



**BlueCross BlueShield**  
of Montana



# BCBSMT Transparency in Coverage Machine Readable Files Implementation Guide for ASO Accounts

**Version 2.3**

2/1/2026

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# 1 Overview

## 1.1 Machine Readable File (MRF) Overview

Under the Transparency in Coverage Final Rule, plans and issuers will disclose pricing information to the public through machine readable files accessible via a table of contents file. One file requires disclosure of negotiated rates between plans and providers for covered items and services, known as the In-Network File. The second file discloses unique allowed amounts and billed charges for out of network services, known as the Out-of-Network Allowed Amount File. The table of contents includes links to both types of files. The machine readable files are posted on a publicly accessible website, free of charge, without requiring personal identifying information or logging into an account. The file is updated monthly. The files are described in detail in [Section 3](#) of this document. A third file related to pharmacy is indefinitely on hold.

A machine readable file is a digital representation of information in a file that can be imported or read by a computer system for further processing without human intervention, while ensuring no semantic meaning is lost. The machine readable file exchange uses the JavaScript Object Notation ([JSON](#)) file format and leverage CMS schema version 2.0 as defined on the [CMS GitHub site](#).

Group health plans are accountable for publishing the pricing for their plans. To support group health plans that leverage BCBSMT for network negotiation and claims processing, BCBSMT will generate the In Network and Out of Network Files for all plans administered by BCBSMT and required to comply with the Transparency in Coverage Final Rule. These files are available to the issuer of a group health plan on July 1, 2022.

## 1.2 About This Document

The MRF Implementation Guide supports Accounts with Administrated Services Only (ASO) by introducing the file requirements specified under the Transparency in Coverage Rule, defining the data included in the files, and clarifying the process for accessing the specific files with pricing data by account's benefit plans.

This implementation guide includes:

- Directions for assessing the machine readable files (Section 2)
- Definition of the Table of Contents file (section 2.2)
- Clarification on publication timing and data updates (Section 2.4)
- Definition of the In-Network File data layout with field definitions (Section 3.3)
- Definition of the Out-of-Network Allowed Amount File data layout with field definitions (Section 3.4)

## 1.3 Contact Information

For questions related to the implementation guide or machine readable files please contact [MRFINquiry@BCBSMT.com](mailto:MRFINquiry@BCBSMT.com).

For all other questions, please reach out your account representative.

## 2 Accessing the Machine Readable Files

BCBSMT publishes each account's files to a publicly accessible site. The site includes the MRFs for all plans offered by the account that have active membership and are administered by BCBSMT.

### 2.1 Navigation

To access the files, each account has a unique link to a webpage driven by the company's Employer Identification Number (EIN). This webpage is freely available without logging in to an account and can be accessed using the following format:

<https://bcbsMT.com/asomrf?EIN=123456789>

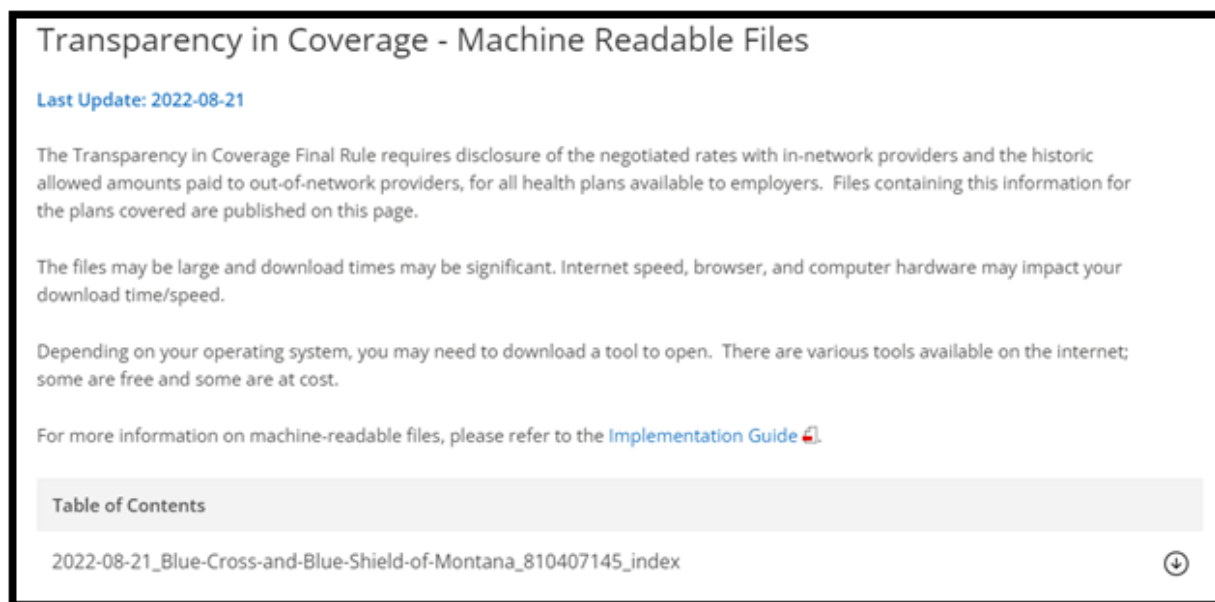
#### Navigating to the website:

- 1) Replace [123456789] with the organization's EIN removing the "- "
  - a. Ex: 12-3456789 is the original EIN; add 123456789 in the URL
- 2) Type the URL to a browser and hit enter. The screen will now display access to the files specific to the organization's account, representing all plans with active membership.

These files are compressed using .gzip format, which may require a tool for opening.

#### Screen Preview:

Below is a screenshot of the landing page and Table of Contents that includes an account's MRFs. The Last Updated On date represents the date the Table of Contents MRF was created. The INN and OON MRFs may not reflect the same date as the Last Updated On date on the webpage.



### 2.2 Table of Contents File Naming Convention

The table of contents includes a downloadable page which is used to access the MRFs. The link uses the following naming conventions:

<YYYY-MM-DD>\_<payer or issuer name>\_<EIN>\_index.<file extension>

Example: 2021-06-25\_Blue Cross and Blue Shield of Montana\_123456789\_index.json

### Component Definitions:

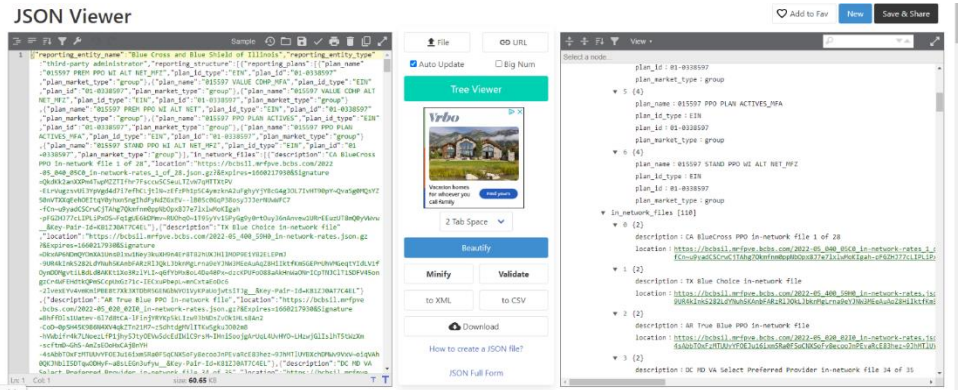
- <YYYY-MM-DD>: The date that the file was generated with updated plan (or policy) information which will be 25<sup>th</sup> of before each month
- <payer or issuer name>: The name of the payer or issuer organization
- <EIN>: References the account's specific EIN used to render the plan (or policy) information
- <file extension>: Defines the file extension as JSON

## 2.3 Accessing the files

- 1) Click on download button next to the table of contents 'index'. This will launch a popup window.
- 2) Click "download" on the pop up window to initiate the file download. Once the file is downloaded and opened, the table of contents will show as the sample below:

```
["reporting_entity_name":"Blue Cross and Blue Shield of Illinois","reporting_entity_type":"third-party administrator","reporting_structure":{"reporting_plans":[{"plan_name":"015597  
work file 1 of 28","location":"https://bcbsil.mfwpvc.bcbs.com/2022-05_040_050_in-network-rates_1_of_28.json.gz?Expires=16602179308&signature=KqkKkZanXPM4WpZ21fhr7Fscw5Seul12W  
ey-PAir-Id=K81Z30AT7C4EL"},{"description":"AR True Blue PPO in-network file","location":"https://bcbsil.mfwpvc.bcbs.com/2022-05_020_0210_in-network-rates.json.gz?Expires=16602179308  
h1P20k5v9eMzYV1e-Ay47fG1TMA6KUosfgDZ1R7xPmIM1VE23aKYCneuhantRufd2Rf3Hpk-iv_&Key-PAir-Id=K81Z30AT7C4EL"},{"description":"CA BlueCross PPO in-network file 6 of 28","location  
q56F3pIefHnpzx5ft1V-q-5pp7R4R0Cuv-yvHBC3Xcyc7MvN28V053Dd1L0sRogitFyev8gQv-k-rXV6Ha17CwJ8ZtykFAE25ErvhvxWujZaRCaEjrqunzYV0uM00UYPEZ4poccc-9EQ91Xc9XcNRHMpKuc18DkuWpWpk3jV  
4mbA-12hVH5P93HmeoF17655D-1K35DFP3gR1P-oRF7WZ4edu3V-pW7U1By0Z5kLebC7-kFEk1Bu7Om3k0k8551eHh00uA33eoz2N257-4gN1Y0CdhR1J3Z2FfusX0YLEWfP53KaipQ0Zcmz6Zz-hmz2UC0x5Kz3Hy  
rk-rates_18_of_28.json.gz?Expires=16602179308&signature=11zakt1d1orV1A1ZnLDZIM9Mctar9F9rL4Hf8R9bulyT1DUJCmzITD5g9b5JasafIpmPyyr1K3SP-7JmZ2Eu0K3Trc3J11M0UJGFR5040VNYFmDobp  
ocation":"https://bcbsil.mfwpvc.bcbs.com/2022-05_040_050_in-network-rates_19_of_28.json.gz?Expires=16602179308&signature=1Y00V758E2g20975M8y-q0RVEKCPYZ5B0K101ZV088AoTCAPcR9W6L-k  
GL4xqKaba1LwA_&Key-PAir-Id=K81Z30AT7C4EL"},{"description":"CA BlueCross PPO in-network file 24 of 28","location":"https://bcbsil.mfwpvc.bcbs.com/2022-05_040_050_in-network-rates_2  
pocTca8D0-0gm2SRjaheqThWu2zcE04M3p2rTnEap18B9gJFKI1-ka1V57EDu-VWgqN8Bpk5EGuMxMh0ky2Rdp690Vh50_&Key-PAir-Id=K81Z30AT7C4EL"},{"description":"DC MD VA Select Preferred Provider 1  
3h-X18mV3w4h4nc5j51Qm5E8UgZ2p2h0F0H9M8M8Vedv0KXU5VZCF0Q-05kRUCYsyYU-Ga0uP0YVW6WfWm4Kp5CkPz3p6Kv3mp3MHf1PhZ6GLTcZnPgmgYq4Y1Q0Zy5ZDhQo1PH91K-rPp8F1IXygb-B0PZYLZn5A-Fk  
cr6FN1YF05o-Hp5q56u13r3Myk0rttEXFVFE1E1m9V-BK8K8g5Z5-L2Y-gqaXVYq5Eadak-M8Hv8y82Kz6KvKt0kH4mRv9pHILAtuXgBurlu-ucHCRKY818P6K9EKCamd6e305y7FofefQ6jF4P48-rust  
son.gz?Expires=16602179308&signature=MBQ7QVnEw8xRZVKBkRbRcmK924gQzhrV1Ag52H18DNL5s-PY48HanjC8XCkzCzANH6FfNdPvYIeK68ozP51Jfhl1Yc4Dit-Px7FyPK9U9z2rsrpgR3J2DeBwL1gq31V1XFv51RHO
```

- 3) These files are in native json format as one line of information, you may need to open the file using a formatting tool such as Notepad++, or upload to a json beautifier tool on the internet, in order to read the structure of the file.



- 4) Depending on the application used to open the table of contents, you may need to copy and paste the machine readable files into your browser. These files are compressed using the .gzip format, which may require a tool to open.
- 5) Note that once the machine-readable file is downloaded, users may validate the integrity of the downloaded file by using the hash code. Please see the Appendix for more information.

## 2.4 Files Available

As described, the In-Network file and the Out-of-Network File is published to the public site available in the Table of Contents file. The In-Network File discloses negotiated rates between plans and providers for all covered items and services. The Out-of-Network Allowed Amount File discloses unique allowable amounts paid for out-of-network services as well as the associated billed charges during a specified time period. Both are available via a separate link in the table of contents.

### Sample machine readable files:

[In Network machine readable file](#)

[Out of Network machine readable file](#)

## 2.5 Publication Timing

As of July 1, 2022, BCBSMT publishes the machine-readable files on the 25<sup>th</sup> before the 1<sup>st</sup> of each month beginning on the plan's effective date.

Table of Contents Publication Dates:

- **Example 1:** A plan coverage with a renewal date of Jan. 1, 2022 – July 1, 2022, is first published on June 25, 2022, when the rule goes into effect.
- **Example 2:** A plan coverage with a renewal date of July 2, 2022, or later, and renews on the 1<sup>st</sup> day of the month is first published on the 25<sup>th</sup> before the month in which the plan renews.
- **Example 3:** A new plan coverage is first published on the 25<sup>th</sup> before the effective date's month.

The out-of-network file will only include out-of-network data once the plan has enough claims to meet the threshold for publication, and after the lookback period of 180 days with a 90-day run-out has been reached to support the publication of the data.

- **Example 1:** A plan coverage with a plan year beginning Jan. 1, 2022, or Feb. 1, 2022, with qualifying claims will have out-of-network data published in the initial file released on June 25, 2022.
- **Example 2:** A plan with a July 1, 2022, renewal date will not have met the lookback period of 180 days with a 90-day run-out for qualifying claims and, therefore, the out-of-network file published will contain no data. The November 1, 2022, update will be the first month where qualifying out-of-network claims will be incorporated into the out-of-network file.

Out-of-network pricing will not be reported for any new plan until at least 4 months following the effective date of the plan.

In-network and out-of-network pricing files will be removed from the site the month following the plan termination date.

## 2.6 MRF Usage Considerations

After accessing the MRFs, the ASO accounts may choose how to share the information with their members. Two potential options include publishing a direct link to this site or downloading and hosting the files in an alternative location. Regardless of which option is chosen, there isn't a limitation for file access. The account will be able to access their files through the month until the next set of files are posted.

If ASO accounts are not linking to BCBSMT but are instead downloading and publishing the files themselves, they will need to update the Entity Type field from "third-party administrator" to "health insurance issuer" or something similar before publishing.

### 3 Machine Readable Files Details and Data Elements

This section describes the key components of the Table of Contents, In-Network and Out-of-Network Machine Readable Files according to the Transparency in Coverage Final Rule.

Key Components Content Descriptions
<b>Table of Contents</b> – includes links to the In-Network and Out-of-Network Files for ease of access.
<b>In-Network File</b> – available pricing rates known to be in effect at the date of production curated from multiple pricing data sources and/or contracts.
<b>Out-of-Network File</b> – allowed and billed charge amounts based on actual claims received for out-of-network services on the <i>90-day period that begins 180 days prior</i> to the file publication date. These files may not have pricing information if there were no qualifying samples of out of network claims to publish.

#### 3.1 Table of Contents File

The table of contents file provides access to the in-network and out-of-network files. For national plans, there are separate files to represent all the plans for that state, as this will make files more manageable for downloading.

The table below defines each data field and if they are required for the Table of Contents File.

Definition of Table of Contents Data Fields and Disclosures			
Data Element	CMS Definition	Default Value	Added Disclosures
<b>Entity Name</b>	The legal name of the entity publishing the MRF	“Blue Cross and Blue Shield of <State>”	N/A
<b>Entity Type</b>	The organization type publishing the file such as a group health plan, health insurance issuer, or a third party contracted through the plan or issuer to provide the required information (e.g., a third-party administrator, a health care claims clearinghouse, or a health insurance issuer that has contracted with a group health plan sponsor)	“third-party administrator”	ASO accounts that decide to download and publish their own files will need to change this field to “health insurance issuer”
<b>Plan Name</b>	The plan name and name of plan sponsor and/or insurance company	<group #> <benefit agreement name>	PPO plans - Example: if the group # is “12345” and the benefit agreement name is “SW HCN OPT 1”, the Plan Name field would show “12345 SW HCN OPT 1”

			<p>HMO Plans - there may be additional identifiers appended to this name, such as group and section numbers to differentiate when there is more than one capitation table per account / benefit agreement. Example: "12345 SW HCN OPT 1_123456_0001"</p> <p>See <a href="#">section 3.1.1</a> for all possible plan name variations.</p>
<b>Plan Id Type</b>	Allowed values: "EIN" and "HIOS"	"EIN"	For ASO accounts, the file will contain "EIN" only, not the Health Insurance Oversight System (HIOS)
<b>Plan ID</b>	The plan ID is the 10-digit HIOS identifier, or, if unavailable, the 5-digit HIOS identifier. For ASO's or when the HIOS identifier is unavailable, the Plan ID is the EIN for each plan or coverage offered by a plan or issuer	<p>&lt;Employer ID Number&gt;</p> <p>Example: MTMTMTMTX</p>	EINs are reported without the hyphen – Example: 12-3456789 will render as "123456789"
<b>Market Type</b>	Allowed values: "group" and "individual"	"group"	ASO files only reporting group market types
<b>In-Network File(s)</b>	See <a href="#">Section 3.2</a>	<i>Descriptions and URLs for INN MRFs</i>	The table of contents file provides the links to all the In-Network pricing plan files associated with each benefit plan/agreement and domain name for downloading the in-network data
<b>Allowed Amount (Out-of-Network) File(s)</b>	See <a href="#">Section 3.3</a>	<i>Descriptions and URLs for OON MRFs</i>	<p>The table of contents file provides the links to all the allowed amount pricing plan files associated with each benefit plan/agreement. For each allowed amount file, there is a description and location (domain name where the out-of-network data can be downloaded).</p> <p>Some plans may not have out-of-network benefits or enough claims to qualify for publication and therefore no pricing data will be published in the</p>

			downloadable out-of-network machine readable files.
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### 3.1.1 Plan Name Variations

Plan Type	How Plan Name is Created	Input Data	Plan Name Published in Table of Contents
PPO	Plan name is created by combining the Group # and Benefit Agreement Description separated by a space	Group #: 123456 Benefit Agreement Description: PPO Plan	123456 PPO Plan
HMO (MT, OK, NM, and TX not Blue Essentials)	Plan name is created by combining the Group # and Benefit Agreement Description separated by a space	Group #: 234567 Benefit Agreement Description: HMO Plan	234567 HMO Plan
HMO (TX Blue Essentials)	Plan name is created by combining the Account # and Benefit Agreement Description separated by a space and appending the Group # and Section # separated by an underscore	Account #: 123456 Benefit Agreement Description: Blue Essentials HMO Group Number: 987654 Section Number: 0001	123456 Blue Essentials HMO_987654_0001
HMO (IL)	Plan name is created by combining the Group # and Benefit Agreement Description separated by a space and appending the benefit plan # and product type code separated by an underscore	Group #: 456789 Benefit Agreement Description: IL HMO Plan Benefit Plan #: A01 Product Type Code: BLUEH	456789 IL HMO Plan_A01_BLUEH
PPO with More Than One Alpha Prefix	Plan name is created by combining the Group # and Benefit Agreement Description separated by a space and appending the alpha prefix separated by an underscore	Group #: 567890 Benefit Agreement Description: PPO Plan Alpha Prefix (1 of 2): VNU Alpha Prefix (2 of 2): XOF	Plan Name for Alpha Prefix 1: 567890 PPO Plan_VNU  Plan Name for Alpha Prefix 2: 567890 PPO Plan_XOF

## 3.2 In-Network File

The In-Network MRF for the Transparency in Coverage Final Ruling includes the following naming convention:

<YYYY-MM-DD>\_<payer or issuer name>\_<network name>\_<file type name>.<file extension>

Variations:

In-Network MRF	Naming Convention
INN VBC MRF (TX Sanitas)	<YYYY-MM-DD>_Blue-Cross-and-Blue-Shield-of-Texas_MyBlue-Health-HMO-TX-Sanitas-capitation-rate_in-network-rates.json
INN VBC MRF (TX Kelsey)	<YYYY-MM-DD>_Blue-Cross-and-Blue-Shield-of-Texas_Blue-Essentials-TX-Kelsey-Cap-Table-<#>_in-network-rates.json
INN VBC MRF (IL Non-Standard Medical Groups)	<YYYY-MM-DD>_Blue-Cross-and-Blue-Shield-of-Illinois_<network name>-<product type code>-<benefit plan number>-IL-HMO-Non-Standard_in-network-rates.JSON
INN VBC MRF (IL Standard & Advocate Medical Groups)	<YYYY-MM-DD>_Blue-Cross-and-Blue-Shield-of-Illinois_<network name>-<product type code>-<benefit plan number>-IL-HMO-Standard-Advocate-Health_in-network-rates.JSON
National Network INN MRFs	<YYYY-MM-DD><individual (geo area) plan code><network id>_in-network-rates_N_of_N.json
INN Common MRF	YYYY-MM-DD_<payer or issuer name>_<member network name>_common_<file type name>.file extension
INN Custom MRF	YYYY-MM-DD_<payer or issuer name>_<member network name>-<group number>_<file type name>.file extension

Note: The file reports other health plan issuers' In-Network MRFs for networks that aren't managed by BCBSMT. Other health plan issuers' interpretation of the Transparency in Coverage Final Ruling may differ.

The data elements incorporated in the In-Network File are outlined below.

In-Network File Data Elements			
Data Element	CMS Definition	Default Value	Added Disclosures
<b>Entity Name</b>	The legal name of the entity publishing the machine readable file	"Blue Cross and Blue Shield of <State>"	N/A
<b>Entity Type</b>	The type of entity that is publishing the machine readable file (a group health plan, health insurance issuer, or a third party with which the plan or issuer has contracted to provide the required information, such as a third-party administrator, a health care claims clearinghouse, or a health insurance issuer that has contracted with a group health plan sponsor).	"health insurance issuer"	In-network machine readable file is available to both ASO and non-ASO plans, therefore, BCBSMT is populating as "health insurance issuer"

<b>Last Updated On</b>	The date in which the file was last updated. Date must be in an ISO 8601 format	<YYYY-MM-DD>	Represents the day of the file generation
<b>Version</b>	The version of the schema for the produce information	"2.0"	This could change as new CMS schema updates are released
<b>Negotiation Arrangement</b>	An indication as to whether a reimbursement arrangement other than a standard fee-for-service model applies. Allowed values: "ffs," "bundle" or "capitation"	"ffs", "bundle" or "capitation"	Varies based on pricing/negotiating method used  See <a href="#">Section 3.2.2</a> for more details
<b>Place of Service Code</b>	CMS-maintained two-digit codes available <a href="#">on CMS' website</a>	Possible Values: 02, 10, 11, 17, 18, 19, 20, 22, 23, 24, 49, 62, 66, 72, 81	The CMS place-of-service codes associated with the negotiated rate site of service  Place of Service Codes will only be populated for "professional" providers
<b>Billing code</b>	Code used by a Plan, Issuer, or health care provider to identify health care items or services for purposes of billing, adjudicating, and paying claims for a covered item or service	<i>The corresponding billing code</i>	In-network machine-readable file will only include CPT, HCPC, DRG, or Revenue Code billing codes.
<b>Billing code name</b>	This is name of the item/service that is offered	<i>The billing code standard short form description</i>	This will be the short form description, if there is no short form description, BCBSMT will use the long form description in its place.
<b>Billing Code Description</b>	Brief description of the item/service	<i>The billing code standard long form description</i>	This will be the long form description, if there is no long form description, BCBSMT will use the short form description in its place.
<b>Billing Code Type</b>	Common billing code types	<i>The billing code type reporting value for CPT, HCPC, DRG, or Revenue Codes.</i>	See <a href="#">section 3.4</a>
<b>Billing Code Type Version</b>	There might be versions associated with the billing code type	<i>The billing code type version.</i>	N/A
<b>Negotiated Rates (FFS)</b>	This object is used when a provider payment model where covered items and	N/A	See <a href="#">section 3.2.1</a>

	services provided to a participant or beneficiary for a specific treatment or procedure are paid separately.		
<b>Bundled Codes</b>	This object is used when a payment model under which a provider is paid a single payment for all covered items and services provided to a participant or beneficiary for a specific treatment or procedure.	N/A	BCBSMT does not contract with providers for bundled services. However, other Blue Cross and Blue Shield plan affiliates may include bundled payments in national pricing files
<b>Covered Services</b>	This object is used when a payment of a fixed fee per participant or beneficiary per unit of time in advance to the provider for the delivery of a covered treatment or procedure.  Capitation rates can change based on a member's age and / or gender. The Capitation rate disclosed in the file is reflective of the base capitation rate applicable to a plan and may not represent the capitation rate for individual policies.	N/A	See <a href="#">section 3.2.5</a>
<b>NPI</b>	An array of individual (type 1 & 2) provider identification numbers (NPI)	<i>The providers National Provider Identifier (NPI) associated with the Tax Identification Number (TIN) and negotiated rate</i>	If a provider does not have an NPI, BCBSMT uses "0"  Both type 1 and 2 NPIs are populated in the NPI field to ensure both elements are captured within the schema
<b>TIN Type</b>	Contains tax information on the place of business	"EIN"	"NPI" is used if a provider uses their Social Security Number as their TIN
<b>TIN Value</b>	Either the unique Tax Identification Number issued by the Internal Revenue Service (IRS) for type "EIN" or the provider's NPI for TIN type "NPI"	<Tax ID Number> Example: MTMTMTMTX	NPI is used again if a provider uses their social security number as their TIN.
<b>Provider Group ID</b>	The unique, primary key for the associated provider group object	<MTX-MT>	The Provider Group ID will be preceded by a 3-digit home plan code (a unique

			code assigned to each health plan contracted with the BCBS Association). Example: 121 for IL, 250 for MT, 340 for OK, 290 for NM, and 400 for TX
<b>Additional Information</b>	The additional information text field can be used to provide context for negotiated arrangements that do not fit the existing schema format. Please open a Github discussion to ask a question about your situation if you plan to use this attribute.	N/A	Not populating this field as it is optional

See [CMS GitHub](#) for detailed file schema and examples.

### 3.2.1 Negotiated Rates Details (FFS)

Negotiated Rates			
Data Element	CMS Definition	Default Value	Added Disclosures
<b>Negotiated Type</b>	There are a few ways in which negotiated rates can happen. Allowed values: "negotiated," "derived," and "fee schedule."	"negotiated," "derived," "fee schedule", "percentage", or "per diem" based on the pricing/negotiation method used	See <a href="#">section 3.2.2</a>
<b>Negotiated Rate</b>	The percentage or dollar amount based on the negotiation type	<X.MT>	See <a href="#">Section 3.2.1</a>
<b>Expiration Date</b>	The date in which the agreement for the negotiated price based on the negotiated type ends. Date must be in an ISO 8601 format	<YYYY-MM-DD>	"9999-12-31" is used if there is no end date.  The date used represents the earliest of these four possible dates: rate expiration date, reimbursement schedule date, PIN group expiration date, and the network expiration date
<b>Place of Service Code</b>	The CMS-maintained two-digit code that is placed on a professional claim to indicate the setting in which a service was provided. When attribute of billing class has the value of "professional," service code is required.	<MT>	The CMS place of service codes associated with the negotiated rate site of service  Place of Service Codes will only be populated for "professional" providers

			See <a href="#">table 3.5</a> for the complete list
<b>Billing Class</b>	Allowed values: "professional," "institutional"	"professional" or "institutional"	"Professional" is used when reporting rates for professionals (individual providers, medical groups, etc.) and "institutional" when reporting rates for facilities (hospitals, etc.)  Note: Providers who bill on UB-04s will be populated as "institutional" and providers who bill on CMS/HCFA 1500s will be populated as "professional"
<b>Billing Code Modifier</b>	An array of strings. There are certain billing code types that allow for modifiers (e.g., the CPT coding type allows for modifiers). If a negotiated rate for a billing code type is dependent on a modifier for the reported item or service, then an additional negotiated price object should be included to represent the difference.	N/A	Not reporting on or populating rates based on the billing code modifier

### 3.2.2 Negotiated Arrangement/Type Assignments

Pricing methods must adhere to the terms of provider contracting and plan-adopted medical policy and applicable state laws/regulations. The method could be different across providers and regions.

Arrangement/Type	Definition
<b>Derived amount</b>	Price that a group health plan or health insurance issuer assigns to an item or service for the purpose of internal accounting, reconciliation with providers, or submitting data as a (\$) dollar amount in accordance with the Transparency in Coverage Final Rule requirements.
<b>Underlying Fee Schedule</b>	Rate for a covered item or service from a particular in-network provider or providers that a group health plan or health insurance issuer uses to determine a participant's or beneficiary's cost-sharing liability for the item or service, when that rate is different from the negotiated rate or derived amount.
<b>Negotiated</b>	Reflected as a dollar amount, for each covered item or service under the plan or coverage that the plan or issuer has contractually agreed to

	pay an in-network provider, except for prescription drugs that are subject to a fee-for-service reimbursement arrangement, which must be reported in the prescription drug machine readable file. If the negotiated rate is subject to change based upon participant, beneficiary, or enrollee-specific characteristics, these dollar amounts should be reflected as the base negotiated rate applicable to the item or service prior to adjustments for participant, beneficiary, or enrollee-specific characteristics.
<b>Percentage</b>	The negotiated percentage value for a covered item or service from a particular in-network provider for a percentage of billed charges arrangement.
<b>Per Diem</b>	A daily rate, reflected as a dollar amount, for each covered item or service under the plan or coverage that the plan or issuer has contractually agrees to pay an in-network provider.

### 3.2.3 Standard Pricing Methods Table

<b>Standard Pricing Methods</b>	<b>Pricing Approach</b>	<b>Negotiated Arrangement: FFS, bundle, or capitation</b>	<b>Negotiated Type: “negotiated” “derived” “fee schedule”, “percentage” and “per diem”</b>
<b>DRG Weight Based</b>	(For TX: Inlier DRG TX) (for IL: DRG weight-based rate) payment for each DRG Code	Fee for service (FFS)	negotiated
<b>APG/ Procedure Code Grouping</b>	(for OK: Multiple APG's could be on a claim and are treated as a single line claim)	FFS	negotiated
<b>Percentage of Charge</b>	Reporting a percentage of bill of charge rate	FFS	percentage
<b>Per Unit</b>	Calculated as 1 unit (1 day) (facility)	FFS	negotiated
<b>Percentage of Medicare</b>	Calculate based on a predetermined factor of locality based on Medicare (OON TX only)	FFS	negotiated
<b>Per Case</b>	Use applicable per	FFS	negotiated

	case rate (facility)		
<b>Per Diem</b>	One day rate per code set that triggers the per diem (does not include stop loss) (facility)	FFS	per diem
<b>Per Unit</b>	Professional can be system calculated or use EDW actual allowed amount	FFS	negotiated
<b>DME</b>	Use rental rate, if there is no rental rate use global/purchase rate (professional)	FFS	negotiated
<b>Anesthesia</b>	Assume 1 time unit and no physical status modifiers (professional)	FFS	negotiated
<b>Capitation (VBC)</b>	<a href="#">See table 3.2.5</a>	capitation	negotiated (TX/IL only)
<b>Individual consideration</b>	Calculate based on claims data (See <a href="#">Section 3.2.4</a> )	FFS	derived
<b>Manual Pay</b>	Calculate based on claims data (See <a href="#">Section 3.2.4</a> )	FFS	derived

**3.2.4 Individual Consideration and Manual Pay**

For providers with a percent of charge rate for an item/service, the appropriate negotiated rate is calculated using claims data by:

- Deriving negotiated rate based solely on claims experience
- Retrieving all claim history for each service by using a lookback period of 6 months (180 days) with a 3-month (90 day) runout of incurred claims
- Removing outliers by using a standard deviation calculation
- Excluding items and services that do not have at least 6 claims headers per network, billing code, provider, and site of service
- Reporting the average rate based on claim history

Note: Rates for items/services may not be published if they are not billed during the lookback period or meet a 6-claim minimum to be reported.

**3.2.5 Covered Services Details for Capitation**

Capitation agreements are only in place in IL and TX. Files produced for MT, NM and OK will not be using the covered services object.

Benefit plans that have providers in-network with capitation agreements will have at least two in-network machine readable files – one machine readable file with FFS rates reported (see [section 3.2.1](#)) and one

or more machine readable file with capitation rates reported.

Capitated items/services are all covered under a single negotiated rate. The JSON schema only allows for the reporting of a single rate in the negotiated rate object and requires the reporting of all capitated billing codes in the covered services object, therefore, BCBSMT populates the other required fields in the JSON schema for capitation. Outlined below is how BCBSMT is populating the fields for in-network machine readable files with capitation rates.

If applicable, negotiated capitation may vary greatly based upon the methodology and the services subject to the agreement. The base rate excludes financial incentives and other arrangements that are done through reconciliation process. Agreements where some or all of these reconciliations do not occur may look inconsistent with others that use a similar approach. Additionally, some value-based models will include substantially more or less services under the capitation rate than other arrangements also leading to variability.

Data Element	CMS Definition	Default Value	Added Disclosures
<b>Negotiation Arrangement</b>	An indication as to whether a reimbursement arrangement other than a standard fee-for-service model applies. Allowed values: "ffs," "bundle" or "capitation"	"capitation"	Only applies to in-network machine readable files with capitation rates reported
<b>Name</b>	This is name of the item/service that is offered	"capitated"	Indicates the billing codes are capitated and reported in the covered services object
<b>Billing Code Type</b>	Common bill code types	"LOCAL"	Allows for unique billing code creation – defined on GitHub as "Local Code Processing"
<b>Billing Code Type Version</b>	There might be versions associated with the billing code type	Populate with the current year	N/A
<b>Billing Code</b>	Code used by a Plan, Issuer, or health care provider to identify health care items or services for purposes of billing, adjudicating, and paying claims for a covered item or service	"CAP"	Indicates billing code is capitation
<b>Description</b>	Brief description of the item/service	See covered services object for capitated billing codes.	Directs the user to view the actual billing codes in the covered services object. <a href="#">See 3.2.5.2</a>

<b>Negotiated Rates</b>	This is an array of <a href="#">negotiated rate details object types</a>	N/A	BCBSMT reports the capitation rate in this object. <a href="#">See 3.2.5.1</a>
<b>Covered Services</b>	This is an array of <a href="#">covered services objects</a> . This array contains all the different codes in a capitation arrangement if capitation is selected for negotiation arrangement.	N/A	BCBSMT reports the billing codes covered under the division of financial responsibility (DOFR) in this object. <a href="#">See 3.2.5.2</a>

### 3.2.5.1 Negotiated Rates Object for Capitated Rates

Data Element	CMS Definition	Default Value	Added Disclosures
<b>Negotiated Type</b>	There are a few ways in which negotiated rates can happen. Allowed values: "negotiated," "derived," and "fee schedule." See additional notes.	"negotiated"	See <a href="#">section 3.2.2</a>
<b>Negotiated Rate</b>	The dollar amount based on the negotiation type.	<i>The base capitation rate</i> Example: <MT.MT>	The file allows the population of one rate. Capitation rates vary based on age and gender bands. BCBSMT will use a base rate.
<b>Expiration Date</b>	The date in which the agreement for the negotiated price based on the negotiated type ends. Date must be in an ISO 8601 format.	<YYYY-MM-DD>	N/A
<b>Place of Service Code</b>	The <a href="#">CMS-maintained two-digit code</a> that is placed on a professional claim to indicate the setting in which a service was provided. When attribute of <code>billing class</code> has the value of "professional" service code is required.	"11"	11 corresponds with where most capitation services occur; there will not be capitated rates that vary by place of service  See <a href="#">table 3.5</a> for the complete list
<b>Billing Class</b>	Allowed values: "professional," "institutional"	"professional"	Capitation agreements are with medical groups versus institutional facilities
<b>Billing Code Modifier</b>	An array of strings. There are certain billing code types that allow for	N/A	Not reporting on or populating rates based on the billing code

	modifiers (e.g., the CPT coding type allows for modifiers). If a negotiated rate for a billing code type is dependent on a modifier for the reported item or service, then an additional negotiated price object should be included to represent the difference.		modifier
--	--	--	----------

### 3.2.5.2 Covered Services Object for Capitated Rates

All data elements below are populated for billing codes covered under the capitation agreement's Division of Financial Responsibility (DOFR).

Data Element	CMS Definition	Default Value	Added Disclosures
<b>Billing Code Type</b>	Common billing code types. Please see a list of the <a href="#">currently allowed codes</a> at the bottom of this document.	<i>The billing code type reporting value for CPT, HCPC, DRG, or Revenue Codes.</i>	See <a href="#">section 3.4</a>
<b>Billing Code Type Version</b>	There might be versions associated with the <code>billing-code-type</code> .	<i>The billing code type version.</i>	N/A
<b>Billing Code</b>	The code used by a plan or issuer or its in-network providers to identify health care items or services for purposes of billing, adjudicating, and paying claims for a covered item or service.	<i>The corresponding billing code</i>	In-network machine-readable file will only include CPT, HCPC, DRG, or Revenue Code billing codes.
<b>Description</b>	Brief description of the item/service	<i>The billing code standard short or long form description</i>	This will be the short form description, if there is no short form description we will use the long form description in its place.

## 3.3 Out-of-Network Allowed Amount File

While the In-Network MRF comprises of amounts payable for items and services based on contractual payment arrangements with providers, the Out-of-Network (OON) Allowed Amount File is based on “the actual amount the Plan or Issuer paid to the out-of-network provider, plus the member share.” The Out-of-Network Allowed Amount File must also include both billed charges and out-of-network allowed amounts. Billed charges are the total charges for an item or service billed to a Plan or Issuer by a provider.

The OON file will follow the following naming convention:

<YYYY-MM-DD>\_<payer or issuer name>\_<Member-Facing Network>\_<EIN>\_<file type name>.<file extension>

Note: the OON MRF will not be reflective of the EIN's or Accounts historical rates only, it's representative of a sample of claims history per plan. The final OON MRF combines rates for plans in the same network with the same EIN into a single file.

### 3.3.1 Out-Of-Network Allowed Amount File Data Elements

At a high level, the Out-of-Network Allowed Amount File includes:

Data Element	CMS Definition	Default Value	Added Disclaimers
<b>Entity Name</b>	The legal name of the entity publishing the machine readable file.	"Blue Cross and Blue Shield of <State>"	N/A
<b>Entity Type</b>	The type of entity that is publishing the machine readable file (a group health plan, health insurance issuer, or a third party with which the plan or issuer has contracted to provide the required information, such as a third-party administrator, a health care claims clearinghouse, or a health insurance issuer that has contracted with a group health plan sponsor).	"health insurance issuer"	In-network machine readable file is available to both ASO and non-ASO plans, therefore, BCBSMT is populating as "health insurance issuer"
<b>Last Updated On</b>	The date in which the file was last updated. Date must be in an ISO 8601 format	<YYYY-MM-DD>	Represents the day of the file generation
<b>Version</b>	The version of the schema for the produced information	"2.0"	This could change as new CMS schema updates are released
<b>Billing code</b>	Code used by a Plan, Issuer, or health care provider to identify health care items or services for purposes of billing, adjudicating, and paying claims for a covered item or service	<i>The corresponding billing code</i>	Out-of-network machine-readable file will only include CPT, DRG, or Revenue Code billing codes.
<b>Billing code name</b>	This is name of the item/service that is offered	<i>The billing code standard short form description</i>	This will be the short form description, if there is no short form description BCBSMT will use the long form description in its place.
<b>Billing Code Description</b>	Brief description of the item/service	<i>The billing code standard long form description</i>	This will be the long form description, if there is no long form description,

			BCBSMT will use the short form description in its place.
<b>Billing Code Type</b>	Common billing code types	<i>The billing code type reporting value for CPT, DRG, or Revenue Codes.</i>	See <a href="#">section 3.4</a>
<b>Billing Code Type Version</b>	There might be versions associated with the billing code type. For example, Medicare's current (as of 5/24/21) MS-DRG version is 37.2	<i>The billing code type version.</i>	N/A
<b>Allowed Amount</b>	The allowed amount must be reported as the actual dollar amount the plan or issuer paid to the out-of-network provider for a particular covered item or service, plus the participant's, beneficiary's, or enrollee's share of the cost	<X.MT>	Reported if it has 20 or more claims in the defined lookback period. This is the BCBS paid amount.
<b>Billed Charge</b>	The total dollar amount charges for an item or service billed to a plan or issuer by an out-of-network provider	<X.MT>	Reported if it has 20 or more claims in the defined lookback period
<b>TIN Type</b>	Contains tax information on the place of business	"EIN"	"NPI" is used if a provider uses their Social Security Number as their TIN
<b>TIN Value</b>	Either the unique Tax Identification Number issued by the Internal Revenue Service (IRS) for type "EIN" or the provider's NPI for TIN type "NPI"	<Tax ID Number> Example: MTMTMTMTX	NPI is used again if a provider uses their social security number as their TIN.
<b>Place of Service Code</b>	CMS-maintained two-digit codes available <a href="#">on CMS' website</a>	Possible Values: 00, 01, 03, 02, 08, 09, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 31, 32, 33, 41, 42, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 65, 71, 72, 81, 95, 99	The CMS place-of-service codes associated with the negotiated rate site of service  Place of Service Codes will only be populated for "professional" providers
<b>Billing Class</b>	Allowed values: "professional" "institutional"	"professional" or "institutional"	"Professional" is used when reporting rates for professionals (individual providers, medical groups, etc.) and "institutional" when reporting rates for facilities (hospitals, etc.)  Note: Providers who bill

			on UB-04s will be populated as “institutional” and providers who bill on CMS/HCFA 1500s will be populated as “professional”
<b>Billing Code Modifier</b>	An array of strings. There are certain billing code types that allow for modifiers (e.g., the CPT coding type allows for modifiers). If a negotiated rate for a billing code type is dependent on a modifier for the reported item or service, then an additional negotiated price object should be included to represent the difference.	N/A	Not reporting on or populating rates based on the billing code modifier
<b>NPI</b>	An array of individual (type 1 & 2) provider identification numbers (NPI)	<i>The providers National Provider Identifier (NPI) associated with the Tax Identification Number (TIN) and negotiated rate</i>	If a provider does not have an NPI, BCBSMT uses “0”

**3.3.2 Patient Privacy Requirement for Out of Network**

To ensure patient privacy, Payers or Issuers are required to only publish unique bill charge and allowed amount combinations for providers with **20** or more occurrences per coverage agreement (plan), billing code, TIN, NPI, and place of service.

**Note: If the twenty (20) occurrence minimum is not met, the unique bill and charge allowed amount combinations will not be included in the machine readable file.** A reported allowed amount may not reflect the price history for all coverage options reported in the table of contents due aggregation of rates following the minimum claims calculations.

Since volume will vary in each lookback period associated with the month of file publication, it is possible for a unique bill charge and allowed amount combination to appear and disappear in the Out-of-Network file from month-to-month.

If for a given plan there are no out-of-network values for a given month, the file header will be published with the current date and no data included.

### 3.4 Billing Code Types

Negotiated rates for items and services can come from a variety of billing code standards. Below is a list of the billing code types BCBSMT reports in the in-network and out-of-network machine-readable files. For a complete list of all allowable billing code type values visit the [CMS GitHub site](#).

Standard Name	Reporting Value	Additional Information
Current Procedural Terminology	CPT	<a href="#">American Medical Association</a>
Healthcare Common Procedural Coding System	HCPCS	<a href="#">CMS HCPCS</a>
Revenue Code	RC	<a href="#">What is a revenue code</a>
Medicare Severity Diagnosis Related Groups	MS-DRG	<a href="#">CMS DRGs</a>
Refined Diagnosis Related Groups	R-DRG	
Severity Diagnosis Related Groups	S-DRG	
All Patient, Severity-Adjusted Diagnosis Related Groups	APS-DRG	
All Patient Diagnosis Related Groups	AP-DRG	
All Patient Refined Diagnosis Related Groups	APR-DRG	<a href="#">AHRQ documentation</a>
Local Code Processing	Local	
Custom Code	CSTM-00	Represents all possible billing code values for the defined billing code type. Typically this can be used when a negotiated arrangement applies to all codes under a billing code type.

### 3.5 Place of Service Codes

The following codes are the descriptions associated with the CMS PoS codes.

PoS	Description
1	Pharmacy
2	Telehealth Provided Other than in Patient's Home
3	School
4	Homeless Shelter
5	Indian Health Service Free-standing Facility
6	Indian Health Service Provider-based facility
7	Tribal 638 Free-Standing Facility
8	Tribal 638 Provider-based Facility

9	Prison/Correctional Facility
10	Telehealth Provided in Patient's Home
11	Office
12	Home
13	Assisted Living Facility
14	Group Home *
15	Mobile Unit
16	Temporary Lodging
17	Walk-in Retail Health Clinic
18	Place of Employment-worksite
19	Off Campus-Outpatient Hospital
20	Urgent Care Facility
21	Inpatient Hospital
22	On Campus-Outpatient Hospital
23	Emergency Room – Hospital
24	Ambulatory Surgical Center
25	Birth Center
31	Skilled Nursing Facility
32	Nursing Facility
33	Custodial Care Facility
34	Hospice
41	Ambulance - Land
42	Ambulance – Air or Water
49	Independent Clinic
50	Federally Qualified Health Center
51	Inpatient Psychiatric Facility
52	Psychiatric Facility-Partial Hospitalization
53	Community Mental Health Center
54	Intermediate Care Facility/ Individuals with Intellectual Disabilities
55	Residential Substance Abuse Treatment Facility
56	Psychiatric Residential Treatment Center
57	Non-residential Substance Abuse Treatment Facility
58	Non-residential Opioid Treatment Facility
59	Unassigned
60	Mass Immunization Center

61	Comprehensive Inpatient Rehabilitation Facility
62	Comprehensive Outpatient Rehabilitation Facility
65	End-Stage Renal Disease Treatment Facility
66	Unassigned
71	Public Health Clinic
72	Rural Health Clinic
81	Independent Laboratory
99	Other Place of Service

## 4 Data Retention

Only the most recent version of the rate files will be maintained in an online version. Accounts wishing to access historic records for internal analytics or inquiries are encouraged to download and store the available data each month.

MRF data is stored for seven years offline. Inquiries for historic data, required for an investigation or audit may be obtained upon request and validation. For questions, refer to section [1.3 Contact Information](#).

## 5 Definitions

Term	Definition
<b>Billed charge</b>	Total charges for an item or service billed to a group health plan or health insurance issuer by a provider.
<b>Billing code</b>	Code used by a group health plan or health insurance issuer or provider to identify health care items or services for purposes of billing, adjudicating, and paying claims for a covered item or service, including the Current Procedural Terminology (CPT) code, Healthcare Common Procedure Coding System (HCPCS) code, Diagnosis-Related Group (DRG) code, National Drug Code (NDC), or another common payer identifier.
<b>Centers for Medicare and Medicaid Services (CMS)</b>	Federal agency within the United States Department of Health and Human Services (HHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program (CHIP), and health insurance portability standards.
<b>Covered items or services</b>	Items or services, the costs for which are payable, in whole or in part, under the terms of a group health plan or health insurance coverage.
<b>Derived amount</b>	The price that a group health plan or health insurance issuer assigns to an item or service for the purpose of internal accounting, reconciliation with providers, or submitting data.

<b>Diagnosis Related Group (DRG)</b>	A patient classification scheme which provides a means of relating the type of patients a hospital treats (i.e., its case mix) to the costs incurred by the hospital.
<b>Employer Identification Number (EIN)</b>	The Employer Identification Number is a unique nine-digit number assigned by the Internal Revenue Service to business entities operating in the United States for the purposes of identification.
<b>Health Insurance and Oversight System (HIOS) ID</b>	Health Insurance Oversight System (HIOS) number that uniquely identifies each new qualified health plan (QHP) approved by CMS.
<b>In-network provider</b>	Provider of any item or service with which a group health plan or health insurance issuer, or a third party for the plan or issuer, has a contract setting forth the terms and conditions on which a relevant item or service is provided to a participant or beneficiary
<b>Items or services</b>	All encounters, procedures, medical tests, supplies, prescription drugs, durable medical equipment, and fees (including facility fees), provided or assessed in connection with the provision of health care
<b>Machine readable file</b>	Digital representation of data in a file that can be imported or read by a computer system for further processing without human intervention, while ensuring no semantic meaning is lost.
<b>National Provider Identifier (NPI)</b>	The National Provider Identifier (NPI) is a Health Insurance Portability and Accountability Act (HIPAA) Administrative Simplification Standard. The NPI is a unique identification number for covered health care providers. Covered health care providers and all health plans and health care clearinghouses must use the NPIs in the administrative and financial transactions adopted under HIPAA. The NPI is a 10-position, intelligence-free numeric identifier (10-digit number). This means that the numbers do not carry other information about healthcare providers, such as the state in which they live or their medical specialty. The NPI must be used in lieu of legacy provider identifiers in the HIPAA standards transactions.
<b>Negotiated rate</b>	Amount a group health plan or health insurance issuer has contractually agreed to pay an in-network provider, including an in-network pharmacy or other prescription drug dispenser, for covered items and services, whether directly or indirectly, including through a third-party administrator or pharmacy benefit manager.
<b>Out-of-network allowed amount</b>	Maximum amount a group health plan or health insurance issuer will pay for a covered item or service furnished by an out-of-network provider.
<b>Out-of-network provider</b>	Provider of any item or service that does not have a contract under a participant's or beneficiary's group health plan or health insurance coverage to provide items or services.
<b>Place of service codes</b>	CMS-maintained two-digit codes that are placed on professional claims, including Medicare, Medicaid, and private insurance, to indicate the setting in which a service was provided. Place of Service Codes. Centers for Medicare & Medicaid Services.

	Available at: <a href="https://www.cms.gov/Medicare/Coding/place-of-service-codes">https://www.cms.gov/Medicare/Coding/place-of-service-codes</a> .
<b>Tax Identification Number (TIN)</b>	A Taxpayer Identification Number (TIN) is an identification number used by the Internal Revenue Service (IRS) in the administration of tax laws. It is issued either by the Social Security Administration (SSA) or by the IRS.

## 6 Appendix

### 6.1 Checking your downloaded machine-readable file for integrity

The comparison of hash codes is an industry standard to confirm the integrity of a downloaded file. If the hash code that is created from the source file is compared exactly to the hash code created from the downloaded file, this confirms that the file downloaded is the exact match to the file located in the source, and that the file was not compromised nor corrupted during the download process.

The hash code for the source file that resides in the BCBS database will always be the same name of the file plus the extension of 'txt' at the end of the file.

For example, for a compressed file, in the table of contents we may have:

```
},
  "allowed_amount_file": {
    {
      "description": "PPO Participating Provider Options allowed amount file",
      "location": "
https://app0004702110a5prdnrc868.blob.core.windows.net/output/2022-08-20\_Blue-Cross-and-Blue-Shield-of-Illinois\_PPO-Participating-Provider-Options\_361236610\_allowed-amounts.json.gz"
    }
  }
}
```

Which will then have an associated .txt file available that will contain the 128-character hash code of this file:

```
2022-08-20_Blue-Cross-and-Blue-Shield-of-Illinois_PPO-Participating-Provider-Options_361236610_allowed-amounts.json.gz.txt
1 0BD88F79F3BB70292BB8750464255FDB8C7BFB19C993BF841BFB08DB54925EA31BDF04FEF12E53037D01019B722705010C42D590B9EA919B206688726737C13A
2
```

To view this .txt file, copy the .gz file from the table of contents and paste this into a browser. Add the '.txt' suffix to the end of the name in the browser and press enter. The .txt will then be downloaded onto the user machine. Users may then go to their downloads to open this file and view the hash code.

To create the hash code of the downloaded file for comparison to the BCBS hash code, the following may be performed, per operating system. We are leveraging SHA-512 method of hashing.

*Insert downloaded file name for 'pathToFile':*

Perform "Command Prompt" in **Windows**:

**certUtil -hashfile pathToFile sha512**

Perform "Command Prompt" with **Mac**:

**shasum -a 512 pathToFile**

Perform "Command Prompt" in **Unix** (CentOS):

**sha512sum pathToFile**

The hash value resulting from the above commands may then be compared to the hash value within the .txt extension of the file to confirm an exact match. This method may be used to verify both the compressed and uncompressed machine-readable files.