Client-Side Interoperability and FDC3:
A Developer's Perspective with Luxoft and Glue42

by Denis Ezhov, Senior Software Developer,
and Alexander Chernushevich, Chief Programmer

In Brief:

- In this insightful blog post, Denis Ezhov and Alexander Chernushevich explore the benefits of client-side interoperability in software development, highlighting how standards like FDC3 simplify the integration of diverse applications, making the procedure more streamlined and straightforward.

- We find out how Luxoft, committed to the FDC3 standard, leverages Glue42, a leading platform for desktop integration, to create unified user experiences. Teams of experts use web technologies such as React and Angular for accelerated, efficient development of desktop-like applications.

- The authors take a deep dive into Luxoft's work on large projects for financial clients where we have optimized and restructured existing projects, establishing reusable approaches and components specific to the client's systems, facilitating seamless integration.

The digital world we inhabit is characterized by an interconnected web of applications and systems. The ability to interlink these applications seamlessly is pivotal for businesses seeking to streamline their operations and offer a unified user experience. Luxoft is a key player in this sphere - a global technology services and consulting partner that is helping businesses navigate the challenges of integrating multiple applications.

The Benefits of Client-Side Interoperability

In the past, server-side interoperability was the standard approach to integrating various applications and systems. This methodology, while effective, often involved complex data interchange and format conversions that added a layer of complication to the integration process.

The birth of client-side interoperability presents a compelling alternative, facilitating integration of applications and systems at the client's application level, and circumventing the need for intricate data and message format conversions. Several vendors have risen to the challenge, offering solutions to implement this form of interop. Among these, OpenFin, Finsemble, and Glue42 are some of the frontrunners. However, the initial lack of standardized interop formats led to excess work in converting different apps' data and messaging formats.

Enter FDC3 - Financial Desktop Connectivity and Collaboration Consortium. The goal of FDC3 is to standardize interoperability on the financial desktop. By establishing a standard, FDC3 has facilitated the integration process. When a new application is integrated into the user interface, and both adhere to the FDC3 standard, integration can often be achieved swiftly, sometimes even without coding – it can be as simple as configuring settings.

Luxoft and Glue42: Uniting for a Common Goal

Luxoft, as a technology partner, has a keen focus on creating solutions that adhere to the FDC3 standard. Our teams in Europe and North America have been implementing several projects based on one of the most popular FDC3 vendor products, Glue42.

Glue42, an avant-garde desktop integration platform, enables the crafting of sophisticated desktop applications using web-based technologies such as React and Angular, traditionally leveraged for front-end development. This allows financial firms to enjoy unified desktop experiences, with diverse

applications integrating and operating in harmony. Relying on Electron, Glue42 utilizes a simple API to manage complex operations, such as exchanging data between applications and initiating apps, among other capabilities. The use of popular technologies like React and Angular over more traditional desktop languages like C# accelerates the development process, resulting in quicker, more efficient creation of desktop-like applications for our clients.

Luxoft's teams have embarked on projects for clients in the financial domain, including two leading hedge funds, where the firms have started leveraging Glue42's client-side interop before Luxoft joined the projects. However, their original teams lacked the experience and capacity to structure these large projects adequately, often producing simplistic one-off jobs. This presented Luxoft with the opportunity to step in and restructure all projects, creating reusable approaches and components tailored to the client's systems and infrastructure.

Facilitating Seamless Integration and Collaboration

Luxoft's extensive experience with Glue42 and its dedication to the FDC3 standard sets it apart in the industry. Our skilled teams can quickly ramp up, balancing knowledge of the client's systems and underlying core technologies such as FDC3 and Glue42. Luxoft experts are adept at using Glue42's flexibility to foster collaboration between different teams, making it a scalable solution suitable for increasingly complex systems.

Luxoft has also established a Center of Excellence for clients on client-side interop. The center runs a series of internal workshops and serves as an architectural consulting single point of contact for the entire array of integrating systems in a UI for a client. These initiatives help ensure all teams are aware of any new features or changes in the core functionality of the FDC3 standard and Glue42 platform.

The Journey Ahead

The future looks promising for client-side interop, with companies like Luxoft leading the charge. As teams continue to refine their skills and expand their knowledge of platforms like Glue42 and standards like FDC3, the integration process will only become smoother and more efficient. Additionally, Luxoft's ongoing consulting and educational efforts are not just benefiting the immediate teams, but also spreading throughout our clients' organizations.

This push towards a more standardized approach is not limited to technical procedures. The overarching aim is to develop a cohesive system that can organize the end-user workflows. This includes elements like data visualization, notifications, chats, and many other systems. Instead of these features operating in silos, the goal is to develop a cohesive platform where they can interact, bringing added value to the organization.

While Glue42 already provides a suite of tools that offer excellent support for client-side interop, Luxoft teams are working on enhancing core functionalities even further. By standardizing solutions, all projects can utilize each feature, facilitating communication between applications, gathering data, and more, based on their unique needs.

Implementing these changes has been a systematic and measured process. Over the past two years, Luxoft's dedicated teams have been rewriting core functionalities. A key goal has been to simplify the process of attaching new projects to their core foundation. The result is an efficient system where new projects can be integrated within as little as one hour, enhancing data structures and providing different levels of access based on user requirements.

The beauty of Luxoft's approach is in the interoperability it brings to applications. The core functionalities developed by Luxoft are shared across all teams, allowing them to integrate these features into their own applications. This shared environment promotes a culture of collaboration, allowing teams to request new features and share knowledge. This inter-team collaboration is a testament to the power of client-side interoperability and standardization in making development work more efficient and integrated.
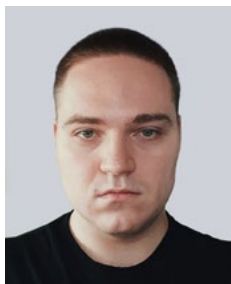
Luxoft is Leading the Way

Client-side interoperability is transforming the way we integrate applications and systems, making the procedure more streamlined and straightforward. Standards like FDC3 serve as the backbone of this transformation, offering a unified approach to the seamless interaction of different software components. When we pair this with trailblazing solutions from providers like Glue42, the scope for harmonious application integration is tremendous.

Luxoft stands at the forefront of this technological shift, with its firm commitment to the FDC3 standard and substantial experience with Glue42. Luxoft's teams excel in providing architectural consulting and training in this client-side interaction domain, establishing the company as an influential contributor in this expanding field.

Whether your organization is venturing into the domain of client-side improvements or seeking to enhance your existing methodologies, Luxoft is prepared to offer the proficiency and guidance necessary. Our teams bring not only their technical know-how but also an unwavering commitment to client success, positioning them as the ideal partner for your software integration requirements.

Interested in harnessing this potential for your business or project? Connect with a Luxoft specialist. We can offer a bespoke approach to using FDC3, facilitating a unified, integrated application experience. Get in touch with Luxoft today to embark on your journey towards seamless software integration.

About **the author**

Denis Ezhov
Senior Software Developer,
Luxoft

A seasoned software developer, Denis joined Luxoft in 2021, bringing with him extensive experience from the Financial and Security sectors. Having started his career in 2012, Denis has consistently demonstrated his proficiency with a wide array of front-end and back-end technologies, including React, Vue, Angular, NodeJS, Java, ROR, C#, and PHP. His niche lies in front-end development, with a particular emphasis on UI/UX (User Interface/User Experience), and he leverages his deep understanding of modern technologies and design principles to deliver top-tier solutions.

Alexander Chernushevich
Chief Programmer,
Luxoft

Alexander's diverse IT career began in 2006 as a full-stack developer, leading him to roles across multiple industries. With a track record of successful projects under his belt, he joined Luxoft as Chief Programmer. Alexander's unique expertise lies in integrating back-end solutions and pioneering new technological client-server solutions. Notably, he has become adept at using Glue42, an Electron-based framework, to develop sophisticated desktop applications. Currently, Alexander plays a crucial role in building a global infrastructure based on Glue42, employing the latest front-end and back-end technologies. He also takes great pride in mentoring new teams, ensuring they are equipped to create systems capable of supporting diverse ideas and initiatives.

If you'd like to find out more visit
luxoft.com or consult one of our experts
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About Luxoft

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