

Designing a Flexible Services Based Architecture for Internet Applications

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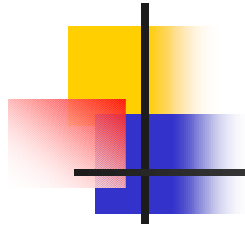
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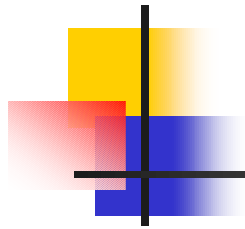
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October 17, 2000

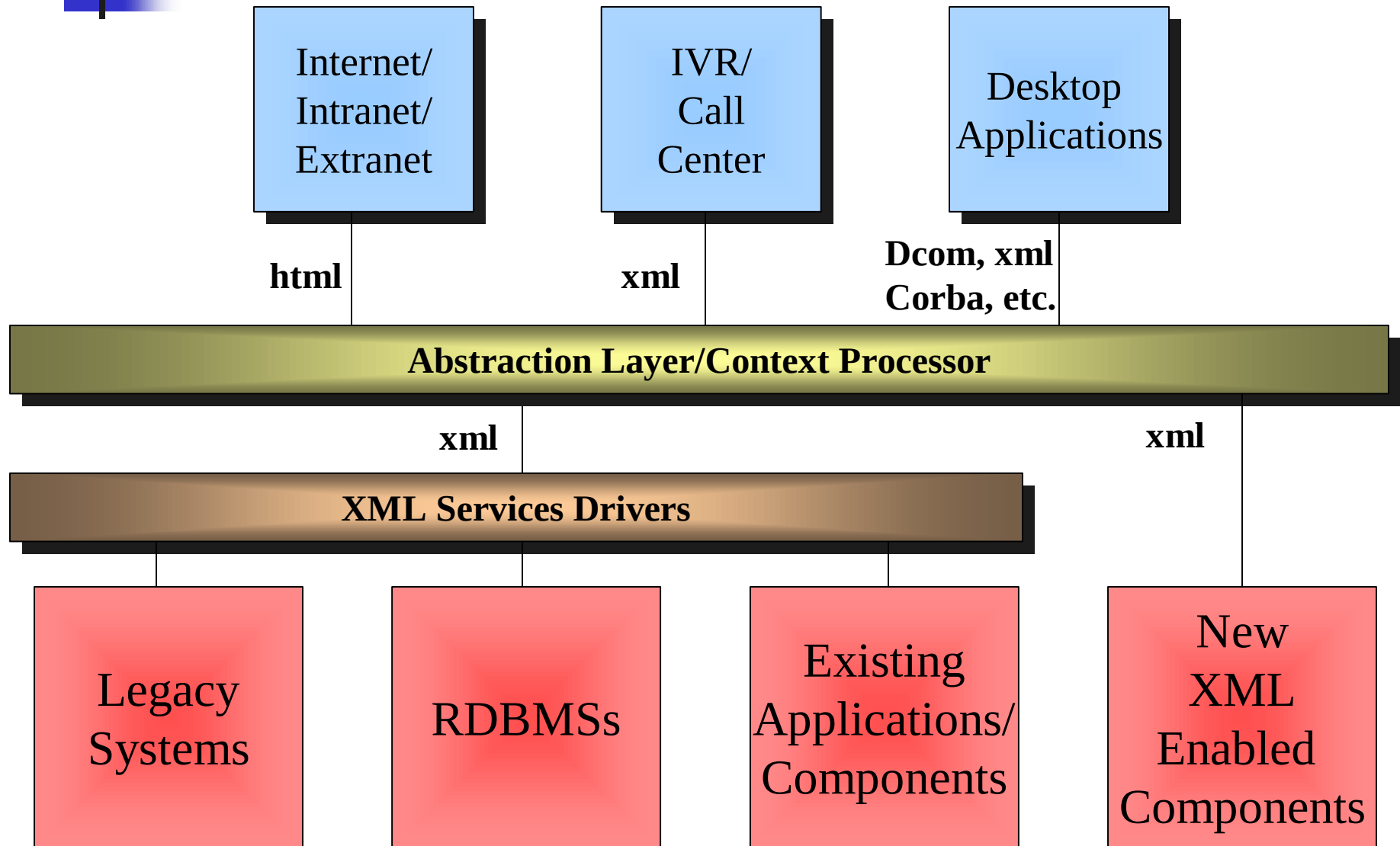


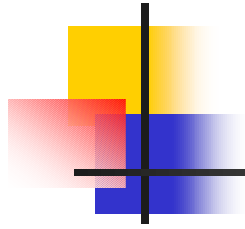
Agenda

- ✍ Scope of the Problem
- ✍ Architectural Goals
- ✍ Architectural Abstraction
- ✍ Current Implementation Architecture
- ✍ Context Processing Layer
- ✍ Business Logic Layer
- ✍ Services View
- ✍ Implementation Genealogy
- ✍ Lessons Learned



Scope of the Problem

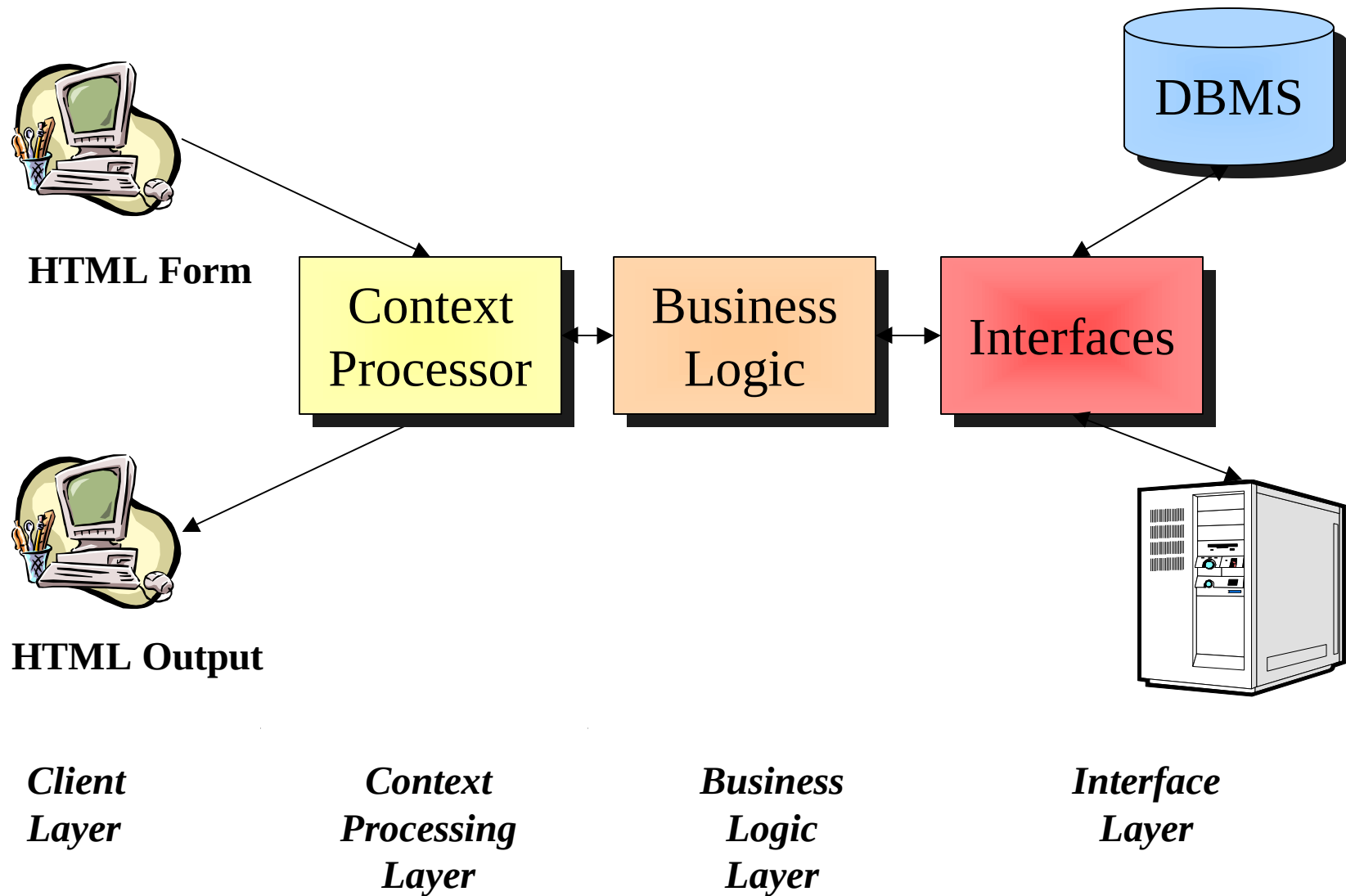


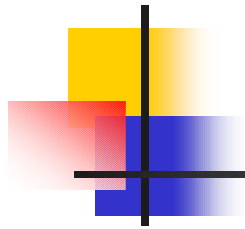


Architectural Goals

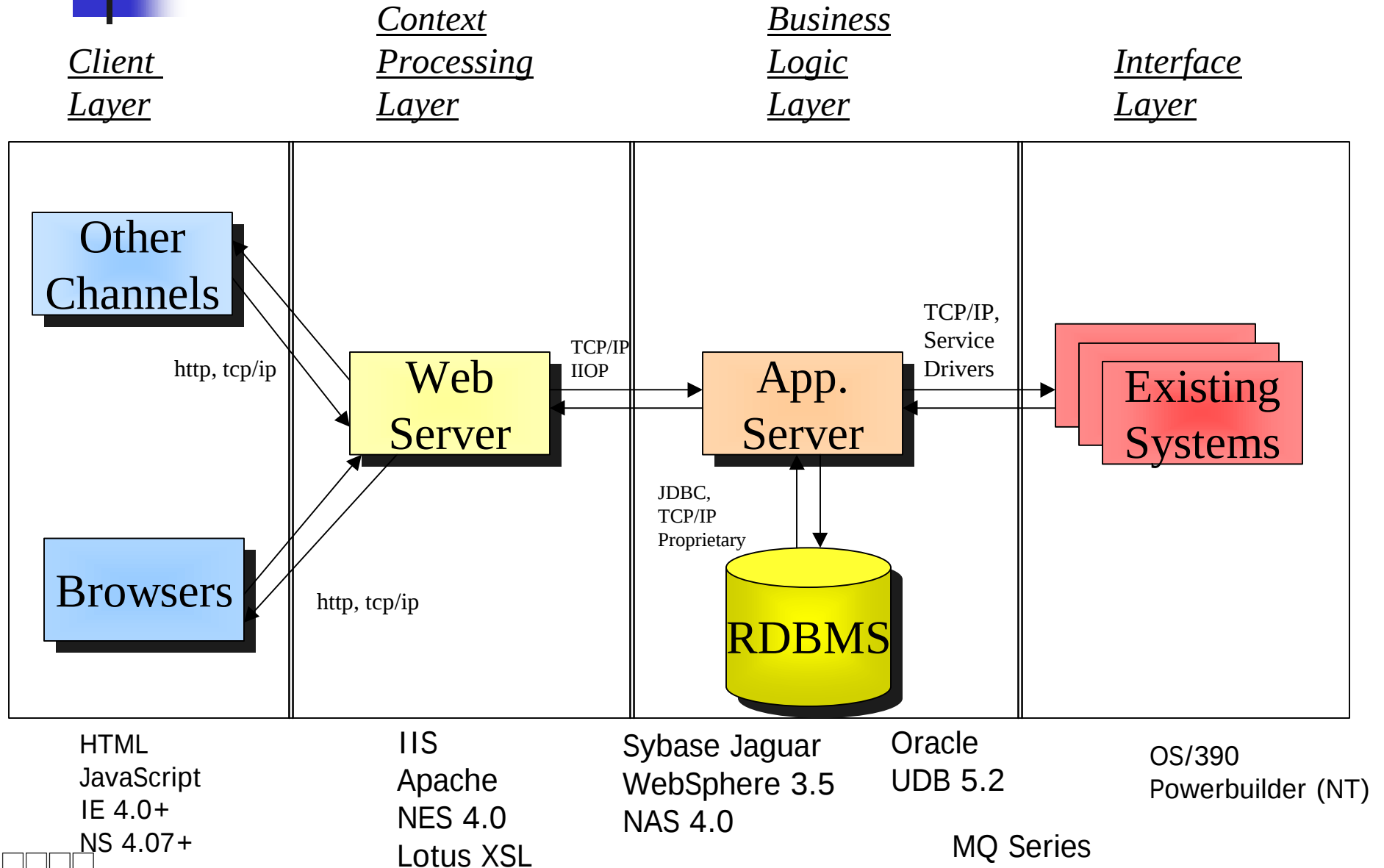
- ✍ Provide consistent treatment of services across all access channels
- ✍ Be scalable, flexible, adaptable and extensible to support a changing business environment(not to mention a changing technology environment)
- ✍ Support a consistent strategic architectural vision
- ✍ Reduce the cost of technology ownership
- ✍ Leverage existing assets
- ✍ Leverage/Enhance/Buy/Build
- ✍ Support short-term tactical implementations in support of a long-term vision

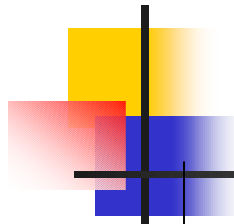
Architectural Abstraction





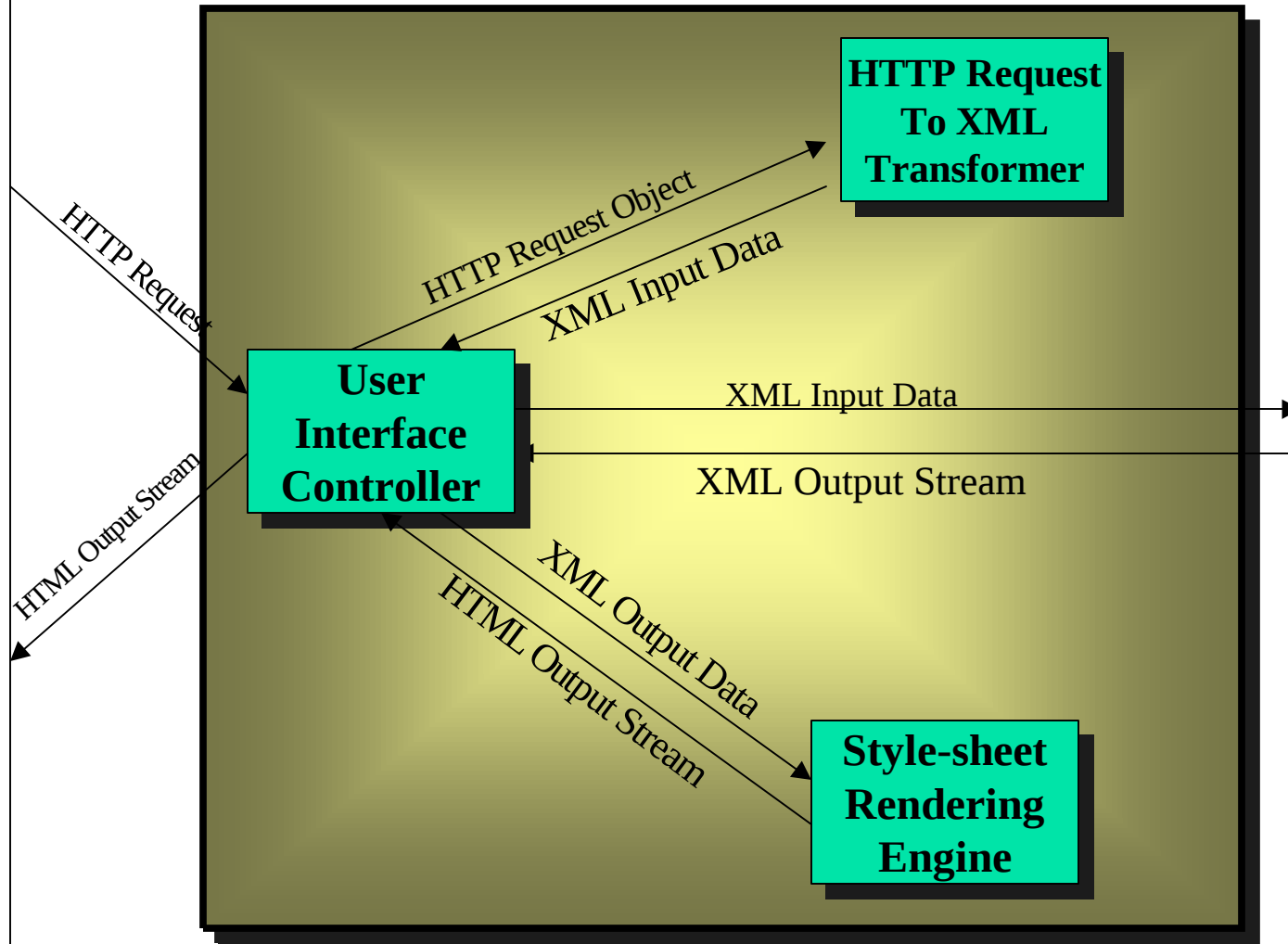
Current Implementation Architecture(s)



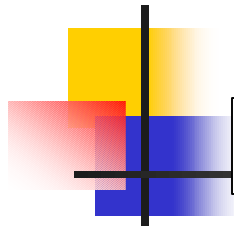


Context Processing Layer

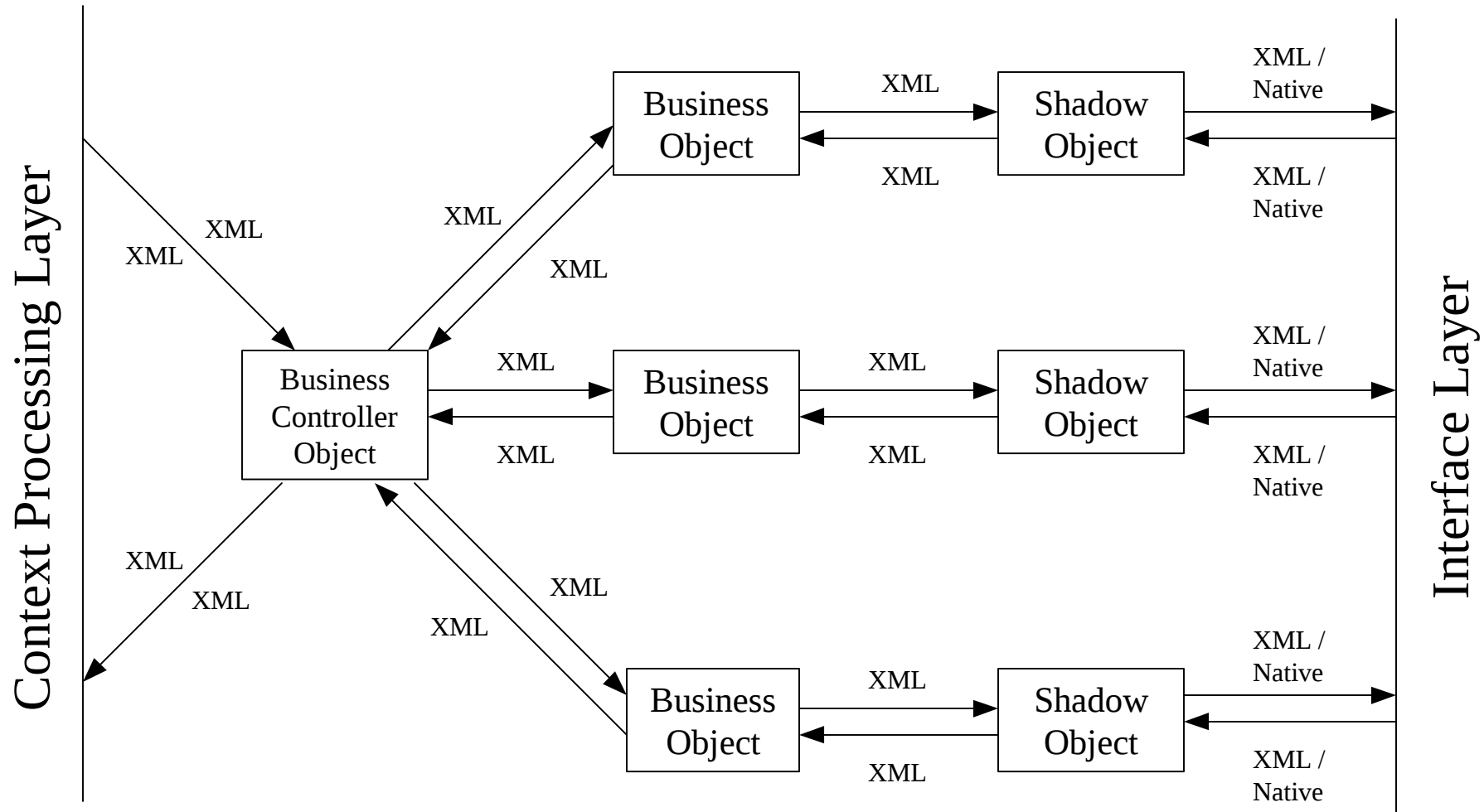
Client Layer

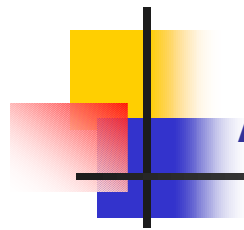


Business Rules Layer

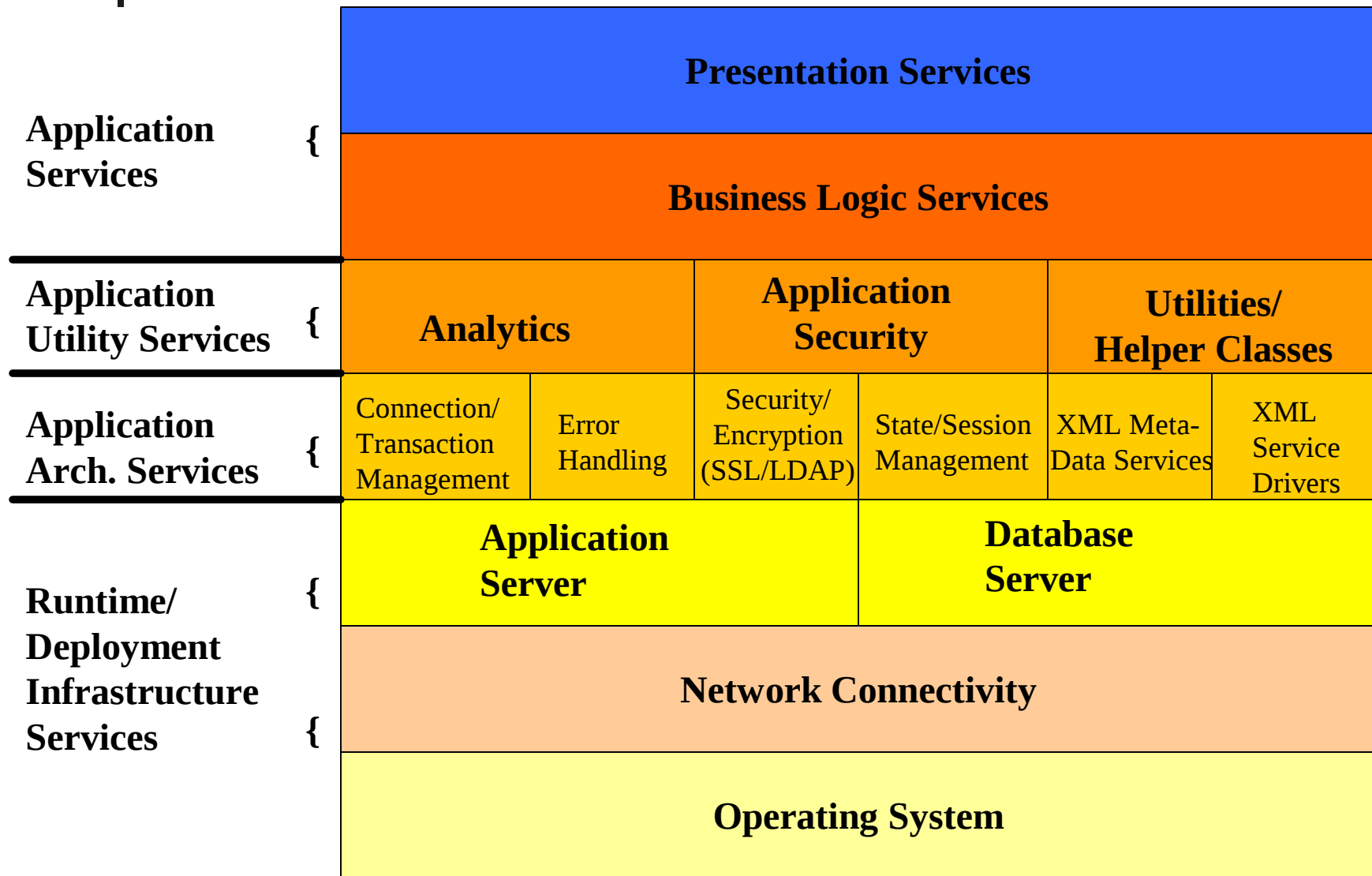


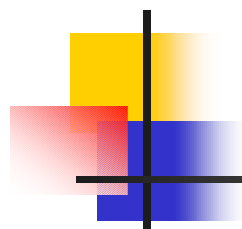
Business Logic Layer





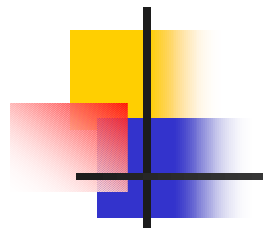
Application Service Architecture





Implementation Genealogy

Iteration	Context Processing Functions	Implementation	Messaging	Application Server Components	Implementation
1	Function Routing XML/XSL Merge	MS VB DLL	XML	Business Only	COM VB Components
2	Function Routing Name/value pair conversion	MS VB DLL, Java Script	Native	Business Only	Java Servlets
3	Function Routing XML/XSL Merge	MS VB DLL	XML	Business Only	Java Servlets
4	Function Routing XML/XSL Merge	Java Servlet	XML	Business Only	Java Servlets
5	Function Routing	Java Servlet	XML	XML/XSL Merge	Java Servlets
6	Function Routing	Java Servlet	XML	Business XML/XSL Merge	EJBs



Lessons Learned

- ✍ Provide consistent treatment of services across all access channels
 - ✍ 2 week implementation of IVR from browser based channel
- ✍ Be scalable, flexible, adaptable and extensible to support a changing business environment
 - ✍ Environments supported, stress test results
- ✍ Support a consistent strategic architectural vision
- ✍ Reduce the cost of technology ownership
- ✍ Leverage existing assets
 - ✍ Legacy systems supported
- ✍ Leverage/Enhance/Build/Buy
 - ✍ Integrate with Vignette, Oblix, BowStreet, e.Piphany, Chordiant
- ✍ Support short-term tactical implementations in support of a long-term vision
 - ✍ MyBenefits vs. Hyatt Enrollment
- ✍ Other “gotchas ”
 - ✍ Develop process for communicating XML contracts up front
 - ✍ Object model to data model to code
 - ✍ XML is preferred when the component clearly will be exposed/re-purposed
 - ✍ Scalability is dependent upon application design as well as infrastructure tools chosen (i.e., WebSphere)
 - ✍ HTTP get vs. http Post