Vendor Landscape: Cognitive Operations

Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance Management

by Eveline Oehrlich, Mike Gualtieri, and Milan Hanson
August 25, 2017

Why Read This Report

Technology has grown too much and too quickly for humans to monitor and operate it effectively. While computer-assisted analytics helps firms react to and resolve problems faster, predicting and preventing them is the Holy Grail. Infrastructure and operations (I&O) pros are continuously optimizing back-end and business technology to move their teams toward predicting problems across the vast technology and application landscape. The market is full of vendors offering solutions with predictive capabilities to assist with this transformation; this report tells I&O pros what's out there and what to expect.

Key Takeaways

Machine Learning Makes IT Ops Predictive . . .
IT operations management (ITOM) and application performance management (APM) solutions increasingly use artificial intelligence (AI) technology, such as machine learning, to automatically build predictive models that reduce effort, prevent problems, and react faster.

. . . And Eliminates The Need For A Data Scientist
Cognitive operations solutions combine advanced analytics and machine learning, and I&O pros don't need data science expertise to use them.

Make Prediction A Priority
Vendors may be exaggerating their predictive capabilities, but there's enough substance — and reason — to start charting your journey now, from your current state to NoOps and beyond.

Vendor Landscape: Cognitive Operations

Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance Management

by Eveline Oehrlich, Mike Gualtieri, and Milan Hanson
with Laura Koetzle, Robert Stroud, Charles Betz, Aaron Kinch, and Diane Lynch
August 25, 2017

Table Of Contents

Related Research Documents

Brief: Take Application Performance To The Next Level With Digital Performance Management

DevOps Will Drive Open Source APM

The Forrester Wave™: Application Performance Management, Q3 2016

Share reports with colleagues.
Enhance your membership with Research Share.

FORRESTER®

Forrester Research, Inc., 60 Acorn Park Drive, Cambridge, MA 02140 USA
+1 617-613-6000 | Fax: +1 617-613-5000 | forrester.com

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

August 25, 2017

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance
Management

Cognitive Operations Enables I&O To Do More With Less

Predictive analysis aims to anticipate and avoid problems, and vendors are making progress toward making that vision a reality. But cognitive operations provides many additional benefits for I&O: It helps I&O pros monitor and manage larger, more complex environments with less effort; allows DevOps teams to predict and prevent problems or react to and resolve them faster; and can predict the business impact of a problem resolved or prevented. These benefits are all essential as technology gets more complex and its performance becomes more critical to business success. Forrester defines cognitive operations as:

> *Software that applies advanced analytics and machine learning to analyze historical IT operations data and make predictions that expedite management, speed problem resolution, prevent developing problems, and attach business significance to problems resolved or prevented.*

### Cognitive Ops Benefits Range From Saving Labor To Improving Customer Experiences

Forrester breaks out cognitive operations into four categories, based on the benefit it provides to the business (see Figure 1). Vendors claim to provide most, if not all, of these benefits and utilize carefully selected testimonials and demonstrations of successful use cases to substantiate their claims (see Figure 2). Cognitive operations enables firms to make predictions to:

› **Reduce the effort of owners of performance and availability.** Intelligent discovery makes rudimentary predictions that reduce effort, which is critical because technology budgets don't grow as fast as technology complexity. Software is smart enough to use the right monitoring for anything it discovers, and automation deploys the right instrumentation with reasonable thresholds on the metrics it collects to yield quick, effortless insight. But setting thresholds once isn't good enough: Technology environments change continuously, requiring dynamic monitoring and thresholds. Sooner or later, static thresholds generate too many false alarms — but machine learning software builds a model of baseline fluctuations, recognizes recurring patterns, and automatically adjusts thresholds to match those patterns. This reduces false alarms and frees I&O from ongoing threshold maintenance.

› **React and resolve problems faster.** Predicting an onslaught of customer support calls allows I&O to say, "Yes, we're aware of the problem and are already working on it." This isn't truly predicting a problem before it occurs, but it looks that way to users and customers. As science writer and novelist Arthur C. Clarke said, "Any sufficiently advanced technology is indistinguishable from magic," and any sufficiently fast detection and root-cause analysis is indistinguishable from prediction.[1] The instant a problem occurs, real-user monitoring and synthetic transaction monitoring throw alerts to I&O staff, effectively predicting those customer calls. What's more, anomaly detection immediately begins to look for the root cause — again, at machine speed — as soon as it detects a problem. By the time I&O pros see the alert and decide to investigate, anomaly detection has already predicted the likely cause.

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance
Management

August 25, 2017

› **Prevent problems before they affect the customer.** I&O's ultimate dream is to predict a problem before it affects employees or customers and take steps to prevent it. This is the truest form of prediction, in which software uses historical data to create models of circumstances that previously led to a problem. By comparing real-time circumstances with those models, software can warn that a problem is developing and either execute a preventive action automatically or alert I&O to take preventive action.

› **Give meaning relative to the business impact.** I&O teams have a reputation for not understanding the impact of technology issues on the business. To escape that reputation, I&O needs to express the problems it prevents or resolves in terms of their business impact, or at least the impact on revenue, brand, and customer satisfaction. Given the right inputs, cognitive operations can predict the business impact in real time as a problem occurs. Real-time prediction of a problem's impact helps guide the urgency of communication, mitigation, and repair activities. Having a real-time business impact estimate for a prevented problem helps quantify and justify the cost of automation solutions and people that prevent problems.

FIGURE 1 The Four Benefits Of Cognitive Operations

Benefits of Cognitive Operations
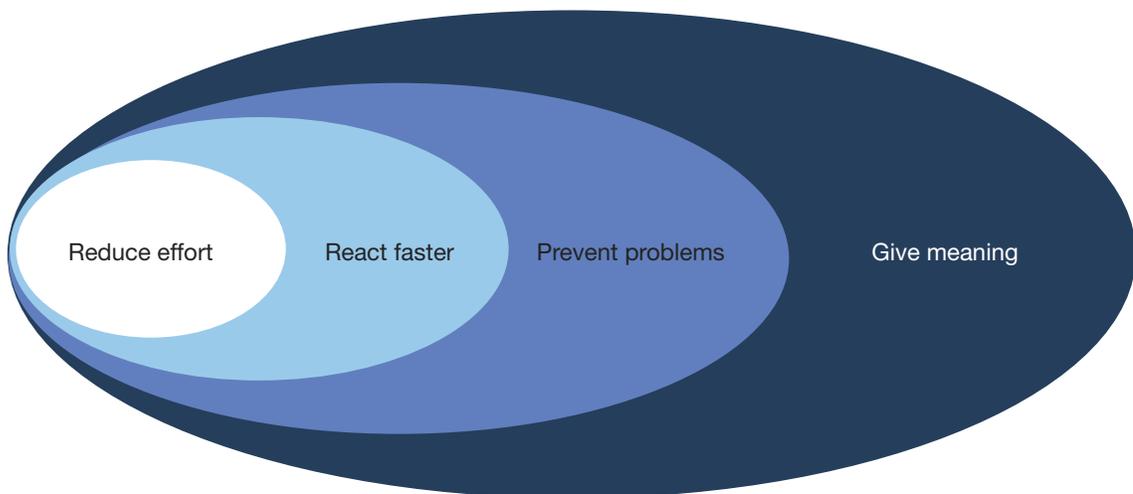
Reduce effort | React faster | Prevent problems | Give meaning

FIGURE 2 Cognitive Operations Vendors And The Four Benefits

	Reduce effort	React faster	Prevent problems	Give meaning
AppDynamics	●	●	●	●
Appnomic	●	●	●	●
Bay Dynamics	●	●	●	●
BMC TrueSight	●	●	●	●
CA APM	●	●	●	
CA Mainframe Operations Intelligence	●	●	●	
CirrusPoint	●	●	●	●
CloudFabrix	●	●	●	●
Correlata	●	●	●	●
CoScale	●	●	●	
DataDog	●	●	●	
Dynatrace	●	●	●	●
Evanios	●	●	●	●
HPE Software	●	●	●	●
IBM	●	●	●	●
Interlink Software	●	●	●	●
Loom Systems	●	●	●	●
Nastel	●	●	●	●
New Relic	●	●	●	
Nexthink	●	●	●	●
RISC Networks	●	●		●
Rocana	●	●	●	

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance
Management

August 25, 2017

FIGURE 2 Cognitive Operations Vendors And The Four Benefits (Cont.)

	Reduce effort	React faster	Prevent problems	Give meaning
SAS				●
ScienceLogic	●	●	●	
Splunk	●	●	●	
Squirro	●	●	●	●
VMware vRealize Suite	●	●	●	●
VMware Wavefront	●	●	●	●
Ymor		●	●	
Zenoss		●	●	●

Cognitive Operations Crosses Multiple Vendor Solution Categories

The predictive analytics capabilities of cognitive ops for I&O teams don't occur within a single market, so finding them can be an adventure. Unfortunately, the market doesn't segment itself according to the types of benefits described above; instead, it reflects the intended audience, and vendors bundle functionality (or not) with analytics. IT operations analytics (ITOA), application performance management (APM), and algorithmic IT operations (AIOps) are the main markets offering predictive capabilities (see Figure 3). When shopping for predictive analytics capabilities for your technology estate, keep these specialties and hierarchies in mind and match them to your needs. Several different markets offer predictive capabilities, each of which covers a portion of cognitive ops' predictive analytics capabilities.

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

August 25, 2017

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance
Management

FIGURE 3 The Many Markets Offering Predictive Capabilities
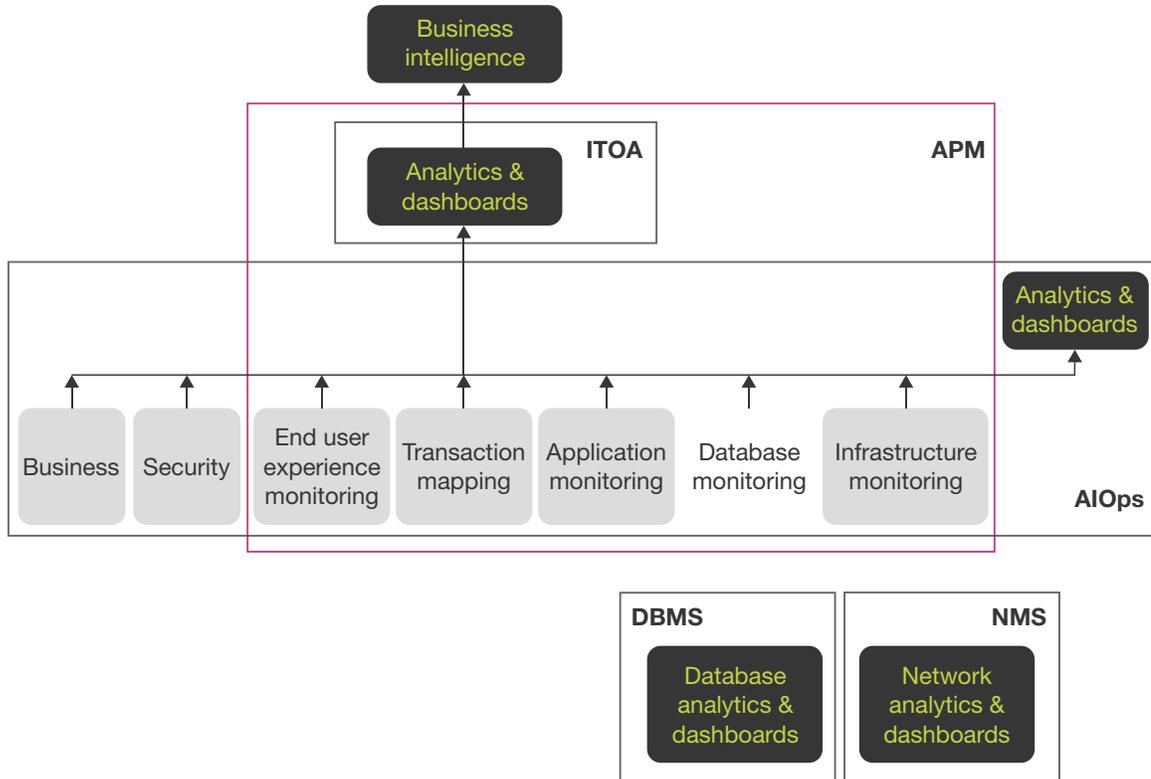
Current Markets Offering Predictive Capabilities Fit What You Have And What You Need

To select a cognitive ops solution, first consider what you currently have in terms of performance management or analytics tools and then decide what you want to keep and what goal or vision you want to achieve. For example, you may want to add just the analytics layer without changing your existing monitoring infrastructure; to integrate monitoring and analytics; to use analytics only to unify your technology infrastructure silos; or to use analytics to unify tech silos and add value across business units and into the executive ranks. Once you've determined what you want to accomplish, you can turn to one of several distinct markets for cognitive ops capabilities (see Figure 4):

› **ITOA delivers analytics à la carte.** The ITOA market complements the ITOM market. ITOA is analytics without the monitoring; it's designed to ingest whatever data you have from whatever monitoring tools you use. The idea is that if analytics is the vendor's sole focus, the vendor will provide superior analytics. The customer benefit is that you can layer ITOA atop whatever ITOM you have in place, avoiding the disruptive rip-and-replace that might be necessary with broader solutions.

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance
Management

August 25, 2017

› **APM delivers analytics as part of a bundle.** APM vendors include analytics because they understand that extensive monitoring without analytics is just noise. Their tight integration of analytics and monitoring makes it easier to automatically adjust monitoring; better-tuned monitoring lowers administrative effort, false alerts, and reaction times. The analytics engine can adjust metrics collection granularity up or down based on application and infrastructure health per analysis insight, reducing storage costs and the performance impact of the monitoring tools themselves. APM vendors are broadening their data scope to produce insight at organizational levels above technology; indeed, their analytics-driven dashboards are increasingly popular with sales, marketing, and executive teams. APM vendors' analytics may not yet challenge business intelligence (BI) analytics, but they're closing the gap because the health of technologies like eCommerce platforms affects the health of the business.

› **AIOps delivers analytics across silos.** AIOps primarily focuses on applying machine learning algorithms to create self-learning — and potentially self-healing — applications and infrastructure. A key to analytics, especially predictive analytics, is knowing what insights you're after. AIOps doesn't aspire (nor duplicate) to the business relevance of APM; rather, it focuses on better coordination across technology silos to make the technology empire run more smoothly.

› **Specialized analytics solutions serve individual silos.** Analytics packages, including predictive capabilities, exist for virtually every technology silo; network analytics, database analytics, and security analytics are among the most familiar of these. Each technology silo is complex in itself and benefits from predictive capabilities to evaluate rich management data at machine speed and ensure that no one silo is the weak link for applications and business results. Feeding network analysis insights into cognitive ops economizes on data transfer, storage, and analysis load at the higher levels, both across tech silos and across the enterprise — much as manager-of-manager architectures of the past did.

FIGURE 4 Cognitive Operations Vendors Position Themselves In Distinct Markets

	IT operations analytics (ITOA)	Application performance management (APM)	Digital performance management (DPM)	Algorithmic IT operations (AIOps)	Network performance analytics	Security analytics
AppDynamics	●	●	●	●	●	●
Appnomic	●	●	●	●	●	●
Bay Dynamics						●
BMC TrueSight	●	●	●	●	●	
CA APM	●	●	●	●	●	
CA Mainframe Operations Intelligence	●	●		●	●	
CirrusPoint	●	●		●	●	●
CloudFabrix	●	●		●		
Correlata	●			●		
CoScale	●			●		
DataDog		●	●	●		
Dynatrace	●	●	●	●	●	●

FIGURE 4 Cognitive Operations Vendors Position Themselves In Distinct Markets (Cont.)

	IT operations analytics (ITOA)	Application performance management (APM)	Digital performance management (DPM)	Algorithmic IT operations (AIOps)	Network performance analytics	Security analytics
Evanios	●			●		
HPE Software	●	●	●	●	●	●
IBM	●	●	●	●	●	●
Interlink Software	●		●	●		
Loom Systems	●		●	●		●
Nastel	●	●	●	●		
New Relic	●	●	●	●		
Nexthink	●		●	●		●
RISC Networks	●	●	●	●	●	●
Rocana	●			●		
SAS	●			●	●	●
ScienceLogic	●	●			●	
Splunk	●	●	●	●	●	●
Squirro	●		●			
VMware vRealize Suite	●			●	●	●
VMware Wavefront	●	●	●		●	
Ymor	●	●	●			
Zenoss	●		●		●	

The Power Of Cognitive Operations Depends On The Technology Within

By design, most cognitive ops solutions are simple enough that I&O can use them without needing
to turn to a data scientist. Simplicity can compromise the power and flexibility of custom prediction
capabilities, but that's an acceptable tradeoff for many customers. When choosing a cognitive ops
solution, decide what level of simplicity, flexibility, or complexity you want (see Figure 5).

Vendor Landscape: Cognitive Operations

Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance Management

FIGURE 5 Cognitive Operations Vendors Offer Five Types Of Predictive Technology

	Built-in rules	Custom changeable rules	Built-in models	Built-in models that automatically learn	Models that can be externally created and imported
AppDynamics	●	●	●	●	
Appnomic	●	●	●	●	
Bay Dynamics	●	●	●	●	
BMC TrueSight	●	●	●	●	
CA APM	●	●	●	●	
CA Mainframe Operations Intelligence	●	●	●	●	
CirrusPoint	●	●	●		●
CloudFabrix	●	●	●	●	●
Correlata	●	●	●	●	●
CoScale		●	●	●	
DataDog	●	●	●	●	
Dynatrace	●	●	●	●	●
Evanios	●	●	●	●	●
HPE Software			●	●	●
IBM	●	●	●	●	
Interlink Software	●	●	●	●	●
Loom Systems	●	●	●	●	
Nastel	●	●	●	●	●
New Relic	●	●	●	●	
Nexthink	●	●	●	●	●

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

August 25, 2017

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance
Management

FIGURE 5 Cognitive Operations Vendors Offer Five Types Of Predictive Technology (Cont.)

	Built-in rules	Custom changeable rules	Built-in models	Built-in models that automatically learn	Models that can be externally created and imported
RISC Networks	●	●	●	●	●
Rocana	●	●	●	●	
SAS	●	●	●	●	
ScienceLogic	●	●	●	●	●
Splunk	●	●	●	●	
Squirro	●	●	●	●	
VMware vRealize Suite	●	●	●	●	●
VMware Wavefront	●	●	●		
Ymor	●	●			
Zenoss	●	●	●	●	●

Six Ways To Scale IT Ops With The Power To Predict

How a vendor implements, supports, and enables prediction may ultimately limit the value of the
insights its solution generates. Rules are simpler to deliver and maintain, but greater power comes
from model-based predictions that consider more complex relationships among virtually unlimited data
sets. However, the latter creeps toward the need for I&O to engage a data scientist. The capabilities of
vendor solutions include these:

› **Thresholds can detect the abnormal.** The most common way to predict problems is to set
thresholds on continuous metrics coming from infrastructure monitors and logs; it's so common
that we didn't have to ask vendors about it. The idea is that if a metric rises or falls past a set
value, it indicates that a problem has occurred or is about to occur (i.e., a prediction). For example,
memory utilization rising above 80% could indicate a software bug in a recently installed patch or
an unexpected increase in load; it predicts that thrashing and performance degradation will occur.
The advantage is that it's very simple to configure. The disadvantage is that it may detect situations
that have already occurred rather than predicting those yet to occur.

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

August 25, 2017

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance
Management

› **Built-in rules leverage vendors' years of expertise.** The most advanced IT ops vendors don't just provide simple threshold rules or dashboards for real-time monitoring; they also provide more complex built-in rules that already understand the internal vagaries of the infrastructure components they're monitoring and can automatically raise alerts based on this knowledge. For example, anomaly detection uses built-in statistical rules to identify outlier values. And because changes often have unintended consequences, built-in rules can recognize them and look for changes to subsequent metrics that may foretell problems. The advantage of built-in rules is that they leverage vendors' experience with other customers and thus require very little setup. The disadvantage is that rules may not exist for all infrastructure components and may be based on outdated information.

› **Custom rules let I&O pros improve upon built-in rules.** Built-in rules are extremely useful for predicting generic infrastructure problems, but enterprises have complex combinations of software and systems that have their own personalities. I&O pros have gotten to know the characteristics of their infrastructure and understand the causes and effects of problems. Some vendor solutions allow I&O pros to adjust rules or define a more complex set of rules that go beyond just thresholds to if/then-type expressions. Examples include acting sooner to counteract developing problems for high-priority employee groups such as C-level execs; performing mathematical or Boolean operations to combine metrics for greater insight; and adjusting automated default thresholding from, say, one standard deviation to two. The advantage of custom rules is that I&O pros can codify their experience within the solutions; the disadvantage is that they may create rules based on hypotheses, not concrete data.

› **Built-in models go beyond rules to address complex relationships.** The key difference between rules and models is that rules are created by humans (IT ops pros), whereas models are created by machine learning algorithms that analyze historical data. Algorithms can analyze more historical data more quickly and thoroughly than humans and find complex, nuanced relationships that humans are unlikely to detect. The advantage of built-in models is that they're created by machine learning algorithms that analyze historical IT ops data to improve their predictions over time; the disadvantage is that tuning and maintaining models requires more data science knowledge.

› **Predictive models can learn the peculiarities of an enterprise's infrastructure.** Machine learning can analyze large amounts of monitoring and log data to create predictive models that are based solely on historical data peppered with incidents. This analysis is often not flawless and can produce false positives and false negatives. This is particularly true if the incidents the models are trying to predict don't occur frequently; as machine learning relies on incident history, machine learning models probably can't predict a problem that occurs only a few times a year until a year or more has passed. I&O pros can often reduce false positives and false negatives by adding custom rules to explicitly reject or accept what's obvious to them. The advantage of predictive models is that they're based on actual data collected from the infrastructure and analyzed by machine learning algorithms, although the disadvantage of such models is the occurrence of false positives and false negatives.

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance
Management

August 25, 2017

› **Importable external models enable a community of enterprises to share knowledge.** As the market for cognitive operations matures, we envision a community, either open source or vendor-specific, where enterprises can share predictive models. The upside of such a community is that enterprises can gain predictive capabilities that they wouldn't otherwise share. Vendors could enable communities by sharing a framework for infrastructure component providers such as Dell or Hewlett Packard Enterprise (HPE) Software (Micro Focus) to offer their own predictive models for any enterprise to use; such providers offer more reliable — or at least more fixable — components. The advantage of external predictive models is that enterprises can share and reuse them. The disadvantage is that community models may vary widely in their efficacy for and applicability to specific enterprises.

Recommendations

Make Prediction A Priority

I&O professionals must design their predictive journey. Follow these steps:

1. **Understand which problem you're trying to solve.** An inside-out approach such as focusing on technology towers like infrastructure, storage, and application components concentrates on reducing IT ops effort, responding more quickly, and managing growing technology complexity. Customers and/or users benefit indirectly, but this is mostly an effort focused on improving IT ops and its ability to respond. An outside-in approach focuses primarily on improving customer and user experiences through problem prevention and fast reaction. Labor-saving and internal efficiencies are indirect benefits, but the primary driver is ensuring good customer and user experiences using applications and services.

2. **Understand the limitations of predictive analytics.** Models trade the simplicity of rules for predictive power, so choose with your eyes wide open. Know what you want and need; understand that you can't predict everything. For example, predictive models simply don't exist for every situation. It would be nice to predict the stock market or the next roll of the dice, but some systems are too complex or lack the right data even to create a predictive model in the first place. One way around this is for models to predict indicators that may lead to a problem rather than the problem itself. For example, rather than predicting that the customer portal will fall below a response time service-level agreement, perhaps a predictive model could predict spikes in customer usage.

3. **Know that predictive models may be too noisy to be useful.** Predictive models are usually based on probabilities, which means they can generate false positives and false negatives. Ask your cyberbrethren about the curse of false positives — they spend a lot of time tracking down problems that don't matter. The predictive model becomes the boy who cried wolf, consuming more time than it's worth. Good, useful models will be accurate and will generate few false positives or false negatives.

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance
Management

August 25, 2017

4. **Make prediction a priority without a vendor solution.** I&O pros don't need a cognitive operations solution to have a predictive mindset. They can use the analytics they do have to create rules-based models to predict issues. This may be your best way forward if you don't already own one of these solutions and you're not ready to invest immediately.

5. **Keep your expectations reasonable.** Prediction in the context of technology performance within production today holds promise for the overloaded I&O team but hasn't reached the maturity of prediction in other fields such as market behavior, market direction, or increasing customer wallet share. Vendors are adding more and more diverse data sets to better connect technology performance with the business. Adding more diverse data will drive more sophisticated modeling, which will make the solutions harder for non-data scientists to use.

What It Means

We've Seen Too Many False Prophets, But A Messiah Is Coming

Many vendors tout their "predictive" capabilities, but the market is still new. Prediction moves us toward Warren Bennis' "the man and the dog" technology model: Loosely paraphrased, the man is there to feed the dog, and the dog is there to keep the man from touching the machines.[2] While we might not reach that stage in five years' time, we will see automated self-healing infrastructures that run unimaginably smoothly, just as the reliability that Google, Apple, Facebook, and Amazon (GAFA) now offer makes five 9s look primitive.[3] Coupled with automation, prediction will advance the transition to NoOps — the end of IT ops as we know it, when I&O pros are liberated from the drudgery of day-to-day technology management and become technology consultants to the business.

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

August 25, 2017

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance Management

<div style="background-color:#6f9540; color:white;">

Engage With An Analyst

Gain greater confidence in your decisions by working with Forrester thought leaders to apply our research to your specific business and technology initiatives.

Analyst Inquiry

To help you put research into practice, connect with an analyst to discuss your questions in a 30-minute phone session — or opt for a response via email.

Learn more.

Analyst Advisory

Translate research into action by working with an analyst on a specific engagement in the form of custom strategy sessions, workshops, or speeches.

Learn more.

Webinar

Join our online sessions on the latest research affecting your business. Each call includes analyst Q&A and slides and is available on-demand.

Learn more.

</div>

Forrester's research apps for iOS and Android.
Stay ahead of your competition no matter where you are.

Supplemental Material

Companies Interviewed For This Report

We would like to thank the individuals from the following companies who generously gave their time during the research for this report.

AppDynamics	CloudFabrix
Appnomic	Correlata
Bay Dynamics	CoScale
BMC	DataDog
CA Technologies	Dynatrace
CirrusPoint	Evanios

FOR INFRASTRUCTURE & OPERATIONS PROFESSIONALS

August 25, 2017

Vendor Landscape: Cognitive Operations
Cognitive Ops Is The AI Version Of IT Ops Management And Application Performance
Management

HPE Software	Rocana
IBM	SAS
Interlink Software	ScienceLogic
Loom Systems	Splunk
Nastel	Squirro
New Relic	VMware
Nexthink	Ymor
RISC Networks	Zenoss

Endnotes

[1] Source: "Sir Arthur's Quotations," The Arthur C. Clarke Foundation (https://www.clarkefoundation.org/about-sir-arthur/sir-arthurs-quotations/).

[2] "The factory of the future will have only two employees, a man and a dog. The man will be there to feed the dog. The dog will be there to keep the man from touching the equipment." Over the years, business publications have extensively quoted this quip from professor and organizational consultant Warren Bennis. Source: Charles B. Wang, Techno Vision: The Executive's Survival Guide to Understanding and Managing Information Technology, McGraw-Hill, 1994.

[3] Within five years, we'll see automated self-healing infrastructures that run unimaginably smoothly.

We work with business and technology leaders to develop customer-obsessed strategies that drive growth.

PRODUCTS AND SERVICES

› Core research and tools
› Data and analytics
› Peer collaboration
› Analyst engagement
› Consulting
› Events

Forrester's research and insights are tailored to your role and critical business initiatives.

ROLES WE SERVE

Marketing & Strategy Professionals
CMO
B2B Marketing
B2C Marketing
Customer Experience
Customer Insights
eBusiness & Channel Strategy

Technology Management Professionals
CIO
Application Development & Delivery
Enterprise Architecture
› Infrastructure & Operations
Security & Risk
Sourcing & Vendor Management

Technology Industry Professionals
Analyst Relations

CLIENT SUPPORT

For information on hard-copy or electronic reprints, please contact Client Support at +1 866-367-7378, +1 617-613-5730, or clientsupport@forrester.com. We offer quantity discounts and special pricing for academic and nonprofit institutions.