the basis for the fair market value calculation. That amount was multiplied by average weighted CEA transport miles to determine the baseline for the monthly lease cost for CEA transport service priced at the unregulated DS-3 rate. That result was then multiplied by 12 to determine the annual fair market value. The calculated fair market value of the annual lease cost was higher than the total lease amount assigned to CEA service. Pursuant to the FCC’s rules for ILECs, the lower of fair market value and fully distributed cost was included in the revenue requirement(s) for the PYCOS and TYCOS periods.

2. Fully Distributed Costs

In order to determine the fully distributed costs attributed to CEA transport service, Aureon performed an analysis of the underlying central office equipment (“COE”) and cable and wire facilities (“CWF”) that are leased by the Access Division to provide CEA service. The cost of these assets – which is sourced from the financial information also provided, are allocated using the same allocation factors developed in the circuit inventory. The revenue requirement that is calculated is then used as the proposed lease charge in the cost study (subject to final comparison with market value, as detailed previously).

3. Calculation of the Lease Charge

In order to determine the interdivisional lease rate associated with network transport facilities used to provide CEA service, Aureon calculated the fully distributed costs as well as the market rates for CEA service using Approach A and Approach B described above. The lowest of those values is included in the cost study. In this filing, for both the TYCOS and PYCOS periods, the fair market value is lower than the fully distributed costs, and as a result, the lowest market price is used in the revenue requirement. The calculation of fair market value under Approach A and Approach B, and the comparison with fully distributed costs can be found on the tab labeled “Network Lease – Cost Market Comp”, Line Number 16 and Line Number 21. As seen on this tab, the fair market value calculated in Approach A is used in the respective revenue requirement development.

The calculation of the lease charge and the application of the CEA allocation factors can be found on the Tabs labeled “Network Lease Devel – TYCOS” and “Network Lease Devel – PYCOS”, respectively. The results are summarized below:

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TYCOS: YE 6/30/2023		
Fully Distributed Costs for COE:		\$13,076,848
Allocation to CEA Service:		2.05%
Potential COE Lease Charge:		\$267,896
Fully Distributed Costs for CWF:		\$22,077,446
Allocation to CEA Service:		6.42%
CWF Lease Charge:		\$1,417,386
Fully Distributed Costs Total:		\$1,685,283
Fair Market Value – Approach A:		\$1,794,805
Fair Market Value – Approach B:		\$1,624,952
Lower of Cost/Market:		\$1,624,952

The amount shown as “Lower of Cost/Market” is assigned to the CEA revenue requirement. This methodology for calculating the lease charge is fully compliant with the FCC’s affiliate transaction rules for ILECs, and is fully documented in the cost support materials provided with this filing.

B. CLEC Benchmark Rate

In the FCC’s *First Rate Order*, the FCC determined that Aureon must benchmark its CEA tariff rate to a composite rate calculated using rate elements from CenturyLink Operating Companies Tariff F.C.C. No. 11.⁸ As the CLEC rate benchmark in FCC Rule 61.26 applies solely to non-dominant carriers, Aureon disputes the application of the CLEC rate benchmark to dominant carriers like Aureon, and consequently previously filed an appeal of the *First Rate Order*. In that order, the FCC determined that the average weighted miles of transport provided by Aureon in 2017 was 103.519 miles based on data submitted by Aureon, and applied that mileage to the per-mile transport element from CenturyLink’s tariff to calculate a composite benchmark rate of \$0.005634 per MOU for Aureon’s CEA rate. Aureon’s updated average weighted miles of transport is 84.434 miles, which is based on data from January 1, 2021 to January 1, 2022.⁹ Aureon now updates that calculation below:¹⁰

Tandem-Switched Transport		
fixed per MOU	\$0.000240	\$0.000240

⁸ *Iowa Network Access Division, Tariff F.C.C. No. 1*, Memorandum Opinion and Order, 33 FCC Rcd. 7517, 7532 (2018) (“*First Rate Order*”).

⁹ A spreadsheet containing Aureon’s average weighted mileage calculation is being submitted confidentially in an Excel file called “Aureon (CONFIDENTIAL) 2021 Average Weighted Miles.xlsx”.

¹⁰ The rate elements are from CenturyLink Operating Companies Tariff F.C.C. No. 11, § 6.8.1(c)(1), 5th Revised Page 6-318, 3rd Revised Page 6-318.1. Those rate elements were used by the FCC to calculate the composite benchmark rate in the *First Rate Order*.

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per mile	\$0.000030 x 84.434 miles	\$0.003015
Tandem Switching	\$.002252	\$0.002252
Common Transport Multiplexing	\$0.000036	\$0.000036
Total per MOU		\$0.005061

Aureon’s cost supported rate of \$0.00510 is above the composite benchmark. However, Aureon proposes to maintain its current tariff rate of \$0.00411, which is below the composite benchmark rate of \$0.005061 calculated above. Accordingly, Aureon’s current CEA tariff rate complies with the *First Rate Order* requirement to be at or below the CenturyLink composite benchmark rate.

C. Central Office Equipment

Aureon’s legacy switches were originally manufactured in 1988 and 1989, and they are difficult and expensive to manage and maintain due to their vintage. Aureon’s switches were manufacturer discontinued in 2016 with limited technical support available, and no new hardware was available from the vendor. Given that Aureon’s central office equipment was three decades old and using outdated 1980s technology, it was prudent and necessary for Aureon to replace its central office switching equipment before there was a catastrophic failure resulting in widespread service outages to more than 300,000 rural Iowa residents. As previously reported to the Commission, Aureon has embarked on a switch replacement project that will eventually lead to the complete retirement of its legacy equipment. Aureon had previously submitted information in its September 2019 tariff filing demonstrating that its new switch investment met the FCC’s “used and useful” standard to evaluate whether particular investments can be included in an ILEC’s revenue requirement. Property is considered “used and useful” for regulatory ratemaking if it is “necessary to the efficient conduct of a utility’s business, presently or within a reasonable future period.”¹¹ The FCC accepted Aureon’s explanation that its new switch investment and cost allocation in its rate development was proper by allowing Aureon’s rate to become deemed lawful and go into effect on October 16, 2019.

Aureon’s new switching equipment installation was completed on April 10, 2020, and the new switch is currently operating alongside Aureon’s legacy switch. The new switch is currently processing billable toll calls. Aureon’s legacy switches and the new switch are all operational and interconnected. All legacy TDM circuits remain on Aureon’s old tandems. The new switch and the legacy switch will continue to be operated in tandem until all traffic can be migrated to the new switch. The overall circuit migration project is ongoing and is expected to take approximately 24 more months to complete. Based on current projections for the first stage of retirement and removal of the legacy switching equipment, a retirement of \$24.5 million in switching equipment is reflected in the projections for test period year ending June 30, 2022. This retirement is projected to occur in December 2022.

¹¹ *American Telephone and Telegraph Company, the Associated Bell System Companies, Charges for Interstate Telephone Service, AT&T Transmittal Nos. 10989, 11027, 11657, Phase II Final Decision and Order, 64 FCC 2d 1, 38, ¶ 111 (1977) (“AT&T Phase II Order”).*

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The FCC has previously found that it is appropriate for a carrier to include the cost of spare capacity in the rate base if it provides customers with greater assurance of continuity of service in the event of a malfunction of on-line equipment.¹² The allowable amount of depreciation and investment cost for the new switch is set forth in Aureon’s cost study, and the new switch will be in service for the entire test period ending June 30, 2023. Because the new switch is currently operating and processing billable toll calls, and will provide spare, redundant capacity during the legacy switch transition period, it is appropriate for Aureon to include the cost of the new central office equipment facilities in its rate base.

D. Traffic Demand

For the relevant test period, i.e., July 1, 2022 through June 30, 2023, Aureon developed a traffic demand projection based on recently observed traffic volumes. Traffic volumes were extremely variable in 2021, with traffic volumes changing anywhere from approximately +/- 6.5 to 37.5 percent each month during that period. The wide swings in traffic volumes make traffic demand projections difficult to determine for the test period. For this tariff filing, Aureon employed a “weighted average” calculation, with certain adjustments, to give more emphasis to the most recent monthly percentage changes in actual traffic volumes as that data is a better indicator of future traffic trends based on recent changes in traffic volumes, and Aureon continues to use that calculation in this submission to determine whether its projected future traffic volumes are reasonable. A linearly weighted average (“LWA”) of the traffic volume percent change is an average calculation that more heavily weights recent data. An LWA calculation is a method of determining the average value of an item being evaluated over a given period of time. This method weights recent data more heavily than older data, and is used to analyze trends in the data. The most recent percent change data has the highest weighting, and each prior data point is given progressively less weight. The weights drop in a linear manner when applied to older data.

The equation to calculate the LWA for the percent change in CEA traffic volumes is as follows:

$$\text{LWA} = \frac{(\text{PVC}_n * W_1) + (\text{PVC}_{n-1} * W_2) + (\text{PVC}_{n-2} * W_3) \dots}{\sum W}$$

- Where:
- PVC = Percent traffic volume change for the period
 - n = The most recent period, n-1 is the prior period, n-2 is two periods prior, etc.
 - W = The assigned weight to each period, with the highest weight applied first, and then decreasing linearly based on the number of periods used. The number of weights used corresponds to the number of periods being analyzed.

¹² See *Communications Satellite Corporation, Investigation Into Charges, Practices, Classifications, Rates, and Regulations*, Decision, 57 FCC 2d 1101 ¶ 93 (1975) (“Comsar”).

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For example, if there are four periods of traffic volume data being analyzed, the percent change for the most recent period would be given a weight of four, the prior period would be given a weight of three, the period before that would be given a weight of two, and the final period would be given a weight of one. The calculation for a hypothetical data set where the change in month-over-month traffic volumes (from most recent to oldest) are -1%, -2%, -5%, and -7%, is as follows: $LWA = ((-1 * 4) + (-2 * 3) + (-5 * 2) + (-7 * 1)) / (4 + 3 + 2 + 1) = -2.7\%$. In contrast, a simple average $((-1 + -2 + -5 + -7) / 4)$ results in a monthly average decline in traffic volume of -3.75%. The LWA calculation results in a lower percent-change in average month-over-month traffic volumes than the simple average calculation, and the LWA result is more consistent with the lower traffic volume percentage changes shown in the most recent periods for the hypothetical dataset. The LWA calculation is a better methodology for capturing recent traffic percentage changes than the simple average due to the weighting methodology.

For the subject tariff filing, Aureon performed an LWA calculation on the month-over-month percent change of actual CEA traffic volumes to determine an appropriate range for the percentage decline in traffic for the relevant test period. Aureon performed an LWA calculation for interstate CEA traffic volumes for the period from January 2020 to April 2022.¹³ The LWA calculation shows that there is a -1.235% decline in the month-over-month average weighted percent change in traffic volumes. However, Aureon expects an increase in traffic volumes of approximately 26 million minutes in May 2022, and an additional increase in volume of approximately 6 million minutes in June 2022. Aureon included the expected increases in May and June 2022 in its traffic projections, but applied the -1.235% percent decrease in projected traffic volumes for May 2022 through June 2023. The table below summarizes the data used for the LWA calculation, the month-over-month percent volume changes, and the resulting average weighted percentage decline in interstate traffic.

¹³ Although there are 28 months of traffic volumes for this period, there are only 27 months of percent-change data, or 27 “periods,” because the first percent change is for January 2020 to February 2020. Thus, there is no percent-change in traffic for the initial month (January 2020) in the dataset. There is no percent-change entry for the initial month in the datasets for all of the other LWA calculations performed for the same reason. The formula to calculate the month-to-month percent-change in traffic volume is as follows: $((\text{Volume Month 2} - \text{Volume Month 1}) / \text{Volume Month 1} * 100)$.

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	Total Interstate MOU			Monthly Traffic Decline	Weighted Average Decline
Jan-20	65,470,058				
Feb-20	51,913,445			-20.707%	
Mar-20	74,436,391			43.386%	
Apr-20	67,525,204			-9.285%	
May-20	54,500,028			-19.289%	
Jun-20	50,838,012			-6.719%	
Jul-20	32,951,769			-35.183%	
Aug-20	27,904,188			-15.318%	
Sep-20	27,962,288			0.208%	
Oct-20	26,289,065			-5.984%	
Nov-20	26,150,079	Monthly	Weighted	-0.529%	
Dec-20	27,042,666	Traffic Decline	Average Decline	3.413%	
Jan-21	25,591,266	-5.367%		-5.367%	
Feb-21	23,256,193	-9.124%		-9.124%	
Mar-21	25,263,813	8.633%		8.633%	
Apr-21	23,833,132	-5.663%		-5.663%	
May-21	23,634,954	-0.832%		-0.832%	
Jun-21	25,293,716	7.018%		7.018%	
Jul-21	22,842,448	-9.691%		-9.691%	
Aug-21	25,277,965	10.662%		10.662%	
Sep-21	23,332,812	-7.695%		-7.695%	
Oct-21	23,346,111	0.057%		0.057%	
Nov-21	21,232,579	-9.053%		-9.053%	
Dec-21	23,431,190	10.355%		10.355%	
Jan-22	24,031,910	2.564%		2.564%	
Feb-22	21,292,946	-11.397%		-11.397%	
Mar-22	26,566,908	24.769%		24.769%	
Apr-22	23,124,317	-12.958%	0.213%	-12.958%	-1.235%

Aureon also performed an LWA analysis of intrastate CEA traffic similar to that performed for interstate CEA traffic. That analysis shows an increase in the month-over-month average weighted percentage of intrastate traffic volumes as shown in the table below:

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	Total Intrastate MOU			Monthly Traffic Decline	Weighted Average Decline
Jan-20	27,416,635				
Feb-20	24,223,996			-11.645%	
Mar-20	32,104,678			32.533%	
Apr-20	32,845,847			2.309%	
May-20	31,199,923			-5.011%	
Jun-20	32,458,064			4.033%	
Jul-20	29,790,883			-8.217%	
Aug-20	31,888,077			7.040%	
Sep-20	31,678,866			-0.656%	
Oct-20	32,442,488			2.411%	
Nov-20	29,898,650	Monthly	Weighted	-7.841%	
Dec-20	30,377,124	Traffic Decline	Average Decline	1.600%	
Jan-21	28,737,353	-5.398%		-5.398%	
Feb-21	27,111,153	-5.659%		-5.659%	
Mar-21	30,336,648	11.897%		11.897%	
Apr-21	27,365,701	-9.793%		-9.793%	
May-21	24,710,209	-9.704%		-9.704%	
Jun-21	25,183,158	1.914%		1.914%	
Jul-21	25,088,407	-0.376%		-0.376%	
Aug-21	26,815,706	6.885%		6.885%	
Sep-21	26,043,540	-2.880%		-2.880%	
Oct-21	25,331,899	-2.733%		-2.733%	
Nov-21	24,885,545	-1.762%		-1.762%	
Dec-21	25,097,381	0.851%		0.851%	
Jan-22	29,317,557	16.815%		16.815%	
Feb-22	27,959,887	-4.631%		-4.631%	
Mar-22	31,237,498	11.723%		11.723%	
Apr-22	27,414,590	-12.238%	0.490%	-12.238%	0.071%

Aureon performed an LWA calculation to determine if there was an overall downward trend in traffic volumes for all CEA traffic (both interstate and intrastate). The results of that calculation is set forth below.

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	Total Interstate and Intrastate MOU			Monthly Traffic Decline	Weighted Average Decline
Jan-20	92,886,693				
Feb-20	76,137,441			-18.032%	
Mar-20	106,541,069			39.933%	
Apr-20	100,371,051			-5.791%	
May-20	85,699,951			-14.617%	
Jun-20	83,296,076			-2.805%	
Jul-20	62,742,652			-24.675%	
Aug-20	59,792,265			-4.702%	
Sep-20	59,641,154			-0.253%	
Oct-20	58,731,553			-1.525%	
Nov-20	56,048,729	Monthly	Weighted	-4.568%	
Dec-20	57,419,790	Traffic Decline	Average Decline	2.446%	
Jan-21	54,328,619	-5.383%		-5.383%	
Feb-21	50,367,346	-7.291%		-7.291%	
Mar-21	55,600,461	10.390%		10.390%	
Apr-21	51,198,833	-7.917%		-7.917%	
May-21	48,345,163	-5.574%		-5.574%	
Jun-21	50,476,874	4.409%		4.409%	
Jul-21	47,930,855	-5.044%		-5.044%	
Aug-21	52,093,671	8.685%		8.685%	
Sep-21	49,376,352	-5.216%		-5.216%	
Oct-21	48,678,010	-1.414%		-1.414%	
Nov-21	46,118,124	-5.259%		-5.259%	
Dec-21	48,528,571	5.227%		5.227%	
Jan-22	53,349,467	9.934%		9.934%	
Feb-22	49,252,833	-7.679%		-7.679%	
Mar-22	57,804,406	17.363%		17.363%	
Apr-22	50,538,907	-12.569%	0.272%	-12.569%	-0.760%

The February 2020 to April 2022 combined CEA traffic data shows a month-over-month average weighted percentage decline in traffic of -0.760%, and the January 2021 to April 2022 data shows an average weighted percentage increase in traffic of 0.272%. The LWA analysis of interstate-only CEA traffic indicates that the month-over-month LWA percentage change for interstate CEA traffic for the relevant test period is in the range of 0.213% to -1.235%. The LWA analysis of all CEA traffic indicates that the percentage change for all CEA traffic for the relevant test period is in the range of 0.272% to -0.760%. Given that the overall traffic trends for interstate traffic is decreasing slightly, and the overall traffic trends for intrastate traffic is increasing slightly, Aureon used the long-term LWA percentage change of -1.2350% for interstate traffic volumes, and 0.0710% for intrastate traffic, to project its traffic volumes for the relevant test period.

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Aureon’s projections show that traffic demand for CEA service continues to decline, with total projected interstate and intrastate MOUs of 498,688,234 and 335,948,131 for the relevant test period, respectively, for a total of 834,636,365 MOUs. A table summarizing the data for total interstate and intrastate MOUs for CEA service is shown below:

Projected 2022			Interstate	Intrastate Total	Total
1	Jan-22	Actual	24,031,910	29,317,557	53,349,467
2	Feb-22	Actual	21,292,946	27,959,887	49,252,833
3	Mar-22	Actual	26,566,908	31,237,498	57,804,406
4	Apr-22	Actual	23,124,317	27,414,590	50,538,907
5	May-22	Projected-JSI	49,285,110	28,422,732	77,707,842
6	June-22	Projected-JSI	54,176,439	28,442,912	82,619,351
7	July-22	Projected-JSI	53,507,360	28,463,107	81,970,466
8	Aug-22	Projected-JSI	52,846,544	28,483,315	81,329,859
9	Sep-22	Projected-JSI	52,193,889	28,503,539	80,697,428
10	Oct-22	Projected-JSI	51,549,295	28,523,776	80,073,071
11	Nov-22	Projected-JSI	50,912,661	28,544,028	79,456,689
12	Dec-22	Projected-JSI	50,283,889	28,564,294	78,848,184
Total 12 Months ending December 2022			509,771,268	343,877,235	853,648,503
Total 6 Months ending December 2022			311,293,638	171,082,059	482,375,697
1	Jan-23	Projected-JSI	49,662,883	28,584,575	78,247,458
2	Feb-23	Projected-JSI	49,049,547	28,604,870	77,654,417
3	Mar-23	Projected-JSI	48,443,785	28,625,179	77,068,964
4	Apr-23	Projected-JSI	47,845,504	28,645,503	76,491,007
5	May -23	Projected-JSI	47,254,612	28,665,842	75,920,454
6	Jun-23	Projected-JSI	46,671,018	28,686,194	75,357,212
Total 6 Months Ending June 2023			288,927,349	171,812,163	460,739,513
TOTAL TYCOS YE 6/30/2023 - Total			600,220,987	342,894,222	943,115,209
Total TYCOS YE 6/30/2023 - Without Orig Interstate 8YY			545,256,147		

E. Allocation Methodology for Ethernet Rings

The FCC’s *Second Rate Order* indicated that a change should be made in the allocation methodology for CWF, in particular with regard to the treatment of Ethernet circuits.¹⁴ Aureon used an updated methodology in its 2020 tariff filing, and continues to use the same methodology for its current filing. In particular, all rings are essentially treated equally – there is no “weighting” being done with regard to DS-3 or other circuit quantities. Further down the allocation methodology, DS-3 miles (i.e., circuit miles) are used to allocate joint and common rings. This is appropriate because none of these joint and common rings contain Ethernet circuits – they are all TDM based and contain various quantities of DS-3s, and ultimately, DS-1s.

F. Circuit Inventory

Aureon’s DS3 circuit inventory is included in this filing in the Excel file labeled “Aureon (CONFIDENTIAL) DS3 Circuit Inventory – May 2022.xlsx”. This information includes data about Aureon’s unregulated services, is proprietary and confidential, and therefore, it is being filed under seal. Aureon’s fiber ring records showing DS3 circuits transported within all rings over Aureon’s fiber network were reviewed and summarized per ring. The channelized DS3 circuits found within those rings were itemized from those records and separated into CEA and non-CEA categories. The counts found on the final ring summary were cross-checked back to the full ring record inventory to assure all circuits were accounted for in each ring. All Ethernet (BDS /data transport) and other non-CEA circuits were included in the overall count of circuits in this inventory.

[[BEGIN CONFIDENTIAL]] [REDACTED]

[REDACTED]

[REDACTED]

¹⁴ *Second Rate Order* ¶ 35.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] [[END CONFIDENTIAL]]

G. Cost and Traffic Studies

Development of cost and traffic studies supporting this tariff filing was accomplished as follows:

- 1) Projection of test period investment, revenue and expense was determined based on the best estimates of management using fixed, known and measurable amounts from Aureon’s 2021 and 2022 year-to-date operating results and 2022 budget. Anticipated changes in investments and reserves were reflected in conjunction with Aureon’s ongoing plant modernization and upgrade programs.
- 2) All investments used in the projected period ending June 30, 2023 were included in the revenue requirement development using an “average investment” methodology as shown on the tab labeled Section 9 PYCOS and TYCOS financials. For CWF, GSF, and other investments, a simple average of beginning and end-of-period was utilized. For COE Switching, the entire allowable depreciated amount for the new switch was used as it will be in operation for the entire TYCOS period.
- 3) Projection of the test period Aureon revenue requirement was accomplished using FCC Part 64 cost allocation procedures applied to total company projected investment and expense amounts determined in (1) above. Aureon’s revenue requirement summary data is contained in Section 2 of the cost support material. The following cost and traffic studies are provided:

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<u>Section</u>	<u>Description</u>
Section 2	Rate Development
Section 3	Part 69 – TYCOS 2023
Section 4	Part 36 – TYCOS 2023
Section 5	Part 64 – TYCOS 2023
Section 6	Part 69 – PYCOS 2021
Section 7	Part 36 – PYCOS 2021
Section 8	Part 64 – PYCOS 2021
Section 9	Development of Inputs

- 4) Projection of the test period interstate CEA revenue requirement was accomplished using Parts 36/69 separation procedures applied to projected total Aureon investment and expense amounts. Aureon's interstate CEA revenue requirement was determined using a return on investment of 9.75%, which reflects the rate of return currently authorized by the Commission for ILEC interstate ratemaking purposes, effective July 1, 2022. The summary Part 36 and Part 69 revenue requirements are contained in Sections 3 and 4 of the cost support material.
- 5) Actual interstate CEA minutes for 2021 decreased to 603,042,879 from 1,118,493,713 in 2020. Projected CEA minutes for the test period ending June 30, 2023 are presented in Section 2 of the cost study. The projection for the test period was conducted by extrapolating the actual results from 2021 to April 2022, with the addition of approximately 25 million and 7 million minutes in May and June 2022, respectively, due to one-time expected increases in traffic for those months that are anticipated to be maintained through the entire test period. Further, intrastate CEA minutes for the period ending June 30, 2023 were also projected and included using the actual results from 2021 to April 2022, as well as local intraMTA land-to-mobile minutes, which are included as a result of the revised allocation methodology required by the *Second Rate Order*.
- 6) Aureon's interstate CEA revenue requirement for the projected period ending June 30, 2023 amounts to \$2,848,304 and is presented in Section 3 of the cost support material. The interstate revenue requirement was reduced by the amount of projected interstate revenues from nonrecurring charges of \$15,000 and originating 8YY revenue to arrive at the amount of \$2,778,339, representing the target 12 month revenue requirement to be recovered from the recurring CEA switched transport rate. This revenue requirement is below the previously projected revenue requirement for the test period ending June 30, 2021 in Aureon's June 2020 tariff filing.
- 7) The projected switched transport charge supported by Aureon's projected costs is determined by dividing the remaining interstate revenue requirement of \$2,778,339 determined in (6) above by projected interstate CEA minutes of 545,256,147 determined in (5) above resulting in a cost of \$0.00510 per CEA minute. An analysis of the development of the interstate switched transport rate

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is presented in Section 2. Although this represents an increase from Aureon's current tariff rate, Aureon will not implement this increase (which may be limited by the CenturyLink composite benchmark rate of \$0.005061), and instead proposes to maintain its current tariff rate of \$0.00411.

IV. SUMMARY

Section 2 presents a summary of the cost supported rate for the test period ending June 30, 2023, which is projected to generate annual switched transport revenues of \$2,778,339. When combined with nonrecurring revenues of \$15,000, and \$54,965 in originating 8YY revenue, total test period revenues are projected in the amount of \$2,848,304 using the cost supported rate. Aureon proposes to maintain its existing switched transport rate of \$0.00411 per MOU. The Company's proposed switched transport rate of \$0.00411 is projected to generate switched transport revenues of \$2,241,003. When combined with nonrecurring revenues of \$15,000, and \$54,965 in originating 8YY revenue, total test period revenues are projected in the amount of \$2,310,968, resulting in a return of -6.44% on interstate investments for the projected twelve-month period ending June 30, 2023.

Included in the cost support material are schedules depicting projected investment and expense data, demand quantities, jurisdictional cost allocations and rate calculations for the twelve-month period ending June 30, 2023. Cost and revenue data for the historical period from January 1 through December 31, 2021 is contained in the Company's Tariff Review Plan (TRP) which has been filed under separate cover.

This filing is presented to comply with the Commission's Order, *In the Matter of July 1, 2022 Annual Access Charge Tariff Filings*, Order, DA 22-407, WC Docket No. 22-108, and *In the Matter of July 1, 2022 Annual Access Charge Tariff Filings*, Order, DA 22-494, WC Docket No. 22-108, establishing the Tariff Review Plan (TRP) schedules to be filed in support of the annual access charge tariff filings. With this filing, Aureon proposes to maintain its existing switched transport rate of \$0.00411.

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TARIFF REVIEW PLAN

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2022 Annual Filing ROR TRP

RORCOS-1(P)
RORCOS-1(H)
RORCOS-2
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RORREV-2
RORRTE-1
RORRTE-2
RORRTE-3
RORDMD-2
RORDMD-3
RORERN-1

2022 ROR ILEC ICC Data	Not Applicable
2022 ROR ILEC 2022-23 Summary TRP	Not Applicable
2022 Rate Ceiling CAF Final	Not Applicable
2022 Rate Ceiling No CAF Final	Not Applicable
2022 Tariff Rate Comp CAF Final	Not Applicable
2022 Tariff Rate Comp No CAF Final	Not Applicable
2022 True Up Final BRI-RES	Not Applicable
2022 True Up Final BRI-SLB	Not Applicable
Certification	

CERTIFICATION

I certify that I am the Senior Vice President of Finance of Iowa Network Services, Inc. d/b/a Aureon Network Services, have overall responsibility for the preparation of the 2022 Annual Access Charge Tariff Filing, and am authorized to execute this certification. Based upon information provided to me by employees or outside accountants responsible for the preparation of, or for supervision of the preparation of, the data submitted in support of the rates contained in the proposed tariff, I hereby certify that the data have been examined and reviewed and are true, correct and complete to the best of my knowledge and belief.

June 16, 2022

Date



Carey Stover
Carey Stover
Senior Vice President of Finance
Iowa Network Services, Inc. d/b/a
Aureon Network Services