



## SMB Ransomware Resilience Checklist: A Milestone Roadmap With (and Without) Your MSP

Ransomware continues to rank among the most disruptive—and costly—threats facing small and mid-size enterprises. A single compromised endpoint or cloud tenant can halt operations, erode customer confidence, and trigger regulatory obligations in a matter of hours. Yet effective safeguards need not be complex or prohibitively expensive.

The **SMB Ransomware Resilience Checklist** distils proven security practices into sequential milestones. The first section outlines governance measures every organisation can implement internally; the second specifies the technical controls that a managedservice provider (MSP) should deliver and document. By completing each milestone in turn, leadership gains clear visibility into progress, ensures accountability for external partners, and establishes a layered defence capable of withstanding modern ransomware attacks.

**If you manage your IT environment, processes and tools.**

Milestone (duration)		Actions	Outcome	
1	<b>Know What You're Protecting</b> (≈ 1 week)	1. Map your “crownjewel” data – list every place critical documents live, including SaaS applications and APIs with access to critical data.	<i>Shared visibility and clear ground rules.</i>	<input type="checkbox"/>
		2. Publish a one-page security & acceptable use and backup policy in plain language.		<input type="checkbox"/>
2	<b>Lock Down Identity</b> (≈ 1 week)	1. Turn on multifactor authentication (MFA) everywhere.	<i>Even stolen passwords won't open the front door.</i>	<input type="checkbox"/>
		2. Create separate, least-privilege administrative accounts secured with MFA (FIDO2/WebAuthn).		<input type="checkbox"/>
		3. Enable Google's 2SV or O365's Conditional policies to protect from suspicious access.		<input type="checkbox"/>

		<ol style="list-style-type: none"> <li>Disable inactive accounts (30-day threshold).</li> <li>Implement privileged access workstations (PAWs) for IT admins.</li> </ol>		<input type="checkbox"/>  <input type="checkbox"/>
3	<b>Basic Hygiene at Scale (~ 1–2 weeks)</b>	<ol style="list-style-type: none"> <li>Enable automatic patching for operating systems, browsers, and major business apps.</li> <li>Patch network devices (firewalls, switches) and IoT firmware.</li> <li>Use configuration management tools (e.g., Ansible, Puppet) to enforce secure baselines across endpoints and servers</li> </ol>	<i>Closes the most known holes before attackers can exploit them.</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4	<b>Protect &amp; Prune Your Data (~ 2 weeks)</b>	<ol style="list-style-type: none"> <li>Back up cloud and onprem data to a second, immutable location and encrypt backup.</li> <li>Run a small restore test (files + mailbox) to prove it works.</li> <li>Reduce or autoexpire external sharing links in M365/Google Workspace.</li> <li>Enable activity logging for backups to detect unauthorized access or modifications</li> </ol>	<i>Even if data is encrypted or leaked, you still have a clean copy—and less of it is exposed.</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5	<b>Stop Malware at the Endpoint (~ 2 weeks)</b>	<ol style="list-style-type: none"> <li>Deploy modern endpoint protection / EDR on every laptop and server.</li> <li>Enable application allowlisting (e.g., AppLocker).</li> <li>Enable behaviour-based detection in endpoint protection tools to catch zero-day threats (Carbon Black, Microsoft Defender)</li> </ol>	<i>ransomware is detected or blocked before it can detonate.</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
6	<b>Be Ready When Trouble Strikes (~ 1 week)</b>	<ol style="list-style-type: none"> <li>Build a onepage incidentresponse cheatsheet and drill it quarterly.</li> </ol>	<i>Everyone knows who to call and what to do under stress.</i>	<input type="checkbox"/>

		<ol style="list-style-type: none"> <li>2. Store offline copies of IR contacts, backups, and network diagrams.</li> <li>3. Pre-arrange a ransomware response contract with a specialist firm.</li> </ol>		<input type="checkbox"/>  <input type="checkbox"/>
7	<b>Transfer the Residual Risk (as part of annual renewal)</b>	<ol style="list-style-type: none"> <li>1. Review and purchase cyberinsurance that explicitly covers ransomware (verify backup &amp; MFA requirements).</li> <li>2. Verify insurance covers ransom payments (if legal) and regulatory fines, not only response and remediation cost.</li> </ol>	<i>Financial backstop for costs you can't eliminate technically.</i>	<input type="checkbox"/>  <input type="checkbox"/>
8	<b>Extra (≈ 1 week)</b>	<ol style="list-style-type: none"> <li>1. Add email &amp; DNS filtering to block malicious links and macro payloads.</li> <li>2. Deploy canary tokens in critical folders to detect ransomware early.</li> <li>3. Monitor for data exfiltration.</li> </ol>	<i>Ransomware is detected or blocked before it can detonate.</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

**If you outsourced your IT environment, processes and tools to service provider.**

<b>Milestone (duration)</b>	<b>Actions</b>	<b>Outcome</b>		
<b>Your milestones</b>				
1	<b>Know What You're Protecting (≈ 1 week)</b>	<ol style="list-style-type: none"> <li>1. Map your "crown jewel" data – list every place critical documents live.</li> <li>2. Publish a one page security &amp; acceptable use and backup policy in plain language.</li> <li>3. Require MSP to document shared responsibility matrix (RACI).</li> </ol>	<i>Shared visibility and clear behavioral rules.</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2	<b>Be Ready When Trouble Strikes (≈ 1 week)</b>	<ol style="list-style-type: none"> <li>1. Draft a Backup &amp; Restoration Policy that sets RPO/RTO and legal hold needs.</li> <li>2. Write a one page Incident Response Plan with phone tree; calendar quarterly joint drills.</li> </ol>	<i>Documented expectations for the MSP and a rehearsed plan if ransomware strikes.</i>	<input type="checkbox"/> <input type="checkbox"/>

		<ul style="list-style-type: none"> <li>3. Define ransomware communication protocols (e.g., who talks to law enforcement?).</li> <li>4. Require MSP to provide forensic investigation SLA (e.g., 4-hour response).</li> </ul>		<input type="checkbox"/> <input type="checkbox"/>
3	<b>Sharpen Staff Senses</b> <i>(≈ 1 week)</i>	<ul style="list-style-type: none"> <li>1. Launch rolling security awareness: monthly phish tests + annual refresher.</li> <li>2. Automatically insert a banner on emails that come from outside the company, so staff can instantly spot external senders.</li> <li>3. Train staff to report MSP remote access abuse (common ransomware vector).</li> </ul>	<i>Fewer risky clicks and faster reporting of weird activity</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4	<b>Transfer &amp; Contract</b> <i>(≈ 1 week, at renewal)</i>	<ul style="list-style-type: none"> <li>1. Purchase / renew cyber insurance with explicit ransomware cover.</li> <li>2. Embed your policies (1 to 3) and evidence requirements into the MSP SLA.</li> <li>3. Require MSP to comply with CIS Controls or NIST CSF and have independent audits (SOC 2, ISO 27001).</li> </ul>	<i>Financial back-stop and contractual leverage to keep controls in force</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Service provider milestones</b>				
1	<b>Secure Identity</b> <i>(≈ 1 month)</i>	<ul style="list-style-type: none"> <li>1. Enforce MFA for every account.</li> <li>2. Create separate least privilege admin IDs.</li> <li>3. Disable legacy protocols (IMAP/POP, SMB v1, etc.).</li> <li>4. Implement just-in-time (JIT) admin access (e.g., PIM in Azure AD).</li> </ul>	<i>Identity hardened; even stolen passwords won't open the front door.</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2	<b>Patch &amp; Protect</b> <i>(≈ 1-2 months)</i>	<ul style="list-style-type: none"> <li>1. Turn on automatic OS, application, and firmware patching.</li> <li>2. Deploy endpoint protection / EDR to 100 % of devices.</li> </ul>	<i>Known holes closed and malware watched.</i>	<input type="checkbox"/> <input type="checkbox"/>

		3. Enforce EDR/XDR with 24/7 managed detection (e.g., Sentinel One, Huntress, Vigilance)		<input type="checkbox"/>
3	<b>Back Up &amp; Validate</b> ( <i>≈ 2 months</i> )	<ol style="list-style-type: none"> <li>1. Configure immutable, off tenant backups for cloud and servers.</li> <li>2. Perform a test restore (files + mailbox) and document results.</li> <li>3. Test full-environment restore (not just files) bi-annually.</li> </ol>	<i>Clean, recoverable data if ransomware strikes.</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4	<b>Harden Data Access</b> ( <i>≈ 2-3 months</i> )	<ol style="list-style-type: none"> <li>1. Restrict external sharing defaults and auto expire new links.</li> <li>2. Review and prune third-party SaaS / OAuth applications.</li> </ol>	<i>Lower data leak surface.</i>	<input type="checkbox"/> <input type="checkbox"/>
5	<b>Network &amp; Edge Security</b> ( <i>≈ 3 months</i> )	<ol style="list-style-type: none"> <li>1. Patch firewalls and routers; enable geo IP &amp; DNS filtering.</li> <li>2. Segment the network (staff, guest, printers).</li> <li>3. Deploy micro segmentation for critical systems (e.g., OT/IoT). Block RDP/SMB over the internet (use VPN/ZTNA instead)</li> </ol>	<i>Perimeter attacks blocked and lateral movement curtailed.</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
6	<b>Detect &amp; Report</b> ( <i>≈ 3 months, onward monthly</i> )	<ol style="list-style-type: none"> <li>4. Forward logs to a SIEM/SOC and monitor 24 × 7.</li> <li>5. Monitor for C2 beaconing (e.g., DNS tunneling, HTTPS anomalies, Proxy usage)</li> <li>6. Send a monthly security metrics email to the customers.</li> </ol>	<i>Continuous visibility and measurable assurance.</i>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
7	<b>Drill &amp; Attest</b> ( <i>≈ Quarterly / Annually</i> )	<ol style="list-style-type: none"> <li>7. Participate in the quarterly incident response drill.</li> <li>8. Sign an annual control attestation letter for cyber insurance.</li> </ol>	<i>Readiness proven and policy compliance maintained.</i>	<input type="checkbox"/> <input type="checkbox"/>