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Subject Area	Networks, Security & Cloud Infrastructure
Project Partner	Cisco Systems (Switzerland) GmbH

Multi Tenant Orchestrator für SD Netzwerk



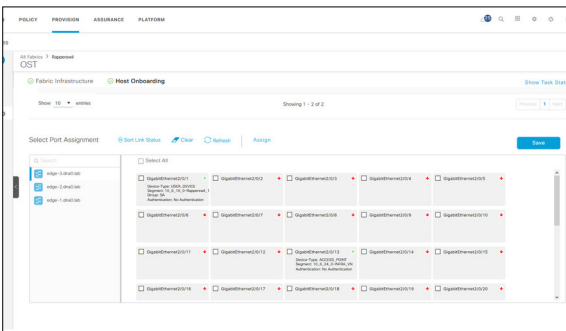
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Introduction: The Cisco Digital Network Architecture (DNA) offers a modern approach to campus networking by using an overlay based Software Defined Networking (SDN) technology. Thanks to an easy-to-use web platform, tasks like network troubleshooting and edge device port configuration are massively simplified. A growing collection of API features (Intent API) are available and opens up the platform for network automation and building customized tools.

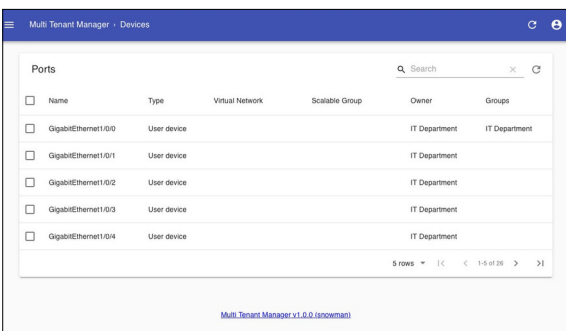
Initial Situation: A feature often requested by Cisco's customers is multi tenancy for the onboarding of new clients. This way, simple configurations of edge/host ports could be performed by operators without having to call a technical specialist for every port that requires configuration. Adding multitenancy can be interesting for organizations like for example a university that have multiple academic departments that wishes a certain autonomy to configure the ports of their switches. In the present situation, the only solution is allowing full access to the DNA Center Platform to the staff of each department. which is not satisfactory.

Result: In the scope of this thesis, a proof of concept of a web application has been built that allows access management to the specific ports that each department needs. The principle of least privilege allows each department only enough access to perform the required job. An administrator grants read and write access to groups and limits what

configuration objects, like specific IP pools, can be used by a specific group.



Host onboarding feature in DNA Center
Cisco DNA Center Platform



Multitenant Manager host onboarding feature
Own presentation