

Associate Director - HPC Infrastructure Architect

Job ID
REQ-10088416

九月 23, 2026

India

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.

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部门

Operations

Business Unit

Information Technology

地点
India

站点
Hyderabad (Office)

Company / Legal Entity
IN10 (FCRS = IN010) Novartis Healthcare Private Limited

Functional Area
Information Technology

Job Type
Full time

Employment Type
Regular

Shift Work
No

```
var kPlayer = KalturaPlayer55802022 || KalturaPlayer; var config = { targetId:
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"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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// Ensure the global player registry array always exists, regardless of embed type.  
window.kalturaPlayerVideos = window.kalturaPlayerVideos || []; try { var thumbEmbedPromise =  
thumbnailEmbed({config, mediaInfo: {entryId: "1dgvfmafo"}}); // thumbnailEmbed() returns a  
Promise that resolves with the player instance // when the user clicks the thumbnail. Use .then() to  
capture the player directly. thumbEmbedPromise .then(function(player) {  
window.kalturaPlayerVideos.push(player); // Notify kaltura_dataLayer.js that a new player is ready so  
it can // attach custom event listeners immediately, regardless of when // the user clicked the  
thumbnail relative to page load. document.dispatchEvent(new CustomEvent('kalturaPlayerReady', {  
detail: { player: player } })); }) .catch(function(error) { console.error(error); }); } catch (e) {  
console.error(e.message) }
```

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