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Students Taking COBOL to the Next Generation

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Expanding Access to COBOL Education

Joshua Fogus

How a Student Modernized a Legacy Banking Application

Sudhanshu Dubey

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How a Student Modernized a Legacy Banking Application

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How a Student Modernized a Legacy Banking Application

The brief **Process**

An **Inexperienced but Curious** person

A **Progressive Change** => Application Modernisation

A demo application written entirely in **COBOL** and running completely on **Mainframe**

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Why Application Modernisation?

For business critical applications **change** should:

1. be gradual.
2. be carefully planned and precisely controlled
3. have low cost and very low risk.

Application Modernisation

How COBOL Modernisation?

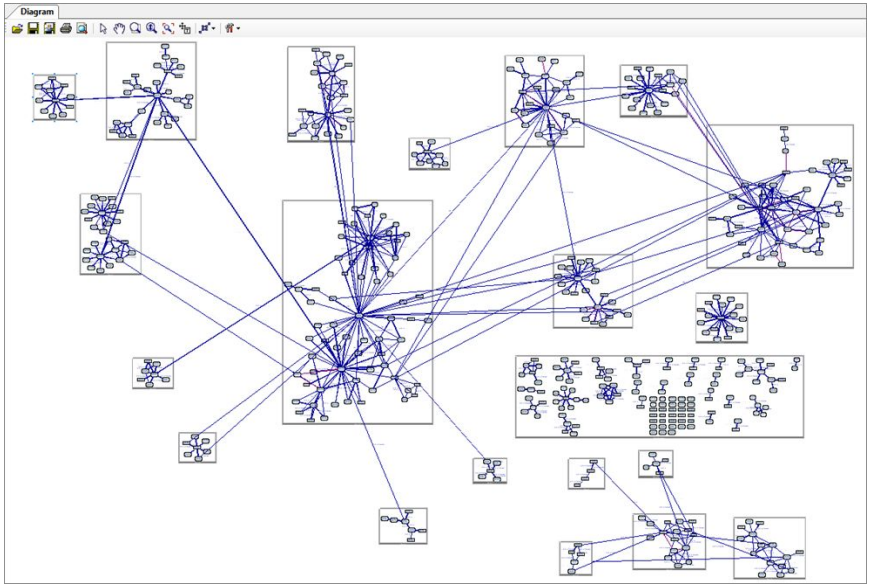
1. Analysing the COBOL Application.
2. Identifying services candidates
3. Isolating and exposing them as services
4. Connecting them to a new, modern UI

Analysing the COBOL Application

1. Analysing means:
   I. Understanding the architecture of the code.
   II. Extracting business rules.
2. Business rules are advanced way of documenting the code with additional info like the overall action that a set of lines perform.
3. This is done using Micro Focus Enterprise Analyzer.
4. For more info watch this video.

Identifying Services Candidates

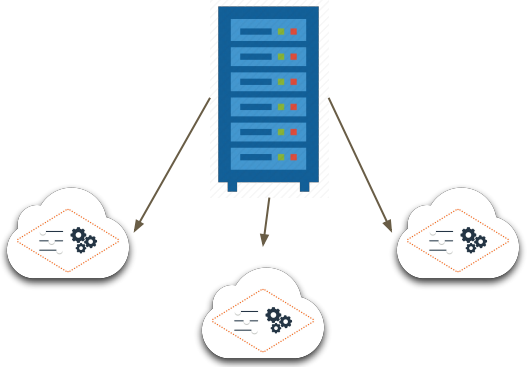
1. Candidates are identified based on:
   I. high business value
   II. low degree of required code changes
2. The result should be minimal required testing, increased speed, and lower risk.
3. We can use Call Map, Source Dependencies, and Data dependencies views, etc provided by Micro Focus Enterprise Analyzer to pick the candidates.



Micro Focus Enterprise Analyzer call map with automatic clustering.

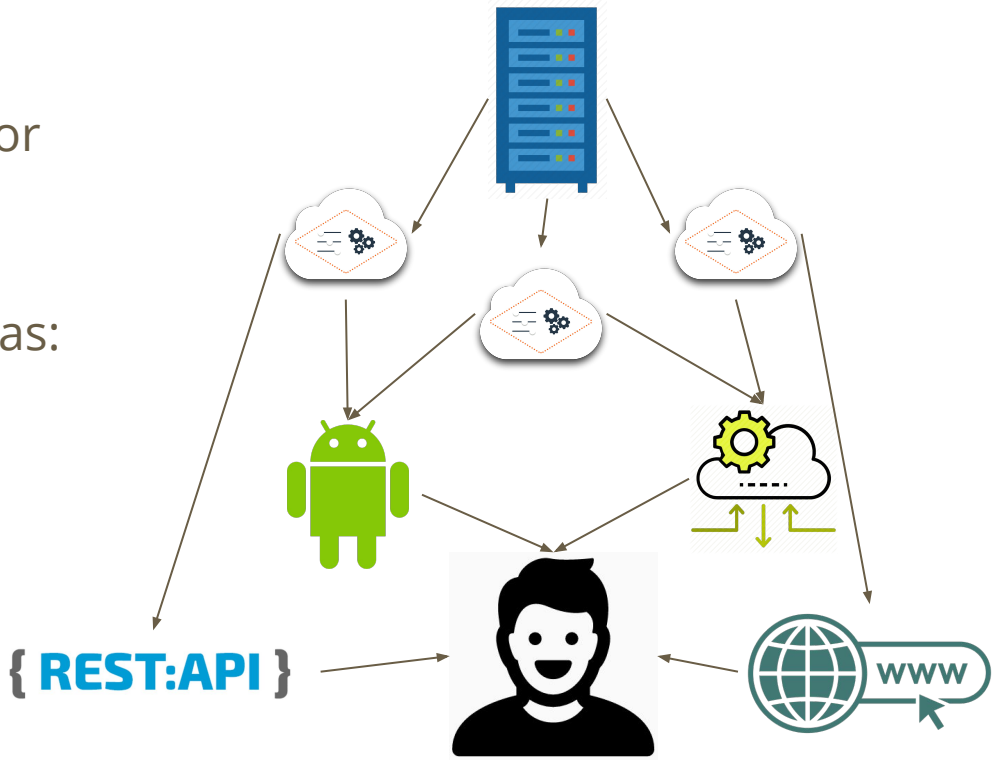
Isolating and Exposing them as Services

1. Once the service candidate is clearly defined, the needed resources are gathered, and they are safely extracted and isolated.
2. Micro Focus Enterprise Developer is very helpful in this.
3. The service's resources can be deployed together with the rest of the workload monolith or onto separate compute instances.

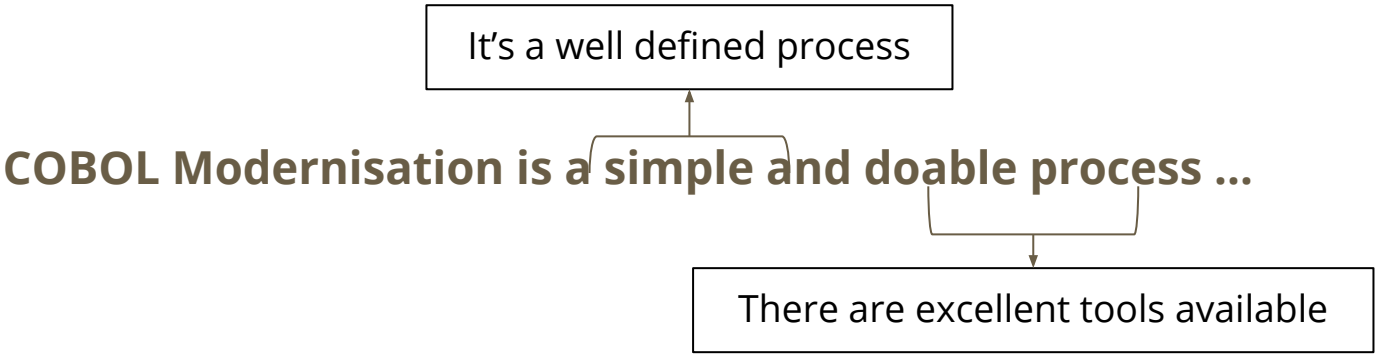


Connecting them to a New, Modern UI

1. Next, we create the interface for the services.
2. We have multiple options to create and expose the service as:
   i. Web service
   ii. RESTful service
   iii. Android apps



Conclusion



… and it’s URGENT!

[FDIC chief cites legacy systems as ‘No. 1’ concern for banks]

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Watch this story develop...

Regular blog updates www.openmainframeproject.org/news/blog

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