

Why You Shouldn't Build Data Connectivity

SOLUTION BRIEF

Data is at the crux of all major business decisions. As your organization vies for faster and better insights, your need for data of all shapes and sizes will only grow.

In a matter of decades, technology has evolved from mainframe computing to enabling today's hyper-connected world with its continuous avalanche of data—transforming not only the way we live but how we do business, as well.

Data matters now more than ever. Wherever your company has data—in the cloud, on-premises behind a firewall, or both—it's essential to deliver real-time connectivity with enterprise, cloud-based or mobile applications to virtually any data source, using any API, from any device on any platform.

These are common examples of disconnected environments that result from continuous data disruption:

- 1 On-premises databases often expose tables for SQL access and business applications commonly expose data using web services such as REST. However, it's becoming increasingly common for your enterprise applications to expect an interface not currently exposed by the data source.
- 2 SaaS-based solutions often replicate data behind the firewall into the cloud because it's disconnected from cloud to ground by the corporate firewall, requiring IT to open up ports in the firewall.
- 3 Fit-for-purpose data sources such as MongoDB, Cassandra and Hadoop platforms store and expose data in different shapes and sizes that are often incompatible with open standards for analytics and data management.
- 4 Today's exploding data landscape brings surprising new connectivity challenges you can't afford to ignore. But do you buy or build connectivity? Which is right for you?

Building a Custom Solution is Never Simple

Challenges to building connectivity

Your company likely has an endless variety of applications, each with its own requirements for data access. Internal development requires you to meet the scope of requirements for each application's business need, across the company.

- Some Marketo APIs only access particular fields. Which APIs will you need to use?
- Searching Salesforce external objects is highly resource-intensive. How can you optimize searching while avoiding overloading database resources?
- A single threaded connection to Eloqua is prohibitively slow. Will you code a multithreaded application to satisfy end-user need?

Development obstacles

In an ideal world, building data access connectivity would be straightforward. Your users have an application; they need to pull data from a database into that application. Learning the application API and the database API and building connectivity should be simple, right?

In the real world, things are seldom so simple. It's a rare business that uses one—and only one—interface that works across the organization, and one—and only one—type of database as a repository.

The proliferation of cloud applications and fit-for-purpose databases, including relational, big data, NoSQL, Graph and more, continues to rock the marketplace each year.

Ongoing maintenance and support

Further complicating matters, connectivity must be tested and updated to account for changes to the database with every new database version release. Beyond the initial development, building connectivity requires ongoing maintenance and support, as well as keeping up with every database vendors' release cycle and functionality changes. To illustrate, there were up to five new Hadoop Hive releases in 2016, which get incorporated by each open source and commercial Hadoop distribution. In contrast, for a SaaS application Salesforce updates their APIs quarterly.

Proliferating data sources

Building your own solution may solve one problem, but as data sources proliferate and your needs increase and vary, can you DIY all those scenarios? It might be cheap to build your own the first time, but compounding problems and needs can mean escalating costs. As your connectivity needs grow, each new data source, version and code change requires testing to ensure backwards compatibility and stability for your business users.

When you have questions—and you will have questions—where will you turn for expertise? Database vendors make money from their databases, not from your custom-coded connectivity.

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

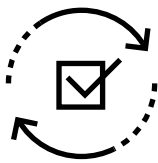
Differences in SaaS Integration APIs

What to Look for in a Robust Data Connectivity Solution

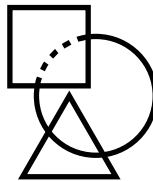
Attempting to build data access functionality in-house often leads to architectural rigidity, lagging development cycles, a lack of responsiveness to business user demands and less-than-optimal application performance, all of which negatively impact the core business.

Proprietary in-house data access solutions are impossible to maintain over time without adequate resources.

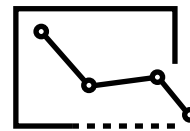
A robust, flexible data connectivity solution must:



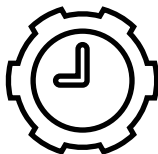
Provide an end-to-end solution to your users



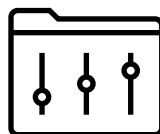
Reduce complexity while delivering a comprehensive solution



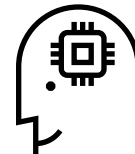
Decrease development cycles and costs



Reduce IT maintenance and support cost



Enhance application performance and reliability for users



Deliver agility as business requirements, applications and databases change

Why Buy Data Connectivity?

Consider building connectivity when:

- Your application will only support a single data source and manually imports data with flat files such as CSV where stale data is acceptable.
- Your application is written against a development framework that includes a core database. For example, you should build your application connectivity using native MongoDB clients when building web applications on a MEAN (MongoDB, ExpressJS, AngularJS, NodeJS) stack.
- Your organization has significant R&D resources dedicated to developing, testing and maintaining proprietary connectors and APIs. As part of this investment, funding includes maintenance for security vulnerabilities, database infrastructure and development access for cloud data sources.
- Your solution is not important to the business and serves as a stopgap measure for a short-term project.

Consider buying DataDirect connectivity when ...

- Your application supports multiple data sources or connects live with open standards such as ODBC, JDBC or OData.
- The data source works with existing frameworks based on open standards. In the MongoDB use case, it's recommended to buy a connector for analytics and data management applications that expect standard SQL (ODBC or JDBC). Or for Salesforce, it's recommended to buy a connector for back office integration that expects standard REST (OData).
- Your R&D resources are better spent on delivering innovation beyond data connectivity. Our commercial connectors are engineered for productivity with built-in features such as interoperability with API up-leveling, transparent bulk load and advanced security features for encryption, authentication and firewall-friendly connections.
- Your reputation is on the line for the solution. Two popular benefits our customers enjoy include Day-One Support for new database versions and our exclusive security vulnerability response policy for enterprise grade connectors. No one gets fired for choosing Progress DataDirect.

Outsource drivers to us while you focus on your core business

We have decades of experience optimizing data access. Building connectivity is our business. And, connectivity is more than the initial development, it's ongoing maintenance and support, as well as keeping up with every database vendors' release cycle and functionality changes.



“Progress DataDirect has enabled our Development and MI reporting teams to consolidate data held in MongoDB with data held in SQL Server in a seamless manner, enabling data analysis and management reporting from new and existing legacy systems.”

Craig Gould, Head of Systems Development, [Killik & Co.](#)

Ensure enterprise-grade quality, performance and reliability

You can reduce your testing load with confidence, because Progress has the industry's largest and most comprehensive testing platform, with more than 80 million tests. DataDirect drivers are full-featured for enterprise use cases, with advanced features such as Load Balancing, Bulk Load and Connection Failover for high availability—all critical features for enterprise applications.

You'll also get the industry's top performance, which improves CPU efficiency and lowers memory footprint for faster applications that require fewer resources.

Enjoy worldwide 24x7 award-winning technical support

Progress provides unparalleled support. In addition to 24x7 phone support in 10 languages, we participate in a worldwide collaborative network for multi-vendor support issues. We're available wherever and whenever you need us.

Results you can expect

As your business needs change and expand, quickly and easily reach the broadest range of databases and versions on the market.

- 1 Reduce maintenance burden and leverage the largest connectivity test suite in existence
- 2 Reduce development costs by outsourcing your data access needs to industry experts
- 3 Get substantial performance gains honed through decades of data access expertise

More Than 30 Years of Leadership in Data Connectivity

- ✓ Progress introduced the market's first ODBC drivers in 1993
- ✓ Progress is a leader in developing data connectivity standards as part of the JDBC Expert Group,
Co-founder of the ODBC Standard, member of the ANSI SQL Committee & OData Technical Committee
- ✓ Progress supports the largest portfolio of data sources on the market, with the largest breadth of versions, platforms and APIs—from legacy to big data, and everything in between
- ✓ Progress supports on-premises, cloud and hybrid environments with firewall friendly solutions
- ✓ More than 10,000 organizations use DataDirect connectors, including 350+ ISVs and 96 of the Fortune 100 companies. Progress is the largest independent data connectivity vendor, nearly 3X larger than the nearest competitor.
- ✓ Progress has 100X more data-centric OEM vendors than just a few years ago; SaaS, big data, NoSQL, data integration, descriptive/predictive/ prescriptive analytics and more.
- ✓ Eight of nine business intelligence leaders in the latest Gartner Magic Quadrant are Progress customers.

Progress® DataDirect

Progress DataDirect enables you to create compelling, data-driven applications for any device or the cloud. With DataDirect, you can connect your dashboard, analytics tool and systems of record directly to your data—quickly and easily—and modernize your data and how you access it, to maximize its value wherever it resides. DataDirect connectivity solutions include the full range of relational, cloud, NoSQL and big data across industry standards, including ODBC, JDBC, ADO.NET and OData.



Get your free trial today

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About Progress

Progress (NASDAQ: PRGS) is a global leader in application development, empowering enterprises to build mission-critical business applications to succeed in an evolving business environment. With offerings spanning web, mobile and data for on-premise and cloud environments, Progress powers businesses worldwide, promoting success one application at a time.

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