



Customer Information



Resona Bank, Inc.

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Resona presents a “total lifestyle solution” to the individual customer, and “growth, regeneration, and inheritance solutions” to the corporate customer.

Resona Bank, Inc. – Ensuring exceptional service delivery anytime and anywhere with IBM

*Modernization of crucial infrastructure to enable
24/7/365 service*

Resona Bank, Inc., whose name comes from the Latin word for “resonate”, wants to build an unbreakable bond with its customers by listening to their voices and sympathizing with them, so that the ideas “resonate”. Resona’s basic way of thinking is “the customer’s happiness is Resona’s happiness”; the company aims to be a financial services group that delivers “an excitement that goes beyond satisfaction” to every customer.

As part of this plan, Resona is pursuing a change from being a banking business to a financial services business, and has been promoting a “Resona revolution”—for example by lengthening its business hours and strengthening its operations for small- and medium-sized businesses, without being constrained by conventional banking approaches. The company plans to accelerate the “Resona-ism” revolution over the next ten years, involving the continuation of highly transparent business operations and the maximization of business value.

Jumping up to a new OS level

Resona’s core IT system was redesigned in 2002 and currently uses a hub-and-spoke model. Centered on a system collaboration infrastructure called the “communication hub”, systems such as pension trust and accounting are loosely coupled. The biggest advantage of this model is that Resona Bank, Saitama Resona Bank, and Kinki Osaka Bank, the three banks that form the Resona group, can use the same programs.

Product support had ended for Resona’s chosen version of the z/OS operating system (V1.6) on its mainframes, so a special extended maintenance service was being used. However, this maintenance support would also eventually end, so the bank knew that it needed to upgrade the OS. This would also have the benefit of eliminating the extended maintenance cost.

Mr. Yutaka Ichii, Group Leader in the Resona Bank Systems Department, remembers how the project started: “Generally speaking, there is little risk in migrating to a compatible higher version of the same operating system, and even if a problem occurs, it is possible to fix it in a relatively short time. “However, even for z/OS V1.10, the maintenance period had already ended by that point in time, so a two-step upgrade was necessary. Also, even when software is compatible, with a migration of the core system all applications must undergo operational testing in order to maintain quality—which implies considerable costs and labor for migration. Repeating the migration operation two times was not realistic in terms of the labor or the cost.”

Resona launched a project to migrate its operating system from z/OS V1.6 to z/OS V2.1, and the accounting database from IBM Information Management System (IMS) V9 to V13, by using “jump-up”, a major version upgrade that leapfrogs the normal product support migration path.



[Case Study Overview]

Modernization of core system infrastructure software

[Hardware]

IBM zEnterprise EC12

[Software]

- IBM z/OS V2.1
- IBM Information Management System13
- IBM WebSphere Message Broker

[Business benefits]

- Completed a major migration operation in one step, reducing migration cost.
- Gained ability to use standard vendor maintenance and support.
- Gained ability to use functions that had previously required independent development as standard functions.
- Achieved great improvement in processing performance thanks to IMS migration.
- Created an infrastructure for implementing 24-hour, 365-day operations.

Teaming up with IBM to ensure smooth migration

The bank joined forces with IBM engineers and IBM Business Partner NTT Data Sofia, Inc. (NTT Data Sofia) to investigate the possibilities and limitations of the migration.

Resona engaged in a series of meetings with a team of IBM engineers to evaluate the possibility of a jump-up migration, as Mr. Ichii explains: “Unlike in the past, this OS migration was going to happen outside of our migration path, so we knew it was crucial to gather information related to compatibility and validation before getting started with the process.”

Mitsuteru Katayama, Group Leader of the Resona Bank Systems Department, says: “This was the first example of a Japanese bank choosing to jump-up its infrastructure software prior to the official availability of the product, and so we also carefully repeated the information gathering and verification with NTT Data Sofia.”

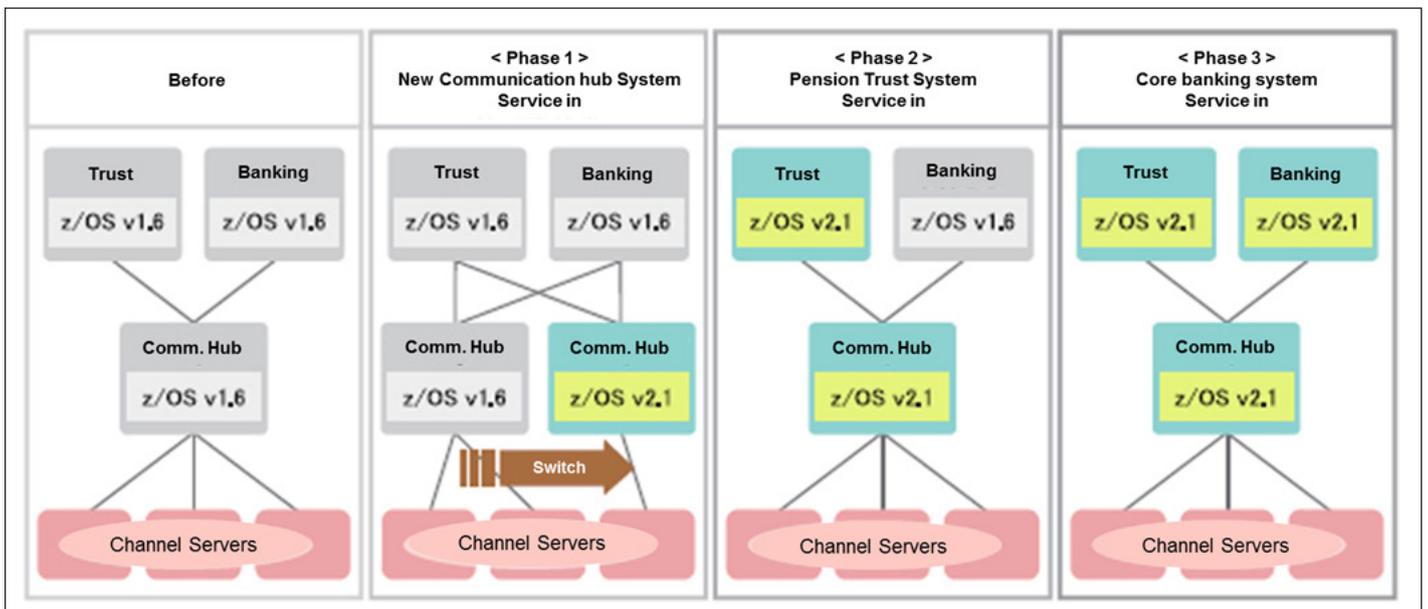
Fumiaki Hirayama, Senior Project Manager of the Systems Management Department of the NTT Data Sofia Systems Management Division, comments: “In a jump-up, there are many operations for which the migration path is not guaranteed, and therefore prior to the migration it was necessary to verify what had to be done, and what needed to be avoided. IBM’s support was absolutely essential.”

After discussing matters such as specifications, product quality, the schedule, and the support system with the appropriate people in the IBM development team and at NTT Data Sofia, Resona concluded that a jump-up migration was possible. The bank obtained the z/OS V2.1 ESP (Early Support Program) version prior to general availability and started to introduce and verify the infrastructure software.

Mr. Hirayama continues: “The ESP version of z/OS V2.1 require dus to apply program temporary fixes (PTFs) approximately every two weeks, but because we had the support of IBM this was achieved without any particular problems.”After only two months, the fully-fledged construction and verification work began.

Resona migrated first the communication hub – the center of its backbone system, implemented with IBM WebSphere Message Broker running on z/OS – and, subsequently, the pension trust system.

Gradual transition phase



Mr. Katayama states: “The communication hub is an important mechanism that would affect the entire system if it stopped. We needed to connect it to the other systems safely and securely, and we needed to do this quickly.”

While testing the environment, Resona chose to use production data in order to plan any potential fixes in advance. As Mr. Ichii says, “Things might go great in a test environment, but problems often occur when moving to a production environment. So, we used production data, ran the new system and verified that the results were the same as with the old system. We have been in production for some time now, and haven’t had any issues so far.”

Enhancing operational efficiency and reducing costs with jump-up migration

Mr. Ichii comments: “By migrating to the newest infrastructure, we now enjoy standard product maintenance, and we can expect that functions that previously had to be uniquely developed will be available as standard functions.”

Mr. Katayama adds: “IBM informed us that the whole migration was technically feasible, but still we were unsure. So, first of all, we made a plan assuming the operations went on schedule, providing checkpoints at the key stages, and constantly checking on progress. Additionally, we made a plan so that we could recover to a previous checkpoint, in case we were unable to fix problems or things did not go as scheduled.”

For example, the migration of the communication hub needed to be introduced and reach production operation in a short time. Because one single issue could potentially affect the entire system, it was necessary to migrate this in multiple steps and in an efficient manner. On the other hand, the pension trust system and accounting system required one-step migrations, and it was therefore necessary to set up a procedure for returning to the old system from a backup if a problem occurred.

Mr. Ichii says: “The fact that the procedures for handling problems were reviewed by the entire bank gave great value and efficiency to the whole process.” An operations manual created at this time was written so as not to require the user to make decisions, and therefore the same results would be obtained regardless of who used it. It was important that we ‘didn’t ignore the obvious, and did everything properly’, an approach that Resona Bank later termed ‘ABC Management’. However, this time, the migration completed without incident, so there was no need to use this operation manual.” And,

with regard to the jump-up to IMS 13, Mr. Katayama says: “The IMS 13 jump-up was dependent on the release of the GA version, so it was necessary for the introduction of IMS 13 also to be done in a short time. But for the jump-up to IMS 13, the migration plan was again well constructed, so it was possible to finish on schedule.”

Mr. Hirayama adds, “Following the IMS migration, functions such as log output were strengthened, and the capabilities of business processes were greatly improved. For example, transaction processing that previously required about 20 minutes was accelerated to reach single digits in millisecond units,



Resona Holdings, Inc., Group Leader of the IT Planning Department
Resona Bank, Inc., Group Leader of the Systems Department
Yutaka Ichii

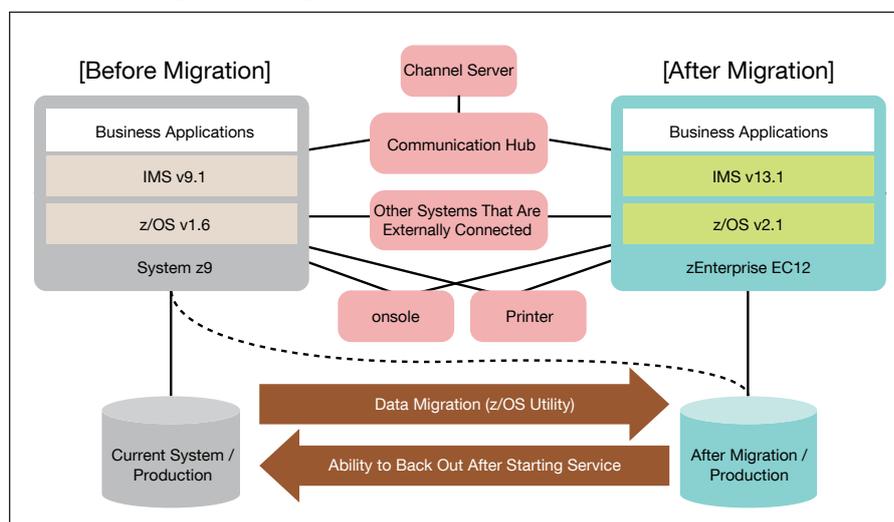
“We only had to do one migration, so we were able to reduce the migration costs. Additionally, there was the benefit of getting standard maintenance support rather than the special extended maintenance service of the past.”



Resona Holdings, Inc., Group Leader of the IT Planning Department
Resona Bank, Inc., Group Leader of the Systems Department
Mitsuteru Katayama

“This was the first example of a Japanese bank that decided to jump-up its infrastructure software prior to general availability, and so we also carefully repeated the information gathering and verification with NTT Data Sofia.”

Structure Image After Migration





NTT Data Sofia, Inc., Executive Director,
Manager of the System Management
Division
Shinichi Umeda

“After the jump-up, it was necessary to verify, one by one, that products of other companies worked without problems. This was a very high-risk operation, but I think the reason for our success was that we always checked what was happening on-site, and exchanged information.”



NTT Data Sofia, Inc., System
Management Division, System
Management Department, Senior
Project Manager
Fumiaki Hirayama

“Functions such as log output were strengthened, so that transaction processing that previously required about 20 minutes was accelerated to reach single digits in millisecond units, and batch processing that had taken at least two hours now was completed in approximately half the time, so we could trust the overnight processing to be finalized by the following morning.”



Resona Group
Communication
Character “Resonya”
[a pun, cats say “nya”]

and batch processing that used to take at least two hours was now completed in approximately half the time, so we could trust the overnight processing to be finalized by the following morning.”

Shinichi Umeda, NTT Data Sofia Executive Director and Manager of the Systems Management Division, comments: “The backbone system is not exclusively based on IBM products. Therefore, after the jump-up, it was necessary to verify, one by one, that products from other vendors worked without problems. This was a very high-risk operation, but I think the reason for our success was that we always checked what was happening on-site, and exchanged information.”

Achieving 24/7/365 service with IBM-based infrastructure

Thanks to the OS migration, Resona has now achieved 24/7/365 service. This, in turn, helps the bank to constantly maintain the highest levels of customer satisfaction. Previously, currency trading ran until 3 PM, and settlement processing with other banks was completed by 3 PM; but if all banks go to 24-hour, 365-day operations, then it will be necessary to support currency trading with other banks even on Saturdays and Sundays. Mr. Katayama says: “As a bank, it is necessary to accommodate customers’ needs and changing requirements flexibly and quickly. For this reason, our core system needs to have non-stop 24-hour, 365-day operations. Thanks to this infrastructure software migration, it has become possible to construct a system infrastructure for this purpose.”

Mr. Ichii concludes: “By migrating to the latest OS and database, it became possible to use new functions in a standard way, within an environment that can respond to changes more quickly and at lower cost. We expect IBM to keep launching leading-edge technology and continue to support us in the future.”



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