Nuxeo 5 Architecture

The Big Picture

Nuxeo 5 – Initial Scope

- Nuxeo 5 adresses the whole scope of ECM
  - Document Management
  - Collaboration
  - Record Management
  - Business Process Management
  - Retention Management & Archiving
  - Compliance Management
  - Search & Indexing

Nuxeo 5 – Overview

- A platform for building custom ECM solution
  - Generic services with an « extension and customization » model
  - A framework for building ECM applications

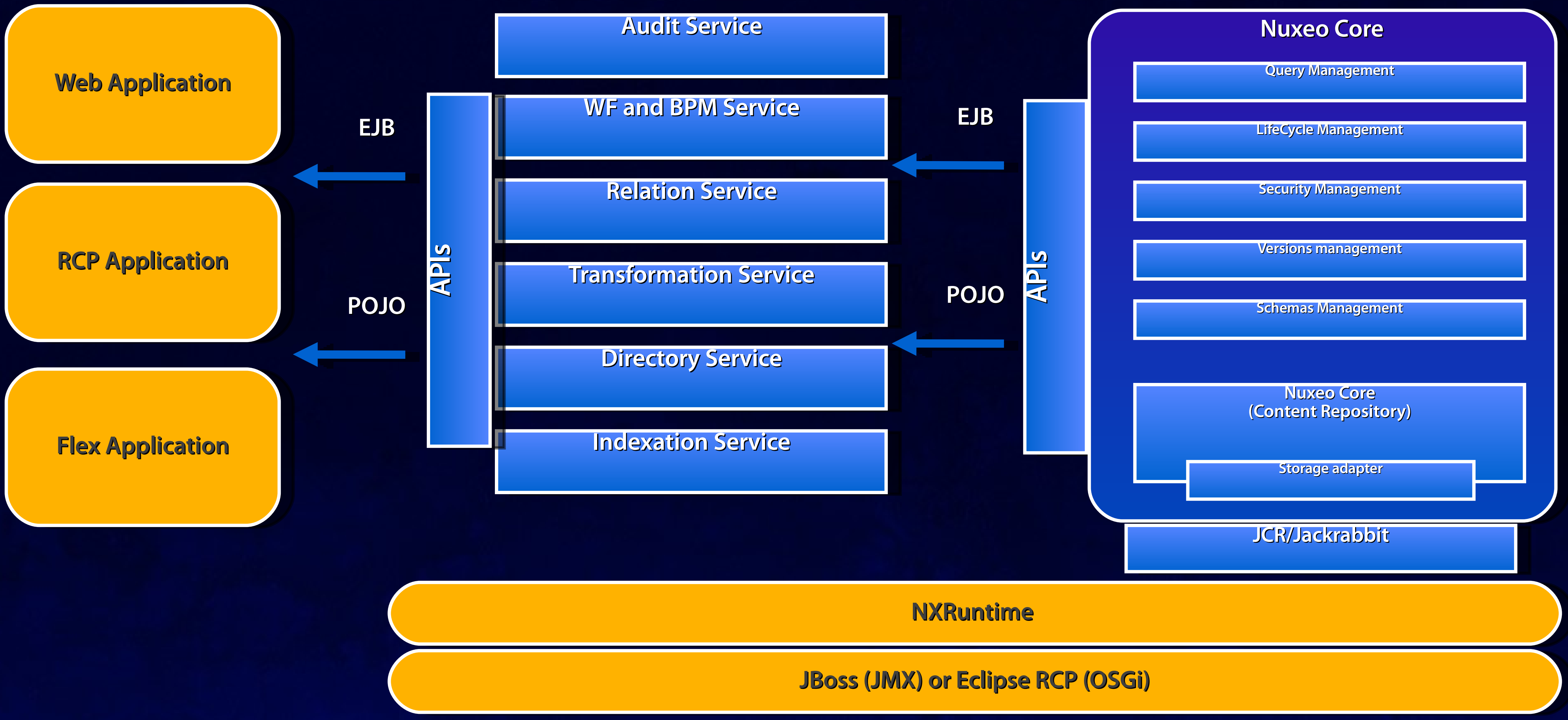
- The Java 5 version of CPS 3.4
  - Keep the proven concepts of Zope/CPS *(2000 -> 2006)*
  - Leverage the Java 5 infrastructure

- A multi-platform and multi-target ECM solution
  - Thin client: Java EE Web application – Nuxeo 5 EP
  - Rich client: Eclipse RCP application – Nuxeo 5 RCP
  - Client/Server: RCP client with JEE server

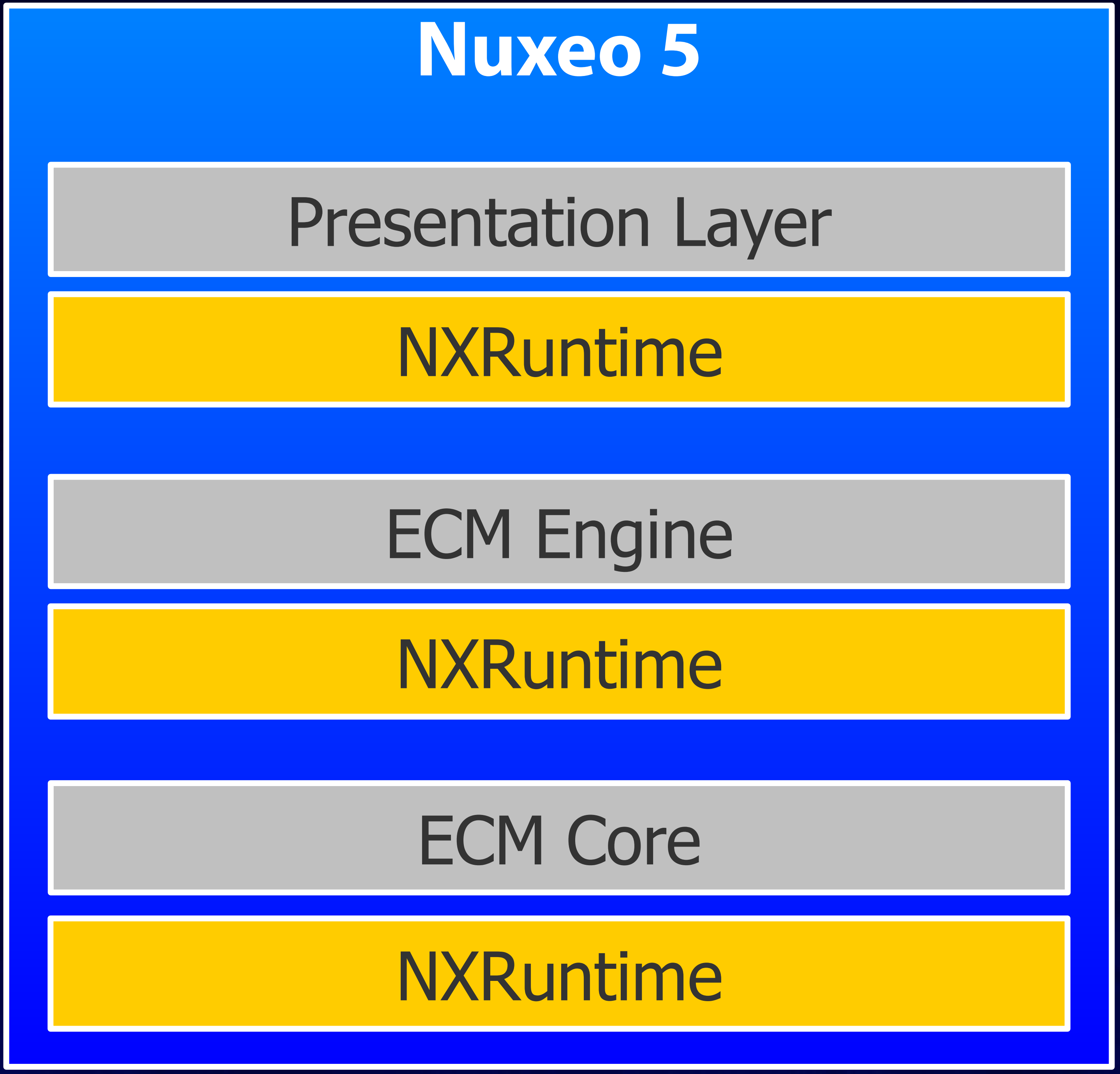
Nuxeo 5 – Layered Architecture

- Core Layer: Embeddable document repository
  - Storage-oriented services + plugin model
  - Repository API: POJO and ejb3
- Service Layer: a extensible set of ECM services
  - Generic and configurable services + extension model
  - Services API: POJO and ejb3
- Client Layer: UI management
  - Links services together to achieve business specific needs
  - Uses Services Layer and Core Layer API
  - Clients can be
    - Web application
    - RCP Application
    - Flex client

Nuxeo 5 Layers



Nuxeo 5 Layers



Nuxeo 5

UI &
Navigation

Presentation Layer

NXRuntime

Views
User actions

Logic &
Process

ECM Engine

NXRuntime

Services
Behavior

Storage

ECM Core

NXRuntime

Data

Layers

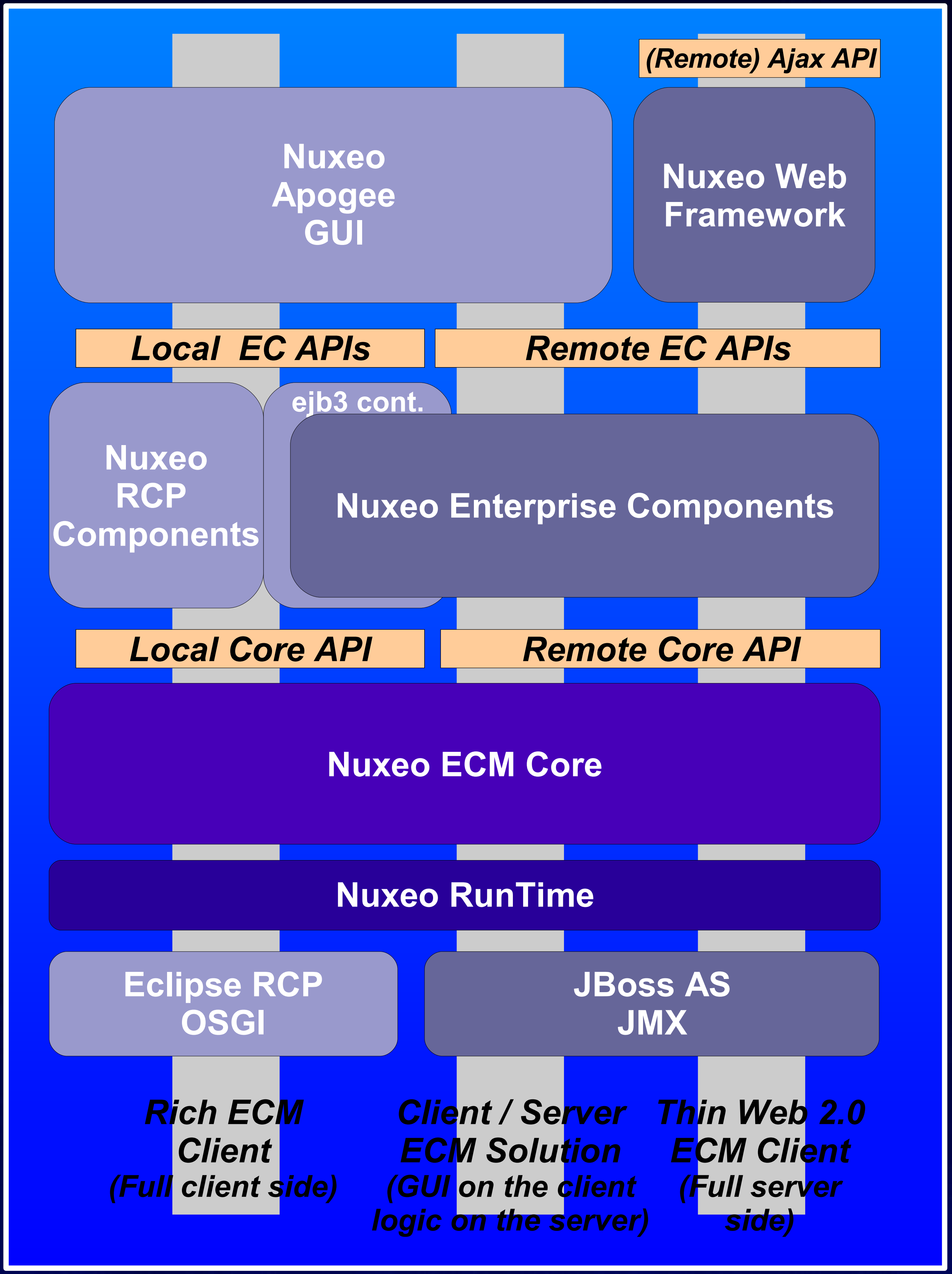
- Job Separation
  - Document storage handled by the ECM Core
    - ex : eMail document storage
  - All logic handled by the « Logic Layer »
    - ex : Mail extraction, creation, sending ...
  - All presentation handled by the « Presentation Layer »
    - ex : WebMail, Send via mail, Mail display ...

Layers

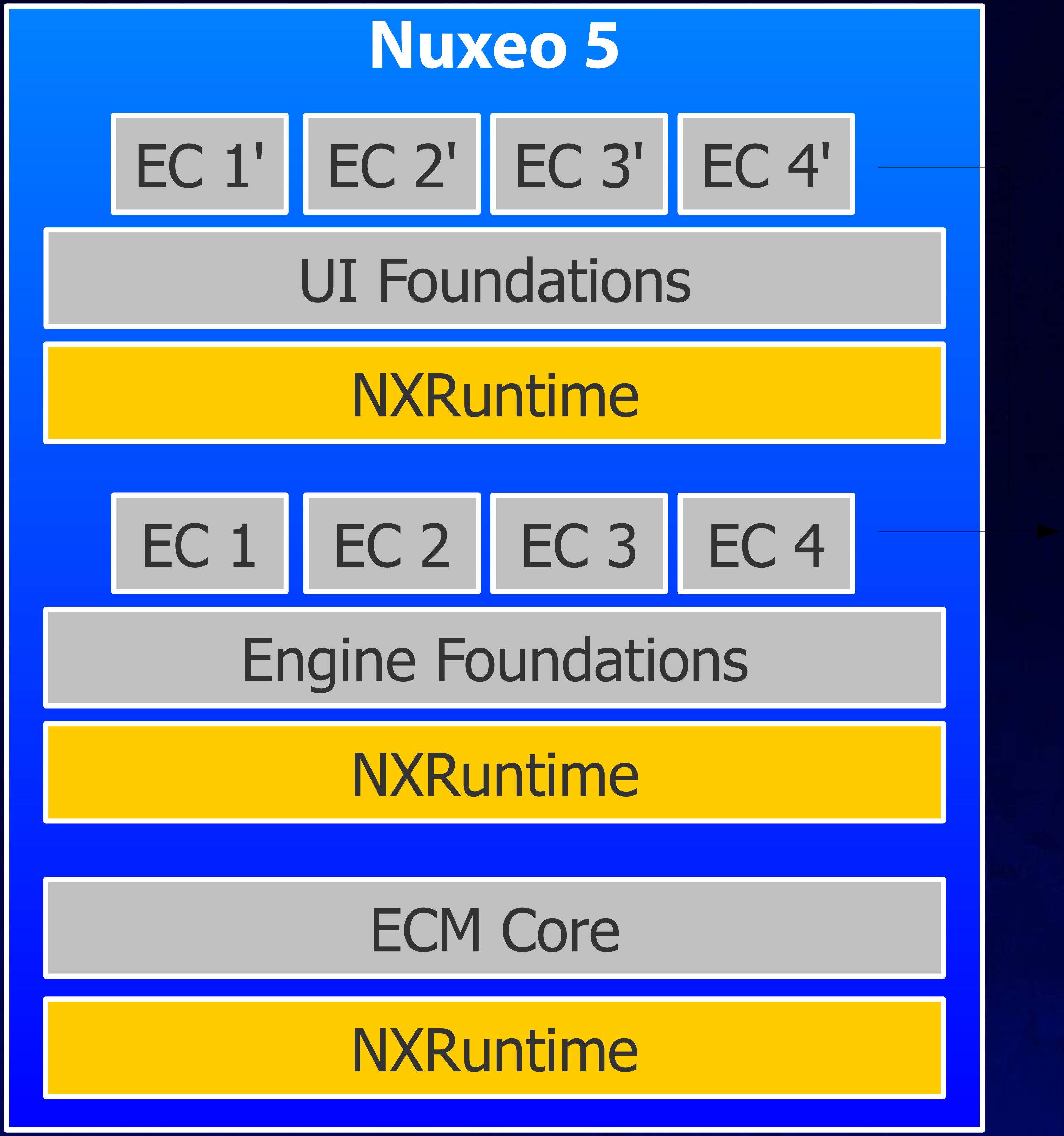
- Each layer provides it's own set of API
  - Core level
    - Monobloc, service-oriented API
  - Logic layer
    - Compound API for the services and content objects deployed
  - UI Layer
    - Compound API on UI controlers (AJAX, EJB3, WS)

- Each layer leverages NXRuntime
  - For extensibility
  - For application composition (component association directives)
  - For deployment abstraction (when needed)

Layers


(Remote) Ajax API
Nuxeo Apogee GUI
Nuxeo Web Framework
Local EC APIs
Remote EC APIs
Nuxeo RCP Components
ejb3 cont.
Nuxeo Enterprise Components
Local Core API
Remote Core API
Nuxeo ECM Core
Nuxeo RunTime
Eclipse RCP OSGI
JBoss AS JMX
Rich ECM Client (Full client side)
Client / Server ECM Solution (GUI on the client logic on the server)
Thin Web 2.0 ECM Client (Full server side)

Enterprise Components and Foundations



Presentation Layer

ECM Engine

Enterprise Components

EC and Layers : the WF example

- org.nuxeo.ecm.platform.ec.workflow.web.*
  - views, controleurs and delegates

Web Layer
EJB3 + Facelets

- org.nuxeo.ecm.platform.ec.workflow.document.*
  - Workflow -> documents integration services
- org.nuxeo.ecm.platform.ec.workflow.api.ejb.*
  - EJB3 facade on top of API's POJO impl

Service Layer
EJB3

- org.nuxeo.ecm.platform.ec.workflow.api.*
  - API (interfaces)
- org.nuxeo.ecm.platform.ec.workflow.*
  - API's POJO Implementation + SPI
- org.nuxeo.ecm.platform.ec.workflow.jbpm.*
  - JBPM adapter

Service Layer
POJO / Runtime services

- org.nuxeo.ecm.core.lifecycle.*
  - LifeCycle implementation

Core Layer
POJO