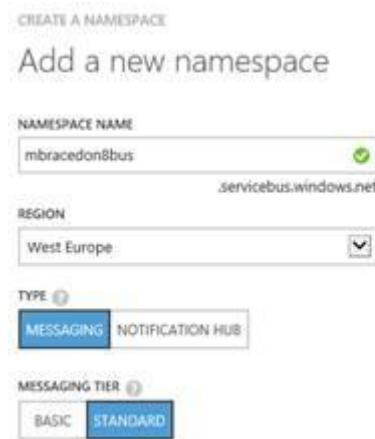


Steps I used to create an MBrace Cluster on Windows Azure using [Brisk Engine](#) as of 20/02/2015

Assumes you have an Azure account with at least 6 cores spare (there is a 20 core limit on some free or trial Azure accounts).

1. Created new Service Bus namespace in [Azure Console](#) (messaging not notification hub)



CREATE A NAMESPACE

Add a new namespace

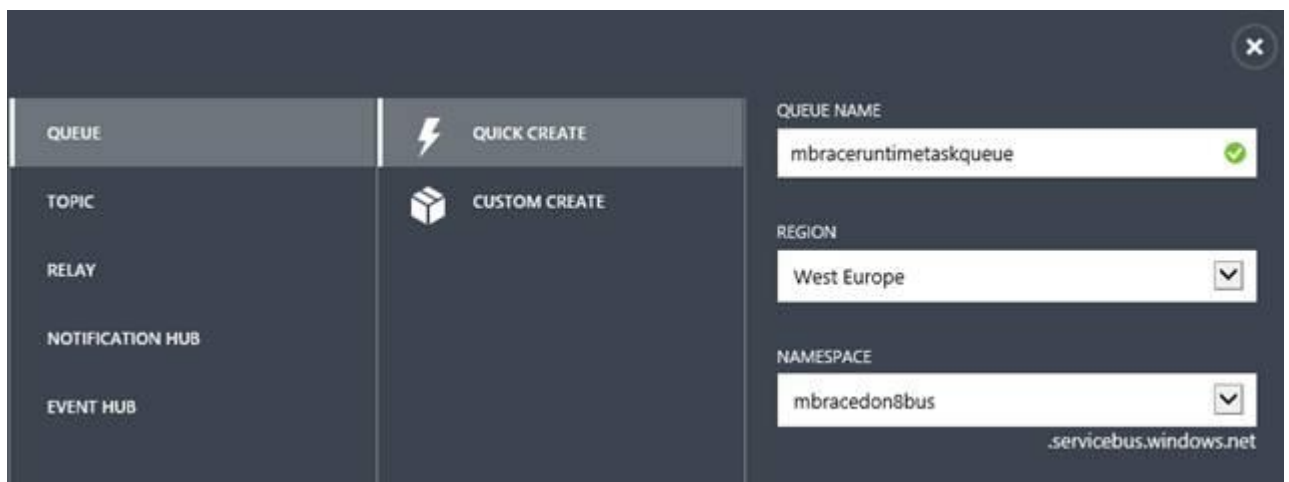
NAMESPACE NAME
mbracedon8bus ☒ .servicebus.windows.net

REGION
West Europe ☐

TYPE ☒ MESSAGING ☐ NOTIFICATION HUB

MESSAGING TIER ☐ BASIC ☒ STANDARD

2. Created a new queue called **mbraceruntimetaskqueue** in that namespace



QUEUE

TOPIC

RELAY

NOTIFICATION HUB

EVENT HUB

⚡ QUICK CREATE

📦 CUSTOM CREATE

QUEUE NAME
mbraceruntimetaskqueue ☒

REGION
West Europe ☐

NAMESPACE
mbracedon8bus ☐ .servicebus.windows.net

3. Created new storage in the Azure Console

SQL DATABASE

STORAGE

HDINSIGHT

RECOVERY SERVICES

MACHINE LEARNING

STREAM ANALYTICS

QUICK CREATE

URL

mbracedon8storage ✓

.core.windows.net

LOCATION/AFFINITY GROUP

West Europe ▼

REPLICATION

Locally Redundant ▼

4. Created new cluster in Brisk console

Cluster Name

mbracedon8 ✓

Subscription

Windows Azure MSDN - Visual Studio Ultimate ▼

Locations

West Europe ▼

Deployment

MBrace ▼

Please use the slider to select your cluster configuration.

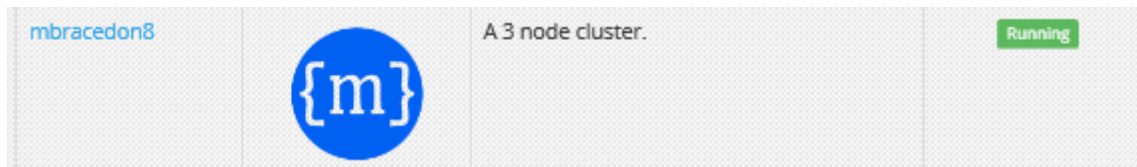
Memory

Storage Accounts

mbracedon8storage ▼

Service Bus

mbracedon8bus ▼



5. Get the connection strings from the portal for the created Cloud Service:

mbraceworkerrole

SETTINGS

StorageConnection

DefaultEndpointsProtocol=ht

ServiceBusConnection

Endpoint=sb://mbracedon8b

6. Open Visual Studio, reset F# Interactive, enter the connection strings into the starter script:

```
val config : Configuration =
    {StorageConnectionString =
        "DefaultEndpointsProtocol=https;AccountName=mbracedon8storage;" + [99
chars];
      ServiceBusConnectionString =
        "Endpoint=sb://mbracedon8bus.servicebus.windows.net;/SharedAcc" + [97
chars];
      DefaultTableOrContainer = "mbraceruntime";
      DefaultQueue = "mbraceruntimetaskqueue";
      DefaultLogTable = "mbraceruntimelogs";
      DefaultTopic = "mbraceruntimetasktopic";}
```

7. Called GetHandle:

```
let runtime = Runtime.GetHandle(config)
```

```
Binding session to
'C:\Users\dsyme\Documents\MBraceOnBriskStarter\MBraceOnBriskStarter\src\Demo
s\..\..\lib\Microsoft.Data.Edm.dll'...
Binding session to
'C:\Users\dsyme\Documents\MBraceOnBriskStarter\MBraceOnBriskStarter\src\Demo
s\..\..\lib\Microsoft.Data.Services.Client.dll'...
Binding session to
'C:\Users\dsyme\Documents\MBraceOnBriskStarter\MBraceOnBriskStarter\src\Demo
s\..\..\lib\Microsoft.Data.OData.dll'...
Binding session to
'C:\Users\dsyme\Documents\MBraceOnBriskStarter\MBraceOnBriskStarter\src\Demo
s\..\..\lib\Newtonsoft.Json.dll'...

val runtime : Runtime
```

8. ShowWorkers:

Workers

Id	Hostname	% CPU / Cores	% Memory /
Total(MB)	Network(ul/dl : kbps)	Tasks	Process Id
Time	Heartbeat		Initialization
--	-----	-----	-----
-----	-----	-----	-----
MBraceWorkerRole_IN_0	RD0003FF5507E5	1.78 / 2	22.08 /
3583.00	38.26 / 19.33	0 / 2	3316
20/02/2015 10:59:10 +00:00			20/02/2015 10:40:13
MBraceWorkerRole_IN_2	RD0003FF550024	2.11 / 2	22.10 /
3583.00	45.91 / 23.32	0 / 2	3204
20/02/2015 10:59:09 +00:00			20/02/2015 10:40:15
MBraceWorkerRole_IN_1	RD0003FF552704	2.43 / 2	22.19 /
3583.00	38.02 / 21.79	0 / 2	268
20/02/2015 10:59:10 +00:00			20/02/2015 10:40:18

9. ShowProcesses:

Processes

Name	Process Id	State	Completed	Execution Time	Tasks	Result
Type	Start Time	Completion Time				
----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----

Tasks : Active / Faulted / Completed / Total

10. Attach logger:

```
runtime.ClientLogger.Attach(Common.ConsoleLogger())
```

11. Create a cloud computation:

```
let getThread() = Thread.CurrentThread.ManagedThreadId

let work0 =
    cloud { return sprintf "run in the cloud on '%s' thread
'%d'" Environment.MachineName (getThread()) }
    |> runtime.CreateProcess

20022015 11:00:30.715 +00:00 : Creating process
6c31512670884c9eaa5655dc53e5cde1
20022015 11:00:30.719 +00:00 : Uploading dependencies
20022015 11:00:30.726 +00:00 : FSI-ASSEMBLY_4f4cf9fc-e870-4681-9b03-
bea847eff8c0_1, Version=0.0.0.0, Culture=neutral,
PublicKeyToken=null
20022015 11:00:31.611 +00:00 : Creating DistributedCancellationToken
20022015 11:00:31.846 +00:00 : Starting process
6c31512670884c9eaa5655dc53e5cde1
20022015 11:00:33.547 +00:00 : Created process
6c31512670884c9eaa5655dc53e5cde1
```

```
val work0 : Process<string>
```

12. Check status:

Process

Name	Tasks	Process Id	State	Completed	Execution
Time		Result Type	Start		
Time		Completion Time			
----	-----	-----	----	-----	-----
-	-----	-----	-----	-----	-----

		6c31512670884c9eaa5655dc53e5cde1	Completed	True	00:00:00.8355
016	0 / 0 / 1 / 1	string	20/02/2015 11:00:35		
+00:00	02/20/2015 11:00:36	+00:00			

Tasks : Active / Faulted / Completed / Total

13. Check result:

```
work0.AwaitResultAsync() |> Async.RunSynchronously
```

```
val it : string = "run in the cloud on  
'RD0003FF550024' thread '9'"
```

Awesome.