

CASE STUDY

infopulse



Manufacturing
Company

Embedded Software R&D for US-based Fabless Semiconductor Manufacturer

Complex Embedded Systems with Onboard 3d Navigation
and Intuitive HMI

Client: Fabless Semiconductor Manufacturer

Industry: Semiconductors / Electronics Manufacturing

Location: USA

Employees: 500+

BUSINESS CHALLENGE

The customer of Infopulse, a US-based manufacturer of fabless semiconductor solutions for communications applications in wireless and wireline network infrastructure markets, was looking for a partner to fully cover their embedded software R&D needs across the company's entire portfolio of semiconductor products.

The initial requirement was to ensure that the final delivery would not contain any functional and non-functional drawbacks since the continuity of the semiconductor manufacturing cycle was business-critical, and failing to meet this challenge could lead to unacceptable financial consequences for the customer. Any changes in semiconductor technologies, telecom protocols, business requirements, and reliability/performance requirements were also expected to be covered in a fast and reliable manner.

SOLUTION

Infopulse set up a powerful R&D center to fully meet the software development needs of the customer. The embedded platforms were entirely architected and developed by the R&D center, covering the following family of customer's cutting-edge products: VoIP processors, baseband processors, enterprise voice and data processors, CPE processors, Carrier convergence processors, etc. The key activities of the R&D team:

- Development of communications apps for wireless and wireline network infrastructure;
- Integration of IP and classical telephony;
- Unique configuration management of production firmware versions;
- IP and non-IP based streaming to ensure security;
- Audio compression for big set of leading open and commercial codecs.

A testing lab with all of the needed target hardware provided by the client was built on the side of Infopulse for functional and performance testing in order to ensure waterfall-like delivery of the top quality.

A centralized, automated configuration and release management approach was set up to ensure simultaneous delivery of a number of releases to different hardware platforms after implementing changes in the core components.

TECHNOLOGIES

C/C++

SIP

G.xyz codecs

NAT

VPN IPSec

Linux kernel

BUSINESS VALUE

Infopulse was crucial in filling in the gaps in the customer's production cycle by providing high-quality embedded software for the entire product lines. Thanks to the seamless performance of the R&D center, the customer increased the reliability of the products they delivered to their worldwide communications clients, as well as significantly reduced time to market and production costs.



ABOUT INFOPULSE

Infopulse, part of the leading Nordic digital services company TietoEVRY, is an international vendor of services in the areas of Software R&D, Application Management, Cloud & IT Operations, and Cybersecurity to SMEs and Fortune 100 companies across the globe. Founded in 1991, the company has a team of over 2,000 professionals and is represented in 11 countries across Europe and North America. Infopulse is trusted by many established brands, such as BICS, Bosch, British American Tobacco, Citrix, Credit Agricole, ING Bank, Gorenje, METRO Cash & Carry, Microsoft, Mondelez, OTP Bank, Raiffeisen Bank Aval, SAP, UkrSibbank BNP Paribas Group, VEON, Vodafone, and others.

For more information, please visit

www.infopulse.com

CONTACT US

📞 UA: +38 (044) 585-25-00 | DE: +49 (3222) 109-52-35 ✉️ info@infopulse.com
USA: +1 (888) 339-75-56 | UK: +44 (8455) 280-080

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