The challenge

The modern day data center is a complex environment. The distributed infrastructure comprises hundreds of infrastructure components, devices all designed to support thousands of applications empowering hundreds of thousands of devices. This explosion in scale poses a serious challenge for Enterprise IT to maintain speed and agility while delivering quality services to customers and employees. Further guaranteeing an optimum performing infrastructure amidst all of these varying factors needs a revolutionary approach.

The solution

Cisco Application Centric Infrastructure (Cisco ACI™) policy model abstracts all the underlying network infrastructure up to the business metrics. It empowers customers to manage a complex environment, thereby increasing operational efficiencies, delivering network automation, and improving security for any combination of on-premises data centers and public or private clouds, while focusing on business metrics.

Cherwell Service Management is a powerful, flexible IT Service Management (ITSM) tool that enables IT teams to implement, automate, and modernize service and support processes to meet new and evolving business needs.

The Cherwell ITSM solution for Cisco ACI provides an accurate map of IT infrastructure and definitions and their mapping to the enterprise’s business needs (Figure 1). With the ability to provision and configure Cisco ACI components through Cherwell, you can create, provision, configure, and decommission concerned Cisco ACI components, enabling enhanced support for change and incident management while improving overall service delivery.

With a service-aware infrastructure enabled by the Cherwell ITSM solution for Cisco ACI, IT administrators can proactively and swiftly respond to day-to-day problems, resulting in more agile and robust IT operations.
Cisco ACI and Cherwell Solution: Agile IT Operations with enhanced visibility and robust Incident Management | Solution overview

Use cases

Populating and enriching CMDB
Integrating Cherwell CSM with Cisco ACI provides a holistic view of IT infrastructure and its mapping to the business services. The joint solution runs discoveries to fetch data from the Cisco ACI application:

- Physical inventory tracking (fabric – switches, interfaces, modules, and power supplies)
- Application metadata (tenant, application profiles, EPG, etc.)
- Virtualized environment
- Health scores

In addition to inventory discovery, the Cisco ACI End Point Tracking feature provides Cherwell’s CMDB with the most comprehensive endpoint dynamic metadata, including lifecycle, location, and downtime. Cherwell’s CMDB stays up-to-date with changes in the Cisco ACI logical and physical configurations.

Service management
Cherwell’s search groups and linked records map relationships between CI’s entries and associated services that it fetches from the Cisco ACI application. Cherwell provides an intuitive graphical representation of all the physical and application metadata mapped to associated business services that are cued by changes in the Cisco ACI. This representation gives real-time visibility to the infrastructure, thus helping the IT Operations team to respond to any problems quickly and be more proactive. This innovative approach eliminates irrelevant data points and creates accurate service maps in minutes.
Configuration management

The integration allows you to manage (track, perform delta analysis, roll backward, and roll forward), provision, and decommission the Cisco ACI configuration right from the Cherwell instance. In addition, Cherwell monitors the configuration changes and other incidents in the Cisco ACI fabric and provides features to get email alerts, notifying all the stakeholders with timestamps.

While orchestrating Cisco ACI changes in coordination with service management requests, Cherwell’s One-Step Manager enables automated responses to a change or an event. Cisco ACI provides a single place to look, decreasing the risk of changes and decreasing Mean Time To Resolution (MTTR).

Benefits

The Cherwell and Cisco ACI integration provides these benefits:

- **Extensive automation**: Through automation provided by the Cisco ACI solution-enabled infrastructure, IT organizations could reclaim or retire applications, servers, storage, and networking resources. Further automation in the realm of change management, configuration management, and incident management results in additional operational agility and resource efficiencies in the popular data center and hybrid cloud environments such as Amazon Web Services (AWS), Microsoft Azure, or a private cloud.

- **Enhanced visibility**: Changes and incidents related to services and infrastructure, including change requests, infrastructure events, and service outages, cues updates in the CMDB and service maps. These updates allow the IT teams to analyze and remediate problems promptly.

- **Efficient IT operations**: Features around managing Cisco ACI configuration and associated services enable IT operations to be more agile, robust, and flexible. The IT administrators now have deeper and real-time visibility into their IT infrastructure, allowing them to manage the IT processes efficiently.

- **Better service agreements**: With deeper visibility into their IT infrastructure, with relation to the Cisco ACI network, IT administrators are in a better position to articulate realistic service agreements, leading to better satisfaction among stakeholders.

Conclusion

ITSM solutions help businesses automate IT and business processes, enabling enterprises to improve efficiency, reduce costs, and achieve greater cross-organizational collaboration. Integrating with Cisco ACI provides extensive automation, visibility, and change management capabilities.

The Cherwell ITSM solution for Cisco ACI creates a service-aware infrastructure that delivers a single pane of glass view of your entire data center, thus enabling robust and agile IT operations.

For more information visit, [www.cisco.com/go/dcecosystem](http://www.cisco.com/go/dcecosystem)