shrink big data
and grow
performance

TRIDIUM

in our hyper-connected world, big data is a big opportunity
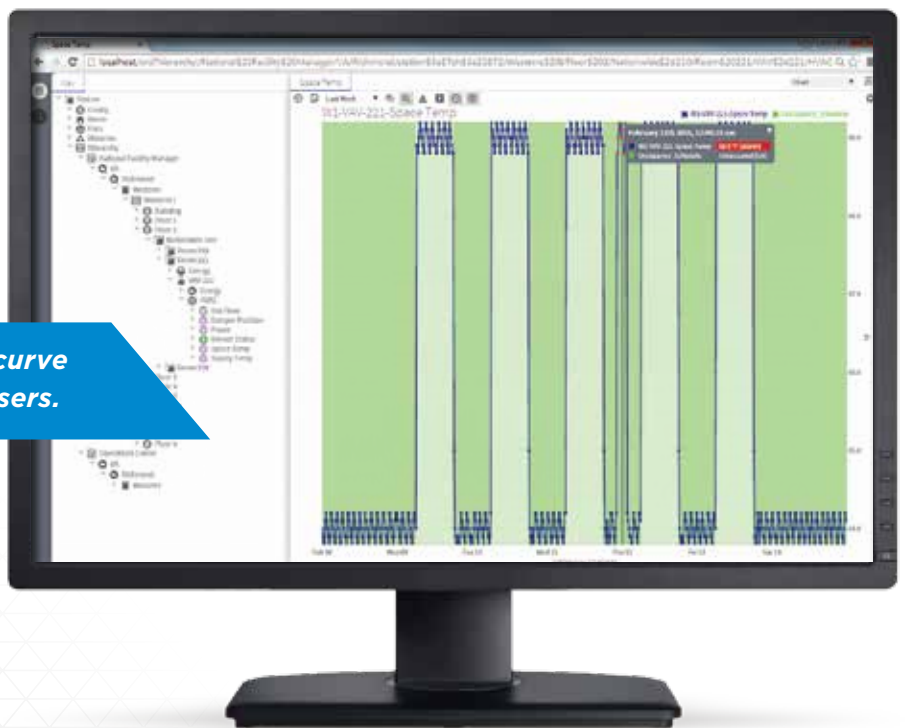
Every second, all across the world, people and devices are connecting in new and profound ways—and those connections are only increasing. It's estimated that by 2020 there will be 30 billion devices connecting within the Internet of Things.[1] And the result of all those connections is an ever-flowing, ever-growing torrent of big data.

In an age when everything is knowable, how do we shrink big data to identify patterns that can be interpreted in meaningful and profitable ways? **The answer—the Niagara Analytics Framework.**

As the industry's first truly open framework, Niagara has helped businesses harness the power of the Internet of Things to connect their systems and control their operations. Now, with the Niagara Analytics Framework—the only analytics framework native to Niagara—you get the real-time business intelligence you need to make smarter, swifter decisions.

By tracking events against business and operational "rules" that you set, the Niagara Analytics Framework can help you proactively analyze and detect patterns in your data and recommend appropriate actions—driving efficiency and capturing cost savings. Our responsive analytics can run in the cloud or on your network, and are accessible from any mobile device, which allows you to interact with your entire portfolio—anytime, anywhere.

Native to Niagara means no learning curve and a data power boost for Niagara users.

[1] Gartner, November 11, 2013

make the move from reactive to proactive

ACTIONABLE INTELLIGENCE

As your devices and systems communicate with each other, they generate data. Our responsive analytics give that data power—automatically triggering the execution of control strategies based on a library of rules unique to your business.
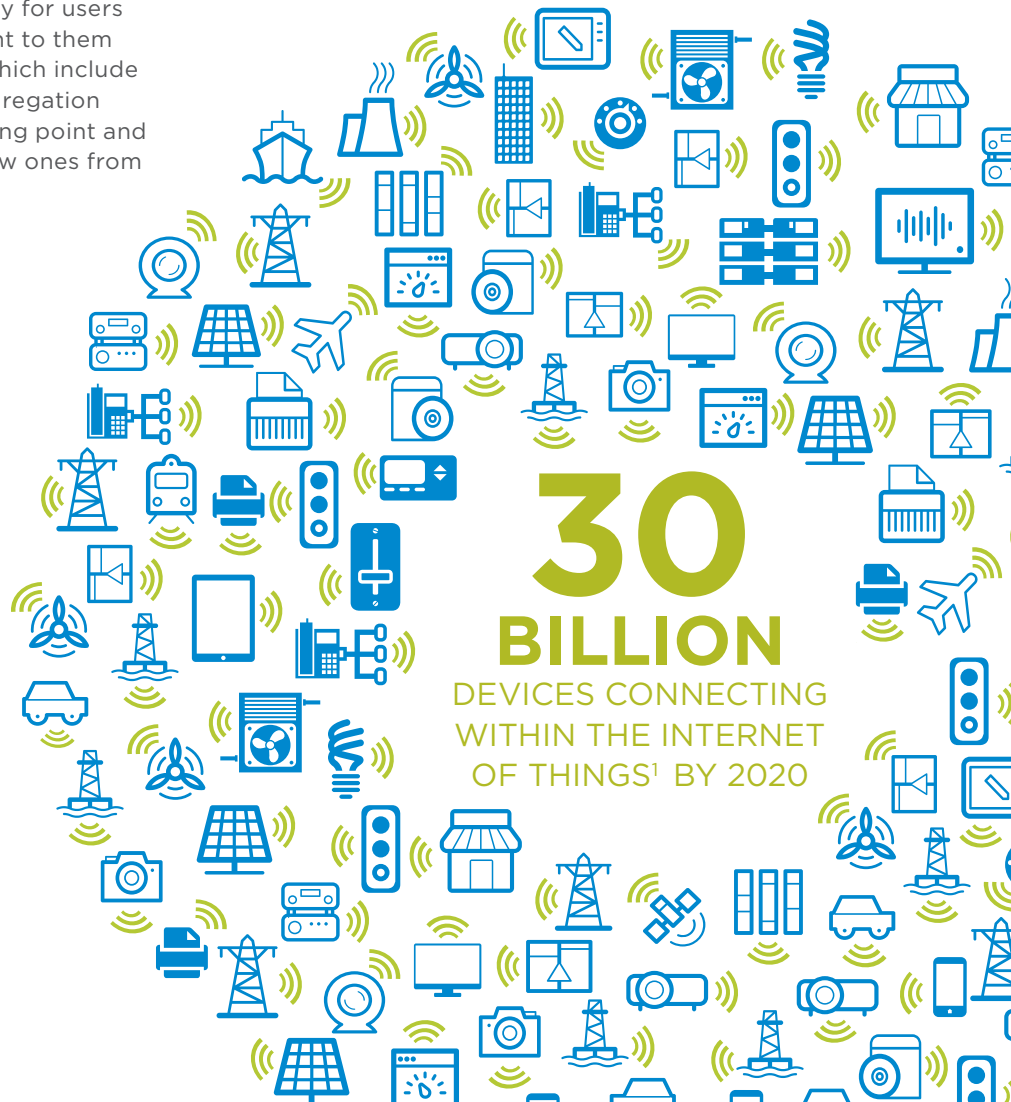
You set the parameters for data capture, whether you're looking for deeper insight on a floor in a building or across the country. Once activated, the Niagara Analytics Framework roars into action, tracking live events against a history of prior occurrences up to whatever end point you've set, and delivering deeper insight into root causes and proper remediation techniques.

RESPONSIVE AND FLEXIBLE REPORTING

Mining the right data is critical, but it's making sense of that data that is key to driving operational efficiencies throughout your business. We've made it easy for users to isolate the information that is most relevant to them with a growing library of standard reports, which include spectrum summaries, load durations and aggregation reports. You can use these reports as a starting point and customize them to fit your needs, or build new ones from the ground up using report widgets.

EXTENSIVE FORMULAS LIBRARY

With Niagara Analytics Framework, you never have to repeat the same effort twice. Through semantic data modeling with tags and other ready-made tools, you can easily access historical and real-time data regardless of where the data originated within the Niagara Framework®. Choose from a wide range of predefined formulas, or create a custom formula to analyze multiple data sets and capture meaningful information on operational performance. You can save your entire analytics operation as a template, and redeploy as often as needed.

30 BILLION
DEVICES CONNECTING WITHIN THE INTERNET OF THINGS[1] BY 2020

OPEN AND EXTENSIBLE FOR ANY BUSINESS

Because our analytics solution is native to Niagara, which is an open system, the technology is industry-agnostic. You can run the Niagara Analytics Framework for energy, manufacturing, data centers and a variety of other operational improvements. Our advanced analytics require no special programming skills, and our open API supports third-party visualization and other complementary apps. And, as always, your business is backed by a global community of certified Niagara developers and system integrators available for support before, during and after implementation.

A FAMILIAR INTERFACE

If you're already using Niagara, you have everything you need to get started with the Niagara Analytics Framework. It acts as an extension of Niagara's standard Workbench tool set, removing any learning curve and enabling you to quickly build and execute your applications on any system that produces data, in any area of your enterprise. The Niagara Analytics Framework is designed to support a wide array of third-party visualization packages. These can be quickly and easily added to provide robust visual representation.

AUTOMATED AND AUTHORIZED CONTROL STRATEGIES

More data can seem like more work. But, when you have an effective control strategy in place, the majority of that work happens automatically, with no need for adjustments on your end. It's how the Niagara Analytics Framework can help put data to work for you, instead of the other way around.

Advanced alarming: With the Niagara Analytics Framework, you can create alarm relationships for more robust off-normal reporting and add complexity to trend diagnostics in order to quickly know more about what's going wrong.

Historical trend exceptions: Now you can know what will happen on a specific day, under specific conditions, according to historical trends. When there's an unexpected condition, such as a spike in energy consumption or a change in temperature set points, the system makes automatic adjustments.

Fault detection and diagnostics (FDD): The Niagara Analytics Framework uses measurements to determine when equipment and systems need servicing based on their actual condition, rather than a scheduled date. This helps you avoid unexpected service delays and reduce labor and replacement part costs.

Put the power of the **only** analytics framework native to Niagara to work for you

Contact your Tridium partner to learn more about the Niagara Analytics Framework. Our global community of certified Niagara professionals can serve your unique business needs across any industry or geographic region.

niagara analytics framework for continuous commissioning

Businesses are finding both simple and innovative ways to use the Niagara Analytics Framework. And it's paying off.

A federal agency instituted a continuous commissioning program to evaluate and improve operations throughout its network of campuses, at a combined footprint of 8.6 million square feet across multiple states.

Niagara is being used to aggregate and normalize building automation data and data from all electric, gas, steam and water utilities throughout the campus network.

The Niagara Analytics Framework identifies anomalies in the data and ranks them according to energy cost inefficiencies. Facility managers are dispatched to investigate the root causes and remediate the problems.

The program has resulted in nearly $8 million of implemented corrective actions, equating to an average energy savings of 13.6% and overall payback of 3.2 years.

PROGRAM RESULTS

13.6% AVERAGE ENERGY SAVINGS

3.2 YEARS OF OVERALL PAYBACK

$8M IMPLEMENTED CORRECTIVE ACTIONS

TRIDIUM

connecting minds
and machines™

For more than 15 years, Tridium has led the world in business application frameworks—advancing truly open environments that harness the power of the Internet of Things.

Our innovations have fundamentally changed the way devices and systems connect to people—and the ways people can control and optimize those machines.

Our products allow diverse monitoring, control and automation systems to communicate and collaborate like never before. From buildings and data centers to manufacturing systems and smart cities, Tridium is changing the rules for automation technology.

We are committed to creating smarter, safer and more efficient enterprises and communities—bringing intelligence and connectivity to the network edge and back.