

# AWS Well-Architected Review

## Find and solve your pain points

Codurance's certified AWS Well-Architected Framework Review is designed to provide you with high-level guidance and best practises to help you build and maintain secure, reliable, performant, cost optimised, and operationally excellent applications in the AWS Cloud.

This review process will uncover the level to which your workloads are 'Well-Architected' across six core pillars – operational excellence, security, reliability, performance efficiency, cost optimisation, and sustainability. Use the table below to find your pain point in the list of common problems and learn the possible remediations to solve the issue, plus the business benefits to expect post-remediation.

	Problem Space	What a review can identify and improve	Benefits Post-remediation	
<p><b>Performance Efficiency</b></p> <p>Use computing resources efficiently to meet system requirements, and to maintain that efficiency as demand changes and technologies evolve.</p>	<ul style="list-style-type: none"> <li>Lack of visibility on how systems are performing</li> <li>Resources are slow and unresponsive</li> <li>Team are unable to identify where improvements can be made without requisite expertise</li> </ul>	<p><b>Identify:</b></p> <ul style="list-style-type: none"> <li>A monitoring approach to provide greater visibility and identify where efficiencies can be made</li> <li>Where to deploy workloads (eg. regions) for optimal efficiency</li> <li>Recommendations for designing efficient architecture</li> <li>Performant services to support the respective workload</li> </ul> <p><b>Improve:</b></p> <ul style="list-style-type: none"> <li>A culture of experimentation</li> <li>The selection process for different components to better understand how they affect workload performance</li> </ul>	<ul style="list-style-type: none"> <li>Workloads perform more efficiently as business scales</li> <li>Cost savings</li> <li>Motivated and skilled team that can support the business as needs change</li> </ul>	
<p><b>Sustainability</b></p> <p>Address the long-term environmental, economic and societal impact of your business activities.</p>	<ul style="list-style-type: none"> <li>Large fines and brand damage from not meeting legal commitments</li> <li>Environmental incidents caused by industrial equipment failure</li> <li>Overspending on their cloud resources</li> </ul>	<p><b>Identify:</b></p> <ul style="list-style-type: none"> <li>Impact of workloads and implement design principles to reduce impacts</li> <li>The AWS shared responsibility model and where you can influence savings</li> </ul> <p><b>Improve:</b></p> <ul style="list-style-type: none"> <li>Behaviour in industrial machinery and implement procedures to reduce impact in future</li> <li>Sustainability goals</li> <li>The ability to anticipate and adopt new, more efficient hardware and software offerings</li> </ul>	<ul style="list-style-type: none"> <li>Brand and reputation</li> <li>Confidence that industry and legal standards can be met</li> <li>Reduced costs</li> <li>Improved relationship with customers</li> <li>A sustainable business that is future-proofed</li> </ul>	
	<ul style="list-style-type: none"> <li>Spending on AWS is rapidly increasing</li> <li>Unable to forecast future spending accurately</li> <li>Pressure from finance department to control spending and forecasting</li> </ul>	<p><b>Identify:</b></p> <ul style="list-style-type: none"> <li>Where the highest costs are being generated</li> <li>If the most cost-optimised service types are being used</li> <li>If AWS resources are sized appropriately</li> </ul> <p><b>Improve:</b></p> <ul style="list-style-type: none"> <li>The way AWS accounts are set up and managed</li> <li>The ability to predict future spend with team coaching</li> <li>Procedures and optimisation to control spending</li> </ul>	<ul style="list-style-type: none"> <li>Increased visibility across the business</li> <li>Reassurance that AWS spending is optimised and controlled</li> <li>Increased predictability on cost as business scales</li> <li>Reduced unnecessary costs and more funds to spend on more essential areas</li> </ul>	<p><b>Cost Optimisation</b></p> <p>Run systems to deliver business value at the lowest price point.</p>
<p><b>Operational Excellence</b></p> <p>Support development and run workloads effectively, gain insight into operation, and continuously improve supporting processes and procedures to deliver business value.</p>	<ul style="list-style-type: none"> <li>Slow software release unable to meet customer and business demand</li> <li>Regular failures of systems and processes</li> <li>Low trust from lack of predictability</li> <li>A low skilled Ops team leads to issues with staff retention and motivation</li> <li>Issues with staff and retention / motivation from low skilled Ops team</li> <li>Lack of alignment between technology and business</li> <li>Issues around governance and adhering to industry standards</li> </ul>	<p><b>Identify:</b></p> <ul style="list-style-type: none"> <li>Processes and tools to improve operational posture eg. automation, DevOps, monitoring, managing operations</li> <li>Opportunities for the business and technology team to align around shared goals and procedures</li> </ul> <p><b>Improve:</b></p> <ul style="list-style-type: none"> <li>Risk registry to evaluate impact over risk and tradeoffs</li> <li>Ownership and responsibility within workloads</li> <li>Dashboards to drive better performance, monitoring and reporting of workloads</li> <li>Understand how to design, operate and evolve your workload to achieve operational excellence</li> </ul>	<ul style="list-style-type: none"> <li>Greater alignment between technology &amp; business to meet customer demand</li> <li>Evolve at required rate</li> <li>Skilled team ensures they are better able to support fast, frequent and safe software releases</li> <li>Motivated team leads to increased staff retention</li> <li>Able to comply with to industry standards and regulations</li> </ul>	
	<ul style="list-style-type: none"> <li>Business interruption from outages which can lead to loss of sales or reputational damage</li> <li>Lack of knowledge if workloads are performing to industry standards</li> <li>Guessing capacity can lead to reliability issues</li> </ul>	<p><b>Identify:</b></p> <ul style="list-style-type: none"> <li>Procedures to automatically recover from failures</li> <li>Scaling strategy to cope with dynamic demands</li> <li>Appropriate change management strategies for routine changes</li> </ul> <p><b>Improve:</b></p> <ul style="list-style-type: none"> <li>Practises to monitor and predict workload utilisation and optimise provisioning of resources in line with demand</li> <li>Workload architectures which anticipate and respond to failures</li> </ul>	<ul style="list-style-type: none"> <li>Predictability</li> <li>Reduction in outages leads to greater trust and performance</li> <li>Increase in reliability of systems and less pressured work environment and cost associated with running department</li> </ul>	<p><b>Reliability</b></p> <p>Build workloads that perform their intended function correctly and consistently as expected.</p>
<p><b>Security</b></p> <p>Protect data, systems, and assets to take advantage of cloud technologies to improve your security.</p>	<ul style="list-style-type: none"> <li>Exposure to potential cyber attacks due to lack of security measures in place</li> <li>Business vulnerabilities from lack of inhouse knowledge around protecting and dealing with security breaches</li> <li>Unable to reassure investors and customers that their data is safe</li> <li>Adhering to data security requirements, especially in highly regulated sectors</li> </ul>	<p><b>Identify:</b></p> <ul style="list-style-type: none"> <li>Gaps in security procedures and controls</li> <li>Knowledge and skill improvements</li> </ul> <p><b>Improve:</b></p> <ul style="list-style-type: none"> <li>Security posture with new security policy and procedures</li> <li>Knowledge of team with coaching</li> <li>Documentation to adhere to industry standards</li> <li>Capability to respond to security incidents and Protection for sensitive data</li> </ul>	<ul style="list-style-type: none"> <li>Protect business from cyber attacks</li> <li>Reduced risk of potential brand reputational damage</li> <li>Improve customer confidence</li> <li>Improve speed of remediation from security breaches</li> </ul>	