AnexGATE®

Connectivity.Security.Productivity.Managebility

RTO

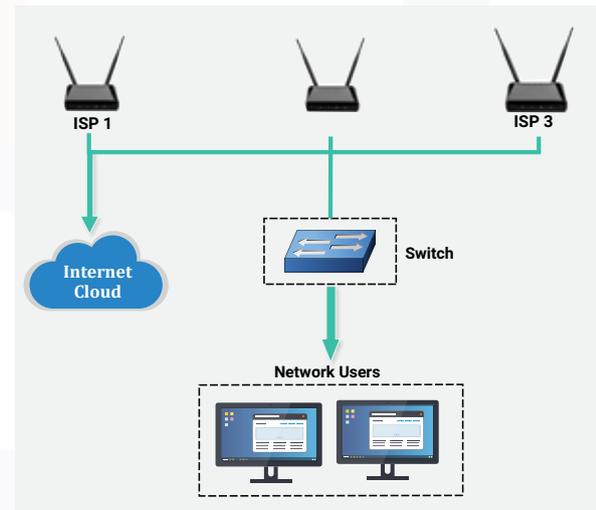## SECURE REMOTE CONNECTIVITY with Link Failover

Introduction:

Government agencies are now espousing advanced technology setups to improve the overall efficiency of the agency and also bring in newer techniques to reduce the overall time of the processing cycle. In this endeavour, having a strong fail proof and secure network helps in building a higher uptime.

The Regional Transport Office (RTO) was looking for a secure connectivity solution to reduce the downtime caused by offline networks and also process information sooner. In the existing setup, there was an increased downtime from the internet service providers.

Existing Network Infrastructure Setup at RTO - Nelamangala

- In the initial setup of the RTO, the primary link used was KSWAN, which was then switched over to BSNL in case of downtime. But, the KSWAN line has been kept idle without use.

- Every RTO Location is equipped with 2 ISP connections, which consists of ISP 1 - 100 Mbps and
  ISP 2 - 100 mbps
  Along with these there was always the KSWAN connection which was kept on standby mode.

- Each RTO had approximately 25 users on average that were covered by this network.

- The existing setup of the RTO offices had no provision for Failover Setup. In this case, if the BSNL network would go down, the entire office would face downtime and work would come at a standstill.
  They had a provision to connect manually to Metronet through the LAN switch and access the internet.

- The entire process of the RTO was dependant on the availability of the internet, so in case any ISP would be down, the entire office would face downtime and delay in processing the files.

- One of the most critical points about this network was that there was no Firewall deployed in this network, which made it highly vulnerable to external threats. The absence of Firewall also indicated there was no control over the internet usage over this network and users could browse through any malicious websites without any security protocol.

- This also allowed the users to have no control over the usage of internet and there was no restriction

Existing Network and App Usage

These sites and apps were majorly being used for the entire processing line of the RTO. Hence, it was important that these three sites always remained online.

- **Parivahan**
  https://parivahan.gov.in/parivahan/

- **Sarathi**
  https://sarathi.nic.in:8443/nrportal/sarathi/HomePage.jsp

- **Parivahan**
  https://vahan.parivahan.gov.in/vahan/vahan/ui/login/login.xhtml

Before providing a complete turnkey solution to RTO, we had meticulously carried our concept testing using our AnexGATE ACE appliances and this concept was comprehensively tested to prove the desired results.

Only when we achieved the desired results and an almost 100% Uptime, we submitted the final Proof of Concept (POC) and received the order for almost all RTO offices across Karnataka State.

Solution

We comprehensively carried out tests by including our AnexGATE ACE Classic Pro and AnexGATE Gigabit appliance that supports Multiple WAN and a single sim sim connection along with USB Tethering to provide superior connectivity for your network. This helped us provide a much higher uptime for the RTO Network.

There was a BSNL internet line connected as the primary line for the internet requirement. We provide inhouse sim cards from Airtel that created the secondary connections in case the primary link went offline.

The Metronet connection was not configured as the modem provided was from the ISP and the configuration had to be done from the service provider. Once this configuration is done, we can route this connection to terminate with AnexGATE

All the internet activity that happens on the RTO Network by the LAN users is now routed through our appliances that make the entire network connection secure.

We have upgraded the existing infrastructure by adding our ACE appliance and providing auto failover mode between WAN and Sim Card. In case the primary connection (BSNL) is down, the connection automatically shifts to the secondary connection (Airtel Sim). This saves valuable downtime with the RTO staff and provides a stable connection throughout. When the primary connection is back up, ACE automatically shifts the connection back to the primary link.

It also eliminates the need for manual shift between the connections, saving valuable working man hours.

We have currently configured the Auto Failover for RTO in the below priority order.

1.   **WAN1 - BSNL – Priority 1,**   2.   **Metronet – Priority 2,**   3.   **SIM 1 – Airtel - Priority 3**

There was one notable change in the Network Infrastructure that we have implemented for further RTO offices joining in this network.

- **For RTO Offices consisting of less than 25 Users, AnexGATE Classic Pro was deployed.**
- **For RTO Offices consisting of more than 25 Users, AnexGATE Gigabit was deployed to give a stronger and faster connection with Gigabit interfaces.**

Future Scope for Upgrade:

● ACE is a scalable solution that can be upgraded as your users increase at a fraction of the cost of an actual network upgrade.

● Domain Filtering can be added to the new infrastructure to block all unwanted websites and malicious content on the website for added security. Websites like Facebook, Youtube, Twitter and Torrents can also be blocked for LAN Users.

● Secure VPN Tunnels can be created to have a highly secure communication between the Main RTO Head Office and

Solution Highlights

The Existing Network Infrastructure was upgraded by deploying AnexGATE ACE Classic with BSNL as primary connection and Airtel Sim as Secondary connection with auto failover. Incase the BSNL link would go down, the connection would automatically shift to the Sim Card giving a high uptime.

This reduced the downtime hours by a huge margin and improved the overall efficiency of the transport department.

Each office was designated an ACE depending on the number of users under the network - ACE Classic Pro for users under 25 and ACE Gigabit for users above 25