British Computer Society
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Consultancy Specialist Group

Webinar

Selecting a Public Cloud Managed Services Provider

by David Pool and Barry Turner

24th September 2020

BCS Webinar

Selecting a public cloud managed service provider

David Pool, Barry Turner

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Agenda

- Objectives
- Intro’s & Bio’s
- Key capabilities
- Financial implications
- Security implications
- Managing business risk
- Decision framework
- Any questions?
- References & contact details

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Objectives

- Provide a framework of idea's to enable you to make objective decisions on choosing which MSP's to work with.
- Get feedback on your experience of engaging with Cloud MSP's.

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Introductions

Barry Turner

25 years service creation experience working with cloud service providers and telco's across EMEA on behalf of AWS, Microsoft, Cisco, Mitel & Agile Programmes. AWS Solution Architect (associate), ITIL V4 Foundation, ISO27001:2013 lead auditor certified, PMP qualified with specialisation on marketing and go to market planning.

Linkedin Profile

David Pool

David is an experienced Cloud and Managed Services specialist and business strategy advisor with more than fifteen years of experience in the Telecomms industry.
For the past 6 years David has focused on helping Businesses to benefit from the adoption of Cloud and Managed Services.

Linkedin Profile

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Cloud MSP Best Practices Experience:

Consultants for ISSI

About ISSI

- Founded in 2006 in the USA
- Multi-cloud MSP consulting and auditing company
  - Consulting and auditing services for the world's largest hyperscale cloud platform providers
- Best in class practices from over 500 next generation hyperscale cloud MSPs and 75+ Partner Transformation consulting engagements

Website: http://www.issi-inc.com

Sources

ISSI
Best Practices and IP
(Consulting/Audits)

Cloud Providers
Best Practices in
Business Process
and Architecture

Cloud Providers
MSP Certification
Programs

Industry Research
Reports – Gartner,
Forrester, IDC and
451

Best Practices

Business	Cloud Strategy
	Business Planning
	Talent Management
	Go to Market
	Service Offering Design
Process	Assessment and Migration Planning
	Design and Deployment
	Service Operations Management
	Monitoring Services
	Customer Lifecycle Management
	Security and Governance
Tools	Automation / DevOps
	Lifecycle Tooling

A Forrester Total Economic Impact™ Study July 2019

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ITILV4 service value chain

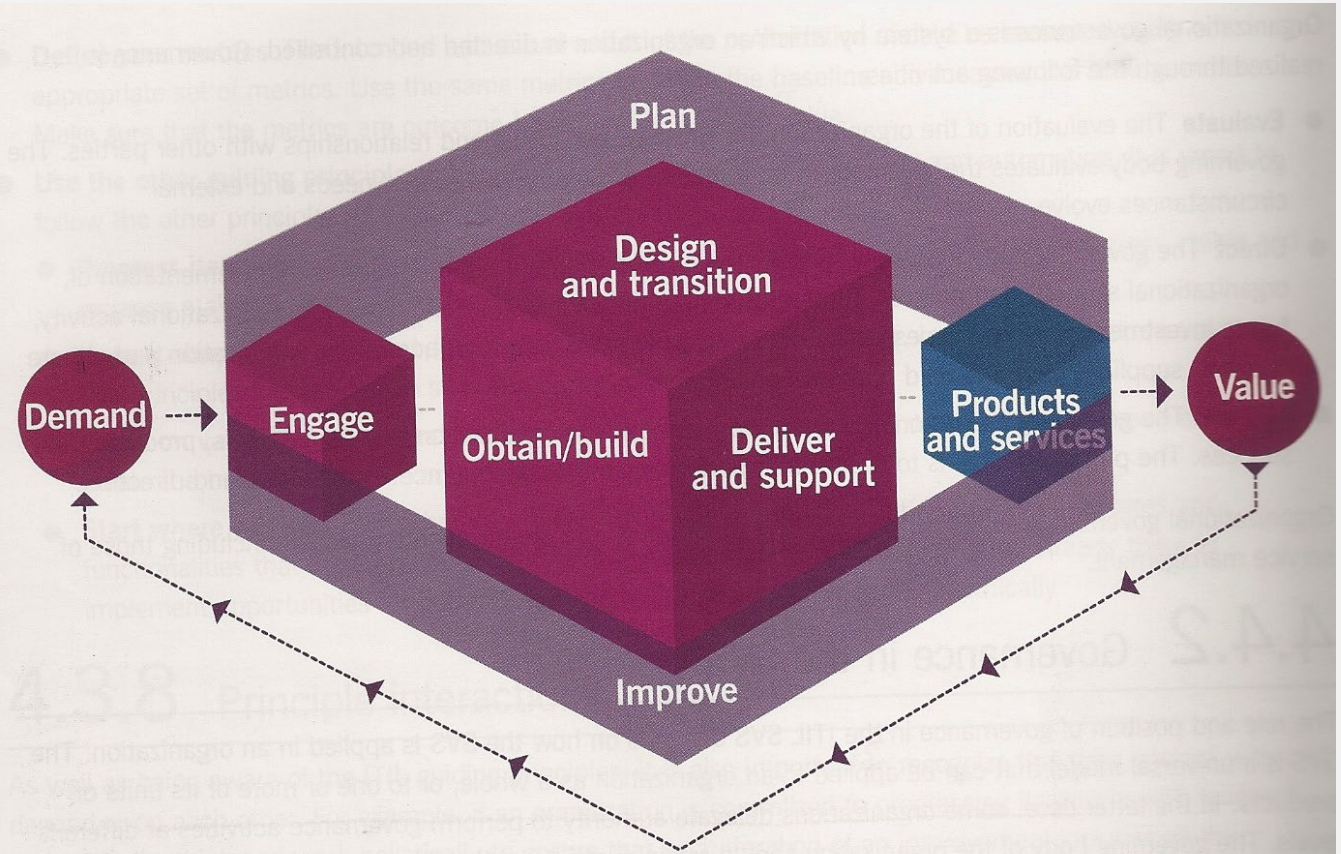

Figure 4.2 The ITIL service value chain

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ITIL service value chain is copy righted to Axelos.

Plan – Services Portfolio & Capabilities

Engage

Education & Training

Assessment & preparation
- Cloud strategy
- Workload discovery
- ROI & cost analysis
- Migration readiness planning

Service delivery management

Design & Transition

Migrate
- Workload deployment experience

Modernize
- Application re-platforming
- Application modernization

Deliver & Support

Manage
- 24/7 managed support
- Full-stack monitoring

Optimize
- Workload optimization roadmap
- Cost optimization

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Plan – Certifications demonstrate competency

MSP may offer unique IP in specific areas of strength –

- Adherence to industry certifications such as ISO demonstrates a level of structure in service management and security, or adherence to regulatory requirements such as PCI
- Partner status with the major Public cloud vendors demonstrates competence with this platform
- Partner may specialise in specific areas:
  - Security
  - Application modernization
  - DevOps
  - Databases
  - Complex workloads e.g. ERP/Oracle
  - Vertical solutions
  - Emerging technologies such as IoT or Data analytics

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Engage

Education & Training

- Public Cloud Overview
- Cloud best practices (CAF)
  - Security
  - Performance
  - Reliability
  - Operations
  - Cost optimization
- DevOps
  - Agile approach
  - Pipeline management
- Application modernization
  - Containers
  - Functions
  - Microservices

Cloud Strategy & Planning Workshop

- Cloud strategy review
- Business objectives
- Business drivers
  - Licensing
  - Governance & Compliance
  - Cost analysis and management
  - Data Centre retirement
- Technology Drivers
  - Current infrastructure
  - Security
  - Product EOL
  - Resiliency & Performance requirements
- Workload review
  - Priorities
  - Dependencies
- Internal skills
  - Cloud knowledge
  - Shared responsibility model

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Obtain/Build

Cloud Migration Assessment
– new Public Cloud customer

- Cloud strategy review
- Business & Tech drivers review
- Skills & resources requirements
  - shared operating model
- Workload discovery and dependency mapping
  - Tool for automated discovery and analysis
- ROI & cost analysis
- High level designs
- Landing zone design
- Migration readiness plan
- Enterprises:
  - Scalable Agile & DevOps using industry frameworks

Best Practice review
– existing Public cloud customer

- Cloud strategy review
- Business & Tech drivers review
- Well-architected review
  - Operations
  - Cost management
  - Performance
  - Reliability
  - Security
- Recommendations based on findings

Application Modernization

- Consultancy for internal application refactoring
- Application readiness to move to Cloud
- ROI & Cost analysis
- High level design and recommendations
- Applistructure, how does the application fit into the application architecture.

'The Cloud Adoption Framework is proven guidance that's designed to help you create and implement the business and technology strategies necessary for your organisation to succeed in the cloud. It provides best practices, documentation and tools that cloud architects, IT professionals and business decision makers need to successfully achieve their short- and long-term objectives'. Microsoft

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Design & Transition

Cloud Migration

- Project Management – Agile based
  - Consulting
  - Engineering
  - Service management
  - Customer Success
- Landing Zone built aligned with CAF best practices
- Cloud adoption Roadmap:
  - Hybrid Cloud options
  - High to Low level design
  - Prioritized Workload migration
    - Rehost
    - Refactor
    - Rearchitect
    - Rebuild
- Service Management transition
- Post project review

Cloud operating Model

- IT structural model for Cloud
- Roles, responsibilities
- Skillsets and training
- Service management integration
- User and IT self-service
- Governance and security structure
- Cost Management
- Application development requirements

Application Support

- L&S for initial stability and control
- PaaS migration services
- Optimising applications for cloud
- Application design using technologies such as serverless and container
- On-premise migration to SaaS services
  - O365
  - Virtual desktop

'The actionable, and therefore valuable, thing about the Well-Architected Framework is that it provides a consistent approach to evaluating systems against best practices. AWS offers customers Well-Architected Reviews that use Framework principles to provide an assessment and identify recommended remediation, typically for a high-priority workload. The Reviews are staffed by AWS Solutions Architects or **AWS Well-Architected Partners**. '

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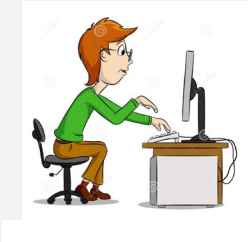
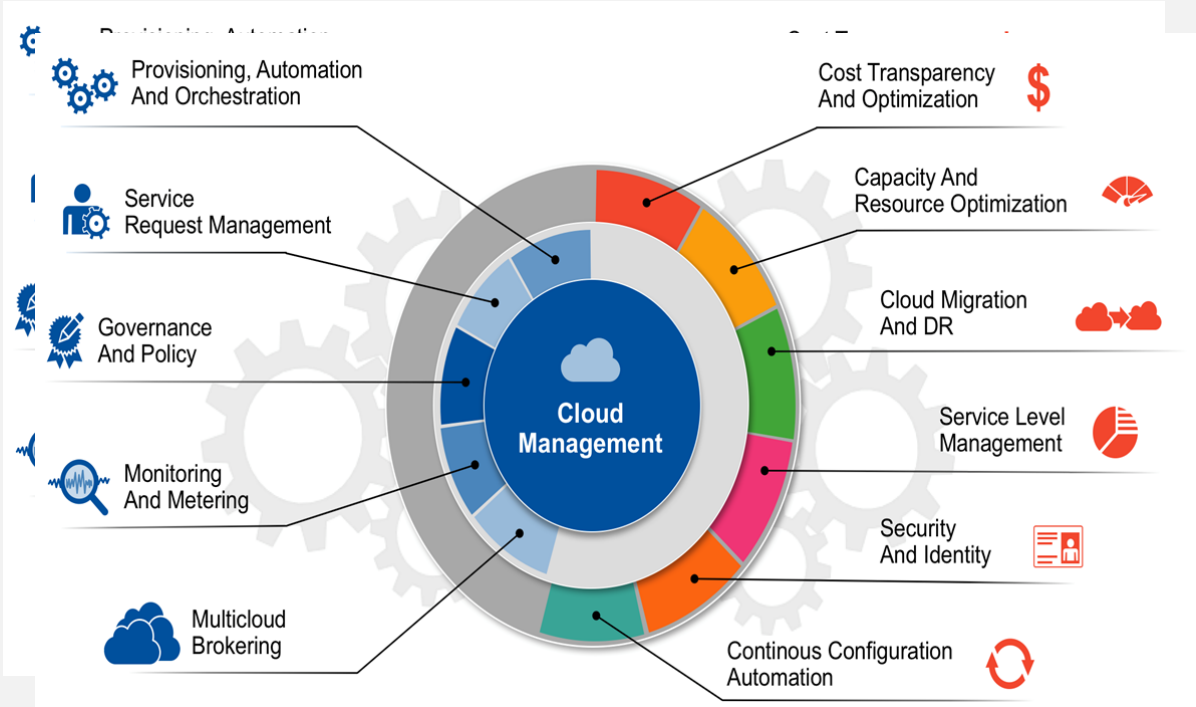
Deliver & Support



User Experience

- Dashboard access defined by role
  - Self-service
  - Service Request
  - Accounting & billing
  - Service support
- Service Management
  - Monitoring
  - Ticket management
  - AM/SA/CX support
  - Security & Governance
- API access to Cloud
  - DevOps provisioning
  - Customer service management

MSP Capabilities



Source: Gartner

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Questions to assess the MSP's approach to key capabilities

- What type of education or training can you offer to help understand Public Cloud architectures and capabilities
- What experience do you have in my industry or specialised workloads
- Do you have any experience in refactoring or modernising applications
- Do you hold any industry or Public Cloud Provider certifications
- How experienced are you in designing, implementing and managing DevOps pipelines
- Do you follow the best practices from the Public Cloud Provider when designing the environment and architectures
- Do you have experience in evaluating current deployments against best practices
- What services do you offer across the lifecycle of engage – design & Deploy – Deliver & support
- What management visibility do you provide for me to monitor the performance of the environment and individual workloads
- What kind of account support do you put in place to manage the relationship

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Four cost buckets

Costs of migration processes

- Strategy & planning
- Design & deployment
- Migration costs
- Decommissioning costs of existing capacity

Consumptions costs

- Cloud consumption
- Fixed price model

Management & operational costs

- Managed service fees
- Additional support fees
- Additional professional services fees
- Cost of governance and reporting
- Cost of cost optimisation

Internal cost of migration

- Internal team managing the process
- Cost of staff reallocation
- Current license obligations

The business case needs to cover the four buckets. Assess the financial and non financial benefits. Assess the risk of migrating.

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Cloud managed services pricing models

Partner may use two or more models

Model 1: %age of cloud consumption

Variations between 20% and 45% of the bill depending on what is included and the level of service.

Positives:

- Partners & customers like the simplicity.
- Fits all compute and IaaS/ PaaS models.
- Charging for scale sets simple.
- When cloud provider tools are used e.g. monitoring and management.

Negatives:

- Large VM's over charged, small VM's under charged.
- If consumption costs are highly variable this can accentuate the variability.

Model 2: Fee per object

No objective data on pricing levels. Have seen figures between £25 per month and E50 per month.

Positives:

- Fits static models really well.
- Charges realistic for server sizing.
- Predictable in static environments.

Negatives:

- Does not fit scaling compute models easily.
- Does not fit serverless infrastructure.
- Billing more complex.

Model 3: Activity based costing

Two models identified in the market.

- Model one: the pricing is based on extensive activity based costing data. This is blended with externally available pricing information e.g. feedback from lost bids. This requires investment in the resource to maintain and manage the data.
- Model 2: bases pricing on historical data of similar sized contracts. This again is blended with feedback on win/loss from bids and cloud providers.

Positives:

- Removes risk of pricing linked to cloud revenue.

Negatives:

- Reliant on data availability and resource.

Model 4: Fixed price per application /workload

The partner charges a fixed fee per month for the application/workload. Used where the end customer prefers to have no fluctuations in the monthly bill.

Positives:

- Partner can earn higher margin due to accepting the risk of consumption fluctuation.
- End customer benefits from cost saving of running application in the cloud with no risk of escalating monthly bill.

Negatives:

- End customer typically gets no benefit from cost reducing the application.
- Requirement for the partner to have tight cost management in place.
- Significant cost risk in highly scaling and serverless architectures.

Most common models

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Cloud professional services pricing models

Partner may use two or more models

Model 1: Time and material

Activities are charged on a time and expenses basis.

Model 2: Fee for defined SoW

The statement of work defines the following:

- Programme of work
- Deliverables
- Customer requirements
- Pricing
- Technology solution
- Timescale
- Risks
- Partner and customer roles and responsibilities.

Model 3: Fee for productised service

The productized service defines a set of deliverables for a fixed fee. Typically this will include some variables e.g number of VM's migrated or number of applications in a migration assessment.

This is commonly used for the following activities:

- Migration assessment and planning. The partner may have various "T-shirt pricing" for different scales of data centres.
- Landing zone creation, often this includes migration of one or two small applications.
- Migration of applications, workloads, databases.
- Any other deliverable that can be clearly defined e.g. periodic architecture and cost assessment.

Model 4: Bundled professional services time

The partner bundles professional time together or packages it in with other activities.

This is commonly used for the following:

- Professional services time packaged in with the managed service fee for a workload.
- Periodic architecture and cost assessment packaged in with the managed service or support contract for a workload.
- Undefined professional services time bundled together. Typically this can cover a range of activities over a specific period e.g. 30 days to be used during a specified period.
- Provision of onsite resources and service management. Typically will cover a mix of services e.g. 8 days per month for a dedicated service manager plus 4 days per month of solution architect time.

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How to assess the MSP's approach to cost management

- Assessment and planning
  - How is cost management and optimisation designed in?
  - What tools does the partner use?
- Governance & reporting
  - Asset management
  - Consumption reporting & budget management
- Optimisation
  - Asset
  - Architectural
- Type of contract
  - Is the pricing model clearly defined.
- Ask about license management
- What pricing model will be used and how does this optimise your cost?

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Security implications

The top 11 cloud security risks as reported by CSOonline

1. Data breaches
2. Misconfiguration and inadequate change control
3. Lack of cloud security architecture and strategy
4. Insufficient identity, credential, access and key management
5. Account hijacking
6. Insider threats
7. Insecure interfaces and APIs
8. Weak control plane
9. Metastructure and applistructure failures
10. Limited cloud usage visibility
11. Abuse and nefarious use of cloud services

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Shared responsibility model

The shared responsibility model shown above is published by the CIS.

When using an MSP the shared responsibility model becomes a three way division.
It is critical to clearly define & document with the MSP who is responsible for which activities.

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Five aspects of security

Identity and access management

Forensic controls

Infrastructure protection

Data and application protection

Incident management

This activity kicks off in the initial discovery phases and needs to be “designed in” from day one.

Adapted from the AWS well architected framework security module

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How to assess the MSP's approach to security

- Security assessment as part of the initial planning
- Do they explain the shared responsibility model
- What certifications and accreditations e.g. ISO27001
- What experience with your type of work loads
- How do they assess the security risk
- Do you have to ask about security?
- What types of customer does the MSP have
- How do they manage personal identity information (PII) security internally and with suppliers
- What is the approach to security in managing DevOps pipelines
- What security services do they provide
  - Design
  - Assessment
  - Monitoring and incident management
  - Training
  - Specialist team or group
- Can they recommend how to manage security across the full stack
- What security certifications do the staff have
- Is the security plan cloud based or an adaption of on-prem security
- Who initiates the security discussion?

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Managing risk

- Areas of risk
  - Business risk
  - Technical risk
  - Operational risk
  - Information security risk
  - Staff risk
- Commercial risk
  - Cost
  - Contractual
  - MSP & cloud vendor financial health
  - Use of third party for service delivery

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Details to review in the contract & SLA

- Is your data ownership clearly specified.
- Is the termination and handover process clearly defined.
- Is the method and time period of the storage of security and other logs specified.
- Pricing model
- Pricing governance

- What does the SLA cover
  - Response times
  - Priority and severity levels
  - Application availability, performance and RPO/RTO times
  - Remediation times
  - Business value SLA
  - Implementation times for service requests

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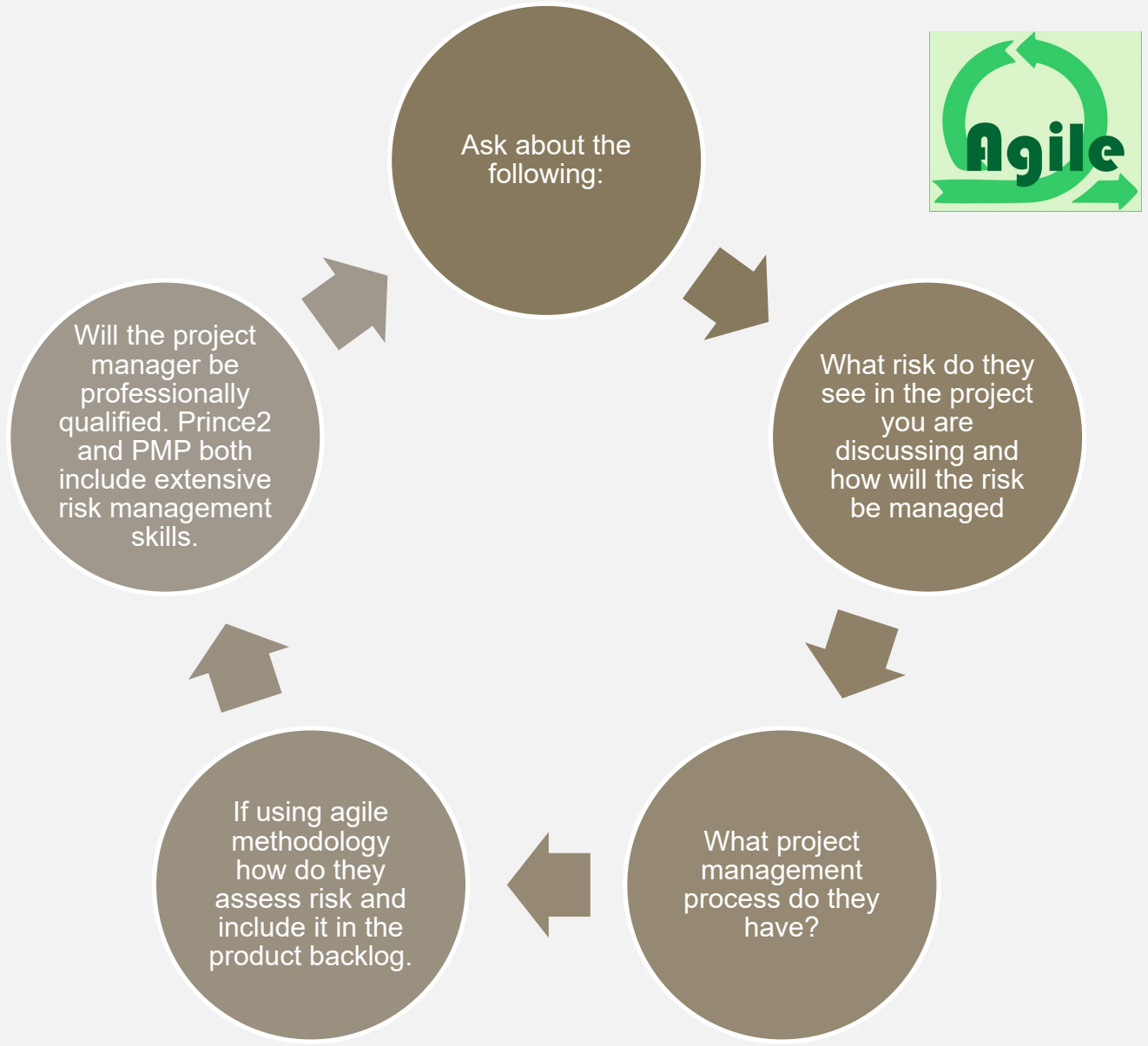
How to assess the MSP's approach to risk management



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What questions do you have?

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Decision Framework

		Training	Support	Governance	Experience	Certifications & accreditations
Key capabilities						
	Assessment & planning					
Finance						
	Pricing model					
Security						
Risk management						
Pricing model						
Contractual model						

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