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Luxoft Expedites Business-Critical IPTV Gateway Interface For Integration Into Solution Of Leading Telecom Technology Provider

Geographically Dispersed Teams Use „Agile“ Methodology to Create Vital Technology Interface, Part of a Solution to Deliver New Generation IPTV Services

With timelines critical and budgets fixed, Alcatel-Lucent was asked by one of its customers to covertly migrate a number of subscribers to enable the delivery of subscription-based multimedia content, television and web services to virtually any IP-enabled device (TV, laptop, handheld, mobile) over virtually any network (DSL, cable, 802.11, 2G/3G, DVB-H).

Having worked with Luxoft first in 2007, Alcatel-Lucent was confident in Luxoft's ability to successfully deliver in the required timeframes - because of Luxoft's strong expertise in telecom software development.

The Perfect Time to be Agile

Alcatel-Lucent and Luxoft agreed to use the Agile SCRUM methodology to accomplish the necessary milestones in a highly compacted timeframe.

Using the Agile approach, team members follow a creative, yet transparent process that relies on high productivity, self-organization, and collaboration. Agile teams are laser-focused on delivering working components of the application immediately upon their completion—a crucial requirement in this particular time-sensitive project.

Involving geographically dispersed teams located in St. Petersburg, Omsk, and Dnepropetrovsk, Luxoft engineers and software specialists worked closely with the Alcatel-Lucent team.

The project consisted of two major parts: the creation of an EPG Loader and a Fetchers module. An EPG Loader synchronizes the STB with TV program schedules. Because EPG data is updated asynchronously, Luxoft developed EPG data availability module monitoring as a virtual “watch-dog” and interfacing to query TV programs on any given date and time.

Fetchers are modules which process incoming data requests and respond to the STB. They are divided into two types: the first type is a JavaScript application that allows end users to select a movie or add a TV channel to its list of “favorites”. The second type generates pure data responses.

Daily cross team SCRUM meetings were organized to help Alcatel-Lucent define task priorities based on cross-team velocity. To achieve the desired incremental results, Luxoft provided HTTP unit tests for each client-to-server request. By employing best practices of scope management to keep on track and test automation to meet quality requirements, Luxoft mitigated project risks.

Customer:

Alcatel·Lucent 

The long-trusted partner of service providers, enterprises, strategic industries and governments around the world, Alcatel-Lucent is a leader in mobile, fixed, IP and Optics technologies, and a pioneer in applications and services. Alcatel-Lucent includes Bell Labs, one of the world's foremost centres of research and innovation in communications technology.

Situation:

Alcatel-Lucent needed a software interface as a gateway for delivering upgraded IPTV services.

Challenge:

Deliver a viable software solution to facilitate the integration of a new IPTV platform in a constricted timeframe and under a fixed price engagement model.

Results:

- ◆ In just 6 months, project teams successfully developed the add-on which translates Amino STB data requests into the Alcatel-Lucent middleware API.
- ◆ Luxoft provided HTTP unit tests to allow client to perform self-check of the interface in accordance with specs.
- ◆ Teams developed specs which outlined the implementation details.
- ◆ Luxoft took initiative to develop and implement a “favorites” management layer which captures and holds user account data, a feature expected by current Amino STB users.

Software Technologies:

Java EE, Java Spring, Oracle, HTTP, HTTP Unit tests

Network infrastructure:

WAN, LAN



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In addition to expediting software development, the Agile methodology allowed the cross-functional Alcatel-Lucent and Luxoft teams to implement several other benefits, including:

- ◆ **Paying for Results Only** – functionality was regularly demonstrated and was only accepted when all conditions met previously outlined benchmarks.
- ◆ **Flexibility Without Penalty** – Agile development allowed for built-in change management and provided the framework for fast and objective impact assessment and no-fee change control process.
- ◆ **Business Value Driven Prioritization** - Software functionality was prioritized and delivered according to the business value outlined by Alcatel-Lucent, which enabled a faster realization of benefits and results.
- ◆ **Full Client Control of the Project** - Operational transparency, combined with early and frequent progress updates, kept the client in full control of the project, including adjustments to the project scope as needed and delivering on milestones while maintaining flexibility.

Agile Teams Deliver Desired Results on Time

The project was successfully completed in a timeframe of just six months. The gateway add-on solution now translates Amino STB data requests directly into the more modern middleware API for Alcatel-Lucent's customer. Additionally, Luxoft developed a set of HTTP Unit Tests, allowing Alcatel-Lucent to perform self-checks.

During the development phase, a list of open issues was created along with Amino STB level defects that were discovered.

Thinking outside the box, Luxoft took initiative to develop and implement a "favorites" management layer which captures and holds user account data, a feature expected by current Amino STB users.

Alcatel-Lucent management was extremely pleased with the overall project results and Luxoft's ability to deliver on their mission. Vladimir Korovichev, Alcatel-Lucent R&D Site Manager of Multimedia Integration Services Group agrees.

„Alcatel-Lucent delivers cutting-edge multimedia solutions to meet our customers' most needed business requirements. While Alcatel-Lucent's team was fully concentrated on the most critical parts of this specific project and was totally focused on satisfying our customer's needs, we relied on our partner Luxoft to provide a significant component for our end-to-end solution. As such, our teams could focus on their core competences.”

„The project was successfully delivered on time and on budget. During the project, the Luxoft team took remarkable initiative to deliver above and beyond our expectations,” he says. “The Luxoft project manager in particular demonstrated strong organizational and management skills.”

„The project was successfully delivered on time and within the budget we agreed to.”

Vladimir Korovichev,
Alcatel-Lucent R&D Site
Manager, Multimedia
Integration Services Group

About LUXOFT:

Luxoft, a principal subsidiary of IBS Group, is a provider of advanced application and software engineering outsourcing services for global and regional enterprises. Luxoft builds partnerships with its clients, such as Boeing, IBM, Deutsche Bank, UBS, Harman, Avaya, Alstom, Sabre, based on the culture of engineering excellence, innovation, and deep domain expertise. Luxoft offers international delivery capability through its network of state-of-the-art delivery centers in North America, Eastern Europe, and Asia. Luxoft's customers benefit from the right mix of technology skills, industry knowledge, proprietary processes and methodologies, and a choice of engagement models.

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