NOVARTIS

Associate Director - HPC Infrastructure Architect

Job ID
REQ-10088211

十月 30, 2026

Czech Republic

摘要

Scientific computing sits at the centre of how Novartis discovers and develops medicines. Cloud & Hosting Services has established AI & HPC Engineering as the single engineering and delivery channel for high-performance computing, and Architecture & Integration owns the target architecture behind it. The HPC Infrastructure Architect is accountable for that architecture: the compute, storage, interconnect, scheduling and data-locality design that scientific workloads run on, on premises and in the cloud.

The role translates scientific demand - molecular modelling, imaging and cryo-electron microscopy, genomics, simulation and increasingly AI-adjacent workloads - into capacity models, workload placement principles and platform patterns. It carries the physical dependencies with it: power, rack and cooling envelopes, high-performance storage tiers, network fabric, and the data centre and colocation footprint that a large campus and site transformation programme is reshaping.

This is an individual contributor architecture role in which credibility with scientists matters as much as credibility with infrastructure engineers.

About the Role

Key Responsibilities:

- Own the HPC reference architecture: cluster topologies, CPU and GPU node designs, high-performance and tiered storage, interconnect fabric, schedulers and the software stack that supports scientific workflows.
- Define the scientific workload placement model - which workloads run on dedicated clusters, which burst to cloud, and which belong on AI platforms - based on performance, data gravity, cost and compliance.
- Produce and maintain capacity plans for compute, accelerators, storage and network, including the power, rack and cooling requirements that data centre and colocation planning depends on.
- Establish data-locality and data-movement principles across instruments, laboratories, storage tiers, archive and cloud, including replication and recovery approaches for irreplaceable scientific data.
- Translate scientific requirements into sizing, benchmarking and procurement input, and validate feasibility before engineering build.
- Maintain architecture decision records for HPC platform choices, connecting each to scientific outcome, cost and lifecycle consequence.
- Define the interface with AI infrastructure so that shared accelerators, storage and data pipelines are used coherently rather than duplicated.
- Ensure HPC designs meet security, quality and regulatory expectations and are operable by Infrastructure Operations after handover.
- Engage scientific communities and research IT partners as the trusted architecture contact for high-performance computing.
- Coach engineers and analysts, and act as a role model for the Novartis Values and Behaviours.

Essential Requirements:

- 8+ years of experience designing, building, or operating large-scale High-Performance Computing (HPC) environments.
- Proven expertise in HPC platform architecture, capacity planning, and multi-cluster infrastructure design.
- Strong experience supporting Linux-based compute clusters in enterprise or scientific computing environments.
- Hands-on knowledge of workload schedulers such as Slurm, LSF, or comparable HPC scheduling technologies.
- Solid understanding of CPU and GPU infrastructure design, performance optimization, and benchmarking methodologies.
- Experience with high-performance storage solutions, parallel file systems, and high-speed networking technologies, including InfiniBand and Ethernet fabrics.
- Knowledge of containerized, reproducible scientific workflows and hybrid or cloud-based HPC environments.
- Familiarity with large-scale data management practices, including data replication, archiving, and infrastructure planning (power, cooling, and rack design); experience supporting research or scientific computing communities is highly desirable.

Desirable Requirements:

- Able to work fluently with scientists and translate research needs into infrastructure terms; rigorous, evidence-based approach to sizing and benchmarking; long-horizon planning discipline; strong collaboration across engineering, facilities and research organizations.
- Fluent English, written and spoken. Additional languages are an asset.

Expected Annual Base Salary Range for role: 1,120,210.00 - 2,080,390.00 CZK

The base salary offered is determined based on gender-neutral objectives, such as relevant skills, competencies and experience in accordance with the Novartis pay setting policy and upon joining Novartis will be reviewed periodically.

In addition to your base salary, you may be eligible for a performance-based bonus depending on certain performance parameters.

The rewards of being part of our team go far beyond base pay and incentives. We also offer a variety of competitive benefits in kind to help you thrive personally and professionally, such as insurance plans, retirement plans, wellbeing resources and global recognition programs. In addition, we provide flexible and hybrid working options, where possible, and minimum 14 weeks paid parental leave.

Pay equity is a fundamental principle of our employment policy and reflects our commitment to create a diverse, equitable and inclusive environment that treats all employees with dignity and respect, as outlined in our Code of Ethics.

Read our brochure to learn more about our global total rewards offering:
https://www.novartis.com/sites/novartiscom/files/novartis-life-handbook.pdf

Note: Benefits and compensation may vary by country and are subject to local legal requirements, including provisions of collective bargaining agreements where applicable. A full overview of your compensation package, including any relevant collective bargaining agreement details applicable to your role based on your employment location and Novartis employer entity, will be communicated separately to you during the application process.

Commitment to Diversity & Inclusion:

Novartis is committed to building an outstanding, inclusive work environment and diverse teams representative of the patients and communities we serve.

Accessibility and accommodation:

Novartis is committed to working with and providing reasonable accommodation to all individuals. If, because of a medical condition or disability, you need a reasonable accommodation for any part of the recruitment process, or in order to receive more detailed information about the essential functions of a position, please send an email to di.cz@novartis.com and let us know the nature of your request and your contact information. Please include the job requisition number in your message.

Why Novartis: Helping people with disease and their families takes more than innovative science. It takes a community of smart, passionate people like you. Collaborating, supporting and inspiring each other. Combining to achieve breakthroughs that change patients ' lives. Ready to create a brighter future together? https://www.novartis.com/about/strategy/people-and-culture

Benefits and Rewards: Learn about all the ways we ' ll help you thrive personally and professionally. Read our handbook (PDF 30 MB)

Primary location salary range
K č 1,120,210.00 - K č 2,080,390.00

部门
Operations

Business Unit
Information Technology

地点
Czech Republic

站点
Prague

Company / Legal Entity
CZ02 (FCRS = CZ002) Novartis s.r.o.

Functional Area
Information Technology

Job Type
Full time

Employment Type

Regular

Shift Work
No

var kPlayer = KalturaPlayer55802022 || KalturaPlayer; var config = { targetId: "kalturaplayer6aec0cdc46b8f614318405", provider: { widgetId: "10m7rm1pm", partnerId: "2076321", uiConfId: "55802022" }, playback: { autoplay: false, autopause: false, muted: false, loop: false }, sources: { options: {}, startTime: 0 }, disableUserCache: "true", plugins: {}, sources: { options: {}, startTime: 0 }, ui: { showCCButton: false, settings: { showQualityMenu: true, showSpeedMenu: false }, components: { fullscreen: { disableDoubleClick: false } }, uiComponents: [{ presets: ['Playback', 'Live'], area: 'BottomBarRightControls', replaceComponent: 'Fullscreen', get: kPlayer.ui.components.Remove }] } }; // Check and add plugins only if they exist if (kPlayer.plugins["download"]) { config.plugins.download = { disable: true }; } if (kPlayer.plugins["transcript"]) { config.plugins["playkit-js-transcript"] = { position: "right", // Default: bottom;('left', 'right', 'top', 'bottom') to enable transcript. expandMode: "over", // Default: alongside;('alongside', 'hidden', 'over') expandOnFirstPlay: false, showTime: true, downloadDisabled: false, printDisabled: false, disable: true }; } if (kPlayer.plugins["preventSeek"]) { config.plugins.preventSeek = { preventSeekForward: false, preventSeek: false }; } config.plugins.floating = { disable: true }; if (kPlayer.plugins["navigation"]) { config.plugins.navigation = { position: "right", expandMode: "over", expandOnFirstPlay: false, visible: false }; } if (kPlayer.plugins["hotspots"]) { config.plugins['playkit-js-hotspots'] = { disable: true }; } if (kPlayer.plugins["moderation"]) { config.plugins['playkit-js-moderation'] = { disable: true }; } if (kPlayer.plugins["info"]) { config.plugins['playkit-js-info'] = { disable: true }; } if (kPlayer.plugins["share"]) { config.plugins.share = { disable: true }; } config.ui.uiComponents = []; if (kPlayer.plugins["googleAnalytics"]) { config.plugins.googleTagManager = {}; config.plugins.googleTagManager.customEventsTracking = {}; config.plugins.googleTagManager.containerId = 'GTM-57RJQ5'; config.plugins.googleTagManager.customEventsTracking.custom = []; config.plugins.googleTagManager.customEventsTracking = { preset: { coreEvents: true, UIEvents: false, playlistEvents: false, castEvents: false } }; }

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