

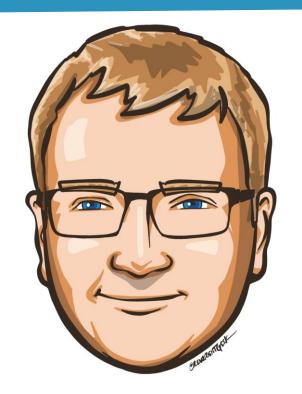
Microsoft Azure Resource Region 2 Region Migration



Reactor

So, who am I?

My name is <u>Luke Murray</u>
Technical Consultant, and newly minted Microsoft MVP from Hamilton, and consumer of Microsoft technologies for more years than I would like to admit.









Hamilton













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AZURE SECURITY

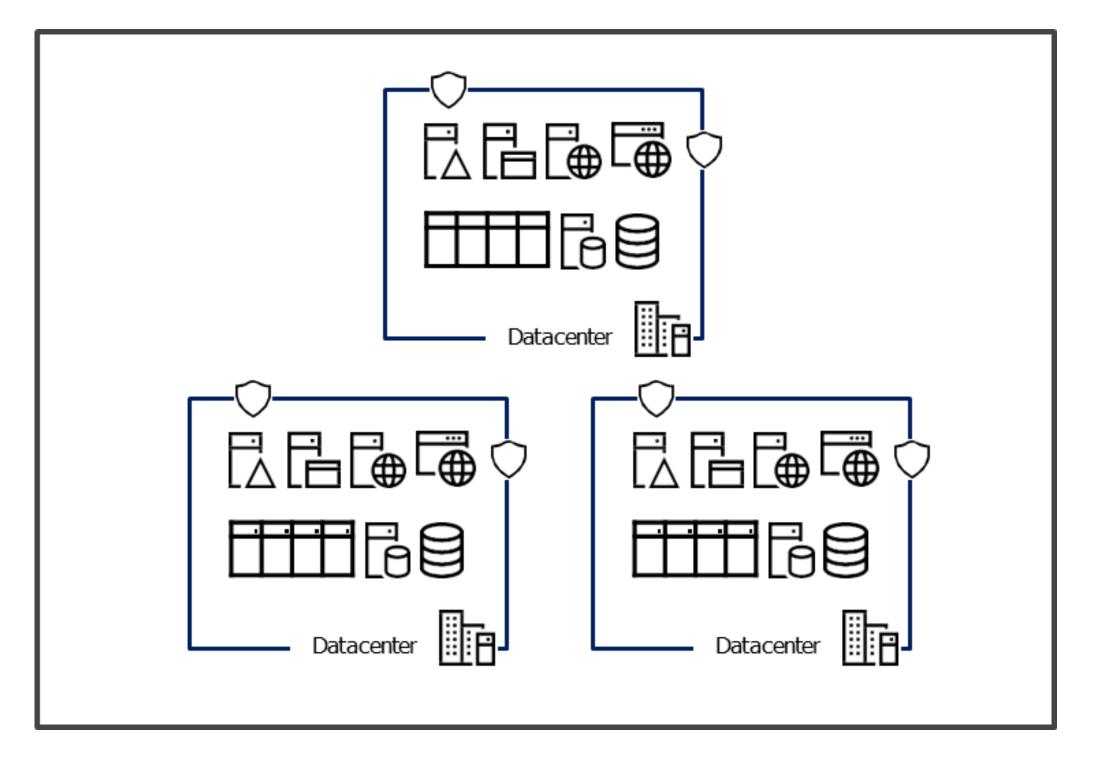
Microsoft Azure Region to Region Migration

Agenda

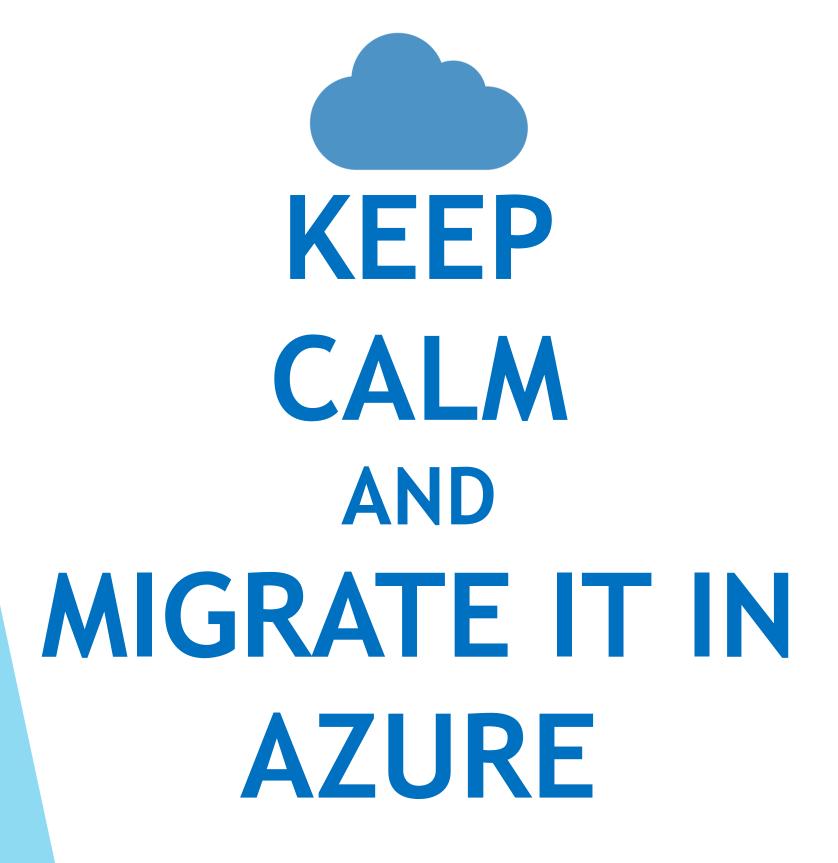
- What is an Azure region, anyway?
- How can I migrate already existing resources?

What is a region?

Australia East







Azure Resource Mover Why would I migrate resources?

Why?

- Taking advantage of new Azure region expansions (i.e., NZ North) to be closer to customers and reduce latency.
- Increasing availability and resilience by moving to Azure Availability Zones, from regions that don't support it.
- Meeting data residency and compliance requirements.
- Consolidating workloads for mergers and acquisitions.
- The cost of resources in one region may be cheaper than another.

Risks of would I migrate resources?

What are the risks of migrating resources?

- Whatever your reason, moving your applications from Point A to Point B is often no easy task. Here are common reasons why:
 - Moving resources can pose risk of outage.
 - Workloads are often made up of multiple services, each requiring their own method and tools to move.
 - Interdependencies are often not understood.
 - Testing and rollback of these complex scenarios can be daunting.

Benefits of using Azure Resource Mover?

Move with confidence

- Orchestrate your move within a highly secure and encrypted Azure environment.
- Validate your move before final commitment.
- Get peace of mind with source resources left intact until the move is complete.

Plan with ease

- Streamline your move process by identifying dependencies
- Plan and test your move multiple times
- Stage your move as part of a scheduled downtime

Orchestrate seamlessly

- Move multiple resources through a single pane of glass
- Reduce manual touchpoints
- Reduce overall time for your move from months to weeks or days (based on amount of data)



What are the key capabilities of Azure Resource Mover?

Unified experience

- Move different type of resource via the same move experience and steps
- Select multiple resources and perform delete operation simultaneously in a single step

Validate dependencies

 Check whether resources have any dependencies that aren't in the move collection

Edit target config settings

 Modify resource settings e.g.: Name, SKU, Availability zones etc.







What can Azure Resource Mover move?

What?

- Azure SQL Database (but not Azure SQL Server)
- Azure Virtual Network
- Azure Virtual Machines and associated disks (but not unattached/unassociated disks)
- SQL elastic pools
- Load balancer (both Internal and Public)
- Public IP
- Resource group
- Network security group
- Network interface
- Azure Availability Sets
- Azure Storage Account (next 6-9 months)

The move region 6 step process

Move region process

Select Resources

Resources you select are added to a move collection.



Validate dependencies

Resource Mover checks whether resources in the move collection have dependencies on other resources.

Validation repeats until there are no outstanding

dependencies.



For stateless resources, an Azure Resource Manager (ARM) template is generated.

For stateful resources, preparation might include replicating the resource to the target region.

Initiate Move

For stateless resources, the ARM template is deployed in the target region.

For stateful resources, initiative might create the resource, or enable a copy, in the target region. There might be some downtime.

Commit or discard Move

To complete the move, you commit it.

If you don't want to go ahead with the move, you can discard it.

Delete source

After completing the move, you can delete the resources in the source region.

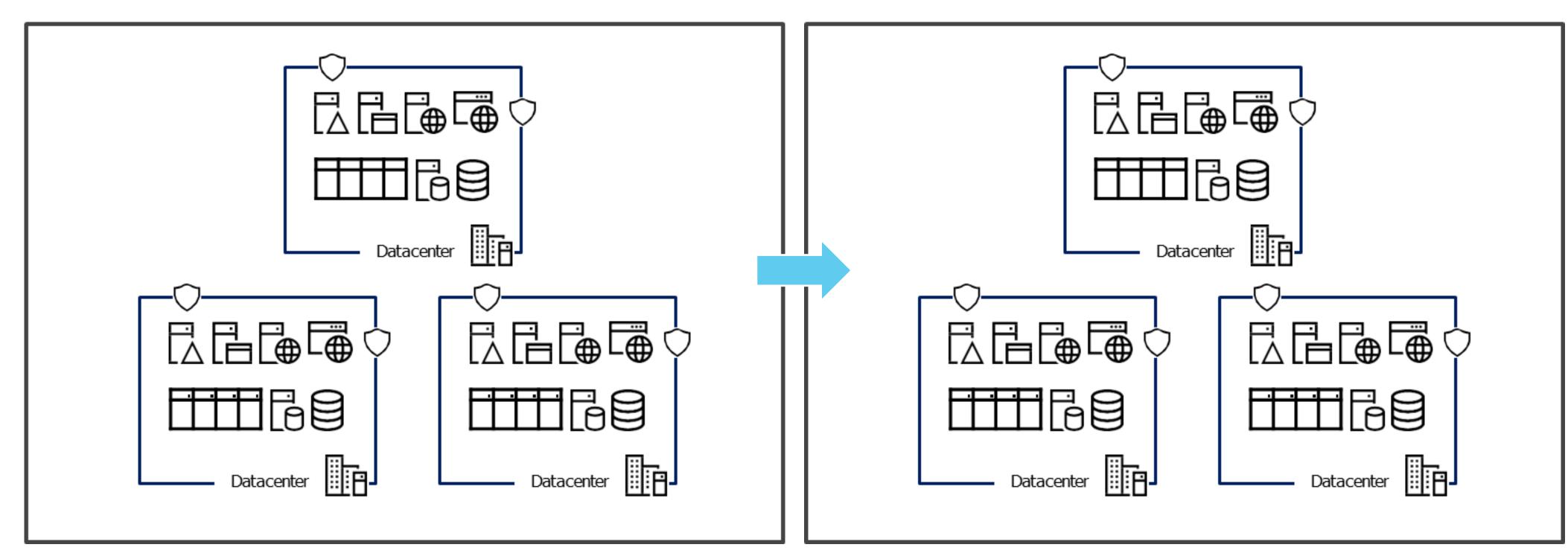


Let us see Azure Resource Mover in action?

Region to region?

Australia East

West US 3



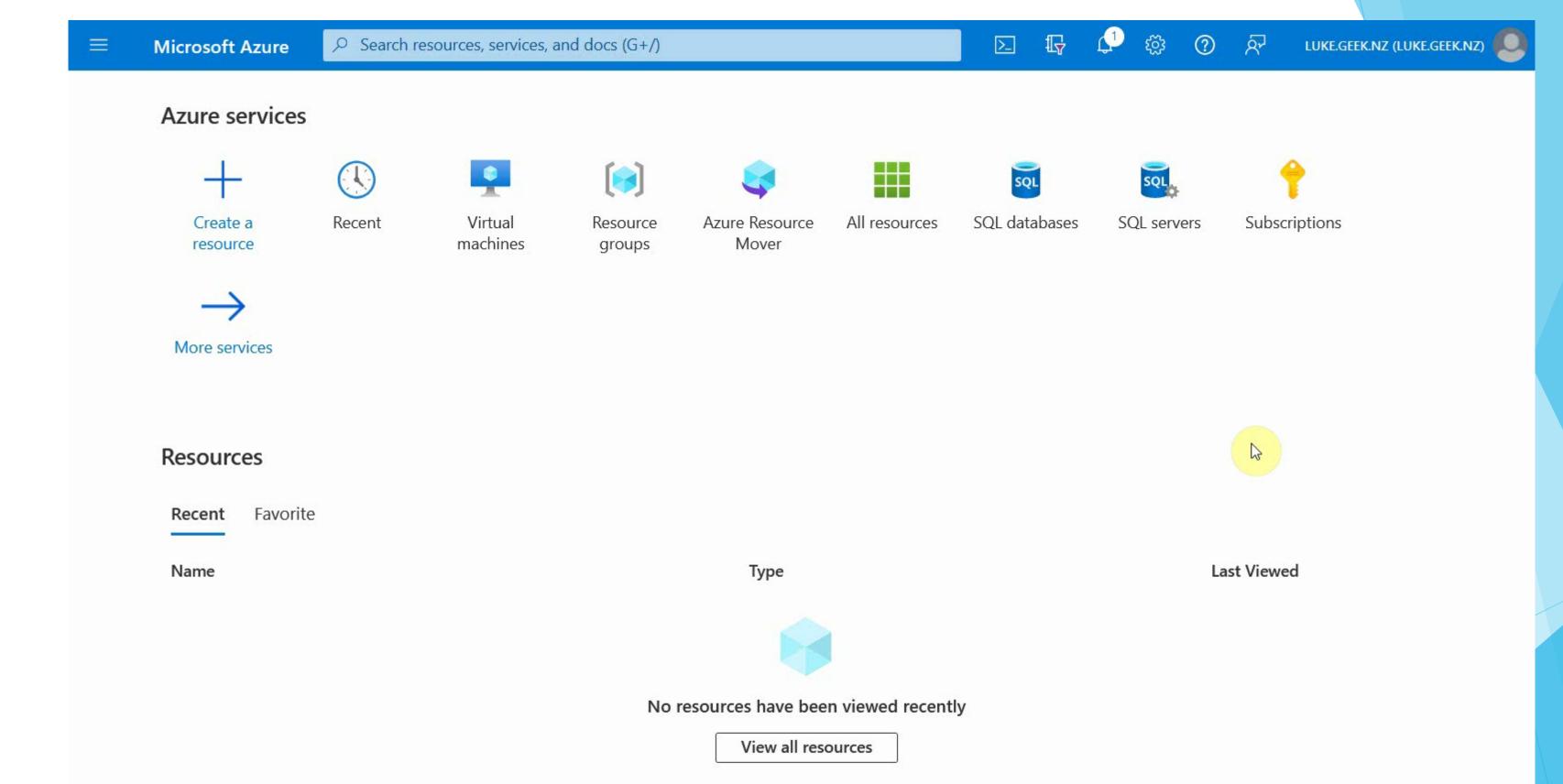
Region to region?

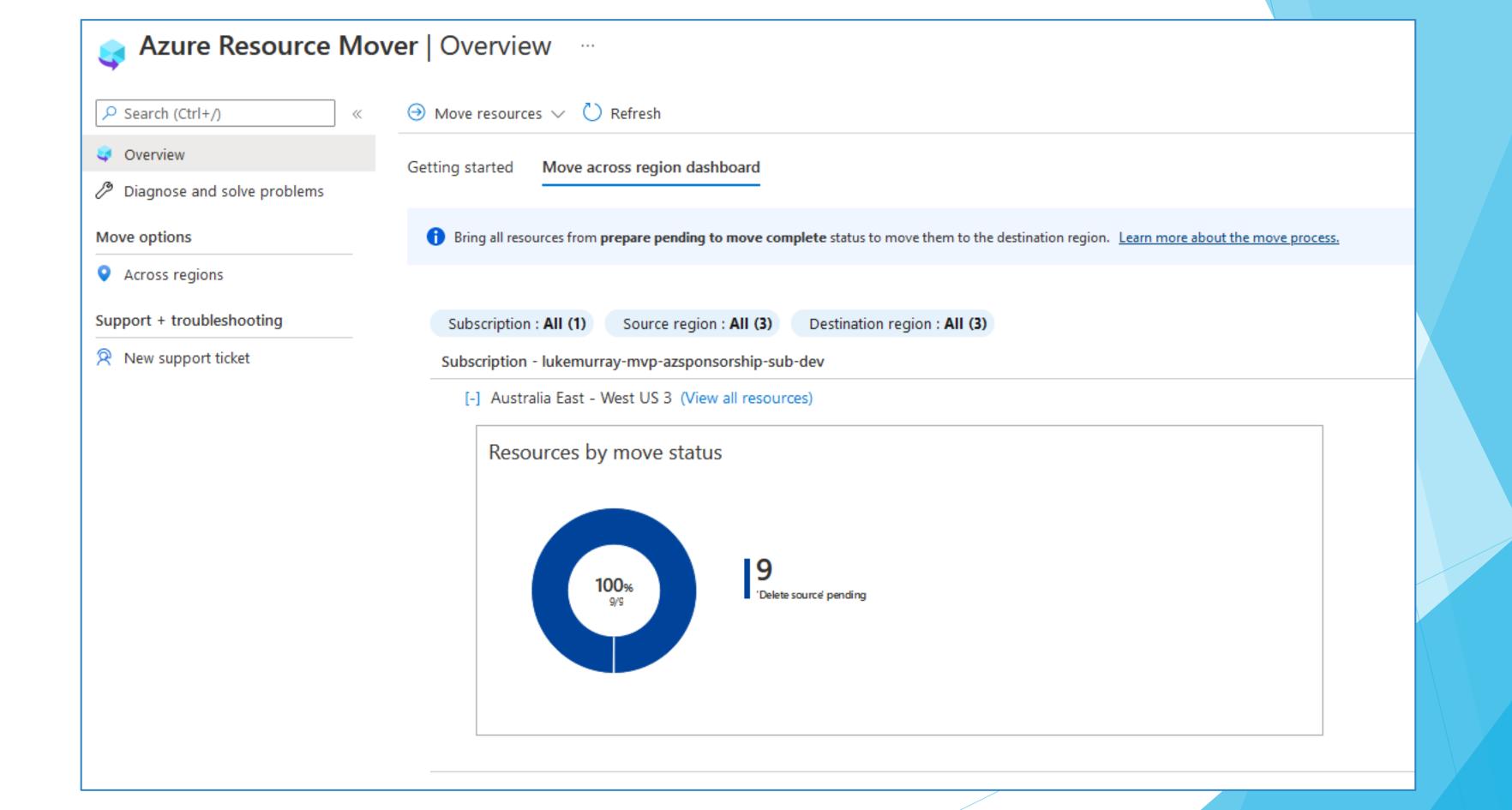
What resources are we going to migrate?

- Virtual Network
- Azure SQL Database
- Azure Virtual Machine

& associated dependencies (Resource Groups, Network Interfaces, Managed Disks)

Note: The migration time took around roughly 1 hour for end-to-end migration. Demo was pre-recorded to fit within session limit.





What can Azure Resource Mover move?

Some items to note?

- You can't select individual disks as resources to the moved across regions. However, disks are moved as part of a VM move.
- Your Azure Virtual machine needs to be On for the migration as it relies on ASR
- You can move resources to another subscription AFTER moving resources to the destination region.
- You cannot move peered Virtual Networks across subscriptions, you need to remove the peering first.
- Make sure your quota and required services have been registered and increased for the additional region
- Azure Resource Mover can be used to migrate Azure Virtual Desktop session hosts across regions.
- DNS records can be key to reducing the complexity and interruption to end users as part of your migration.
- There are PowerShell cmdlets (i.e., Get-AzResourceMoverMoveCollection)

Additional Resources

Thank you! Here are some additional resources to learn more about Microsoft Azure and Azure regions

- Support for moving Azure VMs between Azure regions
- Azure Architecture center
- Load-balancing options
- Azure geographies
- Azure Storage redundancy
- Azure cross-region replication pairings
- AWESOME-Azure-Architecture GitHub List

Additional Resources

Thank you! Here are some additional resources to learn more about Azure Resource Mover

To learn more about Azure Resource Mover, visit the Azure Resource Mover page.

- <u>azure.microsoft.com/services/resource-mover</u>
- Preview how you can move resources across regions with Azure Resource Mover.
- docs.microsoft.com/azure/resource-mover/overview
- Azure Resource Mover videos:
- Azure Unblogged Azure Resource Mover (microsoft.com)
- Azure Friday Video
- Azure Resource Mover whiteboarding video

THANK YOU!

"Bring on NZ North!"

Thanks to Microsoft Reactor team,
Microsoft New Zealand & the
community for making this event a
possibility.





The slide deck can be found on my GitHub page Follow the QR code to link to my Linktree





