EXECUTIVE OVERVIEW

the 451 group
Analyzing the Business of Enterprise IT Innovation

MANAGING THE CLOUD: AUTOMATION

The ability to automate almost all aspects of infrastructure operation is absolutely necessary to meet many of the cloud's requirements, especially around scaling, elasticity and rapid provisioning.

ICE | INFRASTRUCTURE COMPUTING FOR THE ENTERPRISE

4 FINDINGS

- Despite what many vendors would have you believe, virtual infrastructure alone is not equivalent to the cloud. **PAGE 3**
- True clouds, whether hosted or on-premises, must offer the illusion of infinite capacity. **PAGE 3**
- To do so, they must handle common chores – especially provisioning and intelligent placement – without human intervention. **PAGE 5**
- The only way to accomplish this is with a set of technologies we call automation. **PAGE 1**

5 IMPLICATIONS

- Traditional enterprise software vendors with automation wares may be able to sell not only to enterprises with cloud aspirations but also to managed hosters. **PAGE 1**
- This widespread acknowledgement of the importance of automation to the cloud has sparked a gold rush. **PAGE 9**
- The proliferation of cloud automation offerings has created considerable market confusion. **PAGE 1**
- If everyone is offering highly specialized cloud-creation infrastructure, then effectively, no one is. **PAGE 1**
- Automation technology can be classed into more than a dozen types – by technology, approach or the kind of problem being addressed. **PAGE 6**

1 BOTTOM LINE

- We offer a preliminary taxonomy of these various types of automation technology. The vendors surveyed here are divided into the following groups: application deployment automation; application fabrics; bare-metal provisioning; cloud enablement; cloud networking; cloud on-ramps; cloud-based dynamic IT (or test lab automation); configuration monitoring; HPC for the cloud; IT process automation (or runbook automation); miscellaneous; open source server automation; self-service provisioning; and VM lifecycle management. These categories are fluid and overlapping.

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REPORT SNAPSHOT

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ABOUT THIS REPORT

Like large-scale virtual infrastructure before it, the true cloud will need automation to manage the complexity and scale of the configuration and deployment work required. It's widely recognized that active automation, well beyond mere passive management, is what takes ordinary virtual infrastructure and makes it a candidate for true, elastic cloud-based service delivery. This widespread acknowledgement of the importance of automation to the cloud has sparked a gold rush. Public and private vendors are all jockeying to be the sellers of picks and shovels to the managed services firms and enterprises that will presumably be building out the cloud.

The proliferation of cloud automation offerings has created considerable market confusion. A closer look at the significant sample of vendors already covered by The 451 Group starts to reveal some striking patterns. Automation technology can be classified into a dozen or so types – by technology, approach or the kind of problem being addressed. This report offers a preliminary taxonomy of these types, and the associated vendors. It examines the automation ecosystem, from configuration tools to physical and virtualization automation frameworks. It also covers sector M&A activity and adjacent markets.

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ABOUT THE 451 GROUP

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