



# WorkCloud Starter Service Definition Document

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## Introduction

High-Performance Computing workloads have significantly evolved. Simulation, AI, machine learning, and data analytics now co-exist on the same clusters, creating new constraints around performance, scheduling, resources, governance, energy consumption and cost efficiency. Modernizing an HPC infrastructure can no longer rely on intuition or hardware lifecycle alone — it requires a clear, data-driven understanding of how the cluster is used today.

WorkCloud Starter is UCit's packaged assessment service designed to help organizations analyse their HPC usage and define an informed roadmap for their next cluster evolution — whether on-premises, hybrid, or cloud-based.

This service provides a structured, fact-based evaluation using customer HPC logs and expert guidance, leveraging UCit's proven methodology and HPC expertise.

## Service Description

### Overview

WorkCloud Starter transforms your HPC job scheduler logs and interviews into actionable insights that guide infrastructure renewal decisions. It identifies major workload patterns, inefficiencies and opportunities.

The service follows an efficient, interview-light workflow designed for fast, reliable results without requiring internal tooling or heavy customer involvement.

WorkCloud Starter includes:

- Ingestion and analysis of HPC job scheduler logs using UCit OKA
- Identification of main workload families and behaviour
- Detection of bottlenecks, inefficiencies, and capacity issues
- Recommendations for sizing, modernization, and hybrid feasibility
- A documented report and a collaborative review meeting

### Key Benefits

- Data-driven cluster renewal based on real historical behaviour
- Reduced uncertainty in planning future HPC infrastructure
- Identification of inefficiencies in user behaviour or resource allocation
- Clear strategy recommendations for on-premises or hybrid evolution
- Fast results with minimal burden on internal teams
- Expert HPC guidance from UCit specialists

## Core Service Features

WorkCloud Starter provides:

- Kickoff session (1 hour) to understand context, objectives, and constraints
- HPC logs ingestion & processing<sup>1</sup>
- Usage KPIs:
  - CPU/memory efficiency
  - Queueing behaviour
  - Runtime distributions
  - Failure/cancellation patterns
  - License server usage (if logs allow)
- Workload classification (applications, departments, job sizes, resource profiles)
- Identification of inefficiencies such as over-allocation, congestion, hotspots
- Recommendations on sizing, scheduling policy, and hybrid suitability
- Final report summarizing findings, supported by charts and workload analysis
- Review meeting to walk through results and implications

## Service Methodology

WorkCloud Starter relies on UCit's structured WorkCloud Methodology, tailored to fit a light and rapid assessment:

### Step 1 – Project Kick-off

Understanding the organizational context:

- HPC environment overview
- Key workloads
- Migration or renewal motivations
- Constraints (data, licenses, security)

### Step 2 – Data Collection

Customer provides:

- Job scheduler logs (1–12 months recommended)

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<sup>1</sup> See list of supported job schedulers :

[https://doc.oka.how/admin\\_guide/requirements/index.html#job-scheduler](https://doc.oka.how/admin_guide/requirements/index.html#job-scheduler)

- Optional: application list, license constraints, storage workflows
- No system access is required.

### Step 3 – Cluster Behaviour Study

Analysis includes:

- Load patterns across time
- Queue vs execution behaviour
- Efficiency of resource usage
- Job typology and application families
- Failure rates and recurring issues
- Identification of high-value workloads

### Step 4 – Recommendations & Review

UCit delivers:

- A structured report
- Actionable recommendations
- Sizing guidance
- Strategic next steps
- Review session with stakeholders

## Service Scope

### Out of Scope

- Deployment of any software
- Continuous monitoring or long-term support
- Cloud deployment or migration work
- Detailed workload modelling beyond the “Starter” scope
- Development of custom scripts or automation
- Installation or configuration of customer systems

## Prerequisites

- Ability to export HPC scheduler logs
- One or more stakeholders to participate in the kick-off meeting
- Optional: documentation of architecture or key applications
- A communication channel for file transfers (S3, SCP, secure file sharing...)

## Customer Responsibilities

- Provide logs and relevant context information
- Ensure logs or usage information meet internal confidentiality policies
- Participate in kick-off and review sessions
- Validate scope and objectives
- Approve the final deliverable

## Deliverables

### WorkCloud Starter Deliverables

- Cluster Usage Analysis Report including:
  - HPC usage KPIs
  - Workload families and typology
  - Inefficiencies and issues
  - Pre-selection of cloud-suitable workloads
- Strategic Recommendations covering:
  - Sizing
  - Performance considerations
  - Hybrid feasibility
  - Cost and sustainability factors
- Review Session (remote)

All deliverables are provided in PDF or PowerPoint format as appropriate.

## Support

### WorkCloud Starter includes:

- Support for data intake
- Clarification questions
- Delivery review

### It does not include:

- Ongoing support
- Post-study planning assistance
- Technical support for HPC systems or cloud platforms

Extended services are available separately at OCF HPC Services

## Security & Compliance

- All data provided remains strictly confidential
- UCit handles logs and reports in accordance with internal security policies
- Data is deleted at the end of the project unless otherwise agreed
- No direct access to customer infrastructure is required