CPDF Cloud opportunity assessment – Work in progress

The purpose of this document is to investigate how feasible it is to transition the CPDF application currently developed and hosted by the UK SI team into the Atosphere cloud. The work is based on the cloud assessment document prepared by Andrew Tudbury, the architecture documentation made available to us by Alistair Fyfe and a series of conversations between Andrew, Alastair, Paddy Keenan and Simon Elliott (document author).

Firstly it must be noted that the CPDF application is legacy application with a long history of modification. The central component is a mainframe product, some user directly interact with this via a terminal emulator. However because this user interface is not ideal there is another product called chrysalis which is a .NET application that provides additional functionality via screen scraping.

During the course of the discussion we asked the question
"If the live CPDF application is in the atosphere, what other architecture elements must also be hosted in the atosphere?"

This document attempts to answer that question so that costs can be estimated. Here is a list of the decisions that we made during the conversation.

1 - Any architecture element that requires a high bandwidth connection to CPDF must also transition to Atosphere
2 – Environments that need to emulate the behaviour of live CPDF must follow its cloud architecture
3 – Development tooling that is used in the construction of CPDF should also be moved to the Atosphere

During our investigation a number of questions have surfaced that need to be answered.

Outstanding Questions

1 > Do we have to pay for inter server bandwidth? – Atosphere team to answer
2 > Is the list of servers needed in the collaboration environment correct? – CPDF team to answer
3 > I have assumed that CI is needed, is this valid? – CPDF team to answer
4 > only the significant interfaces have been drawn, do we need to include others? – CPDF team to answer

CPDF environments

This diagram shows the basic sequence of environments needed to develop, test and run CPDF.

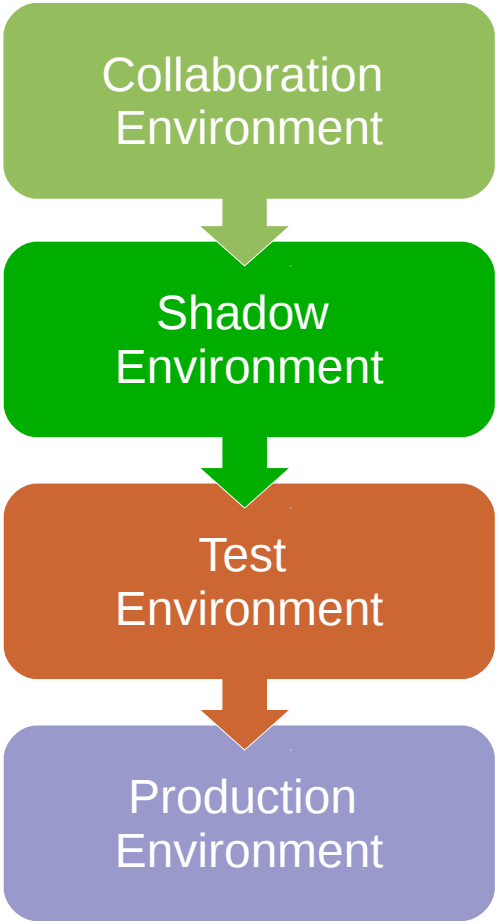
Developers and business people co-author documentation, issues and code in the collaboration environment which uses CI to run TDD and BDD scripts.

When code is committed it is automatically deployed into the shadow environment which allows all people involved in the development to participate in the creation of features.

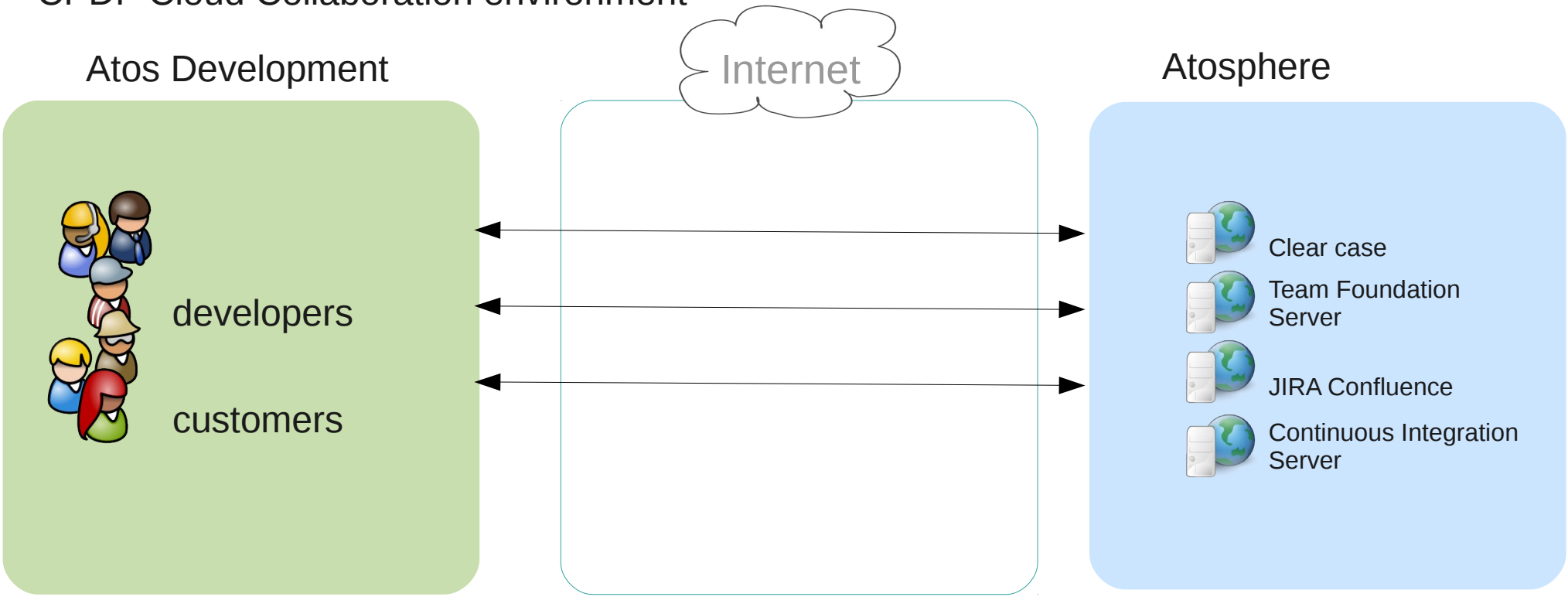
It is worth noting at this point that each instance of the CPDF code base will require its own shadow, at the moment there are three code bases, we have only considered porting one to the Atosphere.

Code that runs successfully in the shadow can be automatically deployed into a test environment to allow manual and automatic testing. Assuming that tests run successfully code can be deployed to the production environment.

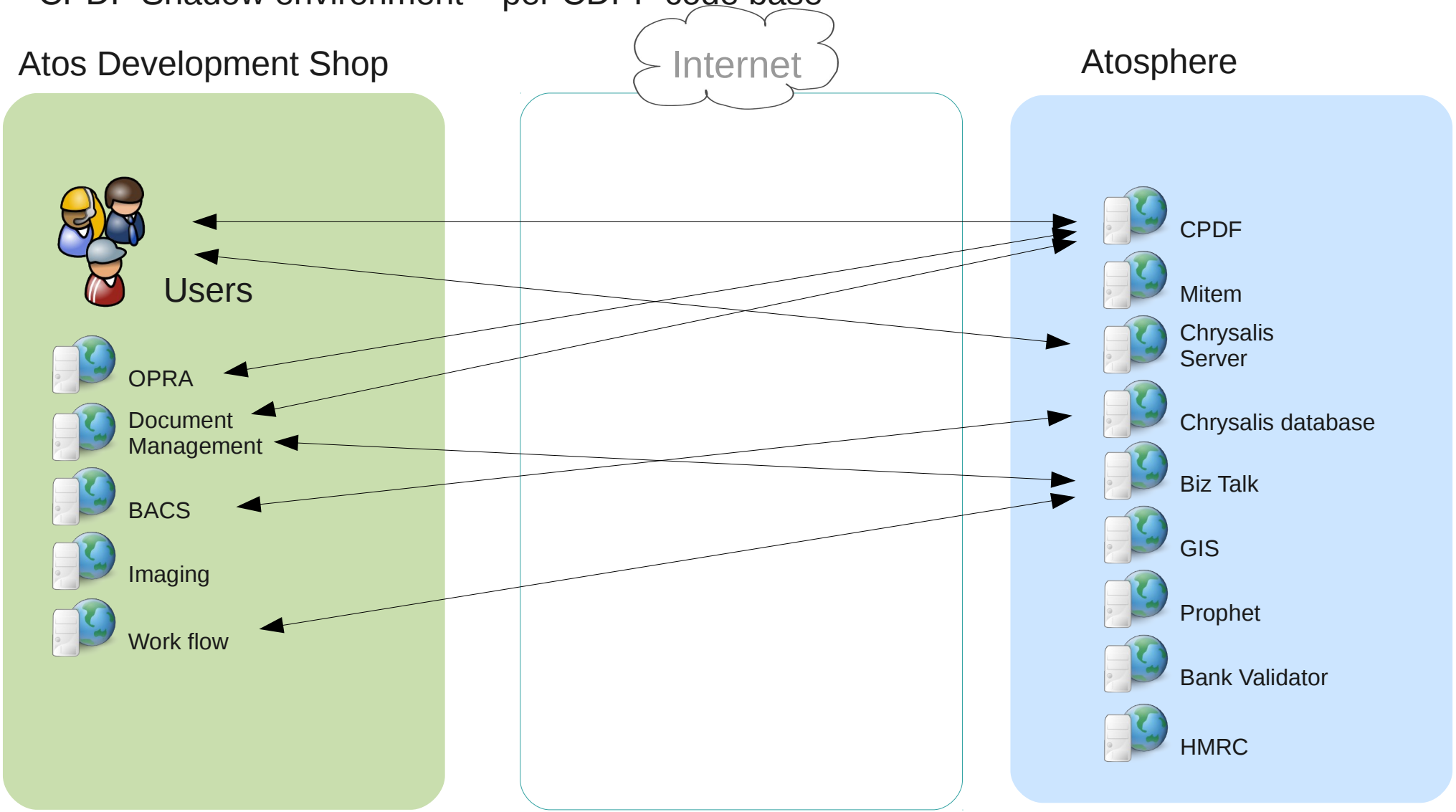
Elements of each of these environments will need to be hosted in the Atosphere, this document will go on to look at each environment and examine which elements are at either an Atos location, the customers location or in the Atosphere.



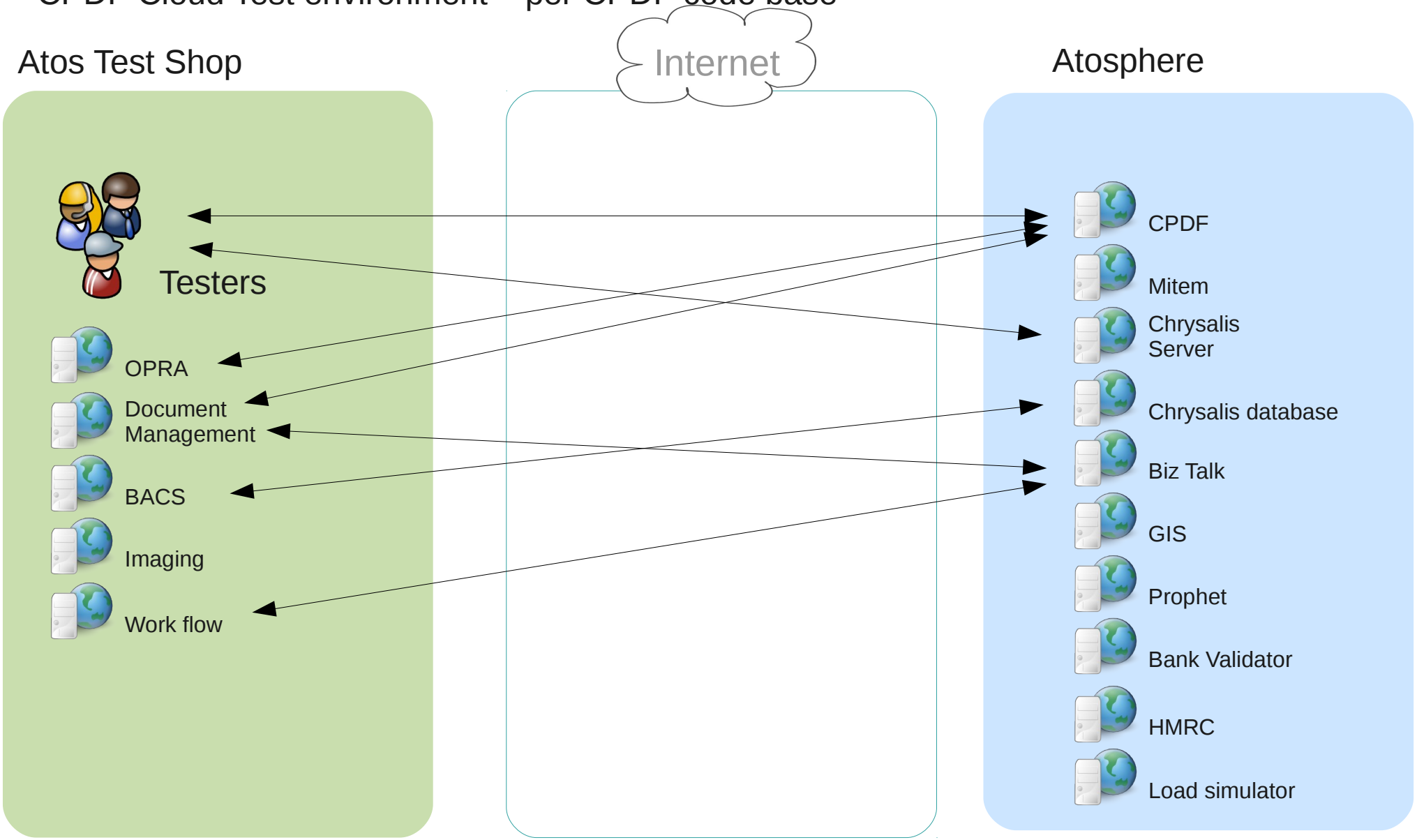
CPDF Cloud Collaboration environment



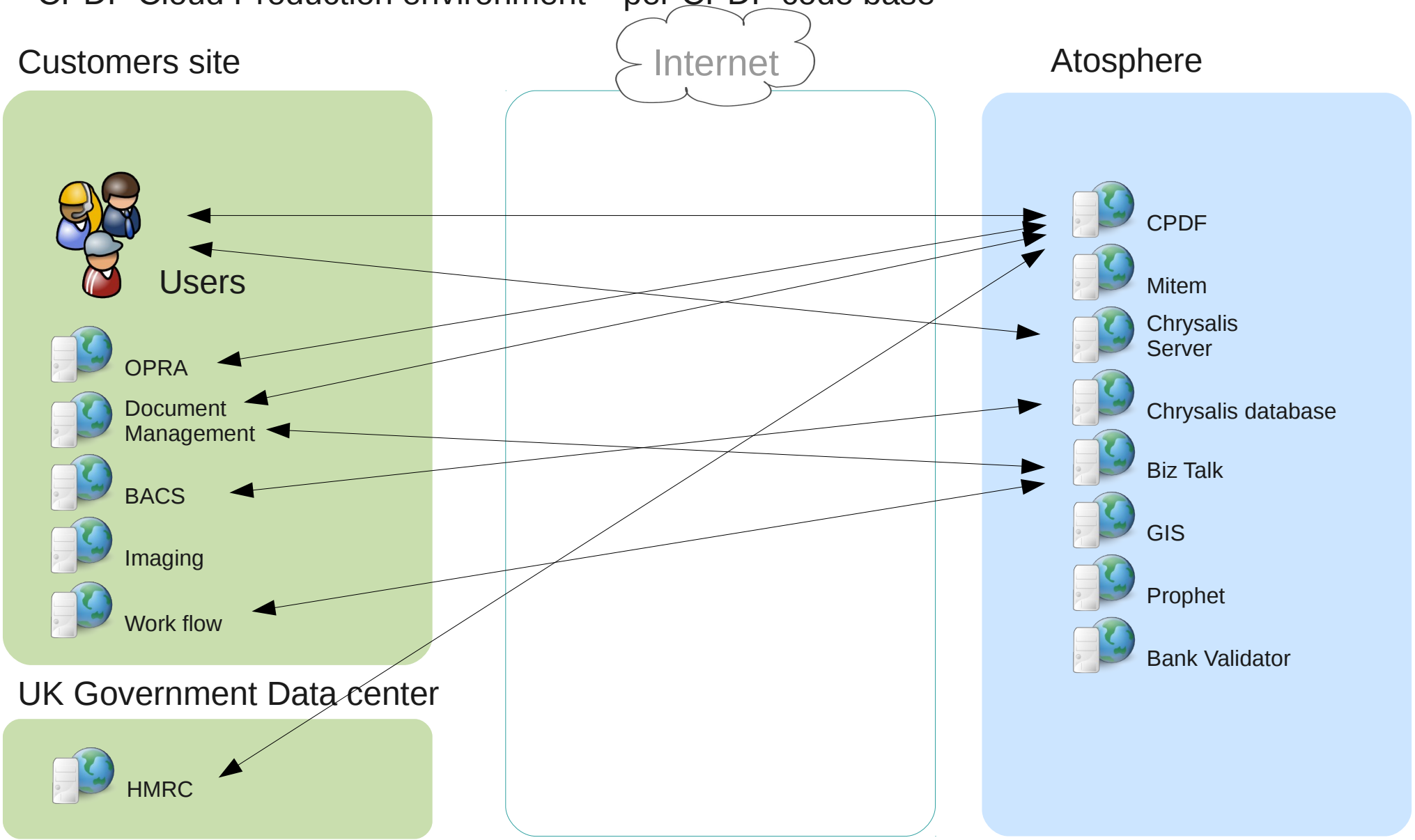
CPDF Shadow environment – per CDPF code base



CPDF Cloud Test environment – per CPDF code base



CPDF Cloud Production environment – per CPDF code base



Determining the costs

Total Cost =

Cost per interface

```
for each interface
    Cost += bandwidth cost
    Cost += latency
end
```

Show stopper > protocol

Show Stopper > Legal

+

Cost per interface

```
for each entity
    Cost += processor
    Cost += memory
    Cost += storage
    Cost += license
end
```

Show stopper > OS

Also important

Benefits we need to cost

Flex cost reduction

Growth cost reduction