

Accelerating readiness: digital fire & rescue with Microsoft technology

How low-code apps and connected data transform
operational planning



NODE4



Introduction

Alarms, evacuation routes, hydrants, hazardous materials, building layouts, if that intelligence is buried in email threads, PDFs or yesterday's paperwork, planners and incident commanders start behind the curve.

Recent inquiries have made the same point in unmistakable terms: operational planning must be stronger and information flow cleaner across agencies. That means faster risk assessments, clear lines of communication and a shared, reliable picture of what's waiting on scene.

This guide is about that shift: how to move from paper-bound steps to real-time readiness, digitising inspections, unifying risk data and surfacing the right details to the right people, securely, at the right moment.

Reality check: what's blocking readiness?



Paper-heavy inspections = slow ORI updates	Fragmented risk data = weak pre-incident intelligence	Capacity and budget pressure = higher cost of delay
<p>Across many services, inspections, and SSRLs still rely on handwritten notes, Word templates, and email chains. That creates bottlenecks between site visits, approvals, and uploads to crew devices, delaying updates to Operational Risk Information (ORI).</p>	<p>Risk-critical details, alarms, materials, hydrants, evacuation plans, engineered solutions, often live in separate systems or documents, making it hard to assemble a single, current view for planners, control rooms, and incident commanders.</p>	<p>Services are managing tight resources while also responding to recommendations from national inquiries. When processes are slow or duplicated, precious capacity is lost to admin instead of prevention, preparedness, and training.</p>



Why now: policy & inquiry momentum

After Grenfell, the message was clear: plans must be stronger, command tighter, and communication between services seamless.

The inquiry progress reports consistently repeat the same theme: timely, consistent information saves lives.

Then the Manchester Arena Inquiry added another layer: multi-agency coordination and major-incident comms need to be faster and clearer. When data is scattered or slow to move, readiness lags.

How Node4 delivers it with Microsoft

We start at the frontline and work backwards. The aim is simple: make capture effortless on scene, keep data trustworthy in the middle, and surface clear insight where decisions happen. Microsoft Cloud gives us the toolkit, including Power Apps, Dynamics 365, Azure, and Power BI, plus Teams, so we can modernise without adding friction for crews.

Our approach

Capture once, on scene

SSRI and inspection details are recorded in the moment, including photos, geo-tags and offline mode and sync straight into a structured data store.

Orchestrate and keep ORI live

Approvals, versioning and change-logs run automatically so Operational Risk Information refreshes for planners, control rooms, and incident commanders in near real time instead of end-of-week uploads.

Unify and visualise

Inspection, premises and asset data lands in Azure, is modelled once, then published as role-based dashboards, risk heatmaps, hydrant status, inspection backlogs, for a common operating picture.

Coordinate in the moment

Major-incident workspaces bring roles, checklists, files, and status into one secure channel, so the conversation and the record are always in sync.

Behind the scenes, Microsoft Sentinel and Node4's SOC monitor detects and responds, keeping the estate resilient without slowing the frontline. And because we land this in small, measurable steps, you see impact quickly and expand with confidence.



What this delivers:

- ✓ Faster planning cycles and current ORI crew's trust
- ✓ Shared situational awareness across planning, control, and IC
- ✓ Collaboration that holds under pressure, running on the Microsoft platform your teams already use

Proof in practice: real change on the ground



East Sussex Fire & Rescue Service - From Paper to Power Apps



The challenge

For years, East Sussex Fire & Rescue Service relied on a manual process for Site-Specific Risk Information (SSRI).

Crews would complete inspections on paper → Type them into Word → Email them for approval → Wait for someone to upload the final version.

It could take up to seven days before updated risk information reached the systems that planners, control rooms and incident commanders depend on.



The solution

Working with Node4, ESFRS replaced that entire chain with a Risk Assessment App built on Microsoft Power Platform. The app runs on any mobile device, works offline, and guides officers through a structured SSRI template with mandatory fields, photo capture and geo-tagging. The moment the device reconnects, the record syncs to Dataverse and Dynamics 365, triggering automated approvals and version control. No re-keying. No email loops. No waiting for uploads.

Behind the scenes, Power Automate handles workflows, while Power BI dashboards surface the latest ORI (Operational Risk Information) for planners and control rooms. The result is a single source of truth that updates in near real time, so when crews roll, they roll with confidence.



Agile in action. How we delivered

1. **Requirements:** ESFRS came to us with a clear list of requirements that needed building.
2. **Workshops:** We reviewed each requirement line by line together to confirm understanding and estimate effort.
3. **Backlog:** All items were added to a single backlog for full visibility.
4. **3-Week Sprints:** At the start of each sprint, we agreed which requirements to build and delivered them by the end of the sprint.
5. **UAT & Go Live:** Once the backlog was complete, we ran User Acceptance Testing and moved the solution live.



The impact

- ✓ **Cycle time collapsed:** from 7 days to 5 minutes for SSRI updates.
- ✓ **Data quality improved:** standard templates and validation rules mean fewer gaps and stronger audit trails.
- ✓ **Operational readiness increased:** control rooms and incident commanders share the same, current picture, with no blind spots and duplication.

The moment the device reconnects, the record syncs to Dataverse and Dynamics 365, triggering automated approvals and version control. No re-keying. No email loops. No waiting for uploads.

Essex County Fire & Rescue Service - Building a Future-Ready Cloud Platform



The challenge

Essex County Fire & Rescue Service faced the same pressures as many blue-light organizations: legacy infrastructure that was costly to maintain, difficult to scale, and slow to adapt to new operational demands. Disaster recovery was complex, and the ability to integrate modern apps or analytics was limited by on-premises systems.

Modernisation

Node4 partnered with Essex County Fire & Rescue Service to design and deliver a cloud transformation strategy built on Microsoft Azure. This wasn't a lift-and-shift exercise, it was a structured modernisation program that:

- ✓ Migrated critical workloads from ageing servers to Azure, reducing technical debt and improving resilience.
- ✓ Implemented landing zones and governance frameworks to ensure security, compliance, and scalability from day one.
- ✓ Optimised disaster recovery and backup using Azure-native services, cutting recovery times, and simplifying failover processes.

Node4's role went beyond technology. Our team provided end-to-end project management, security alignment, and knowledge transfer, ensuring Essex's IT team could manage and evolve the platform confidently.



The impact

- ✓ Lower operational costs by reducing reliance on physical infrastructure.
- ✓ Improved resilience and DR posture, with faster recovery and less complexity.
- ✓ A foundation for innovation. The fire service can now adopt Power Platform apps, Power BI dashboards, and future digital workflows without infrastructure constraints.

Our team provided end-to-end project management, security alignment, and knowledge transfer, ensuring Essex's IT team could manage and evolve the platform confidently.

Why Node4?



- ✓ Proven partner to UK public sector.
- ✓ Deep expertise in Microsoft Cloud, AI, and low-code platforms.
- ✓ Trusted to deliver secure, scalable, and impactful solutions.
- ✓ Committed to supporting public safety through technology.
- ✓ Ready to modernise your fire service? Let's make it happen.

Whether you're exploring digital transformation or ready to deploy smarter solutions, our team is here to help. From low-code apps to cloud-hosted technology, we'll work with you to design, deliver, and scale solutions that meet your operational and compliance needs.

[Speak to a specialist today](#)

Your next move

Fire & Rescue services don't need more paperwork or another dashboard they'll never use. They need clean capture on scene, live ORI everyone trusts, and collaboration that holds under pressure.



With Node4 and the Microsoft Cloud, that's achievable in weeks, not years: digitise inspections, unify data in Azure, surface role-based views in Power BI, and keep it all secure with Sentinel and our SOC, exactly as we've done with County Fire and Rescue Services.

If this mirrors your goals, let's talk to us about a 30-minute scoping session to shape the pilot and metrics. From there, we'll build out what matters most to your teams from paper to practical readiness.

[Speak to a specialist today](#)

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