2015 Software-Defined Datacenter Survey

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Executive Summary

The Software-Defined Datacenter is gaining momentum across the IT landscape. This survey, based on responses from 80 IT professionals from a range of industries and geographies, is one of the first to examine how IT organizations are approaching the Software-Defined Datacenter, the goals they aim to achieve, the challenges they are encountering, and the results realized.

Some of the survey's key findings include:

- **The Software-Defined Datacenter is still an emerging trend, but the momentum behind it is real:** 26% of the survey respondents have active Software-Defined Datacenter projects, and another 28% are planning to start in the next 6-12 months. Furthermore, over half of the companies that have active projects are currently in production, and a third of these companies already run mission-critical systems in these environments.

- **As can be expected with an emerging trend, many are still in the learning phase:** Only 10% of the respondents are highly confident in the resiliency of the Software-Defined Datacenter elements. At the same time, companies with higher levels of automation express a higher level of confidence in their Software-Defined Datacenter.

- **Implementing new processes and standards** is the most significant challenge companies face in their transition to the Software-Defined Datacenter.

- Although most companies ranked increasing IT productivity as the primary driver for transitioning to the Software-Defined Datacenter, cost savings and adherence to standards are the benefits more commonly realized to-date.

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Outlook on Software-Defined Datacenter Projects

Over a quarter (26%) of the survey respondents have active Software-Defined Datacenter projects at the moment, and another 28% are planning to start in the next 6-12 months.

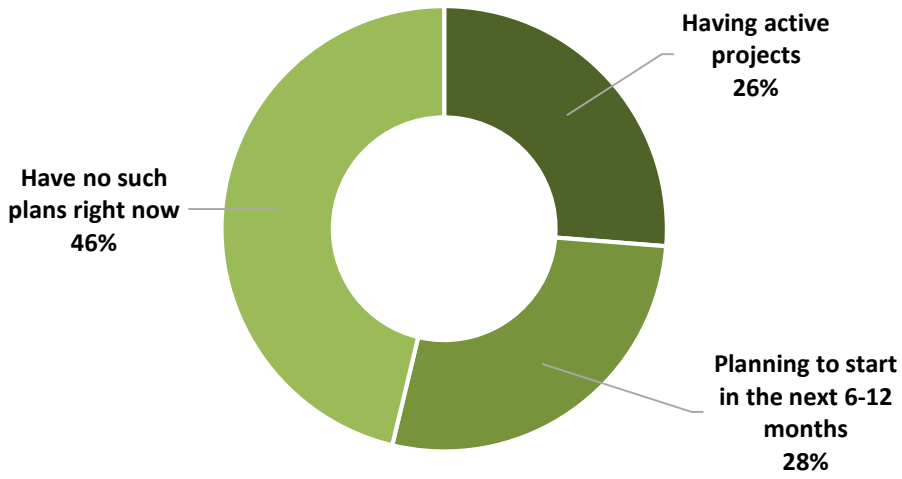

Figure 1: Having active projects

Software-Defined Datacenter Projects on the Rise

Over half (52%) of the companies that have active projects are currently in production with their Software-Defined Datacenter projects. A third of these companies (33%) already run mission-critical systems in these environments.

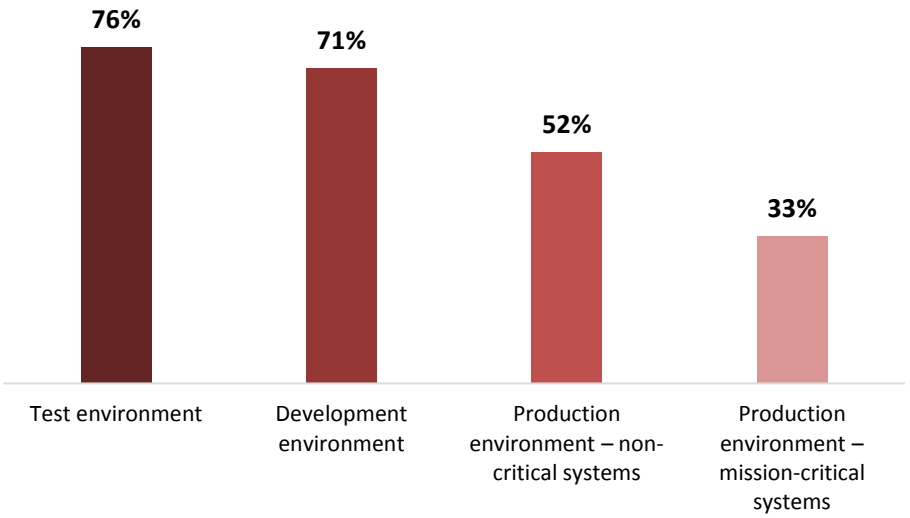

Figure 2: Areas of implementation
(Respondents could select multiple options)

Larger Companies Have More Active Projects

Larger companies are more likely to have active Software-Defined Datacenter projects.

Over a third (35%) of the companies with over 5,000 employees have active projects at the moment, compared to just 18% of the smaller companies.

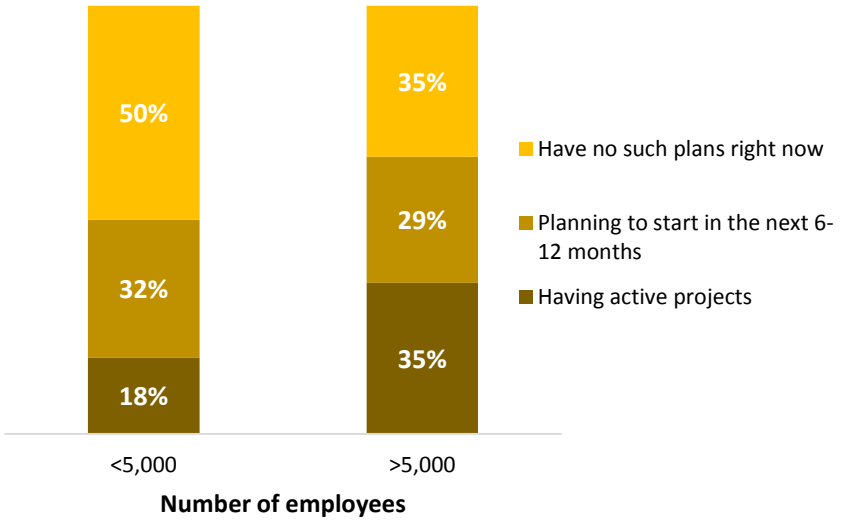

Figure 3: Actively pursuing software-defined datacenter projects by company size

Software-Defined Datacenter Projects by Industry

Manufacturing is the leading industry in actively pursuing software-defined datacenter projects, with 75% of the organizations having active projects, followed by the media industry with 67%.

Healthcare (40%) and financial services (38%) are at the bottom of the list.

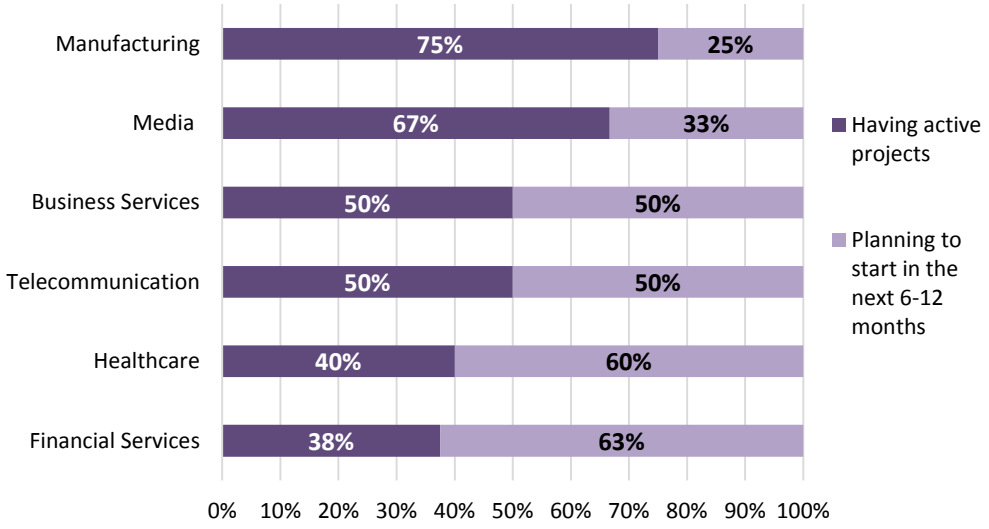

Figure 4: Software-Defined Datacenter projects by industry

Portion of Datacenter Currently Software-Defined

While many companies (45%) have just 10-20% of their datacenters currently software-defined, almost half of the companies (45%) that have active projects already run 50% or more of their datacenter in a software-defined architecture.

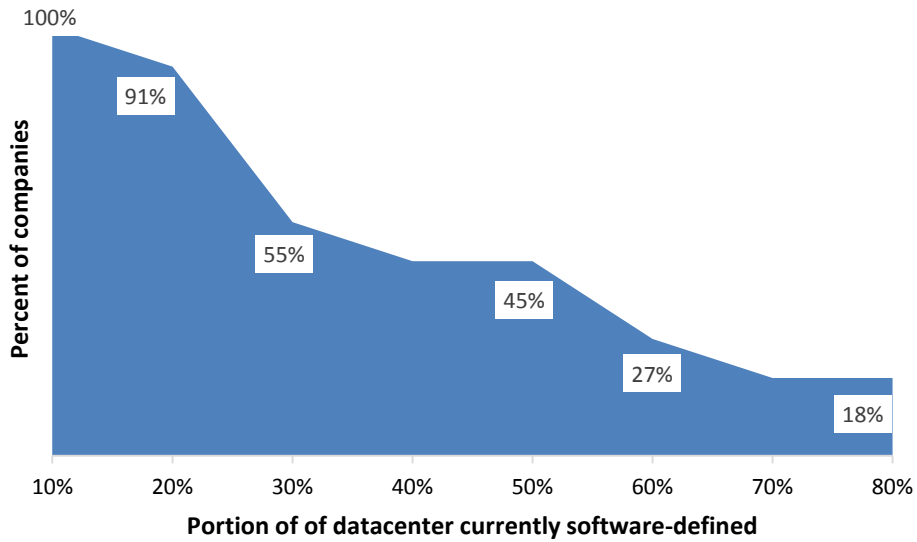

Figure 5: Portion of datacenter currently software-defined

Layers of Infrastructure Automated

Current Software-Defined Datacenter projects are primarily focused on virtualization (70%) and storage (60%).

Future-planned projects are focused on these two areas as well as network.

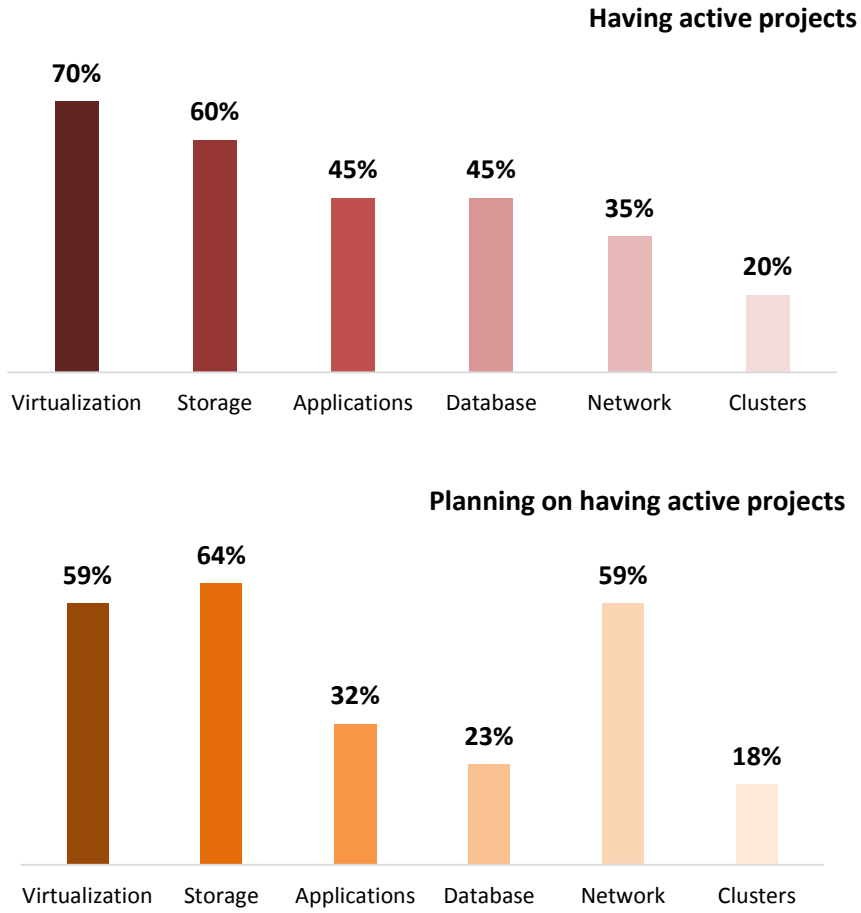

Figure 6: Layers of infrastructure automated (Respondents could select multiple options)

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Confidence in the Resiliency of the Software-Defined Datacenter

Only 10% of the respondents are highly confident in the resiliency of the Software-Defined Datacenter elements.

Most companies (65%) are still trying to figure it out, and 25% of the companies feel that they still have a way to go before gaining confidence in the resiliency of the Software-Defined Datacenter.

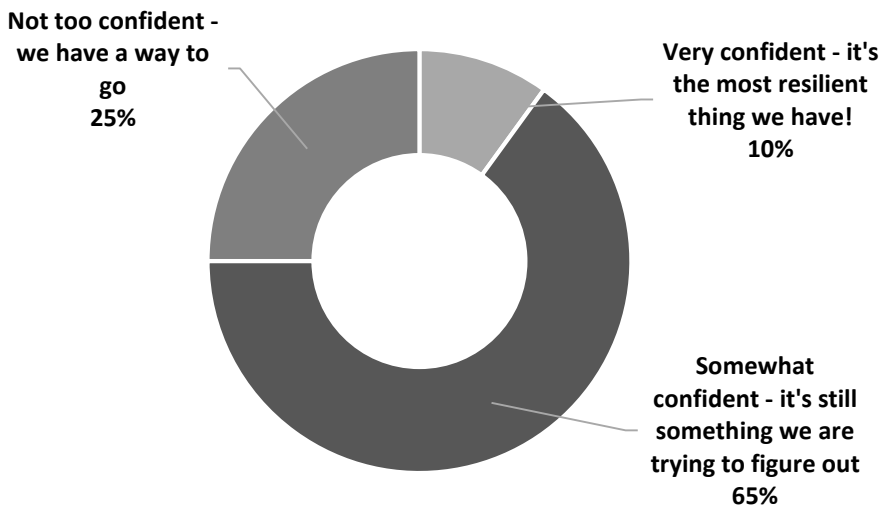

Figure 7: Confidence in the resiliency of the Software-Defined Datacenter

More Automation = More Confidence

Companies that are automating more layers of their infrastructure have more confidence in the resiliency of the Software-Defined Datacenter elements.

40% of the companies who automate one layer of infrastructure are very or somewhat confident in the resiliency of the Software-Defined Datacenter elements, compared to 80% of the companies that automate 3 layers.

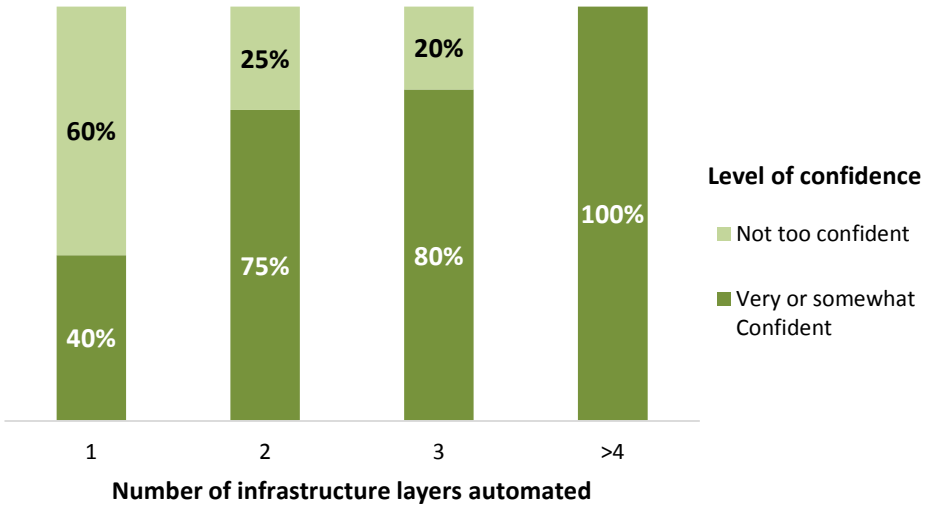

Figure 8: Number of infrastructure layers automated vs. Confidence in the resiliency of the software-defined datacenter elements

Drivers for Transitioning to Software-Defined Datacenter

When asked to rank the most important reasons for transitioning to the Software-Defined Datacenter, respondents pointed out to the following drivers (in order or ranking):

1. Increasing IT productivity
2. Ensuring adherence to standards
3. Cost savings
4. Improving datacenter quality

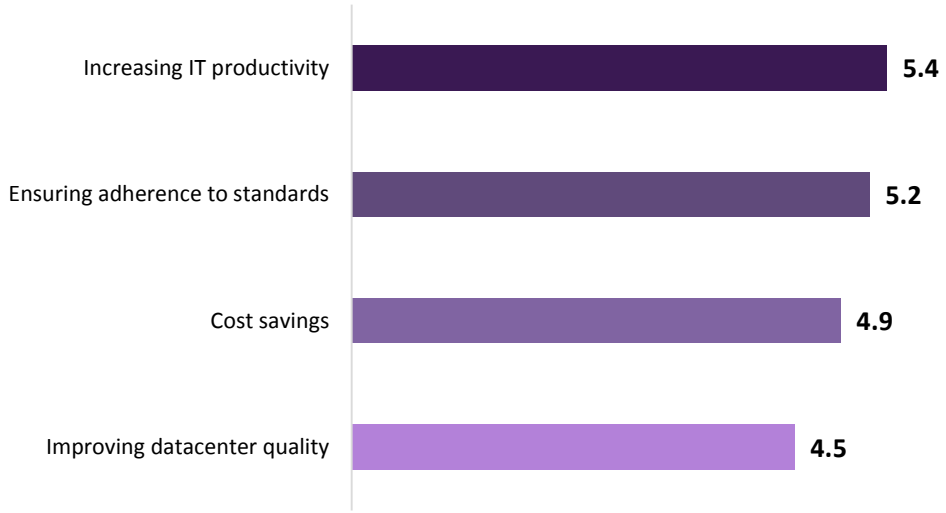

Figure 9: Importance of drivers for transitioning to Software-Defined Datacenter (on a scale of 1-10)

Challenges in Transitioning to the Software-Defined Datacenter

Implementing new processes and standards is the most significant challenge respondents face in their transition to the Software-Defined Datacenter.

Additional challenges mentioned include:

- Acquiring new skills
- Lack of mature tools
- Getting management support
- Getting internal buy-in from staff
- Quality assurance

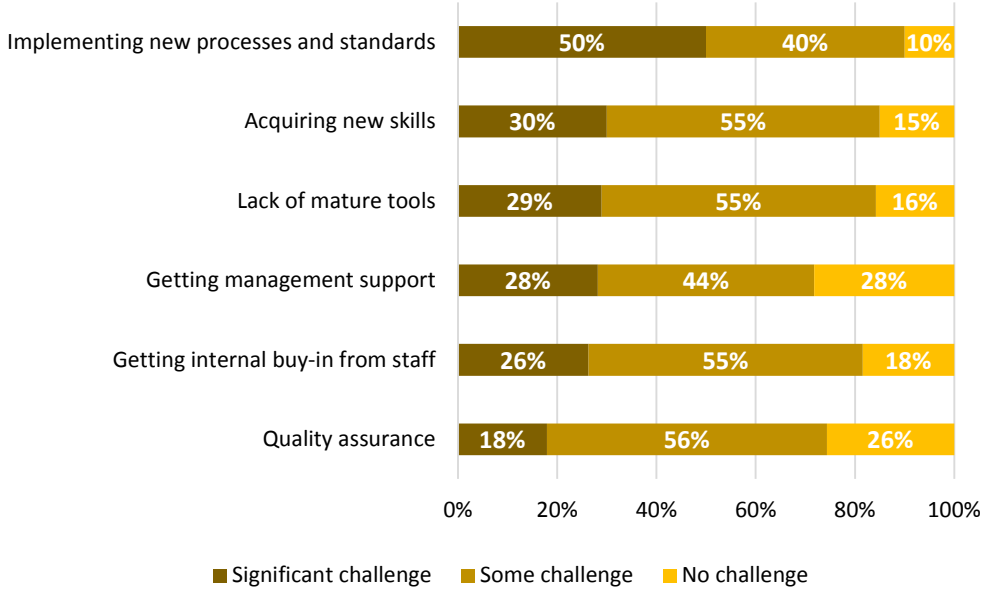

Figure 10: Challenges in transitioning to the Software-Defined Datacenter

Benefits from Transitioning to the Software-Defined Datacenter

Though ranked only as the third most important driver for transitioning to the software-defined datacenter, 69% of the respondents see significant (32%) or some (37%) benefits in cost savings since transitioning to the Software-Defined Datacenter.

82% of the companies have realized significant (29%) or some (53%) benefits in ensuring adherence to standards.

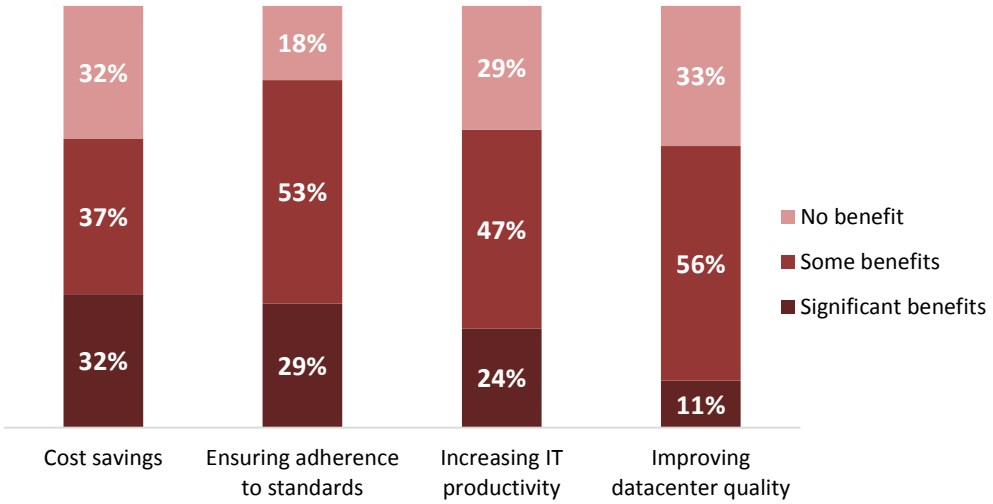

Figure 11: Benefits of the Software-Defined Datacenter

Tools Used in Software-Defined Datacenter Projects

According to survey respondents, the most commonly-used tool in the Software-Defined Datacenter is VMaware vCloud Automation Center, cited by 76% of the respondents.

Additional tools mentioned include Puppet (29%), Chef (19%), Salt (10%) and Cumulus (5%).

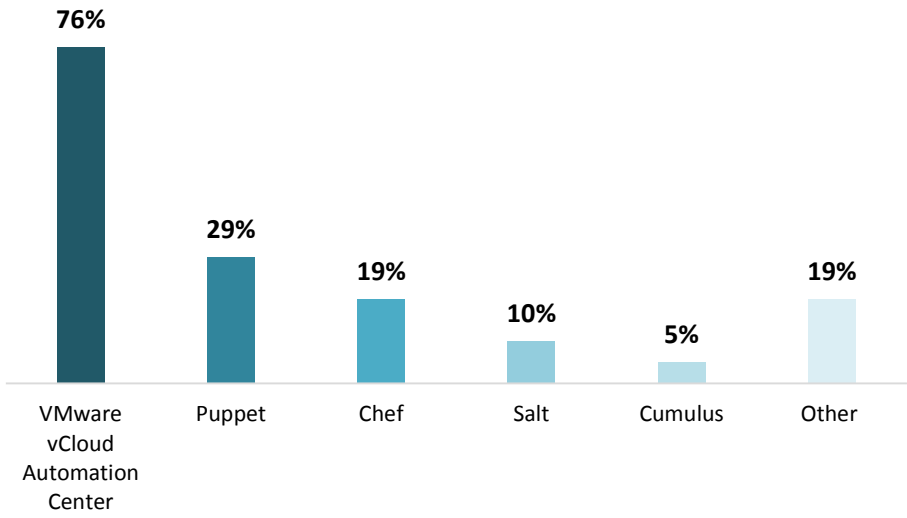

Figure 12: Tools used in the Software-Defined Datacenter (Respondents could select multiple options)

Respondent Demographics

Most survey respondents come from mid-size and large companies, with 37% of the survey respondents coming from organizations of 10,000 or more employees.

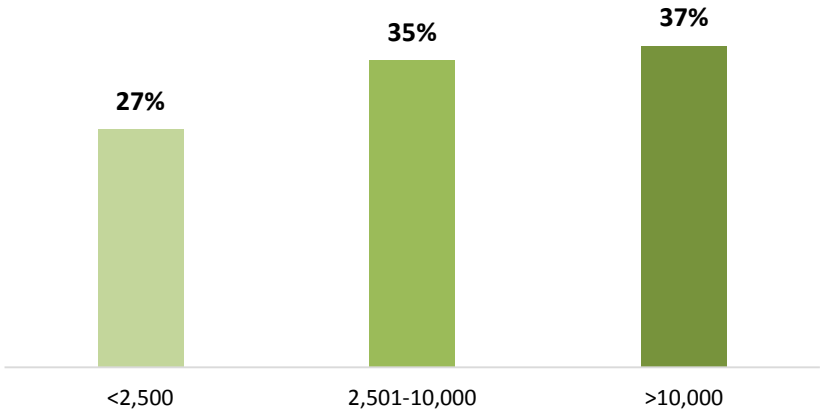

Figure 13: Number of employees

Close to a third of the respondents (32%) have more than 2,500 servers in their datacenter.

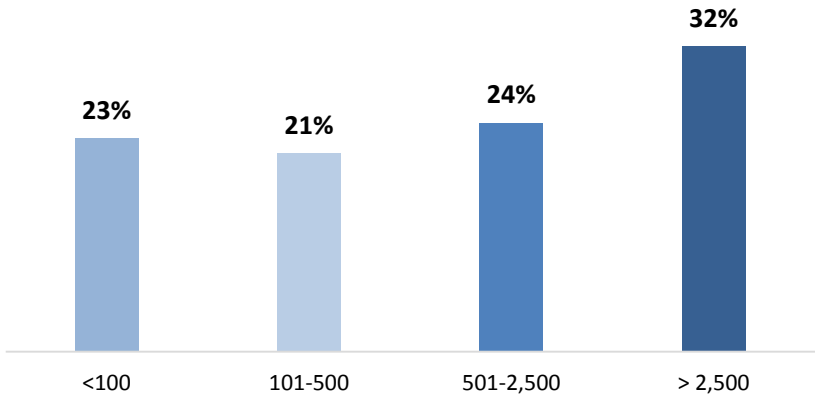

Figure 14: Number of servers

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Website: *www.continuitysoftware.com*

Email: *info@continuitysoftware.com*

Tel: 1-888-782-8170 or +1-646.216.8628