Executive Summary

Many enterprises are turning to resident engineers for help on their digital transformation journey.

Recent IDC research has found that resident engineers deliver substantial value across IT and business dimensions for short-term and long-term engagements.

IDC believes resident engineering services can be the right choice for enterprises that need extra help for specific technologies in their IT environments.

97.5% of survey respondents recommend resident engineer services.
CIOs Face Key Challenges as They Progress Through Their Digital Journey

- Helping business managers differentiate products and services for demanding customers in **dynamic global markets**
- Improving IT service delivery performance while **integrating critical new technologies**
- Managing and **optimizing complex IT environments**
- Working closely with the business to **grow revenue and innovate** across all aspects of the enterprise
Enterprises Struggle to Find Expertise to Improve IT Operations & Maximize Investment

Adopting New Technologies
- Move fast to achieve successful digital transformation
- Align IT organization with business managers to accelerate innovation
- Rapidly shift IT capabilities to the 3rd platform
- Adopt new technologies while seamlessly maintaining legacy systems

Using Existing Technologies Better
- Maintain and optimize existing technologies
- Maximize return on investment of legacy systems
- Extend resources and expertise required to fully utilize complex IT infrastructure

Improving IT Resource Management
- Continually refine strategies to improve day-to-day IT staff productivity
- Achieve greater efficiency in IT processes—from IT automation to increased adoption of AI and machine learning
- Shift resources from system maintenance to strategic projects for bottom-line impact
Resident Engineers from Hardware and Software Providers Can Supply Expertise Required for Challenges

Resident engineers can provide quick access to advanced engineering expertise on demand, as well as implementation capabilities that can help IT organizations take full advantage of new and existing technology.

Flexible Access to Technology Experts
- Available for almost any period of time, one month to several years
- Can be customized for the specific issues to be addressed

Access to Deep Technology Expertise
- Help with adopting new technology or optimizing existing technology
- Guidance to implement and execute IT best practices

Improved IT Performance
- Provide extensive knowledge transfer to IT staff
- Improve and expand adoption and utilization across key technologies

Help Managing IT Resources
- CIOs and IT managers can redirect IT staff away from routine, mundane tasks
- IT organizations can focus on innovations that grow business revenue
CIOs and IT Managers Consider Resident Engineers for Both New and Existing Technology Adoption

Top reasons for using resident engineering services:

- **42%** Help IT staff fully adopt a new technology solution, including advanced features and functionality
- **34%** Optimize performance of existing technology
- **29%** Access a resident engineer with direct knowledge of their IT environment

Also important:
- Deep technical knowledge of the vendor’s technology solution and overall IT technical knowledge and expertise
#1 Reason Businesses Want Resident Engineers: Technology Adoption

**Voice of the Customer**

We needed help migrating 130 live storage arrays distributed around the world in multiple data centers with nobody onsite – all while maintaining the storage arrays in production. Our Dell EMC resident engineer handled the entire project, coordinating all aspects of the array replacement at each site. We completed the array replacement on time, with no disruptions to the production environment and zero downtime.

— Storage Manager, Dimension Data

More than 65% of survey respondents indicated resident engineers were able to help their IT organizations get more value out of new technologies. More importantly, 64% of respondents said their resident engineers were able to help them use technology to directly increase overall company revenue – a significant achievement, even for the most sophisticated IT organization.

Source: IDC Residency Services survey, December 2017
 Organizations Reap Significant Value from Resident Engineers Across Many IT & Business Metrics

Voice of the Customer

“We rely heavily on our Dell EMC resident engineer, and losing them would hurt our team. They’re very good at what they do: applying their product expertise to keep the trains running on time.”

— Storage and Converged Team Lead, Partners Healthcare

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Improvement in increased staff adoption and utilization of the technology</td>
<td>56%</td>
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<tr>
<td>Reduction in the number of incidents and problems</td>
<td>54%</td>
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<tr>
<td>Improvement in overall technology performance</td>
<td>53%</td>
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<tr>
<td>Improvement in increased utilization of the technology (% of solution capacity)</td>
<td>50%</td>
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<tr>
<td>Improvement in the efficiency of our internal IT staff</td>
<td>49%</td>
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<td>Reduction in the cost of IT service delivery</td>
<td>46%</td>
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Organizations Experience High Satisfaction Across All Aspects of Resident Engineering Services

Source: IDC Residency Services survey, December 2017

Scale: 1 = Not at all satisfied  5 = Extremely satisfied
Resident Engineers Help Enterprises Achieve Stronger IT Performance

The majority of respondents indicated that resident engineers did a very good job helping their organizations take advantage of new features, adopt best practices and optimize existing IT infrastructure.

Voice of the Customer

Whenever there was downtime in the project (as there always is), the Dell EMC resident engineer was able to help us with other projects on Dell EMC systems. He helped optimize existing systems, and worked to resolve any issues that happened on the operations side.

— Storage Manager, Dimension Data

Scale: 1 = Does not perform well 5 = Performs very well

Source: IDC Residency Services survey, December 2017
Accelerating Digital Transformation with Resident Engineers

Resident Engineers Help Enterprises Achieve Stronger Business Performance

The majority of respondents indicated resident engineers were very good at helping them make changes beyond the IT organization, with direct improvements for business users and business outcomes.

Make our organization more efficient
Make me successful in my job
Improve agility and react in real-time
Drive innovation
Improve our organization's profitability
Increase our organization's revenues

Scale: 1 = Does not perform well  5 = Performs very well
Source: IDC Residency Services survey, December 2017
97.5% Would Recommend a Resident Engineer to a Colleague

Q: How satisfied are you/were you overall with resident engineer experience?

Q: How satisfied are you/were you overall with the value delivered by your resident engineer experience?

Scale: 1 = Not at all satisfied   5 = Extremely satisfied

Overall satisfaction with resident engineer

91%

Overall satisfaction with value delivered by resident engineer

89%

Q: Based on your overall experience with a resident engineer, how likely are you to recommend one to colleagues? Where 1 is Definitely would not recommend, and 10 is Definitely would recommend. 97.5% refers to the respondents who selected 8, 9 or 10.

Results indicate that resident engineers are generally doing an excellent job:

- Understanding customer problems
- Delivering services relevant to specific IT needs
- Exceeding customer expectations

Source: IDC Residency Services survey, December 2017
# Voice of the Customer

**Technology Architect, JM Family Systems**

## Initial engagement

“We transitioned to Dell EMC storage and faced an in-house knowledge gap. We initially hired an MSP to help, but they couldn’t provide onsite personnel with adequate expertise.

Our Dell EMC resident engineer has a **broad breadth of knowledge** in Dell EMC storage technologies. Whether it’s **access to contacts and resources, problem solving, best practices, knowledge sharing, or key collaborations** with the IT organization and key business owners—our Dell EMC resident engineer handled it all. We completed the project on time, with minimal outages during data migration.”

## Ongoing performance improvements

“A few years ago, we thought we needed to purchase more storage. Our Dell EMC resident engineer examined our existing solution, and **reclaimed about 20% of hundreds of terabytes of storage** by adjusting our original deployment.

He **saved us from having to purchase additional storage** in a pressure situation, and helped change our process to make sure we use our storage as efficiently as possible.”

## Overall experience

“We have been **much more successful with resident engineers than with contractors**. Our Dell EMC resident engineer has become part of our organization over time. He is a **key customer advocate** for us, always focused on doing what is right for our IT environment.

If Dell EMC was to ask what the ideal resident engineer should look like, our guy is a perfect example. **The value he provides is tremendous.** We couldn’t ask for a better partner, and we couldn’t be happier with his performance.”

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Considering a Resident Engineer?

Essential guidance for IT organizations

- Consider your IT organization’s needs across specific technologies, both in terms of individual product adoption and overall technology suite solutions.
- Look for resident engineers with deep expertise that can address your specific technology needs, as well as issues that might be particular to your IT environment.
- Prioritize the resident engineer’s time while on site.
- If knowledge transfer is important, outline a progress plan with your IT staff.
- Be selective when considering resident engineers. Look for providers who can make sure the resident engineer is a good fit with your organization.
Methodology

IDC surveyed 200 CIOs and IT managers in the U.S. for additional insight into how IT organizations are currently using resident engineers. Key questions focused on why respondents selected resident engineers, the value delivered through a resident engineer, and satisfaction with resident engineering services.

IDC also interviewed three Dell EMC customers who had extensive experience with resident engineers, both in short-term engagements and long-term residencies.