451 Research finds IoT Impacting IT Infrastructure from Edge to the Cloud
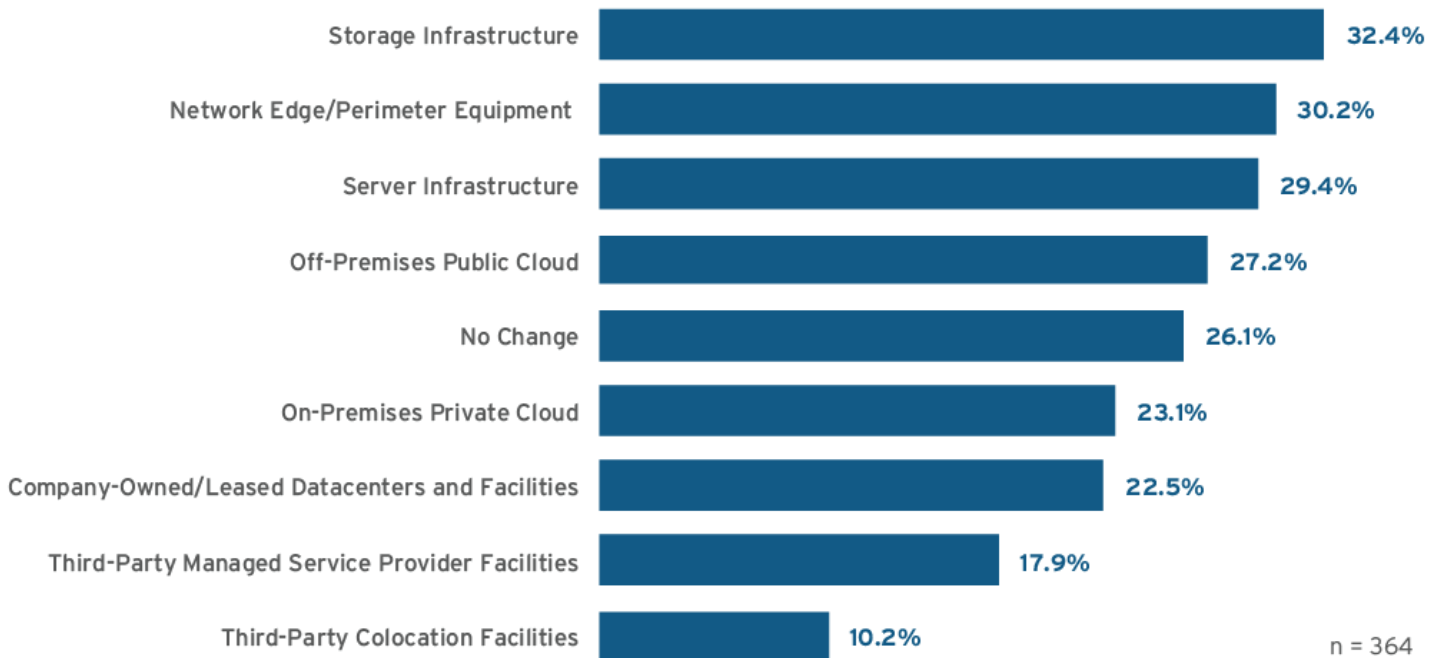
IoT boosting spending on storage, edge, infrastructure and cloud

NEW YORK, September 5, 2017 – 451 Research today unveils the latest trends in IoT use and finds that the massive amounts of data generated by the Internet of Things (IoT) is already having a significant impact on enterprise IT. In the latest Voice of the Enterprise: IoT – Workloads and Key Projects, analysts find that organizations deploying IoT are planning increases in storage capacity (32.4%), network edge equipment (30.2%), server infrastructure (29.4%) and off-premises cloud infrastructure (27.2%) in the next 12 months, to help manage the IoT data storm.

Analysts find that spending on IoT projects remains solid, with 65.6% of respondents planning to increase their spending in the next 12 months and only 2.7% planning a reduction.

Changes to IT Resources as a Result of IoT Projects

Q: Over the next 12 months, does your organization plan to make changes in the capacity of the following IT resources as a direct result of your IoT projects?

IT Resource	Percentage
Storage Infrastructure	32.4%
Network Edge/Perimeter Equipment	30.2%
Server Infrastructure	29.4%
Off-Premises Public Cloud	27.2%
No Change	26.1%
On-Premises Private Cloud	23.1%
Company-Owned/Leased Datacenters and Facilities	22.5%
Third-Party Managed Service Provider Facilities	17.9%
Third-Party Colocation Facilities	10.2%

n = 364

Source: 451 Research's Voice of the Enterprise: Internet of Things, Workloads and Key Projects 2017

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Today, IT-centric projects are the dominant IoT use cases, particularly datacenter management and surveillance and security monitoring. Two years out, however, facilities automation will likely be the most popular use case, and line-of-business-centric supply chain management is expected to jump from number 6 to number three.

Finding IoT-skilled workers remains a challenge since the last IoT survey in 2016, with almost half of respondents saying they face a skills shortage for IoT-related tasks. Data analytics, security and virtualization capabilities are the skills most in demand.

451 Research finds that the collection, storage, transport and analysis of IoT data is impacting all aspects of IT infrastructure. Most companies say they initially store (53.1%) and analyze (59.1%) IoT data at a company-owned

datacenter. IoT data remains stored there for two-thirds of organizations, while nearly one-third of the respondents move the data to a public cloud.

Researchers find that, once IoT data moves beyond operational and real-time uses and the focus is on historical use cases such as regulatory reporting and trend analysis, cloud storage gives organizations greater flexibility and often significant cost savings for the long term.

Despite this centralization of IoT data, the survey also finds action at the edge. Just under half of respondents say they do IoT data processing – including data analysis, data aggregation or data filtering – at the edge, either on the IoT device (22.2%) or in nearby IT infrastructure (23.3%).

"Companies are processing IoT workloads at the edge today to improve security, process real-time operational action triggers, and reduce IoT data storage and transport requirements," said Rich Karpinski, Research Director for Voice of the Enterprise: Internet of Things. "While some enterprises say that in the future they will do more analytics – including heavy data processing and analysis driven by big data or AI – at the network edge, for now that deeper analysis is happening in company-owned datacenters or in the public cloud."

About the Survey
The *Voice of the Enterprise: Internet of Things – Workloads and Key Projects* study leverages our robust data-collection methodologies and the expertise of a proprietary panel of more than 60,000 senior IT buyers. This study incorporates approximately 575 complete responses to a web-based survey that polled IT and IoT decision-makers worldwide, primarily based in North America and Europe. 451 Research supplemented the web-based survey responses by conducting 11 in-depth phone interviews with IoT IT managers and C-level executives. Our survey respondent base includes a representative sample of small, medium, large and very large enterprises spanning the private and public sectors across 11 distinct vertical market segments.

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