



Dynamic Sensitive Data Protection for PostgreSQL

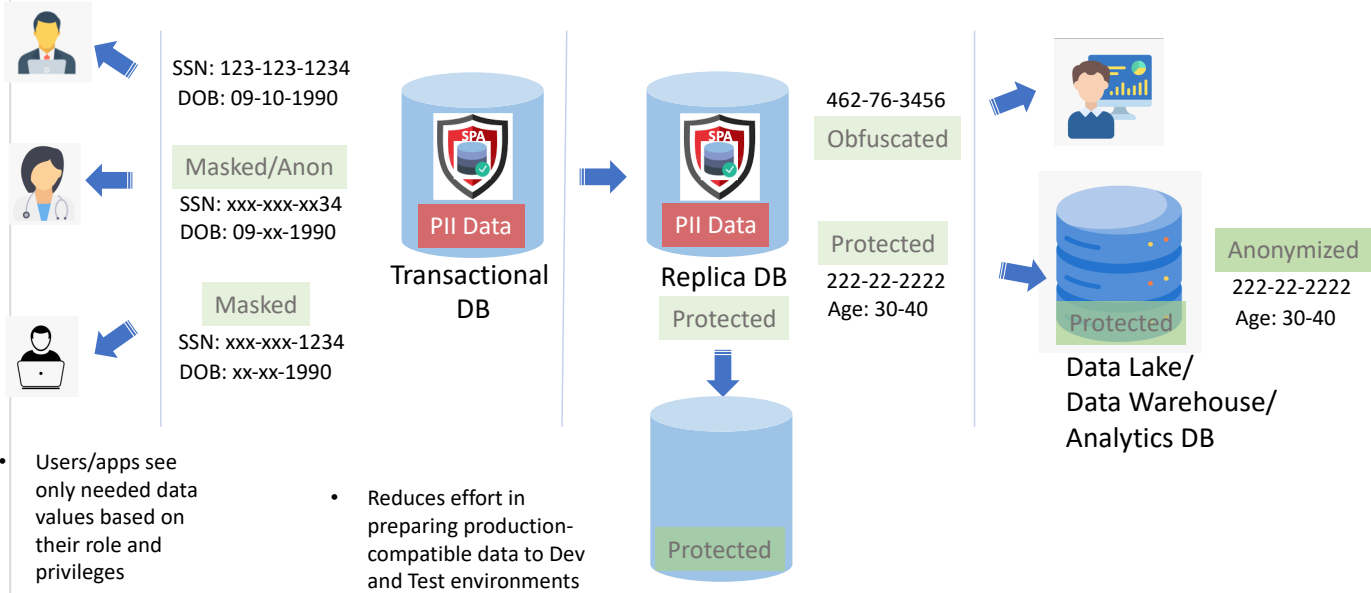
Interior defense to cyber threats

Enterprise-grade Sensitive Data Protection

Customizable for MySQL, MS SQL, Oracle

Cuts Costs, Data Risks & Redundant ops

- Protects data right at the source database
- Reduces unnecessary movement and copying of sensitive data
- Scales with the DBM using the same infrastructure and resources
- Seamless to databases, users, apps and operations
- Faster, easier and lower cost solution compared to others



- Users/apps see only needed data values based on their role and privileges

- Reduces effort in preparing production-compatible data to Dev and Test environments

Maximizes value of Your Data

Seamless to Databases, Users, Apps & Ops

Main Features

- Provides dynamically anonymized, masked, encrypted, and obfuscated data
- Different apps/users see different data values based on their privileges
- Enterprise grade PostgreSQL extension – high performance, scalability along with PostgreSQL, audit logging, central configuration management, and more
- Extensive out-of-the-box data protection functions for Suppression, Generalization, Randomization, Encryption and K-Anonymity
- Extendible framework for easy customization
- No-code solution
- Smooth deployments - seamless to existing databases, users, applications and operations
- Easy to deploy, configure, maintain and extend
- Available for a wide number of PostgreSQL versions, including cloud based and serverless versions

Benefits

- ✓ Protect data inside PostgreSQL databases – in production, dev, testing and downstream environments
- ✓ Conform to regulations for Customer/PII/Private/Confidential data in Healthcare, Financial and other industries
- ✓ Get most value out of your data - share it with the confidence that sensitive data is protected right from the source and in all downstream operations
- ✓ Save costs by leveraging existing PostgreSQL infrastructure, tools and resources/DBAs
- ✓ Save costs by avoiding redundant data protection efforts for development and testing environments, and downstream operations for BI, Analytics, etc.
- ✓ Seamlessly enable existing databases and applications to work with protected data
- ✓ Enjoy the highest-performance out of all possible data protection solutions



Dynamic Sensitive Data Protection for PostgreSQL

SPA in action - protecting data

anonymize, mask partially, mask fully, obfuscate, randomize, encrypt, transform, fake values, fixed values, nullify, custom

Dynamic protection of PII data - part 1

first_name	last_name	gender	dob	ssn	personal_email	home_phone	cell	home_address_street
character vary	character vary	character vary	text	character vary	character varying	character varying	character vary	character varying
TORY	GIBBS	*****	1972-08-08	***-**-3424	\$1\$V9e9Z7ac\$9WljclQu16raR...	RESTRICTED	*8979	7795 BAY VIEW ST
FOREST	TUCKER	*****	1982-04-25	***-**-2467	\$1\$lgx.l8ki9CpYekvNP3vY0R...	RESTRICTED	*4887	5679 NAILEE AVE
RAMIRO	TORRES	*****	2001-02-12	***-**-8739	\$1\$SrgToS5a9\$IP0IGKgvzeHo...	RESTRICTED	*2565	5702 COTTAGE ROW
CEDRIC	CANTRELL	*****	1998-01-11	***-**-7389	\$1\$sktvPKil\$je9y.UmoiOK/HF...	RESTRICTED	*3434	3602 FLORIDA ST
MARVIN	TRUONG	*****	1975-08-18	***-**-9223	\$1\$rvUGPu7D\$bODw.AmQRsi...	RESTRICTED	*5478	2615 SUNNYSIDE T...

Query results for User/Role 1

first_name	last_name	gender	dob	ssn	personal_email	home_phone	cell	home_address_street
character vary	character vary	character vary	text	character vary	character varying	character varying	character vary	character varying
Bill	Smith	*****	1972-MM-DD	***-**-3424	\$1\$2K1Cc4vd\$3iaDPhgYu...	RESTRICTED	*8979	4218 ZAMPA LN
Bob	Goose	*****	1982-MM-DD	***-**-2467	\$1\$ksJm7bn9W\$/yXXSLO...	RESTRICTED	*4887	8380 MADISON ST
John	Lopez	*****	2001-MM-DD	***-**-8739	\$1\$Ww5rBJW4\$1MY06nY...	RESTRICTED	*2565	1005 NORDHOFF ST
Kim	Newton	*****	1998-MM-DD	***-**-7389	\$1\$stijLz7bn\$LO0n71a68Zlj...	RESTRICTED	*3434	1239 HOWARD ST
Sam	Donovan	*****	1975-MM-DD	***-**-9223	\$1\$.Ofiyepd\$A4KYQbTF2V...	RESTRICTED	*5478	2761 EDIE RD

Query results for User/Role 2

Dynamic protection of PII data - part 2

home_address_city	home_address_state	home_address_zip	employee_id	employer_name	work_email	work_phone	salary
character varying	character varying	character varying	bigint	character varying	character varying	character vary	money
RESTRICTED	NH	76342	6579	*****	KRIS.KELLER@ckayka.com	(214)529-*	\$119,594.00
RESTRICTED	MD	37644	67026	*****	JEREMIAH.MORSE@ckay...	(469)390-*	\$245,919.00
RESTRICTED	SD	90990	70152	*****	ARON.FARMER@ckayka.c...	(469)667-*	\$211,466.00
RESTRICTED	ID	61802	3685371	*****	JAKE.HUFFMAN@ckayka...	(214)565-*	\$268,331.00
RESTRICTED	UT	32880	7616152	*****	DAVIS.BRANDT@ckayka....	(214)787-*	\$72,451.00

Query results for User/Role 1

home_address_city	home_address_state	home_address_zip	employee_id	employer_name	work_email	work_phone	salary
character varying	character varying	character varying	bigint	character varyin	character varying	character varying	money
RESTRICTED	VT	76275	33222	*****	EVERETTE.PROCTOR@ckayka.com	(214)529-*	[null]
RESTRICTED	MA	64234	54984	*****	TROY.CHAN@ckayka.com	(469)390-*	[null]
RESTRICTED	LA	92011	68604	*****	BUFORD.FOSTER@ckayka.com	(469)667-*	[null]
RESTRICTED	LA	20919	59274	*****	TORY.ACOSTA@ckayka.com	(214)565-*	[null]
RESTRICTED	NV	42037	55206	*****	JAMAR.VILLARREAL@ckayka.com	(214)787-*	[null]

Query results for User/Role 2



Dynamic Sensitive Data Protection for PostgreSQL

Clear Option for PostgreSQL Data Protection

	SPA	Other PostgreSQL	Proxy-based Tools	Migration/Integration Tools
Works inside PostgreSQL?	Yes	Yes - with severe limitations – only for single schema, for a few types of uses, etc.	No	No
Data leaves PostgreSQL unprotected?	No	No	Yes – protection level depends on the tool and configuration	Yes – data protect on write depending on the setup
Requires additional copies of data to enable protection?	No	No	Yes	Yes
Can protect replicated databases?	Yes - automatic	Yes	No – needs additional setup	No – needs additional setup
Seamless to exiting Apps?	Yes	Depends	Yes – with connection change	No
Secure multiple schemas?	Yes	Depends	Yes	Yes
Read/Extracted/Exported data secure?	Yes	Depends	Yes	Depends - Requires additional planning and implementation at target to protect
Cost	Free version with a minimal support contract; Paid Enterprise featured version with full support	Free and Paid distributions	Paid	Free and Paid tools
Secures existing DBs?	Yes	Yes - limited	Yes	No – only the copies of data
Available for any PostgreSQL version?	Yes – available in all PostgreSQL versions, including all distributions and cloud versions	No - only for specific versions of PostgreSQL or distributions	Depends on the tool and the enterprise and cloud platform	Depends on the tool and the enterprise and cloud platform
Needs additional Infrastructure, resources and skills?	No - works within PostgreSQL, and using existing PostgreSQL infrastructure, resources, and skills (PostgreSQL admins, etc.)	No - works within PostgreSQL	Yes - needs additional software, hardware, resources and skills	Yes - needs additional software, hardware, resources and skills
Enterprise Grade?	Yes – comes with extensive customization and management tools	No	Depends	Depends
Reviewed/Tested for vulnerabilities?	Yes – makes use of PostgreSQL functionality reviewed and tested by a large number of experts and users	Depends	Depends – many, No	Depends –many, No
Performance?	High	High	Degraded due to an additional hop that data goes through	NA
Latency in applying protection?	No latency	No latency	Slight latency due to additional hop	Latency due to data copying
Support for multiple types of database users and security granularity levels?	Yes – any number and levels of users, granularity including row level protection	No or very limited	Depends – additional configuration required for supporting users	No, or Limited
Scalable?	Yes – along with PostgreSQL	No	Depends on the tools and service	Depends – requires additional planning, infra and resources
Availability?	Yes - available with PostgreSQL server	Yes – available with PostgreSQL	Depends on the tools and service	Depends on the tools and service
Protects non-PostgreSQL data?	No	No	Depends on the tools and service	Yes

Works in all popular DBMSs



Versions

Free software

- ✓ Minimum support contract required for initial configuration and training to ensure right protection
- ✓ Easy Install
- ✓ Limited Extensibility

Enterprise

- ✓ Full support
- ✓ Enterprise Features
- ✓ No limits on extensibility
- ✓ Central GUI Management Tool
- ✓ Audit logging
- ✓ Sensitive Data Identification
- ✓ Configuration Templates

Relax while your sensitive data is protected through anonymization, masking, fake values, encryption, and obfuscation.

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