THE AIOPS EVOLUTION:

An AIOps Roadmap and Readiness Guide.

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Many IT leaders look at selecting tools to solve their problems, rather than defining a strategy with a measurable path forward. But IT leaders' visions are bigger than a tool. In fact, as IT grows exponentially more complex, it's something only AI and automation - what we call AI operations - can handle at scale.

Now is a great time to be looking at how you can leverage AI to improve IT operations. Across the entire IT ecosystem, artificial intelligence, machine learning and automation are poised to completely transform IT operations.

But the learning curve can be steep, and the risks of a failed implementation costly.

At Windward, we've seen that customers who have the right starting perspective, a clear and measurable roadmap built on a vision linked to business objectives, buy-in from executives to team members, and support from experienced outside consultants are most likely to have a successful AIOps initiative.

Let's look at the best practices for defining the vision, objectives, metrics, team management, and building a roadmap through the transformation to AIOps.

Perspective Check: AIOps is a Strategy, not a Platform.

What we're hearing a lot in the AIOps market today is confusion and noise. While it appears in a lot of technology vendor marketing materials, AIOps is more of a strategy than a platform. The introduction of AI into IT operations — and into your IT operations model — is potentially seismic. At this point, we really need to view it as an overall strategy, rather than focusing on an individual platform.

There are many different pieces that come into making AIOps implementation successful:

- It isn't just introducing algorithms

- It's introducing data and getting data

- It's also driving automation

- It's involving organizations and roles

- It's a complex change

- It's not just replacing one tool

Use Cases / Applications of AIOps

- Observability

- Individual domain specific areas

- Aggregating performance data

- Event management

- Resolving incidents

- Driving automation

- The devops chain

The leadership team and sponsorship team need to be in alignment, with an overarching vision and point of view. Then, you need to break that vision down into pieces so it can be executed.

Going from vision to execution is where most of the effort needs to be, in organizing the work and organizing how it's going to roll out.

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AIOps: Evolution of Event Management or Revolution in IT Ops?

Where confusion often enters the picture is around use cases. AIOps use cases right now are primarily focused on event management, event handling, detection, root cause analysis, and correlation. But when you think about IT operations, you have service desk requests, which are part of operations. You've got configuration management, change management, all these other operational areas which could benefit from AI and automation to consider as well.

Right now we're seeing AIOps primarily in the use case of event handling and event management. This makes sense, because AI and machine learning are very good at processing Big Data and looking for patterns. But when you look at the rest of IT operations, you need to ask: where does AI play into configuration management? Where does it play into request management? Where does it play into virtual agent bots?

The introduction of AI and ML is going to lead us down the path of new processes, new ways of doing things, new methodologies, and new ways of measurement. It's going to really change how people do work. In addition to collaborating with people, they'll need to develop skills for collaborating with AI or training AI for specialized tasks. Traditional IT operations organizations are going to look different just from the introduction of AI machine learning.

IT leaders can't simply sit back and say "I bought an AIOps platform." Whether it be BigPanda, Moogsoft, or any other tool, this is narrow thinking as far as the impact of AI and ML is concerned. Leaders need to step back and say "Okay, what does all this mean to us? What is our bigger vision?"

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The Six Prerequisites for AIOps Readiness

When we think about AIOps as a strategy there's primarily six areas that we look at:

Vision

Objectives

Measurement

Team

Road Map

Execution

Vision

When you look at vision you really have to equate AIOps with improvement. Where do you need to improve in your whole domain of IT service management and/or ITOps? Look back over your last year, and ask the hard questions:

- How could we have prevented that outage?
- How did we not know these customers had those issues?
- How did we not release that application on time?

Sifting through large amounts of data to find the answers is like finding a needle in a haystack. That's where AI can come into play. Any areas where you need to see improvements in your IT operations or IT service management is a perfect candidate for contributing to your vision, which can then translate simply into objectives and measurements.

The reality is that all this is going to take capital, resources and time. It may require deploying a new product, looking at optimizing existing technology, considering how you're going to integrate a new technology, or how you're going to replace an outdated technology. Your entire IT environment could be radically different.

That's why it's important when defining the vision to ask "What is the business case for this?"

The more use cases you can put together, the better.

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The Benefits of an AIOps Consultant

This is where working with an outside consultant experienced in the AIOps space is prudent. They can help you start looking at a lot of different use cases, and using those to build your business case. Because ultimately, you're going to have to use this vision to garner support from above to make the investment.

An AIOps initiative can be a half million dollar investment. IT leaders need to be prepared to justify it, and answer tough questions regarding how it will pay back the investment, and what the organization can expect out of implementing AIOps.

Objectives

It's important to break these out into phases across 6 months, one year, 18 months, and so forth. Within the next six months, often a company's proposed first objective is to get a platform or other technology acquired - although we would argue it's best to actually start with a vision and roadmap. It's important to note that once you're ready to start adding to your technology stack, tool selection and acquisition alone can take a lot of time. We've seen customers take nine months to acquire new technology, so that needs to be part of the strategy.

Can you be doing proof of concepts ahead of time? Staying focused and tackling AIOps a bit at a time is critical. Don't try to cover your entire IT environment or infrastructure.

Are you in an exploration phase or exploitation phase?

This question frames exploitation in a positive sense; as in "are you exploiting every advantage from this opportunity?" AIOps is still mostly in the exploration phase. It's not a proven technology that organizations can feel comfortable aggressively deploying across their entire IT environment.

Identifying those use cases - specific parts of your application portfolio or infrastructure that need improvement, or addressing specific problems of reducing MTTR or eliminating outages in certain areas - is really the focus in AIOps implementation for most organizations.

Measurement

Measurement typically aligns with improving business value, rolling out new features or services tied to some new part of your infrastructure, improved agility for DevOps pipeline, or overall increasing reliability.

It's really critical, at least in the beginning phases of your rollout, to be very focused. Consider the use cases which can be applied, and what are the measurable efficiencies of each use case. However, it's important to promote an iterative approach to measurement. For example, Mean Time to Resolution (MTTR) is a common metric.

While it can be tempting to set aggressive targets to prove value quickly, think carefully about how realistic that may be. If you set a goal of 10% reduction in MTTR during the first six months, you may be acquiring technology. Your team may need time getting trained. You may be building some of your first models during that phase, and those models may only deliver two or three percent.

It's okay to talk about incremental improvements across these objectives. Those incremental improvements exist within individual use cases, but when you layer on more use cases, the cumulative impact can be more significant - and you can make the case that these modest gains will increase over subsequent periods.

Measurement is another area where an outside consultant can be helpful. If they've done several similar projects, they can provide guidance on metrics that are realistic, attainable, and tie back to the original vision and business case. It's important to keep making those incremental adjustments and keep everyone on board. Too often, companies make a big investment in technology, but fail to set incremental goals. If there's no value realization being shown during the early period of time, they can lose their initial strong buy-in.

Look at your objectives, and build metrics based on them that you're able to report on a 90-day basis. Even if you're not moving the needle a lot, moving a needle every single quarter gets you big gains down the road.

Measurements also provide a valuable focus on data. This focus helps refine what data an organization actually needs to collect, supports data-driven decisions, and informs data strategy moving forward.

Team

You also need that vision to articulate the strategy to your team - after all, they're the people who are going to be doing the work. Your vision can aid in getting them on board. Be ready for a lot of questions. When you talk about AI and machine learning, people start thinking "Okay, what does it mean to me? What does it mean to my job? What does it mean to my livelihood?" Your vision can help reassure your team. Because when you create questions without answers, they will answer themselves - and usually not in the way that you want.

A well-formulated vision explains why you're doing it, what role people will play, how you're going to deploy it, and the goals you're trying to achieve with it over the next several years.

Staff Reductions? Offer Honesty & Optimism

It's also important to be honest with people when some part of your ROI involves staff reductions. However, many times staff reductions in certain areas means an investment in new technologies and reskilling in new technologies, and that often leads to new opportunities in others.

There are jobs today that didn't exist five years ago. So this can be a good opportunity to start using your vision for AIOps to talk to your staff about where they're going. Find out what they want to do, and how they want to be part of this new future.

It's important that you get the people and teams involved only as deeply as needed for the current stage of implementation. If you brief your network operations team now, but you start with something you're deploying out in the cloud that isn't going to affect the network team for a year, you're setting yourself up for missed expectations. The executive team needs to be in place early. Determine who are the key stakeholders that really understand the long-term direction. Then enlist the teams needed to enable or execute as you get to that part of your road map.

When putting together the team, most likely you'll be adding new technologies. This means that your overall team will include internal staff, technology vendors, and possibly third-party consultants who all bring their specialized knowledge and expertise. We recommend that the team lead be internal staff - not a vendor or consultant. The leader of your AIOps implementation team needs to understand the dynamics of the entire organization.

Tips for Choosing a Team Lead

A business analyst can be ideally suited as a team lead. Someone who understands the context of the organization, understands the technology, knows where to get the answers and can take a much more holistic approach. It's common, but usually less successful, to select someone whose specialization is in the initial use case. They see things from the perspective of their swim lane, but often fail to see things in the bigger picture.

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Road Map

So let's talk about the road map. Once you've moved through the pyramid, you've got your vision under control, you've laid out your objectives for the next two years, you've got metrics that measure each of those objectives on a quarterly basis, and your team is on board. Now you've got to start putting together your road map.

We do a lot of assessments where we make recommendations along a bubble chart with three different dimensions.

1. First is the ease with which something can be done.
2. The second consideration are the blockers in place.
3. Last is the potential impact it's going to have on the business.

These ladder up to a priority ranking.

Timeline: Balancing Quick Wins vs. Long-Term Impact

The road map needs to look at balancing making a meaningful impact against getting some quick wins. There's an optimal mix of quick wins up front while also working towards something that's going to make a really big impact in the longer term.

The road map should be broken down into monthly and quarterly milestones. It should identify dependencies, and be synchronized with the measurements which were established earlier. This is important, because when the roadmap is executed, if it's tied to the objectives and the measurements which ladder back to the vision, then the quarterly reporting to management will really deliver on how well the investment is going and whether AIOps is meeting the business needs.

The roadmap always has two purposes. One is to get people to focus on the quarter that you're in, and it also lays out the long-term vision. It allows you to communicate to those parts of the team who aren't involved yet to set expectations and set up necessary conversations.

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Execution

The last area we want to talk about is execution. As they say, execution eats strategy for lunch. You put together your vision. Set these objectives. Determine the measurements. Assemble your team. Develop your road map. But success or failure comes down to the day-to-day execution.

That takes oversight and management. It's a truism that the only thing you can be certain of when you put together a plan, is that it's wrong. Things are going to come up. Staff are going to leave. You're going to run up against some political headwinds. You may run up with technical challenges. You may run up with procurement challenges. These all have to be taken into account. For execution, oversight is really key.

This is where the team leader plays a critical role in breaking down barriers, understanding these challenges, making sure that the execution team is articulating the pros and the cons, and the challenges and the milestones are being addressed. A weekly sync between the team, the leadership and the roadmap can be tremendously helpful.

This ensures that when the reality on the ground requires deviating from the road map, everyone understands the situation. This means they can work together to overcome the hurdles and ensure the project keeps heading in the right direction.

This is where proper program management methodologies prove their value, setting up who has ownership of the vision and where the path to escalation lies. It's also where organizational change management comes into play. You may have a consultant leading the OCM effort, putting together the sponsorship message, the training plan, and all the other pieces that really go into making sure the organization's moving along with the rollout smoothly.

Conclusion

Windward helps companies create an AI operation strategy that connects your vision to a roadmap for success. If you'd like to learn more and discuss an AIOps investment plan for your organization, feel free to email us at info@windward.com or go to www.windward.com.

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