

How does digital government become better government?

Government Empowered | Oct 16, 2024



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PEGA

Guiding by Constellation: Implementing Pega's next-gen UI architecture

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Agenda

1 Case study

2 Solution

3 Results

4 Recommendations

Case study

The client was on a journey to transition to a future-proof enterprise, Pega solution to scale multiple lines of business and maximize outcomes via a responsive, dynamic, and adaptive design.

Challenges

- Custom, monolithic solution architecture
- Cumbersome, confusing user experience
- Numerous defects with lengthy fixes
- Convoluted data structure
- Slow design and development pace
- Significant expenditures with little improvement



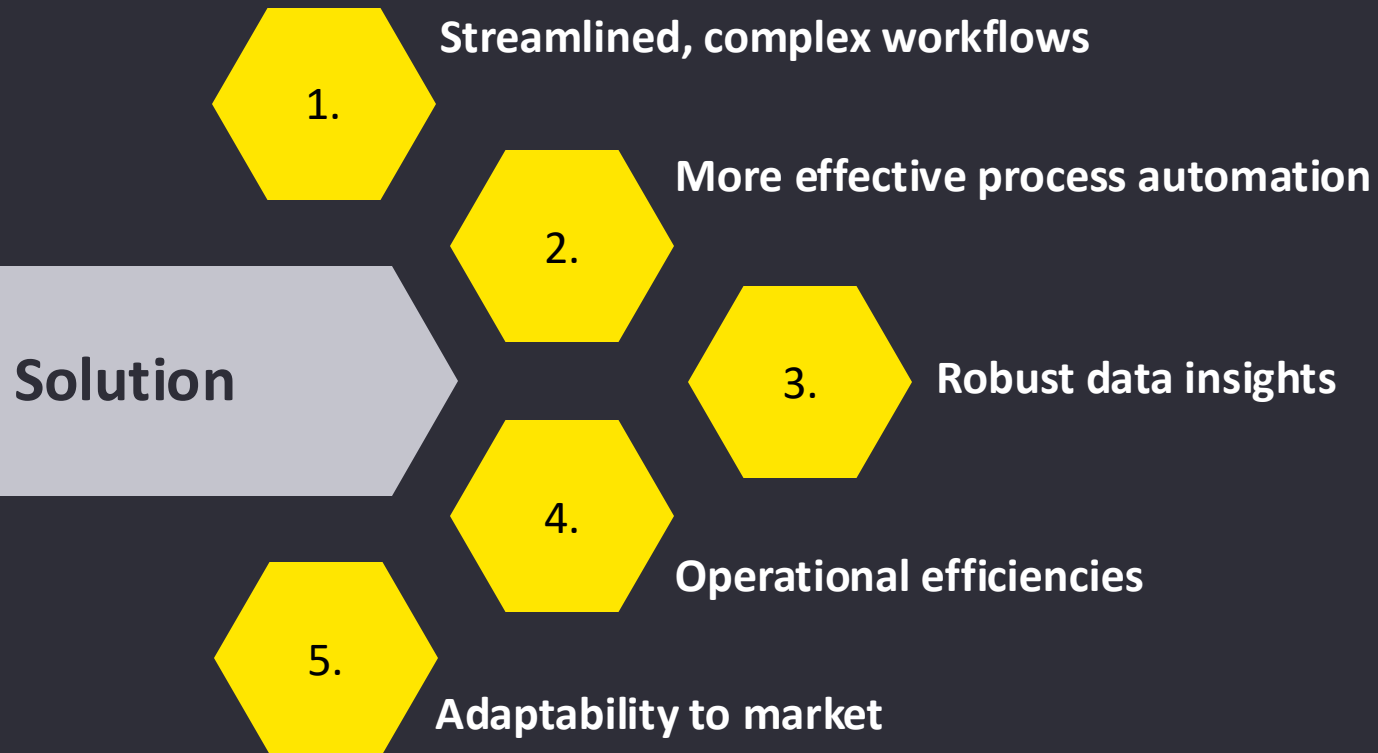
- Wholly personalized self-service portal
- Clear, concise application workflows
- Scalable enterprise foundation layer
- Enhanced process automation
- Guided user experience
- Pega GenAI support

Business Needs

The Pega Constellation path devised by our EY team provided a chance to address these challenges with a sustainable, customer-centric solution designed to withstand the test of time.

Solution

EY teams guided the client through Pega Constellation's advanced system which we configured to rectify the specific inefficiencies within their operational framework.



Key Features

- 1 Centralized workspace to track certification applications
- 2 Guided, easy-to-understand checklists for document review and on-site inspections
- 3 Business process flow to track stages of the application process
- 4 Document viewer and collaboration tools to review and return documents to applicants
- 5 Direct messaging and automated notifications upon an application change
- 6 Checklists, templates, and resources for increased applicant readiness
- 7 Survey that assesses work type that fits the user's operations
- 8 Document upload with AI review that flags critical errors and recommends improvements
- 9 Email or text message notifications of real-time updates on an application
- 10 Communicate and collaborate with users within one system

What is Constellation?

Constellation is ...

A **prescribed, full-fledged** UI architecture that orchestrates application logic with any front-end design system

Built using **ReactJS** with an extensive component library

A **decoupled** architecture where backend processes can be independently engineered from the front-end

Client-side rendered and limits the number of interactions between browser and Pega server

Benefits*

Easier to build, maintain, theme and revise

Promotes reuse of client assets for more efficient and expedient development

Extendable to varied front-end experiences via React, Angular & web component SDKs

3x faster interactions

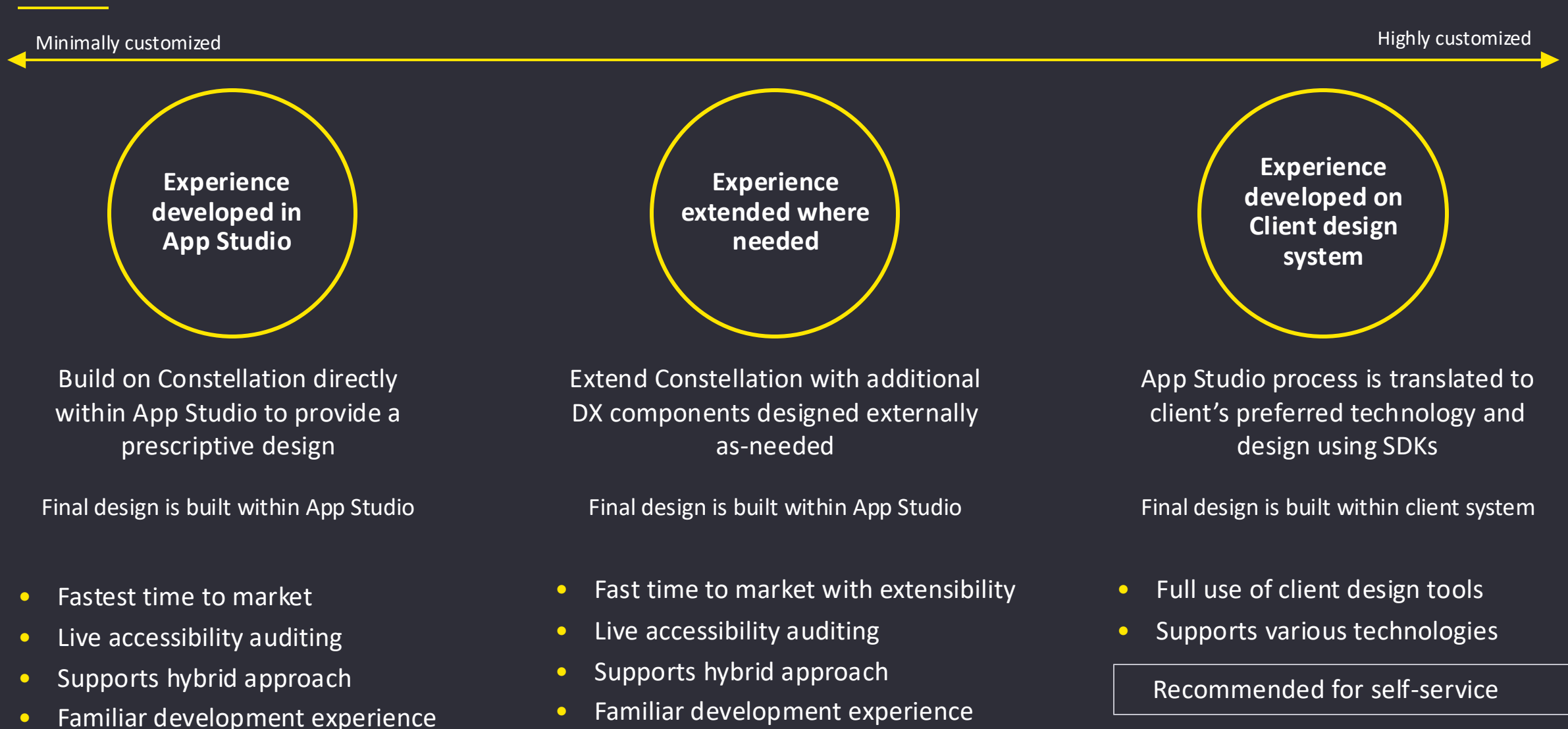
7x smaller network payload

10x faster initial server response time

30% fewer requests on the first load

*compared to Pega 8.6 Theme-Cosmos

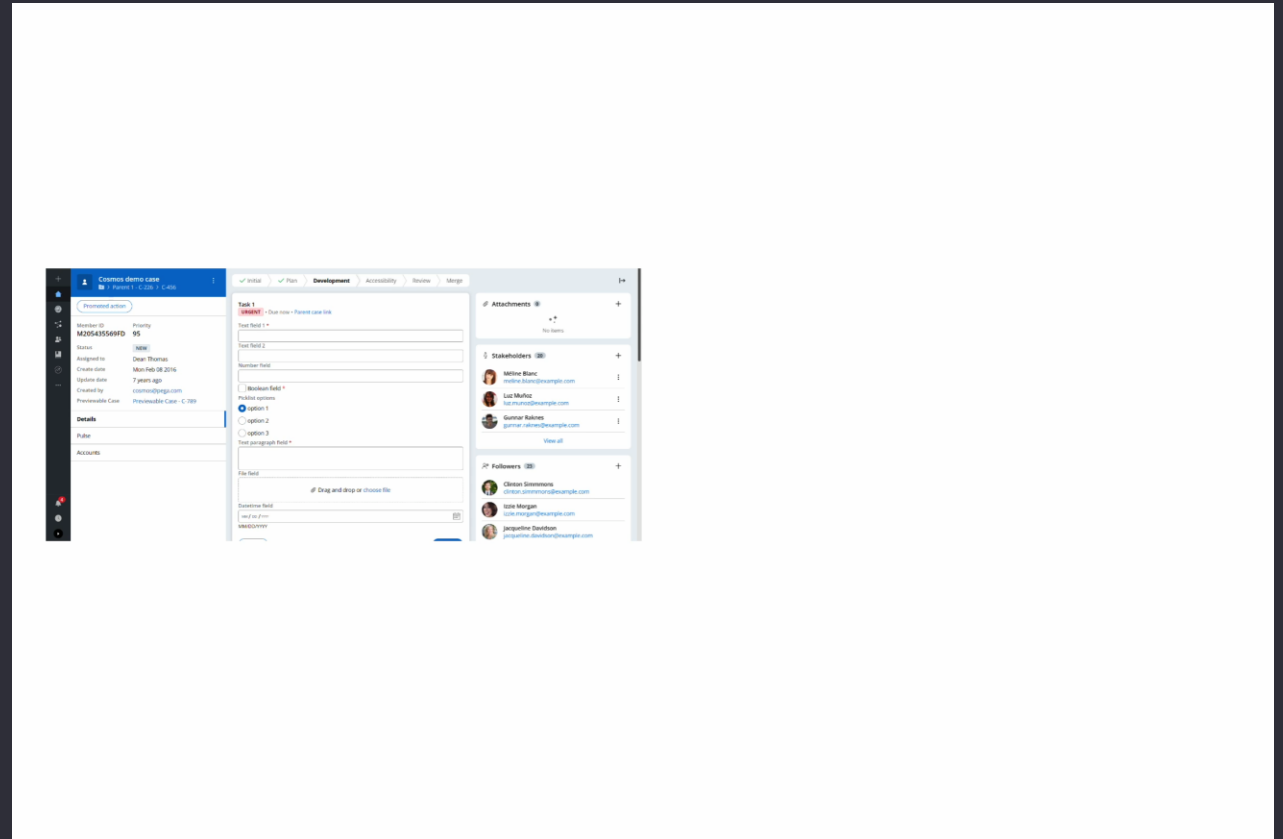
How Constellation can be used for clients



Extending Constellation for Self-Service

To expose our portal in a wholly different UX, we need a translator to run between Pega and the front end

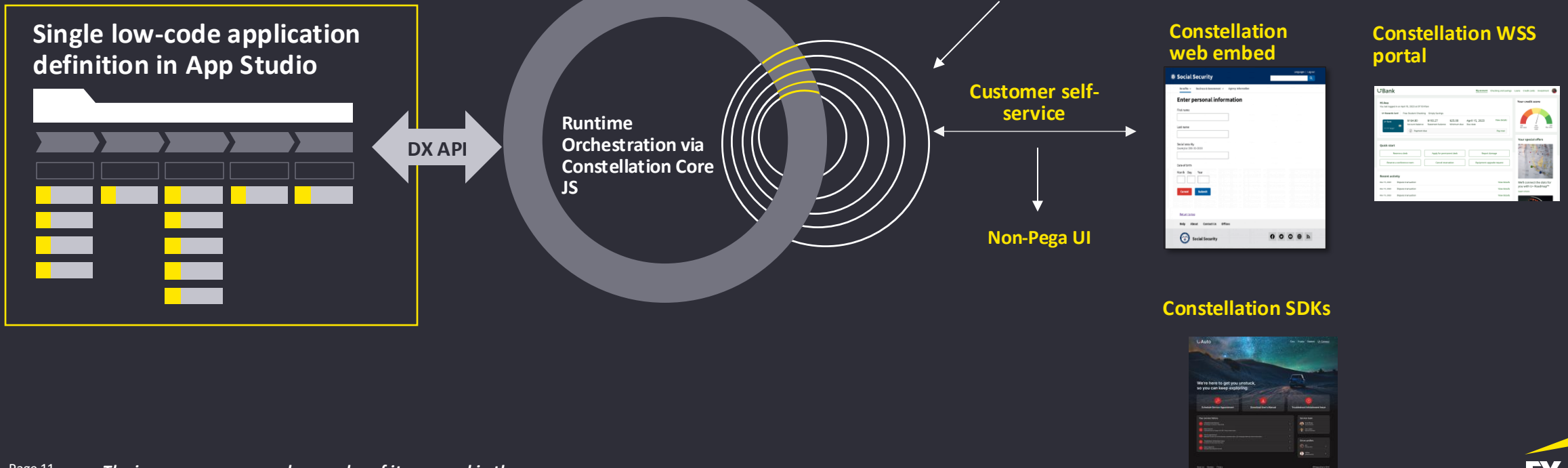
- With Constellation, we can push a standard UI to the **SDK** translator, which maps our fields and validations with the front end design to ensure they are exposed as desired, coordinating a unique user experience without design
- Existing components can be overridden and revised, and new components designed, to deliver Pega solutions in a new and unique way, without impacting the underlying design
- Revisions to forms, flows, and data have no impact to the design, as the SDK is marrying the Pega components to the custom components in real-time



This is an example that demonstrates the core concept.

Customer adoption for Constellation

- Expedite go-to-market with Pega Customer Service
- Drive Pega workflows with non-Pega UI using SDK
- Streamline maintenance and upgrades
- Improve performance, scalability, and resilience



Result

- Using Constellations low-code App Studio approach, we are designing an application that can scale and evolve with the support of citizen developers
- Internal and external experiences render and respond faster than before, using React and Redux UI technology to efficiently manage load.
- External users will engage with the tool on a portal wholly analogous to the client's home page, supporting a seamless and easily navigated experience.
- Changes and enhancements to forms or rules can be promoted instantaneously through the close coupling of the Pega server and the SDK
- Authentication procedures are adhered in full using Pega and its SDKs authentication management.



Lessons learned

Constellation lessons/challenges for our team:

- Constellation is relatively new, and most of our team had little or no prior exposure
 - New approach to view, data, and actions
 - Learning curve for the team
 - Initial setup of the external portal; no pre-existing server

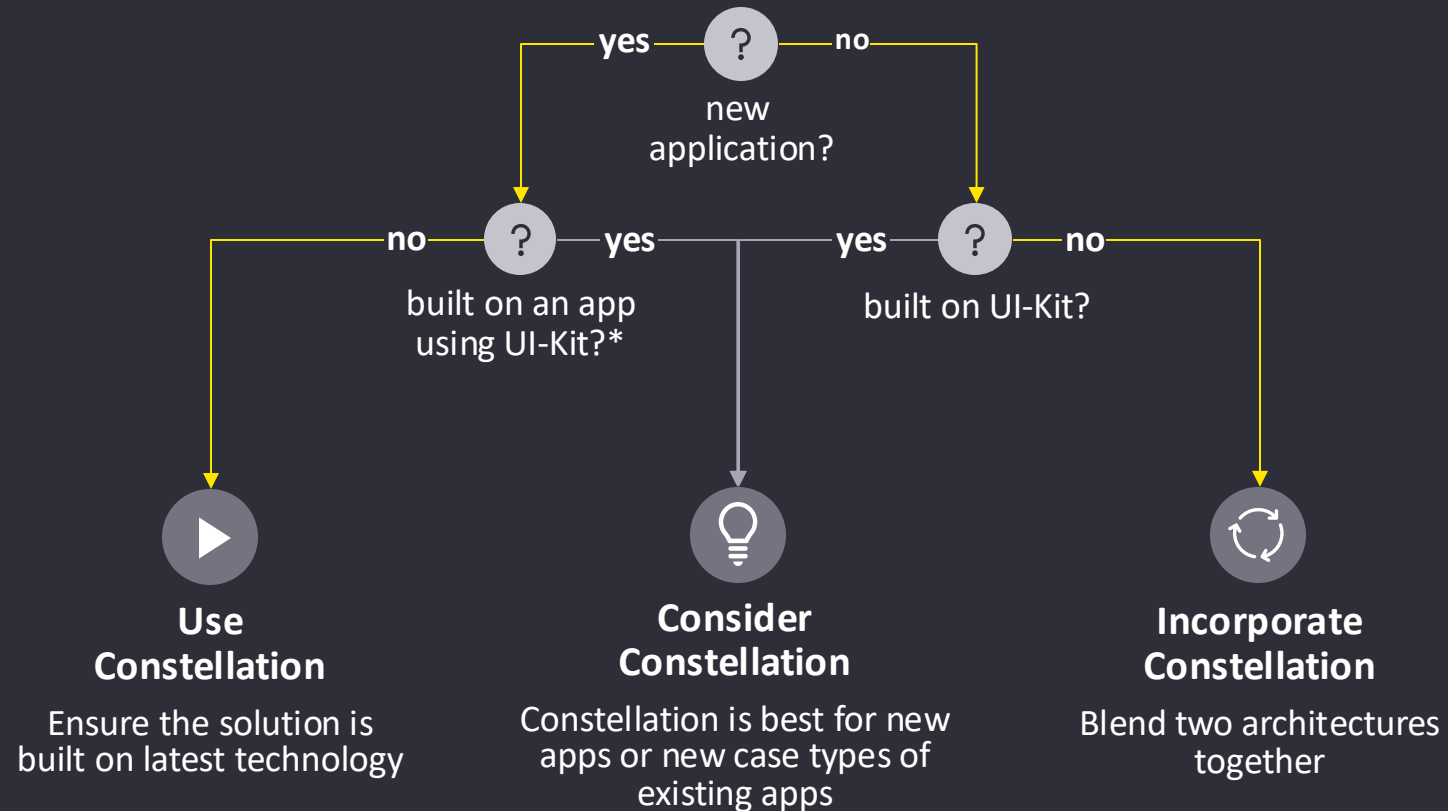
Constellation learning for UI implementation:

- Think differently and try to produce different UI options for below
 - On change events
 - Custom buttons or links
 - Custom layouts



Our recommended Constellation adoption

Constellation is best suited for new applications or a hybrid Theme-Cosmos portal



Feature Support

- Constellation supports all the common features and components of traditional Pega.
- Specialized features are being standardized and added to the library on a rolling basis.
- If any specialized feature is not yet available, dedicated collaborators such as the EY organization, can design and add these to the client's library for reuse.

*This includes Pega Sales Automation, or any Industry Foundation (ex. CLM/KYC, Smart Dispute, Smart Investigate, Smart Claims, Product Composer)

Blended mode support

Build new workflows with Constellation and use them in existing portals built with UI-Kit or Theme-Cosmos.

Supports new constellation cases within existing applications without migrating existing case types

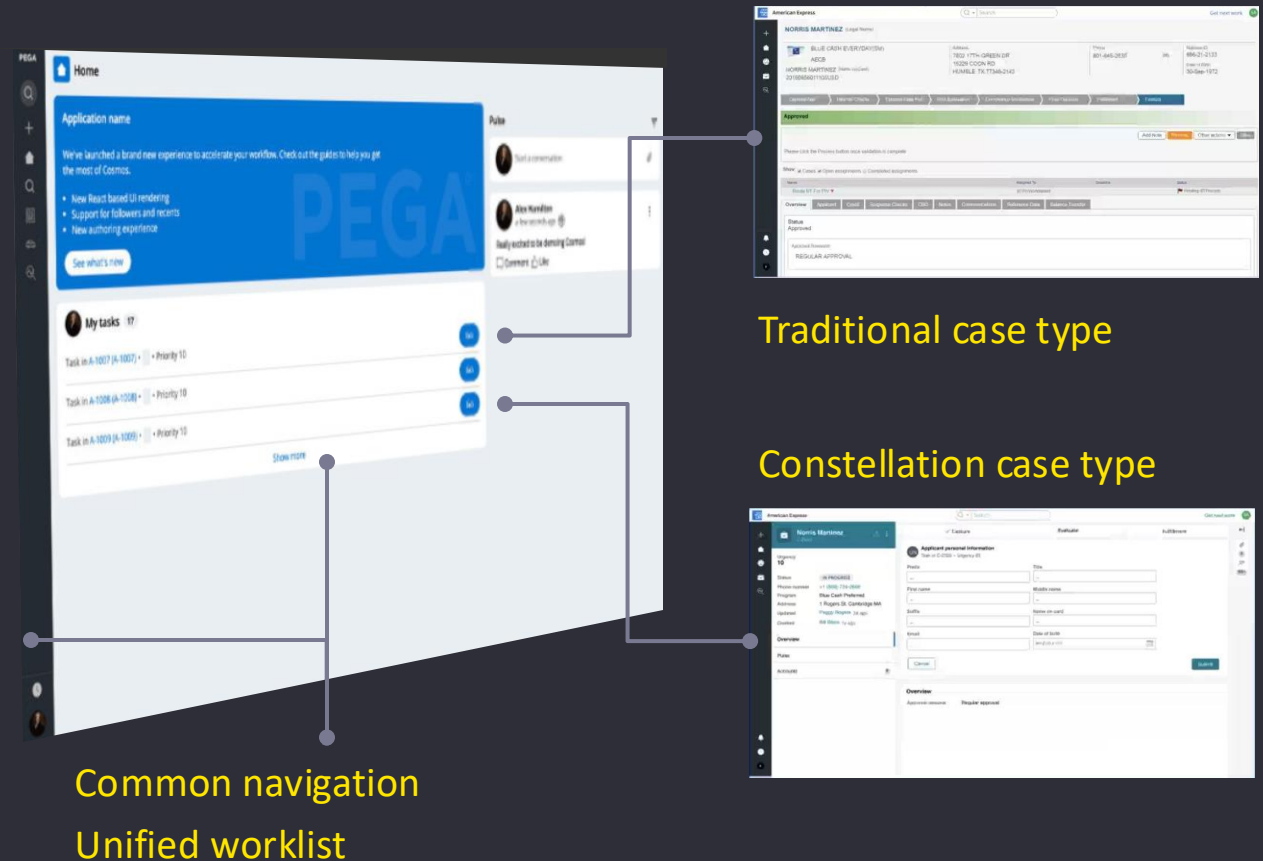
Allows clients to gradually transition to the new technology

Provides end users a familiarity with the Constellation design before any existing application migration

Learn more:

[Using Constellation in existing applications](#)

[Constellation in traditional UI](#)

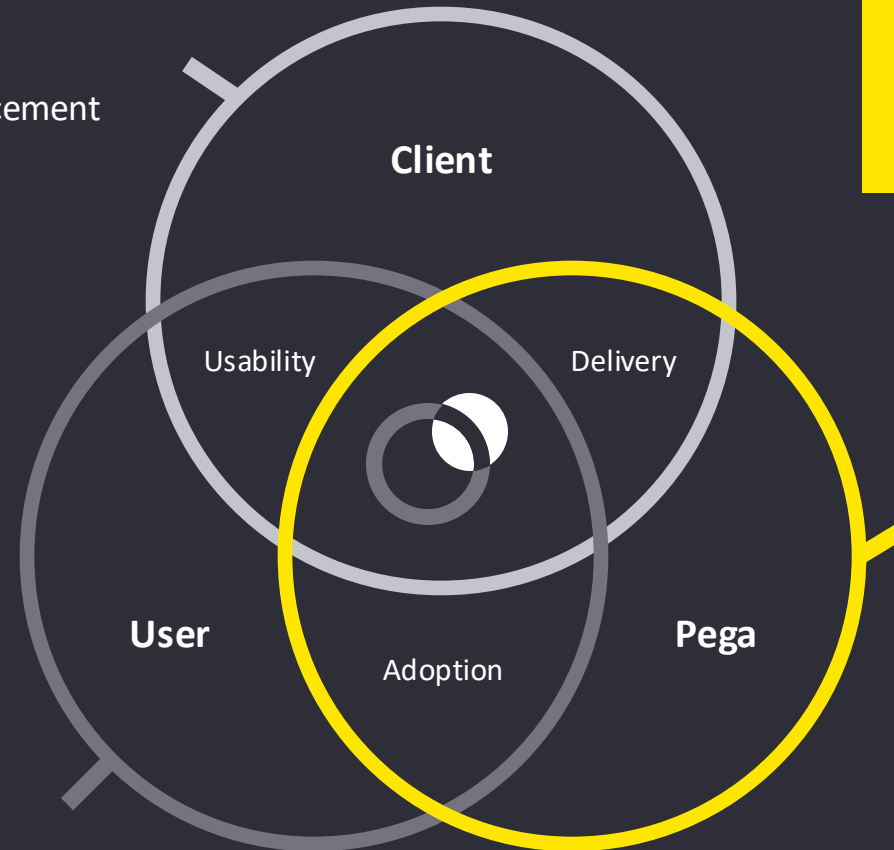


Balancing needs to achieve high-quality design



Active and engaged users
Consistent brand identity
Scalable designs for enhancement

Ease of use and navigation
Efficiency in completing tasks
Consistency in design elements



70%
of failed projects are due to
low user adoption
Forrester Research

Out-of-box components
Template and theme usage
Minimized server payload

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