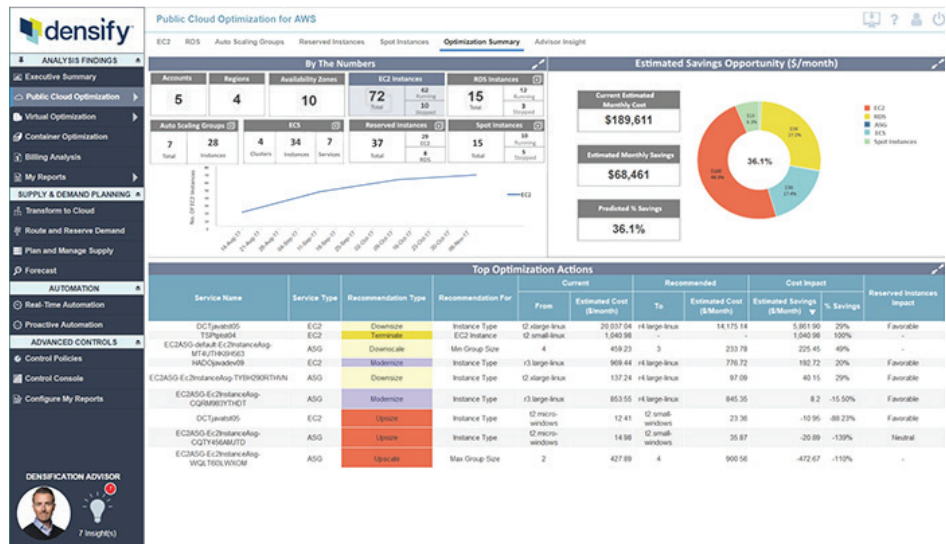


# Densify review: Take control of your public cloud spending

By Alan Stevens

Businesses migrating applications to the public cloud mostly do so to improve agility and lower their infrastructure costs. However, while many achieve the first of these goals, a recent survey by cloud optimisation company Densify found that over 75 percent ended up going over budget, with many unable to say exactly what they were paying, what they were paying for, or how they might get better value by switching providers, platforms, or product instances.



## EDITORS' RATING

★★★★★ 9.5 Spectacular

### PROS

- Potential to make significant cost savings on cloud infrastructure
- Hosted SaaS solution requiring minimal setup
- Advanced analytics engine with machine learning capabilities
- In-depth support and understanding of leading virtualisation and public cloud platforms
- Personal Densification Advisor
- Evolving support for containers and task automation
- Affordable

### CONS

- Seeing just how much you're paying for the cloud can be alarming

One reason for this is a loss of management visibility when apps move to the cloud, further compounded by the huge number of products on offer, their complexity and the speed at which the market is evolving. These are issues that Densify is looking to address with a clever new cloud-based tool that uses data analytics and machine learning to give customers the visibility they need to track and manage their cloud infrastructure.

Using Densify, customers can work out exactly what datacentre workloads might be better handled in the cloud, and how those already there are performing. They can also see, in detail, what it all costs and how monthly bills could be lowered by, for example, switching between cloud platforms, to a different product type, or newer instances.

Of course, tools to do some of this are available elsewhere, including from the big-name cloud providers themselves. Densify, however, goes beyond simple bill-reading capabilities by adding in-depth analytics and machine learning, backed up by an extensive understanding of the leading public cloud products. It's also a hosted (SaaS) solution requiring virtually no installation or ongoing maintenance, plus there's a unique human touch in the form of access to a dedicated Densification Advisor included in the monthly subscription.

## Getting ready

According to Densify, some customers like to get fully involved and simply use their advisor to ease them into the product, while others are happy to hand everything over and leave the advisor to run the whole show. Whatever the approach, customers are given access to the Densify multidimensional analytics engine, hosted in a dedicated cloud instance and able to monitor workload patterns across a hybrid mix of virtualised on-premise and public cloud environments.

For most this will be a mix of VMware and Amazon Web Services (AWS), but other hypervisors and public cloud platforms are supported, including bare-metal deployments of VMware on AWS. Moreover, as well as the ability to work with a wide cross-section of cloud products, the analytics engine has access to a comprehensive and continuously updated database of capabilities, features, pricing and performance benchmarks. This enables it to calculate actual usage costs, make detailed migration and optimisation recommendations, and accurately predict the financial savings.

Some setup work is required, but it's hardly onerous. Densify reckons it takes around 15 minutes at most to, for example, install a Windows-based connector to allow the analytics engine to communicate with vCenter, with similar requirements for Microsoft Hyper-V and OpenStack. Plus, when it comes to the public cloud, all that's required are basic security credentials as Densify can get what it needs directly from the platforms involved using Amazon CloudWatch and Billing APIs to talk to AWS, Microsoft's service and resource management APIs in Azure, and the StackDriver API in Google Cloud.

## Generating results

Data discovery and analysis takes a little longer, but Densify claims to deliver meaningful results in just a few hours. These can then be examined and interpreted using a browser-based interface that can be somewhat overwhelming to start with, but is easily mastered and offers dashboard-like views to suit everyone from capacity planners and finance managers to data scientists and IT support teams.

The screenshot to the right, for example, provides summary insights into a typical customer's virtual infrastructure, including an analysis as to how accurately guest VMs have been sized and how the VM density could be improved through further consolidation.

Of even greater interest, however, are the cloud insights for this company which is using AWS to host a number of applications.

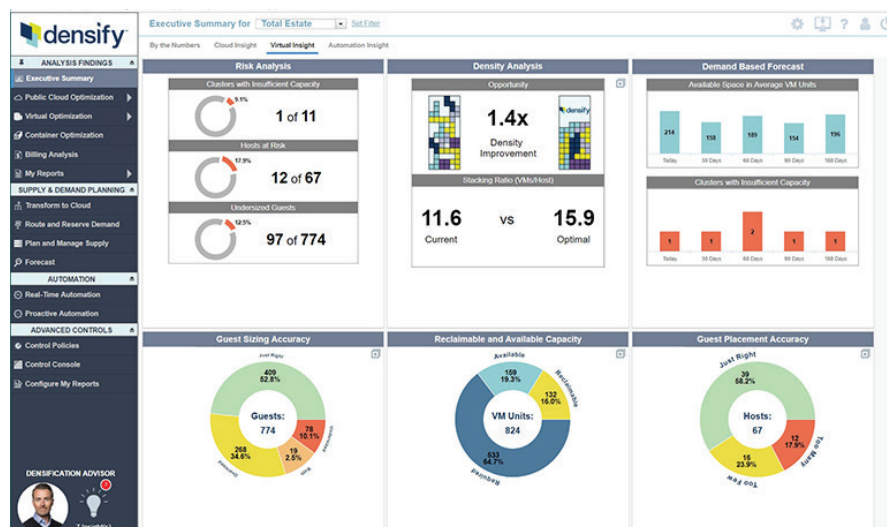


Image: Alan Stevens/ZDNet

Here Densify has identified several risks with a customer's on-premises infrastructure, and flagged the possibility of increasing VM density by a factor of 1.4.

These are summarised in the view to the right, showing the potential cost savings to be had from, for example, terminating cloud instances no longer in use, downsizing those with excess capacity, and modernising others to more efficient products.

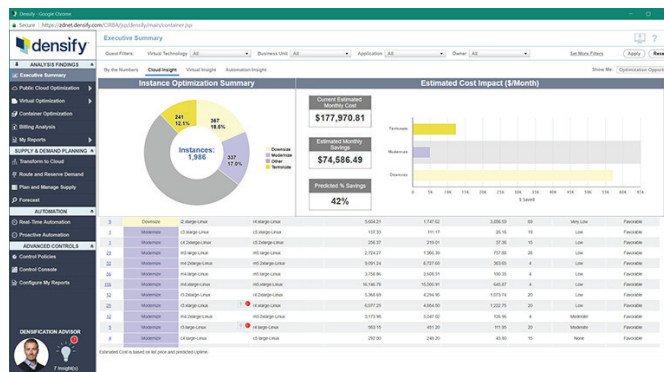
Predicted savings in this example are 42 percent which, according to Densify, is in line what most customers can expect to achieve -- and many go far beyond that.

Custom reports can also be generated and emailed out according to a predetermined schedule; the human advisor will also keep a close eye on the results and offer suggestions on how to take best advantage of what Densify discovers. In the following screenshot, for example, the Densification Advisor has flagged up a rise in cost due to a mix of new EC2 instances plus an increase in data transfer traffic. Based on the customer's actual usage patterns, the advisor has advised purchasing AWS reserved instances to bring those costs back down by reducing the number of expensive on-demand and spot instances required.

Advisor insights are available throughout the interface, and users can also drill down from summaries to more detailed analyses. As in the last screenshot, which lists undersized AWS instances with recommendations for their replacements, the effort involved, detailed costings and the savings to be made.

## Transformation tools

Customers looking to migrate workloads from the datacentre to the public cloud are also catered for with tools to identify candidates for such a move, together with recommended targets. Densify can even make recommendations for customers wanting to migrate applications to cloud-based bare metal environments, including VMware on both AWS and SoftLayer (now IBM Cloud), as shown below.



Additionally, and in keeping with the times, Densify developers are working on the ability to optimise cloud-native workloads using containers and are confident of achieving even greater cost savings -- of up to 80 percent in some cases -- when this feature is fully implemented.

Finally, Densify is working on automating the processes required to put its recommendations into practice. To this end, it can already automate VM optimisation tasks on VMware platforms and raise support tickets to automate some cloud operations using platforms such as Service Now. In the long term, however, Densify is planning to further enhance and add to these abilities by enabling customers to work with any cloud orchestration engine with a published API.

Overall we were very impressed by the detailed insights that can be revealed using Densify, and also the speed and apparent ease with which it comes up with its recommendations. New users can sign up for a free 14-day trial (up to 2,000 VMware/AWS workloads) but, according to Densify, most don't need anywhere near that long to be convinced. Moreover, the subscription rate of \$8 per month per VM or cloud instance seems like remarkably good value, particularly given the huge savings promised. Capable and affordable, Densify is suitable for any company struggling to get to grips with its public cloud spending.

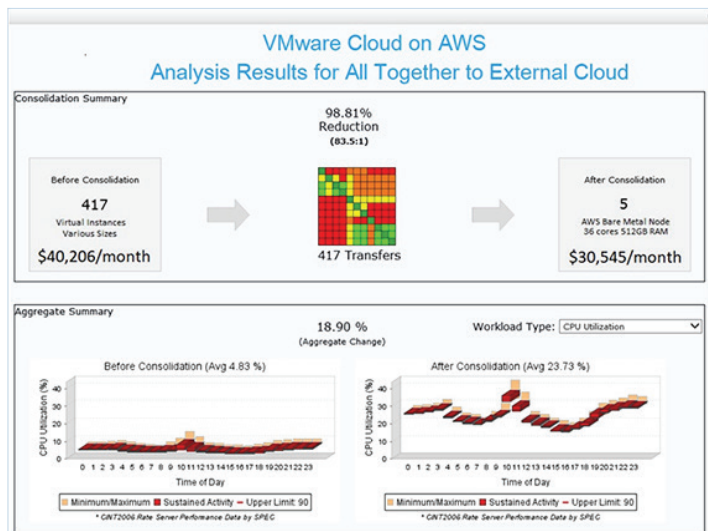


Image: Alan Stevens/ZDNet  
Densify can even make recommendations regarding the optimisation of cloud instances to bare metal deployments of VMware in the cloud.

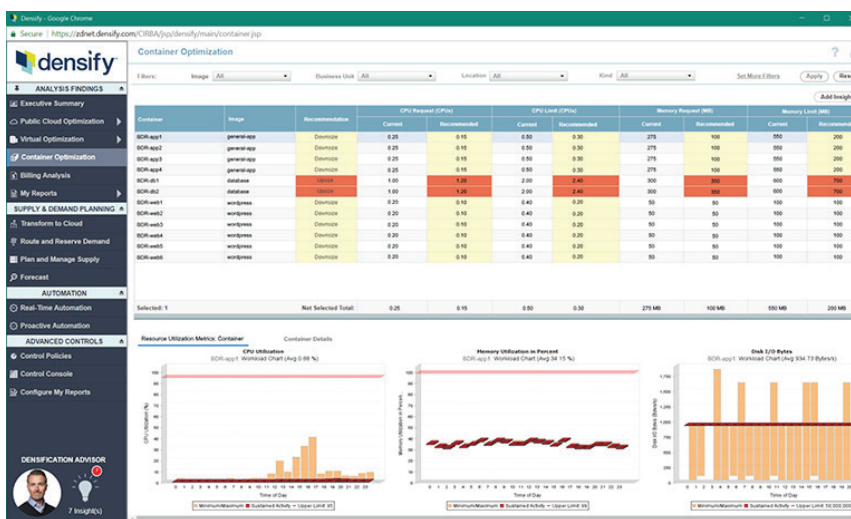


Image: Alan Stevens/ZDNet  
Tools for container optimisation are also being added to the Densify service.