



## FULL-TIME RESEARCH ENGINEER/COMPUTER SCIENTIST POSITIONS REAL-TIME CLOUD AND DISTRIBUTED COMPUTING – BELL LABS IRELAND

### Background

Bell Labs' research facility in Dublin, Ireland is a leading end-to-end systems and solutions research lab working in the areas of autonomic networking, cloud and distributed computing, platforms for real-time big-data streaming and analytics, wireless networks, semantic data access, services-centric operations and thermal management. The lab is embedded in the great traditions of the Bell Labs systems research, internationally renowned as the birthplace of modern information theory, UNIX, the C/C++ programming languages, Awk, Plan 9 from Bell Labs, Inferno, the Spin formal verification tool, and many other systems, languages, and tools.

We have openings for full-time research engineers and/or computer scientists in our Autonomous Networks and Systems Research Department, focusing on research enabling future cloud and distributed computing applications.

A successful candidate will have strong experience in distributed systems, computer networks, operating systems, virtualisation, multimedia systems, and is expected to be able to model, design and build systems.

### Role description

- Advance the state-of-the-art of research in cloud and distributed computing, with a particular focus on supporting strong quality of service guarantees.
- Investigate on novel platforms for future distributed and computing services, introducing breakthrough innovations in operating systems, virtualisation, and network operations, so as to provide enhanced flexibility and advanced self-optimisation capabilities in future distributed cloud applications, including support for latency-sensitive workloads.
- Publish the outcomes of the research in major scientific venues worldwide, including top conferences and journals.
- Create and maintain strong collaborative relationships with researchers from academia, other leading research bodies, business units, and government agencies.
- Partner with business units to ensure the successful exploitation of research outputs.
- Generate intellectual property through the patenting of ideas.

- Contribute in a positive manner to the creative and innovative atmosphere in Bell Labs.

### Qualifications, skills, and experience

Candidates must have a PhD (or be close to get one) in computer science or engineering or any related field. They must have the ability to conduct independent research while also contributing to team-oriented projects that often span across multiple Bell Labs sites.

A successful candidate will be versatile, flexible, hands-on, and a self-starter. Experience in development activities is also desirable.

Candidates must possess the following skills and experiences:

- Operating systems, virtualisation and computer architectures.
- Software development skills (C/C++, Python,...).
- Computer networks and distributed systems.
- Optimisation techniques and algorithms.
- Probabilistic modelling of systems performance.

The following skills are also desirable:

- Kernel-level programming (drivers, scheduler,...).
- Xen, KVM and Linux scripting/administration.
- Parallel and distributed systems programming (MPI, OpenMP, CUDA, MapReduce, StarSs, ...).
- Simulation of distributed systems.
- Experience with OpenStack or OpenNebula or other cloud infrastructure management software.

### Key attributes

- Strong written and spoken communications skills, able to participate in robust discussions in English.
- Good track records in a research area related to the topics mentioned above, or strong industrial experience in a related field.
- Able to design and build systems.

A comprehensive benefits package exists including relocation costs.

### Application

In order to apply, please, send an e-mail of interest enclosing your full CV and a research statement letter to: [tommaso.cucinotta@alcatel-lucent.com](mailto:tommaso.cucinotta@alcatel-lucent.com).