Power Apps DevOps & Deployment

Deplyoment Service, Continuous Integration (CI) and Automated Testing

Accelerate your deployments and save intermediate states for versioning. Allow automated deployments to take place only when all automated tests have been successful. 🚀

Advantages of Continuous Deplyoment (CI)

Reduce Response Time

- Respond quickly to the need for change.
- Let your employees deploy independently and encourage Citizen Developers.
- Microsoft's ALM Accelerator toolkit makes it easy to launch pipelines from Power Apps.

Azure Integration & Scaling

- Initiate and solidify quality improvements perceived through a high level of automatic monitoring, testing and deployment.
- View insights through Azure DevOps and Azure Application Insights.

Save Time & Money

- Time is money: Save effort by automating testing.
- Get test results automatically, faster and more reliably.
- Ensure that erroneous artifacts do not find their way to the valuable production environment.

Secure Your Assets

- Secure your work. Access all reusable program modules.
- Easily understand code structures, documentations an make them available to everyone reducing development times while enable documentation and versioning of your work.

Everybody's Welcome

- Welcome everybody to carry out deliveries.
- No special skillset needed.
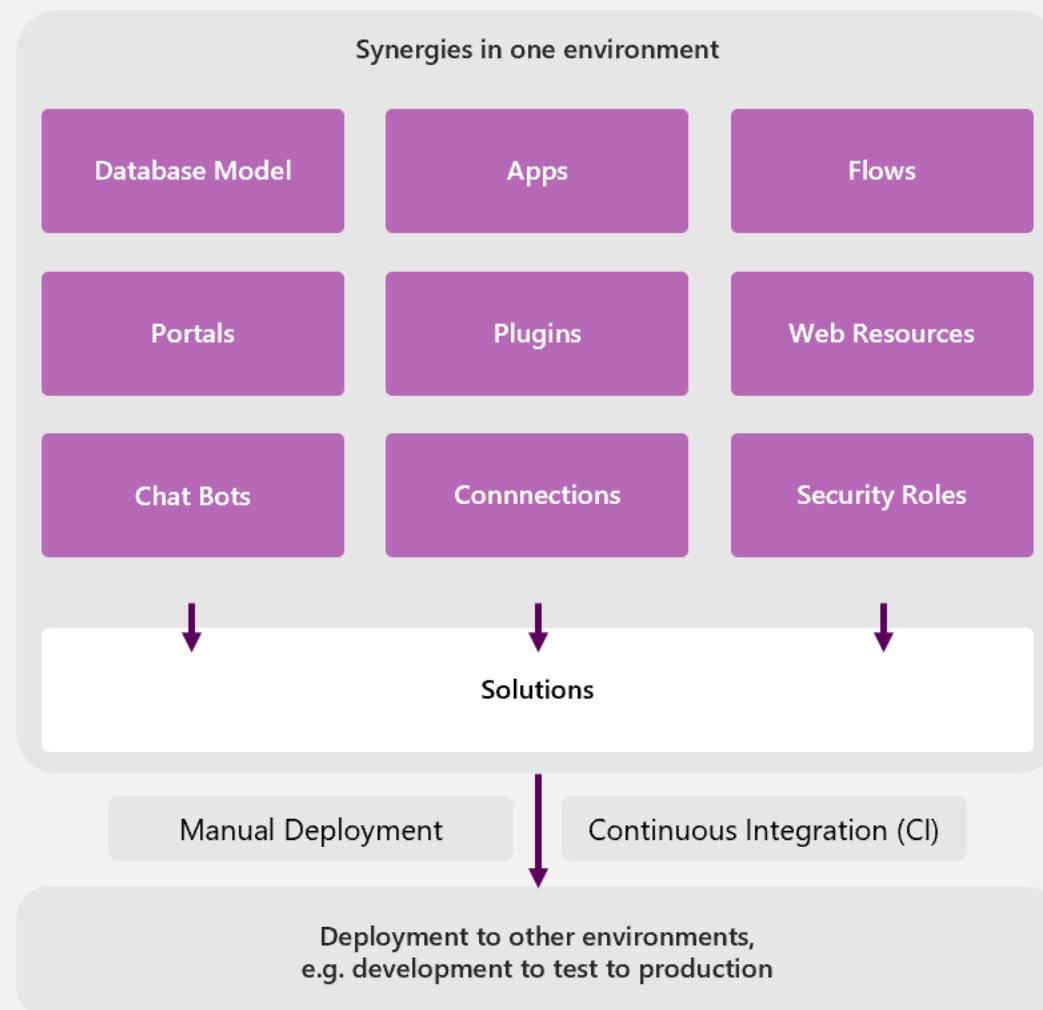- Clarify responsibilities and collect approvals.
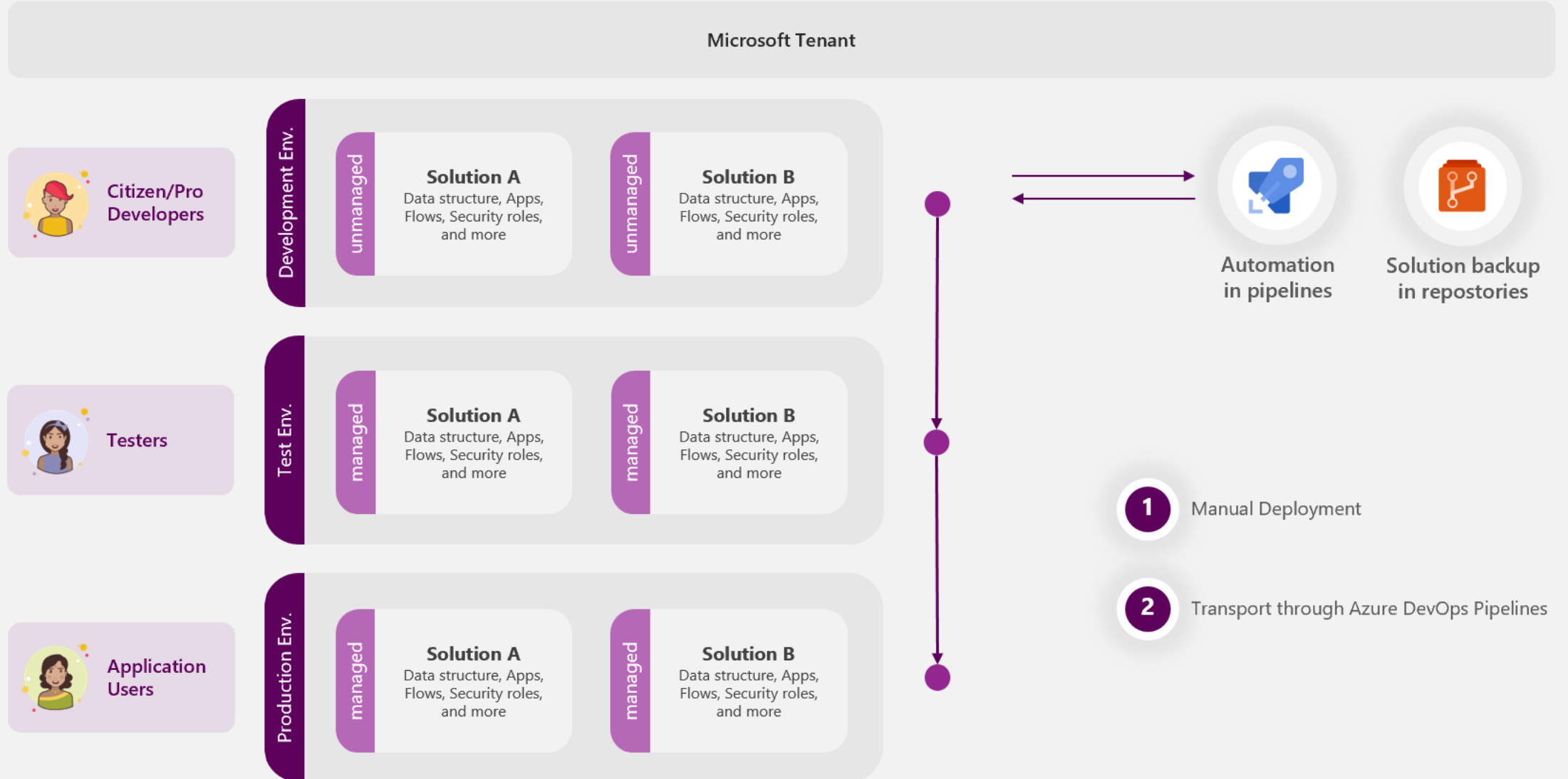
Error Handling & Rollback

- Reduce sources of errors while deploying.
- Integrated rollback feature: Enable yourself to always go a step back.
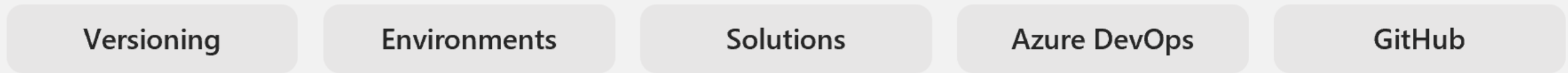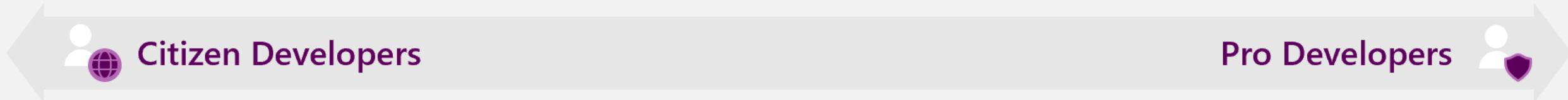
Solution Management

- The Microsoft Power Platform enables the development of **multiple apps per environment**.

- Within one environment, **synergies** can be used across apps and workflows, e.g. using the same data and data structures (data model, forms, lists, other components).

- The **deployment** to environments works **utilizing solutions**. As a rule of thumb, it is recommended to have **one solution per app or application area**.

- A solution references objects in Dataverse. For parallelized development, **solutions should only contain necessary objects** (differentiation possible).

- Some technical circumstances require a more detailed **solution cut**, e.g. the Ribbon Workbench.

Synergies in one environment

Database Model	Apps	Flows
Portals	Plugins	Web Resources
Chat Bots	Connnections	Security Roles

Solutions

Manual Deployment   Continuous Integration (CI)

Deployment to other environments,
e.g. development to test to production

Deployment Methodology

Microsoft Tenant

Citizen/Pro Developers

Development Env.

unmanaged | **Solution A** Data structure, Apps, Flows, Security roles, and more
unmanaged | **Solution B** Data structure, Apps, Flows, Security roles, and more

Testers

Test Env.

managed | **Solution A** Data structure, Apps, Flows, Security roles, and more
managed | **Solution B** Data structure, Apps, Flows, Security roles, and more

Application Users

Production Env.

managed | **Solution A** Data structure, Apps, Flows, Security roles, and more
managed | **Solution B** Data structure, Apps, Flows, Security roles, and more

Automation in pipelines

Solution backup in repostories

1. Manual Deployment

2. Transport through Azure DevOps Pipelines

Application Lifecycle Management (ALM)

Citizen Developers

Pro Developers

Versioning	Environments	Solutions	Azure DevOps	GitHub

Versioning

Each app within an environment has fully-featured version control and publishing capabilities.

New versions can be checked out during development.

Old versions can be restored.

Environments

Are containers used to manage apps, assets as well as data and permissions across an organization.

They represent the boundaries between development, test and production.

One Dataverse per environment.

Solutions

Are the mechanism for executing AML in Power Platform.

Applications, customizations or components are packaged into solutions for export toward another environment.

Managed vs Unmanaged.

Azure DevOps

Dedicated DevOps tasks can be used to automate common build and deployment activities related to Power Apps.

Quality checks, Environment and Solution management, Deployment are all supported.

GitHub

GitHub Actions enable developers to build automated software development lifecycle workflows.
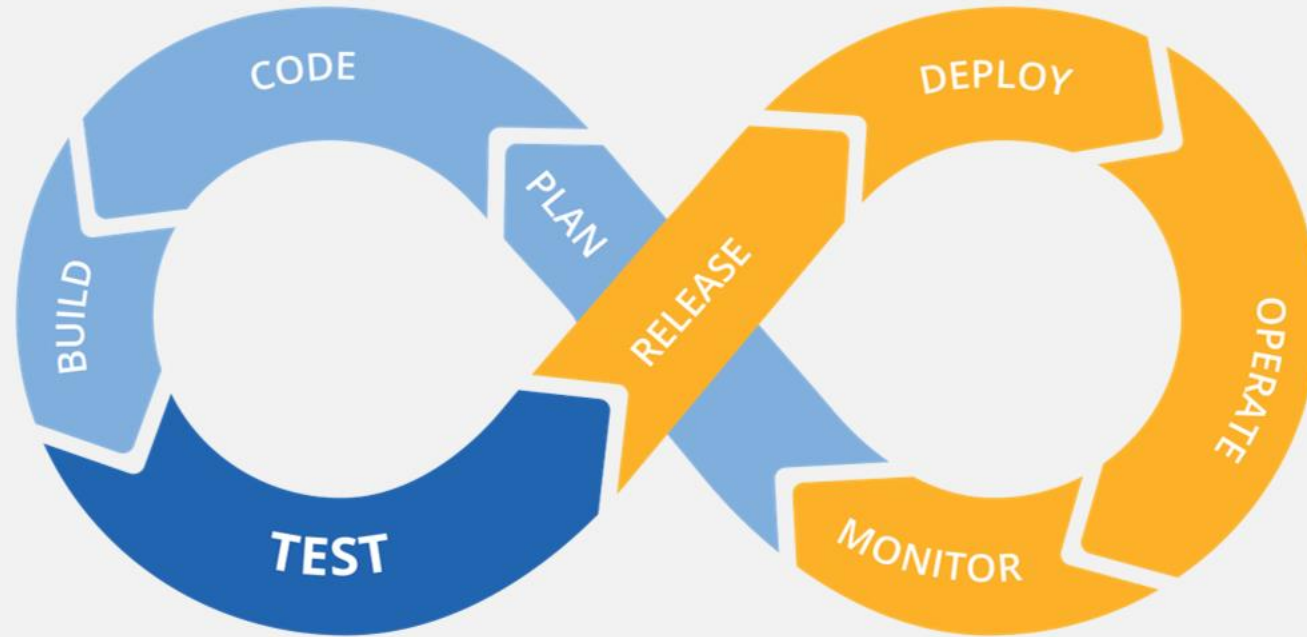
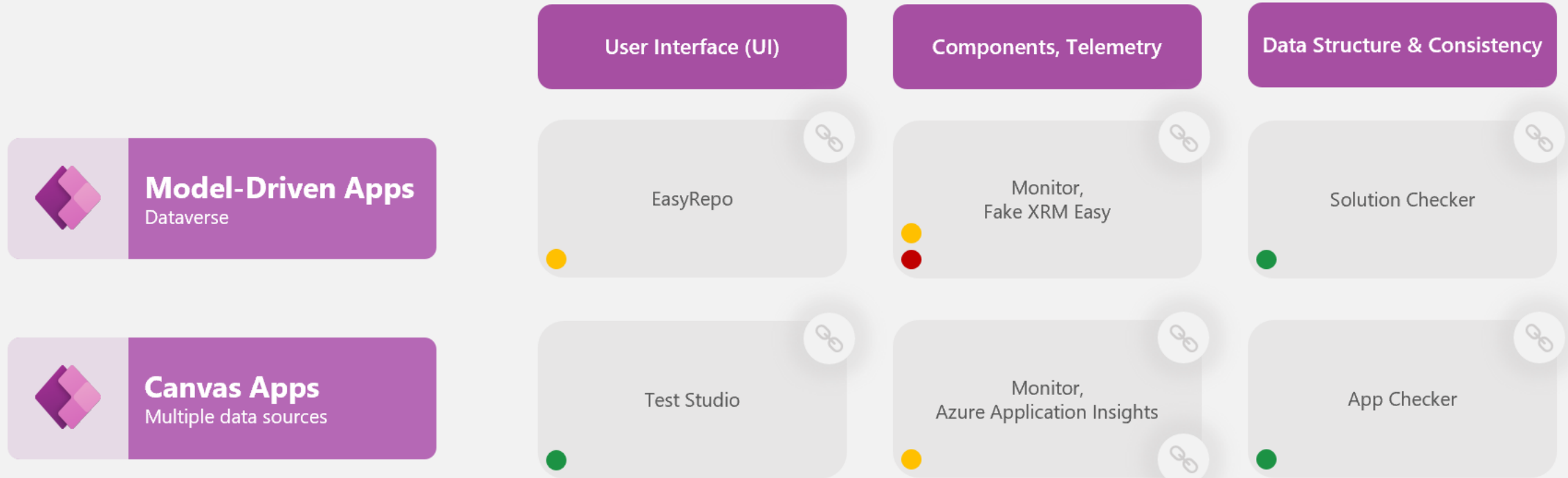Solutions checks, import, export.

Environment provisioning.

Deployment

Power Platform specific

Native integrations

DevOps Cycle

What are you waiting for?

- Do you want to **evaluate** a project?
- How do I **digitize my processes** with the Microsoft Power Platform?
- Do you need **best practices** and hands-on support from our experts?
- Do you have questions about **opportunities** with Microsoft Power Platform?
- How do I organize **governance**?
- What makes the **Power Platform particularly fast** to work with?
- How does **democratization** play into your hands?

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Cluster Dynamics Reply is the Reply Group company specializing in Microsoft technologies.