Progress®

Data Management

Data Integration and Analytics

Brent Adonis – badonis@progress.com

and Marek Bujnarowski – mbujnaro@progress.com

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Evolving for Seamless Data Integration

Progress Delivers on the New Requirements

Adaptive Experiences

Frontend tools to build adaptive user experiences

- Responsive Web
- Native Apps
- ModernUI
- Chatbots
- Emerging Channels

Cognitive Cloud

Cloud services including robust backend services, machine learning, business rules and content

- Intelligence as a Service
- Backend as a Service
- Rules as a Service
- Content as a Service
- Application Development

Connected Data

Universal connectivity that makes all data accessible and usable

- IoT
- Systems of Record
- Big Data
- Content
- Cloud Apps

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Progress Delivers on the New Requirements

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About Progress DataDirect

Mission: To harmonize access to the world's disparate data giving Enterprises and ISVs frictionless access to the information they need.

8 of 9

Leading Business Intelligence (BI) vendors embed Progress DataDirect drivers.

96 of Fortune 100

Enterprise organizations leverage Progress DataDirect connectivity solutions.

350+

ISVs distribute Progress DataDirect drivers.

10,000+

Enterprises rely on Progress DataDirect for their database connectivity.

1M+

Business users seamlessly access data daily enabled by Progress DataDirect.

THE AMERICAN BUSINESS AWARDS℠

2016 FINALIST MASSTLC LEADERSHIP AWARDS

DBTA 100

PEOPLE'S CHOICE STEVIE® AWARDS FOR FAVORITE NEW PRODUCTS

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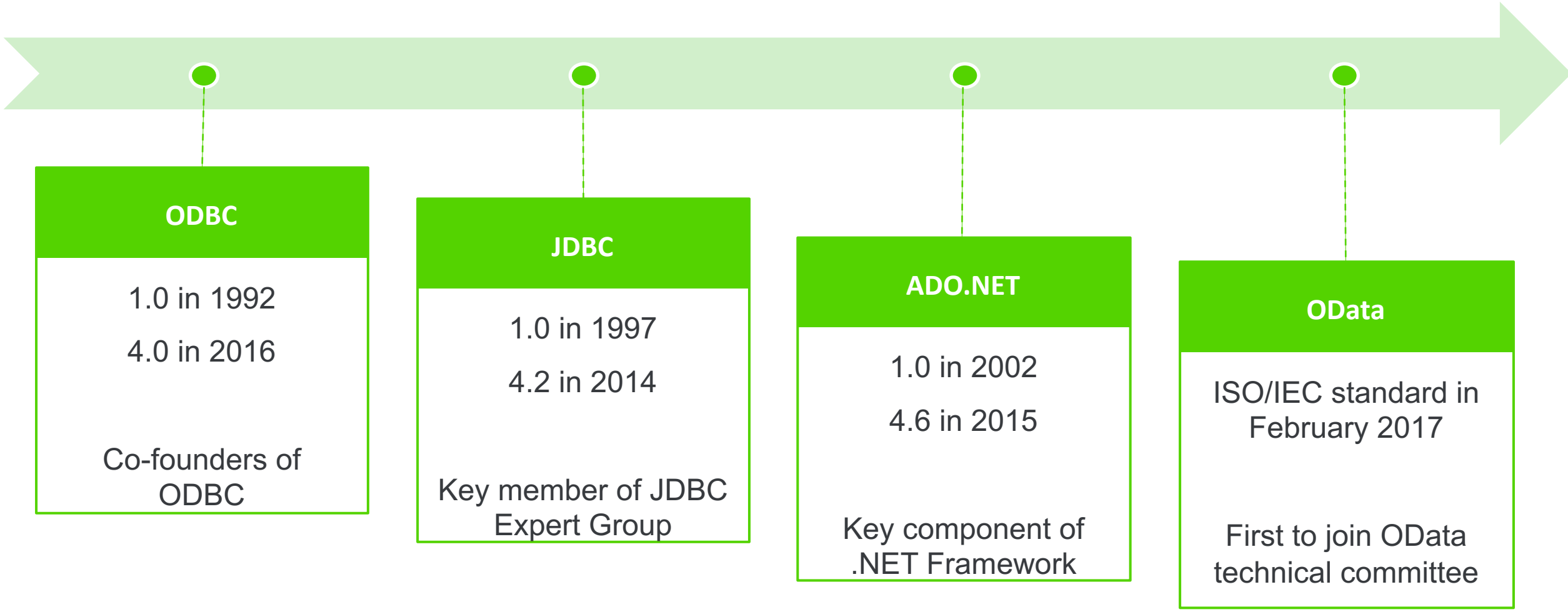
Progress' Rich Heritage with Open Standards and APIs



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Unparalleled OEM Customer Base

ANALYTICS	DATA MANAGEMENT	SYSTEMS INFRASTRUCTURE	BUSINESS APPLICATIONS	APPLICATION DEVELOPMENT & DEPLOYMENT
IBM	IBM	IBM, GE	NETSUITE	Adobe
Qlik	ORACLE	DELL Software	SUNGARD	ORACLE
ORACLE	informatica	Pivotal	Deltek	SAP
DATAWATCH	SAP	software AG	BENEFITFOCUS	actian
SAP, sas	syncsort	hp, ca technologies	PLEX	
TIBCO	TERADATA Raising Intelligence	VOLTDB, ATTIVIO	servicenow	
OPENTEXT	Experian		Blackboard learn	
MicroStrategy Best In Business Intelligence				

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The World's Data Flows Through Our Products

ISV

FINANCIAL SERVICES

TELECOM

HEALTHCARE

MANUFACTURING

RETAIL

GOVERNMENT

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Try a Connector for Any Data Source for Free

BIG DATA

- Amazon EMR Hive
- Apache Cassandra
- Apache Hadoop Hive
- Cloudera CDH Hive
- Cloudera Impala
- DataStax Enterprise
- Hortonworks Hive
- IBM BigInsights Hive
- MapR Hive
- MongoDB
- Pivotal HAWQ
- Pivotal HD Hive
- Spark SQL

RELATIONAL AND ANALYTICS

- Amazon Redshift
- Clipper
- dBase
- EnterpriseDB
- Foxpro
- IBM DB2
- IBM Informix
- Microsoft Analytics Platform System
- Microsoft SQL Azure
- Microsoft SQL Server
- MySQL Community
- MySQL Enterprise
- Oracle Database
- Pervasive SQL (Btrieve)
- Pivotal Greenplum
- PostgreSQL
- Progress® OpenEdge®
- SAP Sybase ASE
- SAP Sybase IQ
- Teradata

SAAS/CLOUD

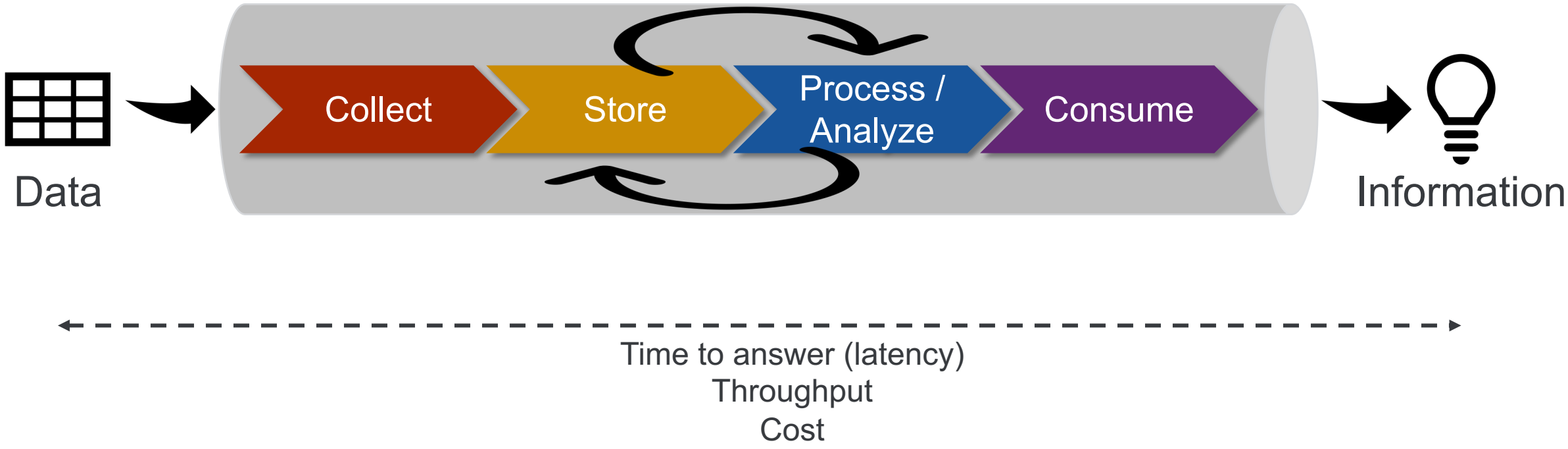
- Aurora PostgreSQL
- Data Sources Using Salesforce Lightning Connect
- FinancialForce
- Force.com Applications
- Google Analytics
- IBM dashDB
- IBM Db2 Hosted
- Microsoft Dynamics CRM
- Microsoft Azure SQL Data Warehouse
- Oracle Autonomous Data Warehouse Cloud
- Oracle Database Cloud Service
- Oracle Database Exadata
- Oracle Eloqua
- Oracle Sales Cloud
- Oracle Service Cloud
- Progress® Rollbase®
- REST API
- Salesforce.com
- ServiceMAX
- SugarCRM
- Veeva CRM

TEXT/XML/EDI

- EDI data
- Flat files: CSV, TSV, Text files and more
- Healthcare EDI: HIPAA, HL7 and NCPDP
- XML

The Core of Data Integration

Turning Data Into Actionable Information



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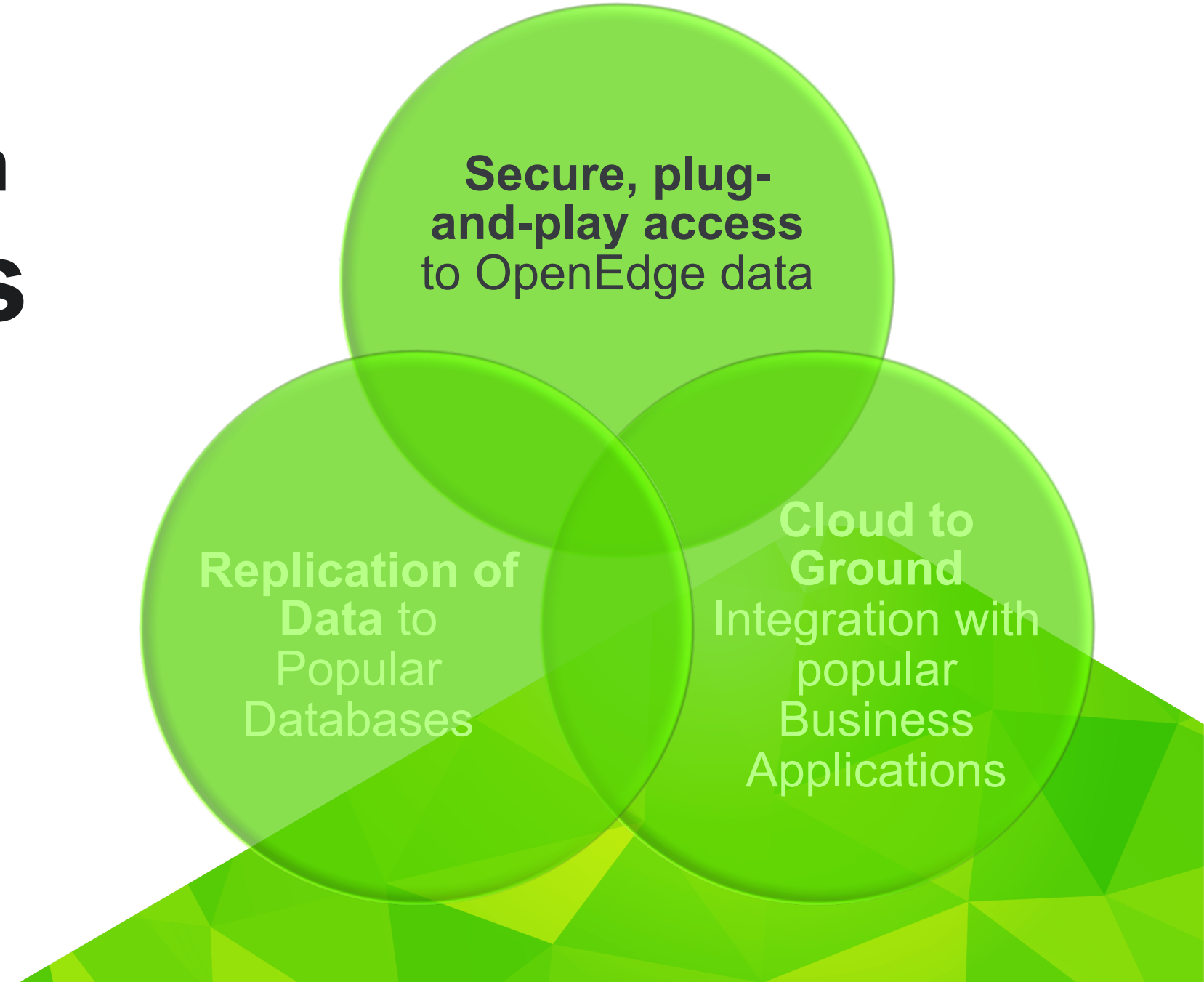
Data Integration
Use Cases



Why Not Connect Directly to the Database?

DIY Multi-tenancy… Regulatory Compliance Requirements… QoS Concerns… Complex Schema…

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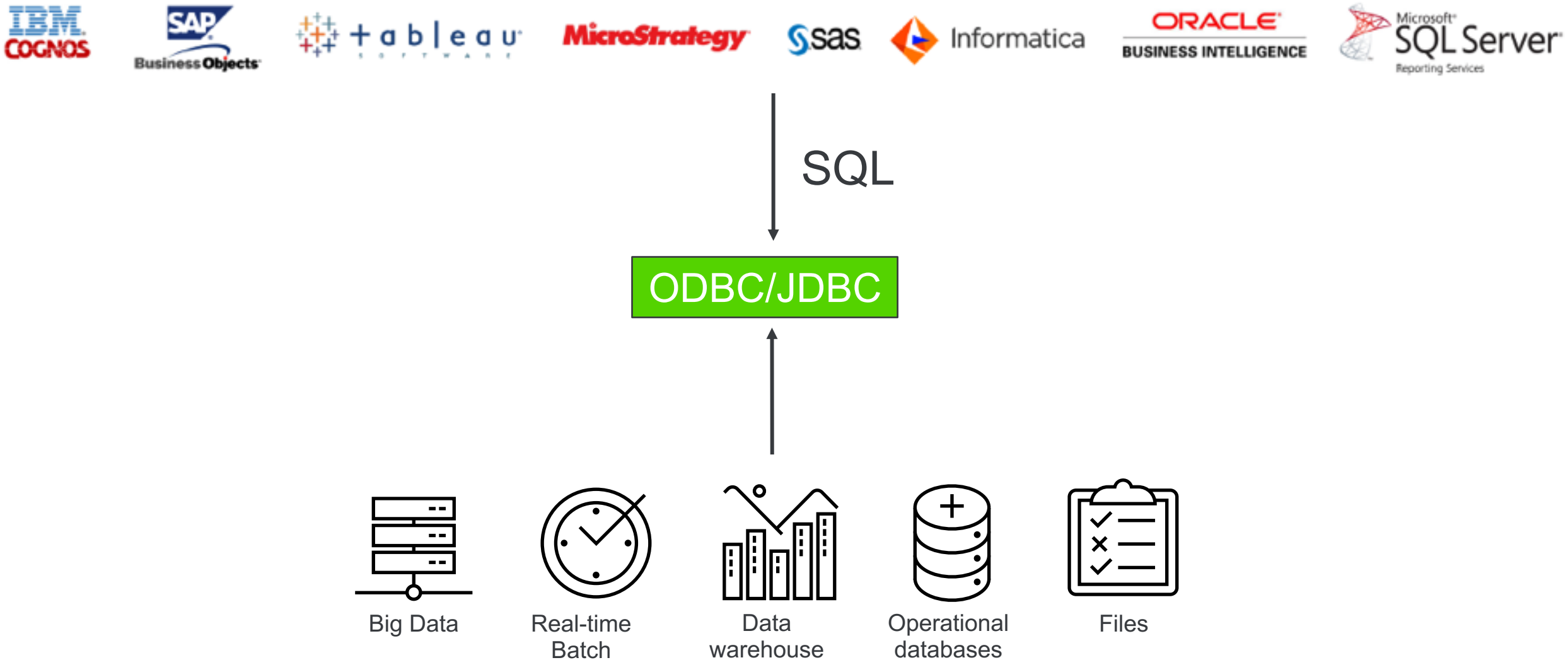
SQL is a Common Approach



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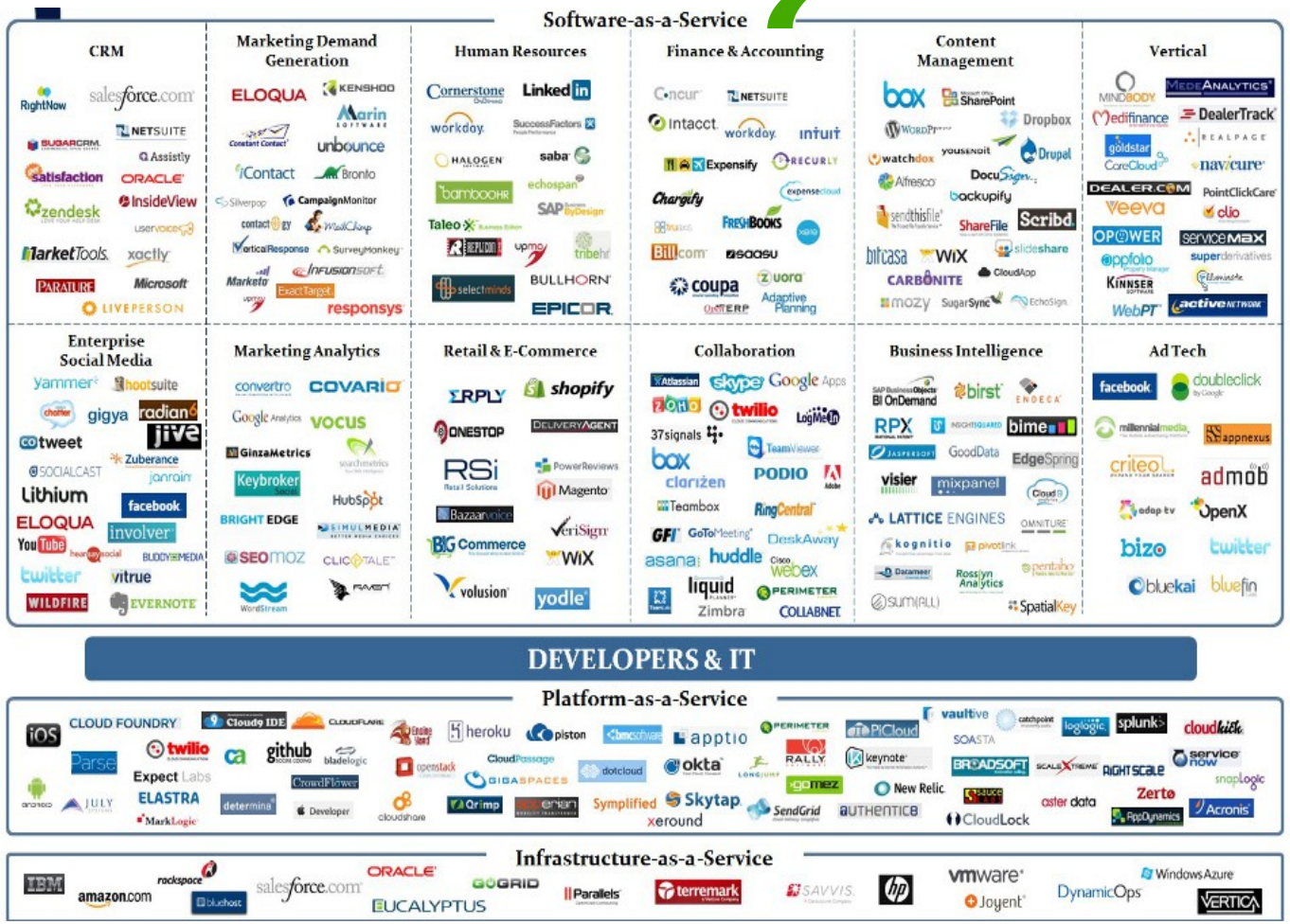
Applications Are New Data Silos

Access to each is proprietary, and perplexing



Example of developer pain

Data Source	Proprietary API
Eloqua	Web Services API (REST/SOAP) Bulk and non-Bulk APIs No query language
Oracle Service Cloud	Web Services APIs (REST/SOAP) ROQL query language
Google Analytics	Hypercube (query limits of 10 metrics grouped by max of 7 dimensions)
Veeva CRM	SOAP, BULK, Metadata APIs SOQL query language

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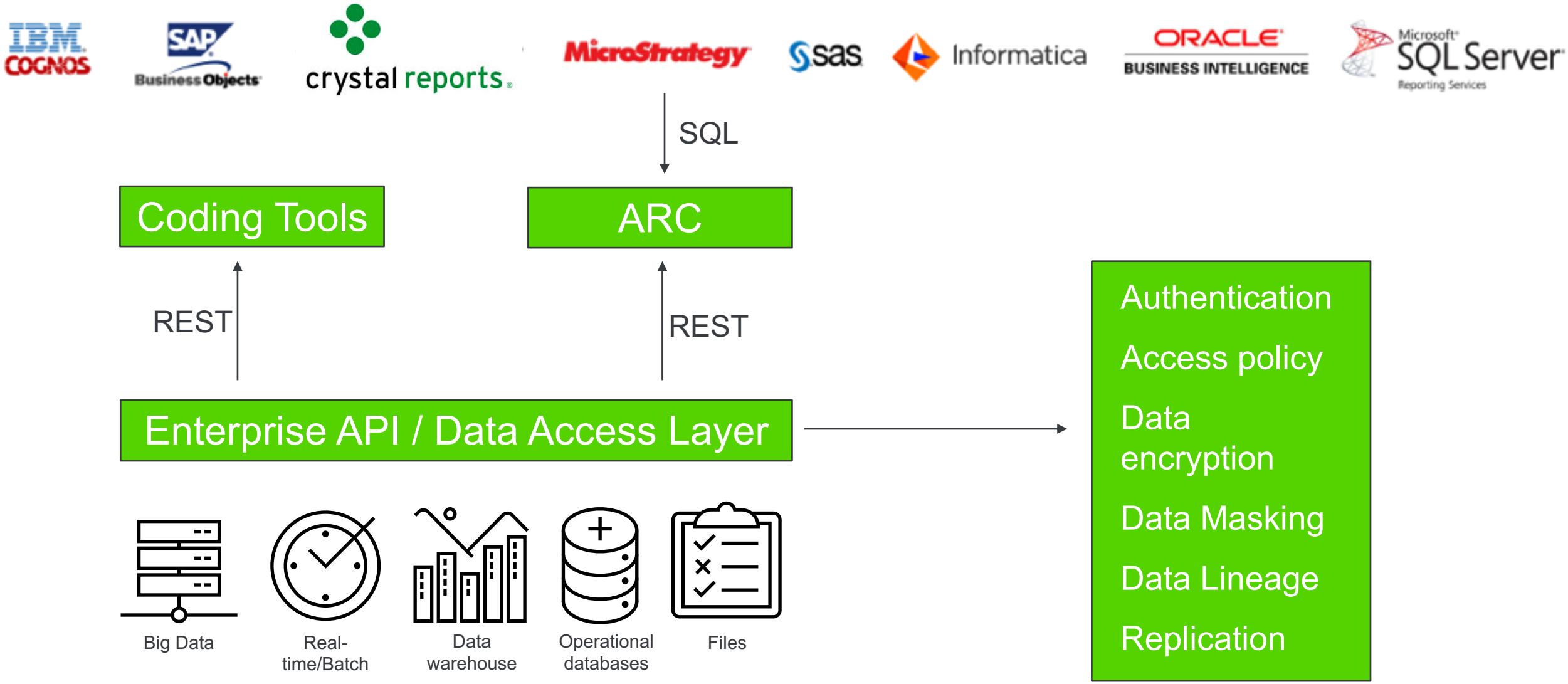
REST APIs are a New Approach



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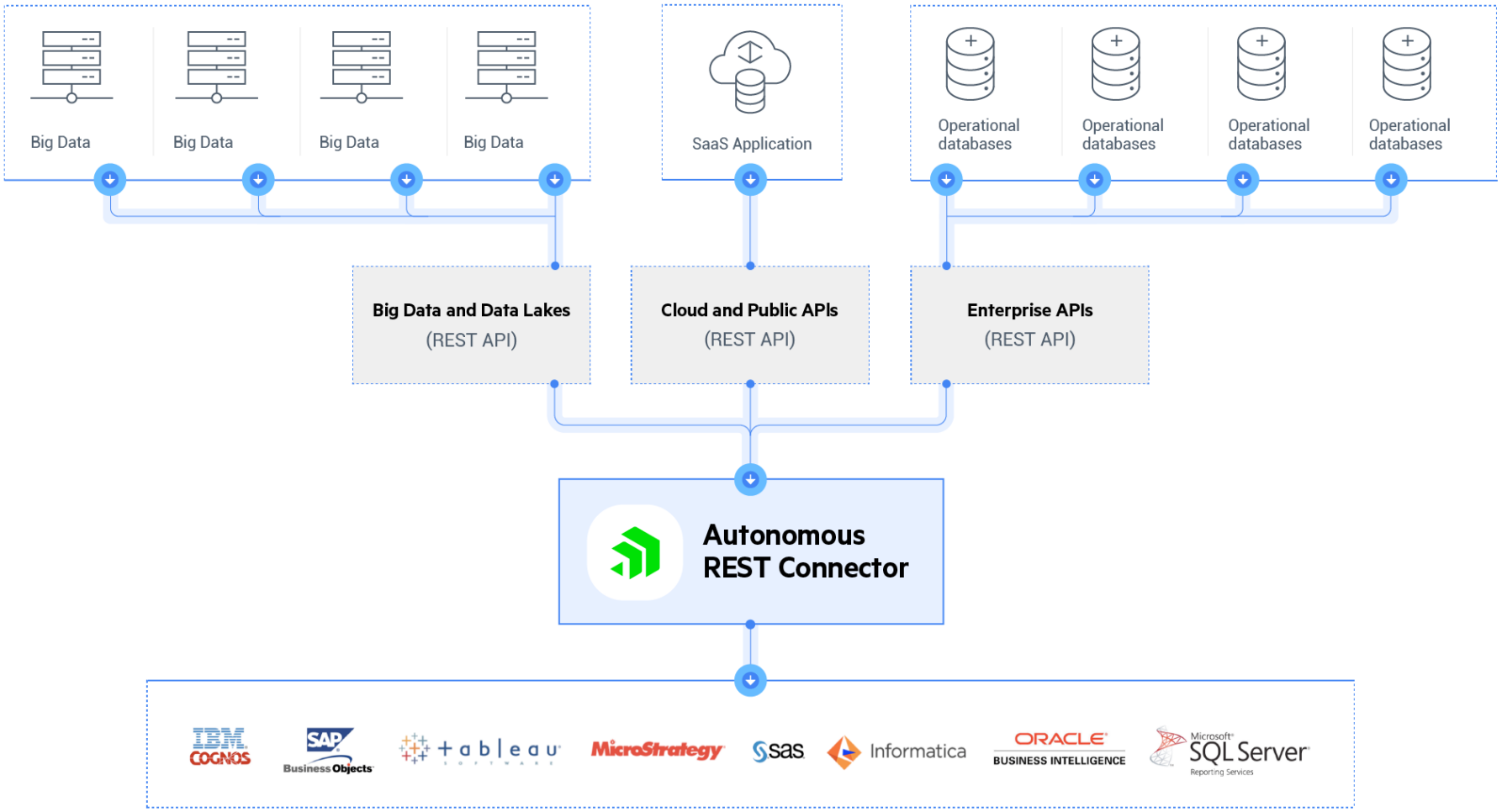
Autonomous REST Connector

Deliver seamless, real-time connectivity between REST data and your ODBC/JDBC tools and applications



No code, no hassle

- Automatically maps all JSON responses to relational data models using intelligent sampling
- Compatible with OpenEdge JSDO
- Offers extensive SQL 92 SELECT support
- Supports all popular authentication methods

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oe-demo.dyndns.org:8810/Sport

Not secure | oe-demo.dyndns.org:8810/Sports/static/SportsService.json

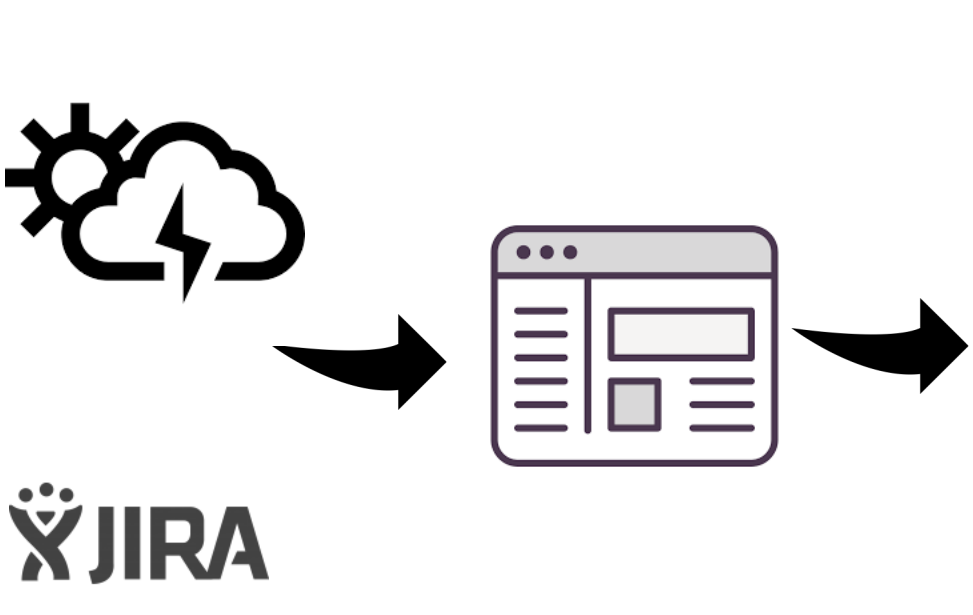
Raw Parsed


```
{
  "version": "1.4",
  "lastModified": "Fri May 19 02:20:59 UTC 2017",
  "services": [
    {
      "name": "SportsService",
      "address": "/rest/SportsService",
      "useRequest": true,
      "resources": [
        {
          "name": "Customer",
          "path": "/Customer",
          "autoSave": true,
          "schema": {
            "type": "object",
            "additionalProperties": false,
            "properties": {
              "dsCustomer": {
                "type": "object",
                "additionalProperties": false,
                "properties": {
                  "ttCustomer": {
                    "type": "array",
                    "primaryKey": [
                      "CustNum"
                    ],
                    "items": {
                      "additionalProperties": false,
                      "properties": {
                        "_id": {
                          "type": "string",
                          "semanticType": "Internal"
                        },
                        "_errorString": {
                          "type": "string",
                          "semanticType": "Internal"
                        },
                        "id": {
```

Most Common Use-Cases for ARC

Leverage public information to augment decision making

Integrate with common application data



Access application data for Analytics, BI

Bring application data into a data warehouse or data lake

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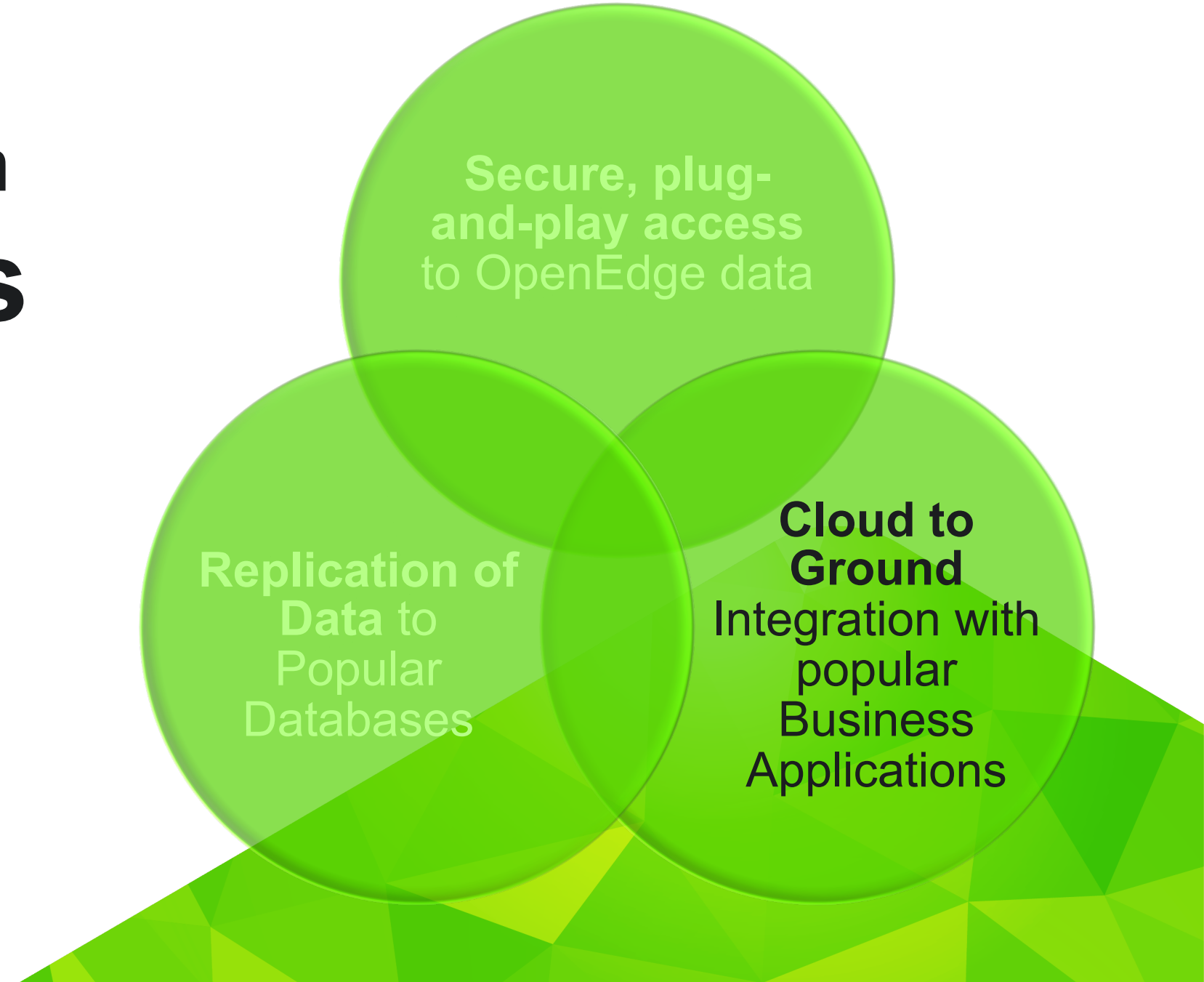
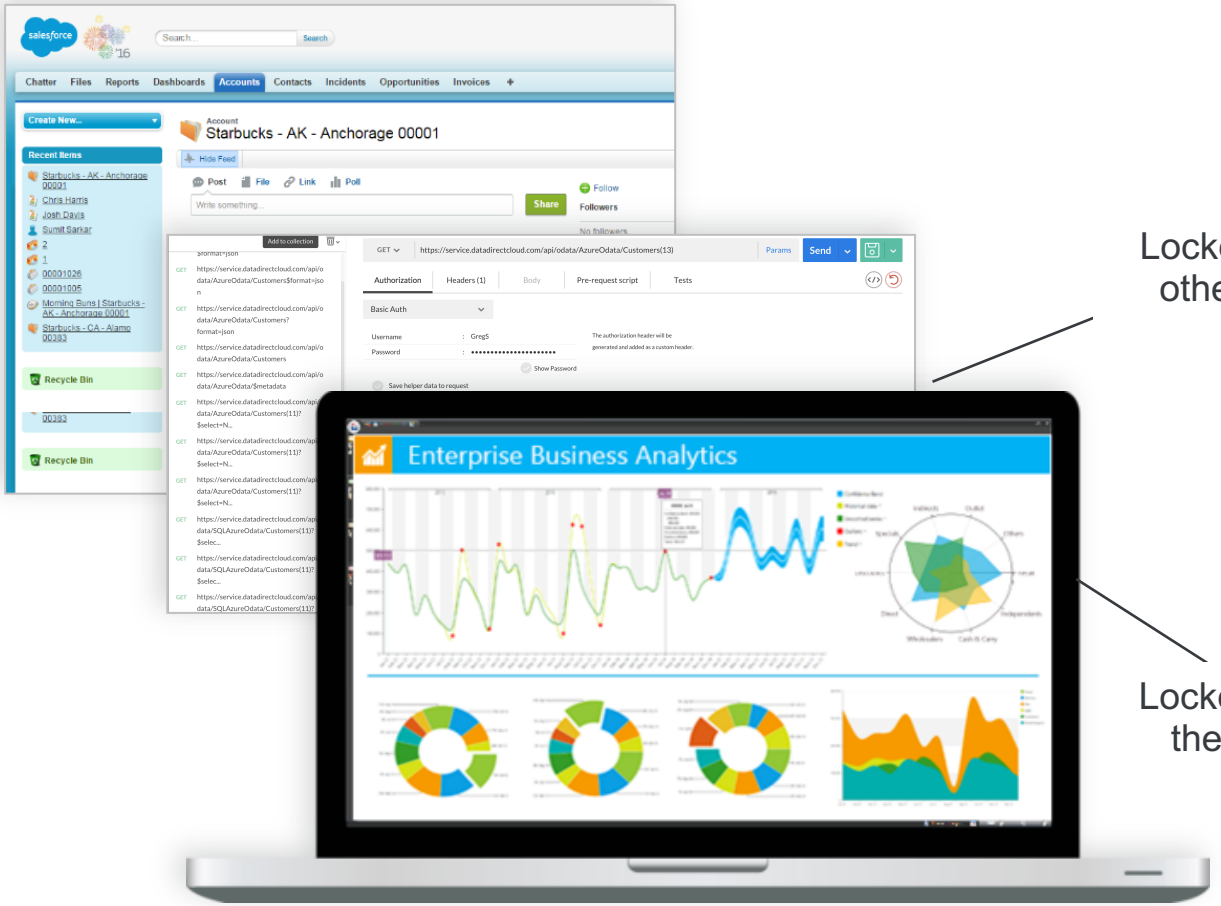
Data Integration
Use Cases



Rise in Hybrid Environments Signals the Demise of Secure and Easy Access to Data



Locked behind other clouds

Locked behind the firewall

salesforce

Marketo

ORACLE MARKETING CLOUD

Google Analytics

Progress OpenEdge

hadoop

Microsoft SQL Server

ORACLE

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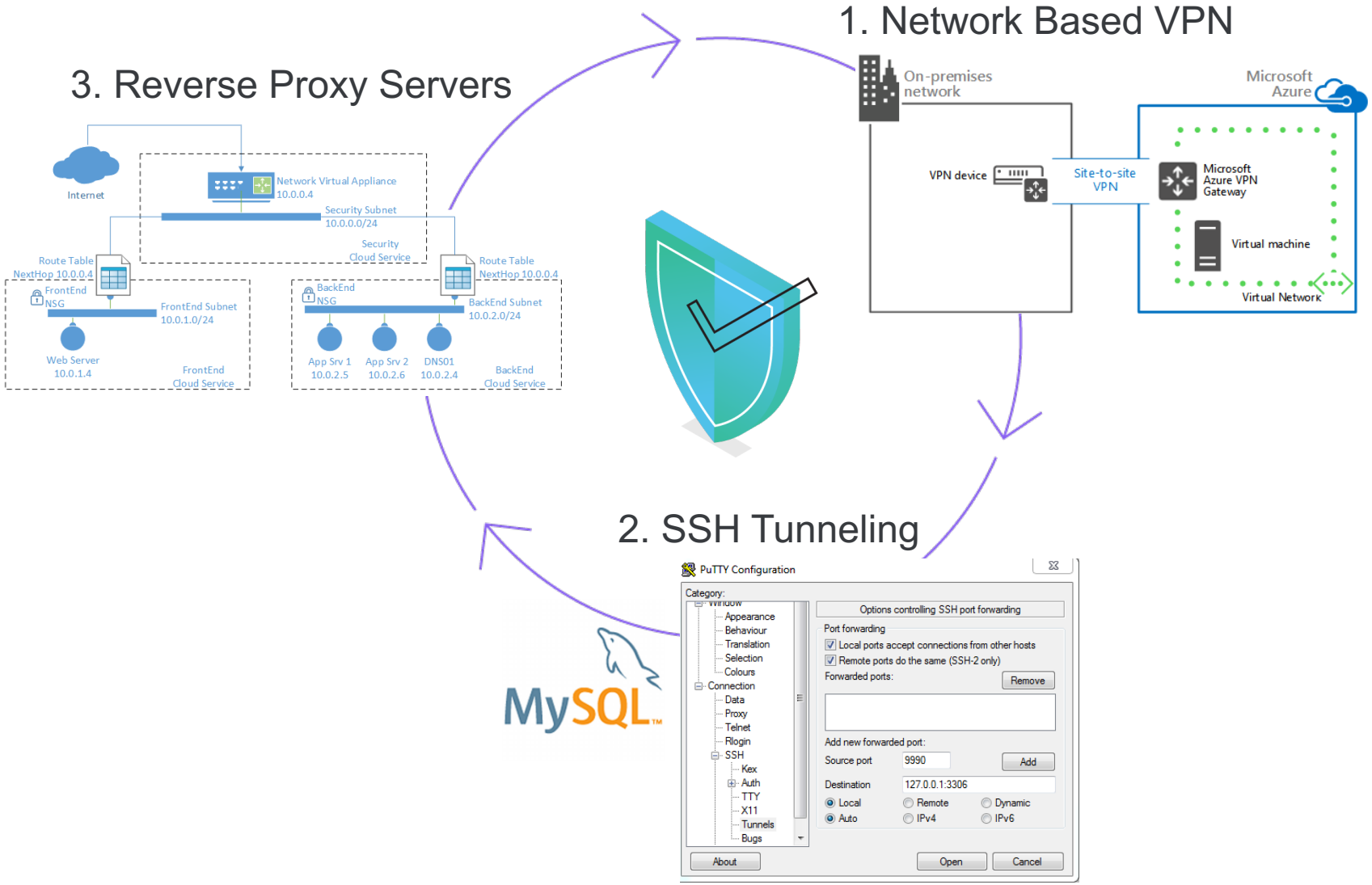
For Data Behind a Firewall, There is no Common Access Approach for Clouds



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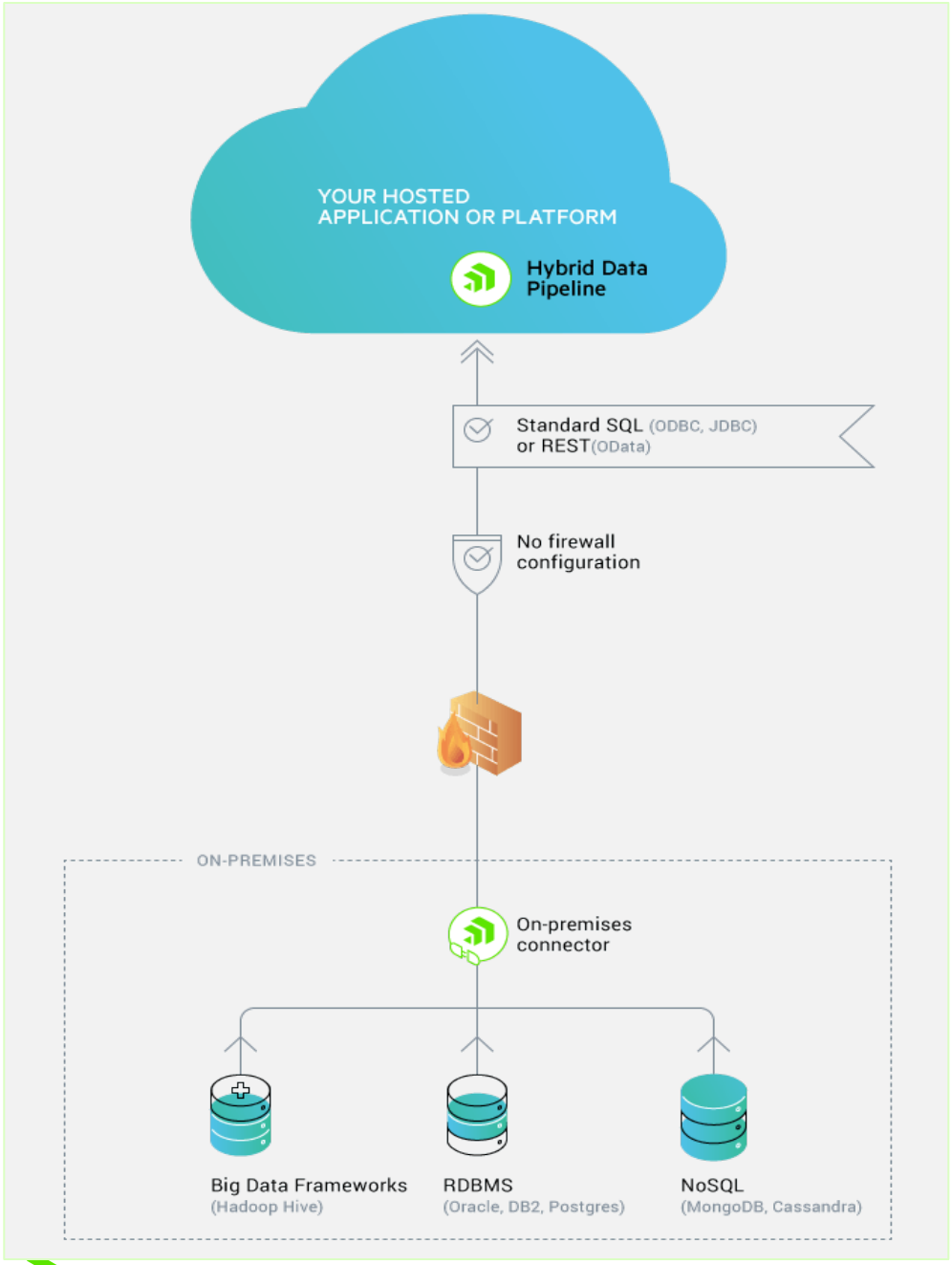

Hybrid Data Pipeline is our self-hostable hybrid connectivity solution

- **SQL-enable** your applications, on-premises or in the cloud
- **OData-enable** your applications, on-premises or in the cloud
- Perform **Cloud2Ground Data Access** across a firewall
- API-enable a database directly, with **zero code**
- Deploy a multi-tenant, highly available, secure, **manageable data access layer** for RDBMS, NoSQL, Big Data, and SaaS apps

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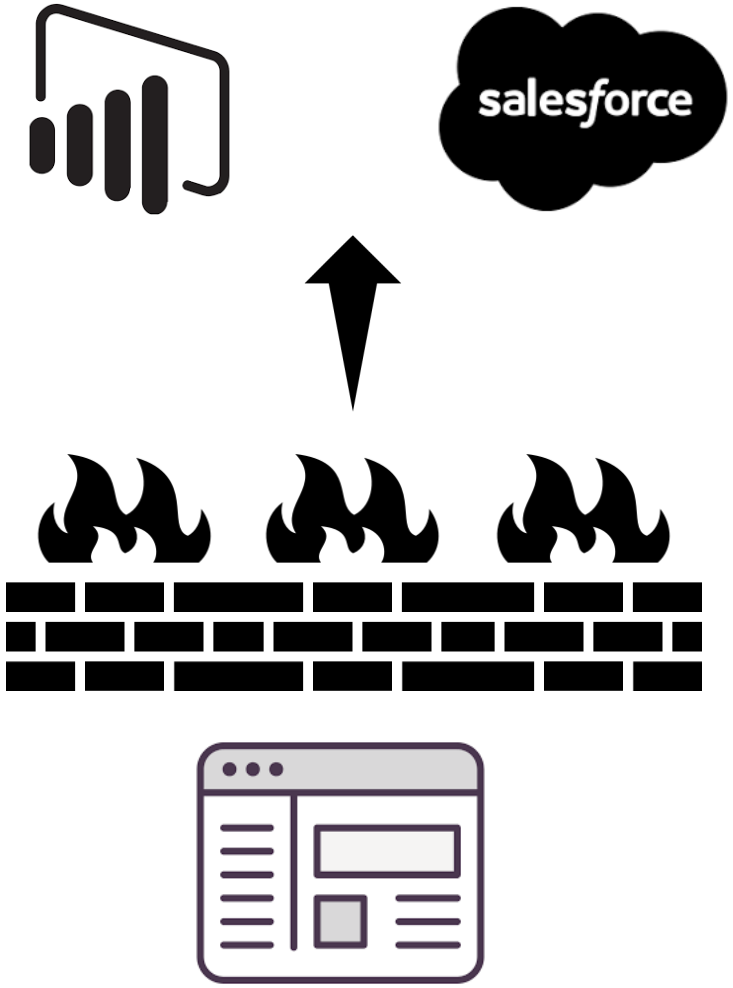
Most Common Use-Cases for HDP

Bring on-premises application data into a cloud BI tool (e.g. PowerBI from MSFT)



Put application data front and center to Sales/Support reps in Salesforce

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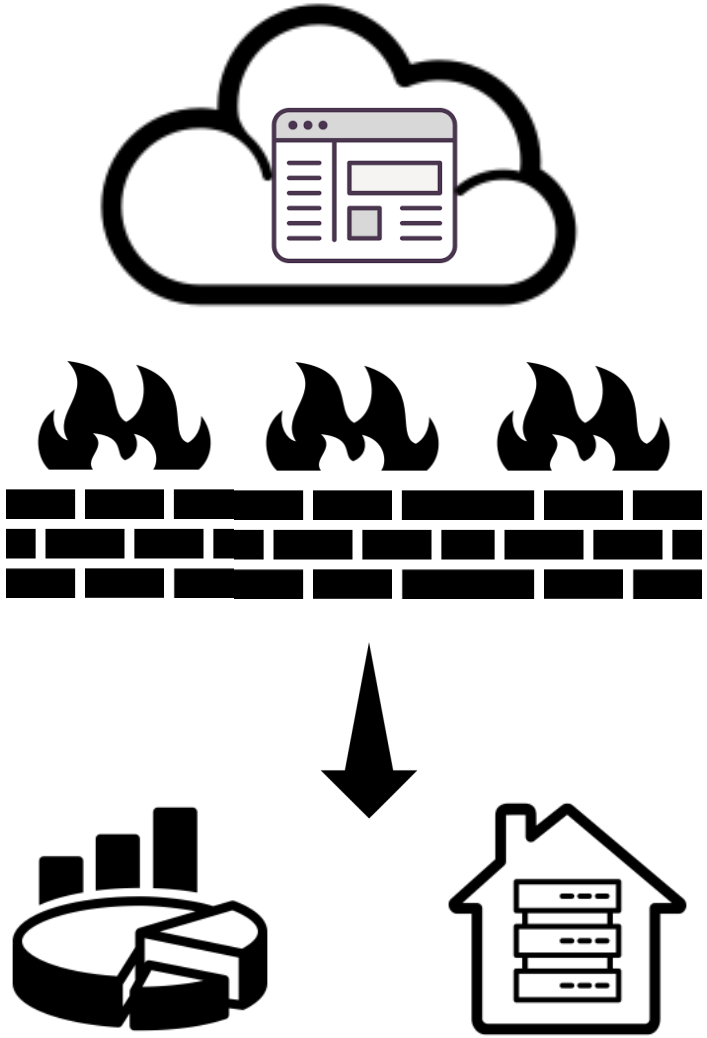
Most Common Use-Cases for HDP



Access cloud (SaaS) application data from an on-premises BI tool

Integrate cloud (SaaS) application data with an on-premises data warehouse or data lake, or across clouds!

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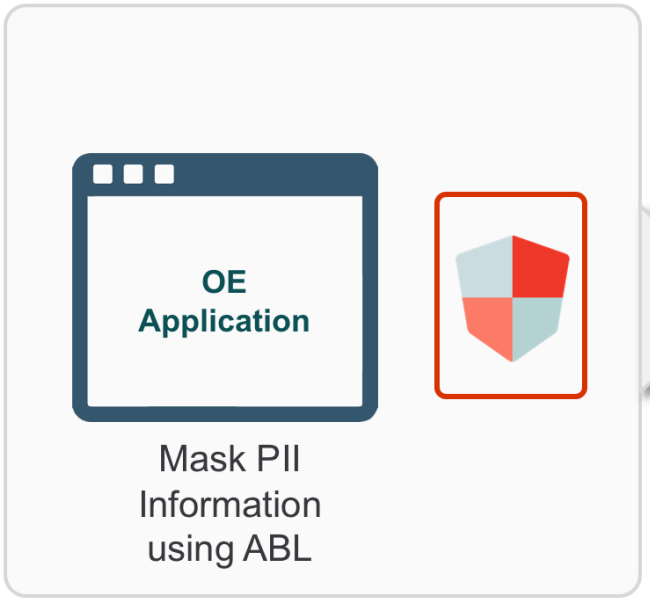
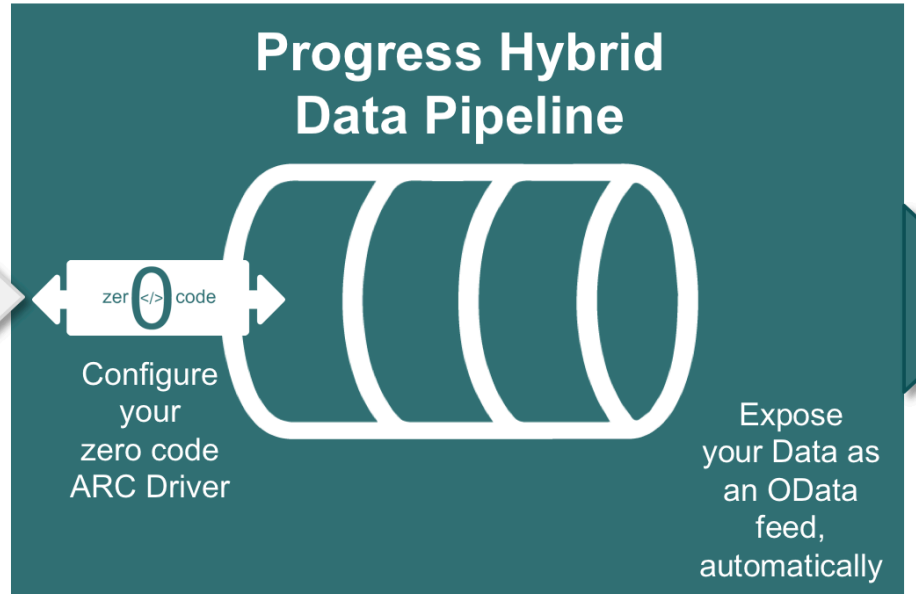
ARC + Hybrid Data Pipeline

Cloud to Ground Integration

Your OE Application



Progress Hybrid Data Pipeline



Consuming Application

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DataDirect Hybrid Data Pipeline | Home | Salesforce

https://forge.demo.datadirect.com:8443/d2c-ui/index.jsp#/datasourceform

Progress

Hello forgedemo

DataDirect Hybrid Data Pipeline

- Data Sources
- SQL Testing

Edit JDBC Data Source

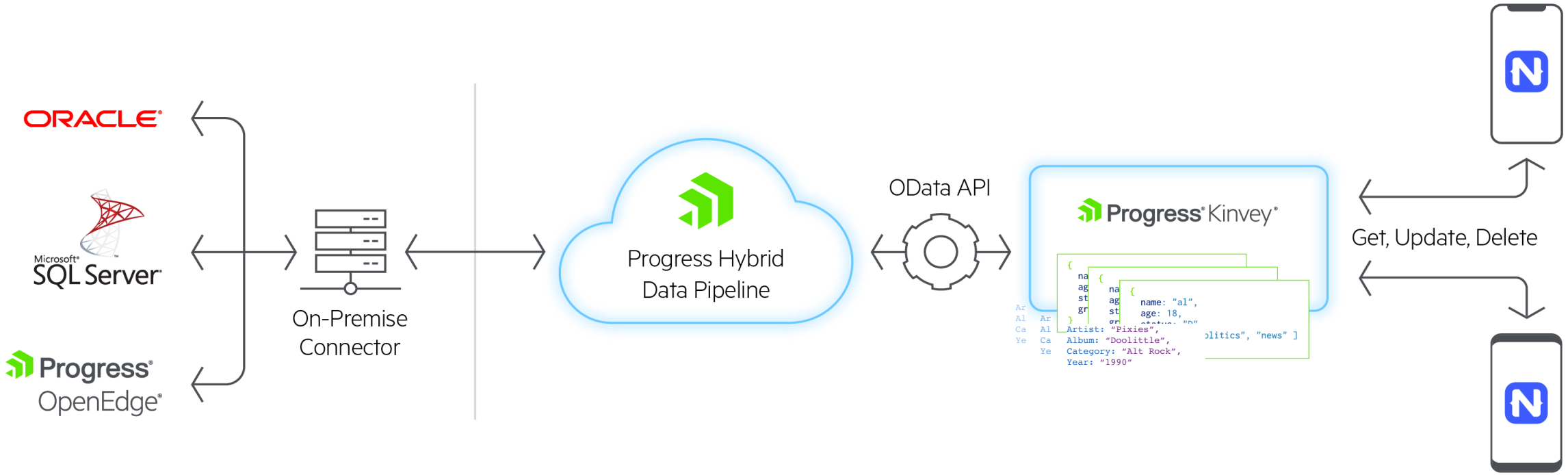
CANCEL | TEST CONNECTION | UPDATE

General | OData

* Required fields

Data Source Name:*	OpenEdgeREST
Description:	
Driver Class:*	com.ddtek.jdbc.restful.RestfulDriver
User ID:	1
Password:	•
Connector ID:	
Metadata Exposed Schemas:	
Connection URL:*	jdbc:Datadirect:restful:database=forge_oe;config='h

New Apps Need Access to Data



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Competitive Options

- Export as Excel or CSV
  - Simple, but isn't real-time, is manual, and brittle to integrate
- Custom-Coded Solutions:
  - SaaS connectors: ISVs often develop in-house solutions for popular apps such as Workday, Concur, Jira, etc.
    - New APIs are created every day. Keeping up with the pace of application development is not a scalable solution.
  - Web Data Connectors: Some companies like TIBCO and Tableau have built their own web data connector.
    - These connectors generally involve custom coding, require continual updates and can be difficult to support.
- Big ETL tools (e.g. Informatica)
  - Expensive, complex, skills?

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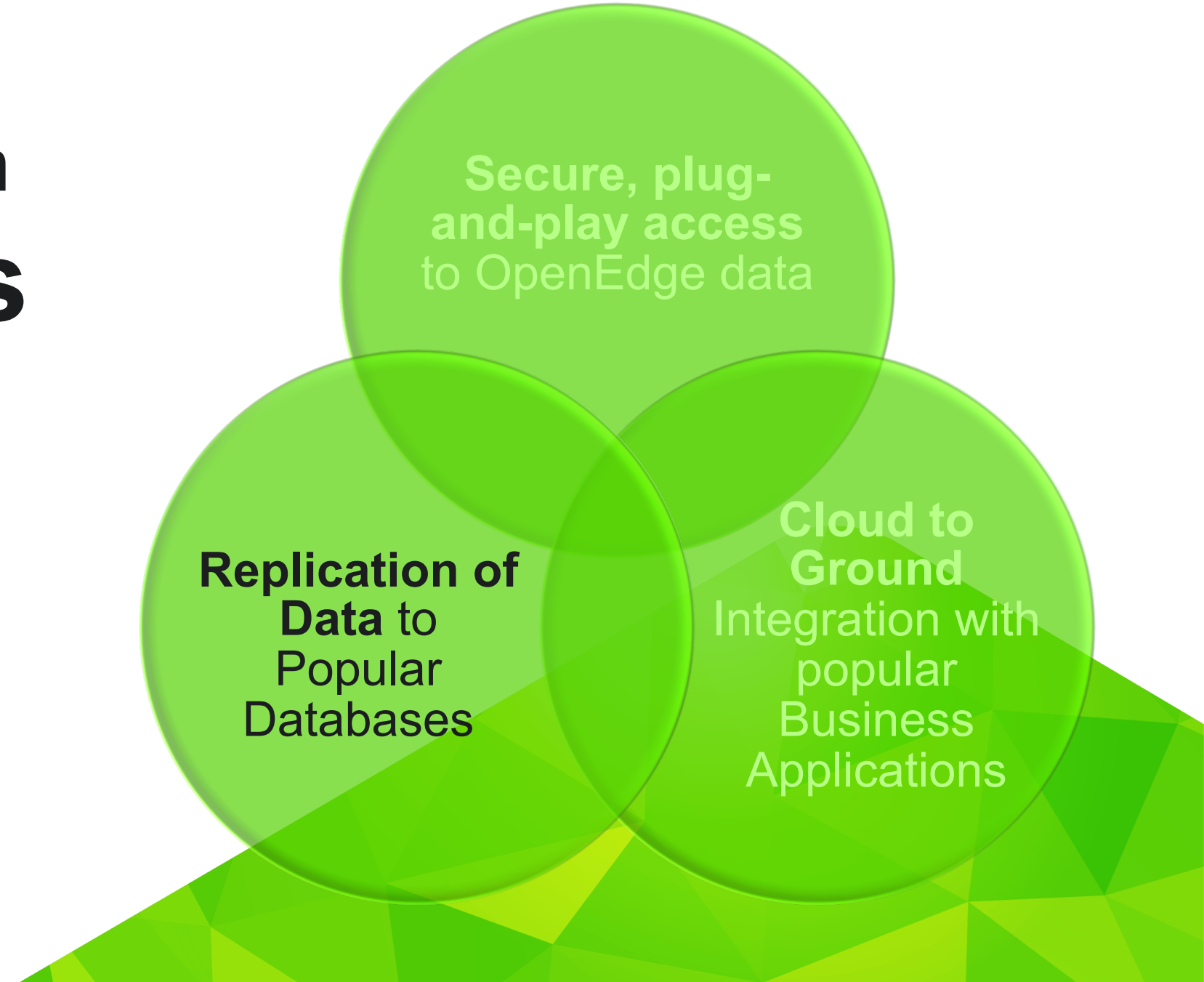
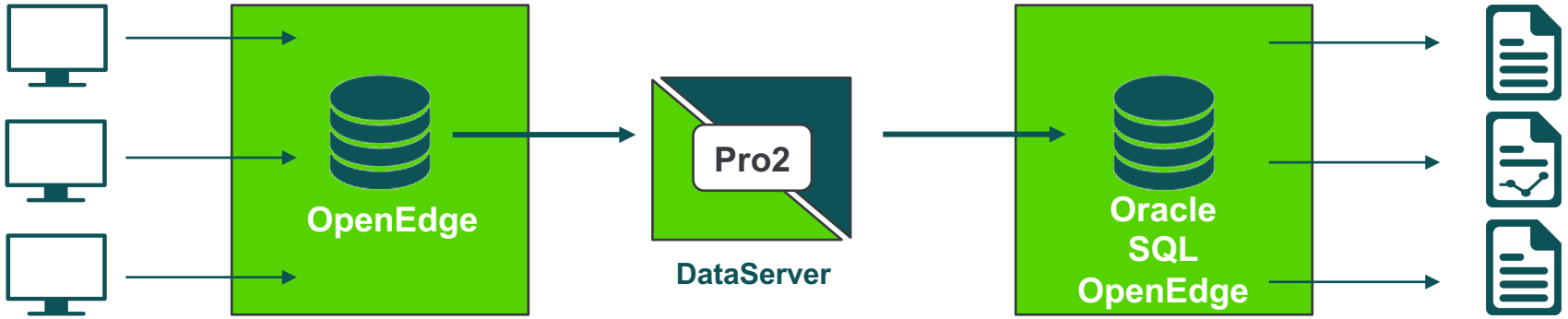
Data Integration
Use Cases



Pro2: Secure, Real-time Replication of OpenEdge Business Data

- Pro2™ is a product for live, real-time replication of OpenEdge data to a MS-SQL Server, Oracle or OpenEdge target.



- Delivers quick and easy access to mission-critical data from your OpenEdge system
  - Without disrupting normal business operations or risking transactional database performance and stability.

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The Pro2 Family

- Pro2SQL - Supports MSSQL deployments
- Pro2Oracle - Supports Oracle deployments
- Pro2Progress -Supports OpenEdge deployments

Single Source Server

- Pro2Enterprise - Supports deployments for the enterprise → Multi-Server. Single Site.

Pro2 Includes

- OpenEdge Database or DataServer license.
- CDC License. (For use with Pro2 only.)
- 4GL Development License. (To recompile modifications.)
- OpenEdge client license.
- Pro2 Application code including triggers or Java Stored Procedures (for SQL Support).
- Additional products may be required based on the configuration

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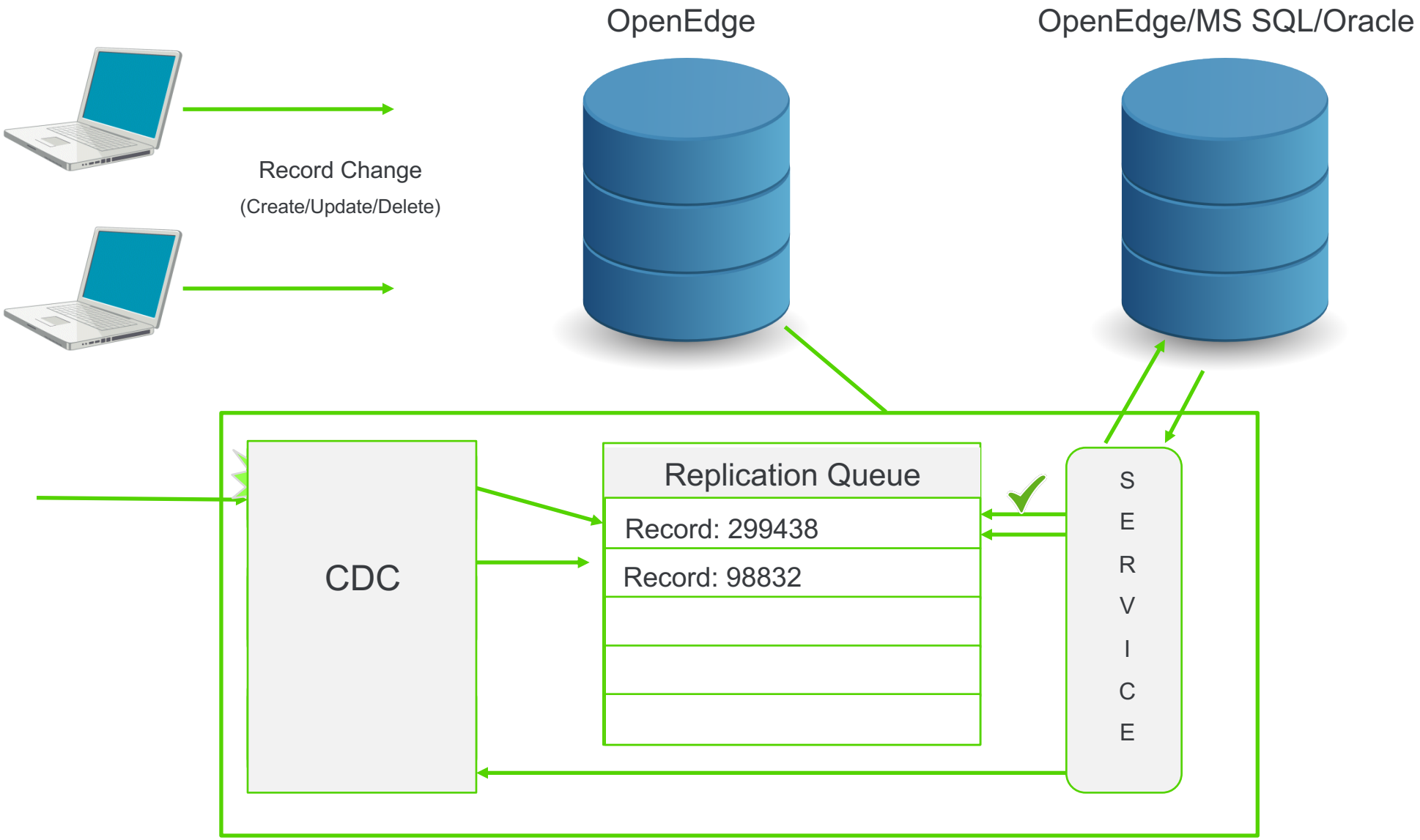
How Pro2 works



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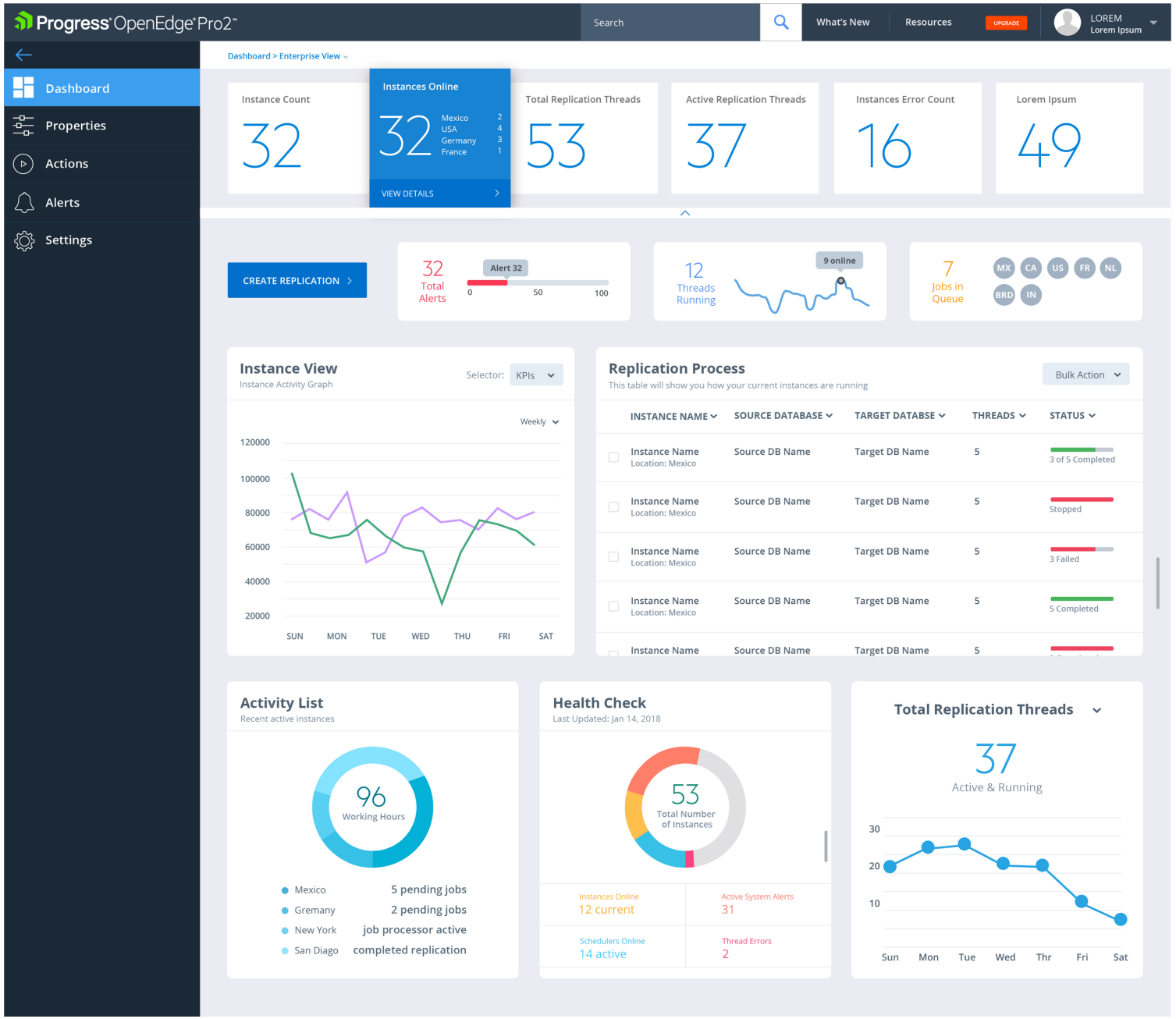

OpenEdge **Pro2**

ABL-based ETL

Replicate from OpenEdge DB to SQL Server or Oracle

Beautiful new UX to delight and enhance your DBA

Available on Linux for the first time ever

Leverage OpenEdge CDC for low latency replication

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Demonstration

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Evolving for Seamless Data Integration

- **Secure Plug-and-play Access to OpenEdge Data**
  - Protect Personally Identifiable Info, comply with GDPR regulations & offer simplified schema
- **Integration Between Cloud & On-premise Business Apps**
  - Merging data is expensive & time-consuming
  - Stale data versus real-time
- **Replication of OpenEdge Data to Other Data Sources**
  - SQL Server & Oracle

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Questions?

Thank you

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