Google Cloud Maturity Assessment Report

The **Google Cloud Adoption Framework** identifies four themes that drive the foundation of cloud readiness: Learn, Lead, Scale, and Secure.

This report will show you how you score across the four key themes, and what to do to get to the next phase, Transformational.

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pvcompany

October 2022

Your Cloud Maturity phase is

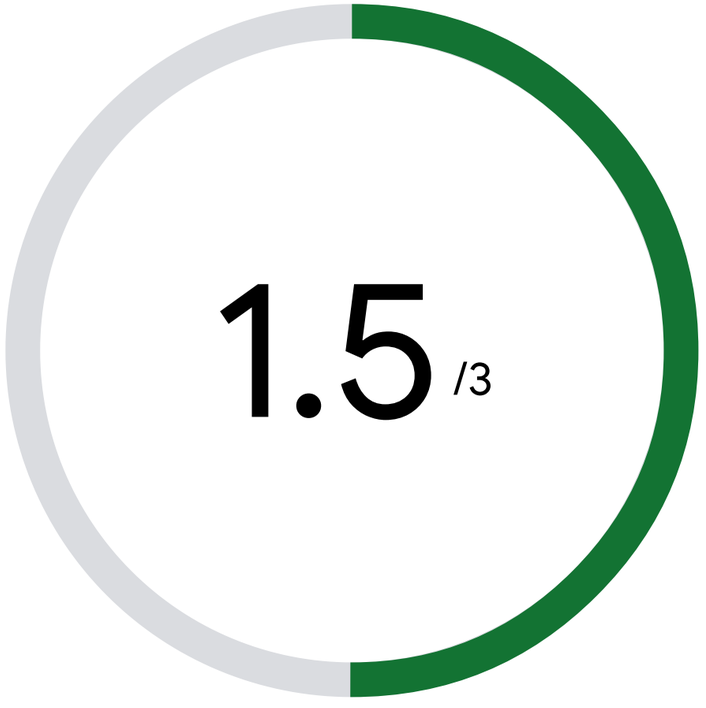
Strategic

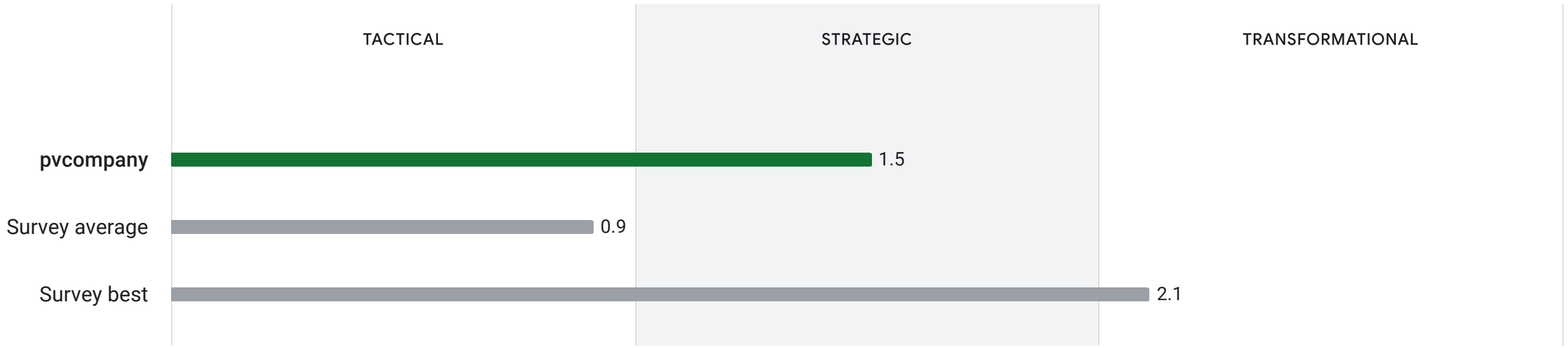
Next phase: **Transformational**

YOUR OVERALL CLOUD MATURITY

Strategic (1-2)

This is the second of the three phases of maturity, and you are on your way towards the next phase. You are increasing the value delivered by your IT organization by streamlining operations to be both more efficient and more effective.





Survey average

Survey average is based on companies who have taken the survey and self identified with your industry.

Survey best

This is the highest recorded score from a participant who has taken the Google Cloud Maturity Assessment.

FOUR THEMES OF CLOUD MATURITY

To truly develop a cloud-first organization, there are four themes you will need to excel in — whatever your business objectives. These four themes define the foundation of cloud readiness.

Learn

Your organization's ability to continuously learn is determined by your efforts to upskill your IT staff while also taking advantage of the experiences shared by third-party contractors and partners.

You rank:

Strategic

in this theme

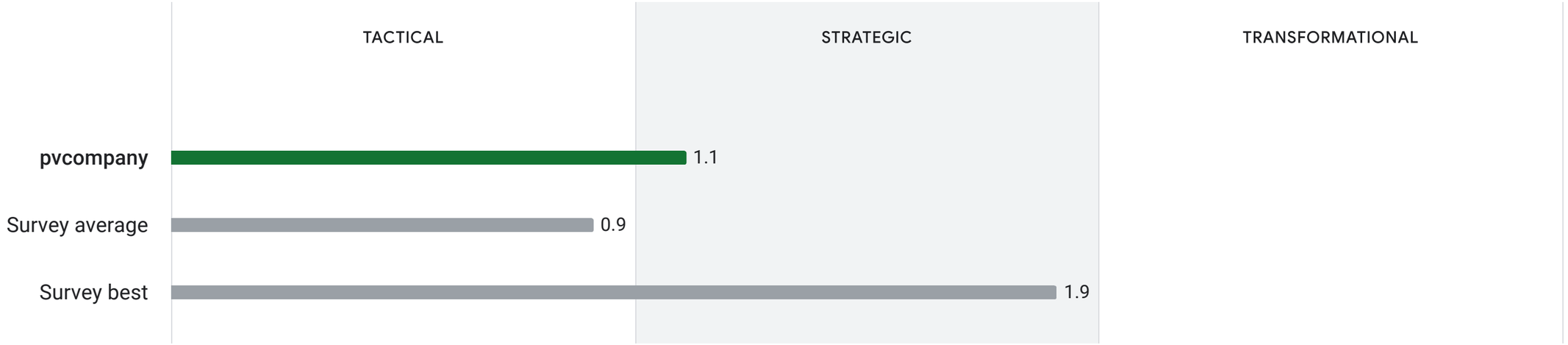
1.1/3

Organizations in this phase typically have these attributes:

Upskilling is a priority and some provisions have been made to enable and motivate individuals to learn.

New positions and roles have been created to target people with prior cloud experience.

Third-party contractors and partners provide subject matter expertise to fill the IT staff's remaining knowledge gaps.



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Epics

Epics are clearly defined, non-overlapping workstreams tied back to the four themes of cloud maturity. You should design programs around the epics to help you solidify your maturity in any given phase, or take it to the next level. More information on the themes and epics of cloud maturity can be found in the **Google Cloud Adoption Framework** whitepaper.

Here's how you score for the epics in this theme:

External Experience

Accelerating cloud adoption by applying best practices and other organizational lessons learned from day one, through experienced subject matter experts.

Upskilling

Investing in learning, so that the incumbent staff may combine their existing in-depth knowledge about the business and the current IT state with learnings about new best practices.

You could be Transformational

Here are some recommended next steps to help you move to the next stage of cloud maturity:

External Experience

In addition to new job postings, review existing roles and redefine them to reflect new requirements of a cloud-first IT organization. Begin transition of admin access from third parties to internal operations teams, using third parties as staff augmentation functions only.

Upskilling: Resources

In addition to on-demand and instructor-led options, create platforms such as wikis or internal knowledge bases for peer-to-peer knowledge sharing. If not already in place, create a mechanism for each IT staff member to be provisioned with a sandbox project to experiment with.

Upskilling: Goals and Measurement

In addition to team-level targets that are consistently reported in the organization, encourage individuals to self-assess their level of completion against published targets specific to their roles. Track the cloud certifications that individuals achieve.

Lead

The effectiveness of your organization's cloud adoption is determined by the visibility and value of the mandate issued top-down from your sponsors (which include C-level executives as well as middle management and team leaders) and the motivational momentum generated bottom-up from your teams' cross-functional collaboration.

You rank:

Strategic

in this theme

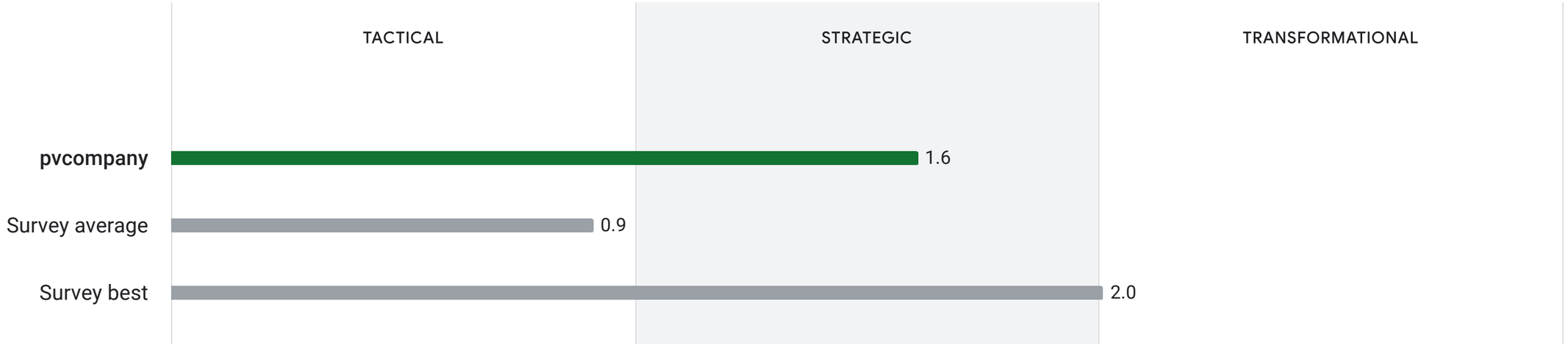
1.6/3

Organizations in this phase typically have these attributes:

Sponsorship extends up to the C-level. Each manager in the reporting line should have clearly defined objectives and KPIs that support the organization's cloud adoption.

There are performance indicators to prioritize traditional IT service-level objectives over the speed of experimentation, innovation, and recovery from failure.

Cloud adoption progress is driven by a dedicated cross-functional team of advocates (Cloud Center of Excellence), working across project boundaries.



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Here's how you score for the epics in this theme:

Teamwork

Building a team that lives and breathes behaviors and culture, which includes high collaboration and trust, so that cloud technology is utilized in the most optimal manner.

Sponsorship

Passionately and continuously demonstrating executive support for the cloud adoption strategy, so that early adopters have a widely recognized mandate for change.

You could be Transformational

Here are some recommended next steps to help you move to the next stage of cloud maturity:

Sponsorship

In addition to driving sponsorship, enable sponsors to build and drive a shared roadmap for a cloud adoption and migration strategy. Build momentum to

Sponsorship: Cloud Funding

Begin to decommission on-premises infrastructure to offset cloud spend.

ensure that sponsorship is championed by most of the C-level executives.

Teamwork: Structure

Use the Cloud Center of Excellence to align the organization and implement best practices. Introduce cloud-centric IT roles to support cloud projects across the organization. Empower governance teams to refine controls as the organization continues to mature in the cloud.

Teamwork: Goals and Measurement

Implement SRE best practices and begin to analyze and define key performance indicators to evaluate success in the cloud.

Teamwork: Collaboration

Encourage team members to collaborate and share best practices across the organization to drive cross-functional projects.

Scale

Your organization's ability to scale in the cloud is determined by the extent to which you utilize managed and serverless cloud services, as well as the quality of your CI/CD process chain and the programmable infrastructure code that runs through it.

You rank:

Strategic

in this theme

1.5/3

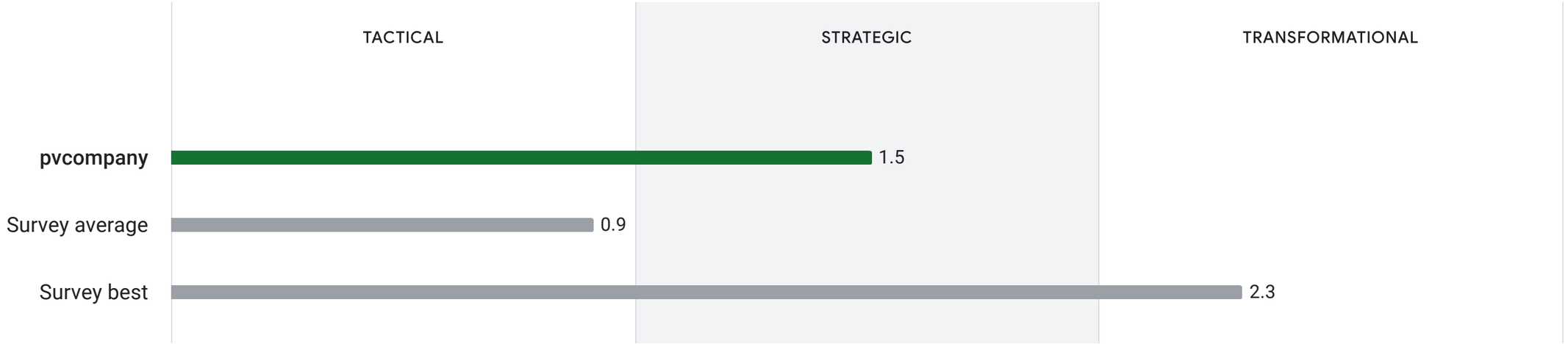
Organizations in this phase typically have these attributes:

There is some use of managed or serverless cloud services.

The risk of change is considered to be moderate. Deployments to production environments are executed programmatically, but triggered manually, and can easily be rolled back if necessary.

Application teams go beyond basic monitoring and logging, making use of application performance monitoring (APM).

The provisioning of projects includes all associated configurations performed programmatically.



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Here's how you score for the epics in this theme:

Infrastructure as Code

Continuous Integration and Delivery (CI/CD)

Automating through code the configuration and provisioning of resources, so that human error is reduced, time is saved, and every step is fully documented.

Automating changes to the system through a CI/CD process pipeline, so that all changes can be tested, audited, and deployed with minimal interruption.

Architecture

Providing best practice recommendations and a forward-looking view of the appropriate cloud compute and storage choices.

You could be Transformational

Here are some recommended next steps to help you move to the next stage of cloud maturity:

Infrastructure as Code: Provisioning Services

Automation should be in place for the full deployment lifecycle of at least one project. Build a consistent approach across all project teams, including standardized tooling. Implement formal standards and a programmatic provisioning of all project foundation components.

CI/CD: Integration and Deployment

Create continuous code deployment schedules based on risk profiles. Introduce canary or blue/green deployment strategies with manual transition between current and new versions, working towards the situation where a formal maintenance window is no longer required. Aim to have limited use of traditional build/test/deploy practices and more standard CI/CD tooling.

Architecture: Capacity Planning

Monitoring and Logging

Review formal capacity plan based on business cycles, seasonality, and other expected impacts on cloud capacity needs. Build custom reports against billing and utilization data for ongoing analysis of spend and opportunities to optimize costs. Use autoscale for production workloads based on a combination of simple utilization metrics such as CPU/RAM and application specific metrics. Proactively leverage Committed Use Discounts for steady state workloads.

Architecture: Application

Establish application workload standards that incorporate usage of serverless service. Ensure all containers are immutable and have config details embedded in VMs with O/S credentials are locked down. All new applications should be architected using 12-factor principles.

Embed logging and application performance monitoring in all cloud services across silos and lines of business. Ensure near-real time data is available 24/7.

Secure

The security of your cloud environment is determined by your ability to guarantee who may perform which action on which resource (identity and access management) and your understanding of the data that needs protecting, ensuring it is appropriately catalogued, encrypted, and guarded from exfiltration, to name just a few considerations.

You rank:

Strategic

in this theme

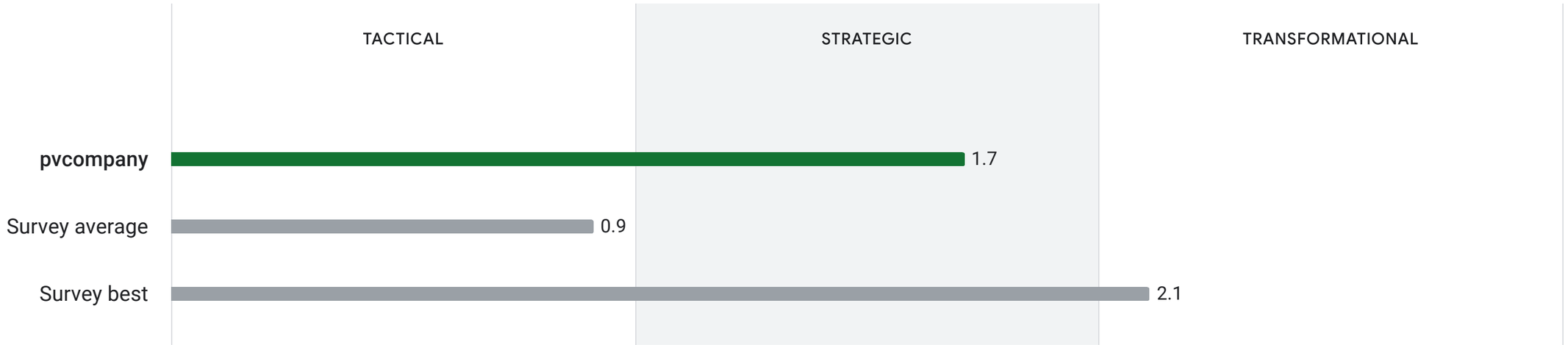
1.7/3

Organizations in this phase typically have these attributes:

Cloud user identities are synchronized from a directory service or the organization's central identity solution.

Cloud Identity and Access policies reference a granular set of predefined roles.

The network-based security perimeter is augmented by additional security layers that protect individual services, which lowers the risk of exposing a private service to the public internet.



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Here's how you score for the epics in this theme:

Data Management

Access Management

Understanding and managing what data is being stored, where it originates from, how sensitive it is, and who is accessing it — for the purpose of keeping data safe, discoverable, and useful.

Ensuring that only the right people and services are authorized to perform the right actions on the right resources.

Identity Management

Reliably authenticating users' or services' identity and guarding against loss of credentials and attempts at impersonation.

You could be Transformational

Here are some recommended next steps to help you move to the next stage of cloud maturity:

Identity Management: User Identity

Leverage cloud-based user directory or identity provider as unified source of truth with centralized provisioning/deprovisioning of users based on on-boarding/termination of users and/or system accounts.

Access Management: Controls and Policies

Actively monitor and measure compliance by implementing a standardized set of security controls across the organization. Formulate information security committees along with validation and measurement processes. Begin to replace existing network-based security perimeter to reduce reliance on VPN(s) for granting secured access to the workforce.

Identity and Access Management: Governance

Leverage single sign-on as a standardized process to access cloud environments along with automated controls to detect anomalies. Automate risk-based workflows and controls to grant access into cloud environments. Certify and audit access at regular intervals. Provide capability to generate on-demand reports to identify violators. Develop preventative and reactive controls to enforce compliance.

Data Governance

Build a centralized view of all the critical data assets across the organization, incorporating datasets from all teams. Categorize / classify data according to data policies and business impact. Ensure processes for detection / remediation of breaches are well defined and tested.

Next steps

Review your recommendations and consider these steps:

Using the recommendations provided, create a roadmap outlining what you intend to do over the next 12 months to move closer to cloud maturity (your Google representative is also available to help). Divide the roadmap into activities covering the four themes.

Decide who will own each action, set future checkpoints, and track progress.

Identify the key stakeholders and skill sets to support you at each stage.

For questions about this report, please contact **gcaf-cma@google.com**

Appendix

Phases of cloud maturity

More information on the phases of cloud maturity can be found in the **Google Cloud Adoption Framework** whitepaper.

Tactical

Organizations in this phase often have individual cloud workloads in place, but no coherent plan encompassing all of them nor a strategy for building out for the future. The focus is on reducing the cost of discrete systems and on getting to the cloud with minimal disruption. The wins are quick, but there is no provision for scale.

Strategic

Organizations in this phase have a broad vision that governs individual workloads, which are designed and developed with an eye to future needs and scale. The organization has started to embrace change, and the people and process portion of the equation are now involved. IT teams are both efficient and effective, increasing the value of harnessing the cloud for business operations.

Transformational

Organizations in this phase have cloud operations functioning smoothly, and have turned their attention to integrating the data and insights garnered from working in the cloud. Existing data is transparently shared. New data is collected and analyzed. The predictive and prescriptive analytics of machine learning applied. People and processes are being transformed, which further supports the technological changes. IT is no longer a cost center, but has become a partner to the business.

Benchmark calculations

Industry average

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Industry best

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Four themes of cloud maturity

We measure cloud maturity across four themes that define the foundation of cloud readiness. An organization's readiness for success in the cloud is determined by current business practices in each of these four themes. More information on the themes of cloud maturity can be found in the **Google Cloud Adoption Framework** whitepaper.

Learn

The quality and scale of the learning programs in place to upskill technical teams, and the ability to augment IT staff with experienced partners.

Lead

The extent to which IT teams are supported by a mandate from leadership to migrate to cloud, and the degree to which the teams themselves are cross-functional, collaborative, and self-motivated.

Scale

The extent to which cloud-native services are used that reduce operational overhead and automate manual processes and policies.

Secure

The capability to protect services from unauthorized and inappropriate access with a multilayered, identity-centric security model.

Cloud adoption epics

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Learn

External Experience

Accelerating cloud adoption by applying best practices and other organizational lessons learned from day one, through experienced subject matter experts.

Upskilling

Investing in learning, so that the incumbent staff may combine their existing in-depth knowledge about the business and the current IT state with learnings about new best practices.

Lead

Teamwork

Building a team that lives and breathes behaviors and culture, which includes high collaboration and trust, so that cloud technology is utilized in the most optimal manner.

Sponsorship

Passionately and continuously demonstrating executive support for the cloud adoption strategy, so that early adopters have a widely recognized mandate for change.

Scale

Infrastructure as Code

Automating through code the configuration and provisioning of resources, so that human error is reduced, time is saved, and every step is fully documented.

Resource Management

Organizing, naming, and setting quotas of cloud resources in order to ensure a structured, consistent, and controlled environment.

Continuous Integration and Delivery (CI/CD)

Automating changes to the system through a CI/CD process pipeline, so that all changes can be tested, audited, and deployed with minimal interruption.

Architecture

Providing best practice recommendations and a forward-looking view of the appropriate cloud compute and storage choices.

Secure

Data Management

Understanding and managing what data is being stored, where it originates from, how sensitive it is, and who is accessing it — for the purpose of keeping data safe, discoverable, and useful.

Access Management

Ensuring that only the right people and services are authorized to perform the right actions on the right resources.

Identity Management

Reliably authenticating users' or services' identity and guarding against loss of credentials and attempts at impersonation.

Networking

Connecting and protecting services and the flow of data between them via logical boundaries, regardless of a service's identity or permissions.