

Expert Assist

Expert Assist Token Server for Blackbaud SKY API

Use Case

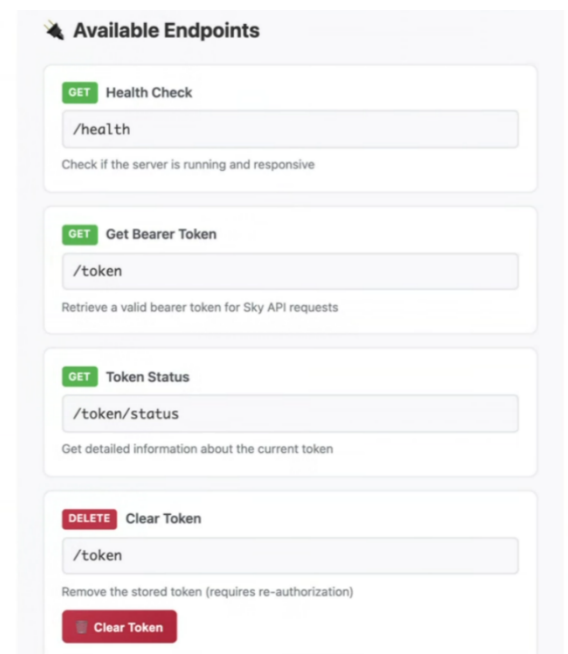
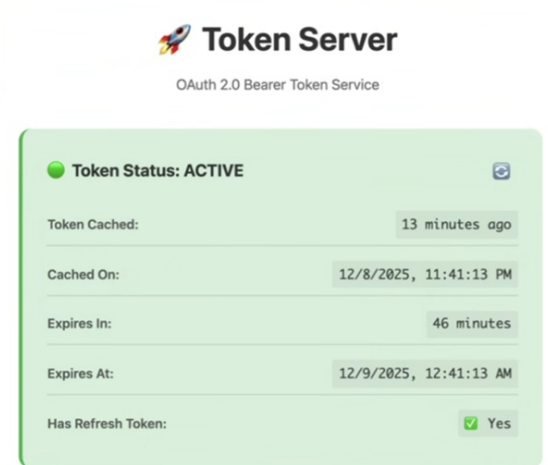
We had a client who needed reliable method to access Blackbaud SKY API. Due to OAuth 2.0 limitations for non-interactive clients (in this case Power BI), the client could not reliably access the API. The issue prevented the use of Power BI altogether and, in the case of backend processes required complex app development to maintain a reusable token.

The solution was to provide secure, a long-lived token to reduce manual re-authentication while maintaining compliance with authentication and tenant controls. We didn't find anything available and so decided to develop a solution: **The Token Generator Server**

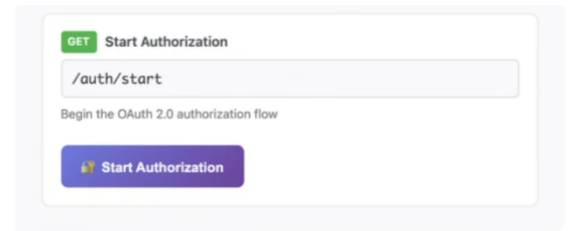
With the solution provided Expert Assist was able to meet the technical requirements, and we realized this application might be useful to other organizations facing similar challenges.

Key components

- Authorization flow handling
 - The server initiates an OAuth 2.0 Authorization Code flow with the target platform's identity provider on behalf of an authorized user
 - After consent, it exchanges the authorization code for an access token and a refresh token
- Token capture and management
 - A long-lived refresh token (up to 1 year) securely persisted.
 - The server uses the refresh token to periodically obtain new access tokens, enabling continuous access without user re-authentication.
- Endpoint security



- Access to the token endpoint is protected using “Easy Auth” (formally known as App Service Authentication/Authorization) which is based on Microsoft Azure's Platform as a Service (PaaS)



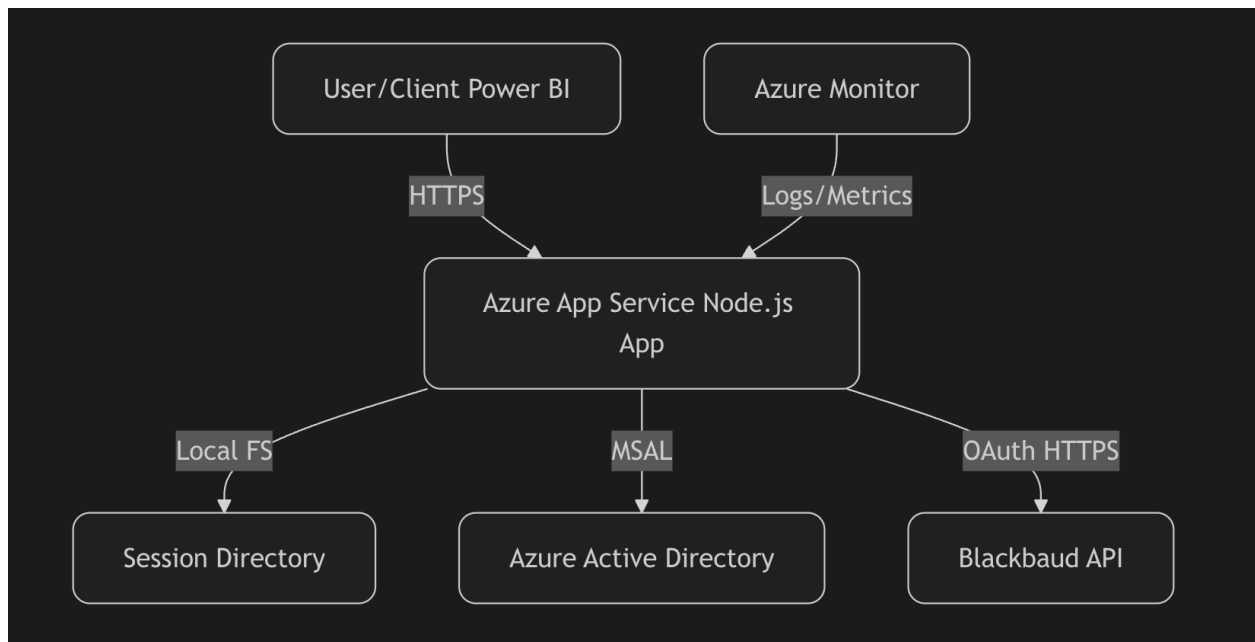
Portal Setup is extremely simple involving the following steps in your Azure tenant:

- Azure Portal → App Services → Your Web App → Authentication
- Enable Authentication
- Add Identity Provider → Microsoft (Entra ID)
- Create new app registration (or select existing)
- Set Action for unauthenticated requests to ****Login with Microsoft****

Secure OAuth 2.0 with PKCE • Automatic Token Refresh • TypeScript & Node.js

Integration with client applications

- The server exposes the retrieved access token through a secure API endpoint consumable by Power BI and similar tools
- Client applications are decoupled from OAuth complexity and perform direct API calls to the target platform using the returned access token



Pricing

Contact us for additional pricing. For a single server install the application price is \$5,000 which includes 60 days of support once the install is complete. Customers can purchase additional support past 60 days for \$100 per month or \$1000 per year.

Assumptions

- The Software is licensed, not sold. The user may not resell, distribute, or otherwise transfer for value or benefit in any manner, the software product(s) or any derivative work using the software product(s)
- The software is not licensed or certified by Blackbaud. That being said, we are using secure industry standard functions to access your data that you own, we're just making it easier.
- There are Microsoft Azure fees associated with
 - Azure AD
 - Valid Blackbaud SKY API instance and license
 - Blackbaud SKY API application
 - Azure App Services Linux app server running Node 24 configured "always on"
 - Azure AI enterprise application with required scope and API endpoint configuration
- No warranties are provided on the solution
- If you aren't happy with the product in the first 30 days, Expert Assist will uninstall the solution and back out the invoice
- If new requirements, above and beyond the functional specifications contained in this document, are raised during this trial period, Expert Assist can provide an estimate for the work effort required to meet the new requirements

Background

At Expert Assist, we're always on the pulse of our customers' needs, crafting tailored solutions that make a real difference. That's why we're excited about our new token generator for the Blackbaud SKY API—it's the tool virtually every Blackbaud customer has been waiting for, streamlining access and saving you precious time.

We took the original concept and supercharged it, aligning with top industry standards while keeping things lightweight and efficient. But here's what sets it apart: we prioritized what matters most to you—rock-solid security to protect your data, full ownership so you stay in control, seamless private cloud deployment for ultimate flexibility, and unwavering stability to ensure it runs smoothly, no matter what. Ready to elevate your workflow? Let's connect!