A REVIVAL OF AZURE AUTOMATION

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PS> WHOAMI

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AUTOMATION OF THREE BROAD AREAS OF CLOUD OPERATIONS

- **Deploy and manage -** Deliver repeatable and consistent infrastructure as code.

- **Response -** Create event-based automation to diagnose and resolve issues.

- **Orchestrate -** Orchestrate and integrate your automation with other Azure or third party services and products.

AZURE SERVICES FOR AUTOMATION

- Deployment and management of resources

  - Azure Resource Manager (ARM) templates with Bicep

  - Azure Blueprints

  - Azure Automation

  - Azure Automanage (for machine configuration and management)

AZURE SERVICES FOR AUTOMATION

- Responding to external events

  - Azure Functions

  - Azure Automation

  - Automanage Machine Configuration (to take an action when there's a change in the compliance state of resource)

AZURE SERVICES FOR AUTOMATION

- Complex orchestration and integration with 1st or 3rd party products

  - Azure Logic Apps

  - Azure Functions or Azure Automation. (Azure Logic app has over 400+ connectors to other services, including Azure Automation and Azure Functions, which could be used to meet complex automation scenarios)

WHAT IS AZURE AUTOMATION?

- The oldest automation service in Azure

- A serverless service before "serverless" became a thing

- PowerShell as a Service (PSaaS) ☺

- Azure Automation delivers a cloud-based automation, operating system updates, and configuration service that supports consistent management across your Azure and non-Azure environments.
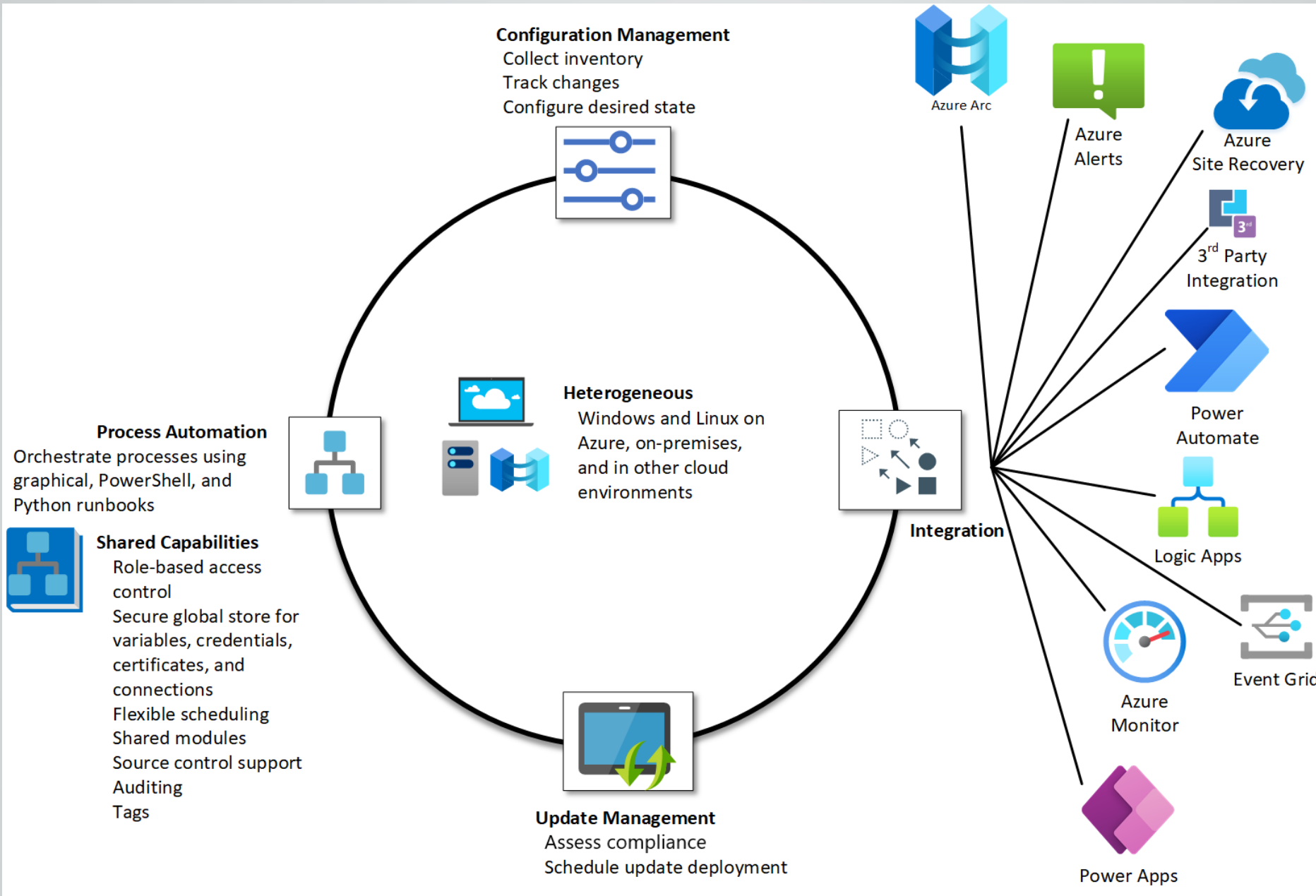
SUPPORT FOR AZ MODULES BY DEFAULT

- Azure Automation now supports Az modules by default.

- New Automation accounts include the latest version of Az modules – 8.0.0 by default.

- Automation also includes an option in the Azure portal - Update Az Modules enabling you to update Az modules in your existing Automation accounts.

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Az modules

PREVIEW SUPPORT FOR POWERSHELL 7.1 / 7.2

- Azure Automation support for PowerShell 7.1 and 7.2 runbooks is available as public preview in Azure public, Azure Gov, and Azure China clouds.

- The PowerShell version is determined by the property Runtime Version

- The same Azure sandbox and Hybrid Runbook Worker can execute PowerShell 5.1 and PowerShell 7.1 runbooks side by side.

- An updated flow for Runbook creation, Import Runbook, and Add\import a module blade in the Azure portal

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PowerShell 7.x

MANAGED IDENTITY FOR AZURE AUTOMATION

- System-Assigned Managed Identities is supported for cloud as well as hybrid jobs

- User-Assigned Managed Identities is supported only for cloud jobs.

- Azure Automation Hybrid jobs could be running on a Hybrid runbook worker running on an Azure or non-Azure VM.

MANAGED IDENTITY FOR AZURE AUTOMATION

- Managed identities are the recommended method for runbook authentication going forward.

- You can choose to select System assigned or User assigned or both identities.

- You would no longer see the option to provide Run As account, however, Run As account is still supported for existing accounts

SOURCE CONTROL ENABLED TO USE MANAGED IDENTITIES

- Source control integration in Azure Automation supports single-direction synchronization from your source control repository.

- It can now use managed identities instead of a Run As account.

- Internal Process-SourceControlWebhook runbook

- Only runtime 5.1 for now ☹

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Source control integration

HYBRID WORKER EXTENSION

- The system-assigned managed identity must be enabled on the Azure VM or Arc-enabled server. If it isn't enabled, it will be enabled as part of the adding process.

- Non-Azure machines must have the Azure Arc-enabled servers agent (the connected machine agent) installed.

CREATE HYBRID WORKER GROUP

- You can create a Hybrid Worker Group via the Azure portal. Currently, creating through the Azure Resource Manager (ARM) template is not supported.

- The Use Hybrid Worker Credentials option:
  - If you select Default, the hybrid extension will be installed using the local system account.
  - If you select Custom, then from the drop-down list, select the credential asset.

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Hybrid Worker extension

THANK YOU.

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