

# First Look at Built-in Autoscaling and Alerting



**brisbaneazure**  
user group

Paul Bower

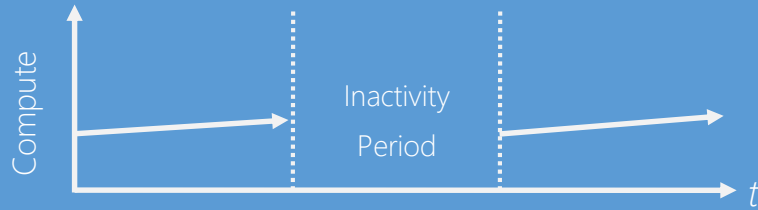
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autoscaling

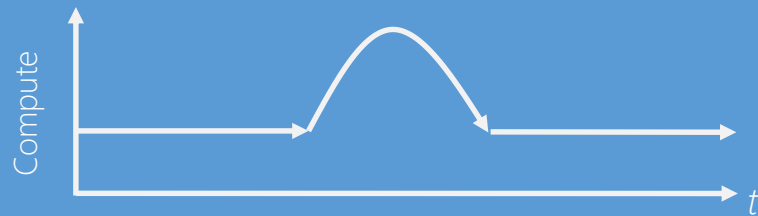
The power of cloud economics is **elasticity** - the ability to pay for resources only when they are needed and to scale infrastructure up and down on demand

Justifying your Cloud Investment: Web Sites – Forrester (Nov 2010)



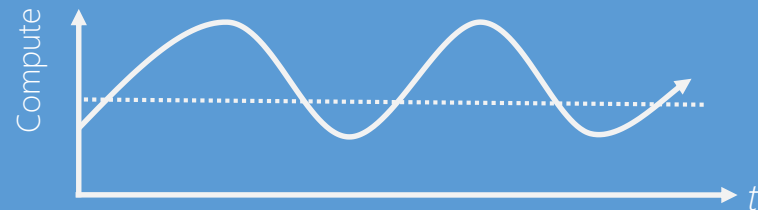
## On and Off

On & off workloads (e.g. batch job)  
 Over provisioned capacity is wasted  
 Time to market can be cumbersome



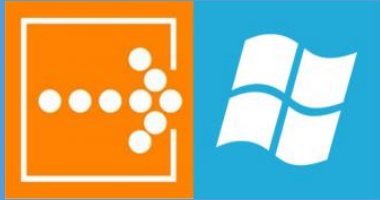
## Unpredictable Bursting

Unexpected/unplanned peak in demand  
 Sudden spike impacts performance  
 Can't over provision for extreme cases



## Predictable Bursting

Services with micro seasonality trends  
 Peaks due to periodic increased demand  
 IT complexity and wasted capacity



WASABi - Windows Azure Autoscaling Application Block  
Microsoft Enterprise Library 5.0 (Integration Pack for Windows Azure)



AzureWatch  
Paraleap



MetricsHub

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## The Microsoft Accelerator for Windows Azure, powered by TechStars

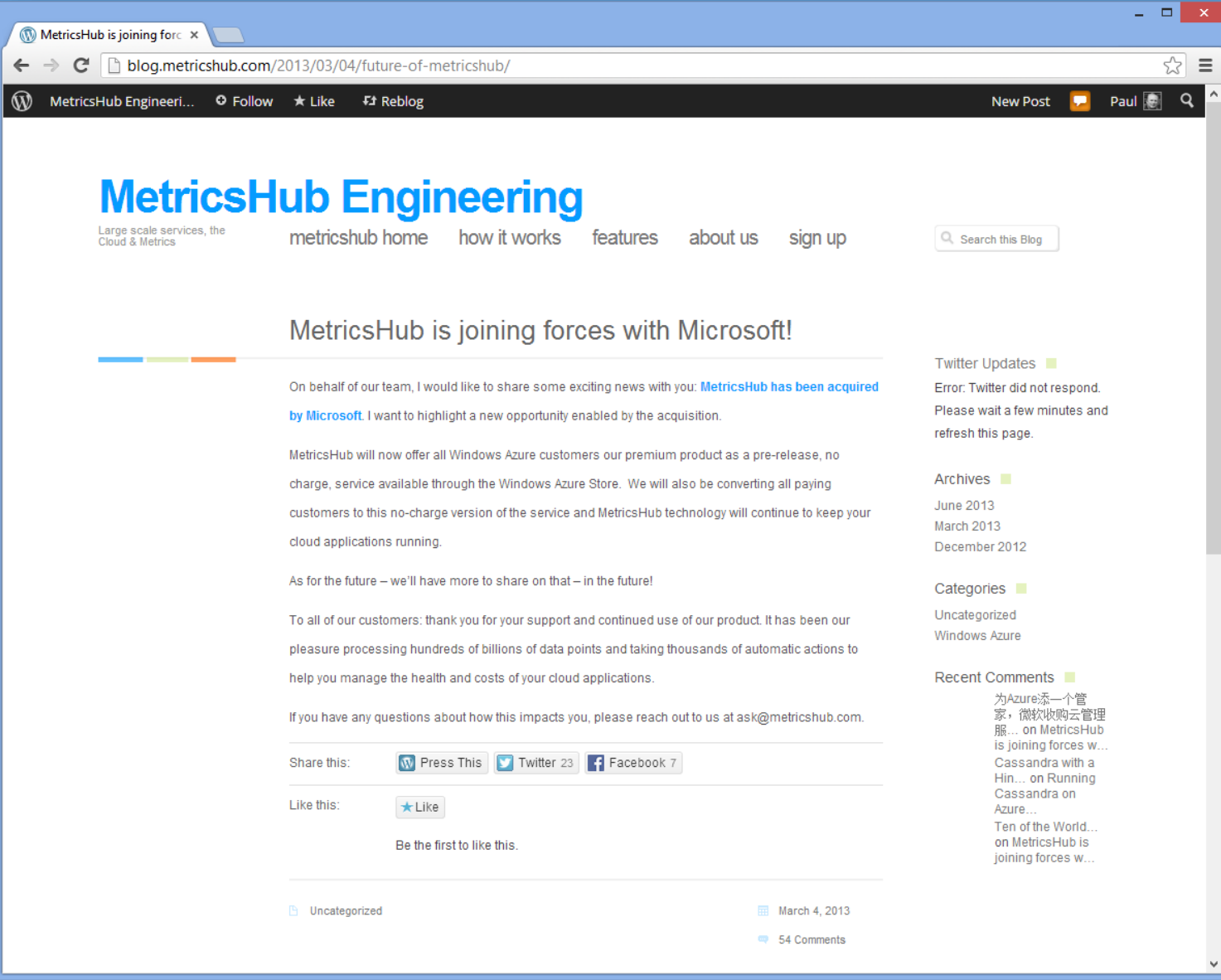
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# MetricsHub Engineering

Large scale services, the  
Cloud & Metrics

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## MetricsHub is joining forces with Microsoft!

On behalf of our team, I would like to share some exciting news with you: [MetricsHub has been acquired by Microsoft](#). I want to highlight a new opportunity enabled by the acquisition.

MetricsHub will now offer all Windows Azure customers our premium product as a pre-release, no charge, service available through the Windows Azure Store. We will also be converting all paying customers to this no-charge version of the service and MetricsHub technology will continue to keep your cloud applications running.

As for the future – we'll have more to share on that – in the future!

To all of our customers: thank you for your support and continued use of our product. It has been our pleasure processing hundreds of billions of data points and taking thousands of automatic actions to help you manage the health and costs of your cloud applications.

If you have any questions about how this impacts you, please reach out to us at [ask@metricshub.com](mailto:ask@metricshub.com).

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# MetricsHub Engineering

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## New Windows Azure features for MetricsHub Users

This is an exciting week for our team! At //build/ in San Francisco, Windows Azure revealed a lot of great new features that may be of interest to anyone who finds MetricsHub a valuable tool.

We now provide a number of capabilities that help you to better understand the health of your applications, right in the Azure portal – no additional onboarding needed. These features, available in preview, include:

- Availability monitoring
- Auto scaling
- Alerting

For Windows Azure Web Sites, Cloud Services, and Virtual Machines. For Windows Azure Mobile Services, availability monitoring and alerting are also available in preview. There is no additional cost for these features while in preview, and you can read more about these features, on ScottGu's blog here: <http://weblogs.asp.net/scottgu/>.

**One important note:** please don't try to turn on Auto scaling from MetricsHub and the Windows Azure portal at the same time. This is not a supported configuration and will result in non-deterministic behavior.

As always, if you have any questions about how this impacts you, please reach out to us at [ask@metricshub.com](mailto:ask@metricshub.com). Also, if you missed //build/, we held a session to cover these features, and a video is posted here: <http://channel9.msdn.com/Events/Build/2013/3-558>.

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//build/  
June 26-28 // San Francisco





what do you get?

# Built in

- Currently in Preview
- Available for Mobile Services, Web Sites, Cloud Services, Virtual Machines
- Limited to 10 rules across all resources

# Scale

- Instance range
- Scale up/down size
- Scaling cool downs
- Scale linked resources

# Metrics

- Evaluated every 5 minutes
- Use only one
- CPU percentage (60 min average across all instances)
- Queue depth (Storage and Service Bus)

# Scheduled Rules

- Day and night schedule

# Operational

- History
- Failure Notifications to Service Admin and Co-Admin



demo



limitations



# Virtual Machines

- Must be in Availability Set

# Web Sites

- Standard
- Metrics (CPU percentage)

# Mobile Services

- Standard (6 units), Premium (10 units)
- Metrics (API usage)
- Scales up at 90% of daily API usage
- Does not scale down
- Resets to base units at start of each UTC day



demo



alerting



what do you get?

# Built in

- Threshold based alerts on monitoring metrics
- Currently in Preview
- Available for Mobile Services, Web Sites, Cloud Services, Virtual Machines
- Limited to 10 alert rules across per subscription

# Operational

- Alert History (last 20 occurrences)
- Alert Notifications to Service Admin and Co-Admin



# Virtual Machines

- Monitoring metrics from host  
CPU percentage, Network In/Out, Disk Read Bytes/sec, Disk Write Bytes/sec
- Monitoring metrics from monitoring web endpoint urls  
Response time, Uptime percentage

# Cloud Services

- Monitoring metrics from host  
CPU percentage, Network In/Out, Disk Read Bytes/sec, Disk Write Bytes/sec
- Monitoring metrics from guest  
Performance counters within the VM
- Monitoring metrics from monitoring web endpoint urls  
Response time, Uptime percentage

# Web Sites

- Monitoring metrics from monitoring web endpoint urls  
Response time, Uptime percentage

# Mobile Services

- Standard
- Monitoring metrics from monitoring web endpoint urls  
Response time, Uptime percentage



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# Resources

- MetricsHub is joining forces with Microsoft!  
<http://blog.metricshub.com/2013/03/04/future-of-metricshub/>
- New Windows Azure features for MetricsHub Users  
<http://blog.metricshub.com/2013/06/28/new-windows-azure-features-for-metricshub-users/>

# Resources

- Windows Azure: General Availability of Web Sites + Mobile Services, New AutoScale + Alerts Support, No Credit Card Needed for MSDN  
<http://weblogs.asp.net/scottgu/archive/2013/06/27/windows-azure-general-availability-release-of-web-sites-mobile-services-new-autoscale-alerts-support-no-credit-card-needed-for-msdn-subscribers.aspx>
- Windows Azure autoscaling now built-in  
<http://blogs.msdn.com/b/agile/archive/2013/07/02/windows-azure-autoscaling-now-built-in.aspx>
- How to Scale an Application  
<http://www.windowsazure.com/en-us/manage/services/cloud-services/how-to-scale-a-cloud-service/>  
<http://www.windowsazure.com/en-us/manage/services/web-sites/how-to-scale-websites/>

# Resources

- An autoscaling build farm using TeamCity and Windows Azure  
<http://blog.maartenballiau.be/post/2013/08/05/An-autoscaling-build-farm-using-TeamCity-and-Windows-Azure.aspx>
- How to scale effectively in windows azure?  
<http://stackoverflow.com/questions/18150884/how-to-scale-effectively-in-windows-azure>
- Windows Azure Autoscaling Options Side by Side Comparison  
<http://blog.paraleap.com/post/2013/07/29/Windows-Azure-Auto-scaling-Options-Side-by-Side-Comparison>



# Resources

- How to Monitor Web Sites

<http://www.windowsazure.com/en-us/manage/services/web-sites/how-to-monitor-websites/>