The Real Costs of Building vs. Buying Data Analytics Capabilities
Today, many organizations must find solutions that organize and analyze the masses of data in their systems. It’s a complex puzzle that requires skillful resource management and careful planning, which leads organizations to weigh the two options: build an in-house solution or buy it from a vendor.

Big data can be a source of tremendous value to organizations however, managing, organizing and mining that data can seem like an overwhelming task. Having the right analytics accessible through dashboards, reports and visualization can increase organizational efficiency and spur innovation. Companies that leverage big data analytics outperform their competitors by 20% or more and big data can help businesses realize a potential increase of 60% operating margins.¹

At first glance, “build” may appear to be the best solution since many organizations believe they are best positioned to understand their own needs and have the engineering staff to handle such projects. However, in-house building presents numerous challenges and commitment. Users often request a wide variety of analytics, which homegrown solutions might not anticipate. Any analytics solution must grow to accommodate the changing number of users and fluctuating requirements. If a system is not built with flexibility, it’s not much of a solution. It can be challenging to build an adaptable and expandable solution that meets all user needs within acceptable timeframes and costs.

¹Source: Datafloq.com

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Many corporations use big data to an advantage:

- **BDO**, a national accounting and auditing firm, puts big data analytics to use in identifying risk and fraud during audits.

- **General Electric** uses the data from sensors on machines like gas turbines and jet engines to identify ways to improve working processes and reliability.

- **Netflix** has a wealth of data and analytics providing insight into the viewing habits of millions of international consumers.
Up-Front Costs

Building any major functionality like a big data analytics platform requires significant design, coding, testing and documentation work. Determining the right configuration of hardware and software to meet compute, storage, networking and software integration requirements is time consuming and requires hardware and software engineers with expertise across numerous technological domains.

Creating a completely integrated system from scratch demands a large team of system and software architects, front and back-end developers, system administrators, networking and testing engineers, and quality assurance staff. Often, these resources aren’t readily available in-house, requiring organizations to hire them, thereby making an investment of time and budget they may not be prepared to make.

The immediate benefit of a “buy” scenario is that the organization acquires a battle-tested analytical platform in a “Ready-For-Use” state. This provides an easier and faster implementation that requires far less staff time.

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Time-to-Value

Launching a new analytics capability is like launching a new product. In a build environment, your organization must develop a large number of components, including reporting engines, data visualizations, presentation capabilities and integration with other applications. In-house staff must take into consideration compute, storage, networking architecture, software architecture and design, software integration, data space design, analytic framework design, data visualization, and how analytics will deliver in support of business objectives.

The entire process can take more than a year. Every unanticipated problem pushes the time-to-value further into the future. Each organization should consider how long they can afford to wait before the costs outweigh the benefits.

Faster implementation means organizations can achieve significant insights and recoup costs more quickly. Thousands of hours in research and development have already gone into creating the product, so decision-makers are leveraging a proven reference architecture, reducing the chance of delays and accelerating the timeline to productivity more quickly. This ensures a shorter path to production, less staff time and a quicker return on investment.

A preexisting solution is ready for deployment and the vendor’s staff is available to help integrate it. Organizations gain immediate access to the expertise of:

- **Consulting technologists** for advanced analytics and architecture
- **Customer care service** desk operations to diagnose and resolve incidents quickly and efficiently
- **Managed services** to help with patching and software updates for the entire ecosystem, as well as health checks and monthly reporting
- **Professional services** staff who help design, develop, deliver and manage innovative technological capabilities
Building a Complex Solution-Based Platform

Takes Months ...

<table>
<thead>
<tr>
<th>Build a Complex Solution-Based Platform</th>
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<tbody>
<tr>
<td>Engineering Time</td>
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<td>Typically 12–18 Months</td>
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1. Rack and Stack Hardware
2. Software Architecture Design
3. Ingest/Fuse Multiple Data Sources
4. Create Data Space
5. Create Analytic Framework
6. Data Visualization
7. Create Analytics in Support of Business Intelligence

Implementing ViON’s DataAdapt Platform

Only Takes Weeks!

<table>
<thead>
<tr>
<th>Reduce Set-Up Time and Cost</th>
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<tr>
<td>Total Development</td>
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<td>WEEKS not Months!</td>
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</table>

1. Rack and Stack Hardware
2. Software Architecture Design
3. Ingest/Fuse Multiple Data Sources

Speed to Value
Install, configure and begin ingesting data in weeks versus months to years.
Maintenance Costs

After a system is implemented, it is routine to anticipate ongoing application improvements, the addition of hardware and networking firmware, new software versions, patches, bug fixes and new features, which complicate the overall lifecycle maintenance. In the early stages, working out all of the kinks can be a very time and labor intensive process, consuming engineering and staff resources. New feature(s) requests from users can also consume additional time and resources. Organizations must carefully evaluate the resources necessary not only to launch, but also maintain optimal operations.

In a buy scenario, the solution is a proven commodity with fewer preexisting bugs, and the platform vendor is responsible for any bug fixes, patches and software version updates. In a buy scenario, documentation, training materials and troubleshooting resources have already been developed, reducing the need to commit resources.

An organization can easily expand capabilities as needed because the platform is designed for scalability in terms of data quantities, number of users and features. Experts who specialize in the product provide support and managed services on an ongoing basis. Since vendors continuously enhance their platforms based on input from customers, they can anticipate organizational needs rather than reacting to them, so new features are available when needed—without further investment of time or money.

What is the Real Bottom Line?

In a buy scenario, analytics solutions like ViON’s DataAdapt drastically reduce the organization’s staffing costs and the complexity of the technical work. A decision to buy results in an easier and faster implementation. Human resources is the biggest cost of building a big data analytics solution; DataAdapt virtually eliminates that requirement from the process.

This also means accelerated ROI. DataAdapt minimizes the burden of maintenance through up-front and quick support for scalable integration with existing systems. The pre-built solution minimizes the risks and investment of resources; this allows existing staff to focus what they do best—devoting more time to pursuing critical organizational objectives.
ViON’s DataAdapt Solution

DataAdapt is enterprise infrastructure for big data and analytics in a ready-to-use state. ViON builds, delivers and supports analytical platforms without boundaries. The DataAdapt approach provides easy and fast implementations for delivering business value. This offers organizations a shorter time-to-value simplifying acquisition, integration, scalability and maintenance.

DataAdapt allows organizations to:
• Shorten time-to-value
• Decrease the solution complexity
• Improve ease of delivery
• Receive expert maintenance and support
• Enjoy a flexible, cost-effective acquisition model
• Benefit from professional services to manage innovative technological capabilities

<table>
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<tr>
<th>DRIVER</th>
<th>BUILD</th>
<th>BUY</th>
<th>BOTTOM LINE</th>
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</table>
| Up-front Development Costs    | • Full engineering & design teams  
• Documentation for all components | • 1-2 FTEs up-front  
• Embedding & re-skinning with vendor components | TCO, cost of staff, complexity of work is drastically reduced in the buy scenario |
| Time to Production            | • A year or more  
• Develop integrated system with multiple components | • 2-3 months  
• Embed vendor’s components with light customization  
• Vendor provides documentation | ROI accelerated in buy approach, going live faster with lower risk & much shorter time to value |
| Ongoing Release & Maintenance Costs | • Full team for new feature roll-outs  
• Staff does development of all bug fixes and enhancements  
• 1-2 FTEs for new feature launches  
• Vendor makes platform bug fixes  
• Platform | • 1-2 FTEs for new feature launches  
• Vendor makes platform bug fixes  
• Platform components ready to integrate | Ongoing TCO and staff investment is substantially reduced in buy scenario |
| Support & Training Costs      | • Must resolve technical issues  
• Develop training materials & documents from scratch | | Ongoing TCO and services headcount reduced  
ROI accelerated in buy approach, going live faster with lower risk & much shorter time to value |
| Core Competency Focus         | • Must build entire solution  
• Major development can be expensive  
• Distraction from core objectives | • Engineering team focuses on data and building best analytics  
• Minimize risk and distraction | Buying platform can reduce risk and boost overall business ROI because it often makes better use of total resources |