IBM Case Manager 5.2.1 and Architecture Overview

Business Partner Field Enablement Workshop

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Objectives

This lesson is designed to enable you to:

- Understand the business value of the new capabilities in IBM Case Manager 5.2.1

- Overview and architecture for typical environments

- Prepare for the remaining sessions and labs in this workshop

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Key Themes and Customer Benefits

- **Streamlined Software Management and Deployment**
  - Reduction in loosely coupled, separately managed components will significantly reduce complexity and troubleshooting that negatively impact time to value
- **Enhanced Solution Development**
  - Deliver faster time to ROI by making it easier to design, build and deploy case solutions
- **More Case Centricity**
  - Providing case workers with more visibility into the state of a case and offering additional capabilities to drive cases to successful outcomes
- **Much More Flexible and Extendable Case Client Application Platform**
  - Deliver a client application platform that is consistent with other ECM solutions and allows much more reuse of existing components when customizing or extending

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Streamlined Software Management and Deployment

Built On P8 5.2 Platform	Simplified Install and Deployment	Web Based Administration

Enhanced Solution Configuration

Built-in Page and Data Layout Designer	Built-in Rules	Collaborative Solution Design

More Case Centricity

Case Visualizer	Case Worker Defined Task Flows

Much More Flexible and Extendable Case Client Application Platform
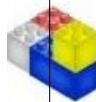
Enhanced Case Client UI	Content Navigator document capabilities	Widget enhancements & Case Operations
Case Client UI Toolkit	Mobile Case Client	Expanded Platform Support

Streamlined Software Management and Deployment
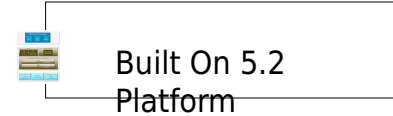
Built On 5.2 Platform

Simplified Install and Deployment
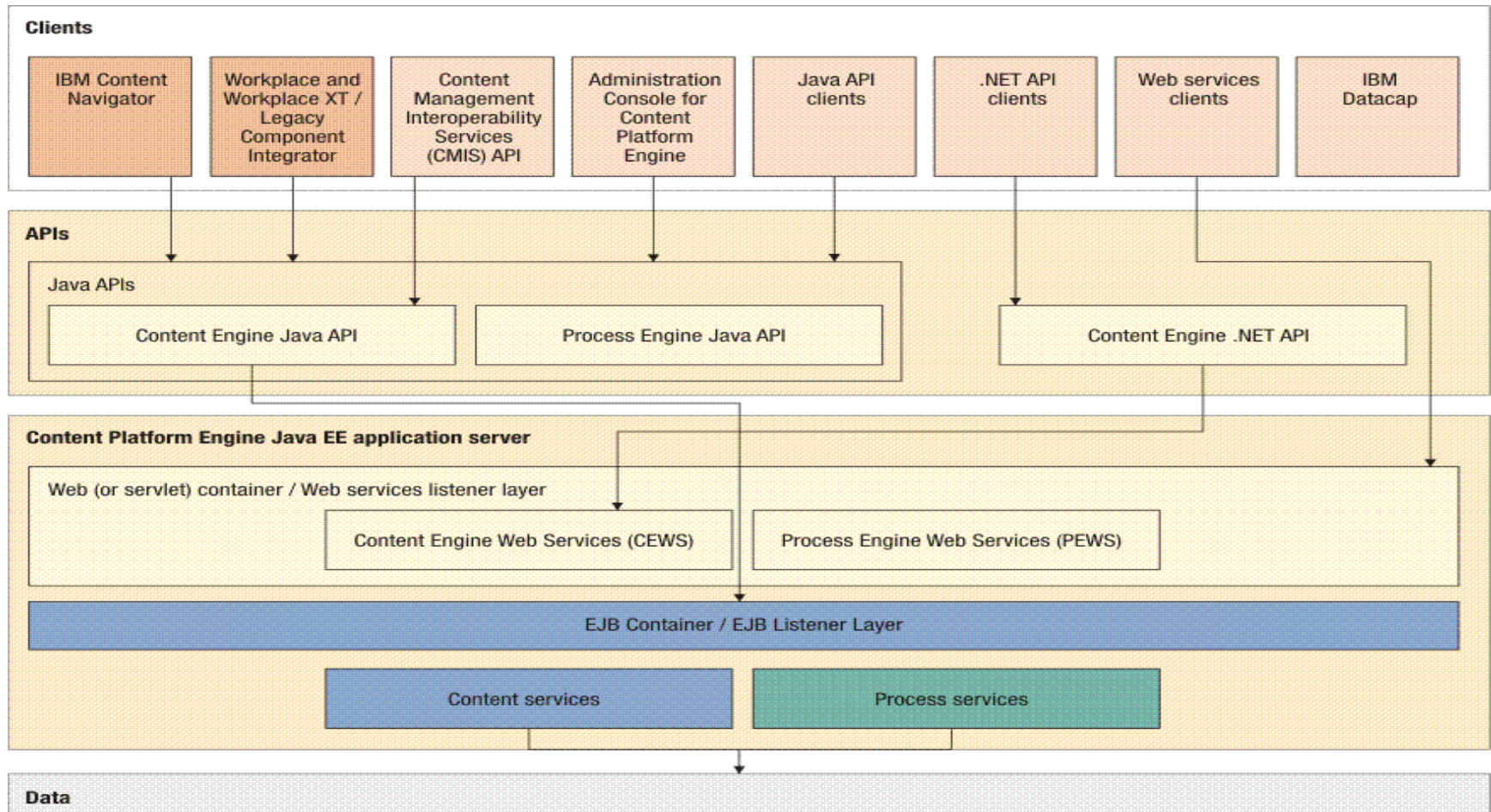
Web Based Administration

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Built on the 5.2 Platform

Significant reduction in effort and cost to plan, install and maintain ECM services for enterprise scale deployments
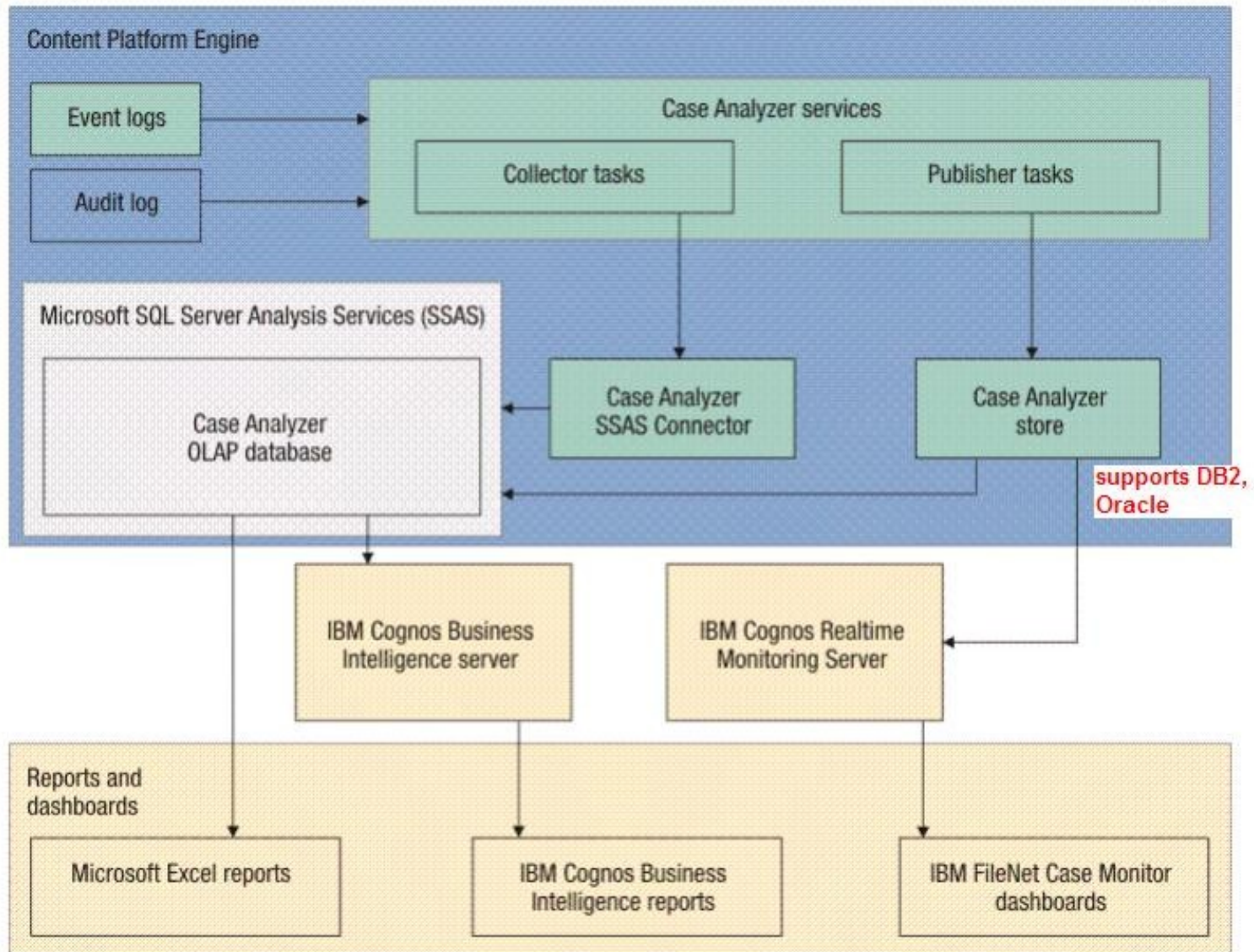
- Unified Content and Process server (CPE)
- Single installer for CPE
- Web-based administration client (ACCE)
- Components that previously were separate now run in CPE EAR
  - Component manager services
  - Case Analyzer services (collector/publisher)
- Case Analyzer services now support Linux/Unix
- Additional enhancements for IBM Case Manager

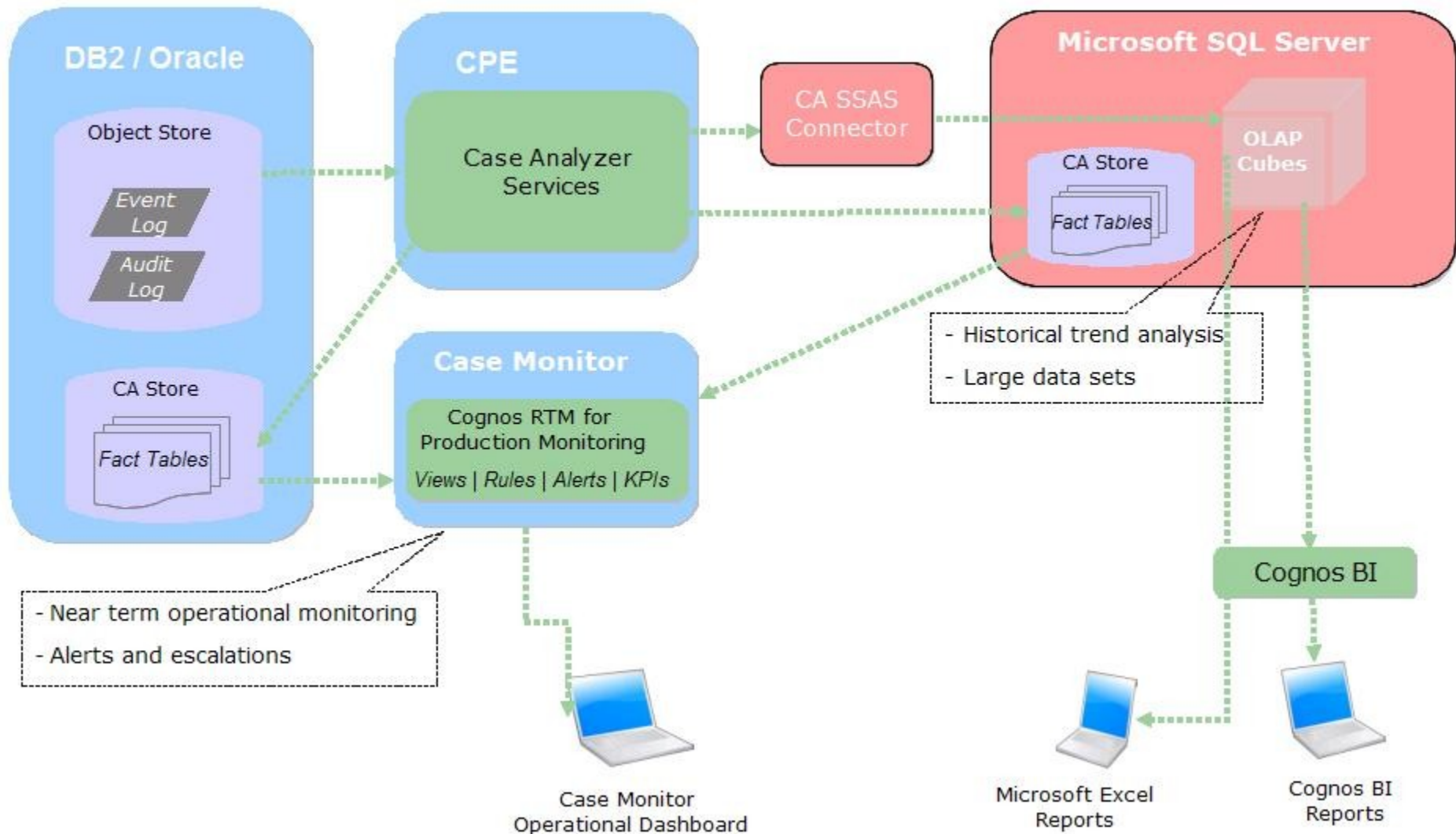# Content Platform Engine Architecture

CPE 5.2 – Case Analyzer as a publishing service

Content Platform Engine

Event logs

Audit log

Case Analyzer services

Collector tasks

Publisher tasks

Microsoft SQL Server Analysis Services (SSAS)

Case Analyzer OLAP database

Case Analyzer SSAS Connector

Case Analyzer store

supports DB2, Oracle

IBM Cognos Business Intelligence server

IBM Cognos Realtime Monitoring Server

Reports and dashboards

Microsoft Excel reports

IBM Cognos Business Intelligence reports

IBM FileNet Case Monitor dashboards

CA 5.2 – Multi platform | database | store | schema support

DB2 / Oracle

Object Store
- *Event Log*
- *Audit Log*

CA Store
- *Fact Tables*

CPE

Case Analyzer Services

CA SSAS Connector

Microsoft SQL Server

CA Store
- *Fact Tables*

OLAP Cubes

- Historical trend analysis
- Large data sets

Case Monitor

Cognos RTM for Production Monitoring
Views | Rules | Alerts | KPIs

- Near term operational monitoring
- Alerts and escalations

Cognos BI

Case Monitor Operational Dashboard

Microsoft Excel Reports

Cognos BI Reports

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Simplified installation and configuration

- CPE 5.2 platform convergence simplifies installation, backup/restore and HA/DR configuration

- Removal of Business Space for the user interface removes an installer, a database and simplifies HA/DR configurations

- Workplace XT is no longer required in test/production environments
    - Unless using form policies, or have other custom dependencies from your solution

# Example of High Availability Deployment
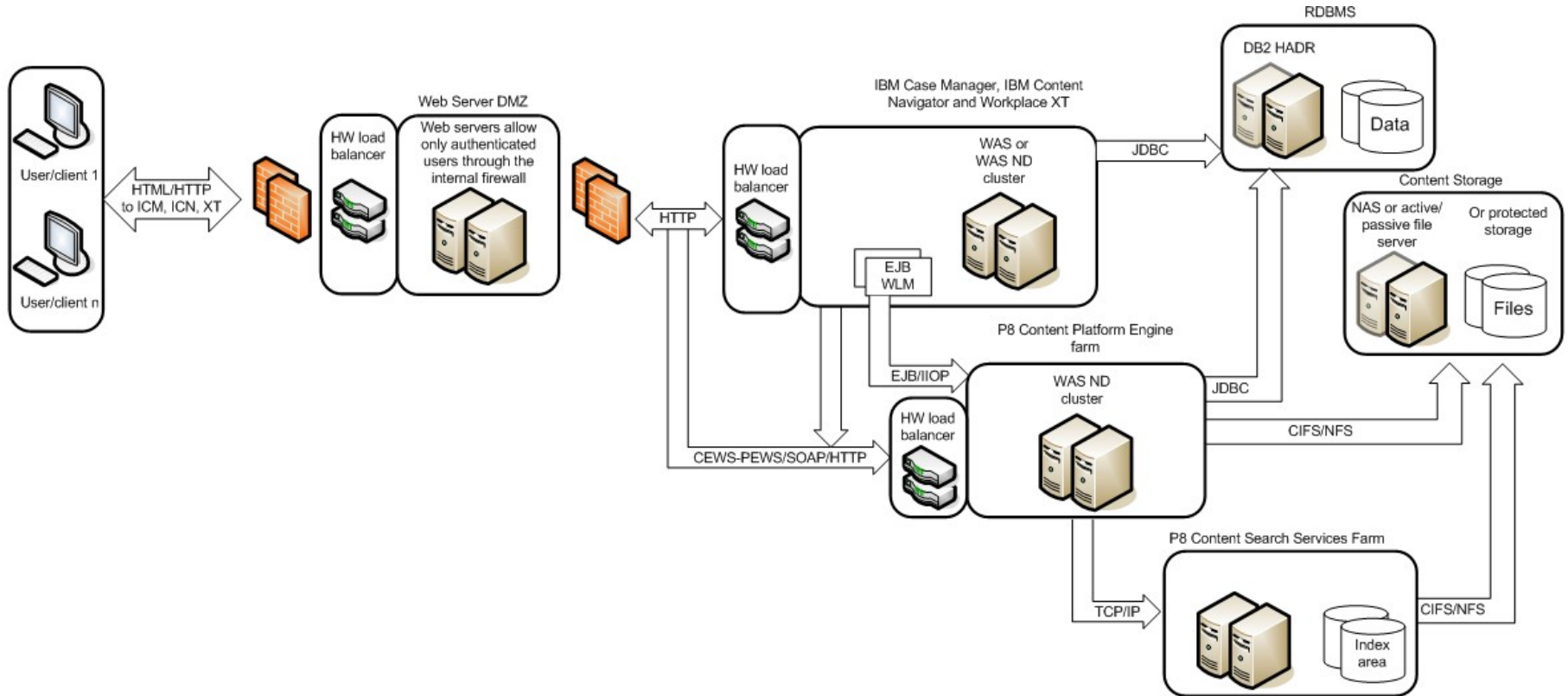
Improved solution deployment

- New wizards simplify configuring security and auditing, including moving the configuration between environments

- FileNet Deployment Manager enhancements make it simpler to move assets between environments

- Improved documentation makes it easier to move solution assets between environments

- New tool supports optionally updating existing case instances to use tasks defined in a later version of a solution

New administration tool

- Web-based IBM Case Manager Administration client
  - Deploy solution
  - Copy solution
  - Manage project areas
  - Promote solution to template
  - Export solution
  - Security configuration wizard
  - Audit/History configuration wizard
- IBM Content Navigator plug-in
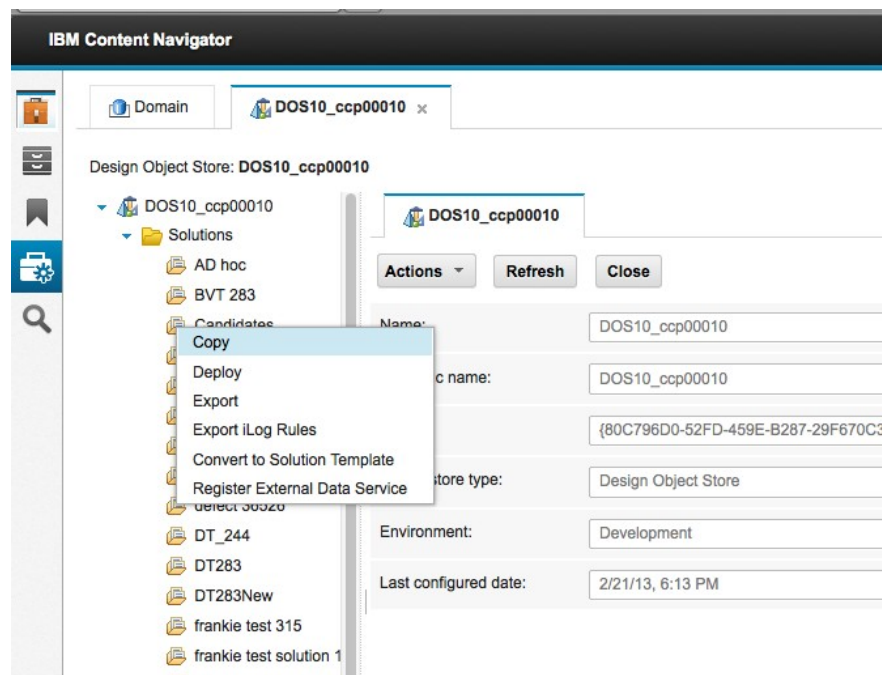
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Enhanced Solution Configuration

	Built-in Page and Data Layout Designer

	Built-in Rules

	Collaborative Solution Design

# Page layouts configured in Case Builder

- Page layout designer integrated directly in Case Builder
  - Replaces Business Space
- Default pages generated for each solution
  - Modify and add new pages
  - Configure page layout
  - Edit widget settings to customize
  - All toolbars and menus are configurable
- Widgets similar to ICM 5.1.1 iWidgets
  - Register your own custom widgets and toolbar/menu actions
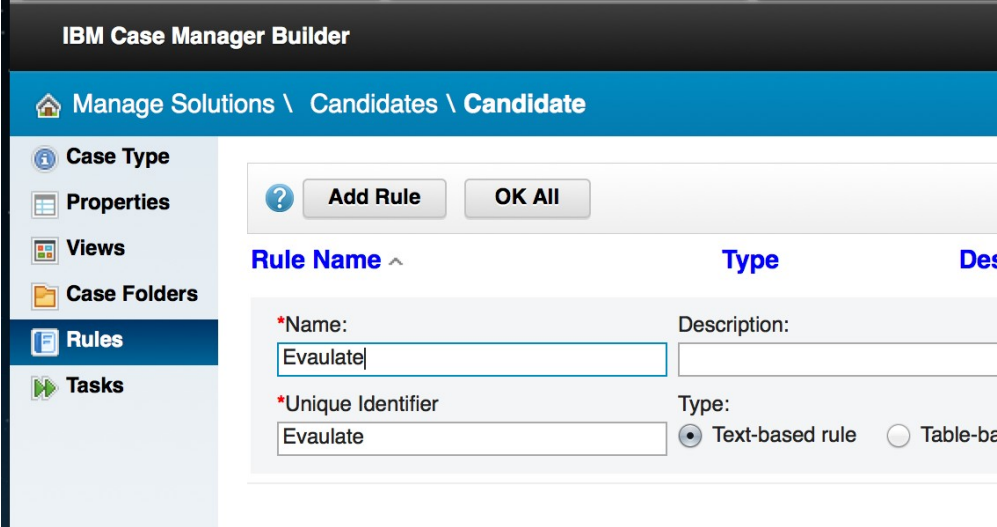 - Wire widgets together, and script using Java Script Adaptor
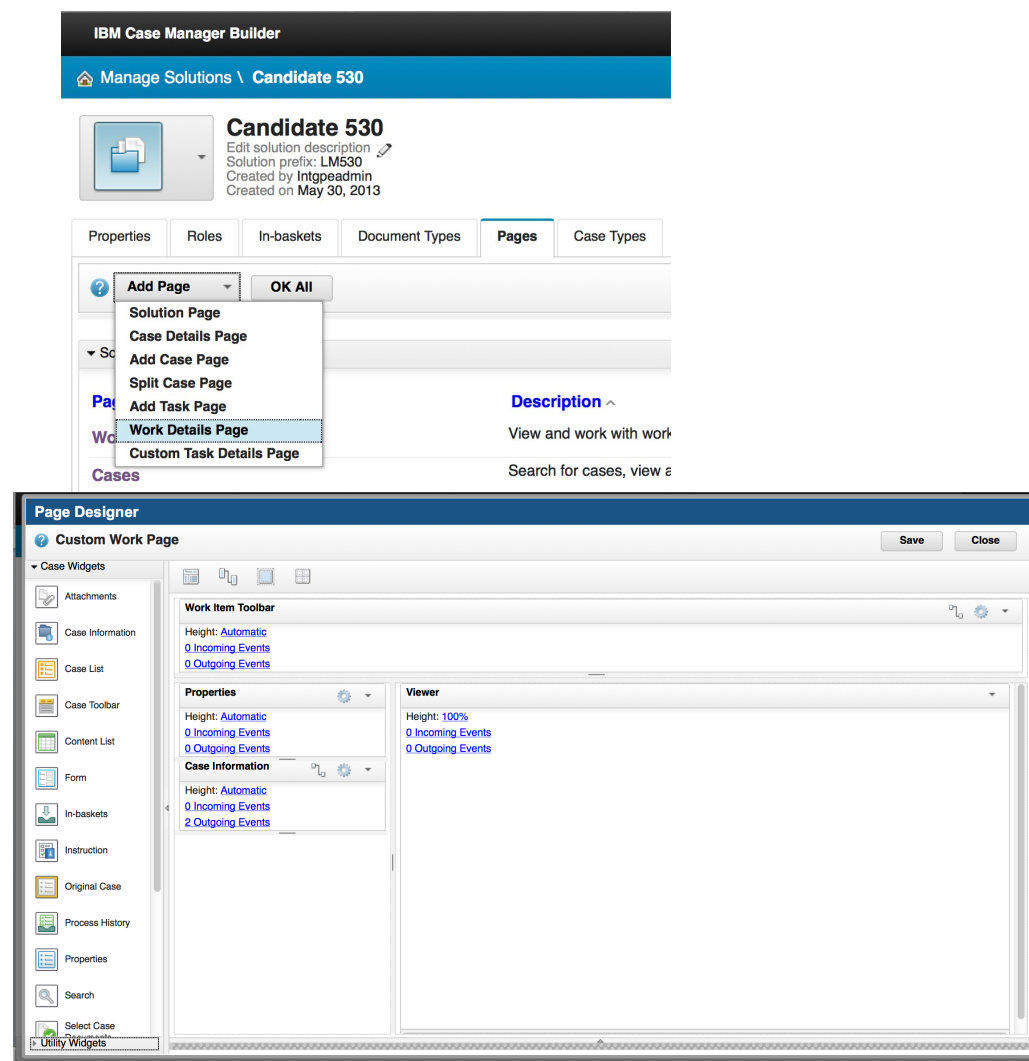
Property layouts configured in Case Builder

- Configure how case properties are displayed to users

- Multiple 'views' enable different property layouts for different pages

- Settings enable fine-grained control

- Continued support for electronic forms designers (eForms, IBM Forms)

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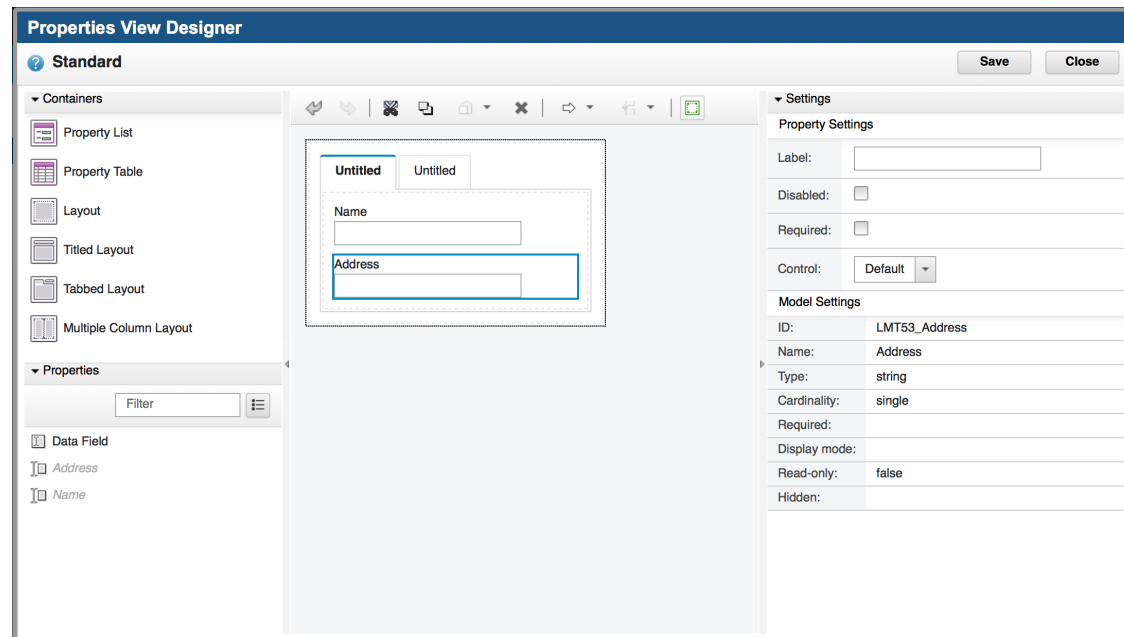
Rules integrated in Case Builder

- Define rules directly in Case Builder
    - Makes it easier for the Business Analyst to author rules without the need for learning and using separate tools
- Separate installation and administration of the ILOG platform is no longer required for basic rules
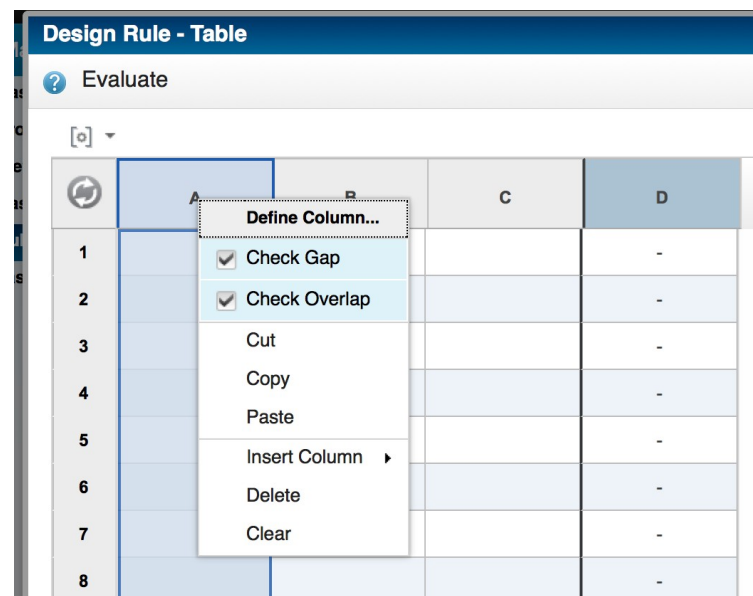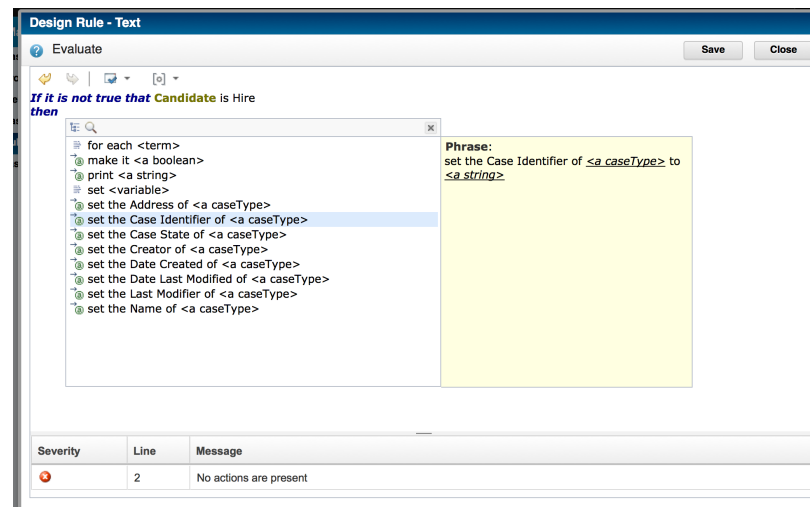- Ability to export rules to fully featured IBM Operational Decision Manager (ODM)

IBM Case Manager Builder

⌂ Manage Solutions \ Candidates \ **Candidate**

- ⓘ **Case Type**
- ▦ **Properties**
- ▦ **Views**
- 📁 **Case Folders**
- 📄 **Rules**
- ⏩ **Tasks**

❓ **Add Rule**   **OK All**

Rule Name ⌃   **Type**   **Des**

*Name: Description:
Evaulate

*Unique Identifier   Type:
Evaulate   ⦿ Text-based rule   ○ Table-ba
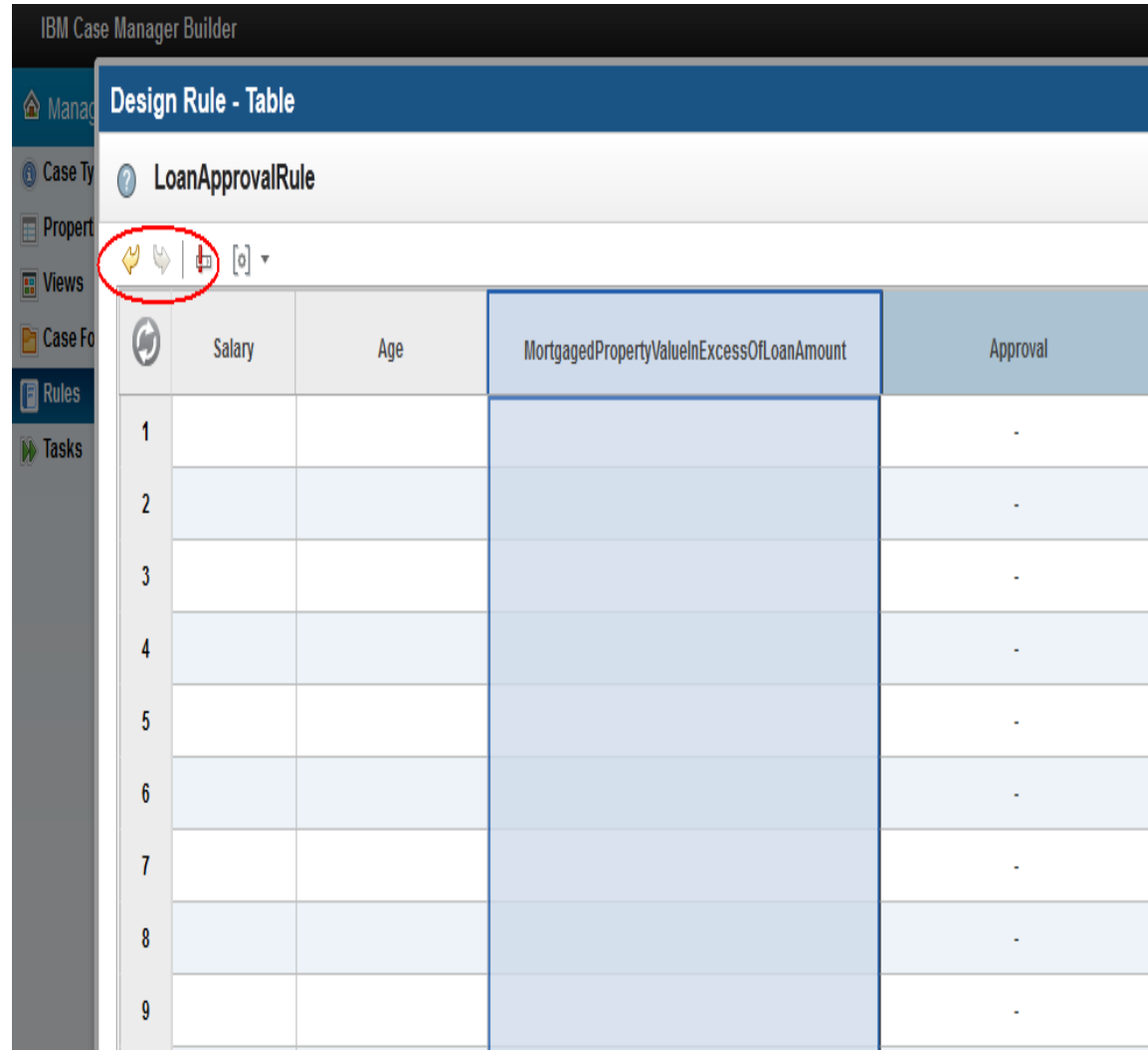
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Rules integrated in Case Builder

- Two types of rules
  - Text-based, natural language rules
  - Decision table
- Access/update case properties from your rules rules
- Execute a rule as a step in a task (uses a component step)
- Supports defining external variables that are not specific to a case instance
  - E.g. Interest Rate
  - You provide the external value from the task process

Design Rule - Text

Evaluate   Save   Close

If it is not true that **Candidate** is Hire
then

for each <term>
make it <a boolean>
print <a string>
set <variable>
set the Address of <a caseType>
set the Case Identifier of <a caseType>
set the Case State of <a caseType>
set the Creator of <a caseType>
set the Date Created of <a caseType>
set the Date Last Modified of <a caseType>
set the Last Modifier of <a caseType>
set the Name of <a caseType>

Phrase:
set the Case Identifier of *<a caseType>* to *<a string>*

Severity	Line	Message
⊗	2	No actions are present

Design Rule - Table

Evaluate

	A	B	C	D
		Define Column...		
1		☑ Check Gap		-
2		☑ Check Overlap		-
3		Cut		-
4		Copy		-
5		Paste		-
6		Insert Column ▶		-
7		Delete		-
8		Clear		

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Embedded Rules Improvements – ICM 5.2.1

- Table-based rules have been improved
  - Undo
  - Redo
  - Preconditions

Embedded Rules Improvements – ICM 5.2.1

- Preconditions enable you to test data before executing rules inside a decision table

- If the preconditions are not satisfied, the rules in the table are not executed

- Use preconditions to declare variables that can be used in the decision table rules

Collaborative solution design

- Developer efficiency improved because multiple users can edit a solution in Case Builder at the same time
- Changes are saved as drafts until you are ready to commit and deploy changes

Lock Information

The following items are locked for editing:

My locked items:

Type	Name
Candidates\View	Standard
Page	Case Details

Items locked by other users:

Type	Name	User
None		

[Close]

Properties and Case Types

Page Layout 1   Page Layout 2   ...   Page Layout n

Rule 1   Rule 2   ...   Rule 3

Roles and In-baskets

Property View Layout 1   Property View Layout 2   ...   Property View Layout n

Task Process 1   Task Process 2   ...   Task Process 3
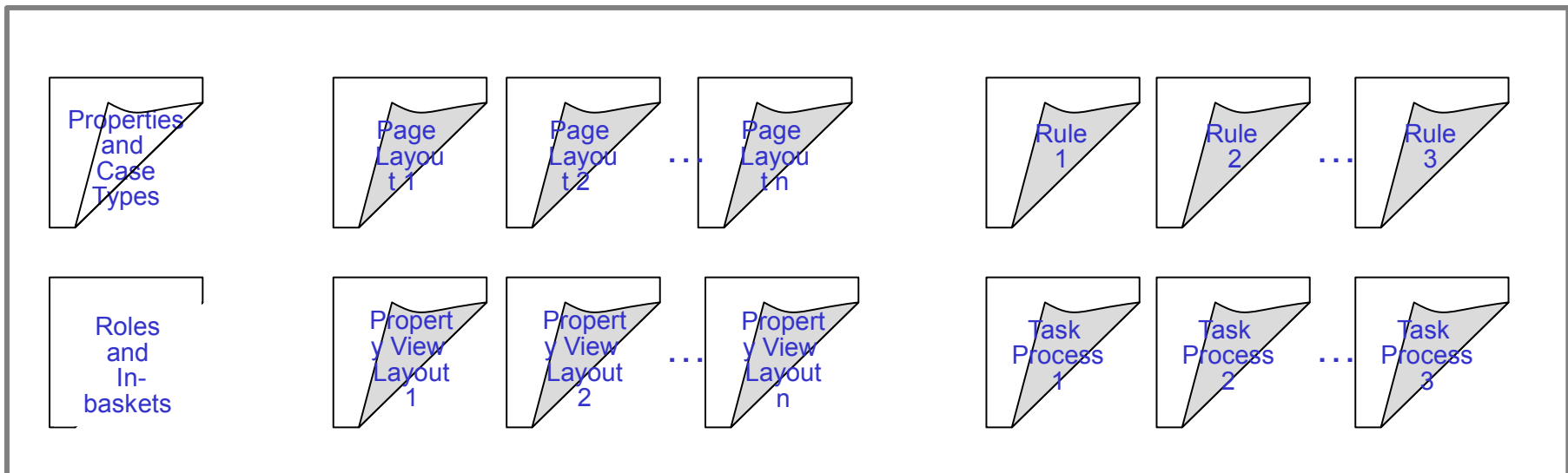
Unlock the Solution Artifacts when no changes are done

- In the earlier releases of Case Builder, the artifacts of the Solution were getting locked even when a user opened and closed, just to view them.

- We were not releasing the locks when no changes were done to them and this caused unnecessary overhead of maintaining the locks.

- In 5.2.1, if you open the artifacts in Case Builder to view them and then close without making any changes, the artifacts are unlocked. This change applies to the following artifacts:

    - Solution Definition File

    - Workflows

    - Pages

    - Rules

    - Views

    - Process Engine Configuration File

Unlock the Solution Artifacts when no changes are done (contd)

- The Solution Definition File is unlocked if the following are opened in the solution and closed with no changes:

    - Properties, case types, document types, choice lists, solution description, solution icon, case folders, case summary view and case search view

- The Process Engine configuration file is unlocked if the roles and in-baskets within the solution are opened and closed with no changes.

- If the workflow for a task is opened in the Step Designer and the Step Designer is closed without making any changes to the workflow, the task is unlocked.

- If a view is opened and closed with no changes in view designer, the view is unlocked.

- If a rule is opened and closed with no changes in rule designer, the rule is unlocked.

- If a page is opened and closed with no changes in page designer, the page is unlocked.

Checking locks when no changes are done

- You can check the locked / unlocked status of the artifacts using "show locked items".

- If no changes are made, the list should be blank.

Lock Information

The following items are locked for editing:

My locked items:

Type	Name
Solution	Properties, case types, document types, choice lists, solution description, solution icon, case folders, case summary view, case search view
Solution	Roles and in-baskets
Task	SuitabilityReview
BrokerageServicesAccount\View	ManagerView
BrokerageServicesAccount\Rule	AccountBalanceRule

Items locked by other users:

Type	Name	User
No locked items		

Close

Lock Information

The following items are locked for editing:

My locked items:

Type	Name
No locked items	

Items locked by other users:

Type	Name	User
No locked items		

Close

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More Case Centricity

Case Visualizer

Case Worker
Defined Task Flows
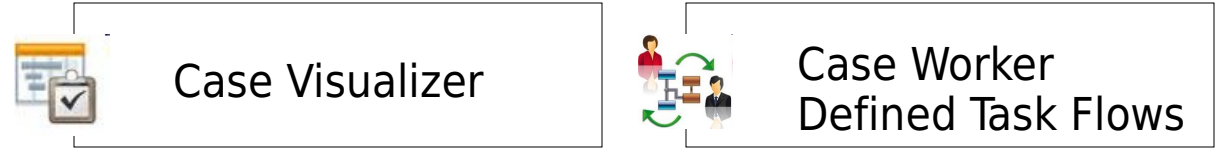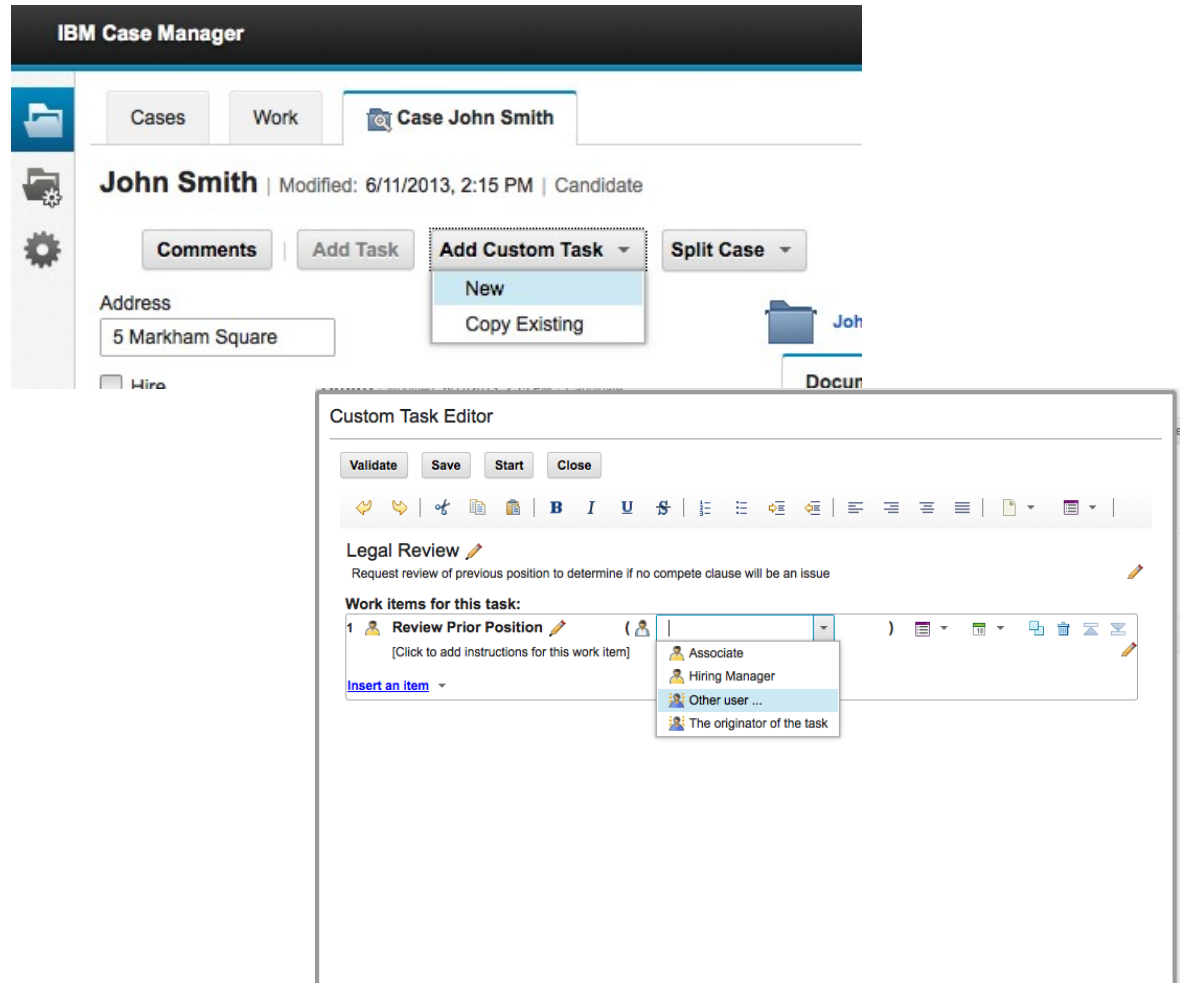
Case visualizer and history

- Highly visual, easy to use, case timeline that gives case workers a one stop overview of what's happening in the lifecycle of a case

- Provides more visibility into state of tasks and the work items behind them

- (Preview) Includes a new history snapshot feature that allows you to inspect the state of a case at any moment in time and easily discover changes that were made

- Data culled from CE audit event and PE event logs
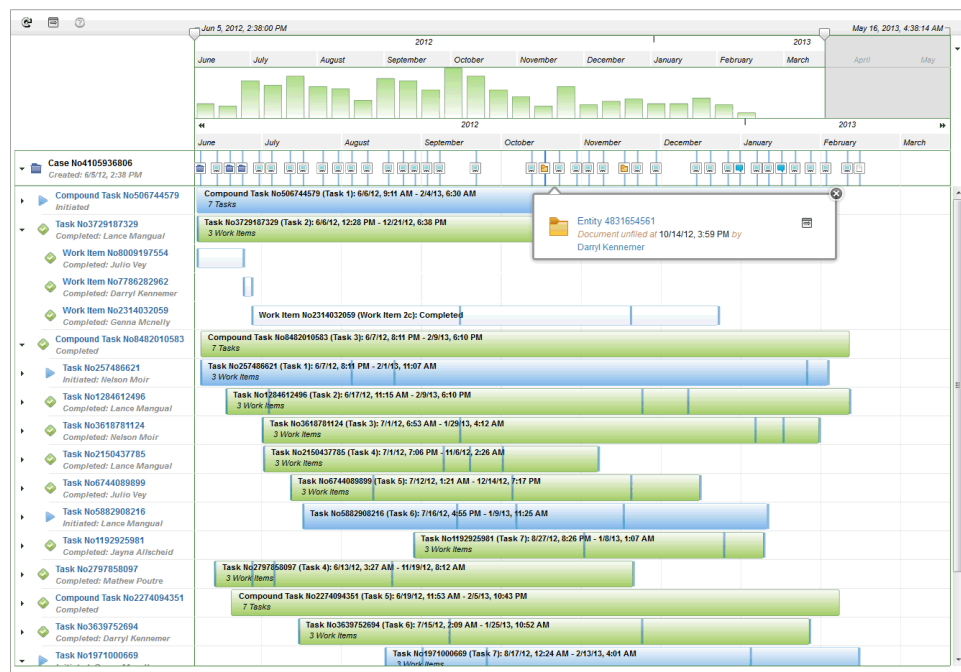
Case workers can define task flows from Case Client

- Authorized case worker can define a sequence of actions that need to be performed on a case

- Supports use cases where the task flow is not well understood/known ahead of time

- Intuitive outline style text-based editor, enables defining work for humans

- The user is also able to copy and modify existing custom tasks when creating new ones

Much More Flexible and Extendable Case Client Application Platform

Enhanced Case Client UI

Content Navigator document capabilities

In-basket enhancements & Case Operations

Case Client UI Toolkit

Mobile Case Client

Expanded Platform Support

Improved Case Client web user interface

- Improved user interface, integrated in IBM Content Navigator
- Displays pages configured in Case Builder

Cases

Improved document capabilities

- Document related features in Case Client leverage IBM Content Navigator APIs
- Includes
  - Multi-select drag & drop from the file-system to add a case document or attachment
  - Additional information available in the Properties dialog – including versions, where filed, security
  - Entry templates (designed in XT, end user UI in ICN)
  - Edit properties for multiple documents
  - Document comments
  - Document download counts
  - …

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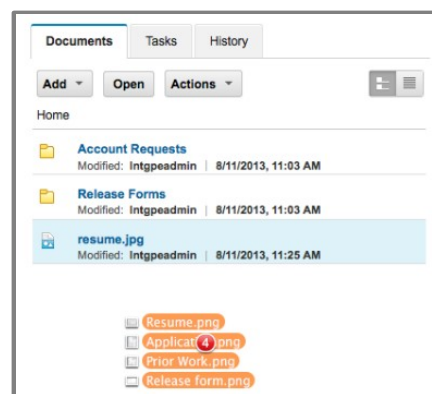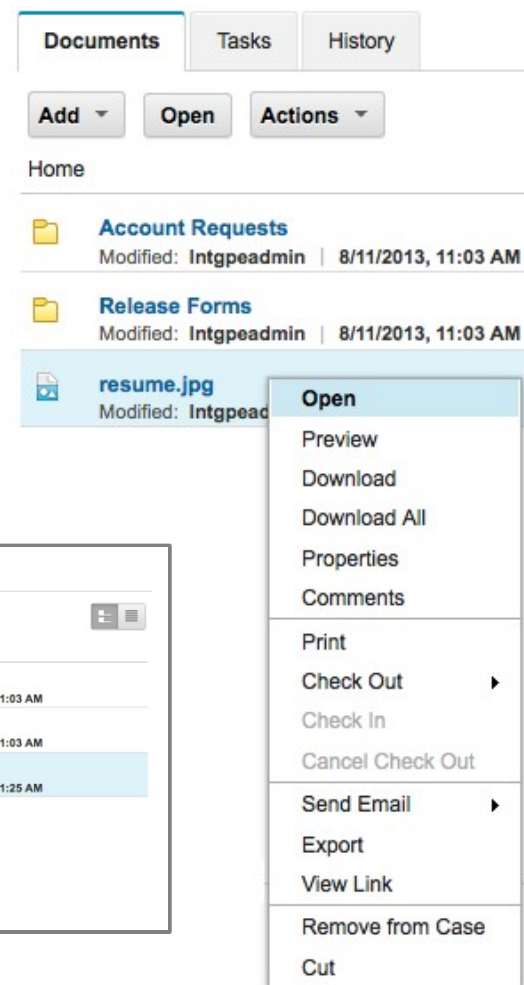
In-basket widget enhancements

- In-basket displays updated case properties
- Optionally show count on each in-basket tab
- Filtering improvements
  - Enable 'OR' conditions in filters, all conditions are ANDed together, but you can provide more than one value for a particular filter
  - Select Case Type in a user filter
  - Option to not show work items locked by other users
  - More flexible dynamic queries in an event, including conditions not included in the user filter
  - Suppress rendering the in-basket until the filter event is received

In-baskets

| Settings | Menu | Toolbar |

Specify the role for the in-basket and the work items that are to be included in the in-basket. Learn More

Role:

Select the locked items to be displayed:
Work items locked by any user

- [✓] Allow user to show or hide work items locked by other users
- [✓] Show work item counts for all in-baskets
- [ ] Hide in-basket filter
- [ ] Do not populate the in-basket until the dynamic filter is received

Candidates (3) | HR Associate (0) | My Work (0)

Filter: No filters applied   Reset

Name (is like): ⓘ

Employee ID (equals): ⓘ

Department (equals): ⓘ

[ ] Do not show work items

OK   Re

Employee ID (equals)

New: ⓘ [   ]   Add

Values

Remove

OK   Cancel

Created | Subject | Name
2013, 11:03 AM | Initial Screening | George Jor

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Search and Case List widget enhancements

- Case List
  - Supports grid view in addition to 'magazine' view
    - Sort on any column
  - Configure Summary view to defines column shown in Case List grid
  - Configure toolbar, in addition to context menus
- Search
  - Configure if users can add additional search criteria in Advanced Search
  - Configure Search view to include system properties to show in search

Case Information widget enhancements

- Change tab order
- Embed custom tabs
- 'Magazine' or 'Detail' view for case documents

Properties widget enhancements

- Use the property layout designer in Case Builder to define views
- Use a Properties widget setting to configure the view to use for a case type

Case operations

- **Out-of-the-box Case Manager component operations simplify solution development**
- **Extends what can be done today using the general CE_Operations**
- **Example operations include:**
  - **Create new cases of a specified type**
  - **File documents into case folders**
  - **Create subfolders under case folders**
  - **Create discretionary tasks**
  - **Terminate workflows in cases**
  - **Add case comments**
  - **Get and set case properties**
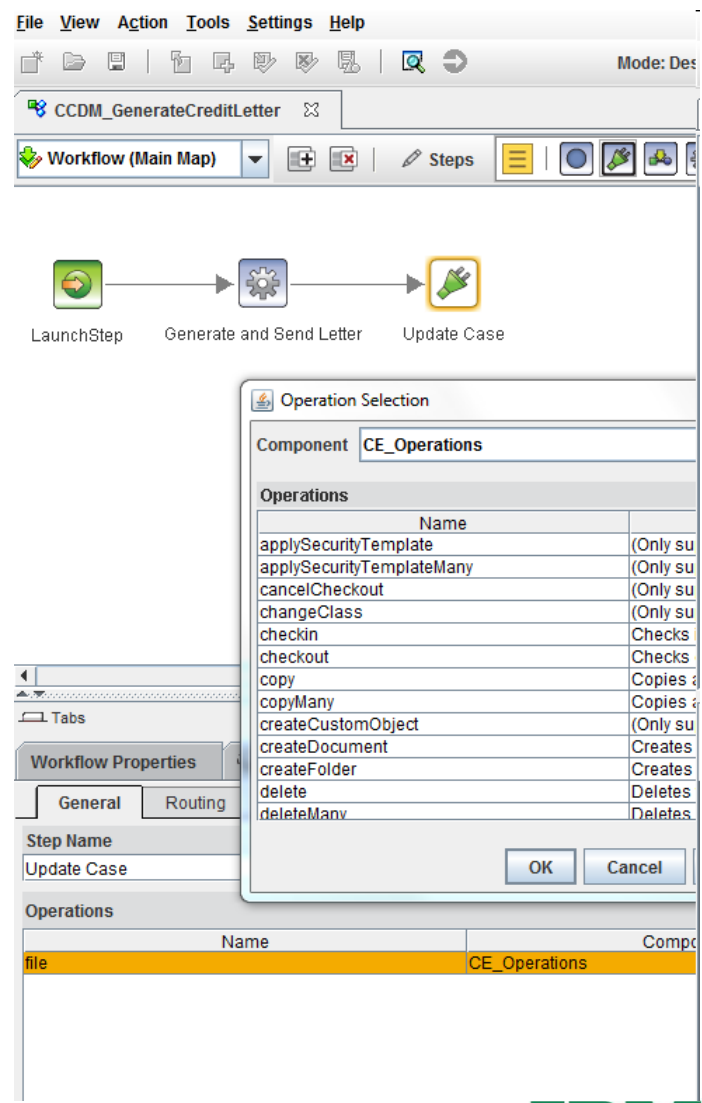
Levels of Design and Associated Effort and Skills

Case Client UI Toolkit

Level 1 — Define

Solution, properties, roles, document types, in-baskets, case types, case folder, tasks, rules

Case Builder

Page layout, toolbar and menu config, summary view, search view, property views, widget settings

Level 2 — Configure

Case Builder, Process Designer, Case Manager Admin, Admin Console for CPE, Reporting tools, ICM/ICN JavaScript Toolkits

Process design, security configuration, audit configuration, widget wiring, rules, Form UIs, custom Reports, custom dashboards

Level 3 — Customize

ICN JavaScript Toolkit
ICM JavaScript Toolkit
IDEs, HTML, CSS, Dojo, JavaScript, Servlets, Java APIs, …

Integrations, Custom UI

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5.1.1 Case Client

Business Space

Space 1

Page 1

iWidget ←→ events ←→ Command Widget

iWidget — events — iWidget

events — Command Widget — events

Page n

Command Widget ←→ events ←→ iWidget

iWidget — events — iWidget

events — iWidget — events

Case REST

PE REST

CMIS

5.2 Case Client

Case Client UI Toolkit

IBM Content Navigator web client

Case Manager Case Client

Page 1

In-basket page widget
- InBasketContainer
- ReAssign Dialog

events

Toolbar page widget
- Custom Action
- Add case action

Page n

Case Information page widget
- Content grid
- Add Doc dlg

events

Properties page widget

Case Toolbar page widget
- Comment Action

Content Navigator Model

| Desktop | Repository | Result Set | Request | ... |

Case Manager Model

| Solution | Case | Task | Property Controller | ... |

Content Navigator Mid-Tier Services

Case Manager Mid-Tier Services

ICM JavaScript Toolkit (1/2)

- New toolkit with granular, browser-side classes that extend the ICN toolkit to make it easier to create custom widgets and actions

Package	Example classes	When would I use?	Example usage
icm.model Objects in the system and scratchpad data, no UI components here	Case, CaseComment, CaseRelationship, HistoryEvent, PropertyController, Solution, Task	When creating custom widgets and actions, to access ICM data, used in conjunction with ICN model. Access data when scripting events.	Get the case identifier for the case displayed on case detail page Get editable model object Update a case property
icm.action Out-of-the-box actions provided by ICM	AddCustomTask, SendLink, ShowLink, AddDocumentfromLocal	When building a custom action, if I wanted to wrap an existing ICM action or create a new custom action	Create a custom action for case document that publishes an event
icm.base Base classes used to creation custom page widgets and actions	BasePageWidget, BaseActionContext, Constants, WidgetAttributes, _EventStub	When creating a custom widget or action, use these base classes to provide infrastructure, fill in implementation with custom behavior	Create a custom search widget, create an action to display data from an external system. Includes model for events, settings

ICM JavaScript Toolkit (2/2)

- New toolkit with granular, browser-side classes that extend the ICN toolkit to make it easier to create custom widgets and actions

Package	Example classes	When would I use?	Example usage
icm.dialog ICM provided dialogs	AddCommentDialog, AddTaskDialog, DynamicTaskEditorDialog	When I want my custom widget or action to display a dialog	Display dialog to add a comment when user clicks on an icon in a content list
icm.pgwidget Classes that represent the page widgets	Attachment, CaseForm, CaseInfo, CaseList, CaseSearch, CaseToolbar, CaseVisualizer	When I want to create a custom widget that includes a page widget, or when I want to extend a page widget with additional behavior	Extend the in-basket widget to change font to red for overdue items\n\nAdd new tab in Case Info
icm.util Utility classes	Coordination, SearchPayload, resource bundle	When you want to participate in processing a page, such as dispatching a work item or saving a case	Custom widget that saves data to an external system can hook into the dispatch of a work item
icm.widget.menu Toolbar and pop-up menu classes	ContextualMenu, Menu, MenuManager, Toolbar	When I want to include a context menu or toolbar in my custom widget, and use the Page Layout Designer to enable configuring the menus	Implement retrieval of data from an external system using a dialog that is configured as a toolbar action in my custom widget

Summary of benefits of new UI framework

- Web UI design tools integrated in Case Builder, resulting in fewer tools
    - Page Layout designer
    - Properties View Layout designer
- Web application development improvements
    - JavaScript Toolkit enables more extensive customization and reuse of the out-of-the-box components
    - Combines the power of the ICN toolkit with the ICM toolkit

- Consistent end-user experience
- Simplified HA/DR configuration
    - No longer need to install Business Space
- Simplified security configuration
    - No need to define security on spaces and pages, security is defined on the solution objects
- Simplified page deployment
    - Does not require integration with a separate tool to move pages between environments, which can be error-prone

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Mobile client access

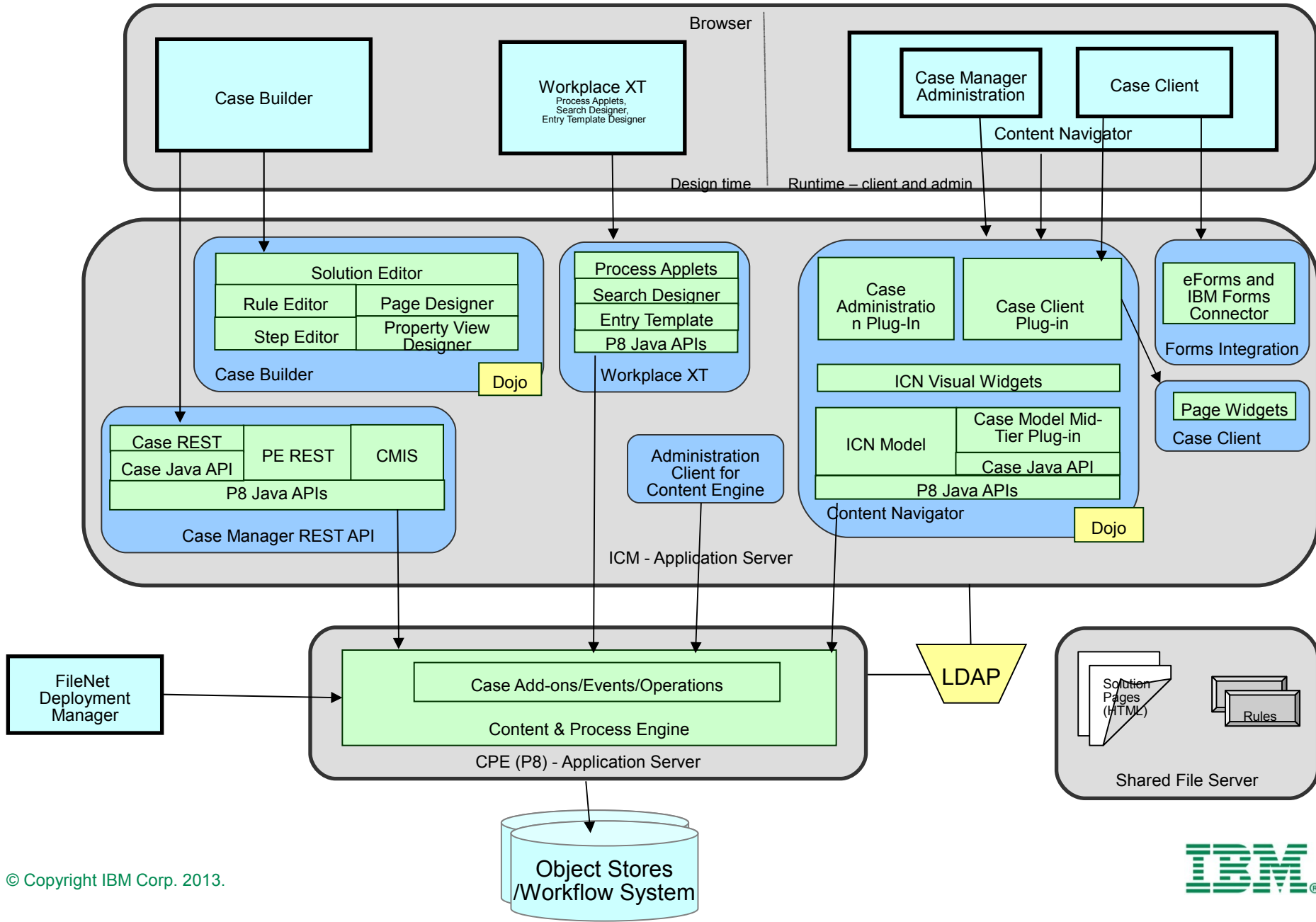- Content Navigator Mobile app supported searching for cases in 5.1.1
- New release includes iPad app that provides access to more Case Manager features
- Solutions are defined in Case Builder, including page layouts
- Widgets are dynamically optimized for touch interface
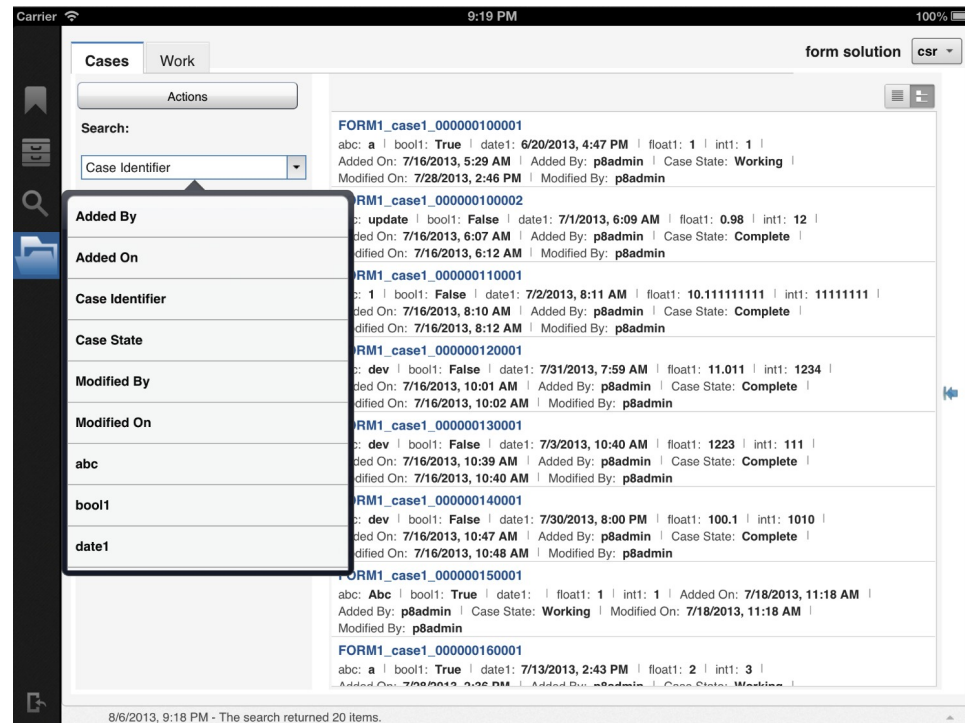
Architecture differences between ICM 5.1.1 and ICM 5.2

- Business Space is no longer required for ICM 5.2.
  - Eliminates many installation and configuration steps

- ICM 5.2 Case Client uses the Navigator framework.
  - Simplified installation and configuration for standard installations.
  - Only need a single ICM installation and single configuration profile for HA configuration.

- ICM 5.2 depends upon IBM Case Foundation 5.2
  - Content Process Engine (CPE) is deployed in one EAR file
    - Case Analyzer and Case Monitor services are part of the single deployment

- Workplace XT only required in the development environment.
  - ICM will facilitate the packaging and deployment in the development environment.
  - Workplace XT required in production for policy based forms
    - Content Navigator and WorkplaceXT should be configured in different application server profiles.

- Reduced dependence on external loosely coupled tools
  - Rules Engine and Forms.

Case Manager 5.2 Architecture – Core Components

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IBM Case Manager 5.2 - High-Level Architecture

Browser

- Case Builder
- Workplace XT
- **Content Navigator**
  - Case Client
  - Case Manager Administration

Application Server

Case Builder
- Solution Editor
  - Rule Editor
  - Page Designer
  - Step Editor
  - Property View Designer

Case Manager REST API
- PE REST
- Case REST
- CMIS
- PE Java API
- CE Java API

Content Navigator
- Page Widgets
- Case Client Plug-in
- Case Administration Plug-In
- ICN Visual Widgets
- Case Model Plug-in
- ICN Model
- PE Java API
- CE Java API

IBM Forms (optional)

Case Analyzer
- Cognos Real Time Monitor
- Cognos BI Reports

Cognos BI

FileNet Deployment Manager

IBM BPM (optional) — Web Services

IBM Content Manager (CM8) (optional)

IBM Content Analytics

Application Server
- Case Add-ons/Events/Operations/Embedded Rules
- Content Platform Engine

LDAP

Lotus Sametime
- Proxy Server
- Community Server

Web Services

IBM ODM (Rules)

Object Store

- bundled
- not bundled
- ICM Components
- P8 Components

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Expanded platform support for ICM 5.2

- New versions of WebSphere Application Server
  - WAS 7, 8.0, 8.5
- Support for Oracle WebLogic Application Server 10, 12c
  - Includes core P8 components
  - Does not include optional components that don't support WebLogic
    - Sametime, IBM Forms, IBM Content Manager
- Latest browser versions on Windows XP, 7, 8
  - Internet Explorer 8, 9, 10
  - FireFox ESR release +
  - Chrome will be a post-qual
- Databases
  - DB2 9.7, 10.1
  - SQL 2008 R2, 2012
  - Oracle 11g R2

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Expanded platform support for ICM 5.2.1

- Servers
  - Windows Server 2012 R2
- Server Virtualization - Note that ICM follows the general IBM support policy for virtualization, so while these specific tools have been tested, you can use any tools that meet the support policy criteria: http://www-01.ibm.com/software/support/virtualization_policy.html
  - VMware ESX Server (x86-64, x86-32) 5.1
  - HyperV Windows Server 2012 R2
- Desktop – Case client running in supported browsers
  - Windows Desktop 8.1
- Web Browsers
  - Internet Explorer 11
- Java
  - Oracle JRE 8.0
- Databases
  - Oracle 12cR1 (12.1.0.1)
  - DB2 PureScale 10.1, 10.5

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- App Servers
  - WebLogic 12c (12.1.2)
- SSO
  - ISAM 7.0
  - SAML SAML 2.0 (WAS 8.0+ only)
  - CA SiteMinder with WebLogic 12
  - Kerberos/Active Directory (WAS 8.5, 8.5.5 & WL 12c) AD 2012 R2
- *Get detailed reports on what is supported here:*
  - *http://pic.dhe.ibm.com/infocenter/prodguid/v1r0/clarity/index.html*

Questions