

nevisProxy: Secure Reverse Proxy and WAF

nevisProxy is a secure reverse proxy with integrated web application firewall (WAF). It acts as a central upstream entry point for web traffic to integrated online applications. nevisProxy controls user access and protects sensitive data, applications, services, and systems from internal and external threats. nevisProxy is a component of AdNovum's security framework Nevis.

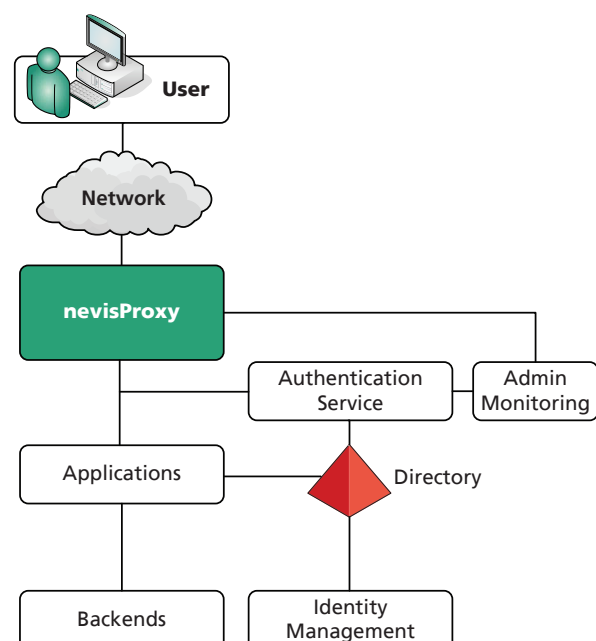
Features and Tasks

Secure Reverse Proxy

- SSL termination (encryption and acceleration)
- Session and timeout handling (single session)
- SSO (single signon)
- Initialization of multi-step authentication, if required
- Authentication in cooperation with nevisAuth
- Propagation of user identities incl. additional information (roles) in secure token
- Coarse-grained authorization
- Cookie caching
- Renegotiation of client session association
- Caching and data compression

Web Application Firewall

- Inspection and validation of content
- Protocol validation
- Input validation
- URL signing and encryption



Product Highlights

Stability and scalability

- Modular architecture with filters and connectors (similar to Servlet-API) for easy integration of application-specific mechanisms.
- Configuration: standardized XML file (Java Servlet 2.3 spec)
 - Generation of Apache server configuration
- Optional: HSM or crypto accelerators
- Performance enhanced through horizontal scaling achieved via load-balancing mechanisms
- Session store enables stateless load balancing via nevisProxy instances
- Failover functionality for robust setups

Ease of integration

- Applications can be grouped into SSO domains and integrated via connectors
- Dynamic re-writing of application path and content
- Integration of products, Java EE/.NET applications, and non-proxy-aware applications (through URL rewriting)
- Propagation of user information to applications
- Activation of configuration changes without session loss

Openness

- Licensed users/companies have access to source code.
- Open-source-based: OpenSSL and Apache 2.2

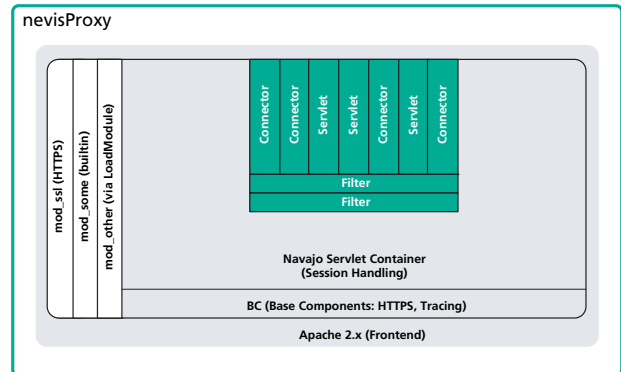
Technical Highlights

Integration features

- Parallel support of several channels such as Web, PDA, and protocols such as HTTP(S), IIOP(S), Citrix ICA, SSL tunneling
- Various backend integration options such as:
 - Container login, basic auth, SAML 1.1/2.0, dynamic client certificates, HTTP header, form-based POST
- HSM integration via PKCS#11
- Integration with central nevisAdmin management console via JMX
- Integration of additional monitoring and alarming products

Technical data

- Based on HTTP server Apache 2.2
- OS: Solaris und Linux



Security Features

- Proven base components such as OpenSSL, Apache
- Regular security reviews by independent external companies
- Sophisticated protection against hacker attacks, e.g. session hijacking
- Configurable session termination (URL-based, timeout)
- Fine-grained filtering of requests and responses (WAF)
- Configurable client identification: SSL- or cookie-based, or combined
- Failsafe connectors to backend applications
- Multi-threaded for optimized use of resources
- Supports non-invasive transaction signatures

References

E-banking

- nevisProxy is deployed by renowned banks and other financial institutions such as UBS and Postfinance to secure their e-banking solutions.

SSO portals

- nevisProxy secures major e-business and e-government SSO portals such as the single sign-on portal of the FDJP (Federal Department of Justice and Police) or the business customer portal "My Post Business" of PostLogistics.



AdNovum Informatik AG
Christof Dornbierer, CTO
Roentgenstrasse 22, 8005 Zurich
T. +41 44 272 61 11
mailto:info@adnovum.ch, http://www.adnovum.ch