

CASE STUDY:



Unbeatable Scale and Speed

Godrej Transforms Network to SD-WAN



“Network related complaints have almost stopped. Since we have provided local internet breakouts in each location with adequate bandwidth at each location there are no bottlenecks. Also, the auto load balancing and QoS has ensured that all the critical applications have 100% uptime.”

Satyavrat Mishra,
AVP - Corporate IT at Godrej Industries

Godrej Industries - one of Godrej Group's holding companies has significant interests in consumer goods, real estate, agriculture, and gourmet retail through its subsidiary and associate companies, across 18 countries.

Widespread across various domains, Godrej Consumer Products is a leader in emerging FMCG markets, delighting and delivering consumers innovative and quality products at an affordable price.

Godrej Properties brings innovation and excellence to the real estate industry in India, delivering superior value through extraordinary and imaginative spaces created out of deep customer focus and insight. Godrej Agrovet is a diversified and research & development backed agri-business company, dedicated to addressing India's key agricultural crisis. Godrej's chemicals division ranks among India's leading manufacturers of oleochemicals and surfactants. The products are exported to over 80 countries in North and South America, Asia, Europe, Australia, and Africa.

About Godrej

The Role of IT at Godrej

IT today is the driving force behind all functions of a successful enterprise. The corporate IT team at Godrej is responsible for managing the shared IT services - encompassing public & private cloud infrastructure, end-user computing and cyber security - across all entities of Godrej Industries and its subsidiaries. The corporate IT (Infrastructure and Cyber Security) team is at the front end of Godrej facilitating business goals, and driving change at an organizational level.

Top Network Challenges

Lack of local internet breakouts at locations hindered bandwidth. IT was constantly challenged with keeping the network up. Critical SaaS applications were impacted in the absence of features like auto load balancing and QoS. This in turn resulted in poor user experience. Here are some of the top network challenges faced by the IT team prior to ScaleAOn™ SD-WAN.

Location Uptime

Location uptime was a challenge. Network performance at locations became inconsistent. Each location incurred heavy cost of downtime, burnouts, and slowness as the network failed to keep up.

Load Balancing

Before SD-WAN was deployed, the IT team leveraged source or destination based load balancing. A weak WAN-link redundancy acted as the catalyst for performance glitches, cyber attacks and generated other root causes of downtime.

Mean Time to Repair (MTTR)

Preventing brownouts and blackouts from occurring in the first place, took time as troubleshooting problems like outage or service degradation became a challenge, in the absence of network analytics.

Quality of Service

QoS was not possible, impacting uptime for critical SaaS applications. Poor network experience in turn resulted in poor user experience.

Network Visibility

Key network performance indicators were impacted as IT lacked visibility into insights e.g. aggregated bandwidth consumption, bandwidth usage per application, link state etc., made traffic visualization a hefty task. As a result, managing and monitoring network became a challenge. IT team had to spend more time trouble-shooting and re-configuring in order to ensure a smooth network. An important network metric like location uptime was estimated based on crude approximation - (since both the service provider routers were separate).

Barriers during Global Rollout Process

Extending enterprise WAN globally requires a policy-driven infrastructure. Traditionally, enterprise WANs were limited by MPLS. It did not allow the enterprise to leverage the Internet as a secure WAN. IT had to copy a physical network that relied on shared subnet addressing, point-to-point security, and so on. This architecture limited Godrej's ability to scale and mobilize WAN with agility across the globe while using cloud.

The Solution

The Search for SD-WAN

Satyavrat Mishra, AVP - Corporate IT at Godrej Industries knew, that SD-WAN was no longer one of the options but rather has become mainstream, and is a necessity to simplify the WAN network. Godrej looked at various options for more than 2 years. They explored other solutions like Velocloud, Versa and Meraki.

Meeting Requirement Criteria with ScaleAOn™ SD-WAN

After evaluating multiple SD-WAN solutions in the market, Godrej decided on Lavelle Networks ScaleAOn™ SD-WAN based on the following criteria.

 Speed of Deployment and Branch Uptime	<p>With ScaleAOn™ SD-WAN, deployments happen faster, showcasing the power of software-defined networking and virtualization. Enabled with Zero Touch Provisioning (ZTP), ScaleAOn™ ensures branches with 100 percent network uptime, an adequate bandwidth for better application performance, to fulfill unique requirements of branch offices in India and across the globe.</p>
 OPEX Model	<p>The pricing for SD-WAN services is more usage-centric, which comes with a very low initial setup cost compared to MPLS or other Direct Internet Access (DIA) services. This reduces the annual cost and makes it easier for IT to handle branches. An OPEX model with Lavelle Networks subscription packages suits many enterprises because of its low upfront cost.</p>

 <p>Support for all Network Protocols and links</p>	<p>By using commercially available broadband links and wireless 4G/LTE connections, ScaleAOn™ SD-WAN reduces cost in comparison to MPLS WAN links. Besides, the hybrid WAN architecture leverages a mix of different technologies allowing IT to meet different requirements for different locations/branch offices for different Godrej business units.</p>
 <p>Professional Services and Customer Experience</p>	<p>With ScaleAOn™ SD-WAN comes along bespoke 24/7 support from Lavelle Networks engineers. Lavelle customer experience team continues to receive high NPS on support, professional services and deployments. With customer delight as a mission, Godrej found Lavelle Networks support incomparable to any other.</p>
 <p>Unified Dashboard for all the links</p>	<p>CloudStation UI has consolidated dashboards for zero-touch deployments, configuration monitoring, troubleshooting and reporting performance (link states, bandwidth consumption, applications) and network health.</p>
 <p>Scalability</p>	<p>ScaleAOn™ SD-WAN ensures a high availability of bandwidth in the WAN. IT can add more sites and users based on specific requirements. Traditionally what was expensive during the MPLS era, is now lower in cost. Using dynamic bandwidth schemes, enterprises can scale tremendously and expand the enterprise WAN to cover more locations in a matter of minutes.</p>



Simplified QoS setup

Using dynamic methods, ScaleAOn™ SD-WAN offers a simple way to setup QoS and policies. This ensures to deliver the QoS levels that match over the internet and convert the business intent into actionable policies without complex configurations.



Seamless Load Balancing

ScaleAOn™ SD-WAN's flow based load balancing, combined with the ability to overlay a packet by packet load balancing depending on the nature and performance of all the WAN links at a branch, empowers IT to ensure adequate WAN capacity for all types of application traffic transiting the WAN.



Low Cost of Ownership

ScaleAOn™ SD-WAN reduces the total cost of ownership (TCO) adding more flexibility and agility to Godrej's business methodology.



Ease of Deployment

ScaleAOn™ SD-WAN creates an overlay on the existing WAN transport. Hence, there is very little new CAPEX for the physical network that the service provider can pass on to the customer. For enterprise customers, this is a significant bonus which dispenses with large upfront CAPEX expenditure, and gains visibility into the simpler installation requirements to accelerate lead times.

Deployment

Fastest Transformation to SD-WAN

Godrej was quick to rollout ScaleAOn™ SD-WAN solution in few regional offices at first. The setup at each location was handled and assisted by an onsite engineer from Lavelle Networks. At the headquarters, the setup was done in collaboration with Lavelle Networks and Godrej's network team. The deployment was a smooth and successful one. IT rolled out branches in no time with ease, post a frictionless setup. The same template was followed for subsequent rollouts to cover the entire enterprise within a short span of time. The entire roll out spanning hundreds of locations was achieved within a short span of 3 months.

What makes Lavelle Networks deployment process stand out from its competition is the simplicity and the speed-to-roll-out factor. ScaleAOn™ SD-WAN takes the simplicity of WAN deployment to the next level. Easy plug and play deployment allows IT teams to bring branches live within minutes. A deployment spanning 2000 locations within 2 weeks is the fastest implementation done by Lavelle Networks in an earlier project.

*With the Scale, Speed
and Security designed
into ScaleAOn™ SD-WAN,
along with the
professional services
team of Lavelle
Networks, Godrej was
able to seamlessly
transform to SD-WAN
with unbeatable ease
and speed.*

The Godrej SD-WAN Use Case

The deployment was done as a “Hub & Spoke” model with high availability and connectivity to Cloud, Data Center and Disaster Recovery Data Center. Here are some of the key use cases the IT team has accomplished.

Secure local Internet breakouts in each spoke location for internet traffic

Lavelle Networks ScaleAOn™ SD-WAN simplifies traffic routing, making it easy to establish secure local Internet breakouts. The defined policies help to select the best path to route traffic connecting the branch to the Internet, cloud applications, and the data center. Through defined policies for all branches in the cloud, through a single interface, organizations can easily deploy new applications and services and manage policies across multiple locations. Local Internet breakout can also be done for specific business applications, while the rest of Internet traffic can be taken to data center, either via commercial broadband link or MPLS link for data center breakout.

Decrease overall network cost

ScaleAOn™ SD-WAN can reduce WAN cost significantly which in turn decreases the overall IT budget. ScaleAOn™ cost savings, in addition to its other direct network benefits, provide enterprise IT with indirect cost savings in the form of increased productivity, flexibility, powerful network analytics, better management and monitoring.



Increase the per user internet bandwidth

ScaleAon™ Dynamic Path Selection is an innovative technique developed to mitigate the problems like availability and performance in the last mile link connectivity. It can combine MPLS, internet leased line, broadband, or 4G and efficiently use complete bandwidth without any manual intervention or worrying about link quality. Path selection algorithms are independent of physical transport or link type (MPLS, Internet Leased Lines, Commercial Broadband, 4G/LTE) to provide the flexibility of selecting the best link type available at remote locations. In scenarios where all WAN Links connected at the location are suitable candidates to anchor the application traffic, the **ScaleAon™ Dynamic Path Selection Intelligent Engine** load balances the traffic on the best WAN link at the location based on policy with an ability to use all the links with a packet by packet load balancing algorithm if the quality across all the WAN links at the location is within permissible thresholds. This ensures the best quality of experience for the application traffic user.



QoS for specific business applications and Video Conferencing

The QoS policies with ScaleAOn™ lets you prioritize critical traffic. CloudStation UI renders QoS mechanism to apply and make sure the required applications are prioritized and use the best resources (path/link) to reach the destination through which business needs are met and applications can be prioritized. This eventually culminates into better user experience.

Secured connectivity to Hub

LAN interface works as the firewall interface so that all the spoke sites traffic is passed through firewall policies before reaching the enterprise networks. This ensures secured connectivity to the hub. Branch offices and regional data center hub sites can be deployed and connected in minutes with ScaleAOn™ SD-WAN. ScaleAOn™ multilayer security encrypts all traffic from the WAN edge to the cloud. Every packet across data plane, control plane, and management plane, over the network is encrypted using Secure Socket Layer (SSL) and IP Security (IPsec) technologies. ScaleAOn™ SD-WAN with its powerful security capabilities allow enterprises to scale at a tremendous speed on widespread IPsec network connecting multiple branches.

Seamless auto failover between multiple links

ScaleAOn™ auto link failover features has the ability to select another link in case the link in use fails or delivers poor performance. By default the best quality link is used. However, flows are load balanced to all the links with the same quality band. Application priority is considered under such scenarios, and inbuilt algorithms ensure that the user gets the best quality from all available links. Also, since traffic is going through SD-WAN overlay, it can be ensured that even after sending Internet or SaaS traffic over MPLS in case of Internet failover, enterprise traffic is not throttled and is given high priority.

Network Experience with **ScaleAOn™** **SD-WAN**

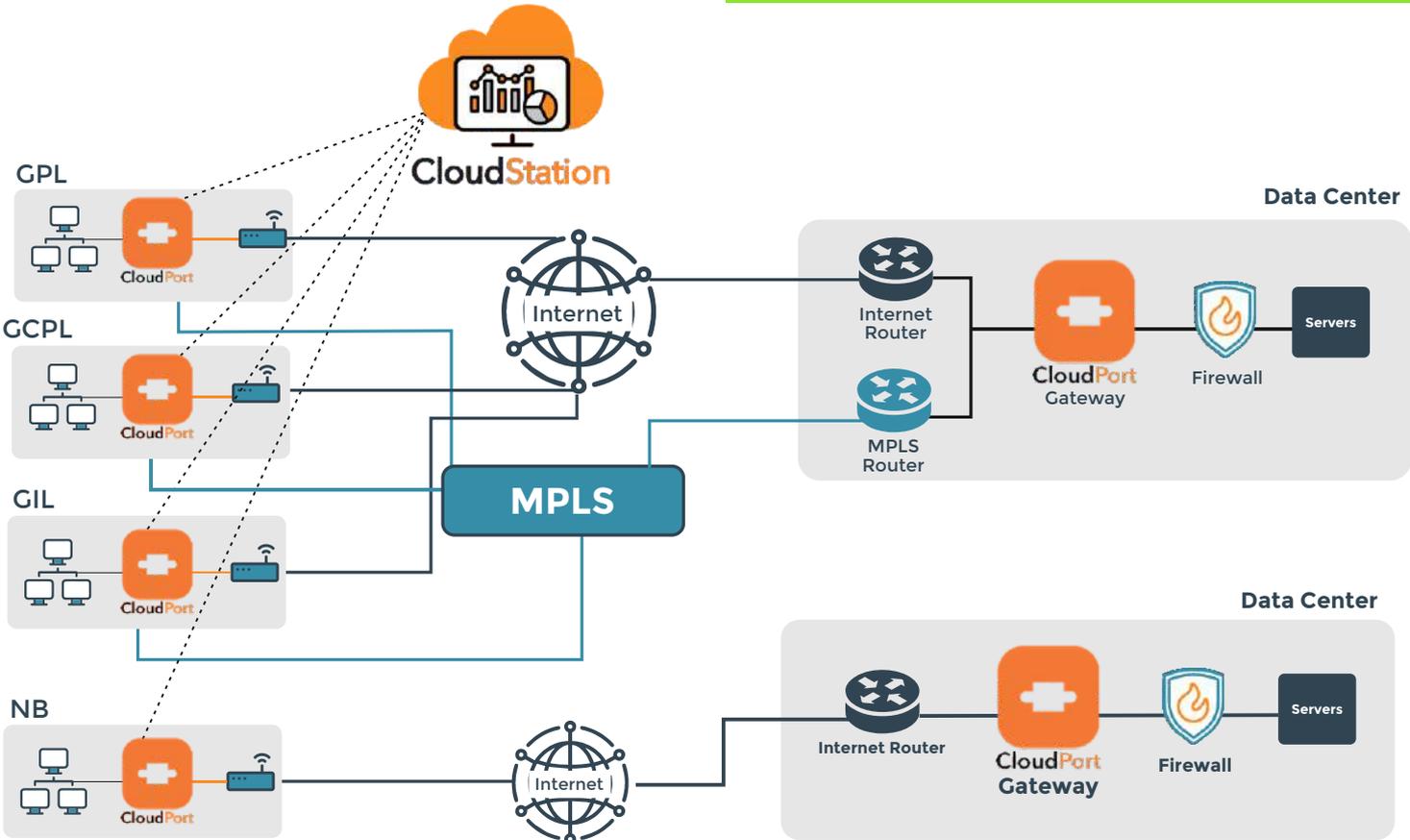
In a significant improvement from earlier, the network related complaints from all locations almost stopped. Since local internet breakout was provided with adequate bandwidth at each location there were no bottlenecks. Also, the auto load balancing and QoS ensured that all the critical applications had 100% uptime.

The Lavelle Networks Customer Experience

Training and Learning Curve

Currently, L1 issues at Godrej are handled by its Infrastructure support partner. Post deployment and configuration, Lavelle Networks ensured 2 days of comprehensive training on CloudStation- on various admin reports and network analytics (dashboard) after the rollout. Lavelle Networks support team also continues to conduct various product related training on an ongoing basis.

Godrej Current Topology



The Result

Lavelle Networks SD WAN solution has been powering up Godrej's network since Nov'17. Currently it is connecting 100+ locations across India. The company is also expanding to International locations in the United States, Africa, Latin America and Indonesia.

- ➡ Low cost of ownership
- ➡ OPEX model thereby low upfront cost
- ➡ Easy branch setup provisioning
- ➡ Drastic reduce in no. of support tickets on performance related issues
- ➡ Support for all network and protocol links
- ➡ Greater network visibility via analytics & unified dashboards
- ➡ Easy and simple QoS setup
- ➡ Seamless load balancing

The KPI's for the Corporate IT team show a substantial improvement

The SD-WAN Solution by Lavelle Networks delivered value which was many times more than the cost incurred. When asked, Mr. Satyavrat Mishra, AVP IT infrastructure, Godrej, about one thing about the product he loved the most? He mentioned, “Ease of setup and operations. Does not need very high technical skills to manage and operate it”



Location Uptime

ScaleAOn™ SD-WAN ensures that the average location uptime with dual links is almost 100 percent.



Overall Link Quality Score

This particular metric has helped the IT team to access the performance of the network at the branches. IT can quickly access the performance of networks for each branch location and determine the further course of action to fulfill all requirements.



Network Costs

15 percent reduction in network cost for each location.



Bandwidth Consumption per user

Each Godrej business has different bandwidth requirements. With Lavelle Networks ScaleAOn™ SD-WAN each sector has reported improvement in network availability and improvement in user experience. Backed by a granular view of bandwidth over the network via insights, the IT team can easily scrutinize the source of any interruptions or performance issues and keep track of SLAs efficiently.

Top Global enterprise brands are using Lavelle Networks SD-WAN platform for upgrading their infrastructure to next generation WAN and hybrid WAN Solutions



ATM Networks of top Banks



Top Public Sector Mutual Fund Brands



Premier Co-operative Banks



Largest NBFCs



Top Insurance Companies



Largest e-commerce Networks

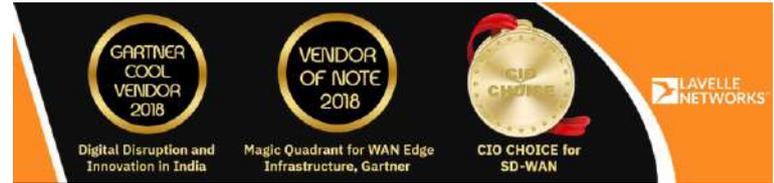
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"As SD-WAN disrupts traditional networking vendors, Lavelle Networks has made a mark in India, picking up large customers in retail and insurance" - Gartner



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