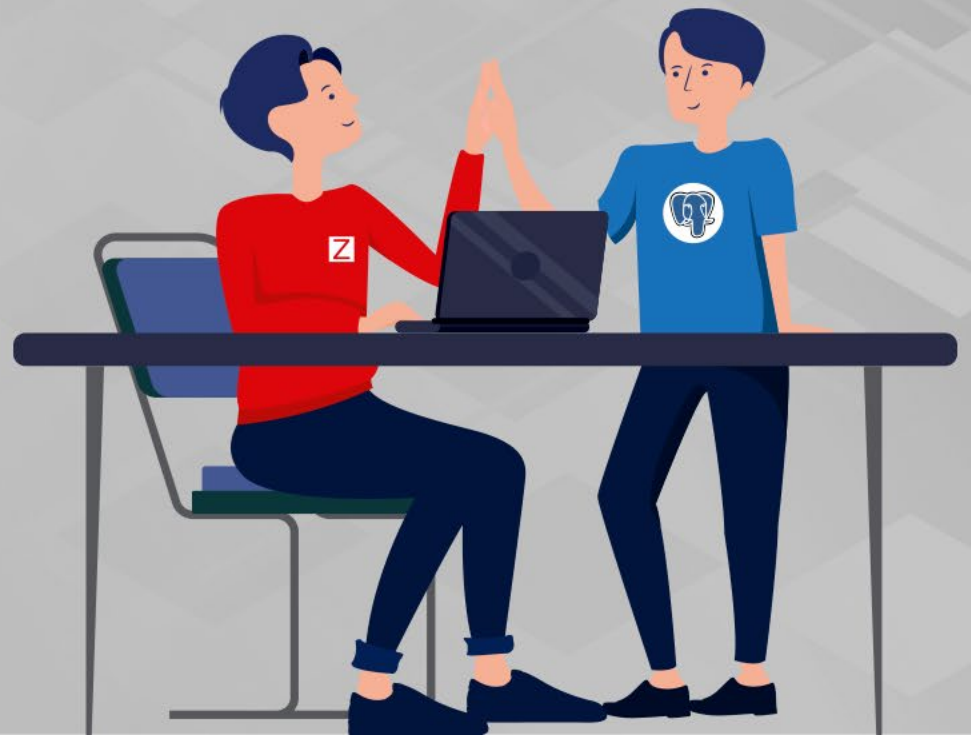
ENGLISH

ZABBIX MEETUP ONLINE '20

PostgresPro

HOW TO DEPLOY ZABBIX ON POSTGRESQL WITH TIMESCALEDB PLUGIN

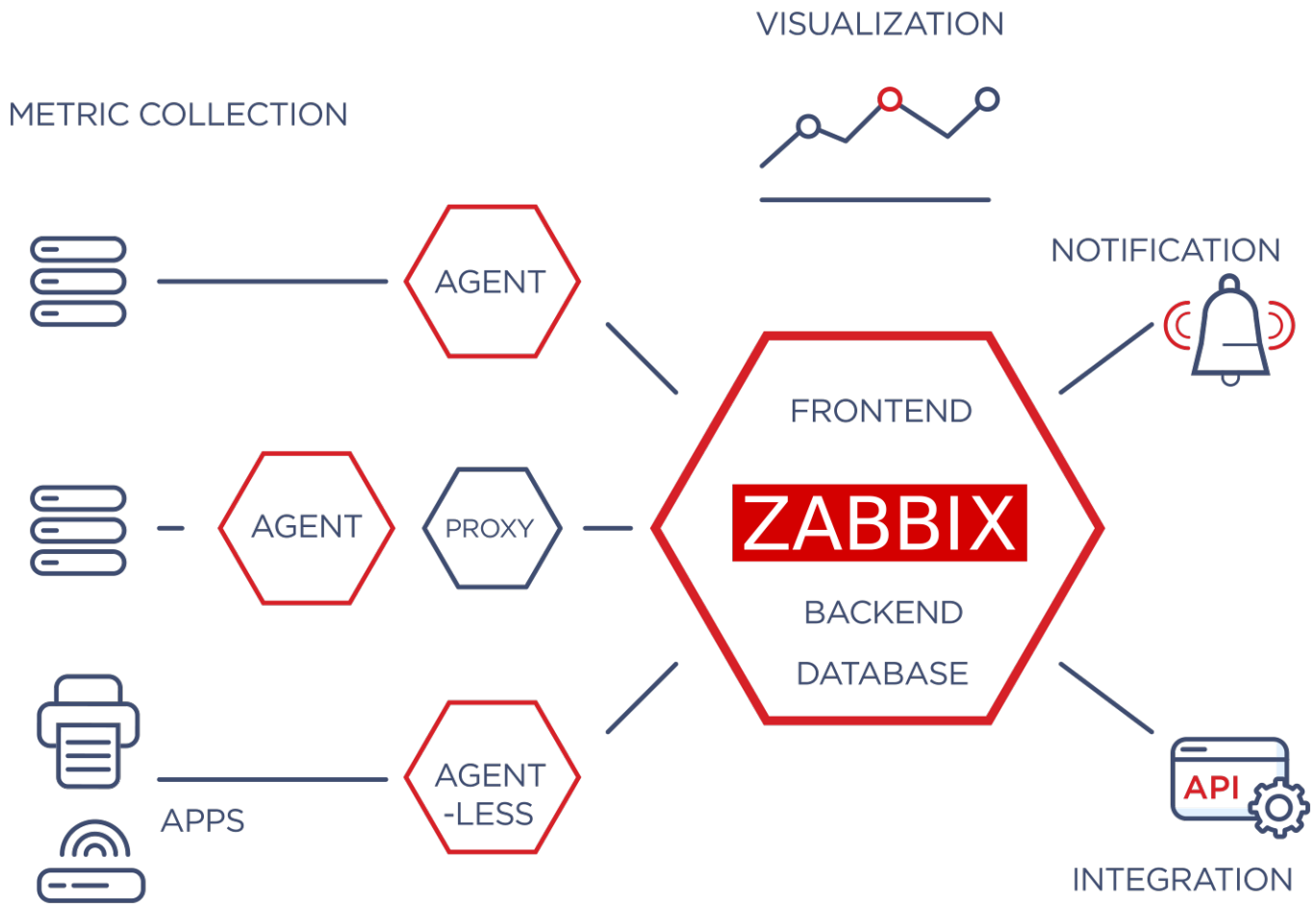


Dmitry Lambert
ZABBIX Head of Support

WHY ZABBIX

- True Open Source Monitoring Solution
- Enterprise ready (Scalable, Remote monitoring, Granular permission system)
- 100% Free Software (No paid addons or Per-Host payments)
- Continuelsy growing list of Out of the box Templates
- Flexible and rady to adopt to your needs

ARCHITECTURE



ENGLISH

ZABBIX MEETUP ONLINE '20

PostgresPro

ARCHITECTURE

- Zabbix Frontend (Visualization and Configuration)
- Zabbix Server (Gather, Process and Execute)
- Zabbix Database (Heart of Zabbix)

DATABASE

- Storage of Configuration
- Storage of History Data
- Communication with Zabbix Server
- Communication with Zabbix Frontend

ENGLISH

ZABBIX MEETUP ONLINE '20

PostgresPro

SUPPORTED DATABASES

- MySQL (5.5.62 – 8.0.x)
- Oracle (11.2 or later)
- PostgreSQL (9.2.24 or later)
- TimescaleDB (3.3.5 or later)

ENGLISH

ZABBIX MEETUP ONLINE '20

PostgresPro

GETTING STARTED WITH POSTGRESQL

ENGLISH

ZABBIX MEETUP ONLINE '20

PostgresPro

Choose what platform and components you need

ZABBIX VERSION	OS DISTRIBUTION	OS VERSION	DATABASE	WEB SERVER
5.2	Red Hat Enterprise Linux	8	MySQL	Apache
5.0 LTS	CentOS	7	PostgreSQL	NGINX
4.0 LTS	Oracle Linux	6		
3.0 LTS	Ubuntu			
	Debian			
	SUSE Linux Enterprise Server			
	Raspbian			

b. Install Zabbix server, frontend, agent

```
# dnf install zabbix-server-pgsql zabbix-web-pgsql zabbix-nginx-conf zabbix-agent
```

POST INSTALLATION

- Create Database and User for Zabbix

```
# sudo -u postgres createuser --pwprompt zabbix
# sudo -u postgres createdb -O zabbix zabbix
```

- Import schema and default data

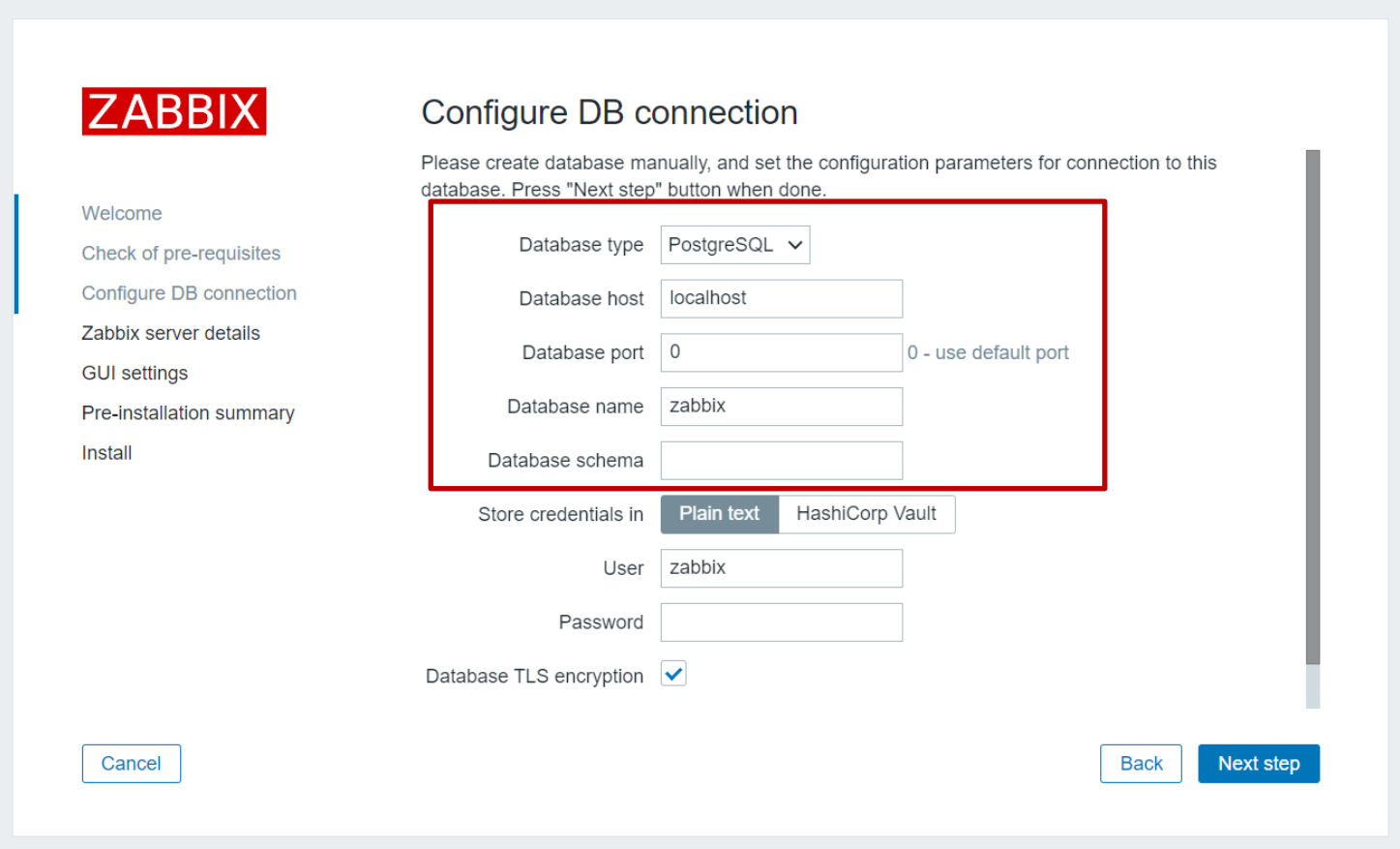
```
# zcat /usr/share/doc/zabbix-server-pgsql*/create.sql.gz | sudo -u zabbix psql zabbix
```

- Configure Database Password in Zabbix

```
DBPassword=password
```

FRONTEND CONFIGURATION

Simple configuration Wizard



ENGLISH

ZABBIX MEETUP ONLINE '20

PostgresPro

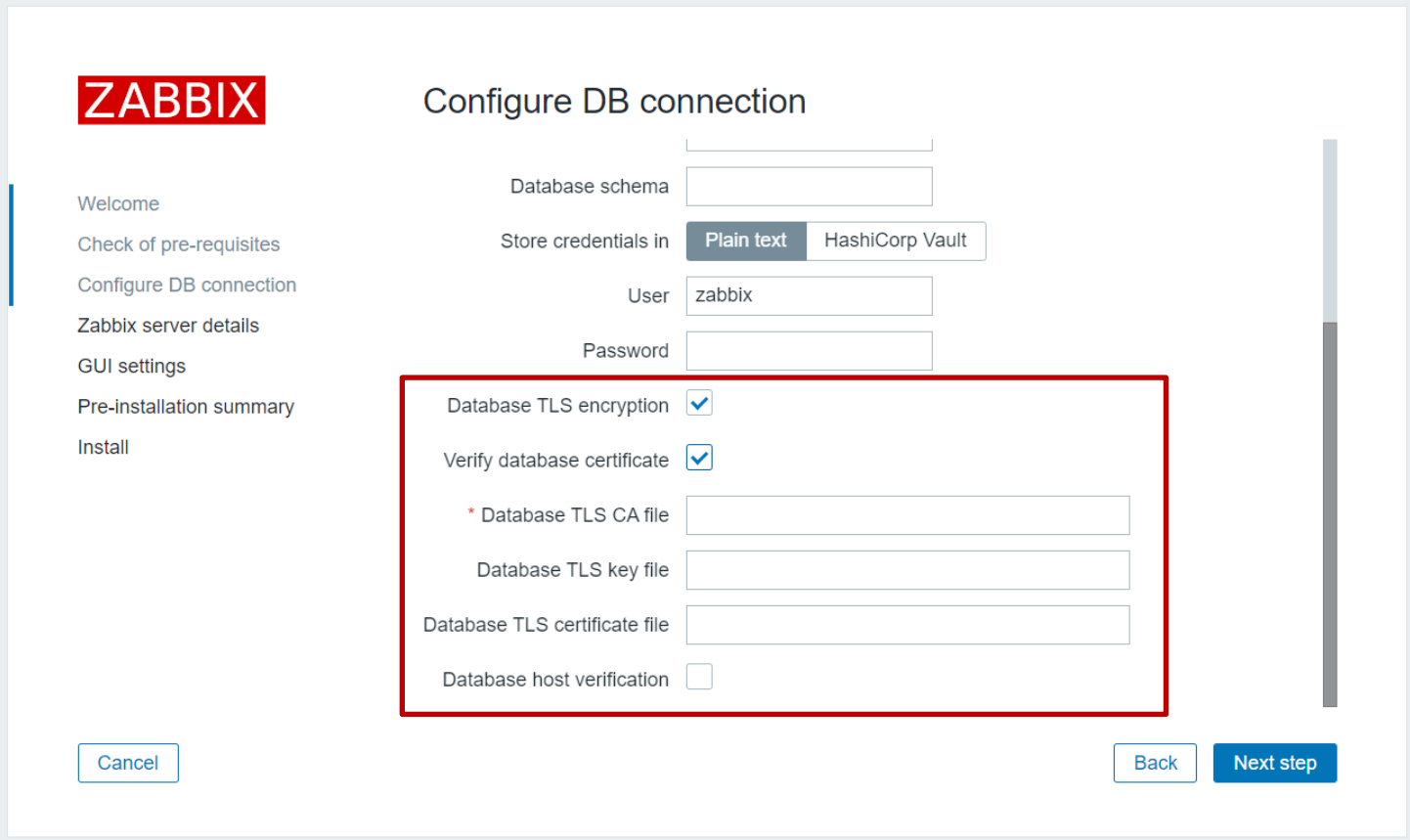
NATIVE POSTGRESQL ENCRYPTION

ENGLISH

ZABBIX MEETUP ONLINE '20

PostgresPro

Simple configuration Wizard



PRE-REQUISITIES

Prepare *postgresql.conf*

```
...
ssl = on
ssl_ca_file = 'root.crt'
ssl_cert_file = 'server.crt'
ssl_key_file = 'server.key'
ssl_ciphers = 'HIGH:MEDIUM:+3DES:!aNULL'
ssl_prefer_server_ciphers = on
ssl_min_protocol_version = 'TLSv1.3'
...
```


PRE-REQUISITIES

Prepare *pg_hba.conf*

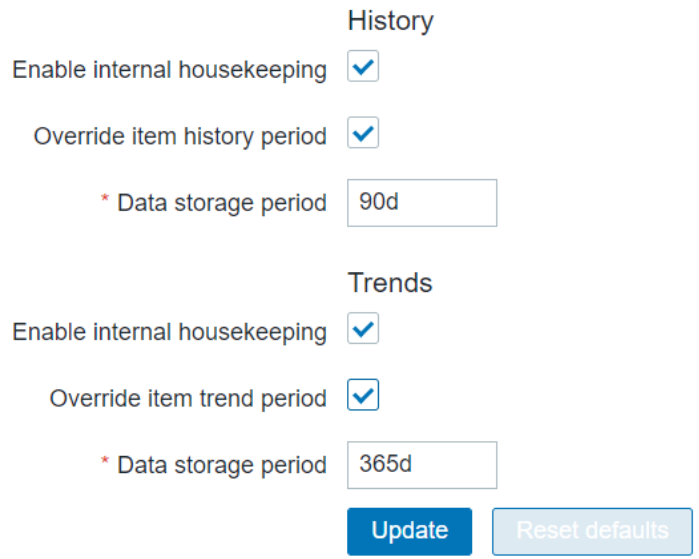
```
...
### require
hostssl all all 0.0.0.0/0 md5

### verify CA
hostssl all all 0.0.0.0/0 md5 clientcert=verify-ca

### verify full
hostssl all all 0.0.0.0/0 md5 clientcert=verify-full
...
```


TIMESCALEDB

- Free Extension for PostgreSQL Database
- Created for Time-series Data
- Requires PostgreSQL 11 or 12
- Provides Native Partitioning In Zabbix
- Allows to compress heaviest Tables

NATIVE PARTITIONING

- Configuration from Zabbix frontend
- No third-party scripts
- History retention in a second
- No need to use Housekeeper on History



ENGLISH

ZABBIX MEETUP ONLINE '20

PostgresPro

NATIVE COMPRESSION

- Configuration from Zabbix frontend
- Save 90% Disk Space
- Compressed chunk modifications (inserts, deletes, updates) are not allowed
- Schema changes for compressed tables are not allowed.

Workload	Uncompressed	Compressed	Storage Savings
IT metrics (from Telco beta tester)	1396 GB	77.0 GB	94% savings
Industrial IoT monitoring data (from beta tester)	1.445 GB	0.077 GB	95% savings
IT metrics (DevOps dataset from TSBS)	125 GB	5.5 GB	96% savings
IoT monitoring data (IoT dataset from TSBS)	251 GB	23.8 GB	91% savings

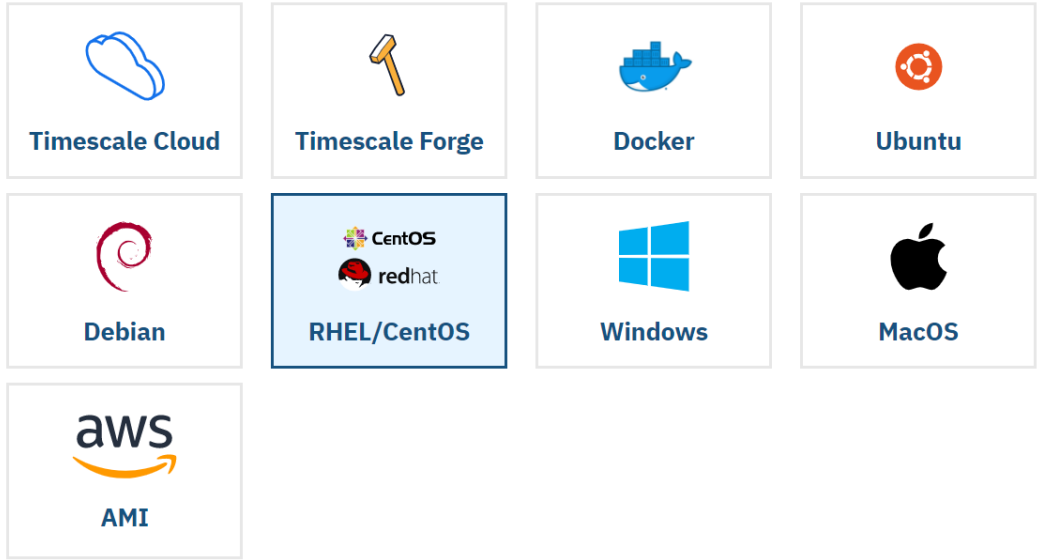
History and trends compression

Enable compression

* Compress records older than 7d

TIMESCALEDB INSTALLATION

- https://docs.timescale.com/ - It's that easy!



ENGLISH

ZABBIX MEETUP ONLINE '20

PostgresPro

TIMESCALEDB CONFIGURATION

- Enable TimescaleDB for Zabbix Database

```
echo "CREATE EXTENSION IF NOT EXISTS timescaledb CASCADE;" | sudo -u postgres psql zabbix
```

- Then run the timescaledb.sql script located in database/postgresql

```
cat timescaledb.sql | sudo -u zabbix psql zabbix
```

- Enjoy your installation!

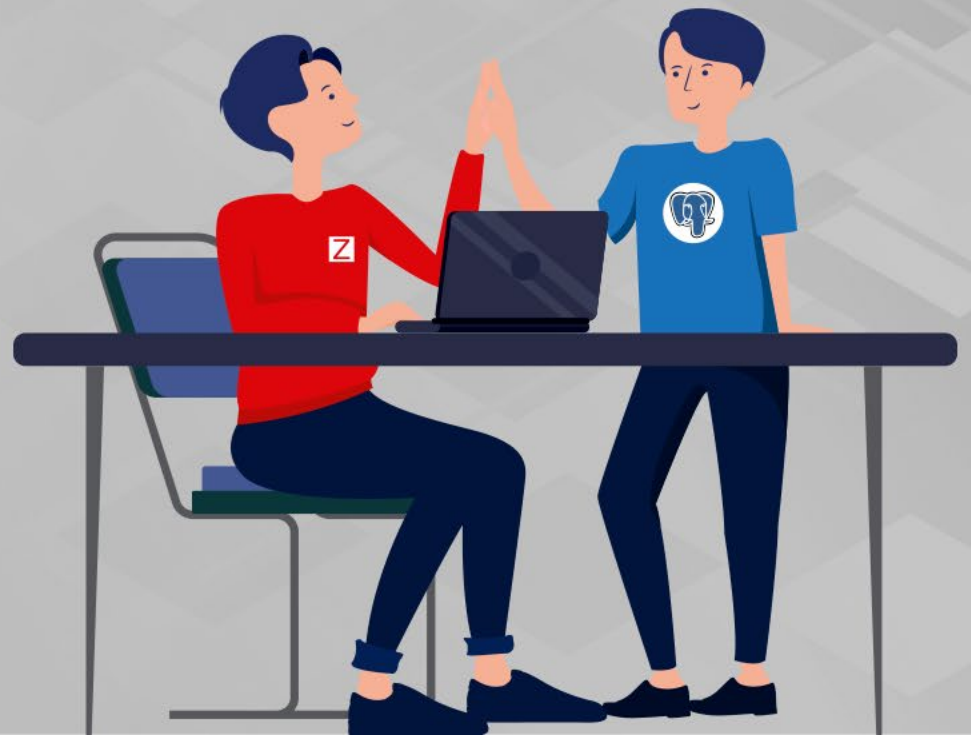
ZABBIX + TIMESCALE =

ENGLISH

ZABBIX MEETUP ONLINE '20

PostgresPro

THANK YOU!



Dmitry Lambert

ZABBIX Head of Support