



Customer FAQ Statements v1.0

This document outlines the customer-facing statements to accompany the FAQ and post-webinar materials. The tone is intended to be empathetic, transparent, and forward-looking – reflecting Bromcom’s commitment to learning from the recent incident and rebuilding trust through action.

1. Compensation / Service Credit

Recognising the impact and supporting our customers

We know that the September performance issues caused real disruption for schools and trusts, and even short interruptions can have a lasting effect on teaching, administration, and the school day. We’re genuinely sorry for the inconvenience this caused.

As a gesture of recognition and goodwill, Bromcom will apply a full-Service Credit to all eligible live customers for each of the 7 days where service was severely affected in the September period. This reflects the seven days during which our MIS Status Page showed a severely degraded level of service.

You don’t need to do anything.

Our finance teams will work to ensure the credit is **automatically applied to eligible customers as a separate line to your next renewal invoice**, reducing the total amount payable.

This approach ensures that the credit is applied fairly, consistently, and without creating additional school admin.

We’ve chosen this approach to treat every customer equally, and the credit can be processed accurately across all contracts.

This credit is part of our commitment to rebuild trust and strengthen reliability. Alongside it, we’re:

- Continuing investment in performance, resilience, and monitoring
- Enhancing communication, including clearer service updates
- Reviewing feedback from all customers to guide further improvements

We can’t undo the disruption, but we hope this gesture and the current actions demonstrate that we’ve listened, learned, and are committed to improving.



2. Root Cause & Technical Explanation

The recent outage wasn't caused by a single cause but by several interacting factors that created the software equivalent of a traffic jam. There was too much activity to shared resources, while network limitations meant there weren't enough 'lanes' to cope with demand. Once one area slowed, congestion quickly built elsewhere.

Importantly, this was not a repeat of last year's issue. The root cause was entirely different. The platform had been stable for many months, and no significant changes had been made over the summer. We've now fixed those underlying bugs, introduced new testing and monitoring routines, and added safeguards to prevent recurrence.

Management Summary

Between 4th and 12th September 2025, Bromcom MIS experienced intermittent service degradation during peak back-to-school usage. The root cause was a combination of software inefficiencies and infrastructure bottlenecks that created a self-reinforcing cycle of instability. Several defects within the application generated unnecessary background traffic, which overwhelmed infrastructure capacity during morning peaks.

Critical infrastructure components — including Redis caching, SQL database calls, and outbound network routing — became overloaded. This led to repeated application instance failures, which could not self-recover due to excessive connection buildup.

Although early signs pointed to isolated incidents, the final investigation confirmed a systemic interaction between application defects and capacity constraints. Immediate mitigation steps, such as rebuilding the web app environment, applying hotfixes, and separating critical services, restored stability by 10 September. Long-term resilience measures, including private endpoints, load separation, and code optimisation, are now in progress to ensure this incident cannot recur.

Technical Summary

The outage was driven by compound technical factors across application behaviour, networking, and runtime instance management. Three specific areas — inefficient photo retrieval, a Redis caching loop, and a translation service bug — collectively generated extreme background request volumes. This triggered Azure PaaS instances to open excessive outbound connections, exhausting available SNAT ports and pushing Redis/SQL into saturation.

Azure attempted automated restarts; however, queued traffic and port exhaustion caused immediate repeated issues, resulting in a crash-loop state that prevented self-healing. Concurrently, all outbound traffic (to Blob Storage, Redis, APIs, and third-party services) was routed over shared public SNAT rather than Private Endpoints or NAT Gateway, intensifying congestion.



The root cause chain can be expressed as:

Application bugs → Unbounded outbound calls → SNAT exhaustion → Redis/SQL contention → Instance crash loops → Loss of service recovery capability.

Remediation covered:

- Permanent fixes to Redis interaction, translation fallback, and photo caching logic.
- Network rearchitecture with NAT Gateway and Private Endpoints to eliminate SNAT dependency.
- Service decoupling, moving MCAS and Student Portal to isolated Redis and app resources.
- Full environment rebuild to purge potential PaaS infrastructure corruption.

The platform has remained stable since the incident, with telemetry confirming significant reductions in thread count, connection churn, and request noise during peak load. Further code refactoring and dependency upgrades remain scheduled to close remaining technical debt risks.

3. Investment & Performance Improvements

We completely understand why questions about investment and priorities have been raised, and they are fair challenges.

The truth is, our business has grown quickly, and with that growth, we've continued to reinvest heavily in our platform, people, and processes. The September issues were not caused by underinvestment but by complex software factors that only came to light under the specific load of the new term.

That said, this experience has reinforced our belief that investment is not just about capacity but foresight, resilience, and testing under real-world conditions.

We're now taking that learning forward:

- Working with Microsoft and independent experts to validate and strengthen our architecture.
- Expanding performance testing and monitoring so we can spot risks earlier.
- Continuing to channel profits directly into long-term reliability improvements, not short-term gain.

Our goal is simple: to ensure schools can depend on Bromcom every single day and to show through action that we're investing not just in technology but in your trust in us.



4. External Assessment & Independent Validation

To provide independent assurance and transparency, we are partnering with Microsoft and other technical experts to complete a full platform review. This includes stress testing, architectural validation, and the creation of a forward roadmap to strengthen performance. The findings will be shared with you to ensure open visibility of progress and improvements.

5. Communication & Transparency

We recognise that communication during and after the outage didn't meet the standards our customers expect – or those we set for ourselves. We've listened to the feedback and have made several immediate changes:

- Creating verified emergency contact lists per school
- Setting clear frequency and format standards for updates
- Streamlining internal sign-off routes for faster communication

Our commitment is communicating quickly, clearly, and consistently whenever an issue arises.

6. Business Continuity & Resilience

We're partnering with an independent consultancy and a working group of Bromcom users to create Business Continuity guidance and best practice for schools. Together, we'll explore other practical solutions, helping schools remain operational should future issues occur. This collaborative approach ensures that the result is realistic, usable, and reflects real school environments.

7. Ongoing Engagement & Next Steps

This FAQ and the recent webinar are part of our continued customer dialogue. Following the session, we'll share the recording, this FAQ, and a feedback form, inviting further questions and input. Your feedback will directly inform us of our improvement roadmap, and we'll continue to update you openly on progress. Our commitment is to rebuild confidence through transparency and sustained action.