

Case Study



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Smart Content Delivery Supports Real-time Display of Precious Metal Market Prices

Tanaka Kikinzoku Kogyo extensively operates its business in the field of precious metals for both industrial and personal use. The precious metal page of its web site received an increasing number of connections from users and visitors in the background of the recent price hike in precious metal bullion. The site display slowed down, followed by the "F5 attack" from visitors, resulting in a significant delay in server response. This is why the company singled out "Smart Content Delivery (SCD)," which utilizes cache servers.



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Server response slows down because of increased access stemming from the rise of precious metal market prices

Tanaka Kikinzoku Kogyo is the head company of the Tanaka Kikinzoku Group, which conducts a broad range of operations in various business areas, particularly in the field of precious metals, since its foundation in 1885. Products for industrial use represent approximately 90% of the group's business. The group boasts of the world's largest share in the market for bonding wires, which are used in LSIs and related areas. Further, the company conducts sales of bullion and precious metal reserve funds for personal investors. Its "G&P Planner," which is a pure gold & platinum reserve fund available online, has become popular. The company posts market prices of precious metals such as gold and platinum on its web site. Ms. Yayoi Igarashi from the Precious Metals Division of the company explains the significance of posting precious metal market prices. "As a company selling precious metals to a broad range of customers, including industrial and personal customers, we consider the provision of the precious metal market prices of the day as our mission. In addition to posting the prices on our web site, we also publish the previous day's prices in the Nikkei newspaper."



The prices of precious metal bullion have recently been increasing worldwide. Ms. Igarashi says that precious metal bullion is increasingly attracting the attention of individual investors as a part of the asset portfolio. "Unlike investments in stocks, which would be reduced to mere scrap paper if the company

were bankrupt, precious metals are of great value. Mankind has desired and cherished precious metals for over 6,000 years. The charm and value of precious metals never fades. I think a wide variety of people are beginning to understand this charm and value, which is why precious metals have become so popular." The market prices of precious metals started to soar in late 2007. This led to an unexpected situation. When the market price page of the company's web site was updated at around 9:30 a.m., the connections from the visitors peaked and the site display began to slow down. The price rise continued even after the turn of the year, and some visitors started reloading the page by repeatedly pressing the F5 button because of the tendency of wanting to know the latest market price as soon as possible, which made the situation even worse. As a result, even the screen used for updating by the web site administrator became inaccessible. On some days, the company remained unable to post the precious metal market prices until after 10:30 a.m. The office staff was nearly in a state of panic. Customers called in with complaints. Thus, it was imperative for the company to take urgent action in this regard.

Acquaintance with "SCD," which enables the user to build a solid and secure delivery environment at low cost

Amid the increase in access volume, the server management company proposed the enhancement of the server. If the server were enhanced, the confusion at the peak access time could be avoided. However, if the access volume increased again, it would be necessary to increase the number of servers. Moreover, the server management company suggested that the enhancement cost would be around 10 million yen, including miscellaneous costs. Ms. Igarashi voices her opinion then.

Challenges

- The connections from the visitors to the web site peaked because of the rise of precious metal market prices. The load on the server increased, and it became difficult to update the information.
- Site display slowed down, and the company received complaint calls from users.
- Difficult to forecast how the access volume would change in the future, and server enhancement could result in excessive investment.

Solutions

- Adopting "Smart Content Delivery" of NTT Communications
- Lightens the load on the server during the peak access time by using cache servers of "SCD."
- Allows the company to secure the line band only when it is necessary with no initial cost.

Measured Successes

- The display speed is maintained as usual even during the peak access time.
- The company no longer receives complaints about site display from users.
- The delivery performance is easily improved without the need for any hardware enhancement.

