

Game Hub - Complete Features Documentation

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Table of Contents

1. [Overview](#)
2. [Platform Integrations](#)
3. [Library Management](#)
4. [Achievement System](#)
5. [Friend Comparison](#)
6. [Backlog Management](#)
7. [Game Sessions](#)
8. [Settings & Configuration](#)
9. [User Interface](#)
10. [Phase Roadmap](#)

Overview

Game Hub is a unified game library aggregation platform that solves the fragmentation problem for multi-platform gamers. It provides a single dashboard to track games, achievements, playtime, and progress across multiple gaming platforms.

Core Value Proposition

- **Unified Library View:** See all your games from Steam, PlayStation, Xbox, and Epic Games in one place
- **Cross-Platform Achievement Tracking:** Track achievements/trophies across all platforms
- **Friend Comparison:** Compare your gaming stats with friends on any platform
- **Smart Backlog Management:** Prioritize your gaming backlog with status tracking
- **Session Tracking:** Track your active gaming sessions in real-time
- **IGDB Metadata Enrichment:** Automatically enhance game data with covers, descriptions, and more

Platform Integrations

Steam Integration

Status: Complete (Phase 1)

Steam integration provides full library synchronization with comprehensive data fetching.

Features

Feature	Description
Library Sync	Fetches all owned games including free-to-play titles
Playtime Tracking	Imports total and recent playtime data
Achievement Sync	Tracks all earned achievements with percentages
Profile Import	Imports Steam profile, persona name, and avatar

Real-time Status	Detects currently playing games for session tracking
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Authentication

- Uses Steam OpenID for authentication
- Requires Steam Web API key (server-side)
- User profile must be set to public for game details

Rate Limiting

- **Limit:** 200 requests per 5 minutes
- Automatic rate limiting with queue management
- Cached responses for 5 minutes to reduce API calls

Data Synced

```
interface SteamSyncData {
  games: [
    appid: number;
    name: string;
    playtime_forever: number;      // Total playtime in minutes
    playtime_2weeks?: number;      // Recent playtime
    img_icon_url: string;
    img_logo_url: string;
    rtime_last_played?: number;    // Unix timestamp
  ];
  achievements: [
    apiname: string;
    achieved: number;            // 0 or 1
    unlocktime: number;
  ];
  profile: {
    steamid: string;
    personaname: string;
    avatarfull: string;
    profileurl: string;
  };
}
```

PlayStation Network Integration

Status: Complete (Phase 2)

PlayStation Network integration supports trophy tracking and library synchronization across all PlayStation platforms.

Features

Feature	Description
Trophy Sync	Full trophy data with bronze, silver, gold, and platinum counts
Library Sync	All games with trophy data across PS5, PS4, PS3, PS Vita, PSP

Playtime Tracking	Play duration via getUserPlayedGames API
Profile Import	PSN Online ID, avatar, trophy level
Trophy Details	Individual trophy names, descriptions, icons, rarity
User Search	Search PSN users by Online ID for friend comparison

Authentication

- NPSSO token-based authentication
- OAuth2 flow with access token and refresh token
- Auto-refresh of expired tokens

Rate Limiting

- **Limit:** 30 requests per minute (conservative)
- Automatic rate limiting with wait time calculation

Platform Normalization

Games are categorized by their original PlayStation platform:

Platform String	Normalized To
PS5	PlayStation (PS5)
PS4	PlayStation (PS4)
PS3	PlayStation (PS3)
VITA	PlayStation (PS Vita)
PSP	PlayStation (PSP)

Trophy Types

```
interface PsnTrophy {
  trophyId: number;
  trophyType: 'bronze' | 'silver' | 'gold' | 'platinum';
  trophyName: string;
  trophyDetail: string;
  trophyIconUrl: string;
  earned: boolean;
  earnedDateTime?: string;
  trophyEarnedRate?: string;      // Global completion percentage
  trophyRare?: number;           // Rarity tier
}
```

Xbox Live Integration

Status: Complete (Phase 2)

Xbox integration via OpenXBL API provides comprehensive Xbox gaming data.

Features

Feature	Description
Library Sync	Title history with device/platform tracking
Achievement Sync	Full achievement data with gamerscore values
Profile Import	Gamertag, avatar, gamerscore, account tier
User Search	Search Xbox users by gamertag
Cross-Gen Support	Supports Xbox Series X

Authentication

- OpenXBL API key authentication
- User provides their own API key from xbl.io

Rate Limiting

- **Limit:** 30 requests per minute
- Matches PSN rate limiting for consistency

Platform Normalization

Games are identified by their original platform:

Device Array	Normalized To
Xbox360	Xbox (Xbox 360)
XboxOne	Xbox (Xbox One)
XboxSeriesXS / Scarlett	Xbox (Xbox Series X S)
PC	PC

Achievement Data

```
interface XboxAchievement {  
    id: string;  
    serviceConfigId: string;  
    name: string;  
    titleAssociations: {  
        name: string;  
        id: number;  
    }[];  
    progressState: 'Achieved' | 'NotStarted' | 'InProgress';  
    progression: {  
        requirements: {  
            id: string;  
            current: string;  
            target: string;  
        }[];  
        timeUnlocked: string;  
    };  
}
```

```

};

mediaAssets: {
  name: string;
  type: string;
  url: string;
}[];
rewards: {
  name: string;
  description: string;
  value: string;      // Gamerscore value
  type: 'Gamerscore';
}[];
}

```

Epic Games Integration

Status: Complete (Phase 2)

Epic Games Store integration for library synchronization.

Features

Feature	Description
Library Sync	Full game library with pagination support
Account Linking	OAuth flow for account connection
Metadata Enrichment	IGDB fallback for game metadata
DLC Filtering	Filters out DLC and non-game content

Limitations

- **No Playtime Data:** Epic Games API does not provide playtime information
- **No Achievements:** Epic Games has no achievement system

Authentication

- OAuth authorization code flow
- Access token with refresh token support
- Token expiration tracking

Library Management

Game Organization

The library supports multiple organizational features:

Platforms Supported

Platform	Sync	Manual	Console Variants
Steam	Yes	Yes	-

PlayStation	Yes	Yes	PS5, PS4, PS3, PS2, PS1, PS Vita, PSP
Xbox	Yes	Yes	Series X S, One, 360, Original
Epic Games	Yes	Yes	-
Nintendo	-	Yes	Switch 2, Switch, Wii U, 3DS
EA App	-	Yes	-
Battle.net	-	Yes	-
GOG	-	Yes	-
Ubisoft Connect	-	Yes	-
Physical	-	Yes	All console variants

Game Statuses

Status	Description	Icon
Unplayed	Not yet started	○
Playing	Currently in progress	▶
Played	Started but not completed	●
Completed	Main story/campaign finished	✓
Finished	100% completed including extras	■
On Hold	Paused, may return later	⏸

Priority Levels

Priority	Description	Color
High	Play next	Red
Medium	When ready	Amber
Low	Someday	Blue
None	No priority set	Gray
Finished	Completed games	Emerald

Filtering & Sorting

Filter Options

- Platform:** Filter by any supported platform
- Console:** Filter by specific console (e.g., PS5, Xbox 360)
- Status:** Filter by game status
- Priority:** Filter by priority level
- Sync Source:** Filter by how game was added (Steam, PSN, Xbox, Epic, Manual)

- **Tags:** Filter by custom tags
- **Hidden Games:** Toggle visibility of hidden games

Sort Options

Sort	Description
Title A-Z	Alphabetical ascending
Title Z-A	Alphabetical descending
Recently Played	Most recently played first
Completion High-Low	Highest completion percentage first
Completion Low-High	Lowest completion percentage first
Playtime High-Low	Most playtime first
Playtime Low-High	Least playtime first
Priority High	Highest priority first
Priority Low	Lowest priority first
Release Newest	Newest release date first
Release Oldest	Oldest release date first

Game Details

Each game entry contains:

```
interface UserGame {
  // Identity
  id: string;
  user_id: string;
  game_id: string;

  // Platform Info
  platform: string;
  ownership_status: 'owned' | 'wishlist' | 'unowned';
  is_physical: boolean;
  hidden: boolean;

  // Progress
  status: 'unplayed' | 'playing' | 'played' | 'completed' | 'finished' | 'on_hold';
  priority: 'high' | 'medium' | 'low' | 'none' | 'finished';
  completion_percentage: number;
  playtime_hours: number;
  last_played_at: Date;

  // Personal Data
  personal_rating: number;      // 1-10
  notes: string;
```

```

tags: string[];
locked_fields: Record<string, boolean>;

// Achievements
achievements_earned: number;
achievements_total: number;

// Platform-specific IDs
steam_appid?: number;
xbox_title_id?: string;
psn_title_id?: string;

// Timestamps
created_at: Date;
updated_at: Date;
completed_at?: Date;
}

```

IGDB Metadata Enrichment

Games are automatically enriched with metadata from IGDB (Internet Games Database):

Data Enriched

- **Cover Art:** High-quality game covers
- **Description:** Game summary
- **Release Date:** Platform-specific release dates
- **Developer:** Studio that developed the game
- **Publisher:** Publishing company
- **Genres:** Game genres/categories

Field Locking

Users can lock specific fields to prevent automatic updates:

- Cover image
- Description
- Developer
- Publisher
- Release date
- Genres

Enrichment Process

1. Search IGDB by game title
2. Select best match based on platform
3. Extract only missing/empty fields
4. Update database with new data
5. Respect locked fields

Achievement System

Overview

The achievement system provides a unified view of achievements/trophies across all platforms.

Achievement Statistics

```
interface AchievementStats {
    totalEarned: number;
    totalAvailable: number;
    completionPercentage: number;
    gamesWithAchievements: number;
    perfectGames: number;

    platformStats: {
        steam: PlatformStats;
        psn: PlatformStats;
        xbox: PlatformStats;
    };

    topCompletedGames: Array<{
        userGame: UserGame;
        percentage: number;
    }>;
    almostComplete: Array<{
        userGame: UserGame;
        percentage: number;
        remaining: number;
    }>;
}
```

Features

Feature	Description
Total Tracking	Aggregate achievement counts across all platforms
Per-Platform Stats	Breakdown by Steam, PSN, and Xbox
Perfect Games	Games with 100% achievement completion
Almost Complete	Games at 90-99% completion
Hall of Fame	Display of perfect games

Automatic Completion Detection

When a game reaches 100% achievement completion during sync:

1. Status is automatically set to "Completed"
2. `completed_at` timestamp is set
3. Game appears in the Hall of Fame

Friend Comparison

Overview

Compare your gaming progress with friends across different platforms.

Features

Feature	Description
Cross-Platform Search	Search users on PSN, Xbox, and Steam
Side-by-Side Stats	Compare total games, achievements, playtime
Common Games	Find games you both own
Progress Comparison	Compare achievement progress on shared games
Platform-Specific Stats	Trophy level (PSN), Gamerscore (Xbox)

User Search

```
interface CompareUserResult {
  platform: 'steam' | 'psn' | 'xbox';
  id: string; // Steam ID, Account ID, or XUID
  username: string; // Display name
  avatar?: string; // Avatar URL

  // Platform-specific
  trophyLevel?: number; // PSN trophy level
  gamerscore?: number; // Xbox gamerscore
}
```

Comparison Data

```
interface ComparisonResult {
  user: CompareUserResult;
  friend: CompareUserResult;

  commonGames: Array<{
    title: string;
    userProgress: number;
    friendProgress: number;
    userPlatform: string;
    friendPlatform: string;
  }>;

  stats: {
    user: {
      totalGames: number;
      totalAchievements: number;
    }
  }
}
```

```

        totalPlaytime: number;
    };
    friend: {
        totalGames: number;
        totalAchievements: number;
        totalPlaytime: number;
    };
};

}

```

Limitations

- Steam achievement comparison limited to top 20 games (rate limiting)
- Self-comparison is prevented
- User profiles must be public for data access

Backlog Management

Overview

The backlog page provides a Kanban-style interface for managing your gaming priorities.

Kanban Columns

Column	Priority	Description
Play Next	High	Games you want to play immediately
When Ready	Medium	Games for when you have time
Someday	Low	Games for the distant future
Finished	Finished	Completed games

Features

Feature	Description
Collapsible Columns	Expand/collapse priority columns
Search	Search games by title
Filter by Tags	Filter games by custom tags
Quick Actions	Start playing, change priority
Status Badges	Visual status indicators
Completion Progress	Progress bars for each game

Quick Actions

- **Start Playing:** Sets status to "Playing" and opens game
- **Change Priority:** Move between Kanban columns

- **Edit Game:** Open game edit modal
 - **View Details:** Navigate to game detail page
-

Game Sessions

Overview

Track your active gaming sessions with real-time detection.

Features

Feature	Description
Auto-Detection	Detects Steam games currently running
Manual Start	Start sessions for any PC platform game
Duration Tracking	Track session length in real-time
Session History	View past gaming sessions

Session Data

```
interface GameSession {  
    id: string;  
    user_id: string;  
    game_id: string;  
    user_game_id: string;  
  
    started_at: Date;  
    ended_at?: Date;  
    duration_minutes?: number;  
  
    status: 'active' | 'completed';  
    platform: string;  
    steam_appid?: number;  
}
```

Supported Platforms for Sessions

PC platforms that support session tracking:

- Steam (auto-detection)
- Epic Games (manual)
- EA App (manual)
- Battle.net (manual)
- GOG (manual)
- Xbox Game Pass (manual)

Settings & Configuration

Account Settings

- Profile information (name, avatar)
- Email and password management
- Account deletion

Platform Connections

Steam Settings

- Link/unlink Steam account
- View connected Steam ID
- Trigger library sync
- View last sync timestamp

PlayStation Settings

- NPSSO token authentication
- Link/unlink PSN account
- View connected PSN ID
- Trophy level display
- Trigger library sync

Xbox Settings

- OpenXBL API key authentication
- Link/unlink Xbox account
- View connected gamertag
- Gamerscore display
- Trigger library sync

Epic Games Settings

- OAuth authentication
- Link/unlink Epic account
- View connected display name
- Trigger library sync

Library Management

Batch Operations

- **Enrich All Games:** Update metadata from IGDB
- **Refresh Release Dates:** Update platform-specific release dates
- **Find Duplicates:** Detect potential duplicate games
- **Merge Games:** Combine duplicate entries

Duplicate Detection

The system detects potential duplicates using:

- Normalized title comparison
- Cross-platform matching
- User can dismiss non-duplicates
- Dismissed pairs stored for future exclusion

Sync Logs

View history of all platform syncs:

- Sync timestamp
 - Platform synced
 - Games added/updated
 - Errors encountered
-

User Interface

Design System

Color Palette

Dark Mode (Cyber Gaming Theme)

Token	Color	Usage
void	#030304	Primary background
abyss	#0a0a0b	Secondary background
deep	#0f1011	Tertiary background
slate	#161719	Elevated surfaces
steel	#1e2023	Borders
cyan-500	#00d9ff	Primary accent
violet-500	#9333ea	Secondary accent
emerald-500	#10b981	Success states
amber-500	#f59e0b	Warning states

Light Mode (Refined Tech)

Token	Color	Usage
background	#faf9f7	Primary background
card	#ffffff	Card surfaces
text-primary	#1a1a1a	Primary text
text-muted	#6b6b6b	Secondary text
accent-cyan	#0891b2	Primary accent
accent-violet	#7c3aed	Secondary accent

Typography

- **Display Font:** Rajdhani (headings, bold, geometric)
- **Body Font:** Inter (readable text)

Visual Effects

- Noise texture overlay

- Gradient orbs
- Glow effects (.glow-cyan, .glow-violet)
- Card shadows
- Smooth animations

Pages

Page	Route	Description
Landing	/	Marketing homepage
Dashboard	/dashboard	Overview and quick stats
Library	/library	Full game library
Backlog	/backlog	Kanban backlog manager
Achievements	/achievements	Achievement statistics
Friends	/friends	Friend comparison
Stats	/stats	Playtime analytics
Settings	/settings	Account & platform settings
Game Detail	/game/[id]	Individual game details

Responsive Design

- Mobile-first approach
- Responsive breakpoints (sm, md, lg, xl)
- Collapsible sidebar navigation
- Touch-friendly interactions

Phase Roadmap

Phase 1: Foundation (100% Complete)

Feature	Status
Steam library sync	Complete
IGDB metadata enrichment	Complete
Manual backlog management	Complete
Per-game notes & status	Complete
Basic dashboard	Complete

Phase 2: Multi-Platform (100% Complete)

Feature	Status
PlayStation Network sync	Complete

Xbox Live integration	Complete
Epic Games integration	Complete
Cross-platform friend comparison	Complete
Unified achievement tracking	Complete

Phase 3: Intelligence (35% Complete)

Feature	Status
Priority queue system	Complete
Custom tags	Complete
Custom lists	Schema only
Smart recommendations	Not started
Playtime analytics visualizations	Partial

Phase 4: Social (5% Planned)

Feature	Status
Persistent friend lists	Planned
Activity feeds	Planned
Leaderboards	Planned
Session planning	Planned
Release calendar	Planned
Price tracking	Planned

Phase 5: Journal (0% Planned)

Feature	Status
Screenshot aggregation	Planned
Gaming journal	Planned
Timeline views	Planned

Technical Details

Tech Stack

- **Framework:** Next.js 16.0.6 with App Router
- **Language:** TypeScript 5.7.2 (strict mode)
- **Styling:** Tailwind CSS 4.0

- **UI Components:** shadcn/ui (Radix UI)
- **Backend:** Supabase (PostgreSQL)
- **External API:** IGDB for metadata

Environment Variables

Variable	Description
STEAM_WEB_API_KEY	Steam Web API key
IGDB_CLIENT_ID	Twitch/IGDB Client ID
IGDB_CLIENT_SECRET	Twitch/IGDB Client Secret
NEXT_PUBLIC_SUPABASE_URL	Supabase project URL
NEXT_PUBLIC_SUPABASE_ANON_KEY	Supabase anonymous key
SUPABASE_SERVICE_ROLE_KEY	Supabase service role key

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