How Microsoft is bursting into the cloud with BizTalk

Lori MacVittie, 2008-06-10

Darren Jefford has an excellent (and detailed with code examples) post regarding what could easily be categorized as cloudbursting with BizTalk workflows.

In a nutshell, Microsoft allows hosting of BizTalk activities in the cloud at BizTalk labs. Developers then integrate those cloud hosted activities into a BizTalk workflow (orchestration) by calling them as they would any other web-based service or hosted activity.

In doing so, Microsoft is essentially allowing developers to extend the compute capacity of their data centers by leveraging the much larger data centers maintained by Microsoft.
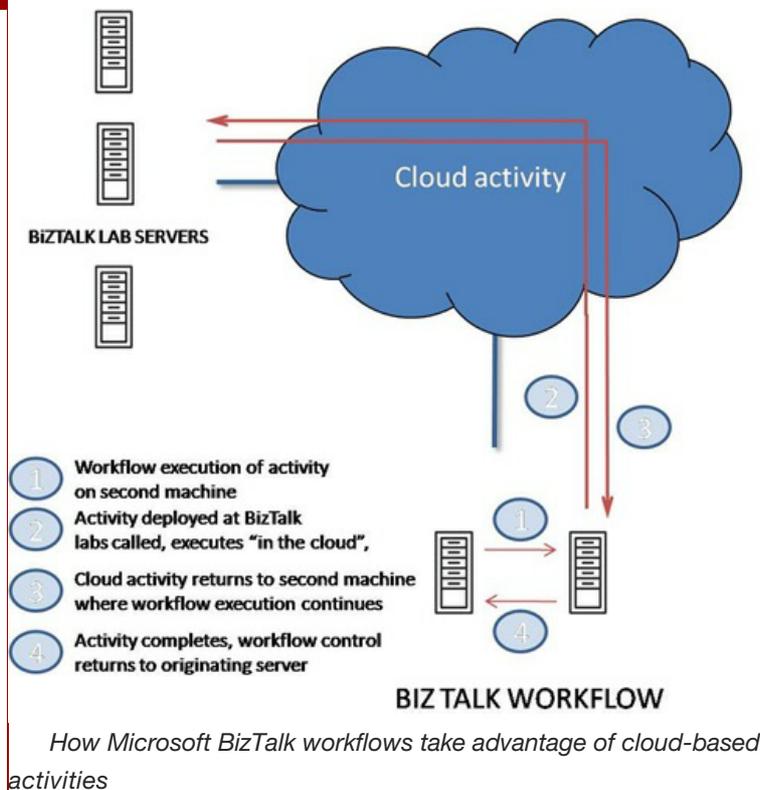
What is an activity?

An activity is a discrete step in a business process (workflow). Activities range from calling a remote service to perform a task, e.g. calculating taxes, performing currency conversions, looking up inventory, to custom-defined services.

Activities are orchestrated together together a workflow in BizTalk using XOML (eXtensible Object Markup Language).

In other BPM (Business Process Management) solutions, activities are orchestrated using BPEL (Business Process Execution Language).

Both XOML and BPEL are XML-based markup languages used for orchestrating workflows.

BPEL is an industry standard; XOML is Microsoft's propriety solution.

BiZTALK LAB SERVERS

Cloud activity

1. Workflow execution of activity on second machine
2. Activity deployed at BizTalk labs called, executes "in the cloud",
3. Cloud activity returns to second machine where workflow execution continues
4. Activity completes, workflow control returns to originating server

BIZ TALK WORKFLOW

How Microsoft BizTalk workflows take advantage of cloud-based activities

While the first definitions of cloudbursting are focused on reactive capacity management, Microsoft appears to be taking a proactive approach to cloudbursting and capacity management. By encouraging developers to utilize the compute capacity of BizTalk labs up front during the design and development process, it alleviates the need to react hastily later when it becomes apparent that more compute resources are necessary for a specific workflow activity.

The concept remains the same: utilize the cloud for additional capacity when it is apparent your own data center can't handle the load and it is cost-prohibitive to invest in additional servers and infrastructure to increase capacity.

One can easily imagine that future offerings might include the ability of other organizations to subscribe to and use activities developed by third-parties, essentially offering yet another path to monetize the cloud.