

# Modern Work Success Story

with Microsoft Azure Virtual Desktop  
on Azure Stack HCI.



**How to transform** a company's outdated, inefficient **IT landscape** into a **modern virtual working** environment on-premise?

## Current situation:

The existing Citrix server landscape of Hartmann Shipping Services Germany GmbH & Co. KG is aged and designed for a maximum of 140 users.

It consists of 7 productive session hosts, a test host as well as an ADC (gateway), 2 NetScalers as a cluster, 2 storefronts as a cluster, 2 delivery controllers as a cluster and a license server.

## The challenge:

partimus to replace the existing server landscape of Hartmann Shipping Services Germany GmbH & Co. KG with a full-fledged Azure Virtual Desktop (AVD) environment to be included in the tenant of Hartmann Shipping Services Germany. This is intended to simplify the workflow of the employees and reduce the administrative effort of the internal IT department to a minimum. Several advantages are sought by standardizing the work interfaces: In addition to cost savings and a significant increase in performance, improved administration through consolidation as well as more stability and security are to be achieved.

## Methodology and solution:

- partimus creates a hybrid host pool architecture with AVD licensing model, operating system, resource groups, subscriptions, and management groups.
- A master image, Azure Compute Gallery, and various AVD session hosts on Azure Stack HCI with a custom image are created.
- VM performance and capacity requirements, as well as network capacity and speed requirements, are calculated by partimus, and an appropriate storage solution is also recommended.
- This will be followed by the implementation of Azure Virtual Network Connectivity and the construction of DC and DNS in Azure.
- Configuring application and network rules.
- Validation of the network configuration.
- AVD session hosts are managed using Azure Arc and Windows admin center.
- partimus creates an AVD master image for the clients and uses Azure AD / Entra ID connect to create hybrid user identities and profiles.
- A PoC AVD environment is released for „beta testers“.
- In a test training course led by partimus, the configuration is finally tested and evaluated by Hartmann employees.
- partimus optimizes process operations and configurations.
- Documentations are handed over to Hartmann and the solution is shifted to production



## Client:



The Hartmann shipping company is headquartered in Leer. As part of the Hartmann Group, the company covers the entire value chain of maritime shipping and works closely with national and international partners.

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# We asked Hartmann IT department: What experiences has Hartmann Shipping Services Germany GmbH & Co. KG had with AVD on Azure Stack HCI?

## How has your work changed since using AVD?

It is always unusual at first to find yourself in a foreign administration environment, when you introduce a new product. We already used the Azure Admin Portal, which dramatically helped us to get used to the AVD Admin Portal.

The previously used terminal server environment we were constantly confronted with frozen sessions, that led employees having to reconnect or, in extreme situations, to hard shut-down sessions on the controller. Since we switched to the new system, these **occurrences have dramatically declined** and we now have much less disruptions caused by hardware faults. Employees do not have to worry about jammed sessions anymore, and this is being seen as a thing of the past.

It is also positive to note that by switching to AVD, we were able to **minimize the effort** required to update the terminal servers. In order to update our previous session hosts and infrastructure servers, it was necessary to review the Microsoft updates before installation and release them according to a list that provides information about compatibility with Citrix. The updates on the AVD session hosts can now be installed **without first checking compatibility**. In addition, fewer infrastructure servers are needed overall. Compared to before, e.g. 2x DomainController, 2x Storefront Server and an Access Gateway are omitted. Smaller administrative tasks, such as the entry of the wildcard certificate after expiration or firmware updates of the Access Gateway, are also no longer necessary.

## How satisfied are you with the performance of AVD in combination with the hardware?

To put the setup in perspective: We use an Azure Stack HCI / Hyper-V combination with a total of 6 session hosts, which are hosted on-premise. This means that we can serve a total of around **120 employees**. There are usually 20 to 30 active users at the same time. The performance when working in AVD is good. There are hardly any complaints from users regarding the speed in the AVD desktop. The **operation of the programs also runs smoothly**.

## Would you recommend the combination of AVD on primeLine hardware?

We would carry out the use of AVD **again in the same way** or will set it up again this year due to internal restructuring.

## Has the switch to AVD influenced your security concepts?

Since we already used two-factor authentication in our previous terminal environment, which we would also like to use for dialing into AVD, this does not affect our security concept. For sign-in and authentication in AVD, we'll now use Microsoft MFA with the Microsoft Authenticator app. For our previous Citrix terminal servers, we used the Google Authenticator, which is why the basic idea and handling of two-factor authentication was already there before the introduction of AVD thus the users are also confident in using it.

## How easy is it to deploy new applications via AVD compared to the previous solution?

Deploying new applications in AVD is, once you've done it a few times, a **good routine to do**. We haven't had to make many adjustments to the existing landscape yet. In a nutshell, we proceed in such a way that the new software is installed on the **master server** and then mirrored to the **session hosts**.

In our case, we do this manually, i.e. we create new VMs, to which we then attach a copy of the disk, and then register the new machines as session hosts in Azure. The old VMs are then separated out accordingly. The FSLogix profile management system then provides users with the necessary programs. Through an interface to Active Directory, we can authorize users for targeted programs via groups.

In our Citrix solution, the procedure was similar. There was a master server that was mirrored to the session hosts. In our case, however, the process was automated by Citrix Studio, which made it a little less time-consuming for us in this case. To be fair, it should be noted that AVD would also offer the possibility to automate the process, but we do not use it.

## How scalable do you think the solution is compared to the previous Citrix solution?

In my opinion, the scalability of the terminal solution has become **more flexible** for us compared to the previous one in terms of the number of accesses. As soon as a user is created in our tenant in our construct, he can get the necessary permissions to access AVD. You are **not bound to a rigid license pool** from which licenses must be drawn. If we need more users, it is no longer necessary to expand the license pool. If the access is only temporary, it offers the possibility to remove the user again and therefore no longer consumes any license costs. In our case, we can also create and delete **any number of session hosts**, if our Azure Stack HCI system allows it.

## Is there a total cost saving compared to the previous solution?

We do not have any cost savings purely in terms of numbers due to the licenses. The Citrix license costs for our setup were roughly **similar to the cost** of the Azure resources. In our case, there is no saving in this respect. However, as already mentioned in detail, we have a lower effort for system maintenance / installation of the updates. This saves us a lot of labour maintaining the servers. In the long run, I think this will pay off and relieve the workload. However, it is difficult to make a general statement about this. For each company, you would have to look at what the individual needs are.



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