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5 **Software Defined Data Center (SDDC) Definition**  
6 **A White Paper from the OSDDC Incubator**

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## Foreword

40 This white paper was prepared by the Open Software Defined Data Center (OSDDC) Incubator.

41 The goal of the OSDDC Incubator is to develop SDDC use cases, reference architectures and  
42 requirements based on real world customer requirements. Based on these inputs the Incubator will  
43 develop a set of whitepapers and set of recommendations for industry standardization for the SDDC.

44 The work coming out of this incubator will result in:

- 45 1. A clear definition and scope of the SDDC concept.
- 46 2. New work items to existing chartered working groups.
- 47 3. Expanded scope to existing chartered groups
- 48 4. Creation of new working groups if needed.

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# Software Defined Data Center Definition

## 69 1 Executive summary

### 70 1.1 Summary

71 The Software Defined Data Center (SDDC) is an emerging area of technology that could revolutionize IT  
72 infrastructure over the next several years. New technologies such as Software Defined Networks and  
73 Storage have begun appearing on the market. While there are many management standards for physical,  
74 virtual and cloud-based systems there are currently no standard architectures or standard definitions to  
75 describe SDDC.

76 According to Forrester:

77 “At the core of the software-defined datacenter is an abstracted and pooled set of shared resources. But  
78 the secret sauce is in the automation that slices up and allocates those shared resources on-demand,  
79 without manual tinkering.”

80 Customers benefit most when unconstrained and open approaches to APIs and formats enable market  
81 choice and product interoperability. Customers should be allowed to choose the technologies that work  
82 best, in terms of value-add, efficiency, and robustness. To achieve this in the next generation of IT, it is  
83 important that we work together today to develop a common understand of this breeding ground of new  
84 architectural models and look for ways to provide customer interoperability goals through best practices  
85 and standards. The SDDC will meet these future requirements.

### 86 1.2 SDDC definition

87 Software Defined Data Center (SDDC): a pool of compute, network, storage and other resources that can  
88 be dynamically discovered, provisioned and configured based on workloads.

89 SDDC provides a programmatic abstraction that enables policy-driven orchestration of workloads as well  
90 as measurement and management of resources consumed.

91 SDDC is comprised of a set of features that include:

- 92 a. A pool of compute, network, storage and other resources
- 93 b. Discovery of resource capabilities
- 94 c. Automated provisioning of logical resources based on workload requirements
- 95 d. Measurement and management and of resources consumed
- 96 e. Policy-driven orchestration of resources to meet SLOs of the workloads

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## Bibliography

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