REPORT REPRINT

SaltStack serves enterprise taste for hybrid clouds with IT operations focus

JAY LYMAN

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Growing alongside the DevOps trend toward faster application releases and more efficient infrastructure management, SaltStack says it is gaining the most traction from its support for two dozen different clouds as well as its focus on enterprise IT operations and larger, inherently more complex infrastructures.

451 Research

Infrastructure automation vendor SaltStack continues to grow with larger customers and deployments, particularly as Salt users leverage more clouds and Salt's cloud management and brokering capabilities. The company recently updated its free open source software, which provides the foundation for the upcoming SaltStack Enterprise 5.0 version. It reports that its main use cases center on managing both infrastructure and application stacks, including massive environments with as many as 100,000 servers or more. SaltStack's community and business also continue to expand, with more than 1,600 active Salt contributors, over 60,000 users and customers, and now 60 employees – up from 35 a year ago. The company has thus far grown without venture capital, but says it is now in the process of raising its first institutional funding round.

THE 451 TAKE

At a time when we are noting continued growth of hybrid cloud use – whether public and private, expanded public or consolidated private – and increasing priority on the IT operations side of DevOps, SaltStack is wise to support more than two dozen different cloud infrastructures and focus on operational challenges. Features and capabilities such as a new GUI, cloud management and cloud brokering also coincide with greater top-down adoption of DevOps methodology and technology by enterprise leadership, management and central IT departments. SaltStack has done a fairly good job of differentiating itself from other popular tools and vendors in IT automation, but it must still compete with these players, all of which are much larger.

PRODUCTS

The company describes its latest enterprise software, SaltStack Enterprise 5.0, as a systems management offering for predictive orchestration, with a focus on IT operations teams that are dealing with increasing complexity, polyglot infrastructure, and multiple and hybrid clouds. It is also intended to expand the base of SaltStack users in an organization with a new GUI intended for a broader class of IT professionals beyond the command-line ninjas and champions.

The latest version features a new data-aggregation layer that allows the SaltStack control architecture to more efficiently communicate with the software's GUI and other third-party dashboards, analytics and reporting tools. This new data-aggregation layer includes e-filtering capabilities for event consumption, a REST API, and security control to manage access for administrators, groups and users.

SaltStack Enterprise 5.0 also has a new graphical console for the consumption of complex operations data at massive scale as high as 100,000 servers or more. Additional highlights center on role- and scope-based user security, which allows operators to target specific users and systems with jobs and routines, control user access rights, and support object-level security control. The software also features enhanced data analytics and reporting capabilities, including more detailed system health, job, target and user histories and comprehensive dashboard target views. The company highlights an easy changeover for enterprise users to SaltStack Enterprise 5.0 without the need for separate packages, thanks to new database support that includes SQLite, PostgreSQL and other databases.

The software utilizes the SaltStack Reactor system for predictive orchestration and system intelligence based on events generated by Salt and third-party tools. SaltStack can execute commands using this logic engine, allowing events to trigger actions or, as the name implies, reactions. Meanwhile, SaltStack Beacons monitor data such as file system changes, system load, service status, shell activity including user logins, and network and disk use. SaltStack Beacons can also send events to trigger a response via the SaltStack Reactor.

The latest SaltStack software is backed by a new Salt Formula library that supports such capabilities as predefined orchestration and remote execution jobs and configuration states, import and re-running of Salt Open jobs and formulas, and delegation of responsibilities. This is significant given the desire by enterprises to speed up and automate their software releases and infrastructure management despite the lack of common standards or best practices on doing so in the enterprise. The company says it hopes to publish more formulas and share the knowledge and experience of its customers and users going forward.

Additionally, SaltStack has updated its open source software with the Salt Open 2015.8 release, which includes Salt Package Manager, SaltStack Proxy Minion, Salt Cloud with support for more than two dozen clouds, enhanced Windows support, added LXC and Docker container support, and new state and execution models. The company says its Salt Cloud, which supports management and brokering with more than 24 public and private cloud infrastructures, allows it to build out its cloud management capabilities. Salt Open 2015.8 is the foundation of the SaltStack Enterprise software, which is bolstered with IT operations features and assurances.

Besides updating the software, SaltStack has begun providing support for its open source Salt Open users, which it says is proving to be a solid source of additional revenue. The company serves Salt Open users seeking basic to advanced support via three new tiers that include different levels of portal and phone support, incident response SLAs, health checks and training.

CUSTOMERS

SaltStack notes that its software is used to manage both infrastructure and application stacks – from smaller deployments to massive clouds. From its inception as a project four years ago, Salt was employed to manage large infrastructures with as many as 50,000 servers. Today, SaltStack has scaled up along with sizable customers that are managing more than 100,000 servers, including LinkedIn, which has scaled from about 30,000 servers a couple of years ago to roughly 80,000 today. SaltStack notes that although distributed, massive-scale environments and their complexity represent its sweet spot, Salt is also deployed in smaller environments, where it offers value in automating management tasks within 10-node environments as well.

Common SaltStack Enterprise use cases include automation for agile DevOps environments with support for full-stack infrastructure provisioning, application configuration and code deployment, flexible declarative and imperative configuration management, application monitoring and auto-healing, DevOps workflow automation, and application container orchestration.

In IT operations, where much of the disruption of DevOps is occurring, SaltStack supports use cases such as private and hybrid cloud deployment and management, expedited maintenance for event-driven infrastructure, polyglot server OS and virtualization management, server configuration hardening for security and compliance, intelligent remediation of configuration divergence, drift or unauthorized user access at the file level, and infrastructure monitoring and network configuration. Use cases also include predictive orchestration for complex cloud management tasks such as cloud provisioning with native configuration management built in, multi-cloud orchestration and application workload migration.

The company sells software subscriptions, support and services for both SaltStack Enterprise and Salt Open implementations, as well as training. SaltStack reports about 150 paying customers. It touts many broad deployments among the biggest Web 2.0 providers as well as more traditional enterprise IT organizations, including many large financial services firms. There is also departmental adoption of Salt given its open source nature and availability. SaltStack also says it is commonly used alongside rival tools such as Chef and Puppet thanks in large part to its modularity and ability to add value to configuration management technology already in use. Our research and conversations indicate that these other open source tools are often pulled into early ad hoc and custom efforts toward automation in the enterprise, where customers are also interested in leveraging what exists in their infrastructure and process along with newer tools such as Salt.

SaltStack plans to feature such use cases and customer examples at its upcoming SaltConf16 user conference, which will be held from April 19-21 in Salt Lake City, Utah.

PARTNERS

Cloud vendor SUSE Linux recently announced that its SUSE Manager 3 software would be based on SaltStack because of its ability to orchestrate infrastructure intelligently while also supporting flexible and scalable configuration automation.

Cisco also recently outlined how it employs SaltStack to deploy, manage and orchestrate its Cisco Virtual Internet Routing Lab environments. Key capabilities identified for the implementation include deployment and management of OpenStack servers for large-scale network simulations, varied hosts from laptops to OpenStack clusters, multiple installation and configuration options, software control updates dictated by users, and a real-world development environment.

Earlier this year, SaltStack announced that its integration with ServiceNow was certified, signifying that SaltStack Enterprise software met ServiceNow's defined tests around integration, interoperability, performance and security. SaltStack notes that many IT organizations combine SaltStack with ServiceNow technology for efficient cloud management and change and configuration management.

COMPETITION

SaltStack's primary competition comes from other popular configuration, provisioning and infrastructure automation vendors such as Chef, Puppet Labs and Red Hat's recently acquired Ansible. Other server and infrastructure automation providers that vie with SaltStack include Intigua, StackIQ and StackStorm. Cloud management firms also contend, including Cisco, Cloudability, CloudBolt, Cloudmunch, CloudVelox, Dell with Cloud Manager, DivvyCloud, Red Hat with CloudForms, RightScale, Scalr and Stratus Technologies.

Traditional systems management firms such as BMC, CA, Hewlett Packard Enterprise and IBM are additional SaltStack rivals, particularly in the enterprise. There are also some new cloud and container-focused vendors such as Cloud 66, HashiCorp and Rancher Labs that are positioning themselves as the next generation of DevOps vendors, which also represents competition for SaltStack.

SWOT ANALYSIS

STRENGTHS

SaltStack benefits from the utility and popularity of its open source Salt software for configuration, provisioning, automation and management of modern IT infrastructure. The company's software and its evolution are also well-timed with growing enterprise adoption of cloud computing and DevOps.

WEAKNESSES

The company is smaller than its closest competitors and it has not yet raised venture capital while its rivals have received significant funding.

OPPORTUNITIES

The use of SaltStack's software for not only configuration and provisioning automation, but also increasingly for cloud management, cloud brokering and intelligent management of infrastructure and application stacks provides ample room for growth.

THREATS

In addition to increased competition from traditional systems and cloud management rivals, the company must also contend with a new breed of DevOps vendors, including those focused on application containers that claim to have a better agile release process and infrastructure management.