

Automating SD-WAN policy configuration with Transport Independent Site (TIS)



Overview

It's an amazing time in **enterprise networking**.

COVID-19 has triggered the importance of network transformation, forcing enterprises to alter their business, operating and engagement models. As a result, enterprises are looking to transform themselves and take advantage of new-age digital technologies to support mission-critical workloads and provide secure and seamless connectivity to a range of distributed endpoints while ensuring high-quality end-user experiences. And networks continue to be a key enabler for these digital technologies for enterprises.

The scope and the business model of enterprise networking has evolved. Earlier, organizations used to have WAN architectures tied to a traditional data center architecture. Now they run their applications on a variety of cloud—with requirements for higher bandwidths and lower latencies. And as network grows in scale, enabling zero-trust security becomes a harder challenge.

Traditional SD-WAN does not provide the level of agility, speed and capacity that enterprises need today. MPLS connections that enterprises have historically relied on are secure and effective, but costly. What's required is a

centralized and policy-based platform for dynamically managing application traffic across links to provide the agility and cost effectiveness that organizations desire.

This makes SD-WAN a very compelling solution to address most of the network challenges that enterprises are facing today. The current maturity and mainstream adoption of SD-WAN solutions make this technology truly enterprise-grade.

While SD-WAN is not a novel technology there are lot of exciting things about it, especially how the entire product is architected. One novel approach is to automate policy configuration, which creates benefits including improving end-user performance, dynamic path selection, effective load distribution and optimum utilization of WAN links.

This HCLTech brochure highlights how automated policy configuration via Transport Independent Site (TIS), powered by Cisco Viptela, ensures high levels of network performance, reduces time-per-task (TTK), and provides an enhanced end-user experience.

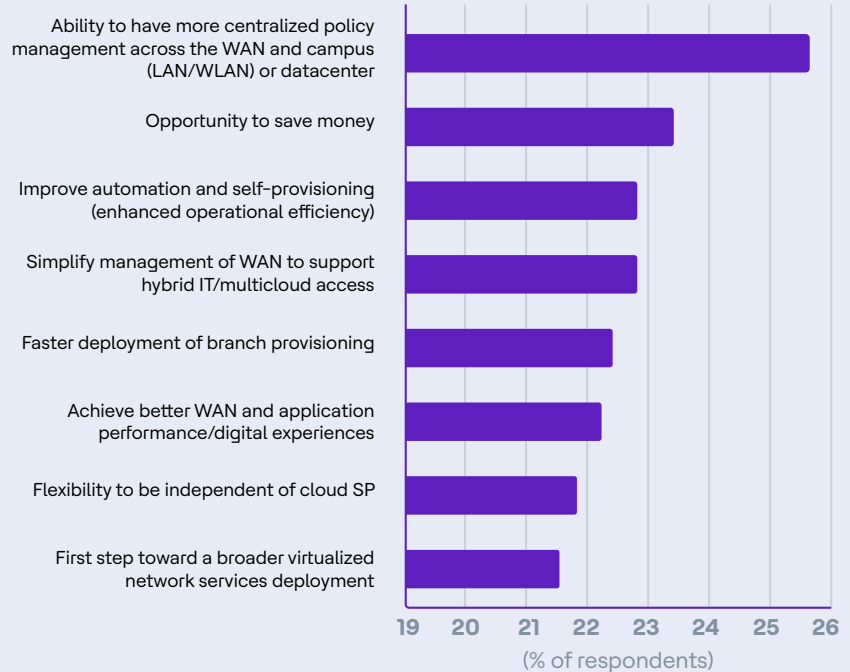


The case for automated policy configuration

Configuring traditional WANs in the past required tremendous effort from network teams. It involved many low-level rules to meet organizational requirements. But in the future, enterprise network will need to be tailored in such a way that it responds in accordance with protocols and rule sets laid out by company policies. Today, SD-WANs allow companies to translate complex and extensive policies to their architecture quickly and efficiently. The technology provides dynamic path selection based on business or application policy, centralized policy and management of appliances, virtual private network and zero-touch configuration. Additionally, it enables customers to set up secure regional zones and lets them securely direct that traffic to where it needs to go based on internal security policies.

Top motivations for SD-WAN deployments

Q What are the top motivations for considering an SD-WAN deployment (percentage of respondents selecting)?



n = 375

Note: Multiple responses were allowed.

Source: IDC's Global SD-WAN survey, June 2021

Source: IDC MarketScape: Worldwide SD-WAN Infrastructure 2021 Vendor Assessment



According to IDC's Global SD-WAN survey in June 2021, 'The ability to have more centralized policy management across the WAN and campus or data center' was the typically motivator for enterprise SD-WAN deployment.

Zero Touch configuration and network access policies are important concepts that address the challenges of managing next-generation enterprise networks and provide measurable benefits to network administrators. HCLTech's Transport Independent Site (TIS) feature fully automates these features to optimize network performance and end-user satisfaction.

Considering TIS for SD-WAN automated policy configuration

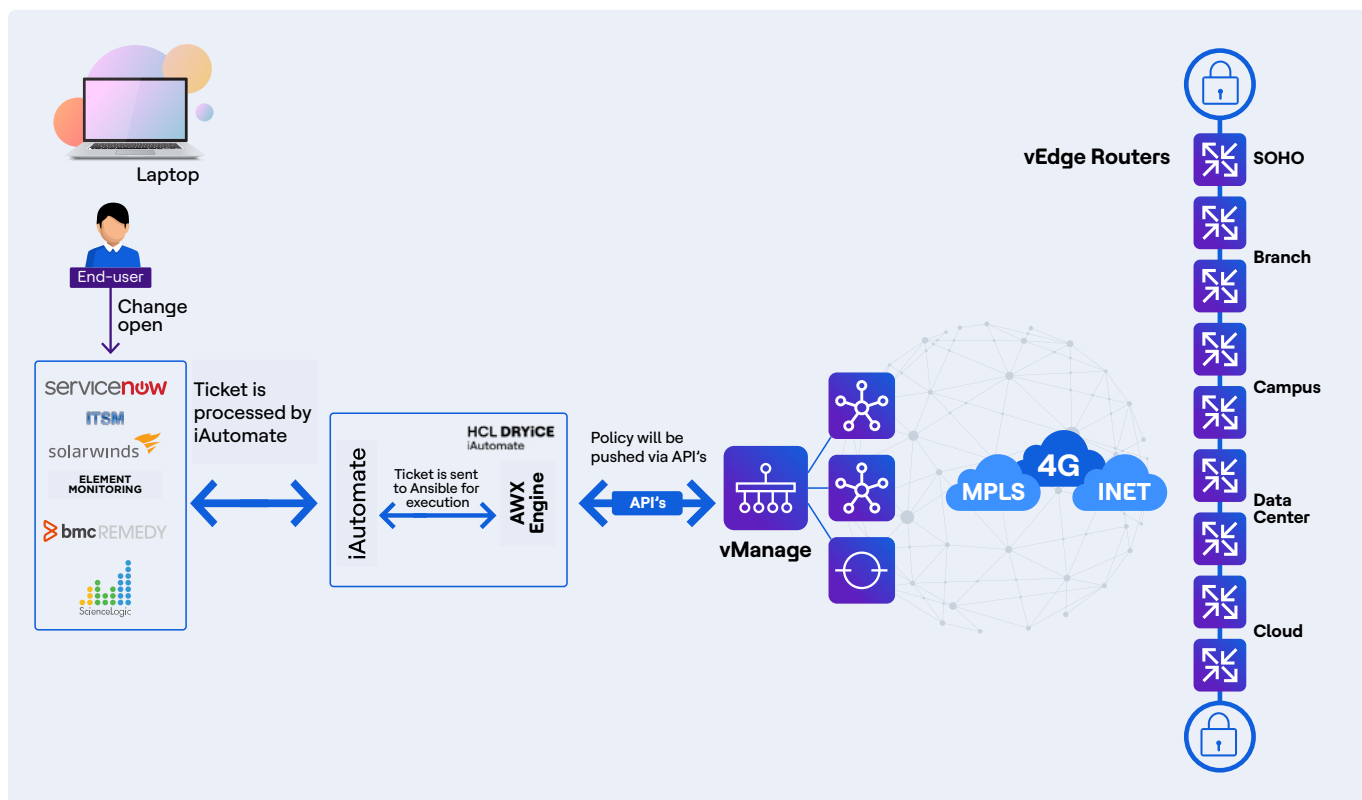
HCLTech's TIS (Transport Independent Site), an SD-WAN framework, helps enterprises dynamically route and intelligently connect their global WAN infrastructure and make it truly transport-agnostic. It offers unified management and orchestration of different sites and controllers across branch sites, on premises and on public cloud data center network environment.

TIS is also integrated with our DRYiCE NetBot, a network automation and orchestration platform, for end-to-end enterprise network lifecycle management, which auto-remediates, self-heals and makes your network self-aware.

To simplify SD-WAN policy configuration, HCLTech has developed a future-ready solution by integrating Cisco vManage, DRYiCE NetBot and ServiceNow. This solution enables enterprises to save time and resources, instead

of spending it in changing centralized policies. It helps them gain more visibility to track the changes through the ServiceNow tool where we can easily track all change requests related to policies change with respective vManage.

This service offering enables easy management of your network changes and even enable those users who are not experts of SD-WAN. It can be implemented through ServiceNow change request. As this is an automated solution, it's error-proof and saves time to implement changes. It also saves costs occurred by implementing changes in network. The platform acts as a centralized platform for policies changes where no direct access is required to end user who all are managing sites (IT manager).



SD-WAN policy configuration framework

HCLTech SD-WAN solution offering components

How does policy configuration work with TIS



The customer will open the change request from ServiceNow, and he will provide the required template as input for change.



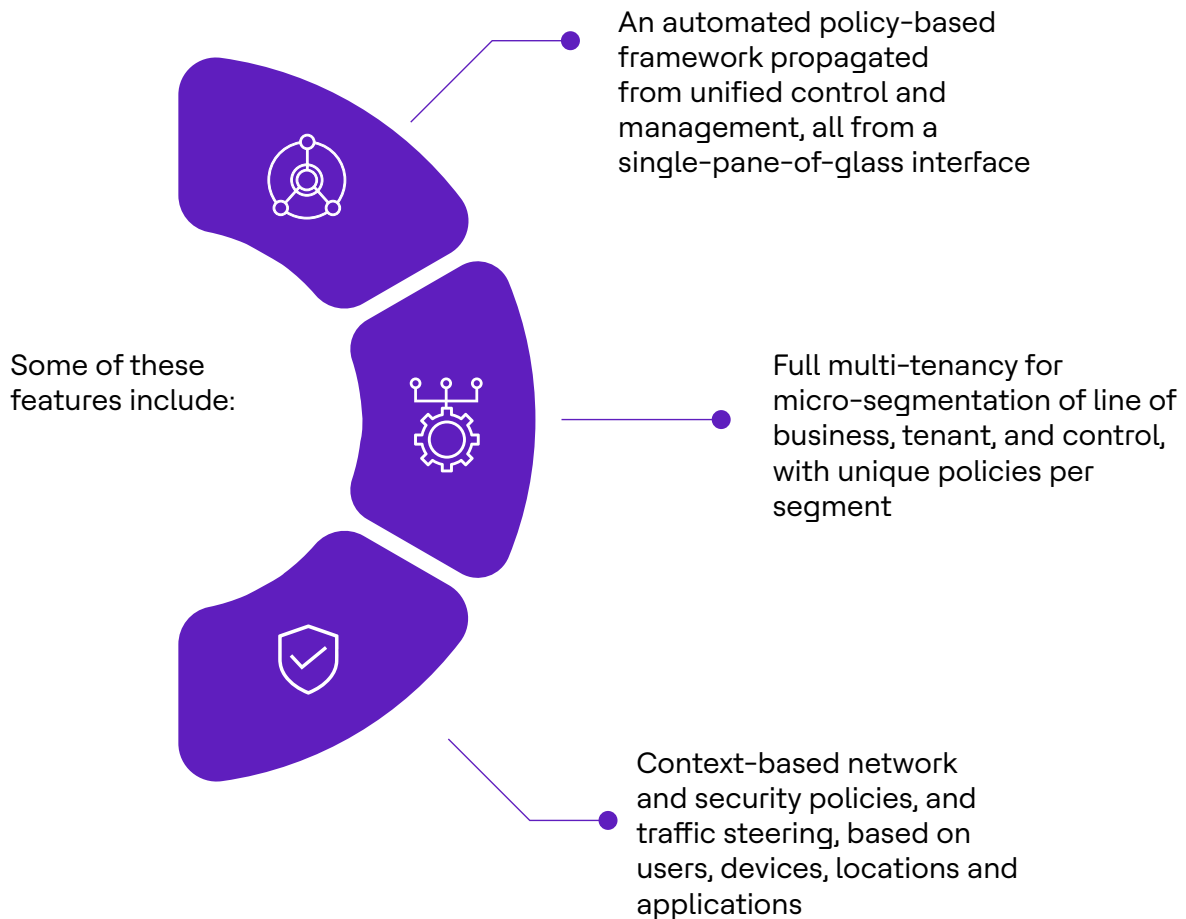
ServiceNow is integrated with DRYICE NetBot and once the change is validated it will create a task for DRYICE NetBot and place it in DRYICE NetBot queue.

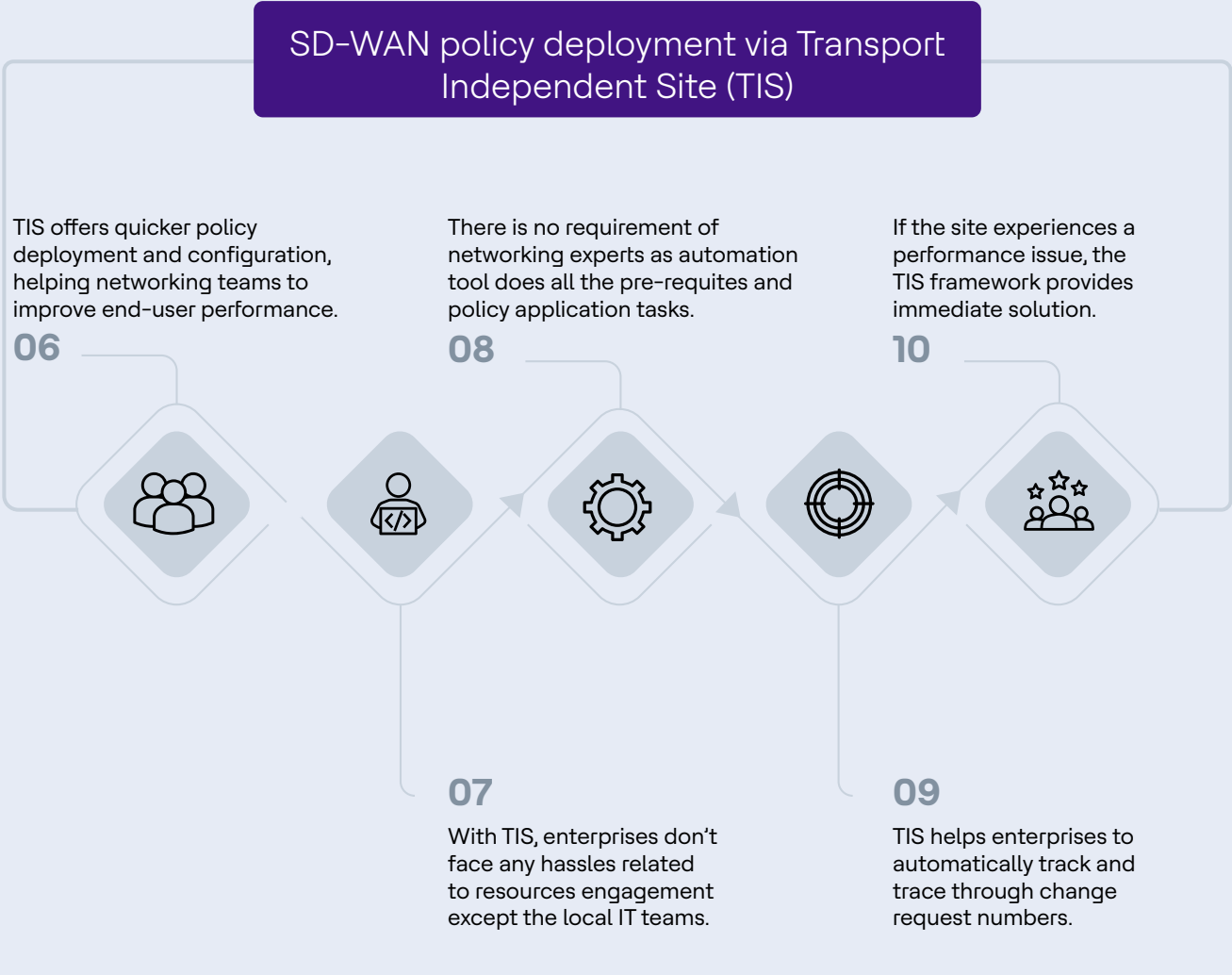
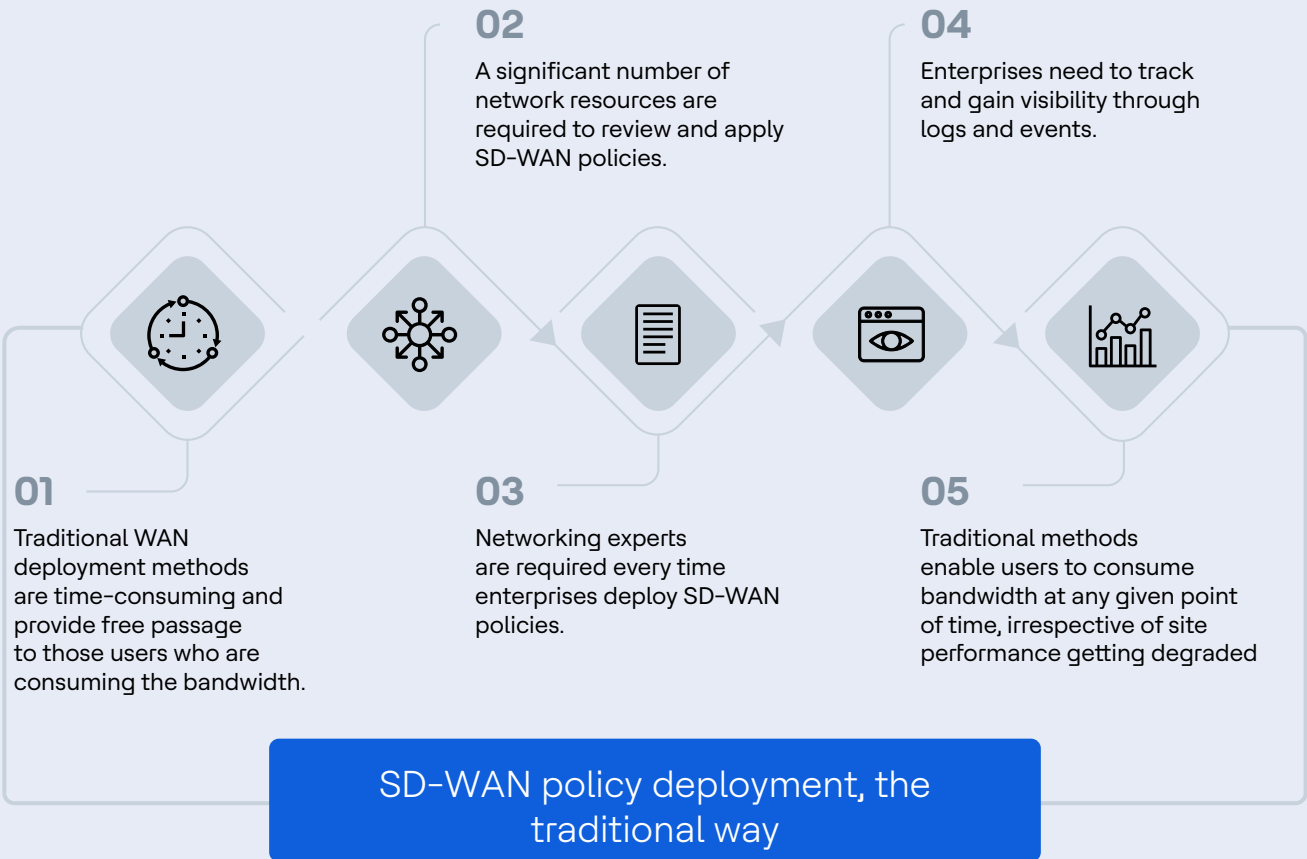


DRYICE NetBot scheduled a task to implement based on the date/time requested by the team in the change request.

On the scheduled time/date DRYICE NetBot tool converts the input template to the corresponding device configuration

Driven by application-based policies, HCLTech's TIS helps the WAN and branch dynamically adapt to ensure network uptime, application reliability and optimal user experience, while protecting your organization from threats and vulnerabilities.





Use case workflow: Automate policy provisioning with DRYiCE NetBot and Cisco Viptela

Leveraging our DRYiCE NetBot and Cisco Viptela, we've developed a few use cases on automated policy provisioning. Here's how the typical workflow with these use cases looks like:

01

The customer opens the change request from ServiceNow and provides the required template as input for change.

02

ServiceNow integrates with DRYiCE NetBot. And once the change is validated it creates a task for DRYiCE NetBot and places it in the DRYiCE NetBot queue.

03

The DRYiCE NetBot then schedules a task to implement, based on the date/time requested by the team in the change request.

04

On the scheduled time/date, the DRYiCE NetBot tool fetches the required details.

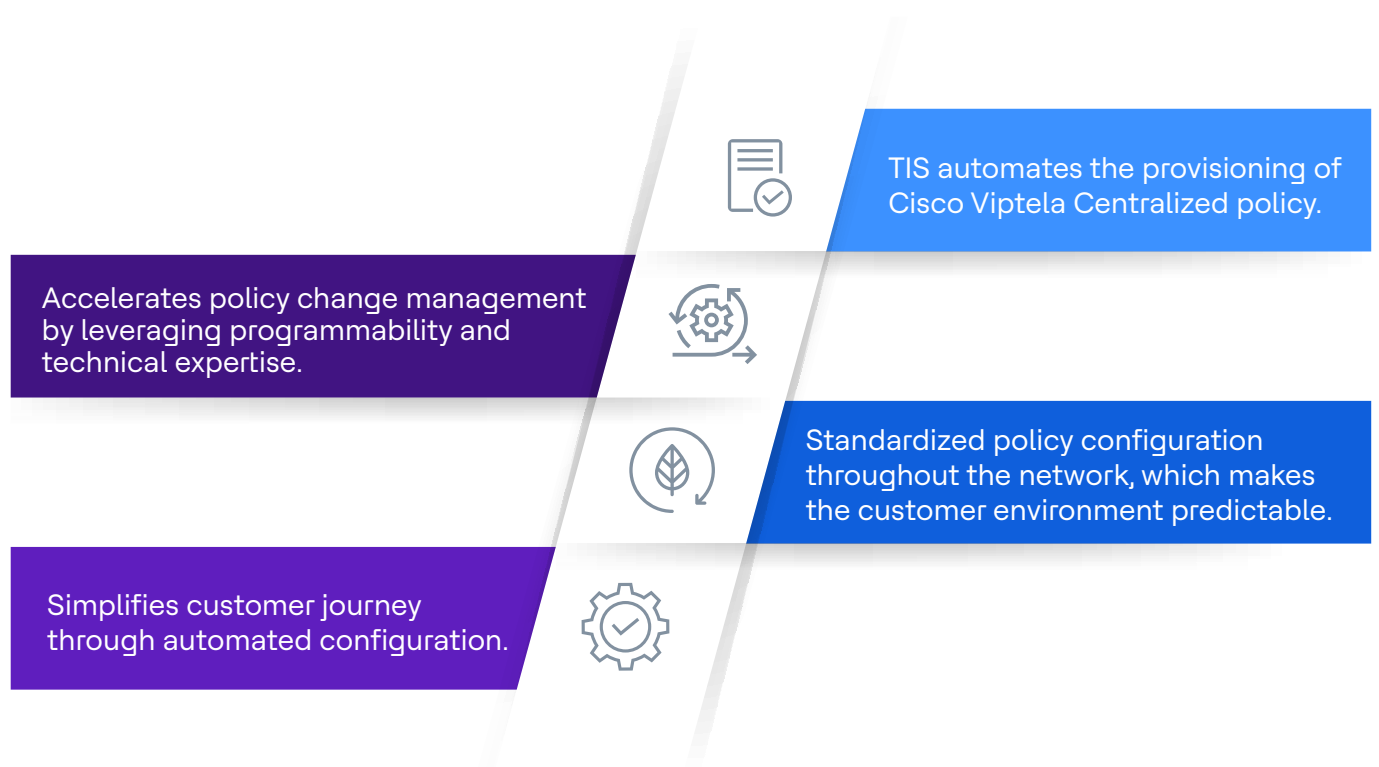
05

It creates its own requested lists (prefixes, applications) based on user inputs provided in ServiceNow.

06

Finally, DRYiCE NetBot prepares its own policy and inserts the requested policy into the existing centralized policy.

Benefits: Automate centralized policy editing



Why HCLTech



We are a Network Service Orchestrator (NSO)

HCLTech as a NSO offers a unique perspective, combining experience from different business streams cutting across enterprise network services, product engineering (OEM, NEP, Cloud, I4.0), and telecom network services. This places us in a pole position to embrace digital tech convergence from end user to the edge and cloud.



Leveraging ecosystems for breakthrough innovation

We harness systematically orchestrated ecosystems which empowers us not only to create special value for our clients today but innovate for the future. With a strategic focus on edge, HCLTech accelerates digital journey of our clients though leveraging existing partnerships with leading technology firms, along with cultivating a unique innovation ecosystem through niche startups.



A legacy of pioneering technology innovation

Leveraging our network of next-generation innovation labs, we foster innovation across new digital technologies to create unparalleled customer delight, and help customers with smart decision making across network transformation initiatives.



30+ years of experience in network transformation

- Early mover advantage drives innovation
- Unprecedented geographical scale
- \$10M invested in State-of-the-art labs, Network Experience Center, Noida, India
- 360 degree relationship cycle
- Touch points across formulating, realizing OEM roadmaps and productizing as HCLTech GTM strategy



Leadership across leading analyst network assessments

- 2021 **Gartner**® Magic Quadrant™ for Managed Network Services
- **Everest Group's** PEAK Matrix® Assessments on Network Transformation, Managed Service Providers and SD-WAN Services
- **Avasant's** SD WAN Managed Services 2021-22 RadarView™



Network services verticalization

As there is no one size fits all approach, our technology-agnostic services team supports business of all shapes and sizes. Our wide assortment of vertical use-cases are tailored to address individual customers' pain points, and help them with a flexible consumption model that fits their budget.

For more information, write to us at
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HCLTech | Supercharging Progress™

HCLTech is a global technology company, home to more than 223,400 people across 60 countries, delivering industry-leading capabilities centered around digital, engineering, cloud and AI, powered by a broad portfolio of technology services and products. We work with clients across all major verticals, providing industry solutions for Financial Services, Manufacturing, Life Sciences and Healthcare, Technology and Services, Telecom and Media, Retail and CPG, and Public Services. Consolidated revenues as of 12 months ending June 2023 totaled \$12.8 billion. To learn how we can supercharge progress for you, visit hcltech.com.

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