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The Reactive Operations Problem in Higher Education IT

On complexity, fragmented visibility and the structural difficulty of staying ahead of an environment that never quite lets you catch up.

Most mornings, the queue is already waiting.

Before the first meeting. Before the first coffee. Alerts from overnight, a helpdesk ticket from a faculty about intermittent connectivity that has apparently been intermittent for two weeks, and somewhere in the monitoring dashboard, an amber status on something that should be green. The planned day has already given way to the operational one.

This is not a staffing problem, a skills problem or a technology problem in isolation. It is what happens when the complexity of the operational environment keeps outpacing the capacity to manage it. And in UK higher education right now, that gap is widening.

The question is not how to work harder. It is how to change what the work actually looks like.

The Structural Problem

When reactive becomes the default mode

Operational IT teams in UK universities are not under pressure because they are poorly organised or under-skilled. They are under pressure because the environment they are managing has changed fundamentally, while the resources available to manage it have not moved at the same pace.

Hybrid learning, distributed campuses, accelerating cloud adoption, growing security requirements, and the accumulated weight of legacy infrastructure have collectively created estates that are significantly more complex to operate than they were five years ago. The expectation of always-on digital services has increased at the same time. Something usually gives. More often than not, it is the planned work.

When the reactive queue is full every morning, planned improvement work does not get done. When planned improvement work does not get done, the reactive queue gets longer.

Persistent

HE skills shortages in cyber security, cloud engineering and networking

Growing

proportion of operational time consumed by reactive incident management rather than planned improvement

Smaller

teams managing estates that are significantly larger, more hybrid and more complex than five years ago

What makes this difficult to resolve is that it is self-reinforcing. The more time consumed by reactive operations, the less capacity exists for the planned work that would reduce reactive pressure. Each deferral compounds the next.

What This Looks Like

Two situations most operational teams will recognise:

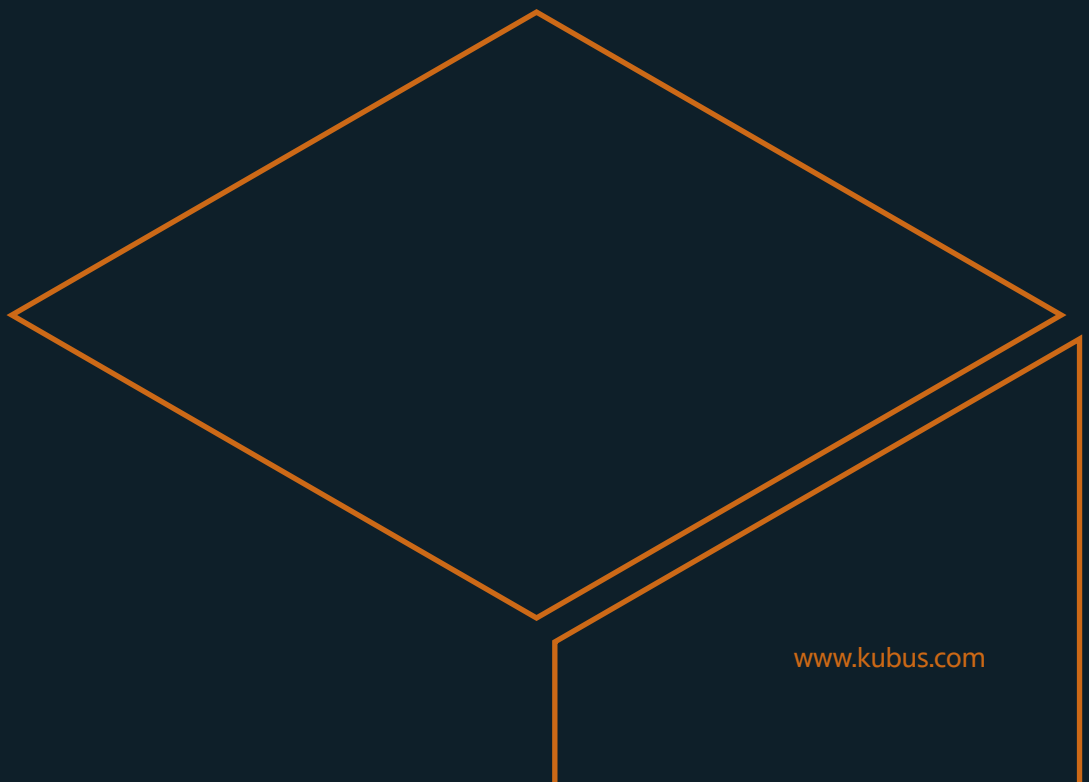
SCENARIO ONE
The Alert Queue

It is 08:15. There are 47 new alerts in the monitoring dashboard from overnight. Fourteen are flagged as medium or above. Two people are in. The helpdesk queue has started. The question is not which alert to investigate first. It is which one cannot wait.

SCENARIO TWO
The Visibility Gap

A faculty reports intermittent connectivity issues affecting a lecture theatre block. The monitoring tools show the infrastructure as healthy. No alerts were raised. The issue has been occurring intermittently for three weeks. Students have been raising it with lecturers. Lecturers have been logging informal complaints rather than formal helpdesk tickets. Nobody told IT.

Neither of these situations exists because operational teams are doing something wrong. One reflects a monitoring environment that generates more signal than a team can realistically process. The other reflects a monitoring environment generating no signal at all about the thing that matters.



The Estate Problem

The complexity that no refresh cycle ever quite resolves

Most HE IT environments did not arrive in their current state by design. They evolved. New campuses acquired, departmental technology decisions made outside central governance, legacy systems too integrated to replace during busy periods, cloud migrations running alongside on-premise infrastructure rather than replacing it.

The result is an estate characterised by overlapping tools, inconsistent architectures, fragmented ownership and the kind of technical debt that accumulates so gradually it is difficult to quantify until something breaks. Every individual decision made sense at the time. The management problem is what accumulated around them.

The estate is complex because each individual decision that created the complexity was, at the time, the right call. That does not make it easier to manage.

What sector research consistently identifies as the barrier to simplification is not a lack of intent. It is the risk involved in changing things inside an environment that cannot afford significant downtime. The same operational pressure that makes simplification necessary also makes it difficult to execute.

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The Visibility Problem

What the infrastructure reports and what users experience

Network monitoring tells you what the infrastructure thinks is happening. It does not tell you what it feels like to be a student trying to access a learning platform on a Wi-Fi connection that the dashboard shows as healthy.

When monitoring is infrastructure-centric rather than user-centric, issues surface through the wrong channels. Helpdesk tickets, informal feedback, complaints passed through academic staff. By the time a persistent connectivity problem appears in formal reporting, it has often been affecting users for days or weeks. The operational cost is not just the time spent resolving the issue. It is the accumulated helpdesk load, the reputational friction and the time that could have been spent on something else.

Infrastructure health metrics and user experience are often describing two different realities. When they diverge, the gap fills with helpdesk tickets and informal complaints that were never supposed to be the early warning system.

What changes with a different monitoring posture

The operational difference with user-perspective monitoring is visibility at the point where the problem is being experienced. It requires the team to be able to see what is happening at the point of use. Intermittent problems become visible before they generate formal complaints. Issues can be identified, investigated and resolved before they reach student satisfaction surveys or faculty inboxes.

Jisc digital experience insights data stops being a retrospective reporting metric and becomes something operationally actionable.

The Resourcing Reality

Some things that are worth saying plainly

Operational teams in HE are managing these pressures quietly and professionally. What is less common is seeing them acknowledged directly in the communications directed at infrastructure and operations audiences. A few things are worth saying without qualification.

The skills gap is not closing

Recruiting and retaining specialist capability in cyber security, cloud engineering, network architecture and AIOps is genuinely difficult in the sector. Salaries are compressed relative to commercial alternatives. Teams compensate with generalists, with managed service arrangements or, most commonly, by carrying the weight themselves and doing less of the planned work.

Automation changes the work, not the headcount

AI-native and self-healing network operations are sometimes framed as headcount reduction tools. In operational practice, that framing misses the point. What they change is the nature of the reactive work: fewer manual interventions, less alert triage, more time available for the improvement work that reduces future reactive pressure. The team does not shrink. It gets some operational capacity back.

Managed services are a structural response, not a shortcut

24/7 coverage, specialist depth across multiple domains and consistent operational monitoring are not achievable with a team of any fixed size. Managed and co-managed service models exist because the operational requirement has outgrown what internal teams can carry alone. For many institutions, the discussion has already moved beyond whether managed support is necessary. It is which parts of the estate benefit most from them.

Simplification has to happen inside a live environment

Estate rationalisation, supplier consolidation and improved operational visibility are consistently cited in sector research as both priorities and barriers. The complexity that needs simplifying is the same complexity that makes simplification risky. Moving through that requires a delivery approach that keeps live services running during transition, not instead of it.

The goal is not a perfect infrastructure. It is an infrastructure that gives operational teams back the time to keep improving it.

In Closing

Getting ahead of the cycle

The reactive operations problem is not solved by working harder. The teams dealing with it are already working hard. It shifts when the operational model changes: when visibility improves, when alert noise reduces, when automation handles the work that should not require human intervention, and when the estate is simple enough that planned improvement becomes achievable again.

That does not happen in a single programme. It happens incrementally, in live environments, with delivery partners who understand what is running on the infrastructure they are helping to change.

Jisc is where these conversations become more practical.

Jisc Networkshop, June 2026

Kubus will be at Jisc Networkshop. If any of what you have read reflects the environment you are currently managing, we'll be there and available to discuss the operational challenges you are currently trying to navigate.

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