



## 24ONLINE Managed Wi-Fi RADIUS & NAS Solution at Tuvalu Telecom



### In Nutshell

- › Supports next generation services
- › Acknowledged player in Banking & Educational Institutes
- › Caters Wired & Wi-Fi Networks
- › Plug-n-play solution
- › More than a decade of product experience/solution

<b>Customer</b>	: Tuvalu Telecom
<b>Industry</b>	: Enterprise Segment
<b>Solution</b>	: 24online Multitenant solution with AAA, Database, Access Gateway, bandwidth monitoring, DHCP Auto-login over prepaid coupon module and complete reporting and High Availability functionality has been implemented.
<b>Objective</b>	: Providing a Managed WIFI solution facilitating Tuvalu Telecom to offer flawless wireless internet service throughout the various enterprise customer like Hotels and other corporate and educational segment across the Island. The solution should be able to authenticate the users trying to access the Wi-Fi network, manage bandwidth and generate OTP & coupons for users.
<b>Approach</b>	: Tuvalu Telecom was approached by our partner Globetek Infoway Singapore for complete wi-fi hotspot solution.
<b>Statistics</b>	: 24online SMS 1000ix solution has deployed at TUVALU TELECOM data center as an HA mode with Audit Log, Netcapture, SMS Gateway, SNAT IP Address, Web Surfing Logger and Data Transfer Management modules.

### Company Background

Tuvalu Telecommunication Corporation (TTC) also known as Tuvalu Telecom is a state-owned enterprise. TTC was established by the Tuvalu Telecommunications Corporation Act 1993. A sole provider of fixed telephone communication services, mobile services, and internet services to the rest of the country. TTC rely solely on satellite communications. To provide information Communication Technology (ICT) services to enrich the lives and social wellbeing of the people, and to support Tuvalu's development initiatives that foster economic growth across all sectors.



### Challenges

It is an approaching trend to offer managed Wi-Fi connectivity in various segments of enterprise customer like ISP, Hotel, hospital, Corporate, retail chain, shopping mall, airport, Education Institutes where Guest/Users can surf internet from their mobile or handheld devices.

Tuvalu Telecom wanted a solution that enables smooth Wi-Fi connectivity with authentication process and fair distribution of bandwidth so that high consumption of bandwidth can be restricted and flawless internet can be provided to all segment of users.

Mr.Loane, from Tuvalu Telecom Managed WIFI network division, clearly slated the requirements of the Multitenant approach, “The solution must have different captive portal service for different segment of customer. That captive portal should be customized as per end customer requirement. Every segment of customer will get their own portal where they can see their own live users, they can view the bandwidth uses of their end users and see the reports. Also, different customer required different work flows, OTP based verification, efficient bandwidth management and monitoring features to capably control bandwidth and implement restrictions based on data usage or time period. Also, the solution should be able generate walk-in coupons for users having credentials with pre-paid packages to be offered. The solution should allow admin to create and provide different data plans to users according to which pre-paid vouchers can be designed and availed in a printable format. The solution should have extensive reporting features enabling admin to understand the usage in the data and manage user traffic.”

### Solution Offered:

After considering complete requirements, 24online offered:

**Bandwidth and Package Management:** 24online's bandwidth management functionality allows defining minimum and maximum bandwidth to be allowed for each plan. Also, bandwidth restriction can be done after certain amount of data usage or after certain usage time period.

24online solution offers dynamic package creation feature using which Tuvalu Telecom can easily create and offer different packages for guest/users as per their requirements.

**Audit Log:** Audit Log is dedicated to store all the actions performed by the user administrating 24online. With the help of this feature you can search transactions or actions like create, manage, edit or delete actions performed in the specified time period and search actions as required. It gives complete details on all the actions performed and actions performed by, with IP address from where the action has been taken and action time. As this feature provides time and duration of action performed, it helps in tracking any unsecured login in admin GUI resulting into data loss.

**Data Transfer Module:** By data transfer module, defining the amount of quota to be allocated for each user or a package can be done. 24online also facilitates to degrade the bandwidth after specific quota is consumed by the user.

**Captive Portal Capabilities:** It is necessary that all users accessing library's network should pass thru determined authentication process to secure the network from malicious activities and threats. 24online's captive portal feature offers various options to create and configure pre-login captive portal web pages. Different login templates can be

designed and various authentication parameters can be integrated required for different login pages. Also, they can change or reset their password within the captive portal.

**NetKapture:** 24online has come up with an advanced feature which acts as 'watchman' of the network, taking care of each and every protocol request sent and received by the network. The benefit of this feature is that it can easily trace all the logs and admin can generate different types of reports using this feature. It's an ideal feature which is highly in-demand for hospitality and ISP clients.

**Reporting:** 24online offers an advanced feature – Web surfing logger, by which an easy tracking of websites and applications surfed by users can be done. This feature is complied with the instructions issued by the government bodies. With the help of this module, regular reports in printable and graphical format can be obtained listing down the surfing details of each user. Moreover, it also helps to ensure about network security and in case of any malicious activity occurrence it makes easy to evaluate by reviewing reports stored in the system.

**Caching QoS:** With the increasing number of traffic, devices and bandwidth consumption across the globe has led to measure the performance of internet based on speed. Internet Service providers are struggling to match the bandwidth speed and quality while ensuring the cost-effectiveness. In cut-throat-competitive market, it is imperative for service providers to utilize advance and robust solutions that can enable operators to optimize bandwidth and at the same time offer higher bandwidth to users. 24online Cache QoS is a one-stop solution for all your caching worries. Serving all-in one Purposes, 24online solution assist you to offer all your subscribers, lightning fast speed. High-end and intelligent caching delivery and services, saves upto 40% of Bandwidth! Revolutionizing caching technology and taking it to the next level, 24online solution is an apt choice for all ISP's to maximize profit by caching in on caching!

**SMS Gateway:** Now mobile phones can be used to exchange business information swiftly and in secured way. 24online offers advanced feature which can be configured to send Internet username & password directly to the guests or users on their mobile number. You can also maintain the SMS authentication process using this feature.

**SNAT Management:** 24online SNAT Management helps in source nating of IP addresses. With the help of this module admin can perform different actions like NAT to Single IP, NAT to Internet Public IP (Live IP) and drive local traffic to Internet. SNAT module is available with demanding features beneficial for hoteliers, ISP, café etc.

**Walk-in Pins:** 24online solution offers walk-in pin module which offers instant access to Internet without any customer registration or renewal. The customer can avail instant access to Internet using this prepaid pin and password. The customer would be credited Internet access as defined in the package. These prepaid pins and passwords can be printed as prepaid cards (Also known as: Internet Access Pins /Internet Coupons/Vouchers) and sold over the counter by the service provider.

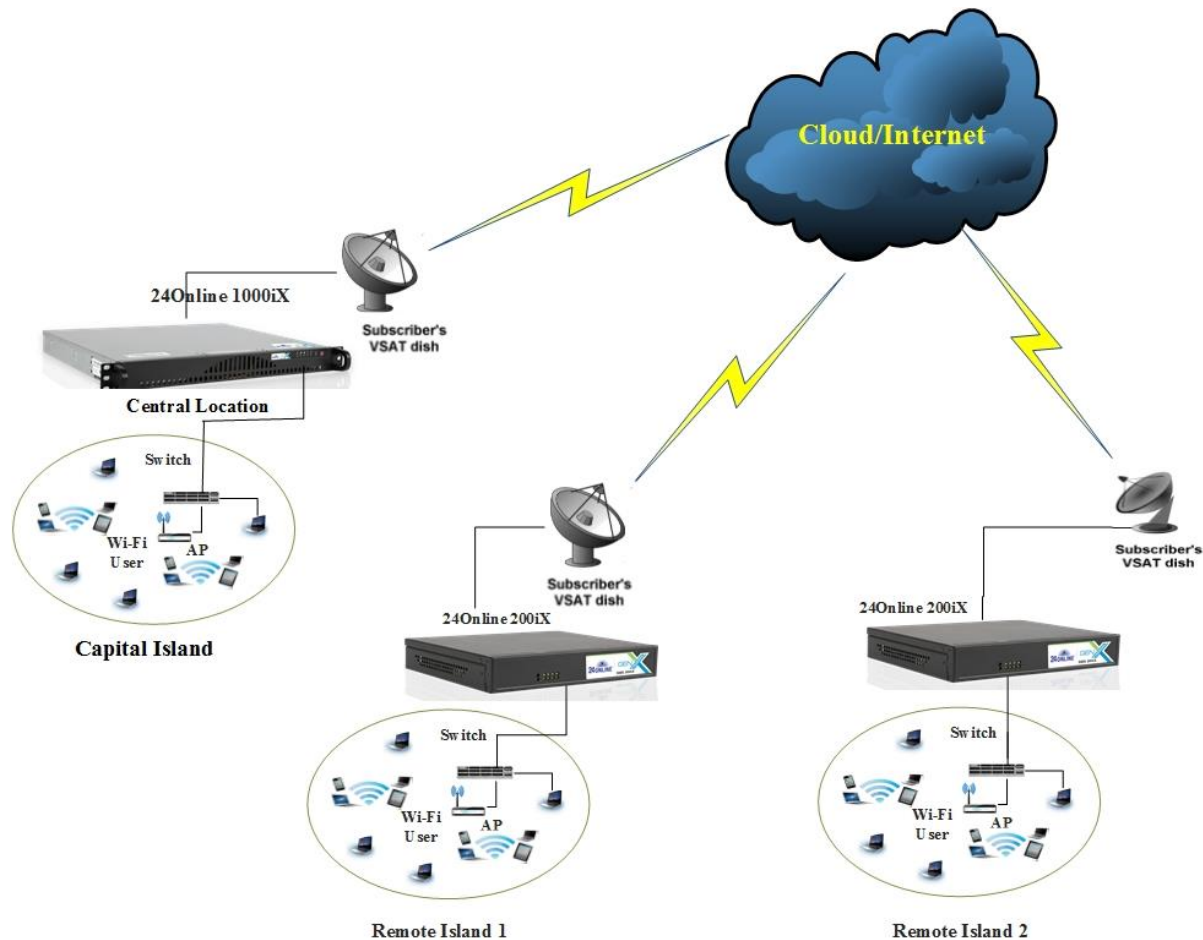
**High-Availability (Active-Passive):** 24online offers high availability – active passive by using virtual MAC address shared between the primary appliance and secondary appliance linked together. When 24online appliance is configured in Active-Passive mode, the primary appliance is responsible for forwarding the entire traffic requests and the secondary appliance is responsible for acting as an auxiliary machine which readily operates as the primary appliance as and when the primary appliance or any of the monitored links fail. Primary appliance automatically takes over the secondary appliance once it starts functioning.

**POP Management:** 24online POP is designed to fit the specific needs of dynamic network in the current market where multiple operators and their varied user base are attached with single ISP. With POP management you can simplify the task of merging multiple networks and avail all essential data of 'personal-plan-accounting' information of subscriber from centralized system. Reap benefits as a single POP can handle multiple networks! Optimum use of POP leads to efficient service provision to a larger subscriber-base. 24online also provides detailed reporting tool

for easy-to-understand and informative graphical understanding of all the administrative and operational activities at the network level.

**Zone Management:** Zone is an entity that is above pool and in which pools can be added. Zone Management is used for grouping users belonging to common group or zone. With the help of Zone Management, different zones can be created in the network and administrator can provide access to various Zone Managers and Operators.

### Network Diagram



### About 24online

24online is a leading internet access management and network management solution that offers wide range of internet access control and management solutions that enables ISPs, Hotels, Hotspots, Airports, Educational Institutes, Smart Cities, etc. to simplify their internet network. 24online addresses the challenges of customer acquisition, secured service provisioning, internet billing, monetization via internet services and revenue management. The solution has vast experience in catering to varied network like Wired, Wi-Fi, Cloud, VSAT and LTE. With more than a decade of experience, we offer the world class solutions in the most cost-effective way.