



CUSTOMER REFERENCE

LoanBoss MCP Server

Connect your AI assistant to live LoanBoss portfolio data — deals, loans, properties, hedges, cashflows, and compliance metrics — through the Model Context Protocol.

PROTOCOL

MCP

FORMAT

JSON

AUTH

OAuth 2.1

TOOLS

76

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Field-level detail. Full parameter and response schemas for every tool are available directly from your MCP client's **tools/list** response — this guide is the narrative map to what's available and how to page through it.

SECTION 01

Overview

The LoanBoss MCP Server lets your AI assistant — Claude, ChatGPT, or any Model Context Protocol client — query your LoanBoss portfolio data directly, in natural language. Every tool below reads live deal, loan, property, hedge, cashflow, covenant, and compliance data under your own LoanBoss permissions; there's no separate integration to build.

Tools are grouped by domain — deals, loans, properties, hedges, and so on — and every list-returning tool follows the same pagination contract, covered in **03 — Requests & Pagination**. This guide is the narrative companion to your MCP client's `tools/list` response.

SECTION 02

Connecting Your Assistant

There are three ways to connect. Most people should use the first.

Option A — Sign in with your LoanBoss account

Add LoanBoss as a connector in your assistant and sign in the way you normally do. There is no key to request, copy between machines, or store somewhere safe.

- 1 In your assistant's connector settings, add a custom connector pointing at `https://<your-environment-host>/mcp`.
- 2 Your assistant sends you to LoanBoss to sign in. Enter your normal credentials and complete multi-factor authentication.
- 3 A consent screen names the application requesting access and the address it will return you to. Review it, then approve.
- 4 Your assistant reports the connection as active and the LoanBoss tools appear in its tool list.

The connection is bound to your LoanBoss user, so every answer is scoped to exactly the deals, loans, and data you can already see in the app — nothing more.

Endpoint. Production is `https://mcpserver.loanboss.com/mcp`. For any other environment, your LoanBoss contact provides the host. This guide uses `<your-environment-host>` as a placeholder in every other example.

Disconnecting

Remove the connector in your assistant, or ask your LoanBoss administrator to revoke it. Revocation takes effect immediately — access stops at once rather than lingering until a credential happens to expire.

If you are a system administrator

Your connection follows whichever client you currently have selected in LoanBoss. Switch clients in the app and your assistant's answers move with you. Refresh the page after switching so the assistant picks up the change.

Option B — Bearer token (programmatic access)

For scripts and service integrations that cannot complete a browser sign-in, the server also accepts a LoanBoss bearer token directly.

```
Endpoint:      https://<your-environment-host>/mcp
Authorization: Bearer <your-loanboss-token>
```

Calls authenticated this way run under the identity the token belongs to, with the same scoping rules. Option A is preferred for anything a person uses interactively.

Protocol notes

The server runs in stateless mode: your client can call `tools/list` and `tools/call` directly, with no `initialize` handshake or session ID required.

Option C — Microsoft 365 Copilot

Copilot can't register itself with LoanBoss automatically, so LoanBoss issues your company a client ID and secret. This is a one-time setup per company, done by your Microsoft 365 administrator. After that, each person signs in with their own LoanBoss account, exactly as in Option A.

- 1 **Request credentials.** Ask your LoanBoss contact to set up Copilot access. We register Copilot's standard redirect URL, <https://teams.microsoft.com/api/platform/v1.0/oauthRedirect>. If you use Copilot Studio instead, send us the callback URL it generates when you turn on OAuth.
- 2 **Watch for two emails.** For security, the client secret and the client ID arrive in separate emails.
- 3 **Register the OAuth connection.** In the Teams Developer Portal, go to **Tools** → **OAuth client registration** → **New OAuth connection**, enter the values below, save, and copy the **OAuth registration ID**.
- 4 **Add the connector.** In the Microsoft 365 admin center, go to **Copilot** → **Connectors** → **Gallery** → **Create a new connector** → **Connect to MCP server**. Enter the base URL <https://mcpserver.loanboss.com/mcp>, choose **OAuth 2.0**, and paste the registration ID. Changes can take up to 15 minutes to appear.

```
Client ID:      from LoanBoss (second email)
Client secret:  from LoanBoss (first email)
Authorization endpoint: https://mcpserver.loanboss.com/oauth/authorize
Token endpoint:  https://mcpserver.loanboss.com/oauth/token
Refresh endpoint: https://mcpserver.loanboss.com/oauth/token
```

SECTION 03

Requests & Pagination

Most tools that return a list accept optional `page` and `pageSize` parameters — 1-based, capped at 500, defaulting to page 1 at 25. Every paginated response includes a `hasMore` flag; keep incrementing `page` until it comes back false.

Requests are limited to 100 per second per user, with bursts up to 200. If your assistant is working through a large portfolio, page through results rather than firing requests in parallel.

Some responses are cached briefly to keep repeat questions fast. Deal lookups are cached per user, so a fresh update may take a moment to show up if you ask again right away. Reference and lookup data — asset types, regions, rate indexes, and similar catalogs — is cached for up to 4 hours.

SECTION 04

Available Tools

Tools are organized below by the domain they cover. Each tool name matches exactly what your MCP client sees in `tools/list` — call it by that id. A plural, bracketed parameter like `loanIds[]` takes an array of IDs; a singular one like `dealId` takes exactly one.

Deals, Groups & Metrics

A deal groups the loans, properties, and hedges in one transaction. Deal groups roll multiple deals together, each with its own allocation split. This section also covers the cross-entity metrics catalog.

TOOL	INPUT	OUTPUT
<code>get_users_deals</code>	Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated list of the authenticated user's deals.
<code>search_deals</code>	Optional: nameFilter (partial match), statusFilter (Closed/Sold). Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated deal summaries (name, status, abstraction status).
<code>get_deal_groups_for_user</code>	Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated deal groups for the user's deals, each with its per-deal allocation split.
<code>get_deal_groups_by_ids</code>	Required: dealGroupIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated deal groups matching those IDs.
<code>get_deal_groups_by_deal_ids</code>	Required: dealIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated deal groups that include any of those deals.
<code>get_deal_metrics</code>	Required: dealIds[]. Optional: asOfDate (latest if omitted). Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated deal-level metric values (DSCR, NOI, balances, rates, max-proceeds, etc.).
<code>list_available_metrics</code>	Optional: entityType filter (Deal/Loan/Property/Hedge/Escrow/GroupDeal/PortfolioDeal).	Catalog of metric name + ID + entity type. GroupDeal/PortfolioDeal/Tranche entries are cataloged but not fetchable.
<code>get_observable_metrics</code>	None.	Metrics usable in notification-rule criteria — ID, human-readable name, and entity type.

Loans

The debt instrument tied to a deal, including its terms, covenants, tranches, and provisions.

TOOL	INPUT	OUTPUT
<code>get_all_loans</code>	Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated compact loan summaries (deal/loan name, type, dates, amount, tranche IDs, rate type).
<code>get_loans_by_loan_ids</code>	Required: loanIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated full loan detail — terms, covenants, tranches.
<code>get_loans_by_deal_ids</code>	Required: dealIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated full loan detail for the given deals' loans.
<code>get_deals_by_loan_ids</code>	Required: loanIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	One result per input loan ID with its parent deal (null deal = no match).
<code>find_loans_by_maturity_or_closing_date</code>	Required: field (ClosingDate/MaturityDate), startDate, endDate. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated compact loan summaries whose date falls in the range.
<code>get_loan_metrics</code>	Required: loanIds[], dealId. Optional: asOfDate. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated loan-level metric values (rates, balances, prepayment penalty, extension/lockout deadlines, hedged %).
<code>get_loan_reports_by_debt_valuation_report</code>	Required: debtValuationReportId. Optional: withCashflows. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated per-loan valuation results within that report.
<code>get_provisions_by_loan_ids</code>	Required: loanIds[], sections[] (e.g. Prepayment, Reserves, Insurance, HedgeRequirements — at least one). Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated provisions, one result per loan; only the requested sections are populated.
<code>get_ancillary_data</code>	None.	Loan reference data (loan types, lender types, etc.).

Properties & Collateral

The properties securing a deal, plus the reference data (asset types, regions, collateral types) used to classify them.

TOOL	INPUT	OUTPUT
<code>get_properties_by_ids</code>	Required: <code>propertyIds[]</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated full property records, enriched with reference-data names.
<code>get_properties_slims</code>	Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated summary property data.
<code>get_property_ancillary_data</code>	None.	Reference data: asset types/classes, regions, states, MSAs, contact types.
<code>get_property_metrics</code>	Required: <code>propertyIds[]</code> , <code>dealId</code> . Optional: <code>asOfDate</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated property-level metric values (appraised value, occupancy, NOI, cap-rate inputs).
<code>get_collateral_types</code>	None.	Reference list of collateral types.

Hedges

An interest-rate hedge — a cap, swap, or collar — associated with a deal, including its version history and cashflows.

TOOL	INPUT	OUTPUT
<code>get_hedges_by_deal_ids</code>	Required: dealIds[]. Optional: includeFullVersions. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated compact hedge summaries (or full version/cashflow/strike history if includeFullVersions).
<code>get_hedges_by_hedge_ids</code>	Required: hedgelds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated full hedge detail with current-version economics.
<code>get_hedge_metrics</code>	Required: hedgelds[], dealId. Optional: asOfDate. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated hedge-level metric values (notional, mark-to-market, reserve balances, settlement dates).
<code>get_hedge_cashflow_errors</code>	Required: hedgeld. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated cashflow errors for that hedge.
<code>get_credit_ratings</code>	None.	Reference list of credit ratings.

Cashflows & Derivative Legs

Cashflow rows for loans, tranches, and every hedge leg type (cap, collar, corridor, floor, swap), plus draws, paydowns, overrides, and errors.

Loan cashflows are tranche-scoped. There's no `loanId` parameter here — every loan's cashflows are stored under its tranche(s). Pull the tranche IDs off the loan record (`get_all_loans`, `get_loans_by_loan_ids`, and `get_loans_by_deal_ids` all return them), then call `get_tranche_cashflows` with each `trancheId`.

TOOL	INPUT	OUTPUT
<code>get_deal_cashflows</code>	Required: <code>dealId</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated cashflows for the deal (loan, escrow, and hedge combined).
<code>get_deal_cashflow_errors</code>	Required: <code>dealId</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated cashflow errors for the deal.
<code>get_tranche_cashflows</code>	Required: <code>trancheId</code> . Optional: <code>isOverridden</code> (default true). Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated cashflow rows for the tranche.
<code>get_tranche_cashflow_errors</code>	Required: <code>trancheId</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated cashflow errors for the tranche.
<code>get_tranche_cashflow_overrides</code>	Required: <code>trancheIds[]</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated cashflow overrides across those tranches.
<code>get_tranche_draws</code>	Required: <code>trancheIds[]</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated draws across those tranches.
<code>get_tranche_principal_paydowns</code>	Required: <code>trancheIds[]</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated principal paydowns across those tranches.
<code>get_cap_cashflows</code>	Required: <code>hedgeId</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated cap cashflows for that hedge.

TOOL	INPUT	OUTPUT
get_collar_cashflows	Required: hedgeld. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated collar cashflows for that hedge.
get_corridor_cashflows	Required: hedgeld. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated corridor cashflows for that hedge.
get_floor_cashflows	Required: hedgeld. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated floor cashflows for that hedge.
get_swap_cashflows	Required: hedgeld. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated swap cashflows for that hedge.

Escrow

Reserve accounts tied to a deal or linked to a specific loan, property, or hedge — balances, cashflows, draws, and overrides.

TOOL	INPUT	OUTPUT
<code>get_escrow_account_by_id</code>	Required: accountId.	The full escrow account record, including current available balance.
<code>get_escrow_accounts_by_account_ids</code>	Required: accountIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated escrow accounts, each with current available balance.
<code>get_escrow_accounts_by_deal_ids</code>	Required: dealIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated escrow accounts under those deals.
<code>get_escrow_accounts_by_linked_entities</code>	Required: linkedEntityIds[] (loan/property/hedge IDs). Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated escrow accounts linked to those entities, each exposing linkedEntityId/linkedEntityType.
<code>get_escrow_accounts_for_user</code>	Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated escrow accounts across every deal the user can access.
<code>get_escrow_account_types</code>	None.	Reference list of escrow account types.
<code>get_escrow_metrics</code>	Required: escrowIds[], dealId. Optional: asOfDate. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated escrow-level metric values (balance, cash available, next payment).
<code>get_escrow_cashflows_for_accounts</code>	Required: accountIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated cashflows for those escrow accounts.
<code>get_escrow_cashflow_overrides_for_accounts</code>	Required: accountIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated cashflow overrides for those accounts.
<code>get_escrow_cashflow_errors</code>	Required: accountId. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated cashflow errors for that account.
<code>get_escrow_draws_for_accounts</code>	Required: accountIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated draws for those accounts.

Covenants

Financial and reporting covenants tied to a loan, their reusable templates, and the time-bound reference instances used to evaluate them.

TOOL	INPUT	OUTPUT
<code>get_covenants_by_loan_ids</code>	Required: <code>loanIds[]</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated covenants (type, requirement threshold, calculation definition), each tagged with its <code>loanId</code> .
<code>get_covenants_for_user</code>	Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated union of covenants across every loan on every deal the user can access.
<code>get_covenant_templates</code>	Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated reusable covenant templates (not tied to a specific loan).
<code>get_covenant_references_by_ids</code>	Required: <code>covenantReferenceIds[]</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated covenant reference records (parent covenant + evaluation timeframe).
<code>get_covenant_references_by_covenant_ids</code>	Required: <code>covenantIds[]</code> . Optional: <code>page</code> , <code>pageSize</code> (1-500, default 25) — paginated, check <code>hasMore</code> .	Paginated time-bound reference instances for those covenants.

Market Data

Rate indexes, forward curves, and market-data instruments used to price and value loans and hedges.

TOOL	INPUT	OUTPUT
<code>get_rate_indexes</code>	Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated list of rate indexes (SOFR, Term SOFR, Prime, EURIBOR, etc.) with linked instrument IDs.
<code>get_rate_index_quotes</code>	Required: rateIndexId, asOfDate. Optional: firstDate, lastDate, interpolate. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated historical and/or forward-curve quotes for the index.
<code>get_rate_index_volatility_quotes</code>	Required: rateIndexId, asOfDate. Optional: interpolate. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated volatility quotes by strike and tenor.
<code>get_instruments</code>	Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated list of market-data instruments (underlying series for indexes, curves, volatility).
<code>get_instruments_by_ids</code>	Required: instrumentIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated instrument names and sampling frequencies.
<code>get_instrument_quote</code>	Required: instrumentId, date.	The quote for that instrument on that date, or null if none exists.
<code>get_instrument_historical_quotes</code>	Required: instrumentId, startDate. Optional: endDate (latest if omitted). Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated historical quote time series.
<code>get_forward_curve_quotes</code>	Required: instrumentId, asOfDate. Optional: interpolate. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated forward curve quotes (projected future values used for pricing).
<code>get_ois_forward_curve</code>	Required: asOfDate. Optional: interpolate. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated OIS forward curve.
<code>get_treasury_curve</code>	Optional: asOfDate (latest if omitted), interpolate. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated US Treasury yield curve by maturity/term.

TOOL	INPUT	OUTPUT
get_ticker_rates	None.	Latest rate, date, and change vs. prior close for every active (non-sunset) rate index.

Debt Valuation

Debt valuation reports and the settings — tenant-default or loan-specific — used to produce them.

TOOL	INPUT	OUTPUT
<code>get_debt_valuation_reports</code>	Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated list of debt valuation reports (ID, name, as-of date, calc date).
<code>get_current_debt_values</code>	Optional: withCashflows. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated current debt valuation (debt value, market value, discount rate, LTV) for every loan in the latest run.
<code>get_default_valuation_settings</code>	None.	The tenant's default valuation settings — one set for fixed-rate debt, one for floating-rate.
<code>get_loan_valuation_settings</code>	Required: trancheld.	Loan-specific valuation settings, or null if the tenant default applies.

Calculators

Prepayment-penalty calculators for a tranche. `calculate_loan_prepayment_penalty` prices the tranche's actual provisions; `calculate_back_of_the_envelope_prepayment_penalty` gives a rough estimate from just a rate and balance, with no deal lookup required.

TOOL	INPUT	OUTPUT
<code>calculate_loan_prepayment_penalty</code>	Required: dealId, trancheId, pricingDate, rateAdjustment (one of 14 RateEnvironment values, e.g. MarketExpectations, Plus50BasisPoints; CustomCurve is rejected).	Precise prepayment penalty for the tranche's actual provisions (balance at prepayment, penalty, replacement rate, total due to lender, transaction costs).
<code>calculate_back_of_the_envelope_prepayment_penalty</code>	Required: fixedRate, loanBalance, maturityDate, prepaymentDate.	Rough prepayment penalty estimate from a fixed rate and loan balance alone, without reference to a specific deal or tranche's actual provisions.

Custom Fields

Tenant-configured custom field definitions and the values set on individual records — these span deals, loans, hedges, escrow, and properties rather than any single domain.

TOOL	INPUT	OUTPUT
<code>get_custom_field_definitions</code>	Required: entityType (Deal/Escrow/Hedge/Loan/LoanTranche/LoanVersion/Property/Guarantor/HedgeVersion).	Tenant-configured custom field definitions for that entity type (Deal and bare Loan/Hedge always return empty — use LoanVersion/LoanTranche/HedgeVersion).
<code>get_custom_field_values</code>	Required: entityType, entityIds[]. Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated custom field values set on those entity instances.

Notifications & Reminders

Rules that alert subscribers when a tracked metric crosses a threshold, and upcoming reminders visible to the user.

TOOL	INPUT	OUTPUT
<code>get_notification_rules</code>	Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated notification rules visible to the user (criteria, thresholds, subscribers).
<code>get_reminders</code>	Optional: page, pageSize (1-500, default 25) — paginated, check hasMore.	Paginated upcoming (not-yet-passed) reminders visible to the user.

Questions? If this guide doesn't answer something, or a tool is behaving unexpectedly, reach out to your LoanBoss contact with the tool name and the request you sent.