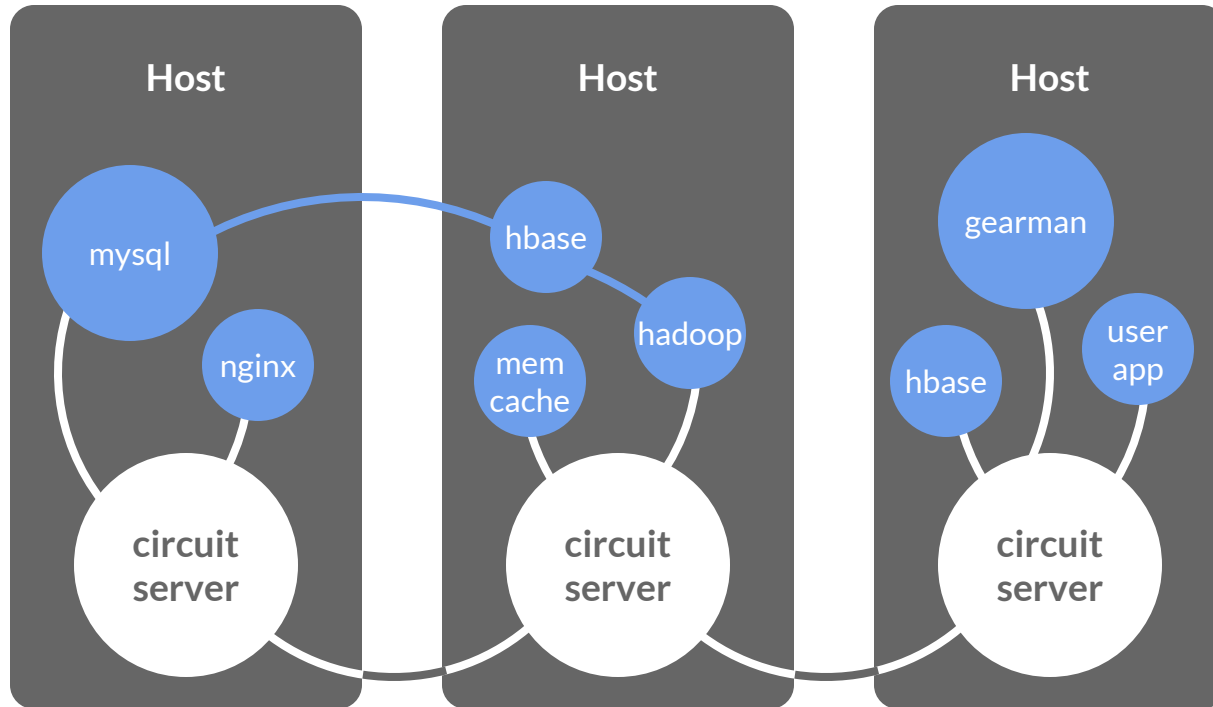


Building clouds with Circuit & Escher

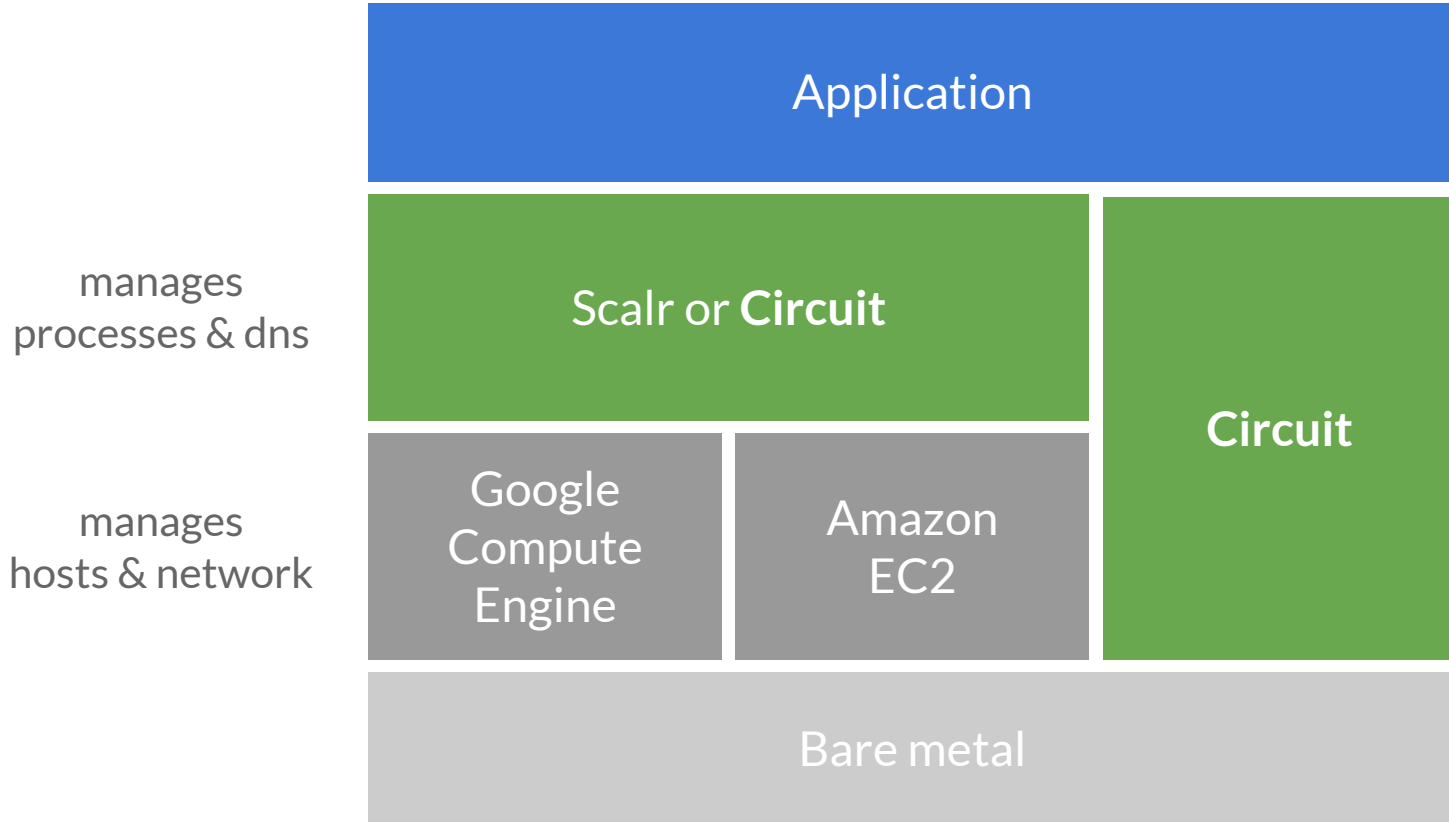
Petar Maymounkov
gocircuit.org
escher.io
2015

Circuit = daemon + cloud API

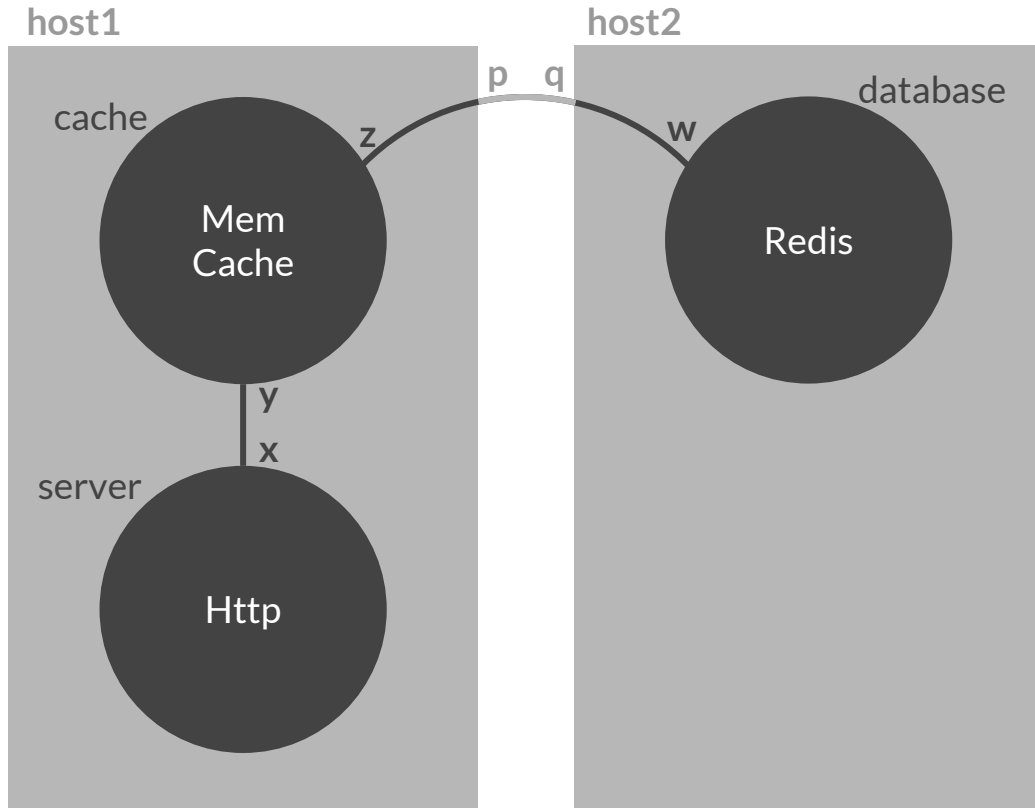
Light alternative to cloud management tools (Goole, Amazon, Scalr)



Infrastructure stack



Escher = formal cloud state syntax (NEW)



```
{  
  host1 {  
    cache MemCache  
    server Http  
    cache:y = server:x  
    cache:z = :p  
  }  
  host2 {  
    database Redis  
    database:w = :q  
  }  
  host1:p = host2:q  
}
```

Formal circuit differences

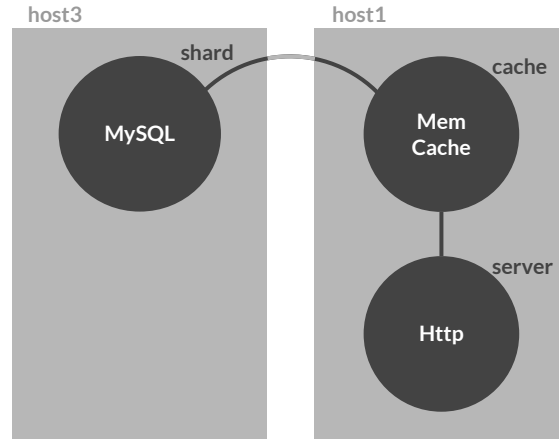
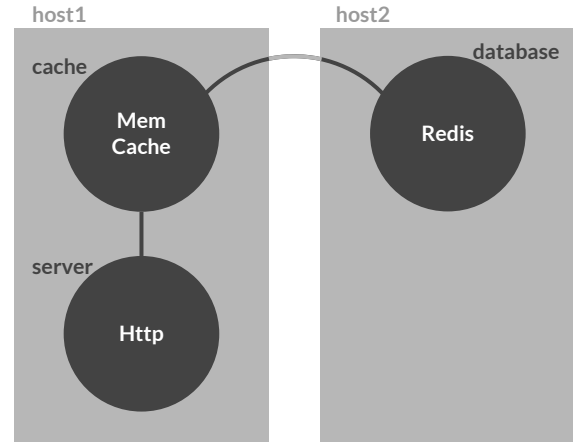
current state

-

desired state

=

necessary change



3-step workflow tool

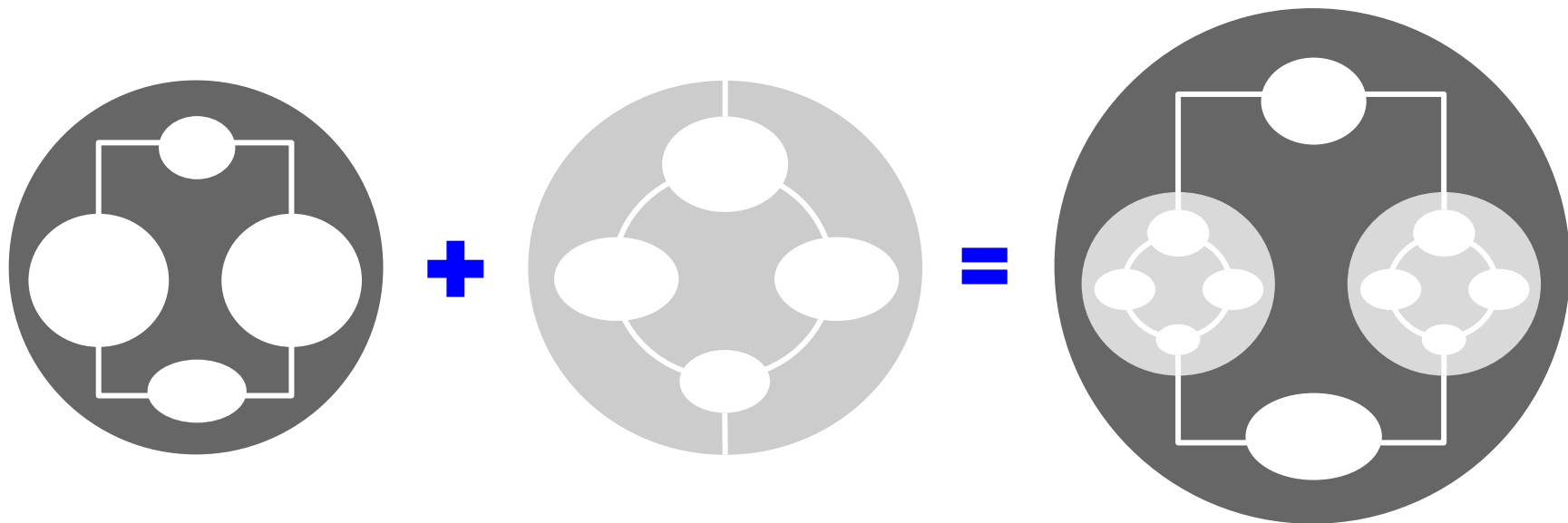
Any backend (Circuit, Amazon, Google)

```
cloud sense > current.circuit
```

```
cloud diff desired.circuit current.circuit > diff.circuit
```

```
cloud materialize diff.circuit
```

Compiler for composing topologies



NEW infrastructure stack

