Skyral

Pricing Document: Skyral Decision Support and Problem Solving as a Service – Risk, Vulnerability & Resilience

Service Name: Skyral Decision Support and Problem Solving as a Service – Risk, Vulnerability & Resilience
Supplier Name: Skyral Defence Ltd
Framework and Lot: G-Cloud 15, Lot 3

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1. About Skyral

Skyral is a UK-headquartered modelling, simulation and decision-support company that helps governments, critical national infrastructure operators and enterprises understand, anticipate and manage complex risks. Using large-scale digital twins and advanced modelling, Skyral represents how assets, people, processes, systems and external threats interact as living networks rather than static diagrams.

Risk, vulnerability and resilience customers use Skyral to:

- See how risks emerge, propagate and interact across operations, supply chains, infrastructures and geographies.
- Test “what-if” scenarios for hazards, disruptions, failures and threats before they occur in the real world.
- Design and evaluate mitigation strategies, contingency plans and resilience investments with evidence rather than intuition.

Skyral CORE provides the underlying capability to build, run and govern simulation-driven risk and resilience digital twins as a long-lived decision-support capability.

2. Service Overview

Service name

Skyral Decision Support and Problem Solving as a Service – Risk, Vulnerability & Resilience

Purpose

Skyral Decision Support and Problem Solving as a Service (Risk, Vulnerability & Resilience Edition) is a focused, typically one-month engagement that shapes how modelling and simulation should be used to understand, anticipate and mitigate complex risks.

It is designed to:

- Turn broad concerns about risk, vulnerability and resilience into a structured, decision-ready view.
- Produce a prioritised set of risk levers, use cases and scenarios to focus limited resilience and risk-management resources on.

- Define a clear follow-on path into Skyral Modelling and Simulation Development as a Service (Risk & Resilience Edition) and full risk / resilience digital-twin programmes.

This edition serves organisations concerned with operational resilience, critical national infrastructure protection, supply-chain fragility, emergency management, climate-related risk, regulatory compliance and enterprise risk management.

Typical duration and team

A standard engagement is one month of effort, delivered by:

- A risk / resilience Subject Matter Expert (SME) with experience in operational risk, resilience, CNI or enterprise risk management.
- An Applied Scientist specialising in modelling, simulation and analytics.
- A Product Owner responsible for mapping outcomes into Skyral services, products and the organisation's risk, operations and data landscape.

Longer or multi-phase engagements can be scoped where risk and resilience concerns span multiple sectors, geographies or regulatory regimes.

3. Method and Activities

The service focuses on complex, interconnected risks—where standard risk registers and point tools struggle—and prepares the ground for synthetic environments that can test shocks, threats and mitigations at scale.

Core steps

1. **Clarify the risk and resilience problem**
    - Establish a shared understanding of key risk and resilience questions (e.g. operational resilience, CNI disruption, systemic supply-chain risk, climate hazards, cyber-physical threats, regulatory scenarios).
    - Capture desired outcomes and constraints: tolerances, impact thresholds, recovery objectives, regulatory tests, stakeholder expectations and time horizons.
2. **Map systems, interdependencies and threat surfaces**
    - Disaggregate the problem using logic trees and causal structures across assets, services, processes, people, suppliers, partners, infrastructure and external conditions.
    - Identify critical interdependencies and fragilities: single points of failure, tight couplings, capacity constraints, geographical or supplier concentrations, key data or system dependencies.



- Map relevant threat vectors and hazards (e.g. infrastructure failures, cyber-physical attacks, natural hazards, demand shocks, macro events).

3. **Define and refine risk and resilience metrics**
   - Identify metrics linked directly to risk and resilience (e.g. probability and impact of failure, time to recover, service continuity, cascade depth, regulatory thresholds, financial loss, safety and reputational indicators).
   - Clarify how trade-offs will be judged: cost vs resilience, redundancy vs efficiency, risk reduction vs time-to-implement, local vs systemic benefits.
4. **Develop high-level causal and probabilistic risk models**
   - Using Skyral's Simulation Scaffold Framework, build high-level causal and probabilistic models that describe how risks emerge, propagate and interact across the system.
   - Represent how different hazards, failures and threat vectors influence each other, and how mitigations or controls change risk and resilience profiles.
5. **Identify and prioritise critical risk levers**
   - Prior to and during delivery, Skyral and the customer identify critical risk levers such as system fragilities, interdependency points, threat vectors, capacity constraints, hazard impacts or organisational vulnerabilities.
   - Apply heuristics, cleaving maps and quantitative reasoning to prioritise these levers and associated initiatives by impact, likelihood, feasibility, time-to-value and regulatory/materiality relevance.
6. **Develop a practical risk and resilience work plan**
   - Convert prioritised levers and initiatives into a concrete work plan for further analysis, simulation, mitigation design and investment planning.
   - Define data needs (e.g. incident and loss data, asset and process inventories, supplier and logistics data, hazard layers, financials), stakeholders, integration points (risk tools, BI, operational systems) and decision checkpoints.
7. **Frame follow-on risk & resilience digital-twin and simulation work**
   - Define how risk and resilience digital twins should be scoped and built in follow-on Skyral Modelling and Simulation Development as a Service (Risk & Resilience Edition) engagements.
   - Outline key scenarios and experiments (e.g. stress tests, outage cascades, climate scenarios, supply-chain disruptions, regulatory scenarios) and decision-support use cases.

Service Outputs

At the end of the engagement, the customer receives:

- **Risk and resilience decision narrative**
    - A clear articulation of the risk and resilience problem, context, constraints and objectives.
    - A visual representation of key drivers, interdependencies, threat vectors and vulnerabilities across operations, assets, people, supply chains and external conditions.
- **Prioritised risk levers, scenarios and initiatives**
    - A ranked list of risk levers and resilience initiatives (e.g. controls, redundancy, diversification, hardening, process changes, contingency plans) with rationale and key assumptions.
    - Identification of the top levers and scenarios best suited for simulation and digital-twin development.
- **Risk and resilience metric framework**
    - Defined risk and resilience metrics mapped directly to prioritised levers and initiatives.
    - Commentary on how these indicators should be tracked and used in future scenario analysis, regulatory assessments and governance.
- **High-level causal / probabilistic risk model**
    - A high-level causal and probabilistic model of the risk landscape, suitable as a scaffold for more detailed simulation and for engaging boards, regulators and operational leaders.
- **Strategic roadmap and action plan**
    - A strategic roadmap and actionable plan that guides follow-on synthetic environment and digital-twin development, scenario testing, resilience planning and risk-reduction work.

Outputs are delivered in accessible formats (e.g. slide pack, report and, where appropriate, simple scenario exploration views) that can be used directly in risk committees, resilience forums and board or regulatory engagements.

4. Pricing

Skyral Modelling and Simulation Development as a Service is provided as a fixed price service, deployed in 3 or 6 months of Sprints.

Price: £**60,000 (Sixty thousand pounds)**

Standard Rate Card

Standardised programme specifications can be tailored to an engagement with changes in pricing on time and materials basis. The SFIA rate card excludes rates for

onsite development or DV cleared personnel. We are able to deploy the delivery team to any working location as required depending on the nature of work to be undertaken, rates for this can be detailed if requested based on the scale and duration of the services in question.

SFIA Level	Strategy & Architecture	Change & Transformation	Development & Implementation	Delivery & Operation	People & Skills	Relationships & Engagement
2. Assist	£949.09	£949.09	£949.09	£949.09	£949.09	£949.09
3. Apply	£1,120.00	£1,120.00	£1,120.00	£1,120.00	£1,120.00	£1,120.00
4. Enable	£1,565.41	£1,500.14	£1,434.87	£1,500.14	£1,304.33	£1,304.33
5. Ensure, Advise	£1,683.11	£1,612.49	£1,534.87	£1,683.11	£1,402.77	£1,402.77
6. Initiate, Influence	£1,926.00	£1,833.98	£1,833.98	£1,833.98	£1,833.98	£1,833.98
7. Set Strategy, Inspire	£2,378.61	£2,266.26	£2,266.26	£2,266.26	£2,266.26	£2,266.26
Consultant's working day: 7.5 hours exclusive of travel and lunch.						
Working week: Monday to Friday excluding national holidays.						
Office hours: 09:00 – 17:00 Monday to Friday.						
Travel/mileage subsistence: Included in day rate within M25. Payable at department's standard travel and subsistence rates outside M25.						
Professional indemnity insurance: Included in day rate.						

5. Pricing model and units (linking to framework pricing rules)

The pricing model for this service is a fixed-scope, time-boxed engagement, with options to extend into further phases through follow-on engagements (such as Skyral Synthetic Development Services).

Core structure:

- Core one-month engagement priced as a fixed-price package based on defined deliverables (decision narrative, prioritised initiatives, KPI framework, high-level model, roadmap) and agreed stakeholder footprint.
- Extensions or additional phases (e.g. extra domain deep-dives, expanded stakeholder scope, additional scenario families) priced either as additional fixed-price work packages or time-and-materials under the relevant framework rate card.
- Any subsequent Skyral Modelling and Simulation Development as a Service or digital-twin deployment would be priced separately, reflecting model build effort, platform usage and, where relevant, managed-service components.
- Exact pricing, units (e.g. person-days, work packages) and linkage to framework pricing rules are defined in the commercial schedule.

6. Key assumptions and exclusions

Key assumptions:



- The customer provides timely access to stakeholders and data sufficient to meet the agreed timeline and deliverables.
- The primary goal is decision-support, strategy and prioritisation across risk, vulnerability and resilience, rather than full production implementation or detailed design of all controls and systems.
- Initial models and scenarios are used to compare options, highlight trade-offs and stress-test strategies rather than to produce exact forecasts at every product, process or site level.

Key exclusions (unless explicitly added to scope):

- Full-scale, production-grade risk and resilience digital-twin implementation and ongoing integration with live operational systems (e.g. core operational platforms, risk engines, incident management systems), which are covered by subsequent Skyral Modelling and Simulation Development as a Service and platform services.
- Detailed vendor-specific configuration or custom development of operational or risk systems, low-level engineering tasks or direct changes to production environments.
- 24×7 operational support, incident management and availability SLAs typical of managed operational platforms.
- Formal regulatory submissions, statutory reports or audit opinions; Skyral's outputs can inform such work but do not replace formal assurance or regulatory processes.

7. Related services and optional add-ons

Related Skyral services:

- Skyral Modelling and Simulation Development as a Service (Risk & Resilience Edition) – builds detailed risk and resilience digital twins and agent-based models aligned to the prioritised levers and scenarios from this engagement, enabling ongoing stress testing, "what-if" analysis and resilience planning.
- Skyral Modelling and Simulation Development as a Service (Business Optimisation) – builds detailed, business-focused digital twins and agent-based models aligned to the prioritised levers and scenarios from this engagement, enabling ongoing "what-if" analysis and optimisation.
- Skyral Modelling and Simulation Development as a Service (Defence and National Security) – builds detailed mission and theatre-level synthetic environments and digital twins aligned to the prioritised mission threads, levers and scenarios from this engagement.
- Skyral Modelling and Simulation Development as a Service (Health) – builds detailed health-system digital twins and agent-based models aligned to the prioritised levers and scenarios from this engagement, enabling ongoing "what-if" analysis, optimisation and operational decision-support.



- Skyral Modelling and Simulation Development as a Service (Mobility & Infrastructure) – builds detailed digital twins and agent-based models of cities, corridors, ports, airports, logistics networks and interdependent infrastructures, aligned to the prioritised levers and scenarios from this engagement.
- Skyral Modelling and Simulation Development as a Service (Network Edition): builds detailed network digital twins and agent-based models aligned to the prioritised levers and scenarios identified in this engagement.
- Mission Planning & Decision Support services for defence and national security, using large-scale agent-based modelling to explore courses of action, logistics and resilience across multi-domain operations.
- Health Policy & Programme Strategy simulation services, applying similar techniques to patient flows, resource allocation and intervention strategies for health systems.

Optional add-ons to this specific service:

- Additional deep-dive modules on specific risk domains or systems (e.g. particular supply chains, critical facilities, regions, customer-facing services or technology stacks), delivered either as extended discovery within this service or as Skyral Advisory/Synthetics Development phases depending on need.
- Rapid proof-of-concept risk and resilience digital-twin instances (e.g. for a specific asset network, region or supply chain) using existing data and synthetic agents to demonstrate interactive scenario analysis and resilience testing beyond the initial decision narrative, delivered via Skyral CORE and Modelling and Simulation Development as a Service.
- Extended roadmap, business-case and regulatory-engagement support, including structured inputs to investment cases, resilience plans and regulatory submissions that depend on robust risk and resilience evidence.

8. Contact, account management and reporting

- E. enquiries@skyral.io
- W. www.skyral.io