CloudCenter™ with Cisco ACI
Experience the Full Power of Software Defined Networking

CliQr CloudCenter™ is the leading application-centric cloud management platform that makes it easy to deploy and manage applications in datacenter, private, and public cloud environments. With CliQr CloudCenter and Cisco® Application Centric Infrastructure (Cisco ACI™) together, users get fully automated self-service deployment of existing and new applications, with micro-segmented network security that supports both single site and multi-site stretched fabric configurations.

Application Centric Infrastructure with Application Centric Management

Software defined networking is revolutionizing datacenter management. Orchestrated control of network resources through an API enable highly programmatic and policy-driven automation that delivers unprecedented levels of speed, efficiency, and security.

Cisco ACI is the world's leading Software Defined Network (SDN) solution. It can create and configure network and communication policies to fit the unique needs of each application—dynamically and on demand. However, to experience the full power and value of SDN, you need an automated management layer to call its northbound APIs.

CliQr CloudCenter is an application-centric management layer that works seamlessly with Cisco ACI:

Automated deployment: Users get self-service on demand deployment and management of new or existing applications with fully integrated ACI network policy and configuration.

Click to use: Gain the security and efficiency of network micro-segmentation without modifying application code, writing cloud specific scripts, or having special network expertise.

Full Stack: Fully automated infrastructure provisioning, application tier deployment, and comprehensive network policy configuration – all modeled with CloudCenter's unique Application Profile technology.

A Powerful Combination

Agility: Deploy new or existing applications in minutes with end-to-end infrastructure, application, and network automation – all based on the needs of the application.

Security: Apply network isolation and white-list policy with granular control at either application or individual tier levels, for both single site and stretched ACI fabric configurations.

Efficiency: Capture infrastructure and application deployment and management requirements in a single converged blueprint called an Application Profile. There is no need for environment specific scripting, or separate infrastructure and application automation tools.

Performance: Optimize network traffic to improve performance based on application priority e.g. production workload prioritized over development.

Seamless Integration: CloudCenter automatically creates ACI policy objects and calls northbound APIs. There are no plugins to install or coding changes required.

Automated and Secure Application Deployment

CliQr CloudCenter and Cisco ACI support three primary use cases:

Securely deploy N-tier application: Users can self-service deploy an N-tier application with automated network placement driven by application requirements that map to white listed segments. Users don't need any knowledge about SDN technology, or underlying network configuration and policies.

Deploy across stretched ACI fabric: Users can choose to deploy different application tiers to different sites, or to different pods at one site. Placement decisions can be guided by CloudCenter tagging and rules engine. For example, a HIPPA compliant application can be tagged so users can only choose an ACI managed datacenter for the database tier.

Migrate applications to ACI environments: Users can take applications from public clouds or non-ACI environments, and deploy to a more secure ACI managed datacenter. The joint solution fully automates creation of relevant ACI policy objects and application migration.

Working Together

CloudCenter and ACI work together in a seamless workflow without installing plugins, without creating environment specific scripting, and without modifying any application code.

1. **Model Application Profile**—A service manager can use the CloudCenter graphical modeling tools to create a cloud agnostic Application Profile and then share with specific users or publish to a marketplace.

2. **Deploy Application**—Role and user-based access controls, paired with tag based governance, help users choose appropriate ACI environments.

3. **Create and Deploy APIC Policy Objects**—If a user chooses an environment that is part of an ACI fabric, CloudCenter automates creation of the appropriate policy objects and calls APIC northbound REST API to create networks specifically for the application.

4. **Provision Infrastructure**—CloudCenter calls infrastructure APIs to provision compute, memory, and storage in the appropriate network segment.

5. **Deploy Application Tiers**—CloudCenter deploys all application components and sets port settings at application and tier levels.

6. **Ongoing management**—Both user and admins can review deployment progress to ensure proper configuration.

7. **Block East-West Traffic**—If a tier is autoscaled, CloudCenter updates ACI contract policies to block East-West traffic and confine breaches to a single machine if compromised.

8. **End-of-life**—Infrastructure and network policy objects are automatically deleted, preserving the integrity of the network as well as conserving infrastructure resources.
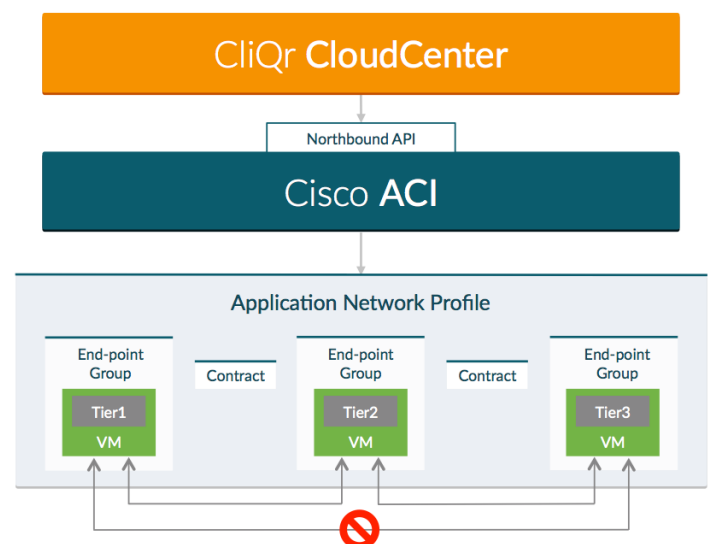
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