

BANKING

AMBIT TREASURY MANAGEMENT

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FIS' Ambit Treasury Management addresses the strategic, operational and risk management requirements of a bank's treasury, across the front, middle and back-office, helping the treasurer to safeguard and steward the bank's financial assets and effectively manage its liabilities.

Business overview

The core objectives of the treasurer are to manage the assets and liabilities of the bank, ensure access to sufficient funding and liquidity, and maximize returns, while ensuring the solvency of the organization. The role is one of a responsible steward of the balance sheet, assuring the liquidity of the organization in all circumstances.

Post-financial crisis, the challenges the treasurer faces, as a steward of the bank's balance sheet, have compounded. More stringent regulatory requirements for capital and liquidity, coupled with the drive for surplus cash and capital reserve to guard against market volatility, are resulting in the curtailment of many of the activities that normally contribute to profits. The treasurer, therefore, is confronted with the formidable challenge of balancing two often conflicting objectives: ensuring access to liquidity while maximizing return; at the same time, viewing and managing the overall cash position and risk exposures in fast-moving cycles and volatile markets is critical for treasurers. Against this backdrop, a fragmented IT landscape can act as a considerable drag and pose operational hazards.

Anecdotal evidence points to exactly this happening during the crisis. In the midst of the turmoil, many banks found that they lacked access to complete and up-to-date information with which to measure risk and make funding decisions. At the same time, the practices which had become widely accepted in previous years had suddenly become the source of significant problems. Together, they served to create a 'perfect storm' for treasuries, in that the demands for and on bank funding had never been greater, yet their access to sources of funding had never been less available.

Today, as banks look to strengthen the balance sheet, refinance debt and improve the quality and management of short and long term funding, the role of the treasurer will be critical for success. However, the treasurer will need the support of a comprehensive technology platform that enables access to the wealth of information and analysis that is required to protect the bank, and to allow them to maintain position as steward of the balance sheet.

Ambit Treasury Management



FIS can help

FIS' Ambit Treasury Management addresses the strategic, operational and risk management requirements of a bank's treasury across the front, middle and back-office, helping the treasurer to safeguard and steward the bank's financial assets and effectively manage its liabilities. The solution suite helps the treasurer assure liquidity by providing comprehensive up-to-date data on cash, funding and exposures; assure solvency by providing a centralized source of information for robust reporting, planning and decisionmaking; protect revenue by providing an accurate view of asset/liability positions, the hedging overlay and performance attributions; and finally manage the impact of customer flow on liquidity by providing greater visibility and control beyond treasury.

DID YOU KNOW

Banks still face limited transparency of counterparty relationships".¹

There is significant disparity between the risks taken by banks, and those perceived by the board'.²

SOURCE 1: FINANCIAL STABILITY BOARD REPORT 2011
SOURCE 2: SENIOR SUPERVISORS GROUP REPORT 2011





Assure Liquidity

Ensuring the bank always meets its obligations with complete and up-to-date data on the availability of cash and funding, plus advanced analytical tools such as scenario analysis and stress testing help treasurers to easily identify liquidity threats and take appropriate action.



Assure Solvency

Protecting the nest egg – a centralized source of information and control enables the rapid and easy identification of situations potentially impacting the continued operations of the bank, either through counterparty failure or excessive calls on capital.



Protect Revenue

Reducing the noise in financial results – an accurate view of the bank's asset/liability position, the hedging overlay through net interest income simulations and performance attribution by way of funds transfer pricing enable treasurers to manage tenor mismatch. A single integrated platform helps minimize operational friction.



Serve Customers

Managing impact of customer flow on liquidity – greater visibility and control over customer flow activity that may affect the bank's liquidity provision as well as potential risk-taking enables treasurers to ensure proper hedging against market movements.

DID YOU KNOW

During the crisis, the reliance on static rather than forwardlooking measures of risk coupled with a major disconnection between the front-office and the risk and control department meant that market exposures were not quantified, with insufficient contingency being set aside for unexpected loss.³

SOURCE 3: SENIOR SUPERVISOR GROUP, OBSERVATIONS ON DEVELOPMENT IN RISK APPETITE FRAMEWORKS AND IT INFRASTRUCTURE, DEC 2010

Solution components

FIS helps banks effectively protect their balance sheet with the following solution components:

- Ambit Treasury (Quantum)** is a centralized front-to-back office solution with straight-through processing for cash, liquidity and multiple asset classes that are most commonly used by a bank's treasury desk. Based on analytical information from asset and liability management (ALM) and liquidity risk calculations, treasurers can implement their strategies in real-time and with maximum efficiency by being able to react to unexpected liquidity surpluses or shortages with confidence, and making good use of multi-asset class support to respond to such fluctuations. With real-time, validated information at their disposal, treasurers can capitalize on available liquidity within the organization and ensure the optimal distribution of, and access to, funds.
- Ambit Liquidity Risk** provides determination of the bank's liquidity buffer based on its contingent liquidity needs. This is achieved via a thorough, forward-looking simulation approach for the bank's liquidity position against idiosyncratic, systemic and combined stress scenarios. Its powerful balance sheet simulation engine allows for thorough stress testing as mandated by the Basel Committee in its Principles for Sound Liquidity Risk Management and Supervision. Integrated calculation and projection of liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) helps banks achieve Basel III compliance.
- Ambit Asset Liability Management (ALM)** provides best of breed balance sheet management capabilities, including static balance sheet analysis such as fair values and durations, and balance sheet forecasting using net interest income simulation. Additionally, Ambit ALM provides integrated hedge accounting functionality to predict and account for the effect of derivatives from both an economic and an accounting perspectives.
- Ambit Funds Transfer Pricing (FTP)** assists the bank price its assets and liabilities as well as its liquidity on a matched maturity basis. By separating the treasury's contribution to net interest income from the revenue attributable to the client front, the solution enables redistribution of liquidity cost, from liquidity consuming operations to liquidity providers. Ambit FTP provides insurance against a contingent event via a liquidity buffer which is credited for the treasurer. Furthermore, being fully integrated with Ambit ALM, any transfer prices may be predicted into the future, helping banks better manage volatility of tenor mismatch and front contributions.
- Ambit Cash & Liquidity Monitor** provides cash flow management, nostro account limit management and real-time balance tracking, enabling treasury operations to deliver accurate and timely nostro and cash account information to cash managers.
- Ambit Retail Margining** helps banks manage customer accounts more effectively and, in doing so, increases staff productivity. The online solution allows users to manage all aspects of client positions and risks as they occur; giving banks the ability to quickly respond to profitable opportunities.
- By linking up the analytical components for ALM, liquidity risk analysis, FTP, hedge accounting and cash & liquidity monitoring with the operational components of Ambit Treasury Management and Ambit Retail Margining, banks can address all strategic, operational and risk management requirements of the treasury.

The treasury group is the financial center of an organization. The key role of treasury is safeguarding and stewardship of an organization's financial assets and the management of an organization's financial liabilities.



Assure Liquidity: Ensuring the Bank Always Meets its Obligations

Since the financial crisis, banks have faced growing challenges when it comes to liquidity, with funding by traditional external sources, such as interbank funding, declining and risk appetites diminishing, leading to increased calls for banks to provide more collateral to secure funding. As a result, while some banks continue to struggle, some are becoming 'overly liquid,' in its primary role as steward of the balance sheet, it is the treasury's responsibility to ensure the bank has ongoing access to sufficient liquidity to honor its commitments and be a reliable liquidity partner. There are three key ways the treasurer can meet these core objectives:

- **Develop a strong liquidity strategy – supporting decisions with rich analysis tools**

Bank treasurers need to be able to easily identify the impact of every activity or the bank's position and formulate liquidity policies and strategies to make timely and correct funding decisions. For this, banks need to establish a single information system that provides an accurate view of the bank's current liquidity position and exposure to risk, as well as analytical tools that help in understanding the effects of future market movements or events on liquidity.

- **Closely track liquidity positions and market movements – controlling risk through constant data analysis**

Having formulated a robust liquidity strategy to underpin the bank's funding decisions, the treasury must make sure that it constantly and proactively monitors the success and viability of that strategy. Only with complete and forward looking analysis can a bank ensure that it manages the risks that, at any point in the future, may prevent it from meeting its obligations.

- **Strengthen, integrate and automate payment processes, enabling the efficient execution of transactions, reconciliations and reporting**

To optimize its liquidity and risk strategy, the treasury needs confidence in the core payment activities that underpin the bank's business. Thus, the treasurer needs an inclusive set of information from multiple, disparate payment processing sources, and must be able to count on a high degree of both frequency and confidence in the data. Highly automated payment systems and powerful process management capabilities can enable the bank to respond more quickly to sudden crises, and collect payments and manage liquidity more efficiently in times of high stress.

Monitor your liquidity



FIS can help

FIS' Ambit Treasury Management provides the bank treasurer with a single, integrated solution for all elements of the transaction lifecycle across diverse asset classes. It delivers a central real-time location for analysis and management of all treasury operations and risk practices. With Ambit Treasury Management, the treasurer can carry out point-in-time and forward-looking liquidity analyses to ensure robust plans are developed through extensive stress testing and what-if simulations which deliver confidence in the subsequent decisions and action plans. In addition, market and credit risk analytics, including a centralized control for the credit risk policy are supported. This provides a common operating model and architecture across treasury operations and close tracking of liquidity positions and market movements – controlling risk through constant data analysis.

I need to manage my liquidity buffer – operationally, tactically and strategically – across various issues now and in the future.

PHILIP JONES,
HEAD OF MONEY MARKETS.



Ambit Liquidity Risk helps banks determine their liquidity buffer, taking into account all contingent cash needs. The solution simulates the precise potential effect of various stress scenarios, including the regulatory requirements of Basel III, on the liquidity position. Ambit Liquidity Risk helps banks achieve regulatory compliance on a global scale by helping them satisfy increasingly complex requirements and proactively prepare for impending changes. With Ambit Liquidity Risk, banks can simulate future cash flows to develop a better understanding of the weaknesses that may be caused by funding source concentrations. This identification of potential gaps in liquidity and the design of robust contingency plans allow for a greater focus on investment opportunities and profitability.

Ambit Cash & Liquidity Monitor provides the treasurer with the ability to monitor intra-day nostro balances across the entire organization. By providing the treasury organization with the ability to monitor point-in-time and forward-looking balances, Ambit Cash & Liquidity Monitor enables banks to identify potential problems that require attention within a manageable timeframe. This reduces the incidence of short notice funding calls, with the associated reduction in funding costs and improved nostro balance management. Increased transparency of cash-flow operations, helps to proactively meet the needs of regulators by ensuring complete visibility of the balance sheet – and managing gaps before they cause a liquidity crisis. Overall, this strengthens, integrates and automates payment processes.

DID YOU KNOW

A single trusted source of data within the firm can vastly simplify the risk management IT architecture.⁴

The metric used to measure liquidity should range from the dynamic and forward-looking to the static and point-in-time.³

SOURCE 4: INSTITUTE OF INTERNATIONAL FINANCE AND MCKINSEY & CO: RISK IT AND OPERATIONS, STRENGTHENING CAPABILITIES
SOURCE 5: SENIOR SUPERVISORY GROUP: OBSERVATIONS ON THE DEVELOPMENTS IN RISK APPETITE FRAMEWORKS AND IT INFRASTRUCTURE



Assure Solvency:

Protecting the Nest Egg Through Robust Reporting, Planning and Decision Making

The recent turbulence in the financial markets has underscored the need for effective risk management by banks with the preservation of capital at its core. One of the defining conclusions of the financial crisis was the inadequacy of bank practices when it came to predicting and managing risk, which was further exacerbated by the drying up of funding sources. Notably, there was also a significant disparity between the risks being taken by banks and the way those risks were perceived by their board of directors.

As steward of the balance sheet, the treasury must above all make sure that the capital value of the bank's assets is preserved. This means setting aside a sufficient 'nest egg' to ensure the survival of the organization. There are three key ways the treasurer can help protect this nest egg:

- **Formulate a robust credit and market risk management strategy – supporting decisions about deals with constant analysis of the capital at risk**

It is critical for global banks to step up their vigilance and control when it comes to credit, operational and market risk – with an increased accompanying need for transparency, to improve the quality of credit decisions.

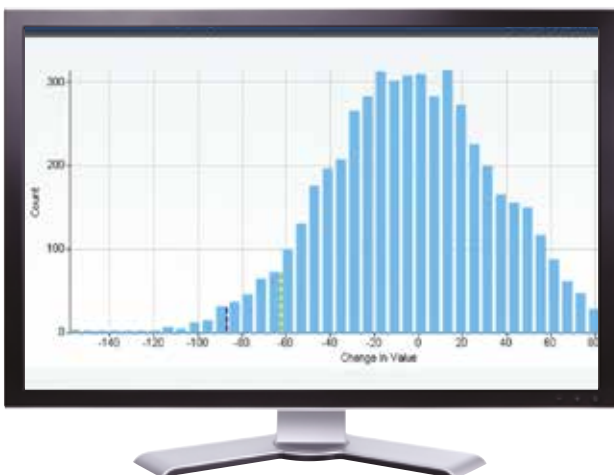
- **Monitor the bank's day-to-day and projected capital positions – controlling risk by analyzing real-time data and modeling potential market movements**

Today's markets require a single, centralized risk data system that not only provides a clear view of the bank's day-to-day business, but also keeps pace with a rapidly evolving and increasingly complex array of products – providing timely and accurate information on a wide range of risk types, particularly concentrations, settlement, pricing/model and market risks.

- **Ensure compliance with external regulation and internal policies – tightening operational processes for efficient capital management and timely, accurate reporting**

Banks will need to simplify and standardize their typical fragmented and complex systems and build their operations on a consistent foundation which is integrated with flexible regulatory reporting tools to accommodate evolving regulation. Most critically, at the heart of the solution must be one central source of data to support all internal and external reporting to accurately reflect all risks the bank is exposed to.

Improve solvency



FIS can help

FIS' Ambit Treasury Management enables banks to forecast projected cash flows based on real-time data, for faster and better decision making and a greater return on liquid assets. Improved transparency, risk management and compliance with real-time risk and regulatory reporting provides a complete and accurate view of risk exposure and allows the bank to respond to market conditions quickly with sophisticated strategies that involve multiple asset classes. Ambit Treasury Management's integrated straight-through processing platform helps banks achieve both a high level of automation and a lower cost per transaction, thus reducing operational risks and costs.

Ambit ALM enables banks to build balance sheet models that measure and forecast all drivers of the business, across all books. The solution supports the measurement of interest rate risk on the banking book from both a market value and an earnings perspective. By simulating the balance sheet into the future, the solution helps banks identify potential interest rate risks looming on the horizon. With its earnings simulations and valuation routines, banks have greater visibility for positions with virtually any sequence of events and for any reporting interval. Far-reaching automation of processes reduces the time needed for simulation processing.

Ambit ALM also helps banks understand the relative impact of changes, balance sheet composition and model parameterization. It helps banks determine adequate levels of capital be held against interest rate risk on the banking book from both an ICAAP as well as future Pillar 1 (as outlined in the Fundamental Review of the Trading Book by the BCBS) perspective, key considerations in formulating robust credit and market risk management strategies.



I need to know what the risks are and where they are on a real-time basis, so that I can control and report them for management and regulators. I need to know that we have clear plans in place for potential movements in our positions and the markets.

DENISE PITCHFORD,
RISK MANAGER.

DID YOU KNOW

Collateral agreements rose from 12,000, with a value of US\$ 200 billion in 1999 to 170,000, with an estimated value of US\$ 32 trillion in 2010.⁶

Bank of America would need to provide US\$ 11.5 billion on top of the existing US\$ 66.9 billion to cover current trades due to its recent rating downgrade.⁷

SOURCE 6: ISDA MARGIN SURVEY

SOURCE 7: EUROMONEY: DOWNGRADED BANKS FACE HITS FROM ADDITIONAL COLLATERAL PAYMENTS



Protect Revenue: Reducing Noise in Financial Results

I want my organization to be a reliable source of income for the bank, as well as an overall hedge against adverse situations.

MICHAEL LEONG,
TREASURY MANAGER.



One of the core objectives of the treasurer is to maximize the return on assets under stewardship. However, as well as financial return, shareholders require stability in reported earnings. Threatening this stability are a number of factors that the treasurer needs to negotiate and manage as they create a form of 'noise' – with the potential to drown out the clarity that the treasurer requires and in turn needs to provide.

One of the prime external factors affecting the potential impact of these noises is operational efficiency. Without agile and fully integrated treasury management processes – which in turn feed into a centralized data management system – the treasurer is unable to make accurate assessments and decisions, just when they need to be made. Efficient, highly automated and intelligent processes are therefore essential for the running of day-to-day treasury operations and will ultimately support the treasurer's role as steward of the balance sheet.

With an effective treasury management system, the treasurer can maintain stability and protect revenue, by mitigating the impact of noise on the bank's front, middle and back-office operations, and harnessing technology to address two key, related challenges:

- Minimize operational and environmental friction – streamlining processes across the bank to reduce noise, manage volatility and improve visibility**
 In today's complex and unpredictable financial environment, treasuries need rigorous controls and processes to successfully filter and manage a variety of noises. Only by improving, streamlining and integrating their operations, treasury management systems and information systems, and delivering high levels of automation and visibility across payment, settlement and reconciliation processes, can banks address the cumulative challenges of the following noises – volatility, instrument complexity, lack of transparency, innovation, regulatory change and compliance, changes to operational processes and policies, organizational change and operational losses.
- Manage market behavior – using advanced trading and-hedging techniques to help stabilize earnings**
 As steward of the balance sheet, the treasurer is constantly confronted with the realities of 'tenor mismatch' between the bank's assets and liabilities, especially in times of market volatility and fluctuating interest rates. To manage volatility, treasuries need tools for hedging, advanced asset liability management analysis such as funds transfer pricing and dynamic balance sheet simulation, and hedge accounting.

FIS can help

Ambit Treasury Management provides a common operating model and architecture across treasury operations to help banks stay ahead of market developments and manage volatility, instrument complexity, and financial innovation. It also helps banks ensure regulatory compliance in terms of implementing sound market practices across the treasury organization and avoidance of operational losses. With Ambit Treasury Management, banks can improve transparency across clients, instruments and processes and easily operationalize hedging strategies against noises. Furthermore, Ambit Treasury Management helps banks overcome organizational challenges by ensuring a high degree of automation that reduces the impact of organizational change on treasury revenue.

Ambit ALM, including modules for FTP and hedge accounting, helps banks enhance transparency and gain greater control over balance sheet strategies and overall risks. By separating the tenor mismatch/treasury from the margin revenue using the solution's sophisticated FTP capabilities, Ambit FTP helps banks ensure commensurate and appropriate hedging of interest rate risk. The solution enables banks to simulate the balance sheet into the future and apply FTP methodologies on future net interest incomes, to help banks develop a better understanding of the impact on both the margin and tenor mismatch of different scenarios on revenue and accordingly hedge potential gaps. Furthermore, Ambit ALM helps banks continuously track the performance of the hedging strategy against overall balance sheet developments. Lastly, with Ambit ALM, banks can apply hedge accounting and post general ledger entries to appropriate systems and build the bridge between the economic view on hedging and the accounting treatment of derivatives to avoid undue P&L volatility.

Woeful IT systems have exacerbated the crisis.

Monitor market operations to improve decision-making



DID YOU KNOW

Regulatory developments and market infrastructure developments continue to drive demand for optimization of collateral, balance sheet quality, capital and liquidity adequacy and improved risk/return performance metrics for credit institutions.⁸

Studies have revealed that the actual cost of operational risk can be surprisingly high, in the region of £1.50 for every £100 of gross income.⁹

SOURCE 8: ACCENTURE: COLLATERAL MANAGEMENT, UNLOCKING THE POTENTIAL IN COLLATERAL

SOURCE 9: OPERATIONAL RISK EXCHANGE FROM ADDITIONAL COLLATERAL PAYMENTS



Serve Customers:

Improve Visibility and Control Beyond the Treasury

As part of the day-to-day operations of a bank, it is necessary for the treasurer to support and monitor activities that originate both within and outside the treasury. While transactions initiated internally are normally immediately visible to the treasurer, it is vital that the same levels of visibility are available for those that take place beyond the treasury – especially when they may have a considerable impact on treasury operations.

As more and more competitors are offering additional services to customers, it is important that banks position themselves in a way that allows them to respond to shifting market trends and opportunities, both in terms of asset class diversity and geographical location. While this provides banks with opportunities for additional revenue, it also carries risks that must be managed by the treasury if it is to be a steward of the balance sheet. It is the treasury's responsibility to manage customer flow by supporting the front, middle and back offices in the following ways:

- Gain a detailed view of all customer transactions and trading activities – capturing trade flows outside the treasury to help manage associated risks**
 All customer flow activities have a direct impact on the liquidity position of a bank, requiring close interaction between and vigilance from the ALM and treasury teams. Banks need to ensure transparency, consistency and accuracy for all involved by utilizing technology and the strong integration of different systems throughout the organization.
- Closely monitor the bank's customer position – minimizing the impact of margin requirements and market movements**
 In order to extend customer relationships and increase wallet share, banks need to be able to service customer requests and bring new products to market, across a diverse arena of activities, while reducing the credit risk exposure and the impact of margin requirements. It is, therefore, essential that accurate credit exposure information be available across all client dealings including: capital market transactions, core and retail banking, any trade finance, leasing, loans and other credit activities. At the same time, banks need to upgrade their client servicing models to build greater automation through function-rich portals and client relationship management systems to increase efficiency and control operational risk.
- Improve efficiency and profitability across all customer transaction processes – supporting payment investigation and the prediction of end-of-day positions**
 In today's competitive market environment, banks must also be able to provide transaction support services that would not previously have been available such as foreign exchange services and money market transactions. These activities can prove profitable sources of revenue and liquidity for a bank, provided that satisfactory risk management practices are enforced – and high levels of automation and operational efficiency are achieved. By streamlining and integrating their transaction support services as part of a single, efficient technology and data management framework, banks can more accurately predict their end-of-day liquidity positions across a multitude of disparate customer accounts – and as a result, improve their overall management of liquidity.

Monitor your liquidity



FIS can help

FIS' Ambit Retail Margining enables banks to monitor and report on positions and order status, tracking collateral and margins in real time to effectively monitor and mitigate exposures. This accelerates the entire trade lifecycle, from receiving and analyzing market data to executing an order and allows banks and clients to respond more quickly to market conditions with complex strategies involving multiple asset classes. Meeting the needs of the most demanding and discerning customers, by giving clients online access to their own information around the clock, Ambit Retail Margining helps client advisors view comprehensive histories of client

activity, with unified position and trade views and the ability to transfer knowledge within the bank which helps banks minimize the impact of margin requirements and market movements. With automated post-trade processing, the solution enables hands-off end-of-day sequences as well as to accept and reevaluate collateral and account balances from external applications which helps the bank support high volumes of trades while having full control over customer flow via the solution's extensive alerts functionality.

Ambit Connectivity provides connectivity to execution venues and customer facing applications, supporting realtime reporting of entity level collateral and exposures.

I need to know that my clients are being provided with the services they require and that I am optimizing revenue-generating opportunities within my operation.

STUART GORDON,
HEAD OF CORPORATE SALES.



DID YOU KNOW

Enhanced liquidity solutions will provide new revenue opportunities for bankers as credit markets begin to thaw and corporate CFOs increase their demands for treasury solutions and as bankers explore new liquidity-based product options for retail customers.¹⁰

SOURCE 6: IDC FINANCIAL INSIGHTS: WORLDWIDE FINANCIAL SERVICES 2012 TOP 10 PREDICTIONS: THRIVING OR JUST SURVIVING?

About Ambit Treasury Management

FIS' Ambit Treasury Management solution suite addresses the strategic, operational and risk management requirements of a bank's treasury across front, middle and back-office. The solution helps the bank's treasurer to safeguard and steward the bank's financial assets and effectively manage its liabilities. Ambit Treasury Management delivers the platform to support the treasurer in assuring liquidity, assuring solvency, protecting revenue and serving customers. For more information, visit www.fisglobal.com

About FIS

FIS is a global leader in financial services technology, with a focus on retail and institutional banking, payments, asset and wealth management, risk and compliance, consulting and outsourcing solutions. Through the depth and breadth of our solutions portfolio, global capabilities and domain expertise, FIS serves more than 20,000 clients in over 130 countries. Headquartered in Jacksonville, Florida, FIS employs more than 55,000 people worldwide and holds leadership positions in payment processing, financial software and banking solutions. Providing software, services and outsourcing of the technology that empowers the financial world, FIS is a Fortune 500 company and is a member of Standard & Poor's 500® Index. For more information about FIS, visit www.fisglobal.com



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