99x

Assuring peace of mind:
Security testing in Boligmappa

99x.io

About Boligmappa

Boligmappa is a well-established Norwegian company offering a range of property-related services to both property owners and professionals in Norway. It has grown to become the country's largest housing documentation portal, managing service booklets for 2 million Norwegian households.

Boligmappa's journey with 99x

Boligmappa started as a startup in 2011 with the mission to help homeowners make better housing decisions. They achieved this by offering a reliable and user-friendly platform for managing property documentation and insights. Initially, the Boligmappa team at 99x consisted of just 5 members, but it has since grown to a team of 20 dedicated professionals.

The challenge: Integrating security into Boligmappa

Recognizing critical vulnerabilities in their existing processes, Boligmappa made a strategic decision to comprehensively integrate security practices throughout their development life cycle. The company's primary motivation was twofold: to build robust, trustworthy digital services and to solidify their reputation as a security-conscious organization that prioritizes customer protection
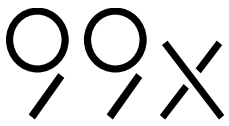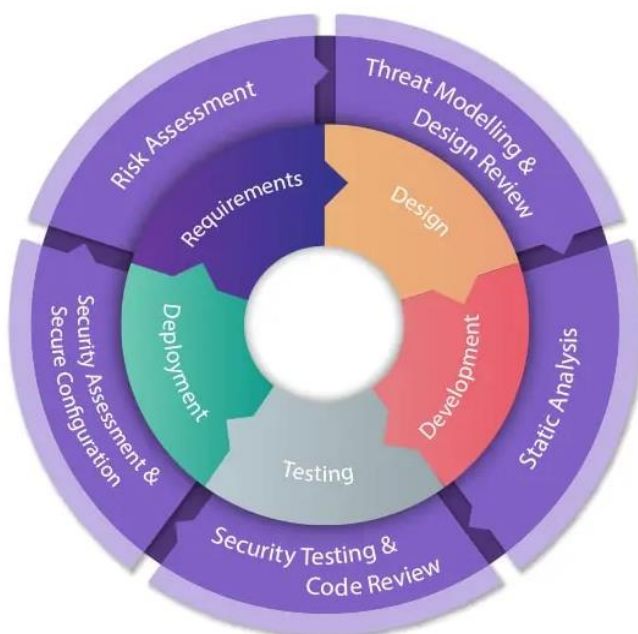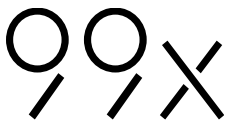
99x's Security Strategy

99x emerged as a critical partner in Boligmappa's product engineering ecosystem, becoming instrumental when security challenges demanded expert intervention. In early 2017, 99x conducted a comprehensive analysis of Boligmappa's security landscape, developing a strategic solution that went beyond conventional approaches. Their recommendation was holistic and transformative: integrate a dedicated security engineer and implement a robust security framework across the software development life cycle (SDLC).

The proposed security integration strategy encompassed five key approaches:

1. **Security Requirements Definition:** Establishing a clear, comprehensive set of security parameters and expectations from the outset of product development.
2. **Systematic Risk Assessment:** Implementing a structured methodology to comprehensively evaluate and quantify potential security risks.
3. **Threat Modeling:** Developing a proactive approach to identify, analyze, and prioritize potential vulnerabilities and threat vectors within the product architecture.
4. **Static Application Security Testing (SAST):** Deploying advanced tools to conduct in-depth security analysis of the source code during the development phase, identifying potential vulnerabilities before deployment.
5. **Dynamic Application Security Testing (DAST):** Utilizing sophisticated testing tools to assess the security posture of the live application, examining its runtime behavior and potential runtime vulnerabilities.
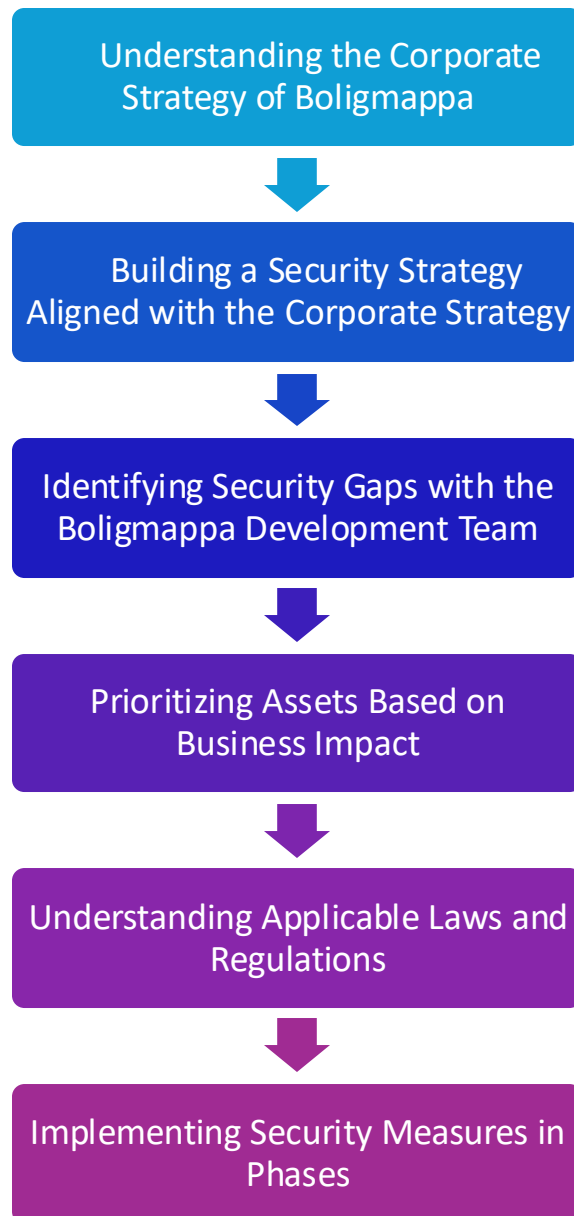
Secure Software Development Life Cycle (SSDLC)


Image Courtesy: Snyk

The Methodology

99x Security Team assigned a dedicated Security Engineer into the Boligmappa Development Team. The following methodology was adhered to implement security practices.

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│   Understanding the Corporate        │
│   Strategy of Boligmappa             │
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│   Building a Security Strategy       │
│   Aligned with the Corporate Strategy│
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│   Identifying Security Gaps with the │
│   Boligmappa Development Team        │
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│   Prioritizing Assets Based on       │
│   Business Impact                    │
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│   Understanding Applicable Laws and  │
│   Regulations                        │
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│   Implementing Security Measures in  │
│   Phases                             │
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1. Understanding the Corporate Strategy of Boligmappa
At 99x, the Security Team views security as an enabler of business, not a blocker. To truly enable the business, the team must thoroughly understand Boligmappa's corporate strategy.
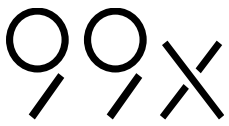
2. Building a Security Strategy Aligned with the Corporate Strategy
A Security Strategy is a high-level plan outlining how an organization will secure its assets over the next three to five years. The 99x Security Team successfully documented a Security Strategy that aligns seamlessly with Boligmappa's corporate goals.

3. Identifying Security Gaps with the Boligmappa Development Team
Several security gaps were identified in collaboration with the Boligmappa Development Team:
- **Outdated Secure Coding Guidelines**: The existing guidelines needed an update.
- **Ad Hoc Security Assessments**: Previous assessments were conducted sporadically.
- **Lack of Consistent Processes**: There were no defined and consistent methodologies for security-related matters.
- **Absence of a Dedicated Security Professional**: The team lacked a professional who could focus solely on security issues.

4. Prioritizing Assets Based on Business Impact
The team identified, classified, and categorized Boligmappa's web applications, APIs, mobile applications, and infrastructure. A comprehensive list was compiled for future reference, and an asset owner was assigned to each asset.

5. Understanding Applicable Laws and Regulations
The General Data Protection Regulation (GDPR) was identified as the primary regulation affecting Boligmappa. The necessary requirements were outlined to ensure compliance.

6. Implementing Security Measures in Phases
To avoid business disruptions, the following security measures were implemented in phases:
- **Dedicated Security Engineer**: A security engineer was assigned to Boligmappa.
- **Quarterly Developer Awareness Sessions**: Regular sessions were conducted to raise awareness among developers.
- **SAST and DAST**: Static and Dynamic Application Security Testing were performed on existing products and services.
- **Security Documentation**: Comprehensive documentation of processes, procedures, and guidelines was introduced.
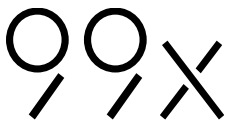
The Impact

During its security integration journey, Boligmappa began producing more secure products while efficiently managing and aligning with GDPR requirements.

Previously, developers often had to spend significant time revamping and redesigning features after security assessments. However, by integrating security into the Software Development Life Cycle (SDLC), this time was redirected to more meaningful tasks, adding greater value to Boligmappa.

By the end of 2017, the enhanced security posture led to noticeable growth in customer satisfaction. This improvement not only boosted customer confidence but also contributed to the expansion of Boligmappa's customer base.

99x : Co-creating Exceptional Product Experiences

We empower Digital Product Vendors to create Exceptional Product Experiences through our Facilitated Teams. By combining our expertise in **product engineering** and **product design**, we co-create products that achieve **market-fit** and **drive adoption**. Our Facilitated Teams provide clients with the capacity, competence, convenience, compliance, and cost-effectiveness needed for long-term success as their trusted partner. To learn more, download our Winning Product e-book here.