

# Differentiating banking services by testing new ideas faster

## ING DIRECT deploys integrated testing and development architecture

EXECUTIVE SUMMARY	
<b>ING DIRECT AUSTRALIA</b>	<ul style="list-style-type: none"> <li>• Financial services</li> <li>• 950 employees</li> <li>• IT team manages all the bank's software and application development</li> </ul>
<b>BUSINESS CHALLENGE</b>	<ul style="list-style-type: none"> <li>• Speed up software testing and deployment</li> <li>• Improve developer productivity</li> <li>• Accelerate time to market for new products and services</li> </ul>
<b>NETWORK SOLUTION</b>	<ul style="list-style-type: none"> <li>• A new, fully integrated testing and development architecture, including hardware, software and professional services</li> </ul>
<b>BUSINESS RESULTS</b>	<ul style="list-style-type: none"> <li>• Eliminates time associated with environment provisioning from 12 weeks to 10 minutes</li> <li>• Improves developer productivity, with self-service provisioning replacing a process that previously took eight people three months</li> <li>• Significantly reduces the cost to provision new copies of the bank</li> <li>• Frees ING DIRECT developers to focus more on differentiating the bank with an efficient and accessible platform called DIRECTLabs</li> <li>• Establishes a cloud-enabled operating model</li> </ul>

### Business Challenge

With a large project backlog, the development and test infrastructure at ING DIRECT Australia could not meet the bank's appetite for innovation. The bank's in-house team of 49 developers and 18 testers needed a faster way to create new copies of the bank so they could accelerate time to market for new products and services.

"We're a very innovative bank," says Ben Issa, Head of IT Strategy, ING DIRECT Australia. "People were coming to our team asking us to test the impact of their ideas on our complex banking environment. We could only test so many projects at once, so we had long lead times. As a strategic priority, we needed to deliver innovation faster."

With provisioning a single copy of the bank for testing taking eight people three months, ING DIRECT wanted to fully automate end-to-end provisioning, making staff more productive and focusing on the things that matter. "Our team is lean and efficient and very engaged, but our delivery model severely limited how many concurrent projects and changes we could manage," says Andrew Henderson, CIO, ING DIRECT Australia. "We asked ourselves: How can we speed things up in a smart way?"

The ING DIRECT team had a vision: to provide a copy of the bank to anyone, at any time, for any purpose, at the lowest possible cost.

This includes the full set of the bank's applications, services, configurations and 5.5 terabytes of data.

"What we were looking for was a Bank in a Box, an environment that could quickly reproduce our own in all its complexity," says Henderson. "We recognised that getting this right would be an important part of transforming IT to a strategic enabler."

### The Solution

ING DIRECT developed a vision for Bank in a Box, a fully integrated solution that would enable rapid provisioning of complete environments, accelerating time to market for new ideas. To pinpoint the best solution across hardware, software and services, the bank talked to different vendors. "We wanted to take an architectural approach, and it became clear early on that no single company would be able to deliver what we needed," comments Henderson.

The Cisco team of engineers and technology specialists worked for three months with systems integrator Dimension Data and ING DIRECT to understand their current challenges, environment and what they were trying to achieve. “We realised that they weren’t just looking for a server refresh, but an integrated data centre solution that delivered business value and a platform to drive innovation,” says Steve Moros, Account Director, Financial Markets, Cisco Systems. “We asked for airtime with their application developers and the teams managing networks, security, storage and servers in a single forum so we could emphasise the integrated and architectural approach that would help them realise their architectural vision.”

The solution was groundbreaking. “Our idea for the solution was unique, uniting technology from across the market to give us the capability to innovate and differentiate faster and better,” Issa says. “As far as we know, it was a world first.”

Developed collaboratively by Cisco, NetApp and Microsoft working with Dimension Data and ING DIRECT, the solution features data centre infrastructure built on Cisco Unified Computing System (UCS), Cisco Nexus switching and NetApp storage with Windows Server 2008 R2 Hyper-V virtualisation technology. It is fully integrated with the tools developers at ING DIRECT use, including Microsoft Visual Studio with Team Foundation Server and Virtual Lab Management, allowing them to provision environments easily as part of their workflow. Behind the scenes, Microsoft System Center orchestrates the provisioning processes for them.

ING DIRECT was not looking for a traditional server solution and invested significant time evaluating the key market players. The team wanted a sophisticated and unified architecture for compute, storage and network. This is the core capability and differentiating factor of Cisco’s UCS solution. “Cisco’s server infrastructure helps us break down data centre silos and establish a single compute platform that’s completely integrated with those of other vendors, making us immensely agile,” says Issa. “It’s integrated with NetApp technologies, which help us offload the storage seamlessly behind the scenes without overloading our infrastructure, saving a huge amount of network bandwidth, storage space and processing power. For one environment that’s a saving – when you’re deploying many concurrently, it’s critical.”

Having identified the Bank in a Box components, ING DIRECT needed to be sure the idea would work before investing in the solution. Working closely with Cisco, NetApp and Microsoft, who provided extensive hardware, software and technical expertise, Dimension Data used its lab in Sydney to show the solution in operation.

Henderson was impressed at the way the vendors rose to the challenge. “We didn’t run this as a traditional IT project – we gave everyone space to get us the proof we needed,” he says. “The way Cisco and the other vendors collaborated to deliver a workable solution was very impressive.”

“Our staff can now provision a test environment in minutes, not months, so we can test new ideas very rapidly. It’s given us a competitive edge.”

—Andrew Henderson, CIO, ING DIRECT Australia

“We couldn’t find any reference or case studies to support where we wanted to go – it hadn’t been done before,” Issa says. “But the vendors gave us confidence. When we sat down with them we were surprised at how responsive they were. Each brought their passion and ideas, fed off each other’s enthusiasm and innovation. The solution was a combination of all those ideas.”

## PRODUCT LIST

- Cisco Nexus
  - Cisco Unified Computing System (UCS)
  - Cisco Intelligent Automation for Cloud (CIAC)
- To learn more about Cisco Nexus, UCS and CIAC, go to [cisco.com/go/dc](http://cisco.com/go/dc).

The pilot was successful. “When we showcased it to our executive team they were amazed to see how this technology came together to reduce a process that used to take months down to minutes,” enthuses Henderson. “They saw straight away that it would dramatically reduce development times so we can get new products and services to market faster.”

ING DIRECT commissioned Dimension Data to deliver the entire solution. This included end-to-end systems integration of hardware, software, professional services and managed services across all three vendors.

“Once ING DIRECT saw their idea was possible, they wanted the solution tomorrow,” says Moros. “While we were confident Cisco UCS was capable of meeting the customer’s requirements, the key to the successful pilot was the collaboration between the vendors to build an integrated architecture plan that spanned everything from the technical documentation to the infrastructure required to build the pilot. Now ING DIRECT has a very powerful and reliable solution that lets them model all kinds of scenarios – they can literally look into the future. ING DIRECT drove us to work miracles and we did.”

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— Ben Issa, Head of IT Strategy, ING DIRECT Australia

## Business Results

“The solution enables us to streamline processes that previously took eight people three months with a very simple self-service model,” says Henderson. “Our staff can now provision copies of the bank in minutes, not weeks, so we can test new ideas very rapidly. It’s given us a competitive edge.”

- Eliminated the time associated with environment provisioning from 12 weeks to 10 minutes
- Improved developer productivity with self-service provisioning replacing a process that previously took eight people three months
- Streamlined requirements, development, test and deployment phases of delivery into one integrated end-to-end solution enabling ING DIRECT to deliver new projects faster
- Significantly reduced the cost to provision new copies of the bank
- Leveraged the solution to free ING DIRECT developers to focus more on differentiating the bank with an efficient and accessible platform called DIRECTLabs
- Established a cloud-enabled operating model, laying the foundation for more efficient cloud-based business processes in future

“Now we can provide a copy of the bank to anyone in the bank at any time – in 10 minutes,” says Issa. “At the click of a button, a developer can get all the data they need, all the servers, applications, configurations, testing and everything that goes with it, completely verified, ready to rock and roll, completely off the shelf. Then they can run any test they like. It’s amazing.”

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“We’re using this solution in so many scenarios and we’re seeing new use cases all the time,” adds Issa. “For example, we can give a customer service representative access to all our customer-facing applications for training purposes. Or give a developer a full version of the bank at induction. And when we have customer or operational issues, it’s much easier to study and solve them. In fact, everything we do is faster – our capability now supports our appetite for transformation and change and delivering faster for our customers.”

The solution has also freed the development team at ING DIRECT to focus more on differentiating the bank with an efficient and accessible platform for testing new ideas.

“We can now redirect our skilled people and our cost base toward innovation,” states Henderson. “We’ve said to our people: if you’ve got a good idea, go for your life – test it. Now the only thing holding us back is how fast we can come up with the ideas.

“A huge benefit is that we’ve cloud enabled ourselves in terms of our operating model and our IT strategy,” Henderson adds. “It’s not just technology – wrapped around the solution is a whole set of new, more efficient work processes.”

## Next Steps

Now that the solution is operating in Australia, ING DIRECT is preparing to deploy it globally. “In 2012 at least three of our global entities will look at rolling it out – it’s great kudos for the team, spearheading innovation across the group,” says Henderson.

The solution has been so successful that the Australian team has decided to move it into production, expanding the platform to provide more compute power and greater throughput. Because the solution is highly scalable, it’s simple to expand with the plug-and-play capabilities of Cisco UCS hardware. ING DIRECT will also investigate extending the solution with Cisco Intelligent Automation for Cloud (CIAC), a self-service provisioning and orchestration solution for cloud computing and data centre automation. It helps enable secure, on-demand and highly automated IT operations for both virtual and physical infrastructure across compute, network, storage and applications.

“We’re looking to migrate other applications and services to this new platform, eliminating the disparate infrastructures they have been running on,” says Henderson. “We’re talking to Cisco about how we can automate and virtualise these services as much as possible across our business to reduce cost and improve agility. We expect to reap an even greater return on our investment as we move into the next phase.”

“We’ve delivered a platform that will let us be very quickly cloud-ready. It’s virtualised, and agility is built into the DNA of the architecture,” says Issa. “With more agile customer-facing systems we can direct funds to differentiating our services and innovating, rather than operations. So we can improve the customer experience – and focus on where we want to take our business next.”



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