Reference IT-CS-51

Project/ Activity Real-time Domain Name Server configuration updates

Duration 1 year

Description CERN's network and telecommunications infrastructure is essential to all activities of the laboratory. It

supports CERN's high-performance data centre network, technical network, and over a hundred

thousand user devices.

This infrastructure is designed, configured, and managed using an internally developed suite of Web applications built with state-of-the-art technologies: Java, Spring, AngularJS, Oracle, Kubernetes. The domain name servers are currently configured statically via regular exports of the network database (LanDB). The expert will develop a microservice to convert network configuration changes into dynamic DNS updates, in order to modify the configuration of the DNS server in near real-time. The expert will be part of an agile software team of talented young developers, will contribute to integrate these technologies, and will participate in all aspects of software development (design,

coding, and support) in all Web applications supported by the team.

Profile Bachelor's degree in the field of Computer Science or related field, or equivalent. Software

development experience in Web applications, agile methodologies, and related tools (VCS, bug tracking, build pipelines). General experience using databases (ideally Oracle). Programming

Languages: Java, JavaScript, SQL, PL/SQL or similar

Specific details As developer in an agile team, the expert will work on Web applications for network management,

learn about modern Web technologies (among which AngularJS, Spring, Docker, Grails) and software development methodologies (Agile, Scrum). The team works and communicates in English, therefore a

good working knowledge is needed.