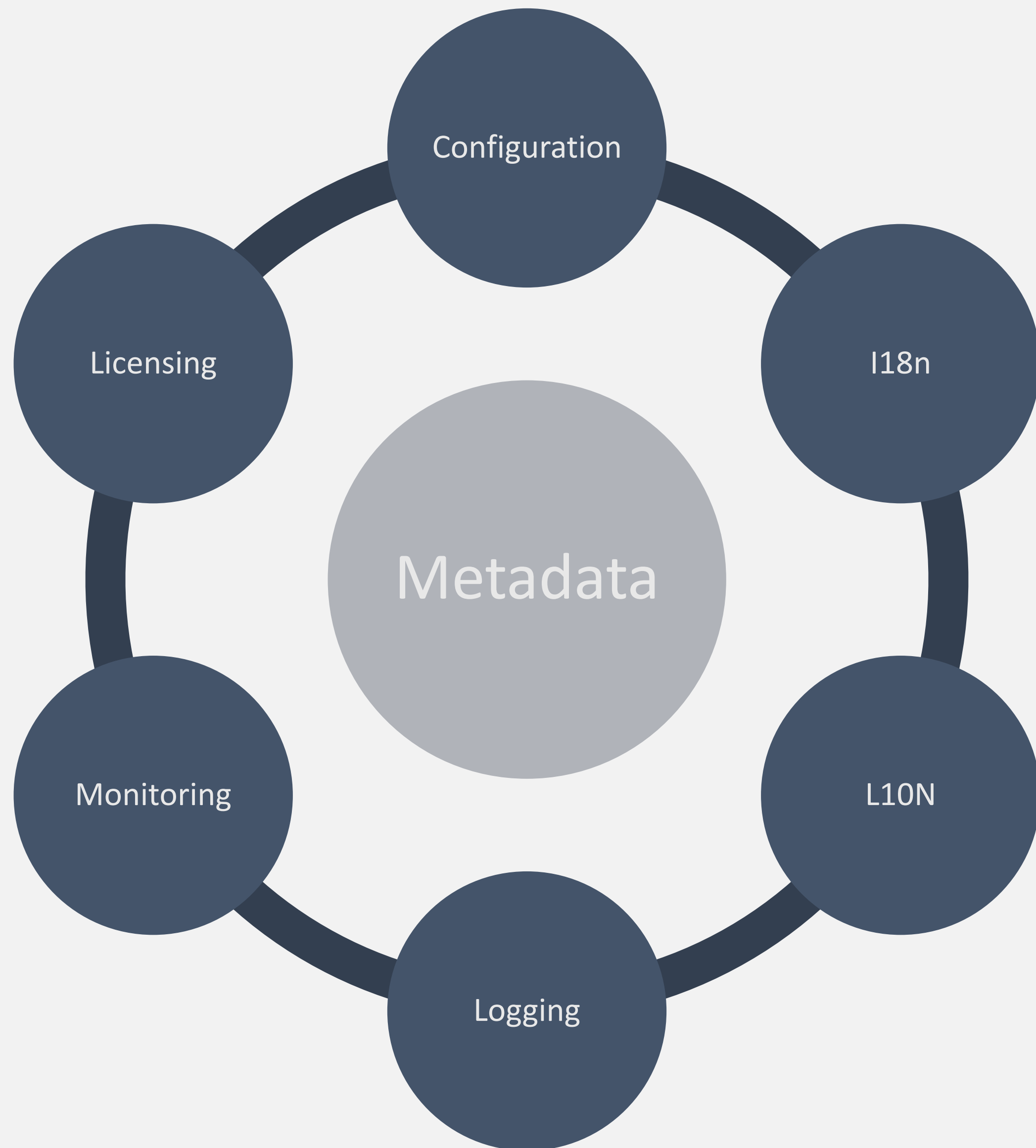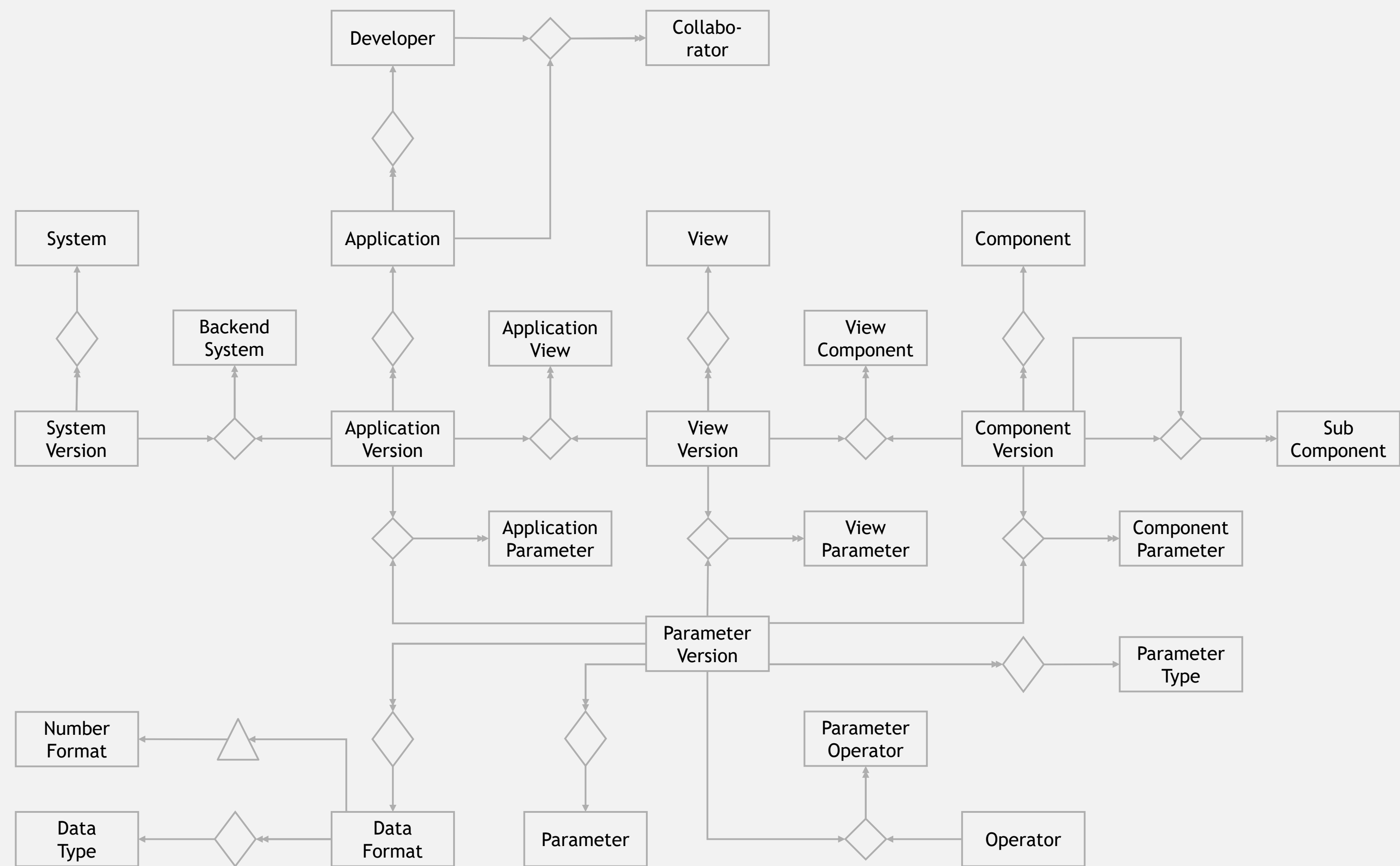# Appman

One app to rule them all

Metadata

Developer

developerID	firstName*	familyName*	userName*	birthday*	email*	password*	phoneNumber	mobileNumber*	createdOn*
1	Dardan	Rrafshi	DonColon	1997-01-30	dardan.rrafshi@gmail.com	$2y$11$SXAXZyioy60h...	+497376982196	+4915738961424	2020-10-26 15:30:36
2	Hasan	Karadeniz	HKK_57	1996-07-14	hsnkrdnz57@gmail.com	$2y$11$SXAXZyioy60h...	+497376982196	+4915162472345	2020-10-26 15:30:45
3	Maik	Dürr	Miauzz	1994-03-08	maik.duerr@gmail.com	$2y$11$SXAXZyioy60h...	+497376982196	+491749530908	2020-10-26 15:30:50
4	Angelina	Wöll	Woellang	1994-05-05	woellang@gmail.com	$2y$11$SXAXZyioy60h...	+497376982196	+491629240356	2020-10-26 15:30:55

Application

appID	name*	description*	homepageUrl	repositoryUrl	gitUrl	issueUrl	author*	license*	modifiedBy*	modifiedOn*
1	Yummy Yogurt	Create your very...	https://yummy-yo...	null	null	null	1	apache-2.0	1	2020-10-26 15:30:36
2	Vinyl	My own music...	https://vinyl.com	null	null	null	1	apache-2.0	1	2020-10-26 15:30:45
3	Sitt	Stay hydrated...	https://sitt.com	null	null	null	1	apache-2.0	2	2020-10-26 15:30:50
4	Machine Care	Care for it...	https://machine...	null	null	null	1	apache-2.0	3	2020-10-26 15:30:55

ApplicationVersion

app	version	addedBy*	addedOn*
1	1.0.0	1	2020-10-26 15:30:36
1	1.1.0	1	2020-10-26 15:30:36
1	1.1.5	1	2020-10-26 15:30:36
2	1.0.0	1	2020-10-26 15:30:36

System

systemID	name*	description*	docUrl	modifiedBy*	modifiedOn*
1	MySQL	An open-source relation...	null	1	2020-10-26 15:30:36
2	MongoDB	A document-based data...	null	1	2020-10-26 15:30:45
3	Apache Tomcat	An open-source web...	null	2	2020-10-26 15:30:50
4	Wildfly	An JEE application server	null	3	2020-10-26 15:30:55

SystemVersion

system	version	addedBy*	addedOn*
1	1.0.0	1	2020-10-26 15:30:36
1	1.1.0	1	2020-10-26 15:30:36
1	1.1.5	1	2020-10-26 15:30:36
2	1.0.0	1	2020-10-26 15:30:36

BackendSystem

app	appVersion	system	systemVersion	addedBy*	addedOn*
1	1.0.0	1	1.0.0	1	2020-10-26 15:30:36
1	1.0.0	3	1.0.0	1	2020-10-26 15:30:36
2	1.0.0	1	1.0.0	1	2020-10-26 15:30:36
2	1.0.0	3	1.0.0	1	2020-10-26 15:30:36

Collaborator

developer	app
2	1
2	2
2	3
3	1

Metadata

View

viewID	name*	description*	route*	modifiedBy*	modifiedOn*
1	Log In Form	A login view	/login	1	2020-10-26 15:30:36
2	Playlist	Displays the information of a playlist	/playlist/{playlistID}	1	2020-10-26 15:30:45
3	Sign Up Form	A sign up view	/signup	1	2020-10-26 15:30:50
4	Mixer	A view to configure a frozen yogurt	/mixer	2	2020-10-26 15:30:55

ViewVersion

view	version	addedBy*	addedOn*
1	1.0.0	1	2020-10-26 15:30:36
1	1.1.0	1	2020-10-26 15:30:36
2	1.0.0	1	2020-10-26 15:30:36
3	1.0.0	1	2020-10-26 15:30:36

Component

componentID	name*	description*	modifiedBy*	modifiedOn*
1	Track List	Display information about tracks	1	2020-10-26 15:30:36
2	Player Control	A component to control a music player	1	2020-10-26 15:30:45
3	Volume Bar	A component to set the volume	1	2020-10-26 15:30:50
4	Ingredient Selector	A component to select an ingredient	1	2020-10-26 15:30:55

ComponentVersion

component	version	addedBy*	addedOn*
1	1.0.0	1	2020-10-26 15:30:36
2	1.0.0	1	2020-10-26 15:30:36
3	1.0.0	1	2020-10-26 15:30:36
4	1.0.0	1	2020-10-26 15:30:36

ApplicationView

app	appVersion	view	viewVersion	addedBy*	addedOn*
1	1.0.0	1	1.0.0	1	2020-10-26 15:30:36
2	1.1.0	1	1.1.0	1	2020-10-26 15:30:36

ViewComponent

view	viewVersion	component	componentVersion	addedBy*	addedOn*
2	1.0.0	1	1.0.0	1	2020-10-26 15:30:36
2	1.1.0	2	1.0.0	1	2020-10-26 15:30:36

SubComponent

component	componentVersion	subComponent	subComponentVersion	addedBy*	addedOn*
2	1.0.0	3	1.0.0	1	2020-10-26 15:30:36
2	1.1.0	3	1.1.0	1	2020-10-26 15:30:36

Metadata

Parameter

parameterID	name*	description*	modifiedBy*	modifiedOn*
1	Database url	The host url of the database	1	2020-10-26 15:30:36
2	User name	The user name of a system	1	2020-10-26 15:30:36
3	Sort by	Sort a list by a criteria	1	2020-10-26 15:30:36
4	Background color	The background color of an element	1	2020-10-26 15:30:36

ParameterType

typeID	name*	modifiedBy*	modifiedOn*
1	Filter parameter	1	2020-10-26 15:30:36
2	Sort parameter	1	2020-10-26 15:30:36
3	Styling parameter	1	2020-10-26 15:30:36
4	Configuration parameter	1	2020-10-26 15:30:36

ParameterVersion

parameter	version	isArray*	hasValueHelp*	format*	type*	modifiedBy*	modifiedOn*
1	1.0.0	0	0	1	4	1	2020-10-26 15:30:36
1	1.1.0	0	0	5	4	1	2020-10-26 15:30:36
2	1.0.0	0	1	1	2	1	2020-10-26 15:30:36
4	1.0.0	0	1	1	3	1	2020-10-26 15:30:36

DataType

typeID	name*
1	string
2	decimal
3	integer
4	boolean

DataFormat

formatID	name*	format*	type*
1	none	.*	1
2	date		1
3	time		1
4	date-time		1
5	uri		1
6	email		1
7	hostname		1
8	ipv4		1
9	ipv6		1
10	uuid		1
11	float		2

NumberFormat

formatID	min*	max*
13	-128	127
14	0	255
15	-32768	32767
16	0	65535

Operator

operatorID	name*	inputNumber*
EQ	Equals	1
BT	Between	2
NE	Not equals	1
SW	Starts with	1

ParameterOperator

parameter	parameterVersion	operator	addedBy*	addedOn*
1	1.0.0	EQ	1	2020-10-26 15:30:36
2	1.0.0	EQ	1	2020-10-26 15:30:36
2	1.0.0	BT	1	2020-10-26 15:30:36
2	1.0.0	SW	1	2020-10-26 15:30:36

Metadata

ApplicationParameter

app	appVersion	parameter	parameterVersion	required*	modifiedBy*	modifiedOn*
2	1.1.0	1	1.1.0	1	1	2020-10-26 15:30:36
2	1.1.0	2	1.0.0	1	1	2020-10-26 15:30:36
1	1.0.0	1	1.1.0	1	1	2020-10-26 15:30:36
1	1.0.0	2	1.0.0	1	1	2020-10-26 15:30:36

ViewParameter

view	viewVersion	parameter	parameterVersion	required*	modifiedBy*	modifiedOn*
2	1.0.0	4	1.0.0	1	1	2020-10-26 15:30:36
2	1.1.0	4	1.0.0	0	1	2020-10-26 15:30:36
4	1.0.0	4	1.0.0	0	1	2020-10-26 15:30:36
4	1.1.0	4	1.0.0	1	1	2020-10-26 15:30:36

ComponentParameter

component	componentVersion	parameter	parameterVersion	required*	modifiedBy*	modifiedOn*
1	1.0.0	3	1.0.0	1	1	2020-10-26 15:30:36
1	1.0.0	4	1.0.0	0	1	2020-10-26 15:30:36
4	1.0.0	4	1.0.0	0	1	2020-10-26 15:30:36
4	1.1.0	4	1.0.0	1	1	2020-10-26 15:30:36
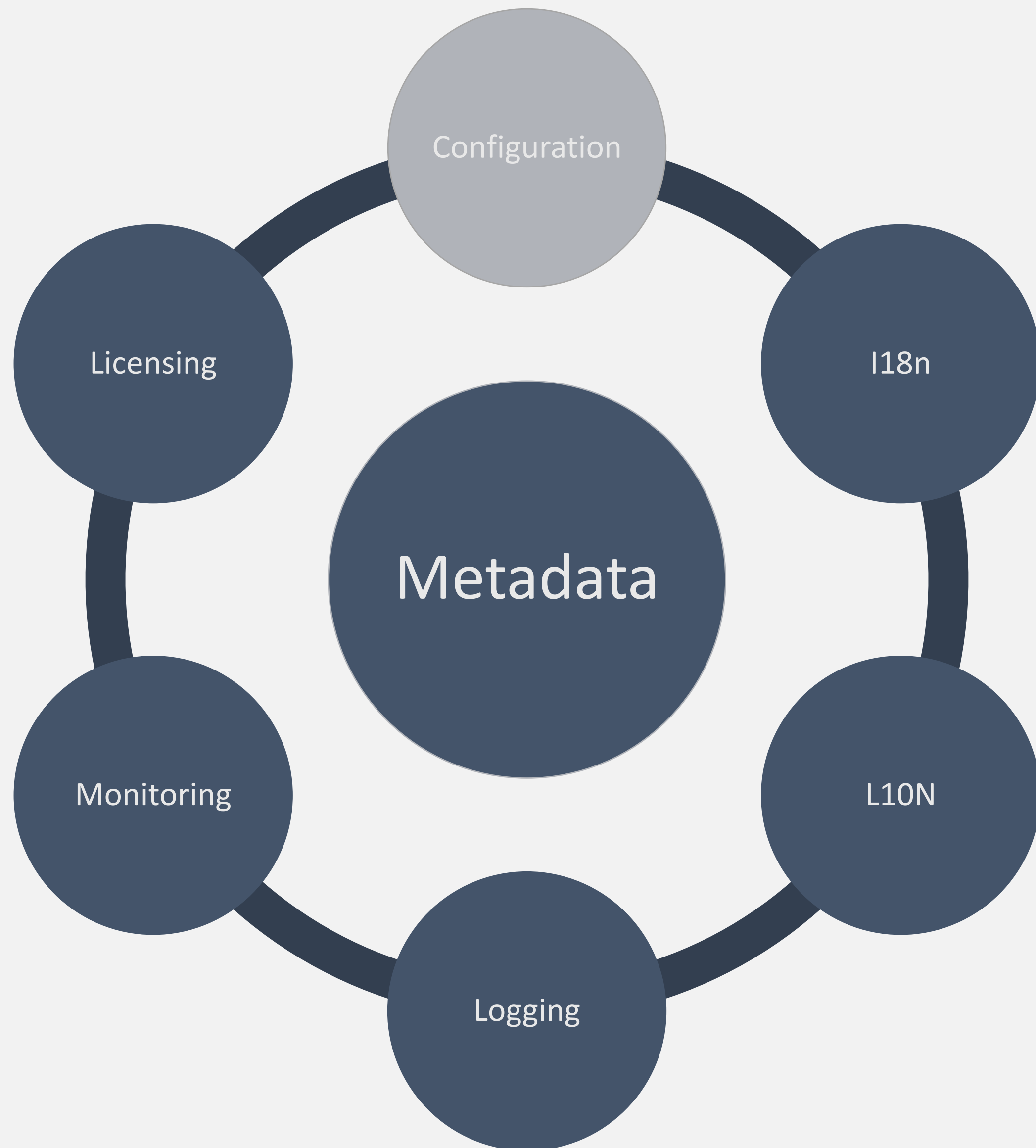
Configuration
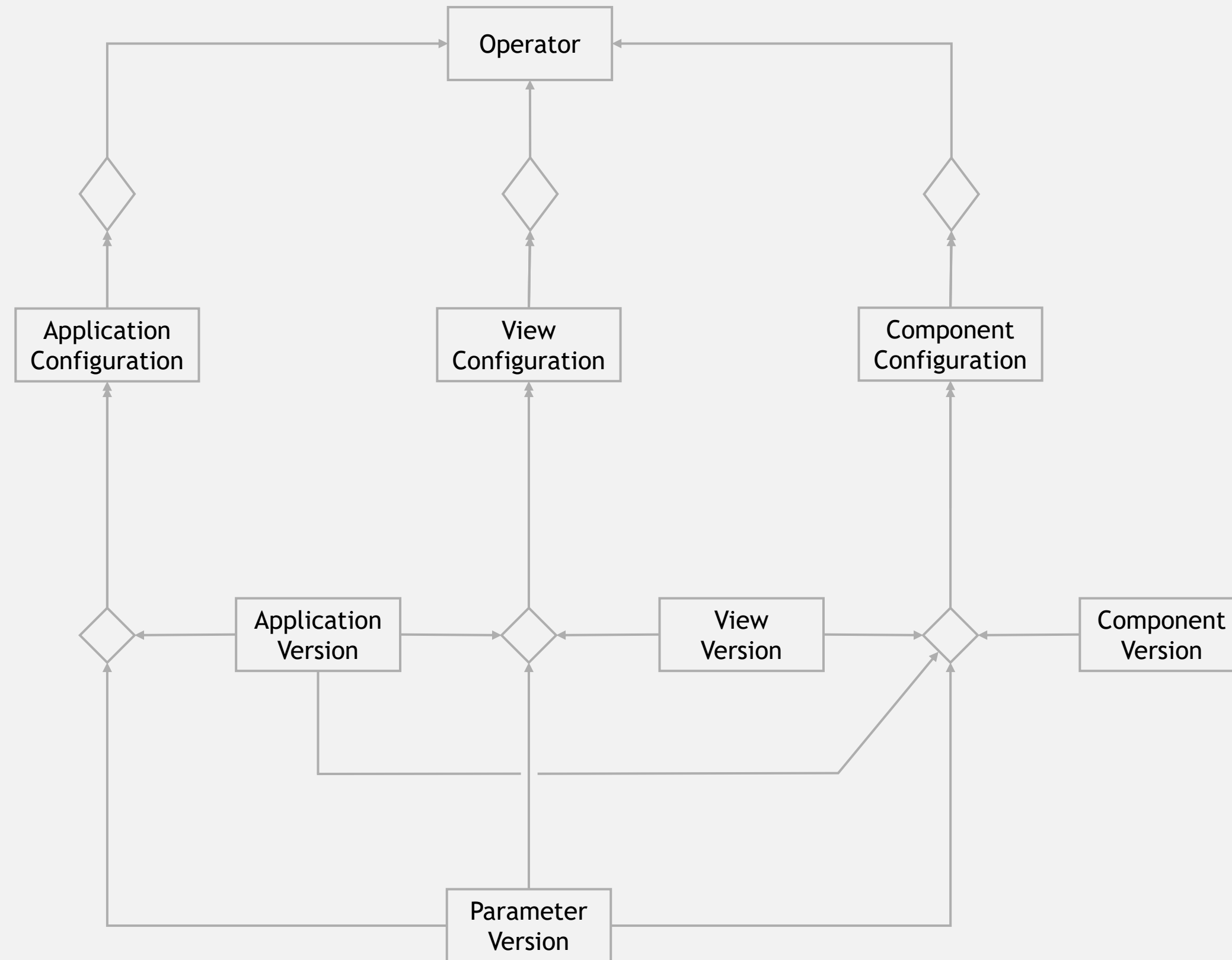
Configuration

ApplicationConfiguration

app	appVersion	parameter	parameterVersion	sequence	operator*	value*	other	modifiedBy*	modifiedOn*
2	1.1.0	1	1.1.0	1	EQ	jdbc:mysql://localhost:3306/vinyl	null	1	2020-10-26 15:30:36
2	1.1.0	2	1.0.0	1	EQ	rrafshda	null	1	2020-10-26 15:30:36
1	1.0.0	1	1.1.0	1	EQ	jdbc:mysql://localhost:3306/vinyl	null	1	2020-10-26 15:30:36
1	1.0.0	2	1.0.0	1	EQ	root	null	1	2020-10-26 15:30:36

ViewConfiguration

| app	appVersion	view	viewVersion	parameter	parameterVersion	sequence	operator*	value*	other	modifiedBy*	modifiedOn*
2	1.0.0	2	1.0.0	4	1.0.0	1	EQ	#44546A	null	1	2020-10-26 15:30:36
2	1.1.0	2	1.1.0	4	1.0.0	1	EQ	#203864	null	1	2020-10-26 15:30:36
1	1.0.0	4	1.0.0	4	1.0.0	1	EQ	#44546A	null	1	2020-10-26 15:30:36
1	1.1.0	4	1.1.0	4	1.0.0	1	EQ	#203864	null	1	2020-10-26 15:30:36

ComponentConfiguration

app	appVersion	view	viewVersion	component	componentVersion	parameter	parameterVersion	sequence	operator*	value*	other	modifiedBy*	modifiedOn*
2	1.0.0	2	1.0.0	1	1.0.0	3	1.0.0	1	EQ	artist	null	1	2020-10-26 15:30:36
2	1.0.0	2	1.0.0	1	1.0.0	4	1.0.0	1	EQ	#44546A	null	1	2020-10-26 15:30:36
1	1.0.0	4	1.0.0	4	1.0.0	4	1.0.0	1	EQ	#203864	null	1	2020-10-26 15:30:36
1	1.0.0	4	1.0.0	4	1.0.0	4	1.0.0	1	EQ	#203864	null	1	2020-10-26 15:30:36

- For the operators „Between" and „Not between" the value column must be less equal than the other column.
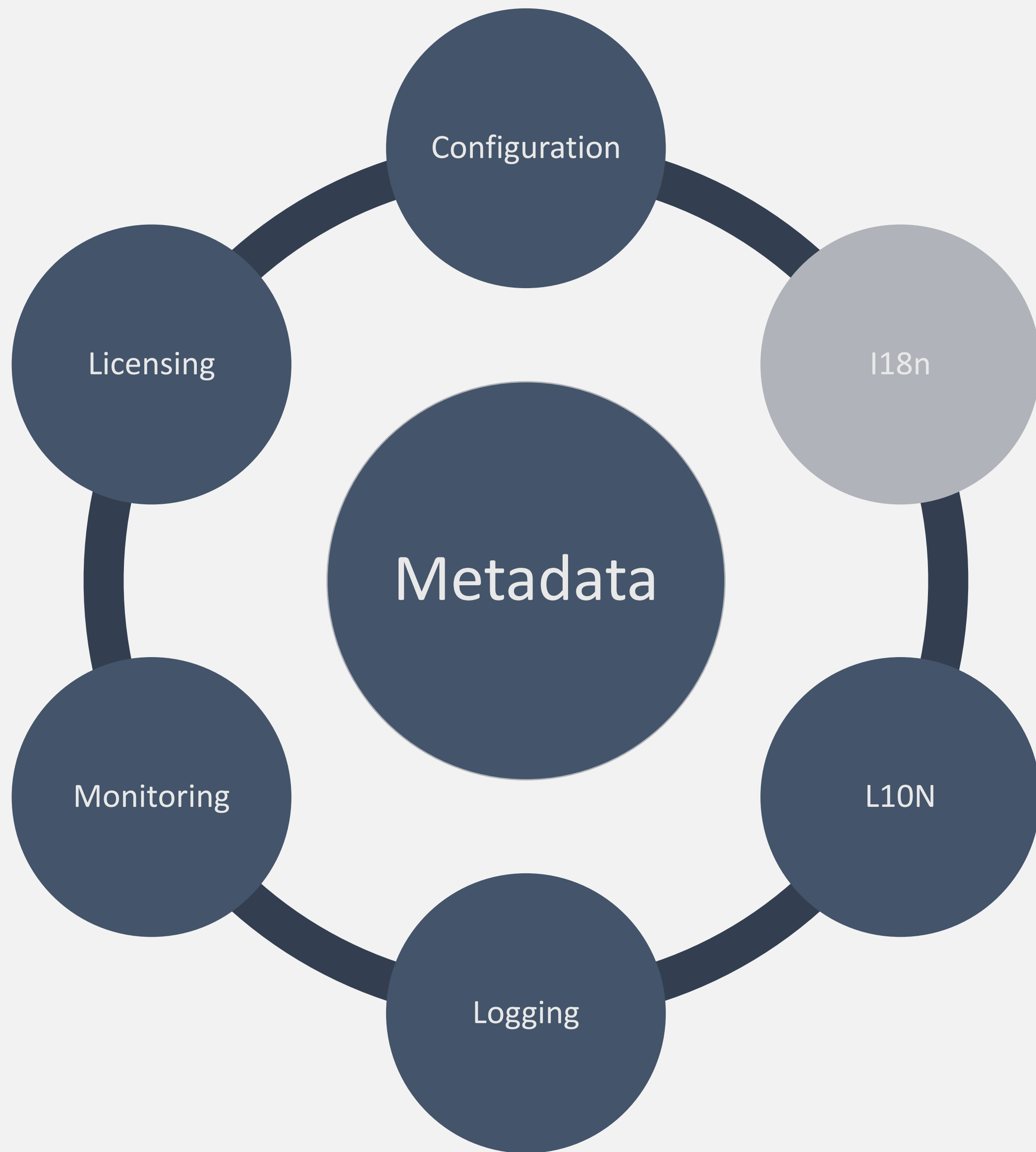
Internationalization
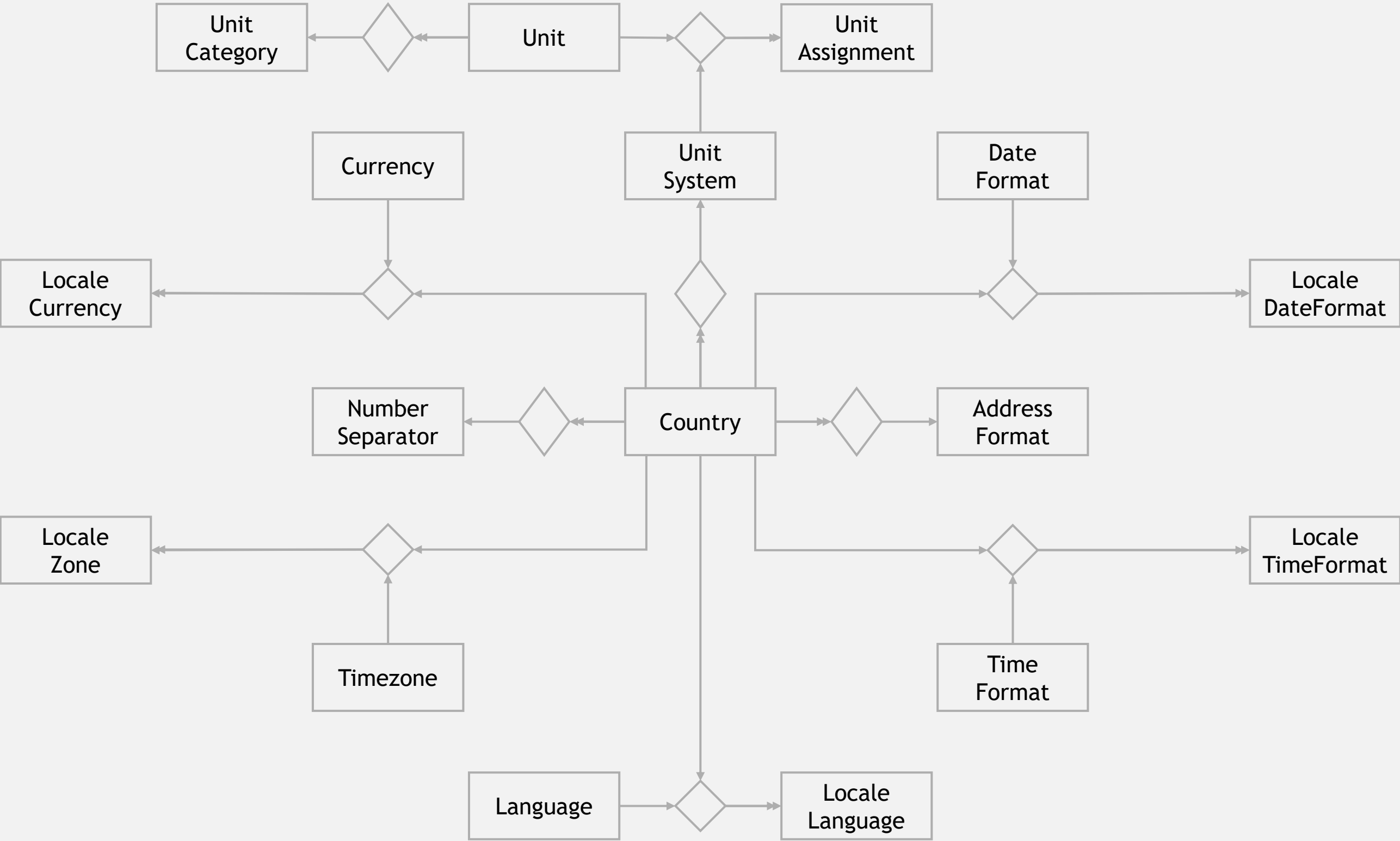
Internationalization

Country

code	key*	name*	dialingCode*	addressFormat*	numberSeparator*	unitSystem*
DE	DEU	Germany	+49	1	1	1
US	USA	United States	+1	2	2	2
GB	GBR	United Kingdom	+44	3	2	2
CH	CHE	Switzerland	+41	4	3	1

UnitSystem

systemID	name*
1	metric
2	imperial
3	customary

UnitAssignment

system	unit
1	1
1	2
1	3
1	4

Unit

unitID	name*	abbreviation*	factor*	offset*	category*
1	Kilometer	km	1000	0	1
2	Hectometer	hm	100	0	1
3	Meter	m	1	0	1
4	Decimeter	dm	0.1	0	1

UnitCategory

categoryID	name*
1	Length
2	Force
3	Speed
4	Acceleration

AddressFormat

formatID	format*
1	Format 1
2	Format 2
3	Format 3
4	Format 4

NumberSeparator

separatorID	thousandSeparator*	decimalSeparator*
1	,	.
2	.	,
3	,	`
4	.	`

Currency

code	digitalCode*	name*	symbol*
EUR	978	European Euro	€
USD	840	United States Dollar	$
GBP	826	Britisch Pound	£
CHF	756	Swiss Franc	Fr

LocaleCurrency

country	currency
DE	EUR
US	USD
GB	GBP
CH	CHF

Internationalization

DateFormat

formatID	format*
1	DD.MM.YYYY
2	DD/MM/YYYY
3	MM/DD/YYYY
4	YYYYMMDD

LocaleDateFormat

country	format	displayStyle*
DE	1	medium
GB	2	medium
US	3	medium
CH	4	medium

TimeFormat

formatID	format*
1	HH:mm:ss
2	HH:mm
3	HH:mm:ss.SSS
4	

LocaleTimeFormat

country	format	displayStyle*
DE	1	medium
GB	2	medium
US	3	medium
CH	4	medium

Timezone

zoneID	name*	offset*	offsetDST*
1	Europe/Berlin	+01:00	+02:00
2	Europe/Brussels	+01:00	+02:00
3	Europe/Bucharest	+02:00	+03:00
4	Europe/Budapest	+01:00	+02:00

LocaleTimezone

country	timezone
DE	1
GB	2
US	3
CH	4

Language

code	name*	nativeName*
de	German	Deutsch
en	English	English
fr	French	français
es	Spanish	español

LocaleLanguage

country	language	isOfficial*
DE	de	1
US	en	1
GB	en	1
CH	de	1
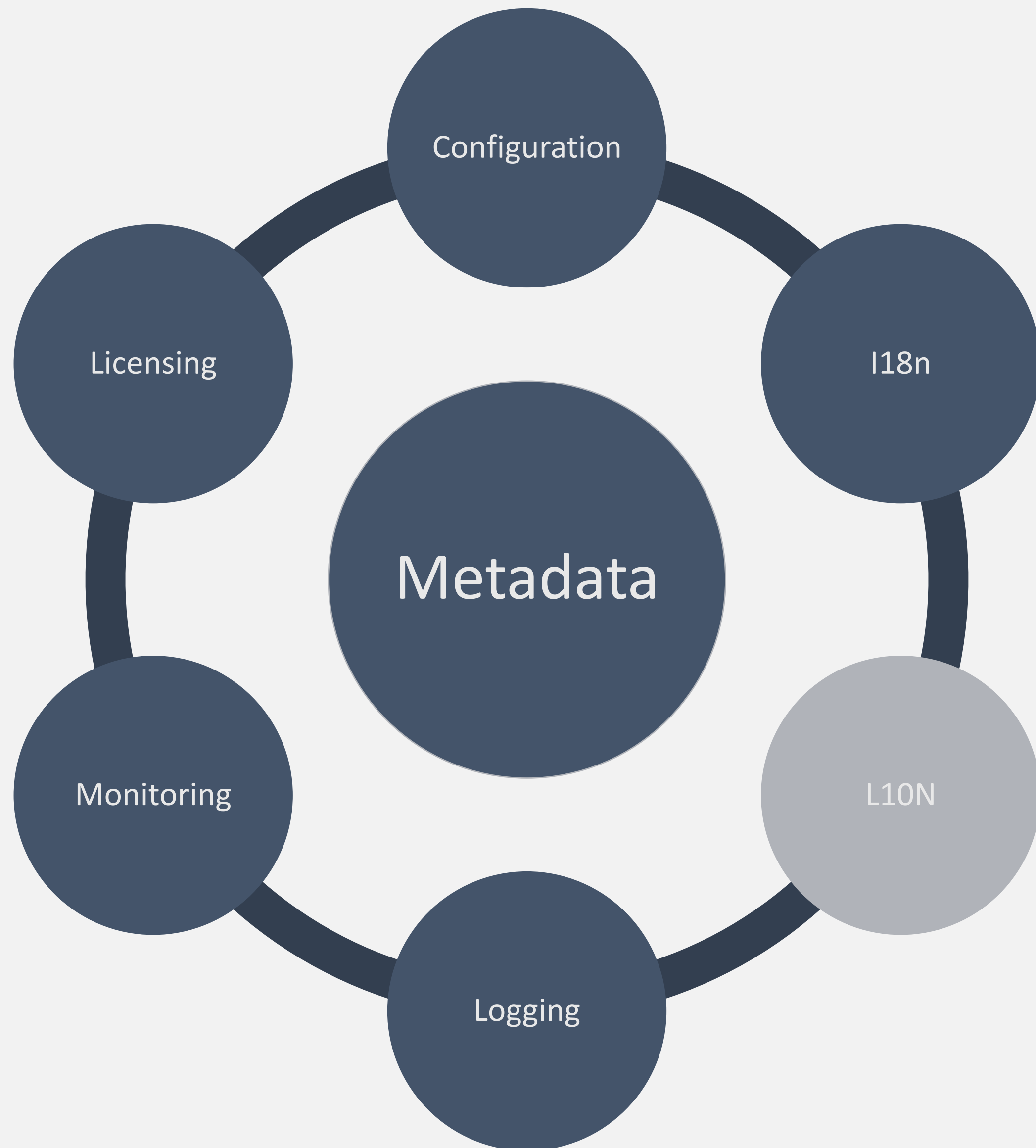
Localization
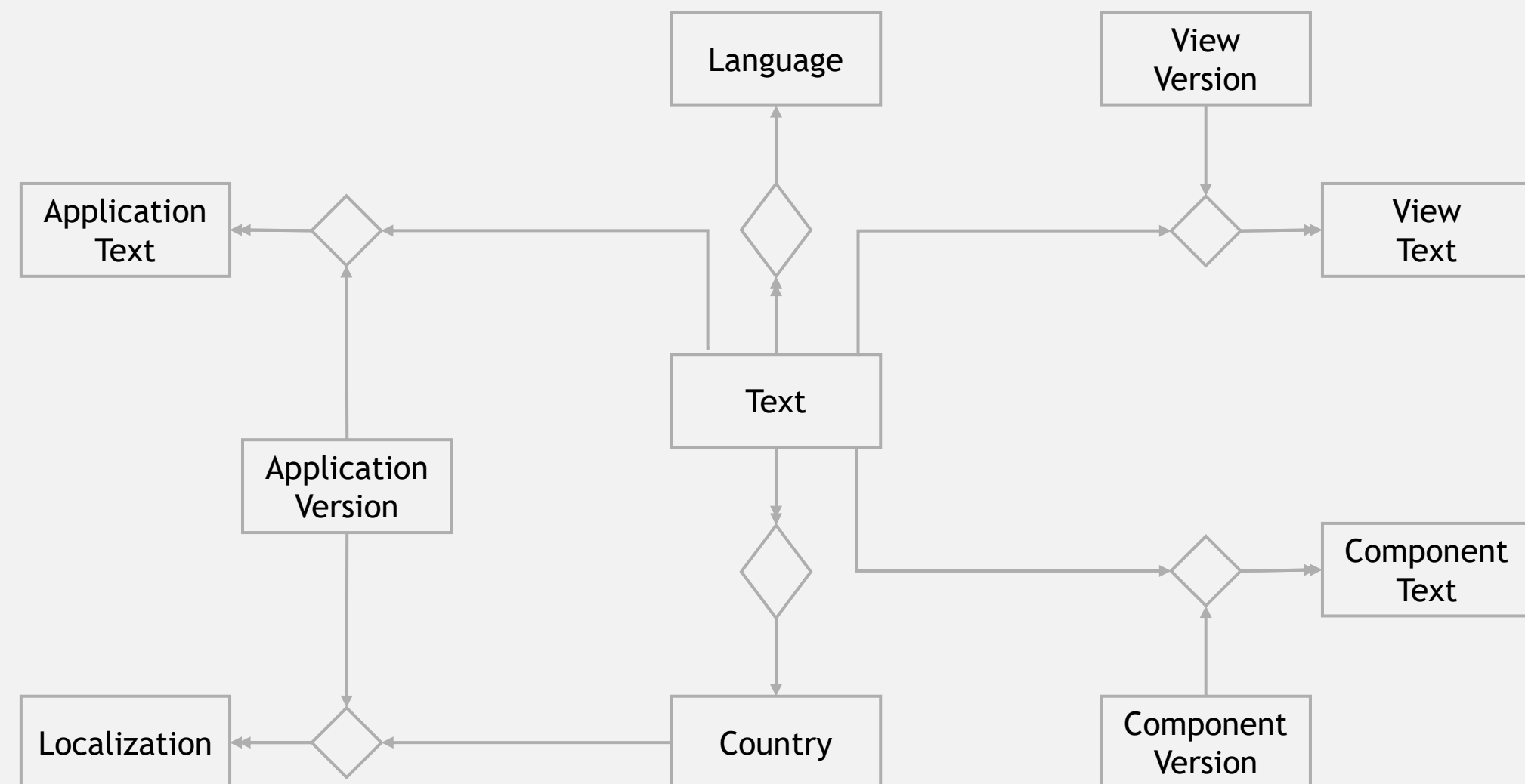
Localization

Text

textID	country	language	short	medium	large	modifiedBy*	modifiedOn*
back	DE	de	Zurück	null	null	1	2020-10-26 15:30:36
back	US	en	Back	null	null	1	2020-10-26 15:30:36
back	ES	es	Volver	null	null	1	2020-10-26 15:30:36
cancel	DE	de	Abbrechen	null	null	1	2020-10-26 15:30:36
cancel	US	en	Cancel	null	null	1	2020-10-26 15:30:36
cancel	ES	es	Cancelar	null	null	1	2020-10-26 15:30:36
userName	DE	de	Benutzername	null	null	1	2020-10-26 15:30:36
userName	US	en	User name	null	null	1	2020-10-26 15:30:36
userName	ES	es	Nombre de usuario	null	null	1	2020-10-26 15:30:36
password	DE	de	Passwort	null	null	1	2020-10-26 15:30:36
password	US	en	Password	null	null	1	2020-10-26 15:30:36

ApplicationText

app	appVersion	text	country	language	addedBy*	addedOn*
1	1.0.0	back	DE	de	1	2020-10-26 15:30:36
1	1.0.0	back	US	en	1	2020-10-26 15:30:36
1	1.0.0	back	ES	es	1	2020-10-26 15:30:36
1	1.0.0	cancel	DE	de	1	2020-10-26 15:30:36

ViewText

view	viewVersion	text	country	language	addedBy*	addedOn*
1	1.0.0	userName	DE	de	1	2020-10-26 15:30:36
1	1.0.0	userName	US	en	1	2020-10-26 15:30:36
1	1.0.0	userName	ES	es	1	2020-10-26 15:30:36
1	1.0.0	password	DE	de	1	2020-10-26 15:30:36

ComponentText

component	componentVersion	text	country	language	addedBy*	addedOn*
1	1.0.0	artist	DE	de	1	2020-10-26 15:30:36
1	1.0.0	artist	US	en	1	2020-10-26 15:30:36
1	1.0.0	artist	ES	es	1	2020-10-26 15:30:36
1	1.0.0	duration	DE	de	1	2020-10-26 15:30:36

Localization

app	appVersion	country	addedBy*	addedOn*
1	1.0.0	DE	1	2020-10-26 15:30:36
1	1.0.0	US	1	2020-10-26 15:30:36
1	1.0.0	ES	1	2020-10-26 15:30:36
1	1.1.0	US	1	2020-10-26 15:30:36
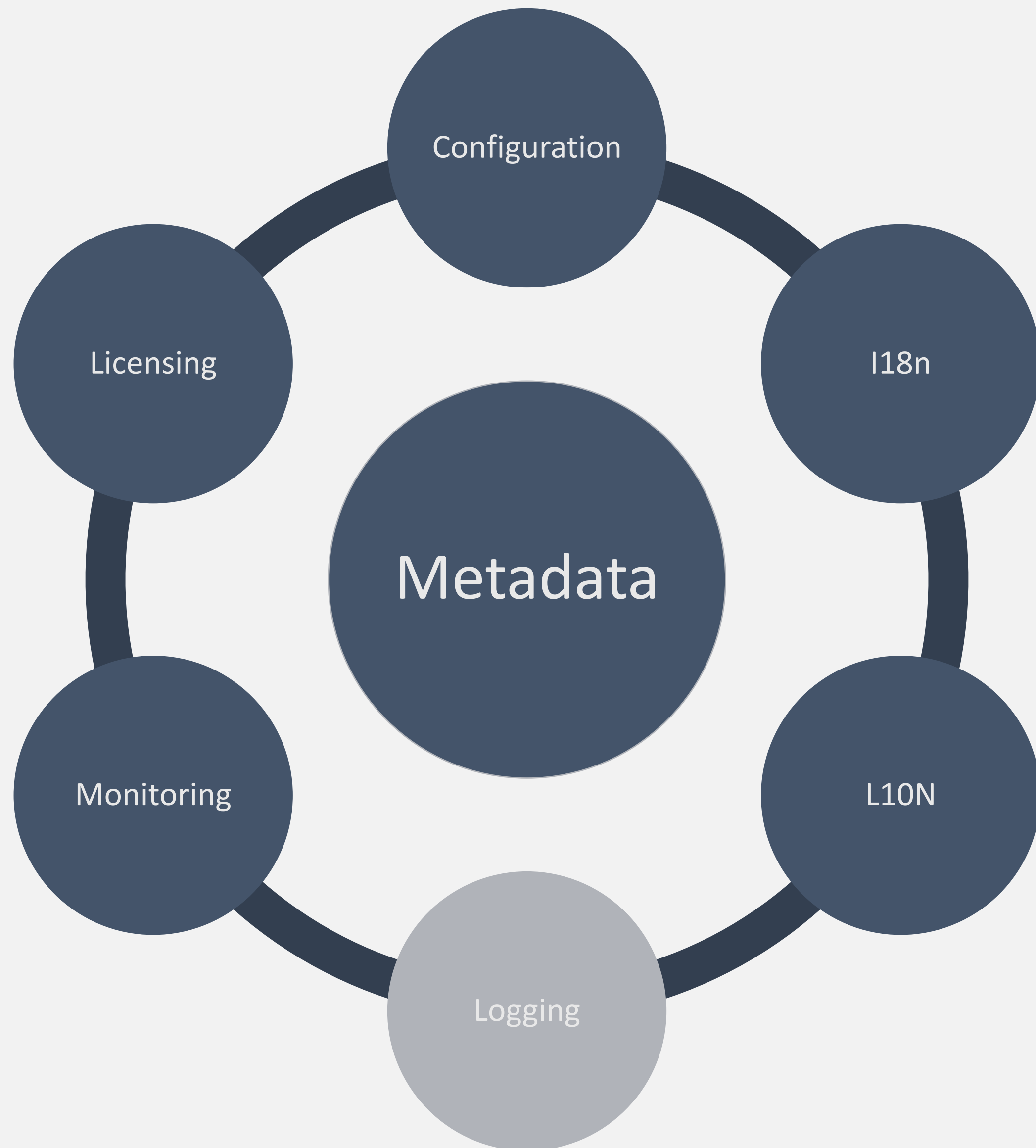
Logging
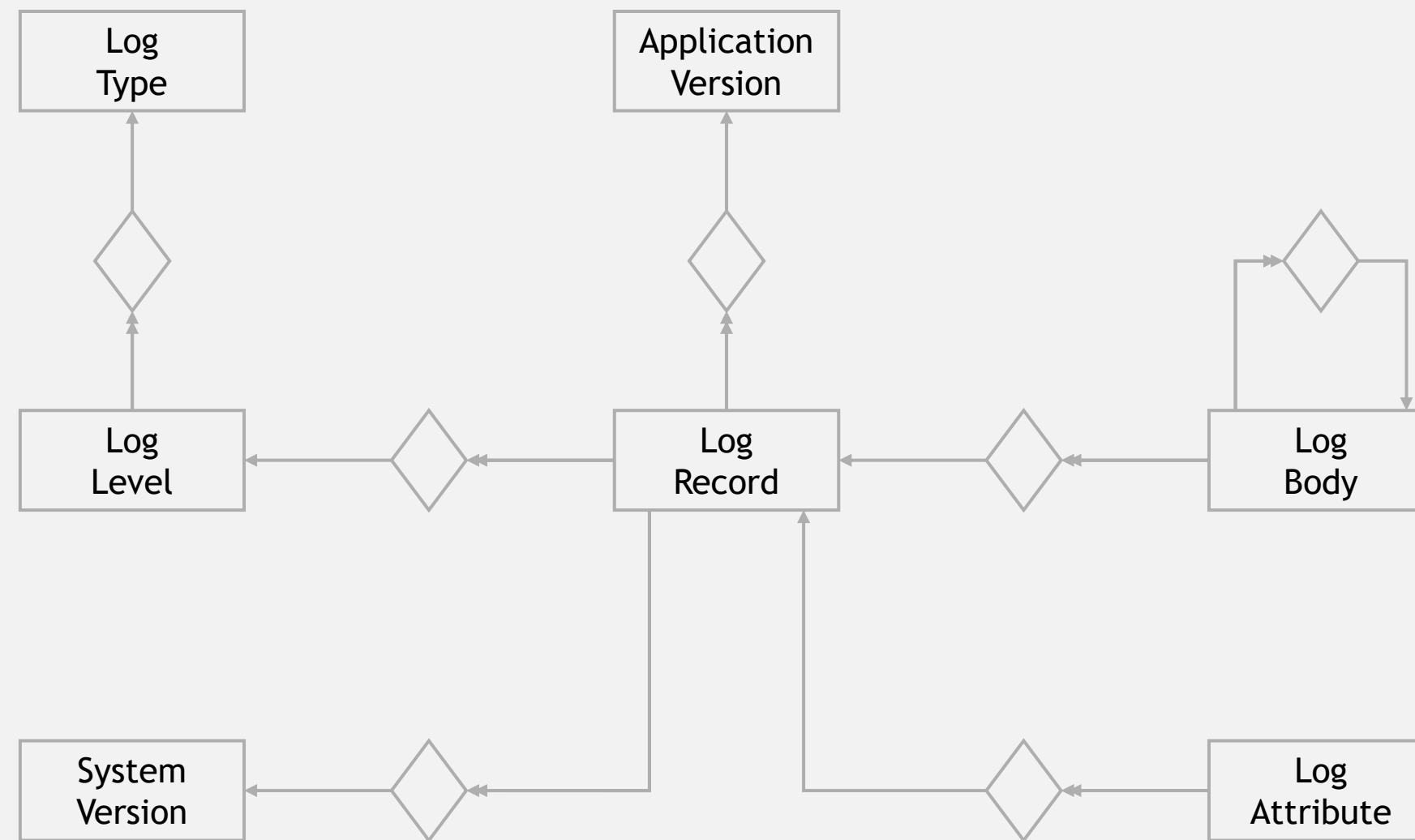
Logging

LogRecord

logID	eventName*	*level**	levelText*	*app**	*appVersion**	*system*	*systemVersion*	addedOn*	traceID
1	FindByID	9	Info (Level 1)	1	1.0.0	1	1.0.0	2020-10-26 15:30:36	1
2	ProcessStarted	9	Info (Level 1)	1	1.0.0	null	null	2020-10-26 15:30:36	2
3	RequestFailed	17	Error (Level 1)	1	1.0.0	3	1.0.0	2020-10-26 15:30:36	3
4	ProcessEnded	9	Info (Level 1)	1	1.0.0	null	null	2020-10-26 15:30:36	2

LogAttribute

log	**key**	value*
1	url	jdbc:mysql://localhost:3306/vinyl
1	port	3306
3	url	https://api.yummy-yogurt.com
3	port	8080

LogBody

bodyID	*log**	key	value	*parent*
1	1	message	The entity with the ID 1 could not be found	3
2	1	code	404	3
3	1	error	null	null
4	3	null	Request to https://api.yummy-yogurt.com was sent	null

LogLevel

levelID	*type**	name*
1	1	Trace (Level 1)
2	1	Trace (Level 2)
3	2	Debug (Level 1)
4	2	Debug (Level 2)

LogType

typeID	name*
1	Trace
2	Debug
3	Info
4	Warn

- The system and systemVersion column in the log record table must be maintained together:
  - system column is null ↔ systemVersion column is null
 - system column is not null ↔ systemVersion column is not null

Logging

Understanding the Log Body

- The log body can contain a json tree structure or just plain text. There are certain combinations for the columns **key**, **value** and **parent** that are not allowed in the log body.

- The following red combinations are not allowed:

  - If the key and value column are null, there is no reason to insert the row, as it doesn't provide any information about the log.

  - If the key column is null and the others are not null, you try to add a value to a nested object. But only key/value pairs can be added to a nested object.

  - If the value column is null and the others are not null, you try to add a key/value pair to a nested object that doesn't provide any information about the log.

- The green combinations are allowed and have the following meaning:

  - If all columns are not null, you add a key/value pair to a nested object.

  - If the parent column is null, but the others are not null, you add a key/value pair to the root of the object.

  - If the key column is not null and the others are null, you define the key for a nested object.

  - If the value column is not null and the others are null, the body is just plain text and not a json object.

key	value	parent
null	null	null
null	null	X
null	X	X
X	null	X
X	X	X
X	X	null
X	null	null
null	X	null

Figure 1 – Possible combinations for the log body
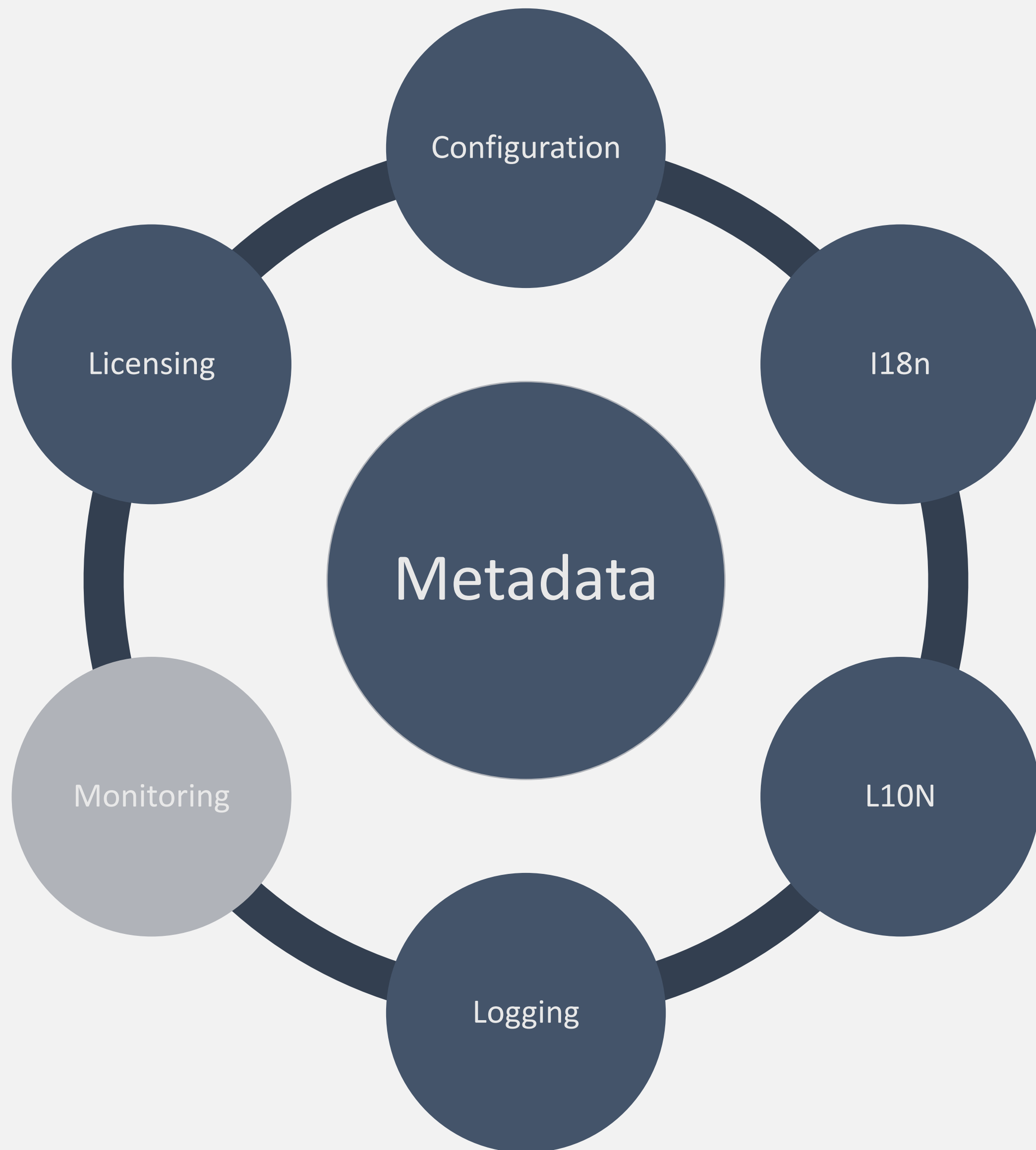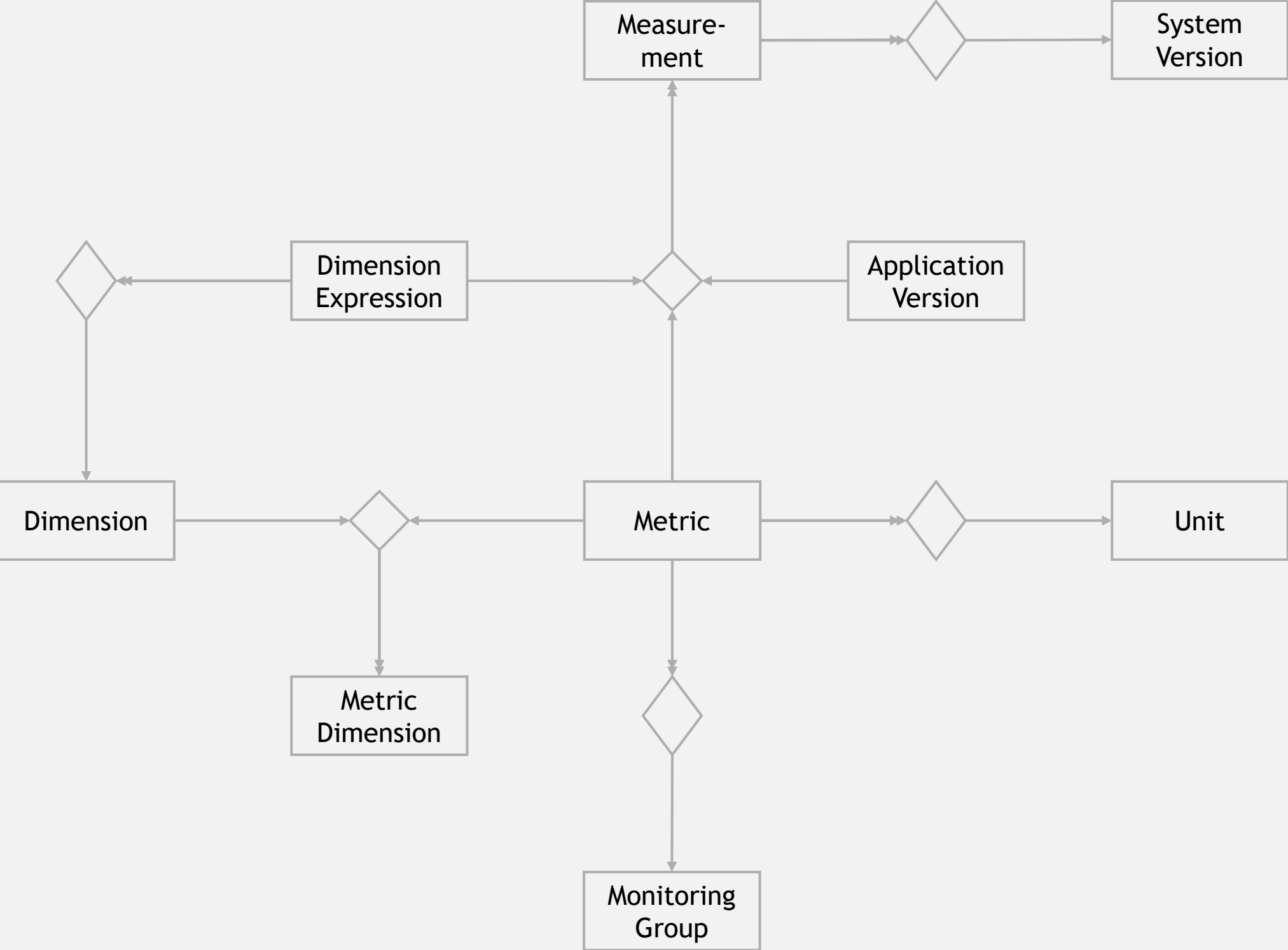
Monitoring

Metric

metricID	name*	description*	monitoringGroup*	unit	modifiedBy*	modifiedOn*
1	CPU Time	Measures the time the CPU...	3	137	1	2020-10-26 15:30:36
2	Memory Usage	Measures the usage of the...	3	33	1	2020-10-26 15:30:36
3	Response Count	Counts the amount of Resp...	4	null	1	2020-10-26 15:30:36
4	Process Count	Counts the processes of the...	3	null	1	2020-10-26 15:30:36

MonitoringGroup

groupID	name*	modifiedBy*	modifiedOn*
1	Database	1	2020-10-26 15:30:36
2	File System	1	2020-10-26 15:30:36
3	Operating System	1	2020-10-26 15:30:36
4	Http Response	1	2020-10-26 15:30:36

Dimension

dimensionID	name*	description*	modifiedBy*	modifiedOn*
1	Status Code	The status code of http response	1	2020-10-26 15:30:36
2	Memory State	The state of the memory	1	2020-10-26 15:30:36
3	Http Method	The http method of the request	1	2020-10-26 15:30:36
4	Operation	The operation that is performed by the request	1	2020-10-26 15:30:36

DimensionExpression

dimension	expression	addedBy*	addedOn*
1	404	1	2020-10-26 15:30:36
1	500	1	2020-10-26 15:30:36
2	used	1	2020-10-26 15:30:36
2	free	1	2020-10-26 15:30:36

MetricDimension

metric	dimension	addedBy*	addedOn*
2	1	1	2020-10-26 15:30:36
3	2	1	2020-10-26 15:30:36
5	3	1	2020-10-26 15:30:36
5	4	1	2020-10-26 15:30:36

Measurement

app	appVersion	metric	dimension	expression	addedOn	system	systemVersion	value*
1	1.0.0	3	1	404	2020-10-26 15:30:36	null	null	1
1	1.0.0	3	1	404	2020-10-26 15:30:36	null	null	2
1	1.0.0	2	2	used	2020-10-26 15:30:36	null	null	10
1	1.0.0	2	2	used	2020-10-26 15:30:36	null	null	8

- The system and systemVersion column in the measurement table must be maintained together:
  - system column is null ↔ systemVersion column is null
  - system column is not null ↔ systemVersion column is not null
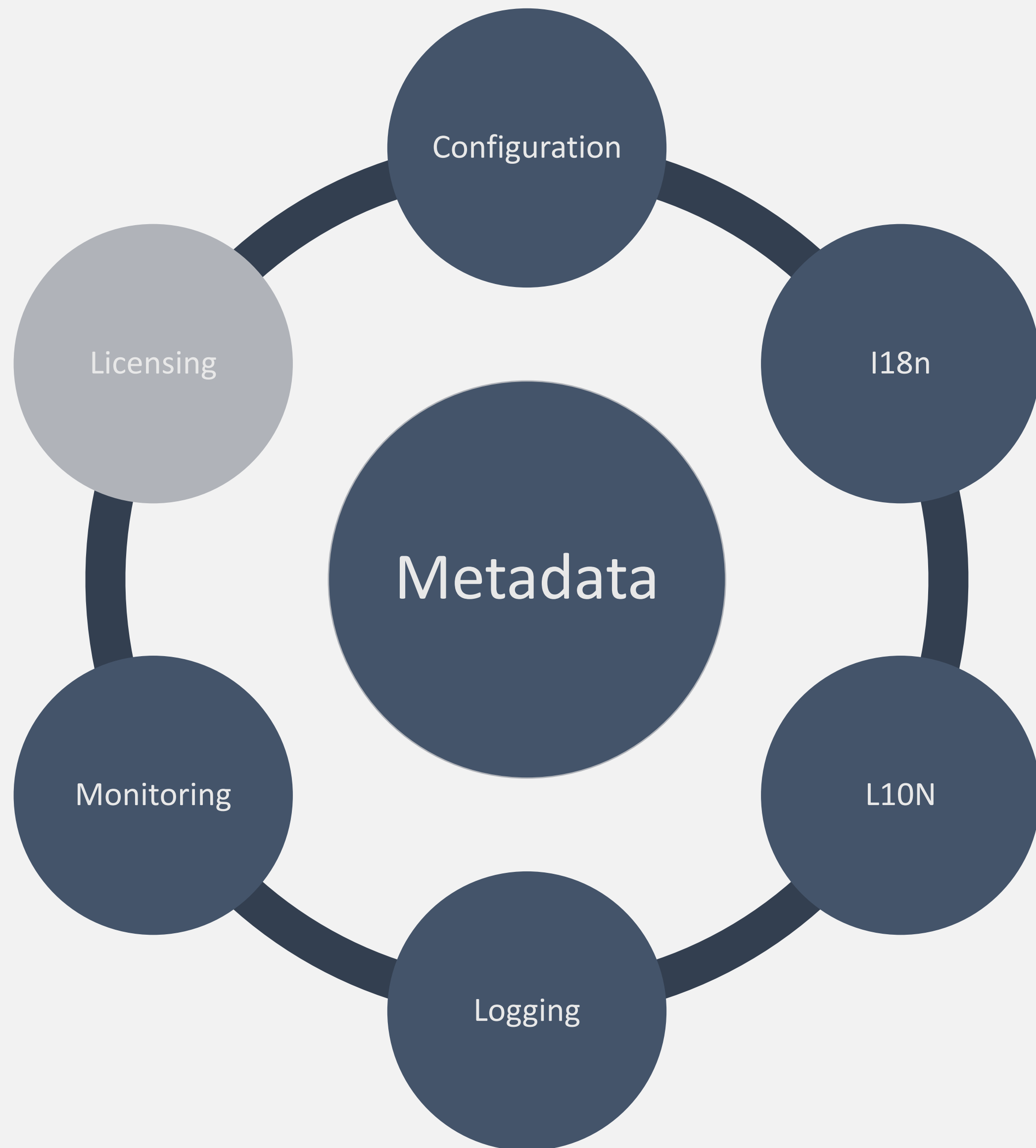
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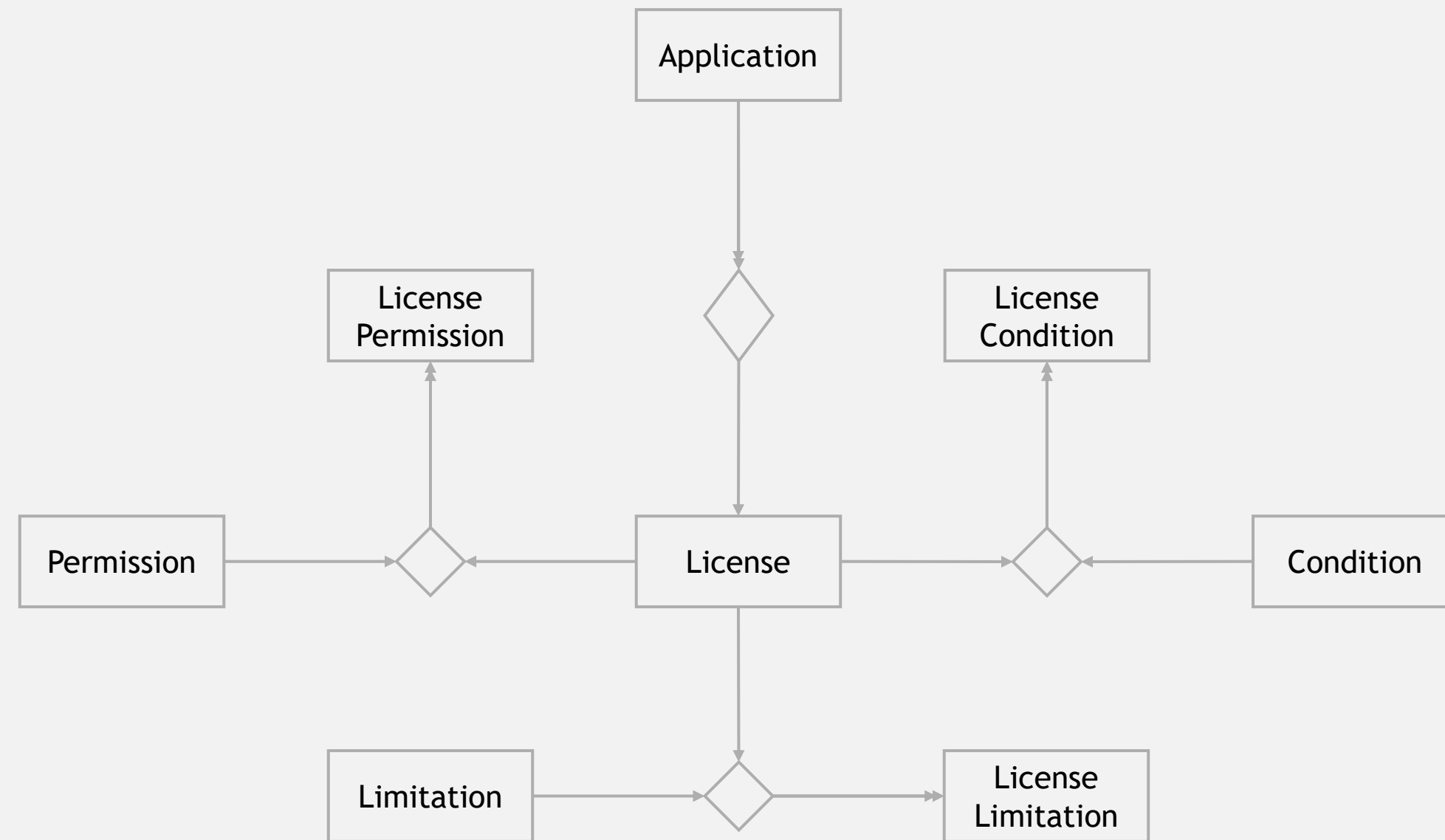
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