



Best Practices for Developing and Growing a Cloud-Enabled Workforce

<http://www.cloud-council.org/deliverables/best-practices-for-developing-and-growing-a-cloud-enabled-workforce.htm>

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Speakers



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The Cloud Standards Customer Council

THE Customer's Voice for Cloud Standards!



- Provide customer-led guidance to multiple cloud standards-defining bodies
- Establishing criteria for open standards-based cloud computing

2018 Projects

- Migrating Apps to Public Cloud Services: Roadmap for Success v2.0
- **Best Practices for Developing and Growing a Cloud-Enabled Workforce**
- Practical Guide to Cloud Service Agreements v3.0
- Practical Guide to Cloud Management Platforms v2.0

2017 Deliverables

- Cloud Customer Architecture for Hybrid Integration
- Impact of Cloud Computing on Healthcare v2.0
- Cloud Customer Architecture for API Management
- Data Residency Challenges
- Cloud Customer Architecture for Blockchain
- Cloud Customer Architecture for Big Data and Analytics v2.0
- Hybrid Cloud Considerations for Big Data and Analytics
- Practical Guide to Cloud Management Platforms
- Practical Guide to Cloud Computing v3.0
- Interoperability and Portability for Cloud Computing: A Guide v2.0
- Security for Cloud Computing: 10 Steps to Ensure Success v3.0

750+ Organizations participating



<http://cloud-council.org>



Best Practices for Developing and Growing a Cloud-Enabled Workforce



A practical reference to assist enterprise Information Technology (IT) managers and business decision makers on best practices for developing and growing a “cloud-enabled” next generation IT workforce.

The Case for a Skilled Cloud-Enabled Workforce

Leveraging the power of Cloud Computing within your enterprise

A Strategic Framework for Meeting Today’s and Tomorrow’s Skill Needs

A path to ensure that an enterprise can attract, develop and retain talent using innovative learning experiences and career certification paths

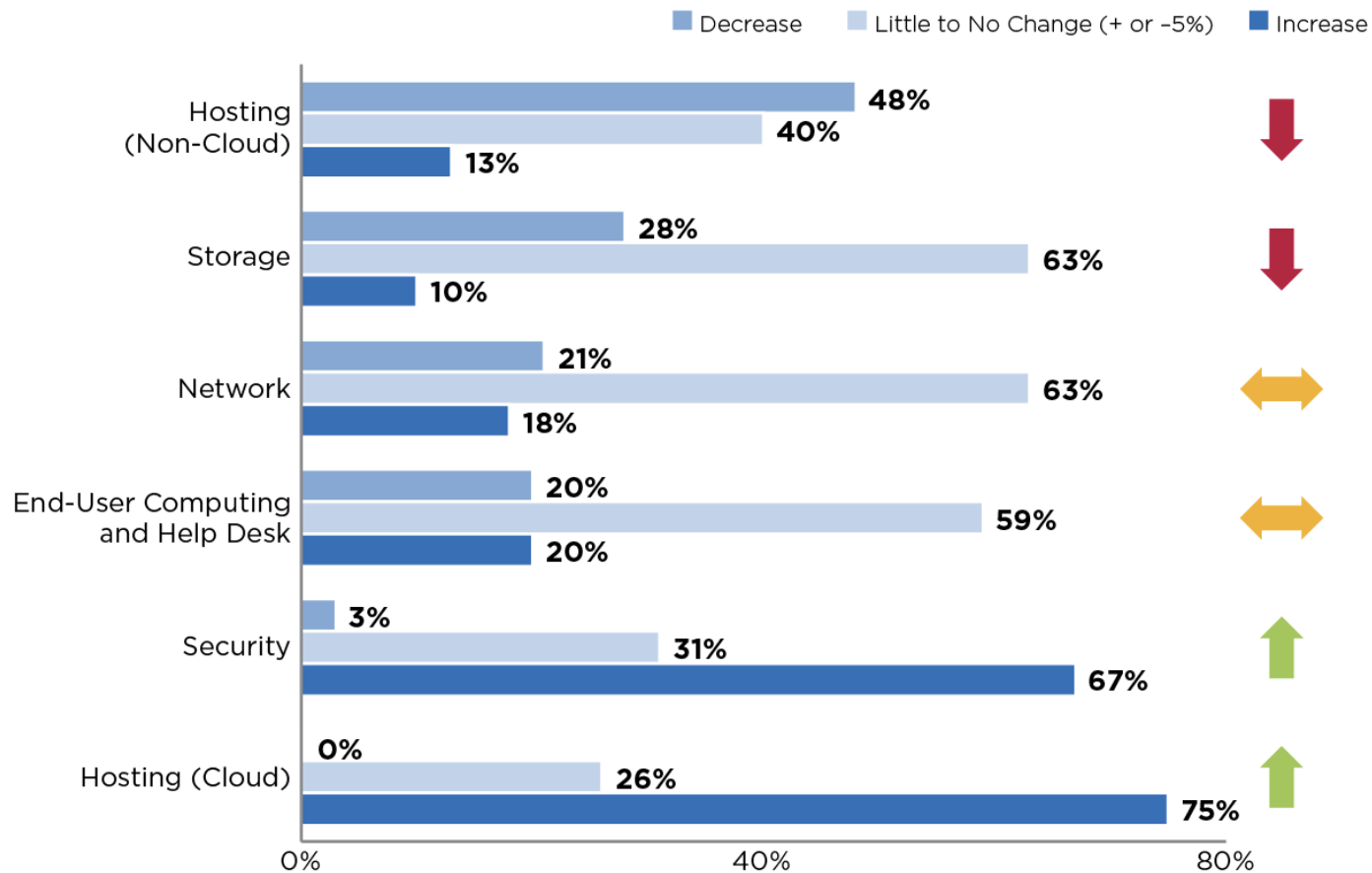
Best Practices for Cloud Skills Training, Employee Development and Career Growth

Specific best practices and employee development activities to ensure that your organization maintains its competitive edge

Summary, Appendices, References

The Case for a Skilled Cloud-Enabled Workforce

Infrastructure Head Count Changes



n = 40.

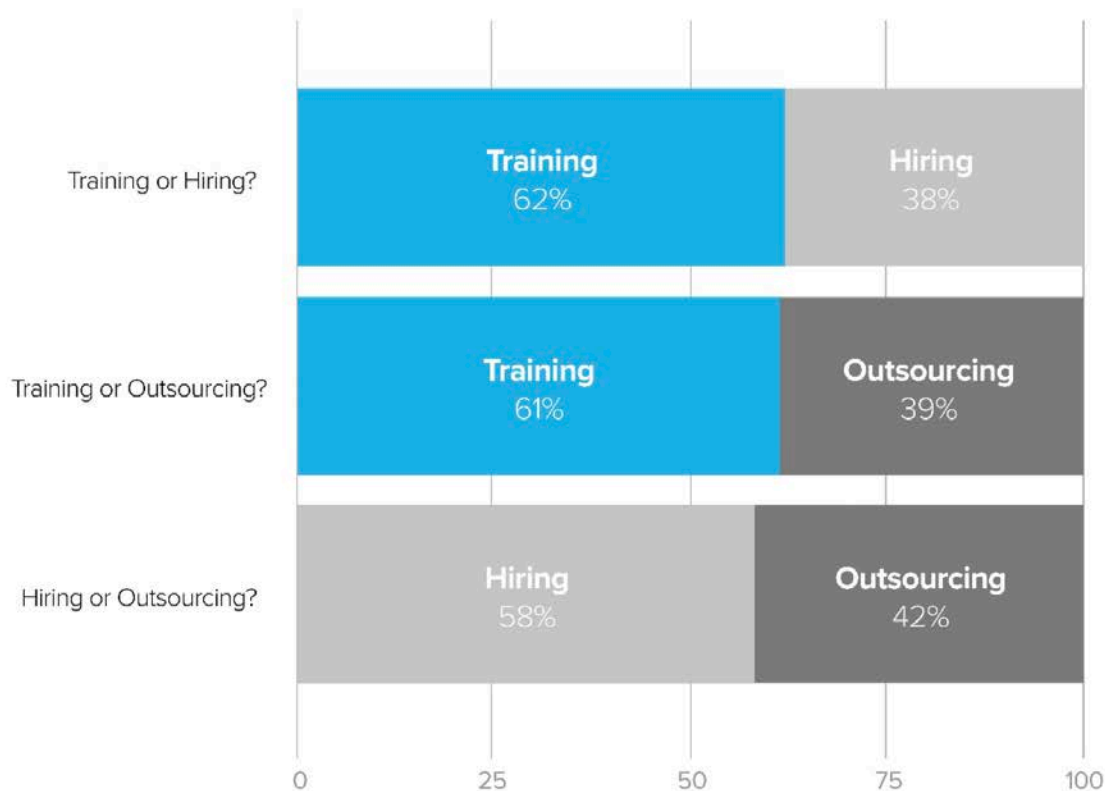
Source: CEB 2018 Infrastructure Outlook Survey.

IEC180360

The Case for a Skilled Cloud-Enabled Workforce

Cloud Developer Skill Acquisition Focus

To meet our company's developer skills need, we putting more emphasis on:



n=845

CLOUDFOUNDRY

Source: 2016 Cloud Foundry and ClearPath Strategies Global Perceptions study

Benefits and Characteristics of Cloud Computing

Benefits of Cloud Computing [1]

1. *Achieving economies of scale*
2. *Reduce CapEx by moving to OpEx*
3. *Improve access*
4. *Implement agile development at low cost*
5. *Leverage global workforce*
6. *Gain access to advanced capabilities*

Characteristics of Cloud Computing [2]

1. *Broad network access*
2. *Measured service*
3. *Multi-tenancy*
4. *On-demand self-service*
5. *Rapid elasticity and scalability*
6. *Resource pooling*

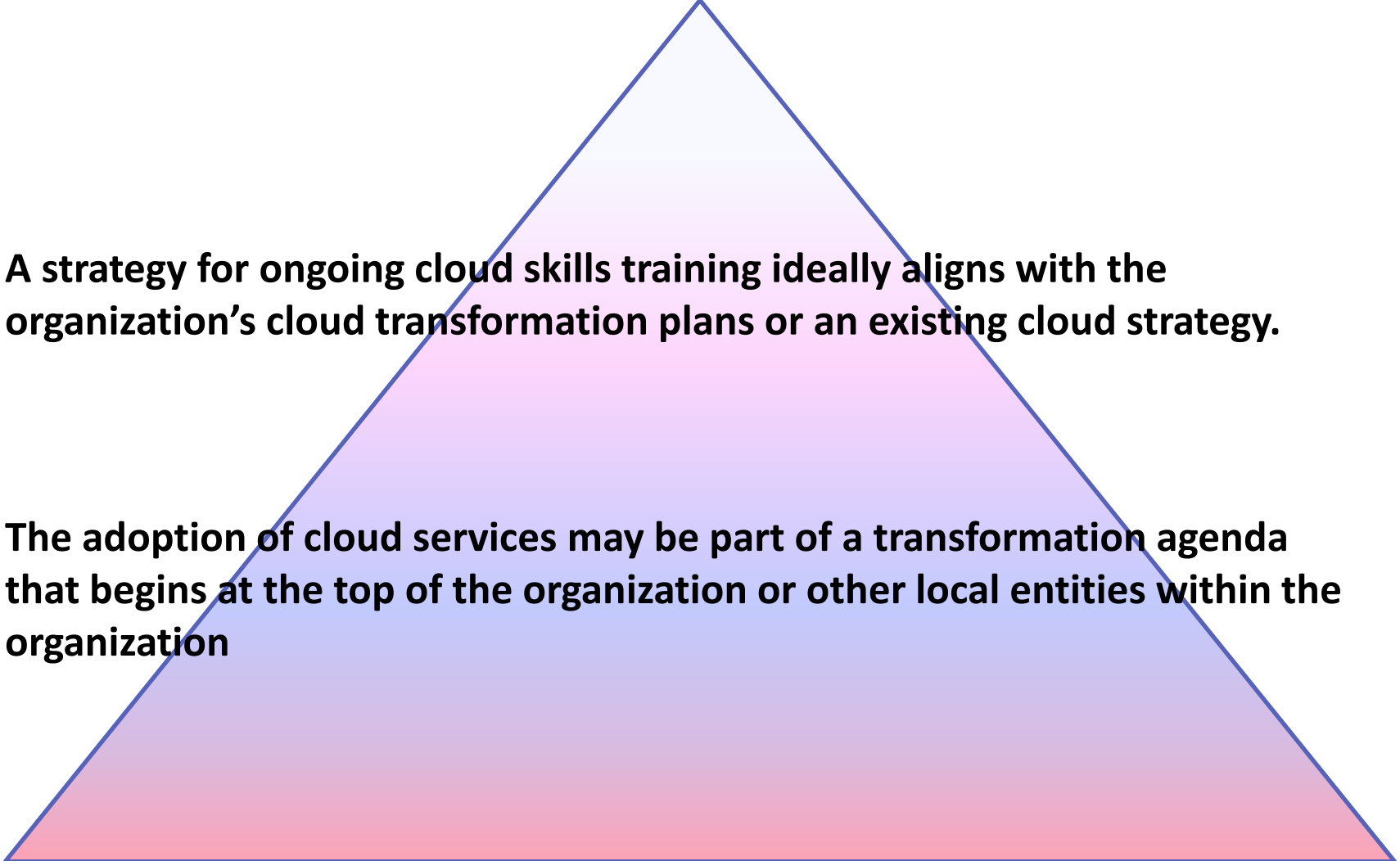
[1] Cloud Standards Customer Council: Practical Guide to Cloud Computing, v3.0. December, 2017.

<http://www.cloud-council.org/deliverables/practical-guide-to-cloud-computing.htm>

[2] NIST: NIST Special Publication 800-145, The NIST Definition of Cloud Computing. September 2011.

<https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-145.pdf>

A Strategic Framework for Meeting Today's and Tomorrow's Skill Needs



A strategy for ongoing cloud skills training ideally aligns with the organization's cloud transformation plans or an existing cloud strategy.

The adoption of cloud services may be part of a transformation agenda that begins at the top of the organization or other local entities within the organization

Step 1/6: Understand the Existing culture

If an organization wants to adopt cloud computing as a strategy, it is paramount to view it under the fabric of its current culture

- *Ease of changing IT processes*
- *Ease of changing the financial model*
- *Ease of changing organizational structure*
- *Maturity of automation*
- *Maturity on IT security aspects*
- *Maturity and cloud understanding at the leadership level*



Step 2/6: Understand the Skills and Processes that are Needed

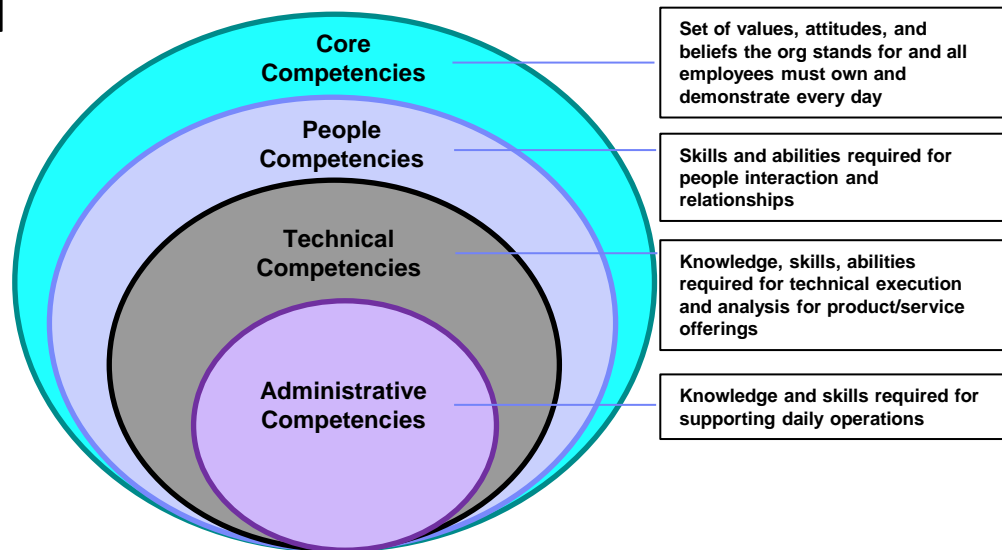
Organizations are better off if they can attain a proactive approach to identifying necessary skills and encouraging exploration by their technical teams. This would mean breaking certain legacy barriers and mentality

Non-IT skills that may be required

- *Acquisitions*
- *Contract management*
- *Business process change*
- *Accounting*

Other Domain Knowledge

- *DevSecOps*
- *Secure operations*
- *IT Frameworks*
- *IT Governance*



Step 3/6: Understand the Existing skill and process gaps

Next step is to examine the skills that the organization has on-hand and where gaps exist.

Assessing skills

- *Can their existing skills be leveraged?*
- *Is there an opportunity or desire for retraining?*
- *What skills are entirely missing?*
- *What skills exist, but are insufficient for the expected demand?*

New Considerations

- *It's a brand new world! You are now a cloud consumer! Your portfolio is hosted by someone else*
- *Process and Process management skills*
- *New procedures and practices are needed*



Step 4/6: Understand What is Needed to Remediate and Close Gaps

Remediation planning

Once a complete examination of the skills and process gap is done, a plan can be devised to remediate the gaps.

Some aspects of the plan become self-evident based on the data.

- *List of personnel that can be more effectively utilized by providing additional training*
- *List of skills that need to be hired*
- *Reorganization possibilities*

Once the data is fully analyzed, you will have a handle on the “What” of the outcome. Once you know the “What” you can focus on the “How”!



Step 5/6: Develop and Execute Plan for Remediation

Develop a Strategy for Remediation

- *Better ways to provide on-the-job experience, such as internships*
- *Better ways to provide intense job training, such as apprenticeships*
- *Early student exposure to careers in IT*
- *Certifications and credentials to validate skills and knowledge*
- *Better assessments and methods for evaluating the skills of job candidates*

Create and then Execute the Remediation plan

Successful execution of a remediation plan will likely include parallel paths including:

- *Quickly training or hiring resources to meet an immediate project need*
- *Putting together a sustainable plan to ensure staff maintain/upgrade skills on an ongoing basis*
- *Assuring a stream of available new hires with up-to-date technical skills*

Step 6/6: Prepare to Embrace Change

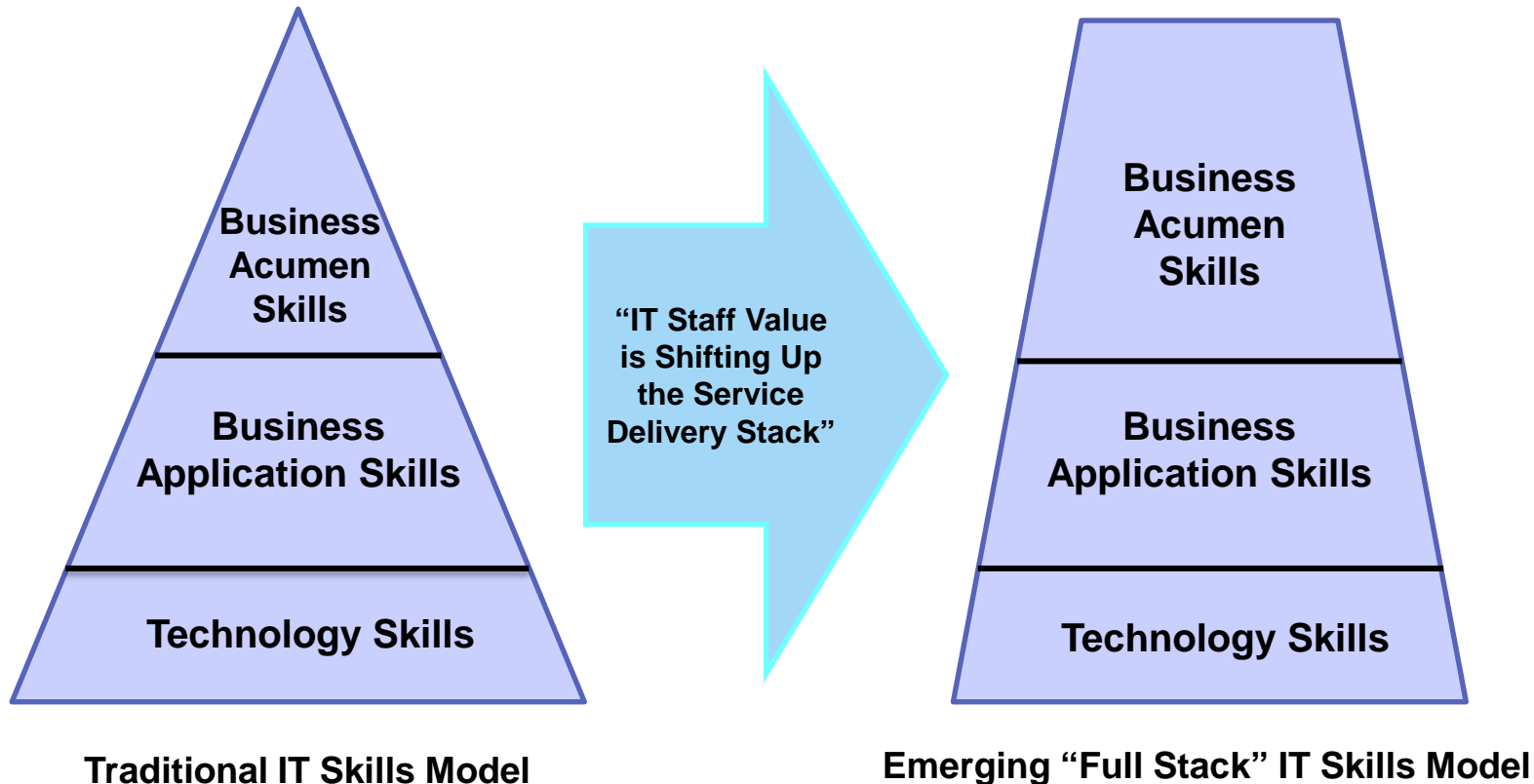
What is more important than a single, big win is a consistent, intentional program to communicate, celebrate, sustain, and embrace the habits of ongoing skills training:

- *Consistent learning metrics*
- *Ongoing review of up and coming technologies*
- *Align new skill adoption to business success*
- *Regular communications to participants in programs and to the organization at large*
- *Consistent ways of recognizing and rewarding learning*
- *Recruitment of long time employees into skill upgrade programs*
- *Set expectations during new employee on-boarding*



Best Practices for Cloud Skills Training, Employee Development and Career Growth

Recognize the transformative impact and embrace change



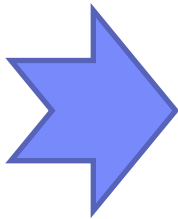
Shaping the role of IT to help guide an organization to become smart consumers of this new service-based technology environment

Best Practices for Cloud Skills Training, Employee Development and Career Growth

Share ownership for rolling out new learning and development programs

Goals & Skills
Development
Objectives

Skills Needs



Budget &
Schedule
Constraints

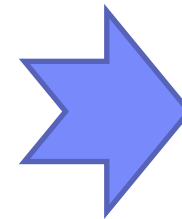


Think Time Events

Target IT Staff Size

*Let your IT team take a key role in crafting
a cloud education & training program*

OJT
Training Pipelines
Self-Paced Online Courses



Curriculum &
Training Plan
Aligned to your
Cloud Deployment
Plans

Lunch-and-Learn
Vendor Training

Certification Training
Mentoring

Leverage the wide range of knowledge sharing tools already in existence

General Purpose Platform Knowledge

- Cloud service provider virtual or instructor-led training
- Third party training resources (e.g. business partners or training consultants affiliated with your cloud service provider or platform provider)
- Massive Open Online Courses (MOOCs) that offer free or low-cost cloud-specific training
- Cloud Certification Provider Education aligned to your service or platform
- Online webinars and YouTube™ instructional videos on specific cloud technology/topics

Enterprise-Specific Platform Knowledge

- Your existing skilled workforce building your cloud service catalogs, service deployment templates and defining your organization-specific processes and procedures

Survey existing resources to see what “out of the box” training content can apply to your program and establish customizations that may be specific to your defined operational processes and target environment

Best Practices for Cloud Skills Training, Employee Development and Career Growth

Recognize the accomplishments of those who take control of their career development



Spot Awards

Mentoring

Knowledge Transfer

Stretch/Leadership Assignments

Integrate these learning and knowledge-sharing objectives into the performance objectives of your key staff so success can be measured and recognized

Best Practices for Cloud Skills Training, Employee Development and Career Growth

Survey of Available Cloud Training and Certification Programs

Offering	Program Type	Website URL
A Cloud Guru	Training and Certification Prep	https://acloud.guru
AWS Training and Certification	Training and Certification Prep	https://aws.amazon.com/training/
Azure Training and Certification	Training and Certification Prep	https://www.microsoft.com/en-us/learning/azure-training-certification.aspx
Cisco CCNA Cloud Training	Training and Certification Prep	https://www.cisco.com/c/en/us/training-events/training-certifications/certifications/associate/cna-cloud.html
Cloud Academy	Training and Certification Prep	https://cloudacademy.com/product/courses

More programs in the paper: <http://www.cloud-council.org/deliverables/best-practices-for-developing-and-growing-a-cloud-enabled-workforce.htm>

Summary of Keys to Success

- The transition to Cloud (and its related technologies) is part of an on-going technology generation shift in IT that creates new growth opportunities for every member of the IT team.
- Shape the role of IT to help introduce new technologies into the business as a growth and efficiency enabler.
- Leverage existing training resources for general knowledge development and “customize” where applicable to your specific organization’s needs.
- Cloud Enablement is a journey and not a “once and done” activity. Make continual learning a part of every job and ensure that it is part of the yearly objective of each staff member.

Call to Action



▪ *Join the CSCC Now!*

- To have an impact on customer use case based standards requirements
- To learn about all Cloud Standards within one organization
- To help define the CSCC's future roadmap
- Membership is free & easy: www.cloud-council.org/become-a-member

▪ *Get Involved!*

- Join one or more of the CSCC Working Groups
<http://www.cloud-council.org/workinggroups>

▪ *Leverage CSCC Collateral*

- Visit <http://www.cloud-council.org/resource-hub>

Some Additional Resources



- ***Practical Guide to Cloud Computing Version 3.0***

<http://www.cloud-council.org/deliverables/practical-guide-to-cloud-computing.htm>

- ***Migrating Applications to the Cloud: Roadmap for Success Version 2.0***

<http://www.cloud-council.org/deliverables/migrating-applications-to-public-cloud-services-roadmap-for-success.htm>

- ***Practical Guide to Cloud Service Agreements Version 2.0***

<http://www.cloud-council.org/deliverables/practical-guide-to-cloud-service-agreements.htm>

- ***Security for Cloud Computing: 10 Steps to Ensure Success Version 3.0***

<http://www.cloud-council.org/deliverables/security-for-cloud-computing-10-steps-to-ensure-success.htm>

- ***Practical Guide to Cloud Management Platforms***

<http://www.cloud-council.org/deliverables/practical-guide-to-cloud-management-platforms.htm>

The background is a solid blue color with a complex, repeating pattern of overlapping geometric shapes. These shapes include circles, squares, and semi-circles, some of which are filled with lighter shades of blue, creating a layered, mosaic-like effect. The overall aesthetic is modern and clean.

Thank You