

# Database Attack Surface Reduction Assessment

Data is the new currency, the Crown Jewels of your organization. Security concerns now exist that were not previously on your radar and areas that were deemed safe are not necessarily safe any longer. Protection of your data can no longer be an agreement amongst Business, InfoSec, and technical stakeholders. The newest security vulnerabilities have many factors such as:

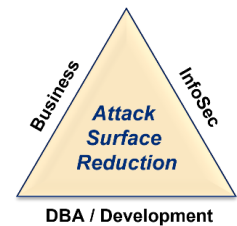
- Ransomware – organizations are paying high prices to ‘maybe’ get their data back.
- Addressing remote security within our current infrastructure and timelines - the new reality of remote working arising from the pandemic puts us in a precarious position.
- Sophisticated attacks from criminal organizations and some state-sponsors are constantly morphing over time with AI.
- Organizations today operate in an increasingly stringent and fast evolving regulatory landscape.
- Threat actors are not only external to your organization. The majority of breaches (60-80%) come from internal sources through threats that are either malicious or accidental.

## The Oracle Database Zero Trust Security Model

**Zero Trust** is a strategic initiative that helps prevent data breaches by eliminating the concept of trust. The **Zero Trust** enforcement model is predicated on allowing only the right people or resources to have the right access to the right data and services, from the right device, under the right circumstances. The focus is on accessing resources in a secure manner, regardless of network location, subject and asset combined with enforcing risk-based access controls while continually inspecting, monitoring and logging interactions.

The Zero Trust model pertaining to Oracle database security can be summarized as follows:

- Do not trust a system to remain properly configured.
- Do not trust the network to keep database secure.
- Do not trust that storage, backups, and exports are protected.
- Do not trust passwords.

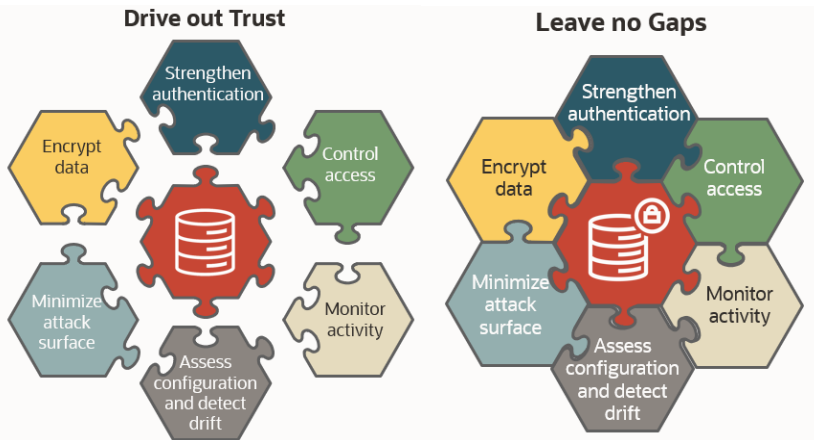


## Key Features

- Database risk evaluation
- Actionable plan for your solution
- Key Business Benefits
- Oracle Consulting Database Security experts that understand regulatory requirements
- Increase compliance with focus on securing intellectual property (IP), financial and related (PCI, HIPAA, PII, etc...) data
- Accelerate your security profile and reduce risk through leading practices, proven methodology and tools
- Advise and guide your IT team
- Engagement summary report summarizing observations, recommendations and next steps

- Do not trust users to act in good faith.
- Do not trust preventive controls to be 100% effective.

It is not only essential to drive out the trust components from the architecture, but it is also essential that all trust components are tightly integrated to have a defense-in-depth approach of security.



## What is an Attack Surface Reduction Assessment (ASRA)?

Oracle provides a robust database platform that can be customized, by the client, to meet their specific requirements, spanning Security, Cloud Computing, Virtualization, Information Management, Standards, Best Practices, Governance, & Compliance. Default Roles & Privileges are assigned and available in the default configuration. When used properly, these provide essential administrative functionality. However, when exploited, they can be used to enable malicious cyber-Attacks. Oracle Consulting can help you identify any database configurations that can pose security risks.

An **Attack Surface Reduction Assessment** includes the follow categories:

Auditing	Availability	Corruption
Data Access	Database Access	DDOS
Disaster Recovery	Editioning	Encryption Use
File System Exploits	Identifying	In-Memory Rewrite
Net Services Configuration	Network Access Controls	Code Objects
Data Objects	Pointer Objects	PL/SQL
Principle of Least Privilege	Profile	Ransomware Susceptibility
Sensitive Data Protection	Server Access Controls	Startup Parameters

With the **Attack Surface Reduction Service**, we can analyze your database that turn concepts such as 'Zero Trust', 'Defense in Depth', and 'Principle of Least Privilege' into actionable directives through a deep analysis of deployment architecture, configuration, roles and privileges, coding practices, and how they are being utilized from a security perspective:

- How they should be used

## Related Services from OCS

- Secure Native Database Configuration
- Audit Vault / Database Firewall
- Advanced Security Option / Transparent Data Encryption
- Data Masking
- Database Security Assessment Tool
- Data Safe Assessment
- Enterprise User Security
- Oracle Key Vault

## Why Oracle Consulting

- **Leading expertise:** Oracle's own experts providing thought leadership for every Oracle solution.
- **Broad Coverage:** "End-to-end" lifecycle services across the entire Oracle product footprint.
- **Global Scale:** 13,000 Oracle experts in 145 countries, serving over 20 million users.
- **True Cloud Method:** Based on industry standards, high quality results across complex projects.

- Identify vulnerability when not addressed
- Recommend Actionable Solutions to rectify
- To increase the difficulty of an attacker attempting to exploit weakness in your environment

## WHY YOUR ORGANIZATION SHOULD ENGAGE OCS FOR AN ASRA

When you buy a boat (to use an analogy), how you maintain and operate the boat is your responsibility. But from a safety perspective you will need to know what items are needed like fire extinguishers, flares, life vests, GPS, radio, flashlight batteries, etc. You need to know where to put them and how to adjust as needed to ensure that the proper safety measures are in place. That you are compliant to an established baseline configuration as prescribed by a maritime authority i.e. “The Coast Guard Vessel Safety Check List”.

Similarly, a database should not be placed “in the wild” without applying the proper safety checks. That’s why the **Attack Surface Reduction Assessment** serves as an equivalent “Oracle Database Safety Check List” to ensure proper safety measures are configured adequately.

## OCS ZERO TRUST – DB ATTACK SURFACE ASSESSMENT

PHASE	EXECUTION METHODOLOGY
<b>DISCOVERY</b>	<ul style="list-style-type: none"> <li>• Organization and its business (what kind of industry, etc.)</li> <li>• Information gathering:</li> <li>• Compliance and statutory mandates</li> <li>• Databases and integrated applications</li> <li>• Current state of data security controls</li> <li>• Desired state of data security controls</li> <li>• Data create and store</li> <li>• Data use and share</li> </ul>
<b>EXECUTION</b>	<ul style="list-style-type: none"> <li>• DBSAT Tool</li> <li>• Attack Surface Reduction Tool (ASRT - Oracle Consulting proprietary tool)</li> </ul>
<b>ANALYSIS</b>	<ul style="list-style-type: none"> <li>• Review ASRT &amp; DBSAT Reports</li> <li>• Review additional data collected</li> <li>• Review correlation of reports and collected data with customer policies, standards, and procedures</li> </ul>
<b>REPORTING AND RECOMMENDATIONS</b>	<ul style="list-style-type: none"> <li>• Security Controls Gap Analysis</li> <li>• Assess Gap Analysis</li> <li>• Prioritize results and create an actionable roadmap to drive towards the Oracle Database Maximum Security Architecture based on results of the Oracle tools and business requirements</li> </ul>

## HOW WE ARE DIFFERENT

The Oracle Consulting team is focused exclusively on Oracle Technologies. We have the experts to which others turn for leading practices in Oracle hardware and software implementations. We know how to best optimize your investment in Oracle products and can provide your business with tightly integrated, comprehensive, superior services throughout your Oracle Technology experience.

## NEXT STEPS

To learn more about Attack Surface Reduction Assessments ask your Oracle Consulting account representative to schedule a technical presentation on emergent threats.

## GETTING STARTED

Oracle Services delivers full life cycle support using time tested Oracle methods, tools, and extensive experience with customer implementations, modernization initiatives and managed support services. Our tight integration across Consulting, Development, Support, Education, and Global Delivery puts the entire Oracle team behind your success. To learn more, contact your local Oracle Consulting representative, or visit [www.oracle.com/consulting](http://www.oracle.com/consulting).

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