

Investor Insight: Christopher Smith

Artisan Partners' Christopher Smith explains how he works both top-down and bottom-up to identify good investment opportunities, how the pandemic has impacted prominent themes reflected in his portfolio, why he puts so much emphasis on process, and what he thinks the market is missing in Fidelity National Information, Aon, T-Mobile and Agilent.



Christopher Smith
Artisan Partners

It becomes evident early on in speaking with Artisan Partners' Christopher Smith that he's a bit of a stickler when it comes to process. "It's difficult in investing to take subjectivity and emotion out of your decision-making and just allow your research to drive what you do," he says. "We try to quantify our process at every step of the way and stay focused on what matters most in the end: Do we have a variant view on the company's earnings power?"

Smith launched the Artisan Focus Fund in 2017, targeting companies benefiting from accelerating industry profit cycles. Among the areas of opportunity he sees today: payments processing, analog semiconductors, insurance brokerage, wireless services and life sciences.

Central to your investing approach is first identifying broader themes that then inform where you should pursue ideas. Describe why you've decided to come at it that way.

Christopher Smith: When we talk about thematic investing, what we're really doing is looking for industries that are going through some type of inflection point. The inflections can be driven by any number of secular, structural or cyclical forces – say, by changes in technology, supply/demand dynamics, consumer behavior, governmental regulation or business models – and we also need to believe they will result in the acceleration of an industry's growth over the next few years.

That acceleration can allow us to have a variant perspective on an industry. If an industry grows consistently every year, which is typically what people expect, it can be hard for us to create a view that's differentiated from the market consensus on a company's earnings power and return on capital. If we're right that these inflections are often misunderstood, that can lead to powerful re-ratings of industries and companies. The identification of inflection points helps us to target a focused universe of companies we should analyze more thoroughly.

Sometimes we do all this thematic work and it turns out our industry view is more or less the same as what everyone else thinks. That happens a lot and we'll move on to something else. It's all driven by the individual companies and stocks in the end. We can have a great theme for inflecting growth, but if we can't find any

stocks to reflect it, it won't be in the portfolio. We may still believe software as a service today is a powerful trend, for example, but if our company-by-company modeling and valuation work indicates we don't have a differentiated view, we won't own anything based on that theme.

Walk us through a current theme reflected in the portfolio and how it makes its way through to an idea.

CS: One important theme today is around network modernization, which is based on the growing digitization of society. A wide variety of advancements in computing power, wireless technology, artificial intelligence, machine learning, the Internet of Things and much more is accelerating the creation, digestion and analysis of structured and unstructured data. From that thematic view that data creation is going to accelerate materially over the next five to ten years, we then try to identify what has to happen on the network-infrastructure side of things to facilitate all that. That points us to opportunities in a number of areas, including cellular towers, data centers, high-speed fiber and even down to critical network sub-components like semiconductors.

When we look at individual companies the inflections are often the residual of thematic triggers, but can also be caused by idiosyncratic factors such as changes in management, business models or industry-specific customer behavior. For instance, we believe we have a differentiated view around the growth prospects in the U.S. cell-tower business, which led us

to find SBA Communications [SBAC] and American Tower [AMT] interesting. We believe we have a differentiated view on improving profitability at U.S. broadband providers, which led us to find Charter Communications [CHTR] and Comcast [CMCSA] interesting.

One expression of our broader network-modernization theme in semiconductors is Analog Devices [ADI], which makes analog chips that convert real-world input from things like temperature, vibrations, speed and sound into digital signals. We believe the company has a number of significant growth drivers. Its chips are used in base stations you have to put on cell towers to build out 5G wireless networks. Its chips are heavily used in electric vehicles and in autonomous-driving systems. They are also important in a wide range of proliferating industrial-automation applications. At a more company-specific level, we think Analog's acquisition of Linear Technology in 2017 and its proposed deal to buy Maxim Integrated Products – announced earlier this month – will help continue to drive better scale and gains in market share.

We expect all that to result in a structural acceleration in the company's organic revenue growth to 7-8% annually – roughly twice the historical level – improving margins, and returns on invested capital increasing from around 10% today to the mid-teens over the next three to five years. That leads us to expect significantly higher earnings power than consensus over the next three years, as well as an increase in the multiple paid for the business. [Note: Analog Devices' shares currently trade at around \$116, less than 10% off their all-time high.]

You've said your investment process doesn't include stock pitches. What do you mean by that?

CS: Our overarching goal is to create a process that makes the stock-selection, position-sizing and portfolio-management decision-making as objective as possible. It should be all about what our industry and company research is telling us and

whether we can quantify a variant view on a company's earnings power and its sustainable return on capital. We jointly as a team buy into our research and the expression of that through our quantitative work, we update it all constantly, and then we let the numbers tell us what we should buy and own, at what prices, and at what position sizes.

That's a very broad characterization of what's involved, but the goal is to take subjectivity and emotion out of the pro-

ON THESIS CREEP:

The first time estimates get cut is often not the last time – such stocks usually end up generating negative alpha.

cess as much as possible. There are so many variables that come into play when making a decision in this business. It's not about "liking" an idea, or how well the analyst communicates, or what happens to be "working" at any point in time. We're not trying to sell ourselves on anything – we just want to objectively follow our research, our earnings estimates and our valuation work.

People talk about focusing on process over outcomes, but it's hard to do if you don't have the systems and reporting in place to quantify your process every step of the way. We've spent a lot of time and effort on building that from the beginning at Artisan. Over time, we think being process-oriented will lead to better learning and better outcomes.

I'll give a basic example. We have created a number of visualization tools to help us track closely when our research leads us to lower our fundamental estimates. Historically we've found that the first time numbers get cut is usually not the last time, and such stocks end up generating negative alpha. I use sports analogies a lot, so if you determine that your batting average is only .100 when you swing at curveballs in the dirt, you should work on



Christopher Smith

Lineage

While each successive manager typically customizes along the way, it's not uncommon in the investment business for strategies to be passed from generation to generation. Christopher Smith of Artisan Partners provides a representative case in point. The founding portfolio manager of the firm's Focus Fund – which was launched in 2017 and now manages \$1.3 billion in assets – Smith takes an "industry-first" approach to identifying attractive equity opportunities, looking initially for industries with what he believes are accelerating profit cycles and then for the companies that are priced right and best positioned to profit from them. He learned the basics of the approach from Karsch Capital's Michael Karsch [VII, March 31, 2010], who learned it from Duquense Capital's Stanley Druckenmiller.

With three years under his belt at Artisan, Smith's rendition of a thematic approach since its April 2017 launch has earned a net annualized 23.8%, vs. 10.9% for the S&P 500.

recognizing those curveballs in the dirt as early as possible and then stop swinging at them.

When our fund launched at Artisan in 2017, we held a position in construc-

tion-materials company Vulcan Materials [VMC] because we believed for industry and company-specific reasons that its earnings were going to inflect and that the market wasn't recognizing it. But in large part due to abnormal levels of rainfall in the U.S. impacting large construction projects, revenues started coming in below our estimates. Our process flagged that immediately and as a result we took a close look at whether our projections were valid, and if they no longer were, how that impacted the differentiated view we thought we had. There can be reasons behind a miss that are transient and therefore not thesis-discrediting, but the simple reality was that the inflection we expected in Vulcan did not materialize as we were moving deeper into the economic upcycle. We ended up exiting the position in December 2017, which turned out to save us some pain as the share price fell over the next year.

That's a relatively simple example, but it illustrates the type of rigor we've tried to build into our process at every step of the way. In a business like ours where even the best managers are wrong 40-45% of the time, we're hoping by accumulating tiny incremental edges from how we invest that it will make a material difference over time.

How has the pandemic crisis impacted some of the more important themes you're following today?

CS: In many cases the crisis has accelerated the structural shifts that were already going on in the world. The network-modernization theme we talked about earlier is even more relevant in a more socially distanced world. There are examples we'll talk about later under our data-monetization and digitization-of-commerce themes where the companies should experience no negative fundamental impacts from the pandemic and in certain ways are arguably going to benefit.

The Covid crisis has also accelerated the ongoing shift to online shopping, where one sub-theme we've pursued is to identify what we believe are sustainable

retail formats as that shift continues. With the more rapid demise of lower-quality retailers, we believe certain business models that are less "e-commerce-able" will benefit as the lower-tier traditional players fall by the wayside. We'd include in this category today companies such as O'Reilly Automotive [ORLY] in auto-parts supply and TJX [TJX] in off-price apparel and home goods.

One theme we've shifted capital away from is around automation of the industrial complex. While we don't see any

ON M&A:

We'll look at mergers in areas we like to see if they can lead to structural improvements in business models.

structural threats to the long-term trend toward increasing industrial automation and the related benefits that will accrue to providers of technology and connectivity to support it, the end customers here tend to be more cyclical and capital-intensive. That's likely to make the negative economic impact of Covid more pronounced in this area.

In general, our portfolio-optimization tools have served us well through market disruptions so far. We establish positions sizes objectively by using a proprietary portfolio optimizer that balances our value estimates with measures of volatility and correlation, resulting in the optimal risk/reward portfolio makeup consistent with our defined goals. It's done a very good job in shifting exposures as valuations in certain areas get stretched.

For example, as the expected upside in more growth-oriented names declined in the third quarter of 2018, we shifted exposure away from those areas prior to the sharp market decline the following quarter. The same thing happened in the fourth quarter of 2019 and into the first quarter of this year, again prior to the significant market break. In our fund in both Q4 of

2018 and Q1 of 2020 we outperformed the market by 500-550 basis points.

What are the results of your portfolio optimization telling you now?

CS: What we see today is very similar to what we saw heading into the last quarter of 2018. We're seeing limited upside to our growthier ideas, so we have reduced exposure to those, while finding relative opportunity in somewhat more defensive or even cyclical names.

How does Fidelity National Information Services [FIS] fit into it your digitization-of-commerce theme?

CS: Under this theme we're looking for companies for which we have a differentiated view on how they might benefit from the ongoing shift of commercial activity online, not only just for transactions, but also in the broader areas of product discovery and the engagement between customers and merchants.

The company today is the product of a merger in March 2019 between Fidelity National, which provides core back-office processing and digital platforms primarily to banks, and Worldpay, which does payments processing and provides e-commerce platforms for merchants. We actually owned both Fidelity National and Worldpay prior to the merger and just rolled our Worldpay equity into FIS when it happened.

Each side of the business on its own clearly benefits from the ongoing digitization of commerce. Worldpay's legacy business offers merchants around the world platforms to run websites, receive orders and process payments, obviously non-optional technology today that has to be up-to-date and high-performing. On the Fidelity National side, while banks – particularly at the smaller end of the market – weren't early in taking their businesses online, the urgency to do so has become increasingly clear and they are turning to outsourced service providers like FIS to stand up their broad-based digital functionality quickly. As a timely example, FIS

has actively partnered with others to play an important role in delivering technology platforms to banks that has allowed them to process loans under the U.S. Small Business Administration's Paycheck Protection Program.

We're also excited about the merger's ability to accelerate top-line growth. To give an example of the type of synergy that might be possible, online transactions are typically rejected 15% of the time due to fraud concerns, versus 1% at physical points of sale. FIS has a tremendous amount of data from the bank side that can help merchants potentially lower those rejection rates and drive significant additional revenue. Worldpay historically didn't have that richness of information, which can now be used to add value to existing customers as well as to differentiate its service offering to better attract new merchants.

Fidelity National's bank relationships in emerging markets like India and Brazil should also be highly valuable in helping expand legacy-Worldpay's merchant payment-processing and e-commerce franchises in those countries. Signing on merchants in such markets is quite difficult and time-consuming, but with already broad and deep existing relationships it should be easier to leverage that network into new business.

The last thing I'd mention about the merger is the extent of the potential cost savings from weeding out overlapping expenses. This has been lost a bit because the pandemic hit so quickly after the merger closed, but we estimate the savings in annual operating costs could be \$700 million or more. For a company with \$12 billion or so in run-rate annual revenue, that's a lot of additional money dropping down to the bottom line.

The shares at around \$145 have rebounded sharply from their March lows. How inexpensive do you consider the stock at today's price?

CS: We're expecting over the next four years for organic annual revenue growth to accelerate to an 8-9% annual rate, for

EBITDA margins to go from the current level in the mid-40s to over 50%, and for the return on invested capital to hit 30% or more. By 2024 that would result in around \$11.50 per share in earnings power. Historically those levels of growth and profitability would support a low-20s earnings multiple.

Talk about your theme around data monetization and why you think Aon [AON] is a smart way to play it.

CS: The basic theme is that the creation of increasing amounts of data, coupled with new technologies that allow companies to better store, structure and analyze it, will result in new ways to benefit customers. We've tried to focus on companies that benefit the most from having proprietary datasets that can be leveraged to build stickier, higher-margin, higher-return business models. We think Aon is one of those.

As a property/casualty insurance broker, the company has at its disposal a tremendous amount of data related to claims activity and the breadth of risks out there. That makes it uniquely able to assess customers' risk profiles and offer optimized solutions as those risks evolve and change. A good example of that is cybersecurity, a risk that was almost non-existent 15 years ago and that continues to increase and change, even more so now as people are increasingly working from home. A company like Aon is uniquely capable of identifying the type of cybersecurity coverage needed, how it should be priced, and then offering a differentiated solution.

Another example in a more traditional area would be insuring against energy-company risks of an oil spill or a rig explosion. Aon can now better access and process all the historical data it has to quantify risks and then can broker in many cases customized coverage from a captive company or consortium that spreads the risk around. This type of thing was harder to do without the latest technology, and Aon is one of a very small number of companies who can bring that kind of technology to bear on a global basis. We think that will allow it to ac-

celerate revenue growth by winning new business and taking market share.

Are you bullish on Aon's \$30 billion deal announced in March to buy competitor Willis Towers Watson?

CS: It increases our interest. Greg Case, who has been the CEO of Aon for 15 years now, has focused on getting rid of Aon's capital-intensive underwriting businesses and investing in internal technology meant to do exactly what I'm talking about – using data to create new products and provide a broader set of value-add solutions to customers. During his tenure, free-cash-flow margins have gone from 8% to 19%, and the company's return on invested capital has doubled to more than 20% today.

Now that he's built this higher-margin, higher-return business model, we think Willis is a great fit. It's been much slower in modernizing its business, so applying Aon's tools, technology and mindset across Willis' complementary customer base should have significant incremental impact. Aon has been organically increasing revenues at 5% per year – we think that growth rate can increase further through the combination with Willis.

What impacts on the business are you expecting from the coronavirus pandemic?

CS: There are some short-term impacts more on the consulting side of the business, and as sales efforts have been hindered somewhat by brokers inability to get out and meet with new and existing clients. Generally, however, we expect any longer-term impacts to be more positive than negative. New areas for risk management are being created by the virus. Insurance pricing, as happens in times of increased uncertainty and risk, is firming. Pandemic impacts are not a big part of our thesis, but they certainly don't diminish the opportunity we see.

With the stock trading at around \$207.50, how do you see incremental revenue growth translating into profit upside?

CS: Through 2024 we believe revenue can compound at least at a 5-6% annual rate and that the company's return on invested capital over that time moves from the low-20s to the high-20s. Earnings per share we see growing to \$15 in 2023 and \$17 in 2024.

I'd reiterate the importance of the management team here. To model out a business like this you need conviction that management is obviously capable, incentivized correctly and focused on driving the business in the most profitable way for shareholders. The company's track record on those fronts under Greg Case is quite impressive.

Is it a coincidence that your next idea, T-Mobile [TMUS], is also working through a big acquisition?

CS: It's definitely not as prevalent in our ideas as it would seem from what we've talked about so far, but I would say mergers in areas we like are something we'll often look at closely. Smart M&A can lead to the types of structural improvements in business models that we think can accelerate revenue and profitability growth beyond what the market is typically willing to price in.

This is another idea under our network-modernization theme. When you read about European governments recently asking Netflix to stream its content at a lower rate to avoid overwhelming the network infrastructure, it points to the fact that we haven't deployed enough fiber broadband and wireless spectrum around the world to handle the amount of video content and data that's coming. After the acquisition of Sprint, T-Mobile will have more 5G-ready spectrum than Verizon and AT&T combined and will also have a denser cell-tower infrastructure than either of those two. We think that gives it a competitive leg up and will allow it to gain market share over time.

Since new management under then-CEO John Legere took over in 2012, T-Mobile has added 75% of all the new post-paid customers in the U.S. wireless industry, and we think that market share

can increase over the next five years. With the addition of Sprint's spectrum, the company in August is rolling out a new marketing campaign highlighting its 5G infrastructure and its still lowest-priced offerings among national carriers. This will be followed by the launch of the first 5G-enabled iPhone in October, which should be a real catalyst for incremental share gains.

Another big driver of company performance will be reducing churn among the acquired Sprint customers. Sprint was not known for either its network quality or its customer service, so significant improvements in each under T-Mobile should significantly improve customer retention over time.

Overall, the combination of new customer additions, reduced churn and cost efficiencies from greater scale can drive a dramatic increase in the company's profitability. We think service EBITDA margins can increase from the high-30s to the high-40s by 2024.

Aren't you concerned that Verizon and AT&T could put up a bigger fight than that level of improvement would suggest?

CS: That is a risk, but we don't see either as particularly willing or able to sacrifice margins in order to more aggressively compete. Both companies have roughly half of their current enterprise value in debt and pay a very high dividend. AT&T also has a lot on its hands with the integration of Time Warner. Even if T-Mobile's EBITDA margins increase as much as we expect, they still won't be as high as Verizon's or AT&T's. We think it's far more likely T-Mobile's margins rise closer to the others' level than the others' level falls closer to T-Mobile's.

If you're right, how attractively priced do you consider the company's shares at a recent \$105.50?

CS: We think by 2024 that T-Mobile can earn about \$13 in free cash flow per share, with returns on invested capital rising into the mid-teens. That ROIC would put it at

or near the top in the wireless/broadband space – Verizon's ROIC today is about 7%, while cable companies like Comcast and Charter are around 10%. At these profitability levels, we'd consider a 15x free-cash-flow multiple on the shares to be reasonable.

What are the macro and micro drivers of your interest in Agilent Technologies [A]?

CS: Agilent specializes in analytical instrumentation used in corporate, university and government labs. Roughly half of the business is related to healthcare research and development, with the rest primarily across the energy, chemical, food and environmental fields.

At the thematic level, we expect an acceleration in overall healthcare R&D spending on a number of fronts: in emerging markets, related to gene-sequencing costs coming down, related to cancer diagnostics, and of course tied to fighting Covid-19. All of these drivers, in turn, lead to a long-term structural acceleration in revenue toward the mid- to high-single-digit percentage level for the life-sciences tool industry where Agilent competes.

At a more cyclical level, some parts of the company's business have suffered through the pandemic but should recover as the crisis passes. One example would be in the diagnostics and genomics area, where growth should accelerate as hospital visits other than those related to Covid-19 get back to normal. Capital spending has also been postponed in certain areas, impacting Agilent's sales of larger-ticket items like chromatography and mass-spectrometry machines. That spending should normalize as the economic outlook improves.

We also see some key company-specific growth accelerators. For example, Agilent has spent heavily on expanding its outsourced production capability for complex nucleic-acid therapeutics, which we think has the potential to drive \$200 to \$300 million in incremental revenue over the next six to 12 months. More generally, the company through its "cross-lab" group is doing a better job in cross-selling

products and services to existing customers in ways that make relationships less transaction-oriented and more tied to ongoing maintenance and servicing. Cross-lab directly places Agilent employees inside labs to manage equipment and related services for customers. This has multiple benefits, including accelerating growth due to increased wallet share with existing customers, and also in smoothing out the cyclical nature of Agilent's equipment business. In times of slower capital spending on new equipment, older equipment requires increased maintenance and service spending to stay in good working order.

The stock, now at \$96, has come back fully from its March low. How do you see incremental earnings growth translating into share upside from here?

CS: We're forecasting higher-than-consensus top-line growth of 11% in 2021,

staying in the 7-8% range in 2022, 2023 and 2024. With incremental margins of 30-40%, we think earnings per share can compound at a mid-teens rate, hitting \$6 by 2024. Over the same period we expect the ROIC to increase from 17% to the mid-20s.

A business with this growth and profitability profile could easily trade at a higher multiple, but in our base case we use 23x earnings.

If we speak again in five years, what new industry themes could you imagine being important then?

CS: One area we're starting to think about is drug research and development. The pharmaceutical industry has actually been behind in using data to do things like drive research protocols, run trials more effectively and estimate future product demand. Efforts to improve the efficien-

cy and effectiveness of healthcare R&D could be a fertile area to look for investment opportunity.

Extending beyond the automation of industrial processes we spoke about earlier, one future technological wave could revolve around the automation of a range of organizational processes. We now talk mostly about how software enables you to do things better, but in the future that may evolve into the software itself doing a lot more for you across a number of vertical functions in an organization. That would entail a significant amount of disruption, and could draw some pretty bright lines between resulting winners and losers. VII

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Investment Results as of 30 June 2020 (%)	QTD	1YR	3YR	ITD	Expense Ratios Prospectus 27 May 2020
Artisan Focus Fund					
Investor Class: ARTTX	20.24	14.17	23.32	23.80	1.39
Advisor Class: APDXTX	20.32	14.39	23.42	23.89	1.19
Institutional Class: APHTX	20.30	14.30	23.37	23.84	1.10
S&P 500® Index	20.54	7.51	10.73	10.93	

Source: Artisan Partners/S&P. Returns for periods less than one year are not annualized. Class inception: Investor (24 April 2017); Advisor (31 July 2018); Institutional (3 February 2020). For the period prior to inception, each of Advisor Class and Institutional Class's performance is the Investor Class's return for that period ("Linked Performance"). Linked Performance has not been restated to reflect expenses of the Advisor or Institutional Class and each share's respective returns during that period would be different if such expenses were reflected.

Past performance does not guarantee and is not a reliable indicator of future results. Investment returns and principal values will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Performance may reflect agreements to limit a Fund's expenses, which would reduce performance if not in effect. The fund's investments in initial public offerings (IPOs) made a material contribution to performance. IPO investments may contribute significantly to a small portfolio's return, an effect that will generally decrease as assets grow. IPO investments may be unavailable in the future. Current performance may be lower or higher than that shown. Call 800.399.1770 for current to most recent month-end performance.

Carefully consider the Fund's investment objective, risks and charges and expenses. This and other important information is contained in the Fund's prospectus and summary prospectus, which can be obtained by visiting www.artisanfunds.com. Read carefully before investing.

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Securities referenced may not be representative of all portfolio holdings. The discussion of portfolio holdings does not constitute a recommendation of any individual security. These holdings comprise the following exposure percentages of the Artisan Focus Fund's total net assets as of 30 June 2020: Fidelity National Information Services Inc 7.6%, T-Mobile US Inc 5.8%, Aon PLC 4.6%, Analog Devices Inc 4.5%, The TJX Cos Inc 4.3%, Charter Communications Inc 2.5%, Agilent Technologies Inc 2.4%, SBA Communications Corp 1.6%, American Tower Corp 1.5%, O'Reilly Automotive Inc 1.5%. For the purpose of determining the Fund's holdings, securities of the same issuer are aggregated to determine the weight in the Fund. Securities named but not listed here are not held in the Fund as of the date noted. The portfolio holdings mentioned are subject to change and the Fund disclaims any obligation to advise investors of such changes. Exposure percentage of net assets represents the portfolio's exposures based on the economic value of investments (including delta-adjusting options exposures). Delta-adjusted options exposure is a measure of the market exposure created by the options and accounts for the sensitivity of options to changes in price of the underlying security. In comparison, measuring the exposure of an option at the market value of the option or notional value can understate or overstate, respectively, the economic exposure and risk. This estimate of portfolio exposure is only an approximation of the portfolio at a point in time.

Theme classifications are at the sole discretion of the team. Themes and constituents are as of the date indicated and are subject to change.

Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) is an indicator of a company's financial performance which is calculated by looking at earnings before the deduction of interest expenses, taxes, depreciation and amortization. **Price-to-Earnings (P/E)** is a valuation ratio of a company's current share price compared to its per-share earnings. **Free cash flow (FCF)** is the cash a company produces through its operations, less the cost of expenditures on assets. **Alpha** is a quantitative measure of the volatility of the portfolio relative to a designated index. A positive alpha of 1.0 means the fund has outperformed its designated index by 1%. Correspondingly, a similar negative alpha would indicate an underperformance of 1%. **Return on Invested Capital (ROIC)** is a measure of how well a company generates cash flow relative to capital invested in the business.

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