What Is Driving Demand and Investment in Digital Engineering

The digital engineering market has seen tremendous growth over the past several years, and the COVID-19 pandemic has furthered many long-term trends while bringing to light the importance of executing on a sound technology roadmap.

<table>
<thead>
<tr>
<th>Key Demand Drivers</th>
<th>Key Investment Drivers</th>
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<tbody>
<tr>
<td><strong>COVID-19</strong></td>
<td>• Shortage of qualified talent, cloud adoption, shift from legacy systems, COVID-19 accelerants, and the advent of agile are all bolstering spend in digital transformation, which amounted to $1.3 trillion in 2020 and is expected to increase a further 75%+ over the next three years. (1)</td>
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<tr>
<td>• COVID-19 has accelerated many long-term trends in the digital world, especially when it comes to the way firms interact with their customers. Since the onset of COVID-19, companies have accelerated the digitization of their customer interactions by three-plus years. (1)</td>
<td>• A dearth of differentiated assets of meaningful size has led to increased competition (and higher valuations) for the limited targets available.</td>
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<td>• In a recent survey of technology and business decision-makers, 60% of respondents reported that the pandemic has increased their firm's sense of urgency around digital transformation initiatives. (2)</td>
<td>• The industry landscape is characterized by a lack of firms with greater than $50 million of revenue but hundreds of smaller, regional, and/or vertically focused players in the &lt;$25 million range, presenting a compelling consolidation opportunity.</td>
</tr>
<tr>
<td><strong>Cloud Adoption</strong></td>
<td>• Digital engineering players perform &quot;mission-critical&quot; work, embedding themselves into the operations of client firms and creating significant opportunities for follow-on work, resulting in a &quot;recurring revenue&quot; model.</td>
</tr>
<tr>
<td>• There has been a continued shift off-prem as the public cloud and hybrid environments become more and more popular with customers looking for simpler, more flexible, and economic ways to manage workloads across environments.</td>
<td>• Agile delivery process further establishes and engrains the repeatable nature of providers' services.</td>
</tr>
<tr>
<td><strong>Legacy Systems</strong></td>
<td>• There has been organic expansion of service offerings and specialties—such as UI/UX consulting, artificial intelligence, machine learning, big data, etc.—as well as internally developed “products” that can be monetized via subscription models.</td>
</tr>
<tr>
<td>• Legacy systems are a burden to today's organizations, which need to be nimble, adaptive, and proactive. The ongoing shift to modern systems and architecture is a driving force of the digital engineering market.</td>
<td>• Next-generation IT services players such as Endava, EPAM, and Globant have experienced tremendous growth as public companies—225%, 3,441% and 2,325% increase in market cap since their listing, respectively—and trade at significant premiums to their traditional IT services peers (8.8x EV/LTM revenue for next-gen players vs. 3.3x for offshore players such as Cognizant, HCL, Tata, and Wipro). (4)</td>
</tr>
<tr>
<td><strong>Shortage of Talent and Need for Specialization</strong></td>
<td>• Shift to Long-Term Projects With ‘Reoccurring Revenue’</td>
</tr>
<tr>
<td>• Organizations big and small are struggling to find and retain the right talent to digitally transform their businesses.</td>
<td>• Digital engineering players perform &quot;mission-critical&quot; work, embedding themselves into the operations of client firms and creating significant opportunities for follow-on work, resulting in a &quot;recurring revenue&quot; model.</td>
</tr>
<tr>
<td>• This high demand for talent has put a premium on labor resources, especially those resources with specialized certifications, such as Adobe Experience Manager.</td>
<td>• Agile delivery process further establishes and engrains the repeatable nature of providers' services.</td>
</tr>
<tr>
<td>• The evolution of the offshore model has resulted in expansion of the geographic footprint of vendors, from traditionally India-based resources to a growing presence in Central and Eastern Europe and Central and South America.</td>
<td>• There has been organic expansion of service offerings and specialties—such as UI/UX consulting, artificial intelligence, machine learning, big data, etc.—as well as internally developed “products” that can be monetized via subscription models.</td>
</tr>
<tr>
<td><strong>Shift to Agile and New Programming Languages</strong></td>
<td>• Performance of Publicly Traded Next-Gen IT Peers</td>
</tr>
<tr>
<td>• Firms are being forced to keep up with demand for rapid deployment of their products and services, pushing them to implement agile delivery methods and use newer, sleeker programming languages.</td>
<td>• Next-generation IT services players such as Endava, EPAM, and Globant have experienced tremendous growth as public companies—225%, 3,441% and 2,325% increase in market cap since their listing, respectively—and trade at significant premiums to their traditional IT services peers (8.8x EV/LTM revenue for next-gen players vs. 3.3x for offshore players such as Cognizant, HCL, Tata, and Wipro). (4)</td>
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Key Value Drivers in Digital Engineering

While scale and scalability remain the most important drivers of value, there are a number of characteristics that may be viewed at a premium or as a key differentiator.

- Minimal client concentration with track record of converting new clients into seven- or eight-figure accounts over time
- Demonstrated ability to “land and expand” with clients to increase wallet share and overall stickiness
- Upfront resources focused on digital strategy, design and ideation, and/or deep knowledge in specific industry verticals such as healthcare and financial services
- Engineers with expertise or “certs” in specific application ecosystems with high demand
- Proven recruitment strategy with the ability to train new talent with “lab” work and proprietary content and modules
- Long-standing partnerships with local universities
- Majority nearshore and/or offshore locations with talent in multiple time zones under a distributed delivery model vs. “one”-shore or onshore talent
- Use of proprietary accelerators, toolkits, and/or proven frameworks to meaningfully drive speed from concept to delivery
- Ability to monetize accelerators and tool kits as “products” to create more recurring, subscription-type revenue
- Leveraging tool kits developed for specific industries to drive sales leads
- Proven track record of organic growth through direct sales and/or channel relationships
- “Platform” playbook with history of successful acquisitions and integrations
Recent Houlihan Lokey Deal: Magenic

Company Profile

Founded in 1995 and headquartered in Minneapolis, Minnesota, Magenic is a leading custom software development firm providing innovative, cloud-based solutions to enterprise clients.

For more than 25 years, the company has been solving complex business and technology challenges with the utmost speed.

Magenic utilizes a distributed delivery model, including domestic, nearshore and offshore resources, to efficiently fulfill clients’ cloud development and modernization needs.

Magenic’s Differentiators

- Global, Distributed Delivery Model
- Deep Cloud Knowledge and Skill Sets
- Data-Driven Approach
- Technology-Agnostic Capabilities
- Emphasis on Speed and Quality

Maximizing Value and Structure Through Process Discipline and Competitive Tension

Highly Motivated Buyer Universe

- Houlihan Lokey conducted a highly competitive sales process by reaching out to a prequalified set of highly motivated, high-probability IT Services investors (a mix of strategic and financial buyers).

Salient Cloud Transformation Tailwinds

- Houlihan Lokey highlighted the growing demand for cloud and digital transformation across all marketing documents and helped push bidders to higher valuations by showcasing Magenic as one of only a few platforms of scale.

Ideal Outcome

- Houlihan Lokey helped the company evaluate multiple offers and negotiated more favorable terms for our client.

- Magenic has found a new home under the Cognizant/Softvision brand and has achieved this outcome in roughly four months.
Recent Houlihan Lokey Deal: Tin Roof Software

Company Profile

Founded in 2014 and headquartered in Atlanta, Georgia, Tin Roof Software (Tin Roof) provides IT consulting and digital engineering services across a broad range of technologies and software languages to help clients solve complex problems and transform their businesses. The company specializes in high-end enterprise software development solutions and support services across digital transformation for Fortune 500 clients.

2018 Sale to ASH Ventures

Tin Roof hired Houlihan Lokey to conduct a sales process to maximize shareholder value and provide liquidity for the management team and business owners. Houlihan Lokey approached 150+ investors, strategic and financial, and was able to create significant value by successfully educating investors on the industry, positioning Tin Roof as a platform and creating competitive tension throughout the process.

Situation Background

- Houlihan Lokey also highlighted Tin Roof’s long-standing relationships with blue-chip clients and underscored the company’s ability to continue growing by expanding wallet share.
- Houlihan Lokey emphasized Tin Roof’s market-leading growth rates and performance sustainability to drive value.
- Houlihan Lokey helped differentiate Tin Roof by showcasing the company’s unique, “software-only,” cross-functional delivery model.

Maximizing Value by Highlighting Key Differentiators
Mapping the M&A Market

The digital engineering space continues to draw interest from both private equity firms seeking platform investments and strategic players looking to acquire high-quality differentiated assets to bolster their own offerings.

Houlihan Lokey Maintains Long-Standing Relationships With the Most Active Strategic Buyers in the Space

Source: S&P Capital IQ.
Select Digital Engineering Precedent M&A Transactions

Enterprise Value and Revenue Multiples ($M)

Mean EV/Revenue Multiple 2.2x


EV: $500 $115 $2,000 $3,542 $1,965 $465 $45 $182 $162 $35 $71 $324 $2,126 $125

Sources: S&P Capital IQ, Mergermarket, press releases.
## Insights From Public Players

### Offshore IT Services
- **Revenue Growth** ('17A–'20E CAGR): 35.0%
- **LTM EBITDA Margin**: 3.3x / 17.3x
- **LTM Gross Margin**: 8.8x / 43.6x

### Global IT Services
- **Revenue Growth** ('17A–'20E CAGR): 14.1%
- **LTM EBITDA Margin**: 22.6%
- **LTM Gross Margin**: 19.1%

### Next-Gen IT Services
- **Revenue Growth** ('17A–'20E CAGR): 36.0%
- **LTM EBITDA Margin**: 16.6%
- **LTM Gross Margin**: 19.1%

### Next-gen IT services players trade considerably higher than their traditional global and offshore counterparts.

**A Closer Look at the Next-Gen IT Services Value Proposition**

- **EV/LTM Rev/EBITDA**
  - Next-Gen: 8.8x / 43.6x
  - Offshore: 3.3x / 17.3x
  - Global: 2.1x / 10.9x

- **Revenue Growth** ('17A–'20E CAGR)
  - Next-Gen: 36.0%
  - Offshore: 35.0%
  - Global: 14.1%

- **Profitability (LTM EBITDA Margin)**
  - Next-Gen: 16.6%
  - Offshore: 22.6%
  - Global: 19.1%

**Why the premium?**

These result from the following differentiators.

- **Ability to provide customized and revenue-driving solutions**
- **Focus in high-growth areas (like digital engineering) as opposed to commoditized, legacy services (like maintenance)**
- **High-margin, reoccurring revenue model that delivers consistent growth and visibility**
- **Highly technical talent base from STEM-heavy Central and Eastern Europe**

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Note: Statistics shown are median values.

Houlihan Lokey’s Digital Engineering and Cloud Expertise

Houlihan Lokey has significant experience advising on the most relevant transactions in the digital engineering space as well as a long track record of working with high-profile strategic players and private equity investors in the industry.

Highly Relevant Digital Engineering and Cloud Experience

Thomas Bailey
Managing Director

Brian Pryor
Managing Director

Vik Pandit
Director

Chin Pandya
Director

Dan Dresner
Vice President

R.B. McCutcheon
Vice President

Alex Scott
Associate

Bennett Tullos
Associate

Project Jupiter
Digital Engineering Services

Magenic
has been acquired by
Cognizant

governmentCIO
has been acquired by
WCAS

Tin Roof Software
has been acquired by
Cognizant

Tin Roof Software
has received an investment from
Ash Ventures

Agilex
has been acquired by
Accenture

Tombstones included herein represent transactions closed from 2015 forward.
Houlihan Lokey is the trusted advisor to more top decision-makers than any other independent global investment bank, with a proven track record of delivering extraordinary results for clients.

Corporate Finance

2020 M&A Advisory Rankings
All U.S. Transactions

<table>
<thead>
<tr>
<th>Advisor</th>
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<tbody>
<tr>
<td>1 Houlihan Lokey</td>
<td>210</td>
</tr>
<tr>
<td>2 Goldman Sachs &amp; Co</td>
<td>172</td>
</tr>
<tr>
<td>3 JP Morgan</td>
<td>132</td>
</tr>
<tr>
<td>4 Evercore Partners</td>
<td>126</td>
</tr>
<tr>
<td>5 Morgan Stanley</td>
<td>123</td>
</tr>
</tbody>
</table>

Source: Refinitiv (formerly known as Thomson Reuters)

No. 1 U.S. M&A Advisor
Top 10 Global M&A Advisor
Leading Capital Markets Advisor

Financial Restructuring

2020 Global Distressed Debt & Bankruptcy Restructuring Rankings

<table>
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<tr>
<td>1 Houlihan Lokey</td>
<td>106</td>
</tr>
<tr>
<td>2 PJT Partners Inc</td>
<td>63</td>
</tr>
<tr>
<td>3 Lazard</td>
<td>50</td>
</tr>
<tr>
<td>4 Rothschild &amp; Co</td>
<td>46</td>
</tr>
<tr>
<td>5 Moelis &amp; Co</td>
<td>39</td>
</tr>
</tbody>
</table>

Source: Refinitiv (formerly known as Thomson Reuters)

No. 1 Global Restructuring Advisor
1,400+ Transactions Completed Valued at More Than $3.0 Trillion Collectively

Financial and Valuation Advisory

2001 to 2020 Global M&A Fairness Advisory Rankings

<table>
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<tr>
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<tr>
<td>1 Houlihan Lokey</td>
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<td>2 JP Morgan</td>
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<tr>
<td>3 Duff &amp; Phelps</td>
<td>802</td>
</tr>
<tr>
<td>4 Morgan Stanley</td>
<td>599</td>
</tr>
<tr>
<td>5 BofA Securities Inc</td>
<td>542</td>
</tr>
</tbody>
</table>

Source: Refinitiv (formerly known as Thomson Reuters). Announced or completed transactions.

No. 1 Global M&A Fairness Opinion Advisor Over the Past 20 Years
1,000+ Annual Valuation Engagements

North America
- Atlanta
- Miami
- Boston
- Minneapolis
- Chicago
- New York
- Dallas
- San Francisco
- Houston
- Washington, D.C.
- Los Angeles

Europe and Middle East
- Amsterdam
- Madrid
- Dubai
- Milan
- Frankfurt
- Paris
- London

Asia-Pacific
- Beijing
- Hong Kong
- Sydney
- Tokyo
- Singapore
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