As any small-scale industry begins to expand business, it becomes more expensive and harder to deal with on-premise database system, which ultimately leads to more traffic and losing agility. A solution is to migrate database to the cloud with additional benefits like Data Storage Flexibility, Improved Disaster Recovery and Security, Increased Operation Efficiency, Lowered Power and Labor Costs etc. Along with migrating the upcoming Customer Relationship Data, it is advantageous to consider legacy data in order to analyze trends and plans, and measure performance.

Number of organizations provides cloud storage involving tech giants Amazon, Google and Microsoft. Being widely used and free for one year, Amazon AWS RDS PostgreSQL is used in this project. Data is migrated to cloud in two parts as shown in section A, and then loaded for visualizations to Power BI as shown in section B.

Section A: Data Migration to Cloud

1. Legacy data is migrated using Open Source administration and development platform PGAdmin. Connection is established as shown in first four steps of Section B.
2. Dynamics 365 and PostgreSQL are integrated to migrate recent and upcoming data.

Section B: Data loading from cloud to Power BI

1. Sign up to <https://aws.amazon.com> and create RDS PostgreSQL as shown on <https://aws.amazon.com/getting-started/tutorials/create-connect-postgresql-db>
2. To allow PGAdmin and Power BI connection request, Inbound and Outbound rules are edited to allow access from specific IP addresses.
3. PGAdmin is installed from <https://www.pgadmin.org/docs/pgadmin4/3.x/pgagent_install.html>
4. With the help of EndPoint, Port, and credentials, connection is established. Tables are created and Legacy data inserted to the tables.
5. Connection between Power BI and PostgreSQL requires downloading AWS public key, converting it to PKCS#7/P7B certificate, and importing the converted certificate to trusted root certificates.
6. AWS public key is available at <https://s3.amazonaws.com/rds-downloads/rds-combined-ca-bundle.pem>, which is converted to certificate using the link <https://www.sslshopper.com/ssl-converter.html>.
7. Certificate imported to trusted root as shown on [https://www.sslsupportdesk.com/how-to-enable-or-disable-all-puposes-of-root-certificates-in-mmc](https://www.sslsupportdesk.com/how-to-enable-or-disable-all-puposes-of-root-certificates-in-mmc/).
8. Clicked on Get Data, selected PostgresSQL database, entered Server, database and credentials and the connection is successfully established.