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Cost comparison: real cloud banking vs. on-premise vs. Amazon Web Services

A non-technical guide to saving money hosting your core banking system

For many rural banks today, having physical servers in their branches or head office is a cumbersome burden. The headaches include:

- The need for the bank's IT team to constantly support the remote locations – made especially difficult during COVID-19 restrictions
- Extensive staff training
- Substantial spending through both direct and hidden indirect costs (the biggest pain of all)

Every rural bank in the Philippines is being forced to find ways of cutting costs in these challenging times and – like all global banks – many are realising that now is the time to reap the benefits of moving their core banking system to the cloud.

At Oradian we have been helping financial institutions move to the cloud for 10 years, so we know how important it is to choose wisely. Hosting providers come in all shapes and sizes, and many of them are not as transparent as they appear, with hidden costs and pitfalls.

If you owned a sophisticated Mercedes engine, would you put it in an old Jeepny chassis because it seemed the most convenient and cheapest option? Having done so, would you expect it to perform like a proper vehicle, and trust it to take you safely and comfortably to your destination? Or are you already calling the towing service and paying for the mechanics on every second trip?

Would your passengers take a second trip with you again once they would be stuck on the scorching road, waiting for the truck?

Visionary, smart bank leaders understand the importance of reliable infrastructure that always performs, allowing you to focus on business. So reliable that you and your IT team sometimes forget it exists.

While many low-cost Core Banking System providers, which claim that they can take you to a Cloud system, rely on Amazon Web Services (AWS), Amazon's IT infrastructure leasing and hosting), the reality is a minefield. And you do not want to make costly mistakes, do you?

Today we will focus on the comparison of three possible ways to run your IT systems (servers) and all possible associated costs. A platform, however its software, services and algorithms are advanced, needs to run on computer servers, right? A rural bank can have its hardware systems:

1. On-premise in all of their branches, and a central system physically in the HQ

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2. Leased/hosted completely on Amazon AWS or similar providers
3. Provided in the cloud by their trusted core banking system provider (all costs included in the price of the Service)

[A fourth option would involve the rural bank owning and running all the equipment which is hosted in a third party datacentre, but this is really just a variation on Option 1.]

So, let's look at the strengths and weaknesses and the possible hidden costs in these solutions so that you can make an informed decision yourself.

For the sake of an example, we will imagine an average rural bank consisting of 10 branch locations and a headquarters. The figures we use will be approximate, of course, and different for each institution, but they will provide a valid way of comparing options.

Cost of server hardware or server lease

If you opted for an on-premise system, even a good deal on servers with the minimum computing power and speed needed to perform your core banking system tasks would cost you around $54,000.

A comparable AWS platform lease would be about $35,000 each year.

With Instafin from Oradian, every cost is predictable and included in the subscription. There are no surprises.

Installation costs

The preparation, installation, configuration, testing, integration, data upload and other essential set-up tasks do not come cheap. With on-premise system this can be done by existing IT staff, but their time spent on the installation will be at the expense of their day-to-day support for your staff and customers.

With providers offering AWS-based platforms (where the rural bank covers the cost) there is usually extra cost associated with the set-up, although some providers will take the hit in order to win your business. This would be a significant cost for the provider to bear, however, so you can be sure they will be recouping it somehow elsewhere in your contract.

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Colocation (data centre space lease)

This is by no means the biggest contributor to the overall Total Cost of Ownership (TCO), but you need to factor in rack space. A full rack price lease is around $18,000 per year with connectivity and power included.

If you host your own racks in your branches or headquarters than this lease cost is not present, but the racks themselves and maintenance of non-interrupted electricity and cooling to ensure continuation of service would be a considerable investment.

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Energy consumption

Today's power-hungry servers could produce enough heat to cook a small chicken if left to do so. If you are hosting those servers, you will need to allow for the costs of powering them and cooling them down. Ringfence around $3,000 - $5,000 per year.

With AWS-based banking system providers this is included in the cost of the AWS hosting you pay for.

With Instafin from Oradian, every cost is predictable and included in the subscription. There are no surprises.

Connectivity, bandwidth, data transfer costs

Transferring data is incredibly costly and quickly adds up in the form of unpredictable costs. Transferring Just 10 Terabytes (TB) of data – a very modest number in banking – could incur costs of $900 per month. With on-premise systems installed in the branches, you are responsible for redundant, high-quality connectivity that enables syncing with the HQ. That's $12,000 per year on top of your costs which your provider may not have mentioned.

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Data storage

There are many options to choose from and each provider has their own preferences.

If you are covering the AWS charges, expect to pay a minimum of $12,000 per year but unpredictable data spikes could hike your costs even further. You could even be charged a premium for unexpected spikes.

If you decide to go with an on-premise system, a professional storage system will set you back some $20,000-$30,000.

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System updates

IT systems are in a perpetual state of change with frequent updates needed to keep them secure. Any update, of course, is a potential risk and can leave your system non-functional. Your IT administrators, or any other administrators for that matter, cannot guarantee that there will be no down-time of the service, which is why updates are frequently done during the night. If you chose on-premise system, this responsibility falls on shoulders of your IT personnel and burdens your resources.

If you're using an AWS-based core banking system provider, the responsibility for implementing updates might fall to your staff. If the system vendor carries them out, they will probably charge you every time they perform an update – so quite frequently.

With Oradian Instafin, you can relax and forget about system updates. Our staff do it all and at no extra charge. Because with Instafin from Oradian, every cost is predictable and included in your subscription. There are no surprises.

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Operating system and database platform costs

A lot of systems run on open systems like Linux without any associated licence costs, but it's not always this simple. Amazon AWS charges for server instances with certain operating system (even if open source), database software licences are also charged (even if Open Source), so this is often a hidden non-transparent cost not presented to the Rural Bank before the first Amazon AWS bill comes – by that time you cannot go back and make a different decision.

As always, with Instafin from Oradian all of these operating system/database costs are predictably included in your subscription. There are no surprises.

Location of your data and your customer data

This has been a hot topic in Europe with GDPR. Customer data privacy, protection and location have become an issue which merits its own discussion.

More and more regulators are demanding the customer data not be located in the US and to be available closer to the country of data origin. With on-premise systems you have no such issues but the costs of keeping data are significantly higher, while with AWS based banking system providers you should get more clarity on physical location of the data centre that runs your services.

With Oradian Instafin you always know the location of your data and data hosting costs are predictably included in your subscription. There are no surprises.

Constant availability of your banking services

It's difficult to save costs when it comes to hosting. There are minimum requirements regarding the number of servers and server redundancy. Ignore them and you risk downtime.

With Instafin from Oradian, high service availability is built into the platform architecture and all related costs are predictably included in your subscription. There are no surprises.

Replacing server infrastructure every couple of years

Software is becoming ever more resource-hungry. Generally speaking, all hardware becomes obsolete within four years making re-purchase and reinstallation essential.

If you go for the on-premise solution and invest in your own servers, accept that you will have to do this every four years and accommodate all the hassle or reinstalling and reconfiguring your entire banking platform.

With AWS-based banking system providers, you do not have to worry about this – only about the hefty annual AWS charges.

With Instafin from Oradian, our engineers worry about replacing and refreshing the hardware and, of course, everything is predictably included in your subscription. There are no surprises.

IT and platform support personnel

In order to keep your own system up and running, you would need a team of IT personnel covering shifts 24/7/365. As a bare minimum, you will need two IT experts, a system administrator and a database specialist. That's four salaries to cover the basics.

With an AWS-hosted banking system, it could mean your staff have to take care of it, or the system provider could expose it as a hidden cost (often after the purchase).

With Instafin from Oradian, all the IT experts needed to keep the platform up and running are predictably included in your subscription. So guess what, there are no surprises.

So where does that leave you?

We've given you a lot of information to take in. We hope you found it useful.

We know that these costs can be alarming and overwhelming – but more scary is the unpredictability. We know that businesses like yours need predictable costs they can plan around. That's why we've put transparency and simplicity at the heart of our business model – financial institutions which partner with us get no surprises in their invoices.

So to return to our example of the rural bank with 10 branches and a headquarters, what might they expect to pay in **annual** "hardware" costs? We think these are the minimum:

- Option 1 (On-premise system) $31,000
- Option 2 (AWS-based hosting paid by you) $35,000
- Option 3 (Instafin from Oradian in the cloud). Our full SaaS model has no hidden costs. Everything is included in the price of your Instafin contract.

So you see, the smart choice is usually quite obvious – once the smoke and mirrors have been removed.

Let's grow! Start your journey here:

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