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CloudEndure Migration Factory best practices

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Large migration challenges

- Migrate 1,000 servers in 6 months
- Migrate 3,000 servers in 12 months
- Scale changes everything
- 5-minute task needs to repeat 1,000 times and 5,000-minute…
- 10 simple steps to migrate a server could be 10,000 steps in total

The desired state



The reality

- Many tools are needed to support the migration – discovery tools, migration tools, CMDB, spreadsheet, project management tools, and so on
- Many teams are involved – infrastructure team, cloud team, migration teams, testing teams, and so on
- Many small manual tasks are completed – check C:\ free space, install an agent, select target Amazon EC2 instance type, and do these manual tasks 1,000 times!

The desired state – revised



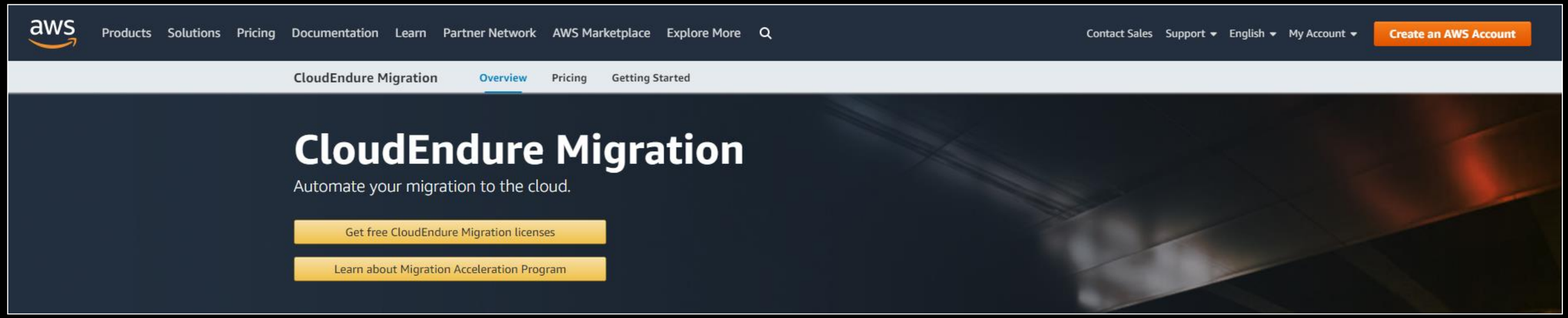
CloudEndure Migration Factory (CEMF) solution



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What is CloudEndure Migration?

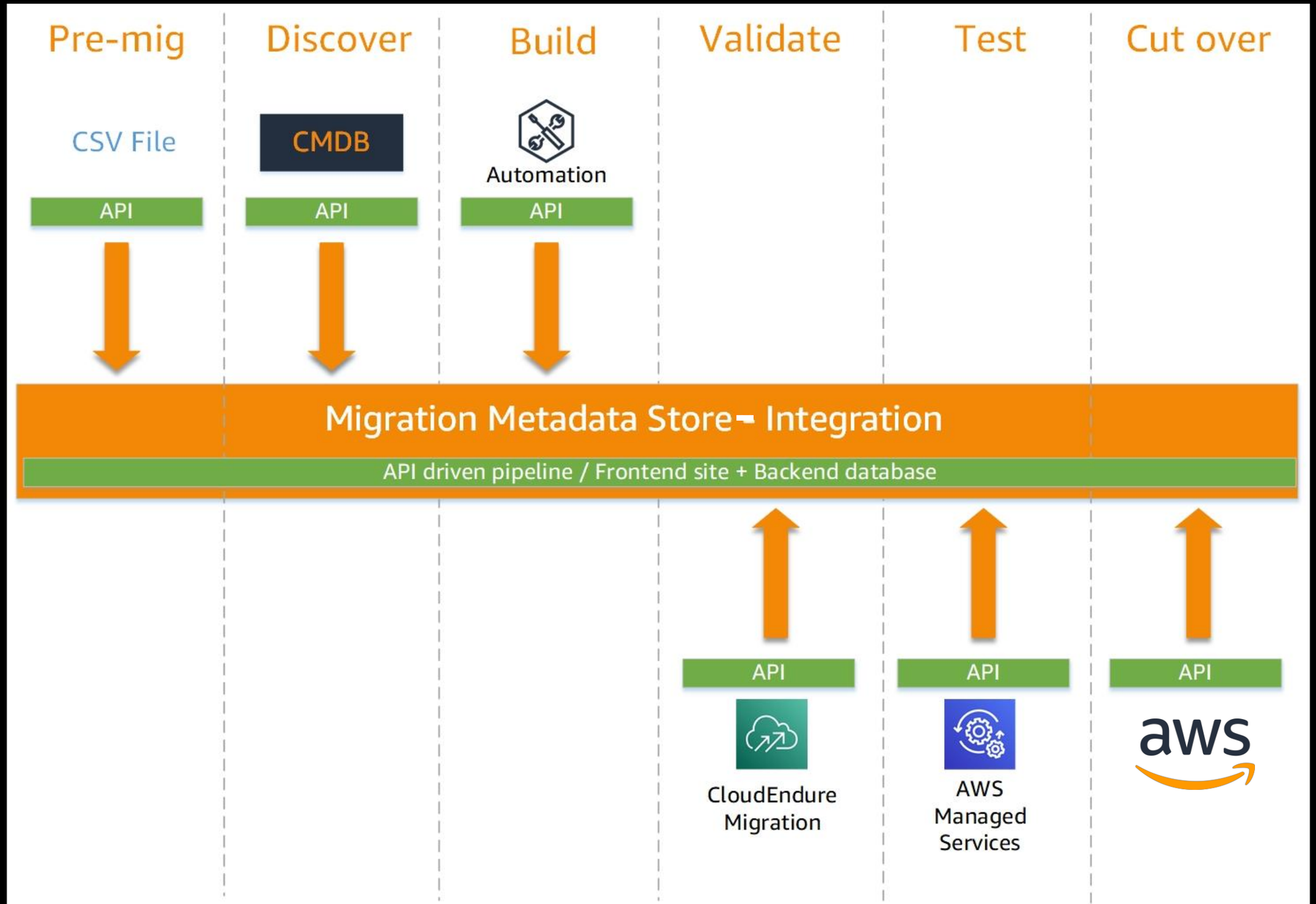


- Rehost migration tool
- Designed for rapid, mass-scale migrations
- Continuous block-level replication – agent-based solution

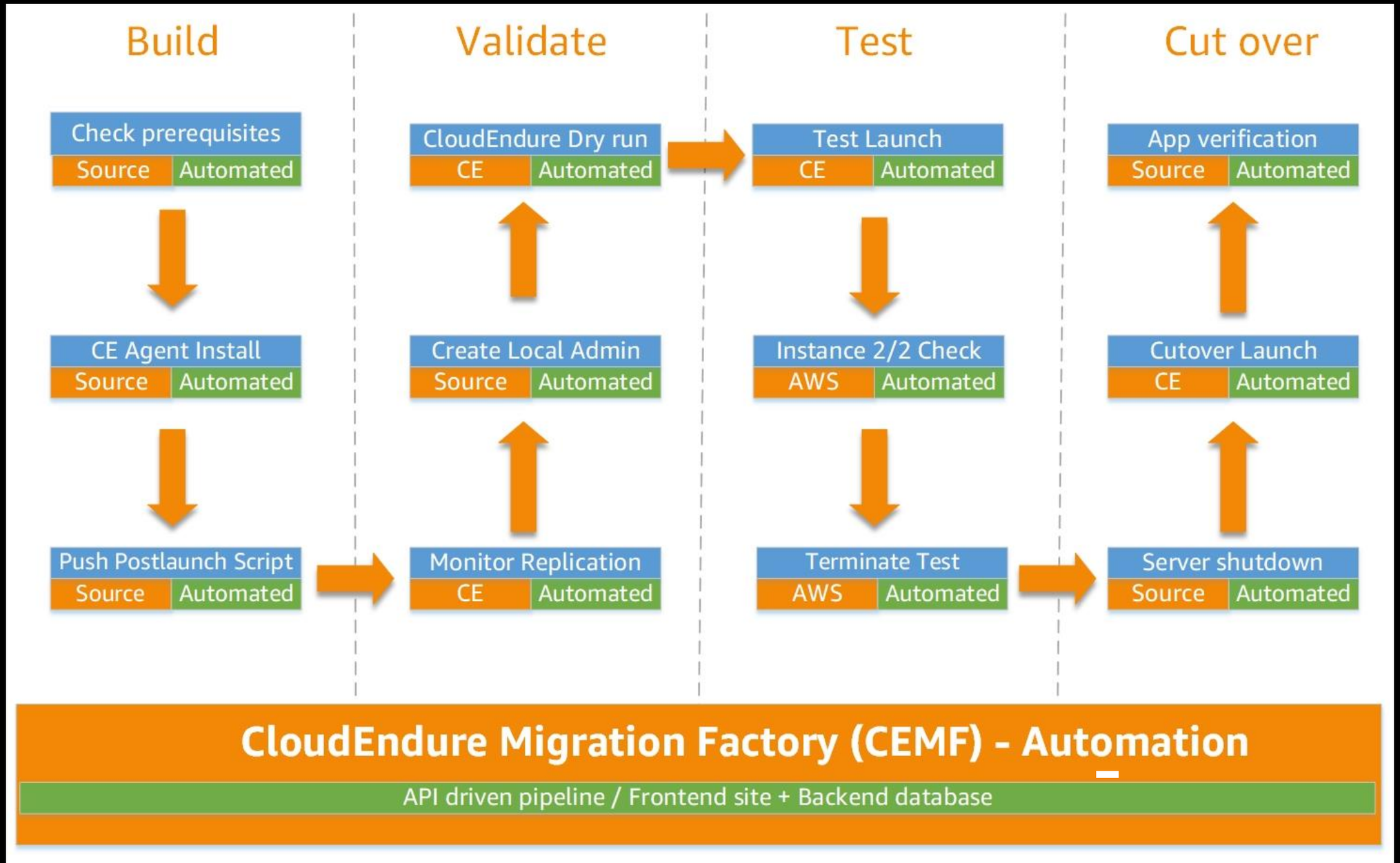
CloudEndure Migration Factory solution

- CloudEndure Migration Factory (CEMF) solution is an automation engine to accelerate CloudEndure Migration using APIs
- A migration metadata store
- Use case – more than 100 servers to lift and shift to Amazon EC2

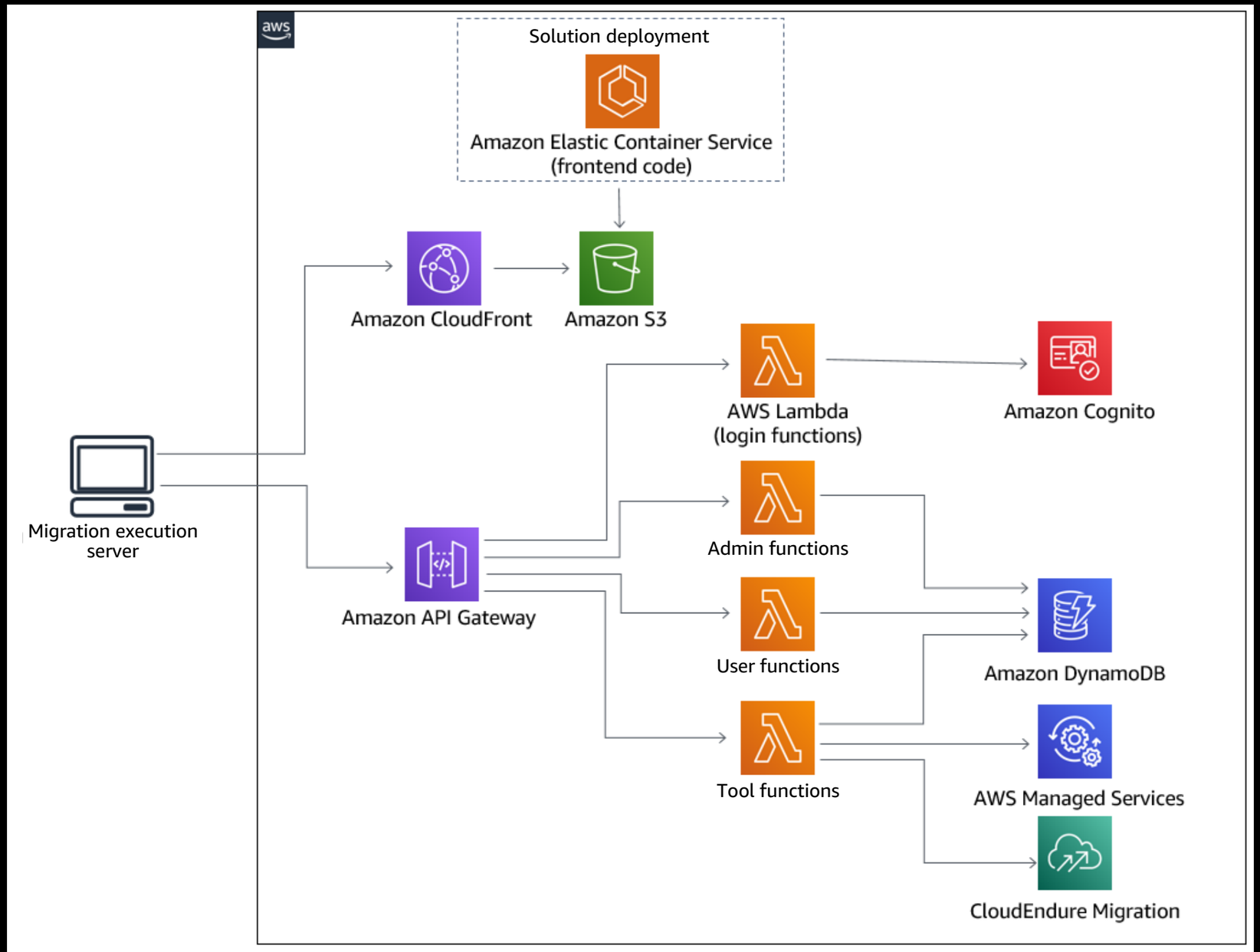
CloudEndure Migration Factory solution – Integration



CloudEndure Migration Factory solution – Automation



CloudEndure Migration Factory solution – Architecture



Best practices and lessons learned from CEMF customers



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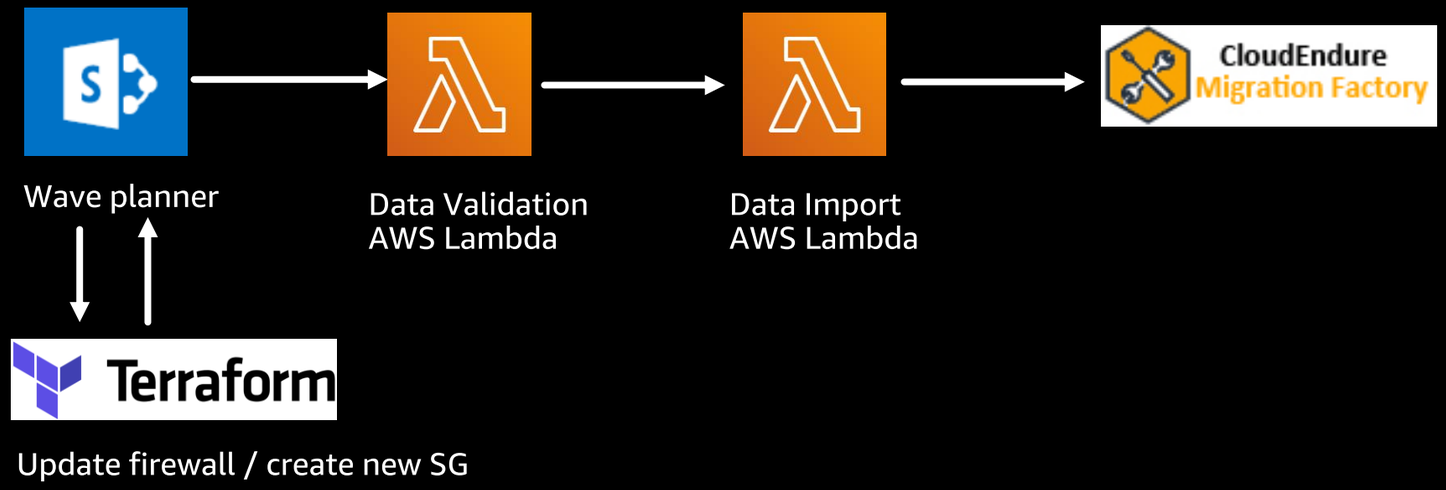
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Customer A – Large cutover in a few hours

- 600 servers migrated in a few hours
- Minimize the change – including IP and security groups
- Automation with CloudEndure Migration Factory
- Get the app owners ready

Customer B – Scaled from 10 servers to 90 servers a week

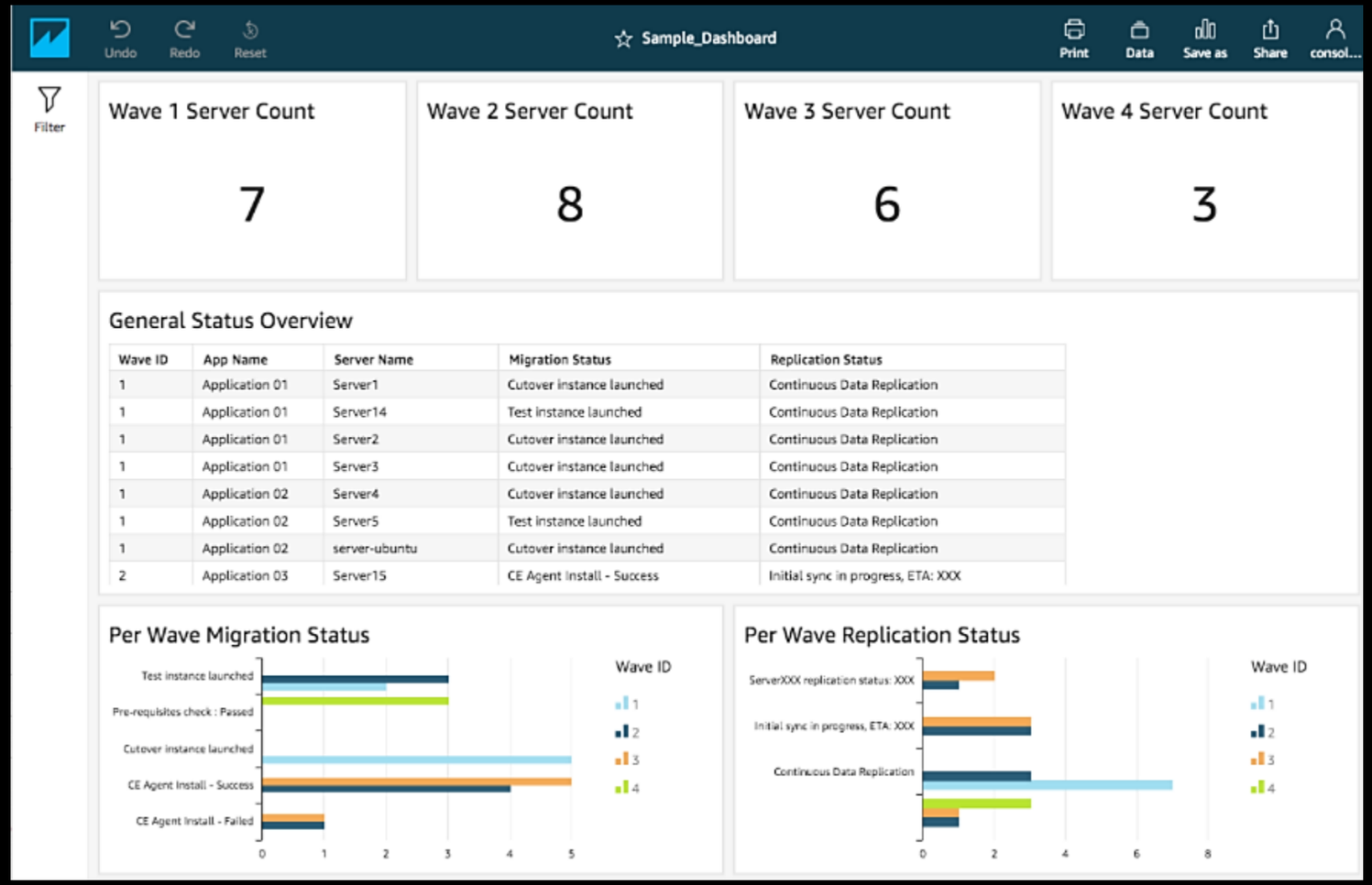
- Scaled from 1 migration (less than 10 servers a week) to 3 migrations a week (90 servers a week) within 2 months
- Plan migration waves ahead of time – 900 servers imported to CEMF and ready to go
- Automated server data import process



More automation → less troubleshooting → faster migration

Customer C – 1 GB DX, 500 servers migrated in 3 months

- Developed end-to-end process in the early stage – who does what
- Centralized dashboard to show overall migration status – no more status update meetings
- Developed automation script to enable / disable replication for each wave to mitigate bandwidth limitation



Large migration best practices

- Plan migration waves ahead of time
- Develop end-to-end process / automation in the early stage
- Automate migration with CEMF as much as you can – more automation = faster migration
- Minimize unnecessary change – not a wish list
- Prepare app teams

Resources

CloudEndure Migration https://aws.amazon.com/cloudendure-migration/

CloudEndure Migration Factory solution Implementation guide
https://aws.amazon.com/solutions/implementations/aws-cloudendure-migration-factory-solution/

Automating large-scale server migrations with CloudEndure Migration Factory
https://docs.aws.amazon.com/prescriptive-guidance/latest/migration-factory-cloudendure/welcome.html

Cloud Migration Homepage: https://aws.amazon.com/cloud-migration/

Additional Migration Resources, AWS Prescriptive Guidance, AWS Enterprise Blog Collection:
https://aws.amazon.com/cloud-migration/resources/

Migration Immersion Day: https://migration-immersionday.workshop.aws/en

All AWS workshops available here: https://www.workshops.aws/

Thank you!



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