

## Case Study

# Inside CSOP's AI-Powered Leap into Smarter Investing



**By introducing AI-powered systems built with BytePlus technology, CSOP Asset Management is modernizing how its teams analyze markets, assess risk, and deliver data-driven investment insights across Asia.**

# Pioneering AI Innovation in Hong Kong's Financial Sector

As one of Hong Kong's leading asset management firm, **CSOP Asset Management** has long been known for its data-driven approach to investment management. Facing increasingly complex market dynamics and larger data volumes, the firm sought to evolve from conventional quantitative models toward a framework that could integrate market data, research, and risk analysis through artificial intelligence.

During BytePlus AI Day Hong Kong, Li Ruizhi, Head of Architect and Innovation at CSOP, shared how the company is applying AI to strengthen its research and decision-making capabilities. His presentation outlined CSOP's vision to build a technology foundation that enhances both operational efficiency and investment foresight.



## The Challenge:

## Turning Vast Data into Actionable Intelligence



In today's markets, investment decisions rely on processing enormous amounts of structured and unstructured information — from price movements and policy news to ESG disclosures and client data.

CSOP faced significant friction in scaling AI adoption due to fragmented internal tools and complex API

integrations. The lack of enterprise-grade governance created security risks and slow decision-making.

Li Ruizhi described the situation succinctly: at the enterprise level, AI integration is often slowed by structural constraints — from lagging internal API evolution to sprawling tool registries that strain context windows and exceed IDE limits. Ambiguous OPEN API descriptions make accurate tool selection difficult for models, while a critical lack of enterprise-level governance creates costly gaps in authentication, auditing, and compliance alignment. Furthermore, operational overhead spikes as the ecosystem scales, rendering tool discovery, versioning, and dependency management are increasingly complex and resource-intensive to maintain.

The firm needed a system that could automate the discovery and utilization of AI tools — allowing investment professionals to focus on strategy rather than manual tasks.



## Difficulties Encountered in the Process of AI Implementation



### Slow tool access

A large number of internal web applications/APIs, although an MCP SDK, still need to be adapted for development.



### The list of tools is too large

MCP client Tool List is fully registered, with bloated context and easy to override tokens; multi-tool calls can also exceed the tool limit of IDEs such as Cursor, Trae, etc.



### It's hard to use the right tools

OPEN API has many descriptions and different granularity, making it difficult for the model to choose "which one" at low cost.



### Lack of enterprise-level governance

Authentication/authentication, user mapping, access auditing, and alignment with enterprise compliance requirements are costly.



### Operation and maintenance costs

When the number of servers/tools expands, discovery, version, and dependency management are complicated.

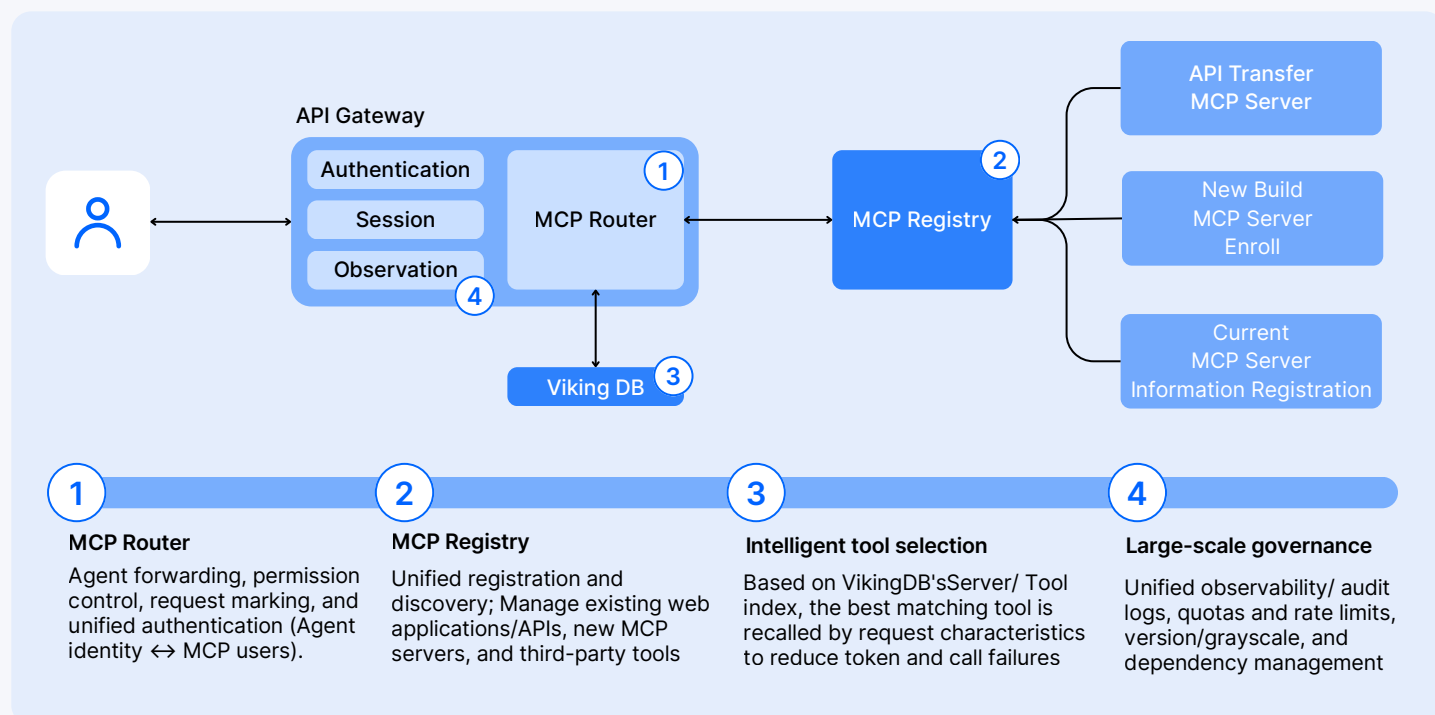
## Building an Enterprise MCP Management with BytePlus Viking DB & Multi Agent Workflow Orchstrator

As CSOP's internal tools expanded, the firm found itself managing **hundreds of MCP servers and APIs** across research and trading operations. This growing ecosystem led to inefficiencies, governance gaps, and escalating maintenance costs, with engineers spending significant time just identifying and connecting the right tools for each workflow.

To resolve this, CSOP adopted **BytePlus's enterprise MCP Management Solution (based on Viking DB & Multi Agent Workflow Orchstrator)**, a framework purpose-built for large-scale MCP Servers orchestration and governance.



The MCP Management solution unified critical components:



Definition of terms:

- An **API Gateway** for centralized authentication, session control, and observability.
- An **MCP Router** to manage permissions and route agent requests securely.
- An **MCP Registry** to standardize registration and discovery of existing web applications, APIs, and third-party tools.
- **Tool selection**, which automatically retrieves the most suitable MCP service for each request, minimizing errors and call failures.
- Unified observability and audit logs, providing end-to-end visibility, version control, and dependency management.

With these capabilities in place, CSOP demonstrated how AI could accelerate research workflows.

Now research reports can be generated in minutes — a process that once took hours — made possible by the newly governed MCP infrastructure supporting multi-agent collaboration.

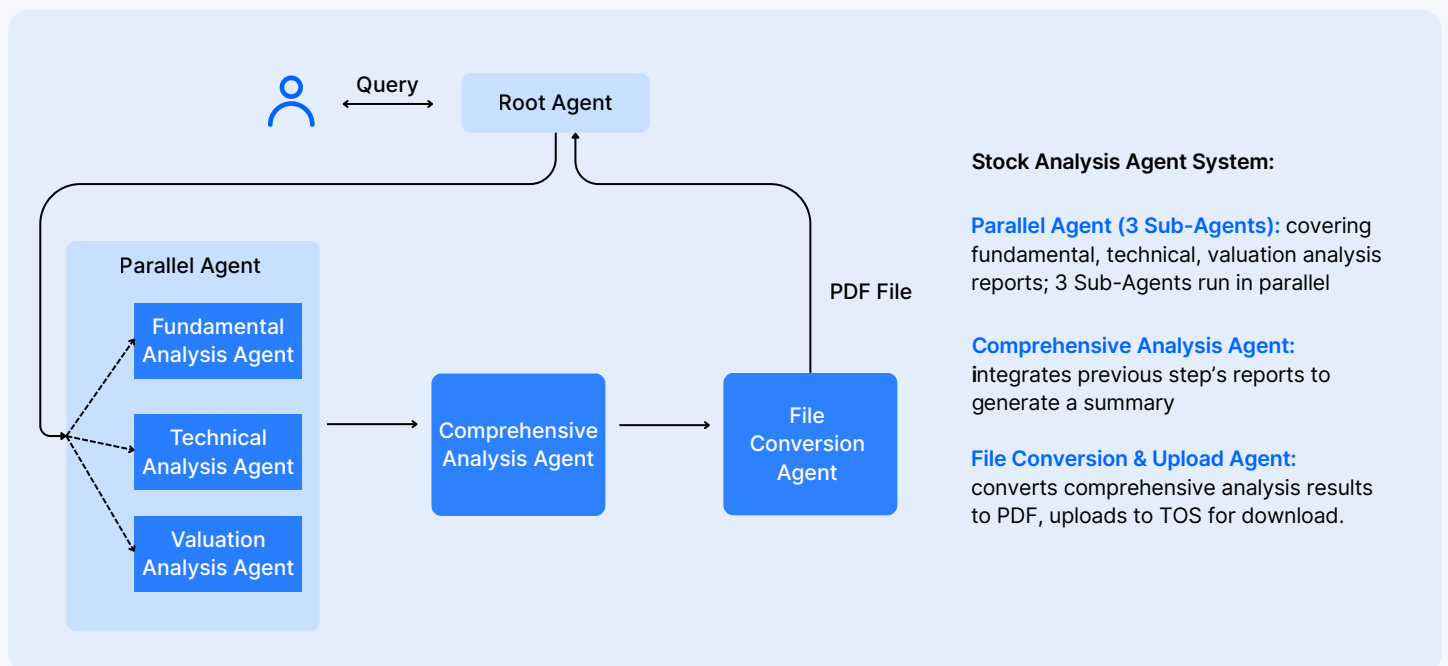
## 1. Data Integration and Automation

BytePlus RAG technology (VikingDB) supports CSOP's **data integration and automation** through a research knowledge base that consolidates diverse financial datasets — covering market data, fund performance indicators, and internal research materials. Automated agents extract and organize these inputs, allowing analysts to generate weekly reports and strategy summaries with minimal manual effort.

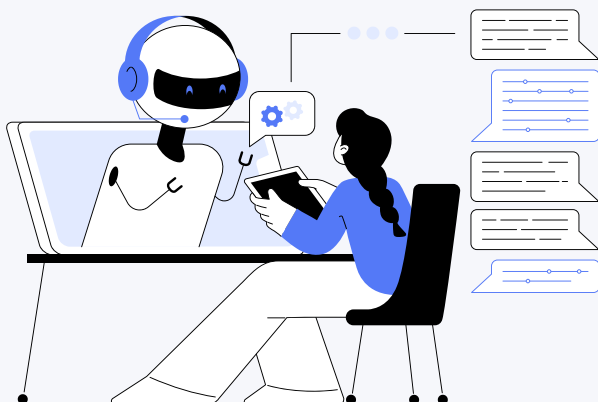


## 2. Model Development and Experimentation

CSOP's **multi-agent AI workflows** span fundamental, technical, and valuation analysis, each generating partial insights that are combined by a comprehensive agent into full research reports. These agents also tap into community sentiment data to enhance market interpretation. The system automatically produces ETF strategy briefs and weekly reports — cutting analysis time from hours to minutes.



## 3. Decision Support and Visualization



Using BytePlus's enterprise **MCP Management Solution**, which unifies the **API Gateway**, **MCP Router**, **MCP Registry**, and **tool selection**, CSOP established centralized control over authentication, routing, and observability across its extensive suite of MCP tools and APIs.

Dashboards such as Compass provide decision-makers with dynamic market comparisons and insights, helping translate AI-generated outputs into actionable investment intelligence.

Throughout the deployment, BytePlus worked closely with CSOP's in-house innovation team to align the AI system with financial-sector governance standards, ensuring that automation complements human oversight rather than replacing it.

## The Impact and Next Steps

CSOP's adoption of BytePlus AI has delivered measurable efficiency gains across its operations.

Across the organization, the MCP Hub has drastically accelerated operational workflows. Investment Research has reduced data retrieval time from **hours to minutes** through automated summarization, while Customer Service teams now obtain answers **within minutes** without manual document searches. Marketing benefits from auto-generated weekly reports using real-time data, and IT has successfully compressed application launch timelines **from weeks to days**, saving significant development hours.

These gains mark a shift from manual data collation to a unified, AI-assisted workflow where analysts focus on insight rather than integration.

Looking ahead, CSOP and BytePlus plan to extend this framework through joint innovation in agent-driven voice AI for customer service, real-time compliance verification, and marketing automation that connects live data to video content generation through Seedance. Continuous refinement of the firm's AI knowledge base will support faster learning cycles and sustain transparency in decision-making.



## A Shared Commitment to Responsible Innovation

CSOP's Head of Architect & Innovation, **Li Ruizhi**, underscored that even as automation expands, **final investment decisions remain guided by human expertise**. AI systems are designed to assist, not replace, professional judgment—providing explainable recommendations and strengthening oversight rather than obscuring it.

Together, CSOP Asset Management and BytePlus demonstrate how responsible, transparent AI can accelerate insight generation while maintaining the rigor demanded by Hong Kong's financial governance standards. Their collaboration shows that innovation in finance is not only about speed, but also about accountability, explainability, and trust.

If you would like to learn more about our products and solutions, please reach out to our at [www.byteplus.com/en/contact](http://www.byteplus.com/en/contact).

