

# IFRS 9 IT ARCHITECTURE

## Go Strategic or Tactical ?

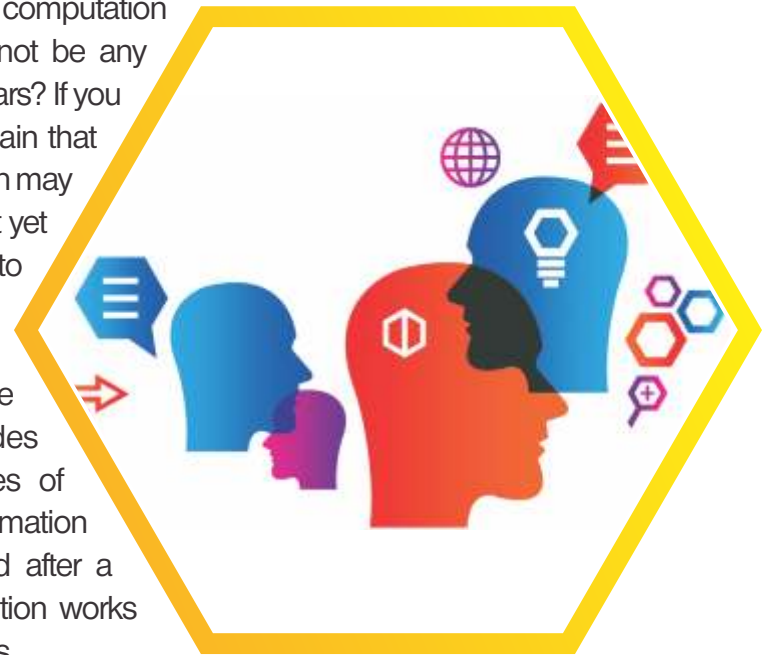
Mind the the 4Rs before deciding –  
Readiness, Reflectiveness, Redundancy, Regularity.



As the race against time to comply with IFRS 9 guidelines begins, several software solutions are being bandied about as a quick fix solution for automating the entire impairment modelling process. While automating is definitely the way to go in initiatives such as these, the question remains as to whether the software architecture should be of a strategic integrated nature or one that is decoupled and modular. The former assumes that the solution for IFRS 9 is of a fixed frame nature, whereas the latter recognises that the methodologies are likely to evolve over time, and hence lends itself a greater amount of flexibility. The modular architecture allows for each component to perform its tasks independently of the others, while also enabling structural as well as modular changes. In Expected Credit Loss computation, that the methodologies are likely to evolve over time is a reality no banker worth his salt can deny; banks will move from simpler approaches to more complex, albeit risk sensitive approaches. In such scenarios, should the bank have as its goal - the automation of the currently chosen methodologies, or plan ahead for a future where the methodologies are likely to change? The answer to this lies in the 4Rs question:

## READINESS

How 'ready' are you with the expected credit loss computation methodologies? How certain are you that there will not be any changes to the methodologies adopted in the initial years? If you are indeed ready with the methodologies and are certain that there are no impending changes, then a strategic solution may indeed be the need of the hour. However, if you are not yet ready or believe that the methodologies are likely to change over time, then a modular approach may be more suitable. We at Aptivaa believe that the need of the hour is a software architecture that is sympathetic to the evolving ECL modelling landscape and provides transparency and flexibility to adopt various degrees of modelling sophistication. Moreover, the level of automation envisaged for data feeds should only be considered after a diligent cost benefit analysis. Strategic integrated solution works best with prescriptive solutions like the Basel III calculators.



**If you are not yet ready, or believe that the methodologies are likely to change over time, then a modular approach may be most suitable**

Strategic solutions being offered by various vendors are notoriously difficult to configure or make changes to, and are extremely resource intensive. In the past, for principle based unstructured areas like ICAAP and Stress Testing (CCAR), banks have adopted a tactical modular distributed architecture. We believe that same will be case with IFRS 9 initiatives.

## REFLECTIVENESS

While Auditability, and traceability are other key criteria, the output of each stage should be easily analysable, lending itself to further deliberation and 'reflection', providing users with the flexibility to check and calibrate the outputs before being used by the downstream modules. User access and control is as much an important criteria as automation. In the initial stages of this compliance exercise, data availability for estimation of various risk components will be an issue. Banks will require judgemental overrides both at a data as well as at a methodology level. A strategic, integrated solution is not likely to be flexible to support such requirements. For such situations, again, a decoupled or a loosely coupled modular approach is better than an integrated hardwired solution. The solution should allow the business users to check the data inputs and outputs for each of the underlying models used in the ECL computation so that validation, error resolution and judgemental overrides (based on management decision) can be performed at each level of ECL computation with proper audit trails and access controls.





## REDUNDANCY

Are you already struggling to maintain a plethora of solutions that seemingly do very similar tasks? Yes, Redundancy is another major factor to be considered. Banks should avoid creating parallel infrastructure. Most banks have already invested in infrastructure and analytics tools for PD, LGD, and EAD estimation as well as for stress testing. Adding another integrated solution would be duplicating efforts already taken. The focus should rather be on leveraging existing infrastructure, which can be achieved through a modular approach.



## REGULARITY

Are you looking to (re)generate ECL computation results on a daily basis? If the answer is Yes, then you would indeed want a fully integrated strategic solution. However, in our experience, the frequency or regularity of usage is quarterly or maybe monthly at best. In such circumstances, traditionally tactical modular architecture based solutions work better. A proven example being CCAR reporting solutions being offered in the US for quarterly and annual stress testing, which are highly modularised to offer flexibility for ever-changing methodologies.

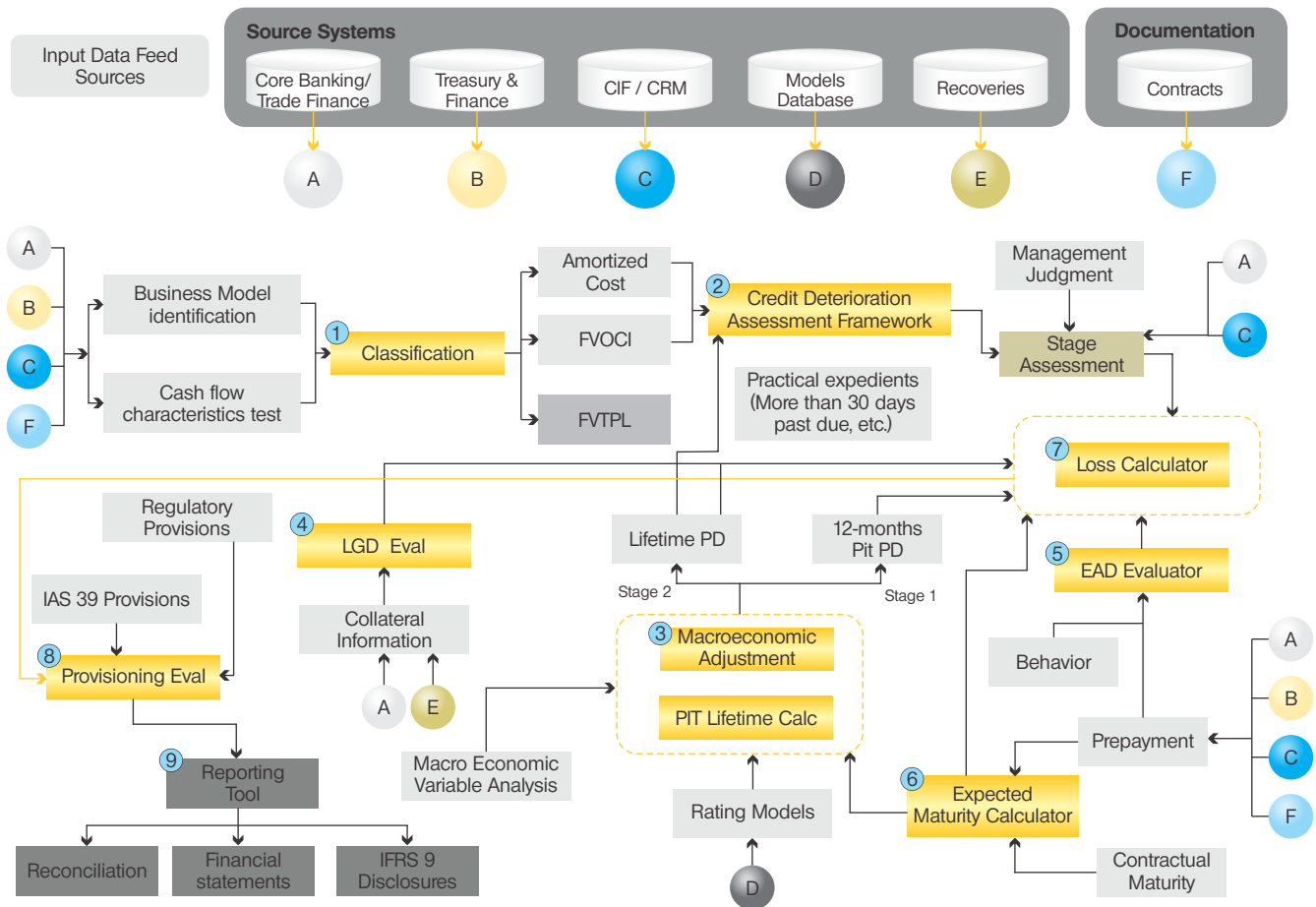


**The focus should rather be on creating infrastructure that can leverage the existing infrastructure, which can be done only through a modular approach.**



# TYPICAL ARCHITECTURE

Shown below is the typical data flow and the IT Architecture for IFRS 9. The modules in Yellow are various IFRS 9 components that need to be implemented by the bank, and as one can see the modules are closely tied to existing Basel architecture at various banks. Banks looking to adopt the existing Basel infrastructure should definitely go for a modular approach.



## About Aptivaa

Aptivaa is a vertically focused risk and compliance professional services firm delivering risk management solutions to the global financial service industry. Aptivaa has a team of best-in-class professionals spread across its worldwide offices. Aptivaa has achieved significant milestones in its journey so far, emerging as a leading risk management solutions firm with 100+ global clients comprised of highly respected names in the financial service industry.

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