

## Brunei Darussalam adopts SWIFT message delivery and ISO 20022 messaging standards

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“A modern robust financial infrastructure is central to our efforts to develop the financial sector in Brunei Darussalam and achieve our national goals. This project has put in place the heart of our new payment and settlement system, and is the crucial first step”

Hj Adi Marhain Leman, AMBD Project Sponsor  
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“This has been an innovative project, a world first and regional first, bringing together proven technologies in a new way to deliver long term benefits for Brunei Darussalam’s banking community and its customers.”

Dr. Gordon R. Clarke, AMBD Project Manager  
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The Autoriti Monetari Brunei Darussalam (AMBD) has implemented an innovative settlement solution that is expected to deliver long term local and regional benefits to the banking and capital markets industry.

### Background

Brunei Darussalam is a sovereign state on the north coast of the island of Borneo. It has a GDP per capita (2013) of US\$38,563.31 and a small population of around 420,000. To achieve its vision to become a premier Islamic financial centre, Brunei Darussalam requires a modern, flexible set of financial market infrastructures (FMIs) that would not only promote the country as a financial market based on stability and efficiency, but also allow it to seamlessly complement the wider ASEAN financial markets integration strategy.

### Key drivers

Autoriti Monetari Brunei Darussalam (AMBD) was formed in January 2011 as Brunei Darussalam’s central bank, with a specific mandate to modernise and reform the payment system in the country. To this end, AMBD was challenged to reduce inter-bank settlement risk and increase financial efficiencies by introducing a real-time gross settlement (RTGS) system. This is also in line with ASEAN’s initiatives on cross-border connections, which have initiated the modernisation of banking systems across the region. AMBD’s RTGS system can then link to RTGS systems across the region, helping to facilitate the more efficient settlement of payments in cross-border transactions.

For this reason, a managed network via SWIFT delivery was a key consideration given that many banks in Brunei Darussalam have their data centres offshore. Underpinning each of these drivers was the need for an FMI that provided enhanced, world-class security and risk management. In addition to the RTGS, projects to implement FMIs for domestic bulk payments (including both cheques and electronic instruments), and securities settlement were also set in motion. Again, for consistency with ASEAN trends and cross-border linking strategies, SWIFT was chosen as the delivery vehicle.



## Key challenges

There were several challenges to take into account during the FMI implementation process in Brunei Darussalam:

- Building a system around the ISO 20022 message standards, the choice for ASEAN financial integration and increasingly the global trend
- Introducing ISO 20022 as seamlessly and non-intrusively as possible, and without impacting banks' existing back office systems. This also had to be done in a very short time frame
- Due to the sophistication of some users, specific message flows and content using ISO 20022 had to be defined. Additionally, varied internal infrastructure from RTGS participants meant some users would employ straight through processing while others would work manually. Any system had to be cognisant of this underlying dichotomy
- As part of the project, banks needed help to reform their procedures to embrace real-time liquidity management, as well as ISO 20022 message data entry
- Ensuring support for Brunei Darussalam's preparation for 2015 ASEAN financial integration.

## Solution overview

A collaborative effort by AMBD, SWIFT and the RTGS supplier saw the implementation of the region's first live MX-based RTGS in the ASEAN region that went live on 7th November 2014 and utilises ISO 20022 over SWIFTNet using the Y-Copy protocol. As part of the consulting process, ISO 20022 message specification was created for the Brunei financial community, as well as MT-ISO 20022 messaging mapping. To support the initial development and increase market awareness around the project, workshops were held to engage the industry and vendors.

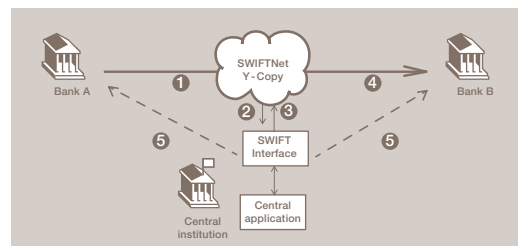
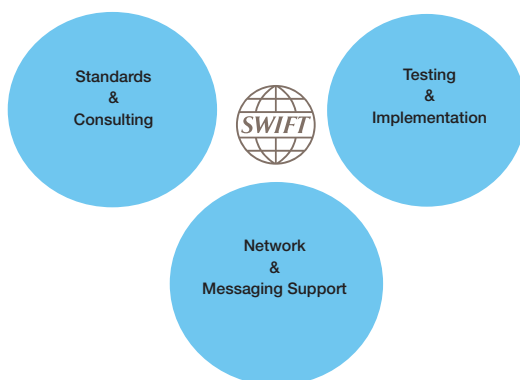
In total it took fifteen months to build the SWIFT infrastructure and integrate with the RTGS central application. The interfaces to banks' systems were established using SWIFT's "Integration Platform" (IPLA) which resulted an end-to-end solution for four banks, with straight through processing to back office systems using IPLA conversion, all with minimum business or technical impact. The solution was designed so a lightweight version could be offered to banks with lower transaction volumes at a lower cost but with the same level of security and efficiency as the main infrastructure. In total, all seven banks in the country are using SWIFT to connect to the RTGS and Brunei Darussalam now hosts the first MX-based SWIFTNet copy service for high value payments.

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**“SWIFT provides AMBD and its community a highly secure, reliable connectivity to the new RTGS, and also ISO 20022 messaging standards consultancy to ensure alignment with the international standards and future ASEAN financial integration. We are committed to continue connecting banking communities to their market infrastructures at a low cost and align with global best practices”**

Michael Moon, Head of Payments Markets, Asia Pacific, SWIFT

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- 1 Payment instructions
- 2 Authorisation request
- 3 Authorisation response
- 4 Final payment instruction received
- 5 Sender notification and reporting (optional)

## Benefits

Brunei Darussalam's RTGS is a significant success story. Not only is it a regional first, it also supports the country's vision to become a global Islamic financial centre and the plans for ASEAN financial integration. Since its launch, the system has seen a healthy volume of transactions numbering around 200 a day and that figure is rising. The benefits include:

- A reduction in risk, time and cost through automation and introduction of a full central bank settlement process. Unsatisfactory settlement procedures and many manual interventions for high value payments and paper-based transfers have been eliminated
- A modern FMI to promote financial market stability and efficiency, helping to support Brunei's vision as a global Islamic financial centre
- Increased security and transparency, allowing for confidentiality of payment messages while ensuring settlement finality and irrevocability
- Alignment with international standards and best practice
- Harmonisation with ASEAN financial markets integration strategy, paving the way for future cross-border collaborations.

## Conclusion

For Brunei Darussalam to upgrade its entire financial transaction infrastructure was no small task. The innovative solutions and world-first architecture had to be carefully designed to manage a range of different scenarios. The result is a robust FMI that is rooted in standards yet flexible enough to work globally, helping to put AMBD and Brunei Darussalam firmly on the financial map.

*For more information please contact your SWIFT account manager or visit [www.swift.com](http://www.swift.com)*