Individual host for single instance

*In this method each instance has separate hosts or VM for them. This pattern allows separating microservices from each other. This pattern reduces the resource consumption by individual instances. In case of virtual infrastructure the whole service is packaged as a VM image and deployed in separate machines. This is the traditional VM deployment method.*

*The benefits of this approach include:*

* *Its straightforward to scale the service by increasing the number of instances. Amazon Autoscaling Groups can even do this automatically based on load.*
* *The VM encapsulates the details of the technology used to build the service. All services are, for example, started and stopped in the same way.*
* *Each service instance is isolated.*
* *A VM imposes limits on the CPU and memory consumed by a service instance.*

*The drawbacks of this approach include:*

* *Building a VM image is slow and time consuming.*

*Going past one machine poses a few critical points that make troubleshooting much more complex and typical problems that come with using the microservice architecture emerge.*

* *How do we correlate log files distributed among many servers?*
* *How do we collect sensible metrics?*
* *How do we handle upgrades and downtime?*
* *How do we handle spikes and drops in traffic?*

*This option is excellent if you have a few spare machines and want to improve your application’s availability.*