Happy Holidays   December 2015

Dave and I truly wish for to have you limitless success in the new year and we look forward to

to helping you achieve your goals.

Safe and Happy Holidays.
PS. I hope you enjoy our quarterly newsletter, we work hard on finding good information worth

sharing. If you want to continue to receive them please do go ahead and opt-in or subscribe below

(if you don't want to get them you can opt out, too).

We wish you joy, peace, limitless success, and above all, we hope your systems play together nicely over the holidays.

We Are Thankful for Givers

Last month we invited our friends and neighbors to join us in donating items for New Horizons for New Hampshire. We offered everyone lunch the Wednesday before Thanksgiving to say thank you for their donations and to give us all a little time to enjoy each other's company before the chaos of the holidays sweeps in.

We owe special thanks to our friends at Accurate Premium Audits Inc., Loft Fifty 5, Glass and Gear, Langer Place, Sandler Training, Residential Resources Inc., and Althea Haropulos Photography for all of your gracious and generous gifts. Thank you for being great neighbors and helping make our community better with your business and your social responsibility.

New Horizons for New Hampshire Needs List
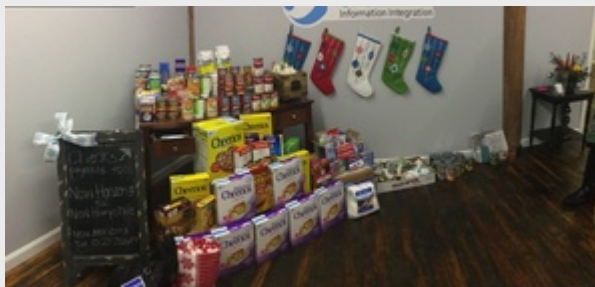
Looking Ahead

In 2016 we expect to see an increase in three popular conversations, DevOps, IoT and Business Intelligence.

DevOps in 2016, enterprises will need to work on meeting the needs of the "Ops" side of DevOps, that means looking for DevOps Automation tools that can be made to integrate with the production operating environments like vCenter and AWS.

I say **IoT** is going to blow your mind. Gartner analyst Daryl Plummer said "IoT will bring turmoil to your industry, any industry."

Gartner predicts that 6.4 billion IoT devices will be used globally in 2016, as in 5.5 million new devices connecting to the Internet of Things (IoT) every day. By 2020, that number may reach nearly 21 billion. See their recent IoT forecast. While consumers will see the most IoT devices, enterprises will be spending even more to build and service cross-industry things, and we can expect to see around 1.25 billion on vertical specific smart devices.

Business Intelligence is going to be a huge investment, partly because of DevOps and IoT. We need to be able to see the result and measure the impact of improved, systemitized and automated processes. We need to see what we can learn from all these connected devices. We will connect our systems and devices, and we will build intelligence into understanding all these new data points and collections. We believe that 2016 is going to be about seeing the information connecting in ways we have never been able to see before. We will validate the investment in DevOps and IoT through Business Intelligence systems in the new year.

What does this mean to your business?

If you're just getting started with DevOps, you may need help understanding the pros and cons of the available tools, or maybe you need help shifting the culture in your organization to a DevOps paradigm, or both. Aoibri can help with that.

If you have devices you want to bring online and need custom development but more importantly you need help understanding the implications of custom development decisions, Aoibri is the custom dev shop for you.

If you want to know what Business Intelligence could do for you and how your existing systems can become more like business advisors, Aoibri is ready to roll up our sleeves and get to work.
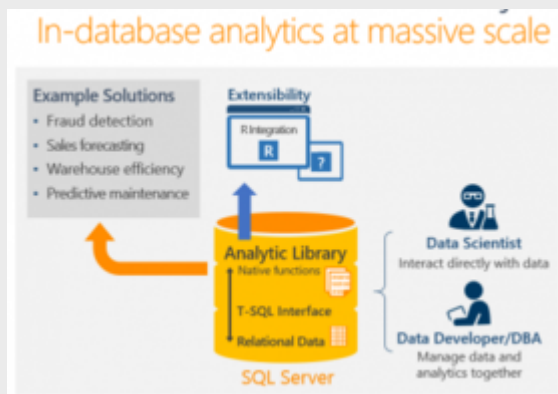
What is Coming in SQL Server 2016?

Lots of people are pretty excited about In-Database R coming to SQL Server 2016 bringing the ability to run R within the database itself.

"With this update, data scientists will no longer need to extract data from SQL server via ODBC to analyze it with R. Instead, you will be able to take your R code to the data, where is will be run inside a sandbox process within SQL Server itself. This eliminates the time and storage required to move the data, and gives you all the power of R and CRAN packages to apply to your database." http://blog.revolutionanalytics.com/2015/05/r-in-sql-server.html

To me some of the best news is that Microsoft is moving towards a common code base for both the on-premises and Azure versions of SQL which will allow for changes to come into the product in a more Agile way (I hear voices...angels singing?).

I'm also pleased that JSON support is coming to SQL Server and even more happy by the support of row level security (RLS), though it's still not good enough to replace home grown versions, it's a step in the right direction.

The challenges.

Well upgrading has been the challenge most of the time right? Changes in the query optimizer can wreak havoc on performance. It's brutal running procs, troubleshooting, trying to understand how and what the optimizations did and just what is killing our calls. Well there is now the

Query Store which maintains a history of the execution plans and the performance data. The Query Store is configured at the database level and lets admins or devs quickly determine if a query has gotten slower with a recent update and then allows them to force the older execution plan to be used if desired (listen ...hear it again?).

Big data is a big deal.

Hadoop became all the rage and is a scalable effective way to store large amount of data. Intro Polybase, a SQL Server connector to Hadoop and Azure Blob Storage. Microsoft has added this feature to the regular on-prem product and now you can store big data in either Azure Blob Storage or Hadoop and query as if it's database tables (fa-la-la-la-la-lah-la-la-lah).

Storage is still a cost issue for our Enterprises that need top of line SAN or SSD's, Microsoft is trying to alleviate that pain with the hybrid feature called "Stretch Database." With Stretch DB some part of your tables are moved into Azure and the query optimizer knows which rows are on-prem and which are in the cloud, and it divides the workload appropriately. The query processing on Azure rows takes place in Azure so the only latency is the return of rows over the network. This means you pay the lower rate for the Azure Blob Storage, and you only pay for the SQL DB in Azure when it's used for queries (kaching!)

Encryption is key, but getting it right all the way up and back the stack is another challenge. SQL Server has column-level, at rest, and in transit encryption but each had to be configured separately which left room for mistakes. In 2016, we have Always Encrypted as new functionality, so the data stays encrypted in transit, at rest and while it is alive in the database. Azure and easy encryption make for an improved security story and a happy new year.

What does this mean to your business?

If you're using SQL Server it means you'll need to reconsider you upgrade plan and maybe take that plunge sooner rather than later. If you have SQL systems and want to know if the new SQL Server is right for you, Aoibri is here to help. Call or email to schedule a consultation.

Events We Think You Should Know About

Industry of Things World USA 2016

When: February 25 – 26, 2016
Where: Hard Rock Hotel, San Diego   Register

The Industry of Things World brings IoT players together to exchange ideas over two days filled with inspired keynotes, workshops, panel discussions and of networking opportunities.

IoT Summit 2016

When: March 17 –18, 2016
Where: Santa Clara, CA   Register

The market for IoT, sensors, wearables,cloud, and related technologies is expanding at a phenomenal rate. The IoT Summit's 5th event is produced by SensorsCon and is sponsored by the International Society for Quality Electronic Design. The conference brings together researchers, developers, and practitioners from diverse fields including scientists and engineers, research institutes, and industry, to present, highlight and discuss the latest products, applications, development, and business opportunities in IoT.

Internet of Things North America

When: April 13 – 14, 2016
Where: Chicagoland area   Register

Already in its third year, the 2016 Internet of Things North America is an innovative event covering advanced connectivity and cloud based monitoring/control of devices, facilities, automobiles, people, and enterprise operations.

The Internet of Things World Forum 2016

When: May 10 – 12, 2016
Where: Santa Clara Convention Center, California   Register

Possibly the world's most comprehensive and largest IoT event, the forum is place for learning the latest trends in products and services and networking with super smart leaders in IoT.

And Also we highly recommend you see the IEEE Conference Schedule

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Call us 800.703.5378 or email sales@aoibri.com to schedule a consultation.

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