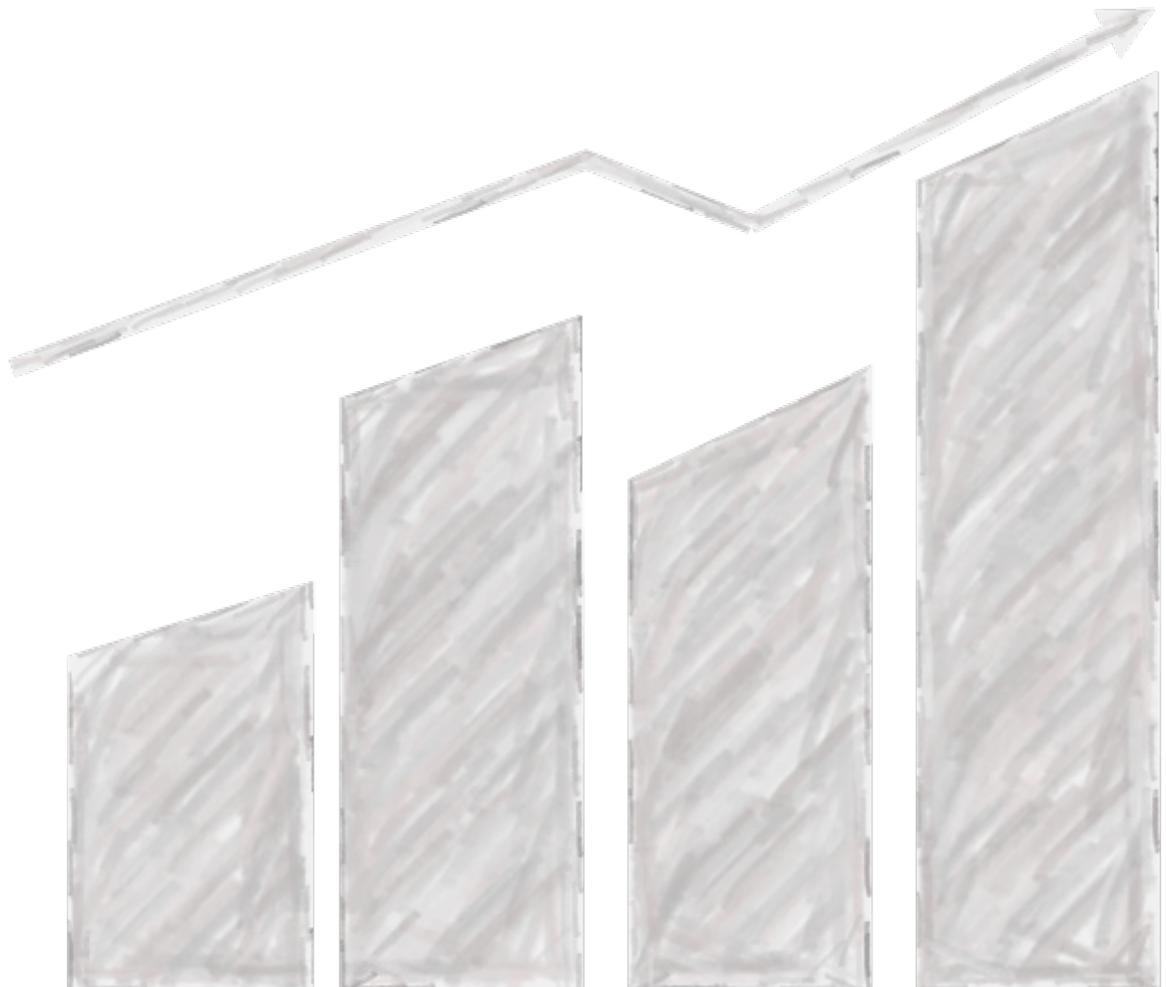


Net Objectives' Approach for Fast Growth and Mid-Scale Organizations

by Al Shalloway



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OVERVIEW

Many companies are looking at large scale Agile solutions because they've been unable to get teams to work together. While Scrum-of-Scrums has proven to be ineffective, there are other methods that can have multiple teams work together effectively without heavy overhead. This paper discusses several issues of Agile at mid-scale and several techniques that can be used that allow more Agility and greater pivoting when necessary. These methods work both for fast growth companies that are wanting to keep their levels of innovation up while they grow as well as companies in the mid-scale range (150-1000) people that are looking to rejuvenate their methods.

It is important to understand the issues that fast growth and mid-scale companies have. Typically the issues are that there are too many stakeholders giving direction, that people are not organized properly around the value stream and that people are working on too many things. While 2-3 month planning cycles can be used to improve efficiency, this can often be a heavy handed approach when mid-scale solutions are better and will allow pivoting of the Business value being developed. This, and related papers describe Net Objectives' approach to managing the issues of Agile at scale that can keep fast companies growing effectively and that can help mid-scale companies to become more efficient.

UNDERSTANDING WHAT AGILE AT SCALE MEANS

I often get asked by people if they should scale Agile. I ask them what they mean by this as three different meanings come to my mind:

- We're doing Agile at a few teams and want to 'scale it to the organization.'
- We're doing Agile for some projects and want to 'scale the size of the projects.'
- We're doing Agile for a part of our value stream and want to 'scale it to the entire value stream.'

These are quite different meanings and which you mean will get you different answers. Let's look at all three of these.

Scaling Agile Across the Organization

Many companies start Agile by selecting a few pilot projects for Scrum. If the intent is "how to get teams working effectively" this is not a bad way to start. But if the intent is to learn how to get a development group more effective and you start with just a few teams, you are likely going down the wrong path. What many people starting with Agile ignore is that Scrum is a team level framework. It is a very good one, and can greatly improve the quality of the work at the team level. However, it is not particularly good at solving the impediments at the program level (that is, the level driven by projects or product enhancements that involve multiple teams). This requires a more holistic view. That is, spinning up a lot of teams on Scrum may solve the team problem, but it often does little for the product development problems given it doesn't necessarily help teams work *together*.

Common impediments at the program level include too many projects in play, people working on too many things, people required on too many projects, projects contending for capacity and/or resources and more. Unfortunately, the way most



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transition to Lean and Agile methods enterprise-wide as well teaches courses in these areas. Alan has developed training and coaching methods for Lean-Agile that have helped Net Objectives' clients achieve long-term, sustainable productivity gains. He is a popular speaker at prestigious conferences worldwide. He is the primary author of *Design Patterns Explained: A New Perspective on Object-Oriented Design*, *Lean-Agile Pocket Guide for Scrum Teams*, *Lean-Agile Software Development: Achieving Enterprise Agility* and *Essential Skills for the Agile Developer*. Alan has worked in literally dozens of industries over his career. He is a co-founder and board member for the Lean Software and Systems Consortium. He has a Masters in Computer Science from M.I.T. as well as a Masters in Mathematics from Emory University. You can follow Alan on twitter @alshalloway

organizations that require a program level solution implement Scrum is to select people to create a cross-functional team and start doing Scrum. This will almost certainly succeed. Unfortunately, it provides little insights into how to do Agile across teams.

The mechanism of Scrum, such as Scrum-of-Scrums, does not work particularly well here.¹ However, since Scrum worked so well, and many Scrum experts contend Scrum can scale we often see new Scrum teams pop up without address the across the program level challenges. Scaling this way is problematic and often causes real challenges because what is needed to make development work at the team level is quite different from what it takes to work across an organization.

Scaling the Size of the Projects

Scaling can mean making larger. However, smaller projects are typically better. They provide faster feedback and development can be quicker, thereby realizing Business value sooner. When a project starts it is fine to allocate all of the people to the project that can efficiently work on it so as to get it completed sooner. But making large projects is almost never a good idea. In fact, we view Lean-Agile as a method of splitting large projects up into smaller ones.

This can be done both by the using of Minimum Business Increments (MBIs), chunks of Business value that can be realized independently of each. It can also be done by splitting project teams up into pseudo-independent groups. This is why we talk about ‘*Agile at scale*’ not ‘*scaling Agile*.’ We want it to be clear we do not think it wise to make things bigger.

1 The new variant of “Scrum-of-Scrums” I now see that involves have Product Owners get together is actually a Lean technique Alan Chedalawada, Guy Beaver and myself created a decade ago that was documented in our book, *Lean-Agile Software Development*. This is a major improvement but won’t solve the entire set of program level challenges.

Scale Agile to the Entire Value Stream

This is virtually always a good idea and has, unfortunately, been lost on much of the Agile community. The Agile Manifesto’s focus on team Agility has blinded many to the fact that the real intention is to maximize the realization of Business value, not development cycles. Business value includes customer value, compliance issues, operations cost, risk and more.

A good first step is to get alignment across the organization as to what truly constitutes Business value for the organization.

This requires a holistic, Lean-Thinking point of view. It is insufficient to scale by merely having teams work together via Scrum-of-Scrums. Ironically, most companies take longer deciding to do a project than in actually implementing it. Improving the implementation by doing Agile at the team doesn’t necessarily improve the inception part of the value stream. Merely having teams work better together doesn’t solve the real challenge of what to work on and how to prioritize work across an organization. The focus is on maximizing Business value realization and that requires working on those items that provide the greatest value. Teams (collectively or not) may contribute to this but can’t figure it out themselves.

When considering trying to achieve Agile at Scale, one should make sure their approach not only includes the entire value stream, but also focuses on what gets into the value stream – how do projects start. Also, since most large organizations have services that are shared (such as UX, business intelligence, DevOps) it is important that all work (even across portfolios) be sequenced so that these shared, and typically constraining, services can work on the most important Business value. “Scaling” Agile by spreading it across the value stream to include Business stakeholders, Product Managers, etc. is almost always a necessary step to effectiveness.

THE REAL PROBLEM OF SCALE

Ironically, the real problem of scale is to make things smaller and more focused. For example, we achieve greater effectiveness, efficiency, quality, predictability and sustainability when the people

who are working on a product or enhancement are focused on just that product or enhancement. Instead of having folks work on a lot of different unrelated work items we want people focusing on the next most important thing to deliver. Unfortunately, this is easier said than done.

Many people are required for many different projects. Furthermore, there is a lot of work in an organization that is not very visible. In addition, work that is actually not particularly important compared to other items are often squeezed in at the request of executives who merely have to walk (or email) a developer and ask for them to be pushed ahead of others. Hence, knowing what to do and being able to do it are two different things.

THE FIRST STEP IN SOLVING YOUR PROBLEM IS UNDERSTANDING IT

It is important to realize that the different scales of Agile have different challenges, and therefore, different solutions. It is very important not to take a solution designed for one scale and apply it to another (with the exception lower scale solutions can be used within the context of larger scale ones). The table below shows the different forces/issues that occur at the different levels of scale:

One Team Can Create Value: Team Level, No Scale

When one team can create value no scaling is needed. However, even in this situation teams may find themselves with challenges. If they are being requested to do work from many different people (e.g., their Product Owner and executives) this working on too many things may cause delays and kill their efficiency. This is where Scrum can excel. However, if a product backlog cannot be established for the team, Scrum may need to be extended through the use of Minimum Business Increments (MBIs), and managing work in process.²

² For more on MBIs, see The Business Case for Agility at www.netobjectives.com/articles

Multiple Teams Working Together

When several teams have to work together several options are available. For over a decade the classic ‘Scrum-of-Scrums’ approach has been tried, but with little success. A more recent version of Scrum-of-Scrums is having the Product Owners for the different teams coordinate with each other. This is based on the product coordination team first presented in our book, *Lean-Agile Software Development: Achieving Enterprise Agility*.

This works extremely well and is often all that is needed to manage multiple teams working together. The trick, however, is being able to have the teams focus on just one set of work. This is not particularly difficult if one uses Lean principles for organizations less than 300 people. This method can often be used with development groups inside much larger organizations.

Multiple Teams with Multiple Business Stakeholders Driving Them

Unfortunately, once organizations go beyond 250-300 folks, the problem gets another layer added to it – multiple stakeholders driving their own projects – many of which require the same teams’ involvement. In this situation we have many teams being requested to do some work for other teams. To make things worse, there are typically shared services (e.g., business intelligence) or core component teams that are required by almost every other team. In this situation, having Product Owners alone between the Business stakeholders and the teams are insufficient.

This situation can, fortunately, be greatly improved by creating the role of Product Manager whose job is to work with the:

- Business stakeholders, educating them in the use of MBIs and proper sequencing
- Product Owners to help them understand what their teams need to do

This creates a flow of work as shown in Figure 1.

This two-tier approach allows Product Owners to be close to their teams while giving Business stakeholders one person to go to in order to explain what they need and to see what is happening.

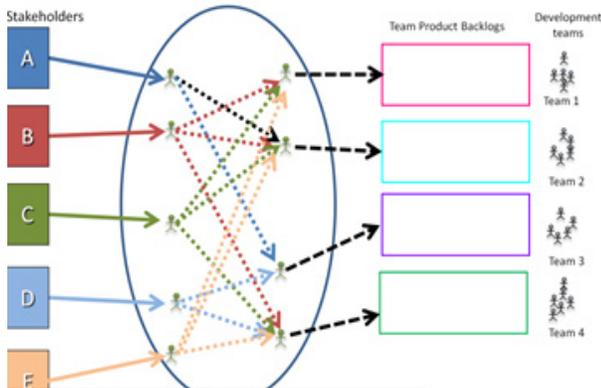


Figure 1. Product Managers and Product Owners

Dynamic Feature Teams

There are times that several people from several teams are needed to create the necessary value. A technique called ‘dynamic feature teams’ is often useful in these situations. These are short-lived teams that under some circumstances should be formed to create value through cross-team swarming.

WHAT TO DO AT THE MID-SCALE

It is unfortunate that many people are not aware of the techniques listed above. They are often helpful in working in development organizations from 100-300 people. However, in many organizations these methods are insufficient because the teams are so poorly organized around the value streams that they cannot be easily applied. In this situation, it is possible to make headway as follows:

- Create visibility of all work that is taking place
- Map your value streams to create visibility on your workflows
- Reorganize your people to align to the value stream

Reorganizing your staff to be able to work together in a more focused manner can produce significant results. The use of cross-functional teams is a powerful approach for eliminating waste in software development. As powerful as it is, it does not always make sense practically or financially. One of the critiques of classic Scrum is its naive insistence on cross-functional teams. And yet, even if cross-functional teams cannot be fully

realized, there are approaches that offer some degree of the benefit. It just requires applying Lean ideas. The key is to rethink what is a “team.”

In our consulting practice, we go into organizations that already have many kinds of teams: development teams, test teams, Business Analyst teams, and so on. These are not the best sorts of teams for delivering value; instead, they are collections groups of people working on different things at any one time and handing-off work from team to team.

The better, more Lean approach is to form groups of people who are working together to build a particular vertical slice of functionality. Each group must contain the capability to analyze, design, code and test what is being built. At Net Objectives, we call these, “pods.”[2]

In large organizations, it is often the case that one pod cannot by itself create and deliver all of the functionality needed to deliver the software product. For example, a pod working on a web front-end might have to depend on another pod that is building database or marketing functionality.

To support this, we collect pods into “hubs.” A hub is focused on delivering value and is typically organized around an application or service. A hub will be comprised of those pods required to develop and deliver Business value.

Pods offer a flexible way to realize the benefits of cross-functional teams at scale. Here are some approaches we have used:

- **A cross-functional pod.** If it is possible to collect all of the skills needed to deliver value into one team and if these people belong only to that one team, then you have a pod that is, indeed, a cross-functional team. For all of the reasons already described, this is the most powerful structure to use. The team has all of the skills needed and they will work together long-term.
- **A pod with a core team and full-time extended members.** In this case, the pod consists a core group who are assigned for the life of the project. They bring in additional members as needed for the work

at hand. For example, an application team requires some support from a component team. Traditionally, the component team would commit a certain percentage of their time to support the application team. This almost always leads to the two teams getting out of sync due to demands of other projects. Instead, it is better to create the pod with the core application team and to extend the pod with the appropriate number of component team members for the life of the project. The extended members attend the daily stand-ups of both the newly formed pod and also their component team. This way, the component team members can still identify with and stay connected to their component team. This is particularly useful when the component team uses different technology or skills than the core team.

- **A pod with a core team and part-time extended members.** Sometimes, it is not necessary to have an extended member full-time. In this case, an extended pod member may be shared among two or three pods. More than that is not advisable: you want to ensure the extended member is available as needed.
- **A pod with a core team and a virtual extended team.** Sometimes, the extended members truly cannot be on a particular pod. In this case, we advise setting up a Kanban board and managing their work load with work-in-progress (WIP) limits and explicit policies.
- **A virtual pod.** If a pod cannot be created at all, then create a Kanban board that lays out the work to be done by the group of people and use Kanban to manage their workflow.

Harness the power of cross-functional teams as much as you are able. If that is not possible or feasible, you can still get much of the benefit through the intentional and creative use of pods and hubs. This does not come automatically and is not part of classic Scrum or Kanban. But when it is done on purpose, there is great advantage.

DO NOT USE A LARGE SCALE SOLUTION FOR A MID-SCALE CHALLENGE

It is important not to use a larger than necessary approach. While SAFe may be a good approach for very large organizations, using it in the mid-scale often results in an over-weight process that results in over-lengthy planning sessions and lost opportunities to pivot. The key determination on when one crosses the threshold to large scale is if separate portfolios having different budgets and stakeholders is present. When this is the case large scale solutions may be appropriate.

OTHER ARTICLES OF INTEREST

Go to www.netobjectives.com/articles to see the following articles:

- Our Approach to Scaled Agile Framework®
- Why Tailored Agile Transformations are More Effective, Less Expensive, and Less Risky
- Where to Begin Your Transition to Lean-Agile

Go to www.netobjectives.com/blogs/all:

- How Successful Pilots Often Actually Hurt an Organization

Check out the Net Objectives Portal at portal.netobjectives.com where an extensive amount of online self-study is available.

YOUR ROADMAP TO LEAN-AGILE SUCCESS

Growing numbers of organizations are realizing the need to become more Agile. Some are weighing the risks and benefits and seeking guidance. Others are implementing initiatives and are looking for ways to improve their return on investment.

The road to Lean-Agile success has become less risky as the early adopters have paved the way for the next generation of Lean-Agile methodologies and practices that solve the common problems, and transcend the limitations that early adopters have struggled with.

Net Objectives has been a thought leader in each of the Agile methods of the past decade. This uniquely enables us to provide the most effective approach to our clients' needs.

For more than a decade, Net Objectives has been training and facilitating large and small organizations to achieve agility.

We serve organizations at the team, management, and enterprise level with comprehensive organizational consulting, coaching, and training.

We do not promote one method as most other firms do – rather we pull from a broad knowledge base to offer an approach tailored to your situation.

UNDERTAKING YOUR TRANSITION TO AGILE

There is no one method that guarantees success at the team level. Our full assessment services will answer these questions to help you to determine which to choose.

- Do cross functional teams already exist and if not, how difficult will it be to create them?
- Are certain staff essential for multiple teams
- How many concurrent projects are teams working on at one time?
- What challenges face the organization in integration and deployment?

Throughout your transition, Net Objectives will help ensure everything is in place through appropriate Lean-Agile training:

- **Teams** are capable of delivering value quickly with high value
- **Businesses** are capable of selecting, sizing and prioritizing business capabilities to be developed
- **Management** takes responsibility for improving the value stream and removing impediments facing teams

Our coaches enable your teams with skills, and competencies to leverage the power of agility as part of your value stream. Our consultants collaborate with management, stakeholders, executives, and experts to provide insight and guidance from the organizational view.

UNDERSTANDING AGILE

The first step toward success is drawing a clear distinction between enterprise agility, and team agility. The benefits of Agile at the team level are very different than benefits at the enterprise level. The paths to success and the challenges presented are also very different.

Enterprise agility enables an organization to effectively respond at the enterprise level to changing business needs while reliably delivering business value.

Team agility is a component of that capability – a component – and not the equivalent of enterprise agility. This understanding is essential since team methods alone cannot deliver enterprise level benefits.

First generation methods made the assumption that team agility translated to the enterprise. This has been a costly simplification.

Many organizations have attempted to achieve enterprise agility simply by creating more Agile teams. This often starts well, but usually ends up being impeded by enterprise level problems that team solutions do not solve.

The next generation of Lean-Agile openly acknowledges practical truths, limitations, and organizational structures required to fulfill the needs of the entire Lean-Agile enterprise.

From assessment and planning to pilot and rollout, our goal is to facilitate your organization with custom approaches and solutions that are appropriate to your needs, structure, and goals. Let us show how the next generation of Agile can benefit your organization.

BUSINESS-DRIVEN SOFTWARE DEVELOPMENT

Business-Driven Software Development is Net Objectives' proprietary integration of Lean-Thinking with Agile methods across the business, management and development teams to maximize the value delivered from a software development organization. This approach has a consistent track record of delivering higher quality products faster and with lower cost than other methods.

Business-Driven Software Development goes beyond the first generation of Agile methods such as Scrum and XP by viewing the entire value stream of development. Lean-Thinking enables product portfolio management, release planning and critical metrics to create a top-down vision while still promoting a bottom-up implementation.

Our approach integrates business, management and teams. Popular Agile methods, such as Scrum, tend to isolate teams from the business side and seem to have forgotten management's role altogether. These are critical aspects of all successful organizations. Here are some key elements:

- Business provides the vision and direction; properly selecting, sizing and prioritizing those products and enhancements that will maximize your investment.
- Teams self-organize and do the work; consistently delivering value quickly while reducing the risk of developing what is not needed.
- Management bridges the two; providing the right environment for successful development by creating an organizational structure that removes impediments to the production of value. This increases productivity, lowers cost and improves quality.

BECOME A LEAN-AGILE ENTERPRISE

Involve all levels. All levels of your organization will experience impacts and require change management. We help prepare executive, mid-management and the front-line with the competencies required to successfully change the culture to a Lean-Agile enterprise.

Prioritization is only half the problem. Learn how to both prioritize and size your initiatives to enable your teams to implement them quickly.

Learn to come from business need not just system capability. There is a disconnect between the business side and development side in many organizations. Learn how BDSO can bridge this gap by providing the practices for managing the flow of work.

WHY NET OBJECTIVES

While many organizations are having success with Agile methods, many more are not. Much of this is due to organizations either starting in the wrong place, such as focusing on the team when that is not the main problem, or using the wrong method, such as using Scrum or Kanban because they are popular.

Net Objectives is experienced in all of the Agile team methods (Scrum, XP, Kanban) and integrates business, management and teams. This lets us help you select the right method for you.

LEARN TO DRIVE DEVELOPMENT FROM THE DELIVERY OF BUSINESS VALUE

What really matters to any organization? The delivery of value to customers. Most development organizations, both large and small, are not organized to optimize the delivery of value. By focusing the system within which your people are working and by aligning your people by giving them clear visibility into the value they are creating, any development organization can deliver far more value, lower friction, and do it with fewer acts of self-destructive heroism on the part of the teams.

THE NET OBJECTIVES TRANSFORMATION MODEL

Our approach is to start where you are and then set out a roadmap to get you to where you want to be, with concrete actionable steps to make immediate progress at a rate your people and organization can absorb. We do this by guiding executive leadership, middle management, and the teams at the working surface. The coordination of all three is required to make change that will stick.

OUR EXPERTS

Net Objectives' consultants are actually a team. Some are well known thought leaders. Most of them are authors. All of them are contributors to our approach.



Al Shalloway



Alan Chedalawada



Guy Beaver



Scott Bain



Max Guernsey



Luniel de Beer

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Lean-Agile Executive Briefing
Preparing Leadership for a Lean-Agile/SAFe Transformation

Product Manager & Product Owner

Lean-Agile Product Roadmaps
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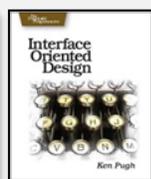
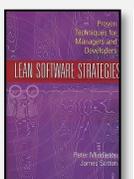
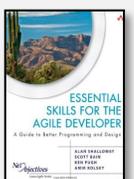
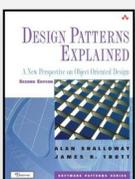
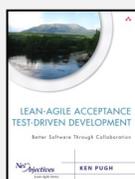
DevOps

DevOps for Leaders and Managers
DevOps Roadmap Overview

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Using ATDD/BDD in the Agile Release Train (workshop)
Architecting in a SAFe Environment
Implement the Built-in Quality of SAFe
Taking Agile at Scale to the Next Level

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