

Cloud and Virtualization Essentials

(2-day course delivered online)

Description:

Cloud computing isn't about technology. It encompasses new business models and new economic models that deliver exceptional value in just about any marketplace or industry. As a business model, it uses digital commerce to drive both virtual and physical assets. In doing so, business agility and flexibility becomes as simple as a few keystrokes. It also provides the ability to deliver services and goods to any unique customer set, even a set with a population of one. In the economic realm, this approach virtually eliminates the need for business capital while simultaneously ensuring that every business expenditure can have an associated paying customer. Companies leveraging this business revolution include Uber, Amazon Web Services, Pandora and Air BNB.

Textbook:

Architecting Cloud Computing Solutions (Kevin L. Jackson & Scott Goessling), Packt Publishing (<https://www.amazon.com/Architecting-Cloud-Computing-Solutions-Jackson/dp/178847242X>)

Goals:

- Obtain a basic understanding of virtualization and cloud computing.
- Understand computer virtualization, network virtualization and application virtualization
- Understand cloud computing key characteristics, service models, deployment models, and implementation options
- Be familiar with required cloud migration domain transitions and associated cultural change management requirements
- Be familiar with how to evaluate and select an appropriate cloud service provider
- Be familiar with how to build a cloud transition business case

Objectives

Cloud and Virtualization Essentials provides the student an understandable and mission and business applicable understand of cloud computing and the underlying technology services. It teaches how to balance mission/business model design, economic model design and technology service selection to address an organizational goal and deliver value to their customers. It also indoctrinates students on how to evaluate a cloud service provider and service level agreements, both of which are critical to business or mission model execution.

Course of Study

Day 1

- Cloud computing history
- Cloud computing definition
- Virtualization and foundational technology services
- Cloud service models
- Cloud Deployment Models
- Cloud Implementation Options
- Developing a cloud computing strategy
- Building a cloud ecosystem
- Change management and cloud computing
- Architecting for Cloud Computing

Day 2

- Cloud service provider economic model
- Cloud data security and privacy
- Cloud computing threats
- Cloud risk management
- Key performance indicators
- Obtaining ROI when using cloud computing
- Evaluating Cloud Service Providers
- Evaluating Service Level Agreements
- Developing cloud-based business/mission models

Kevin L. Jackson

Instructor

Kevin L. Jackson is a globally recognized cloud computing thought leader and author, named a “Top 100 Cloud Computing Influencer and Brand” (Onalytica 2017) and Top US Federal IT Blog (FedTech Magazine 2016). In May 2018 he was awarded an Information Security Leadership Award for his work in the US Federal Government Sector by the President, International Information Systems Security Certification Consortium. Publications include *GovCloud: Cloud Computing for the Business of Government*, *Practical Cloud Security: A Cross-Industry View*, and *Architecting Cloud Computing Solutions*. His blog posts are sponsored by globally recognized firms, including recent collaborations with Cisco, Microsoft and IBM. He also hosted a series of podcasts for Intel Corporation.



Professional certifications include:

- Certified Cloud Security Professional (CCSP) - (ISC)2 License #521762
- AWS Certified Solutions Architect – License AWS-ASA-20726
- Professional Cloud Solutions Architect - Cloud Credential Council, License PCSA141001
- Executive FedRAMP Credential - Cloud Credential Council, License EFC141001
- Certificate of Cloud Security Knowledge - Cloud Security Alliance, License 993683001566
- Certified CloudMASTER - National Cloud Technologists Association

Kevin has been deeply involved in the broad collaborative effort between industry and the U.S. National Institute of Standards and Technology on the broad adoption of cloud computing technologies. He has been certified as an instructor by the International Information System Security Certification Consortium, National Cloud Technologist Association and the Cloud Credential Council. Mr. Jackson developed and delivered both half-day executive training seminars and four-day cloud computing training classes to multiple US Army Commands in the US, Europe and Korea. His formal education includes a MS Computer Engineering from Naval Postgraduate School; MA National Security & Strategic Studies from Naval War College; and a BS Aerospace Engineering from the United States Naval Academy.