





Telecommunication & Radiocommunication Regulator (TRR)

and

[BLANK] (The Registry)

.VU CCTLD MANAGEMENT CONTRACT

for

OPERATION OF THE .VU DOMAIN NAME SYSTEM AND REGISTER OF DOMAIN NAMES

.VU CCTLD MANAGEMENT CONTRACT

DATED: [BLANK]

BETWEEN: Telecommunication & Radiocommunication Regulator (TRR), Port Vila, Vanuatu

AND: [BLANK] (The Registry)

1. BACKGROUND

Under the Shared Registry Service (SRS), there is a single Register for registering domain names and holding and managing associated technical and administrative information. The SRS operation allows the registration of domain names and modification of information associated with those names on the Register by authorised Registrars. A "Registrar" is any person/organisation that has been authorised by TRR to become a Registrar for domain names within .vu.

Registrars manage their own commercial relationships with Registrants. A "Registrant" is any person or organisation that is allocated a domain name that is registered within .vu. A more complete definition of technical terminology is appended to this contract.

This contract sets out the terms on which the two parties will co-operate with each other.

2. TERM OF CONTRACT

- 2.1 This contract shall commence on the date it is signed by both parties and shall remain in force until it is terminated in accordance with the terms of this contract.
- 2.2 A review of this contract will be held [to be negotiated] from the date of signing or earlier if requested by either party.
- 2.3 This contract can be amended at any time with the agreement of both parties. Any alterations and amendments to this contract must be in writing and signed by each party.

3. ROLE OF TRR

- 3.1 TRR shall be responsible for meeting all the obligations and responsibilities imposed on it by the Telecommunications and Radiocommunications Regulation Act No. 30 of 2009 "Vanuatu Domain Name Management and Administration Regulations Order No. 206 of 2016" and the .vu policies and procedures developed by TRR in consultation with the local Internet community, and by the Registrar Authorisation Agreement.
- 3.2 Prior to introducing any new .vu policy, or amending any existing .vu policy, TRR will notify The Registry of the proposed policy or policy amendment and will take The Registry's response into account in the drafting of such policy or policy amendment.
- 3.3 TRR will respond to any reasonable question or request from The Registry within one business day where it is reasonable to do so or in a shorter timeframe if such timeframe is reasonable and is clearly stated in the question or request.
- 3.4 If, at any time, TRR has an issue with the quality of services provided by The Registry, TRR will raise it directly with The Registry and will take The Registry's response into account prior to taking any action.

4. ROLE OF THE REGISTRY

- 4.1 In fulfilling its obligation to operate and manage the technical functions associated with .vu, The Registry shall perform the following services:
 - Connection of duly authorised Registrars to provide domain name services within the .vu Top Level Domain (TLD).
 - Receipt of data concerning registration of domain names and name servers from Registrars.
 - Provision of status information relating to the .vu TLD to Registrars.
 - Dissemination of .vu TLD zone files and management of the .vu TLD domain name servers.
 - Performing regular updates of the .vu TLD name servers from the Register.
 - Dissemination of contact and other information concerning domain name and name server registration in the .vu TLD.
 - Provision of read/write interfaces to the Register for use by Registrars.
 - Provision of read only interfaces to the Register for Registrants and the public (including WHOIS services).
- 4.2 The Registry shall comply with all relevant .vu policies and procedures, and shall comply with and enforce the provisions of all .vu Connection Agreements that it enters into with Registrars.
- 4.3 The Registry shall report any system operations that are in breach of .vu policies to TRR.

- 4.4 Prior to a significant change affecting the .vu service, The Registry will notify TRR of the service change and will take TRR's response into account.
- 4.5 The Registry will respond to any reasonable and relevant question or request from TRR or from Registrars within one business day where it is reasonable to do so, or in a shorter timeframe if such timeframe is reasonable and is clearly stated in the question or request.
- 4.6 The Registry will manage the DNS to the service levels specified in **Schedule A**.
- 4.7 The Registry will manage the Register to the service levels specified in **Schedule B**.
- 4.8 Should The Registry's management of either the DNS or the Register not meet the prescribed service levels, The Registry will notify TRR at the earliest possible time.
- 4.9 The Registry will inform TRR of any action taken by The Registry that impacts on the functions of a particular Registrar.

5. OPERATIONS AND REPORTING

- 5.1 The Registry shall provide TRR with reports in relation to its operation of the DNS and SRS. The details of this obligation are set out in **Schedule C**.
- 5.2 The Registry shall provide TRR with any other reports as are reasonably requested by TRR.
- 5.3 TRR shall provide The Registry with such reports as are reasonably requested by The Registry.

6. PAYMENT

- 6.1 The Registry will pay TRR a reasonable and proper annual management fee to cover the costs in fulfilling the role of TRR outlined in section 4 of this contract (the Management Fee).
- 6.2 The Management Fee will be determined by TRR at its discretion.
- 6.3 TRR shall use best efforts to ensure that The Registry is advised of the Management Fee within a timeframe that suits the Registry budgeting schedule.
- 6.4 The Management Fee will be invoiced to The Registry monthly in advance on the first day of the month, and is payable by the 20th of the month.

7. TERMINATION

7.1 This contract shall terminate upon the provision of four months' notice from either party to the contract.

8. ASSIGNMENT

8.1 The Registry may not assign or transfer its rights or obligations under this contract without the prior written consent of TRR. No such assignment or transfer will relieve The Registry of any of its obligations under this contract.

9. DISPUTE RESOLUTION

- 9.1 If any dispute arises in connection with this contract, the parties will use all reasonable endeavours to settle the dispute by negotiation, including, if necessary, by a meeting between the TRR Regulator and the Chief Executive Officer of The Registry. While the dispute remains unresolved, the parties will continue to perform all obligations under this contract without prejudice to any legal rights they may be entitled to exercise.
- 9.2 If, following the dispute resolution procedure set out above, the parties fail to resolve the dispute, the parties will seek an appropriate mediation or arbitration process and endeavour to settle the dispute by negotiation.
- 9.3 Elevating disputes to a Court of Law should be seen as the last option by either party, and attempts to mediate and reconcile should be made before Court is considered an option.
- 9.4 Should Court action be required to resolve a dispute, the dispute will be addressed under the jurisdictional law for the Republic of Vanuatu.

EXECUTED as a Contract by the parties on the	day of
SIGNED on behalf of the Telecommunication & Radiocommunication Regulator	
	The Regulator
SIGNED on behalf of The Registry	Chief Executive Officer

SCHEDULE A – DNS SERVICE LEVEL STANDARDS

The DNS Service Level Standards are provided to ensure .vu is always available and accessible though the DNS. The Service Level Standard targets specified in this contract are measured over a calendar month. The following table is a summary of Service Level Standards, which are further defined in later sections:

Service Level Standard	Target
DNS Practice Statement Acceptance	DNS Practice Statement to be accepted by the community that .vu serves.
DNS Performance	For UDP – handle 100 qps with ≤ 5 ms average latency For TCP – handle 100 qps with ≤ 50 ms average latency
DNS Server Planned Outages	Single outages ≤ 4 hours Total outages ≤ 8 hours / month No more than two .vu Name Servers should be scheduled for a planned outage at the same time
DNS Integrity	100 % correct and consistent outside Zone Push window
DNS Server Availability	≥ 99 % availability over the month. ≥ 95 % availability over any 24 hour period. respond to ≥ 99 % of queries. No more than two .vu Name Servers may be unavailable at any one time, whether for planned or unplanned outages.
DNS Zone Push (from primary to secondary DNS Servers)	≥ 6 Zone Pushes per day ≤ 60 minutes DNS Zone Push Window

BUSINESS OBJECTIVE

To provide the DNS Resolution Service for the .vu domain name space. This includes the following:

- Ensuring that the .vu Name Service is always available, accessible and current;
- Receipt of zone data from the SRS;
- Dissemination of .vu TLD and Second Level Domain (2LD) zones, and management of the .vu Name Servers; and
- Dissemination of zone data in the .vu TLD and 2LDs.

GENERAL REQUIREMENTS

The following general requirements must be met at all times:

- The .vu Name Service must always be available;
- The .vu Name Service must always have sufficient capacity to respond correctly to all requests;
- The .vu Name Service must always maintain geographical diversity, platform diversity and topological diversity;
- The .vu zones must always be stored and transmitted securely;
- All DNS responses must be correct in line with DNS Practice Statement.

Any breach of these general requirements must be reported to TRR in an exception report in the next monthly report.

DNS PRACTICE STATEMENT

The Registry will maintain a DNS Practice Statement that includes:

- Rules for the inclusion/exclusion of SRS data in the zones;
- Rules for the contents of the DNS responses returned;
- DNSSEC Practice Statement.

The DNS Practice Statement will be publicly available and easily accessible and The Registry will notify TRR of any changes in the monthly report.

DENIAL OF SERVICE

There may be a situation where The Registry has reasonable grounds to believe that the .vu Name Service is under Denial of Service attack through excessive DNS queries. In this event the prioritisation of metrics should be as follows:

- The priority will be to keep as many .vu Name Servers functioning as possible and answering as many genuine queries as possible.
- Zone pushes may be suspended during this period.

- DNS performance may drop as low as necessary without triggering an increase in lookups because
 of timeouts.
- Any queries believed to form part of the attack may be dropped or filtered.
- Genuine queries may be dropped or filtered as necessary without triggering an increase in traffic because of timeouts.

In the event of a Denial of Service attack The Registry should notify TRR as soon as practical.

METRICS

1. DNS Practice Statement Acceptance

Objective

To ensure that the DNS Practice Statement provided by The Registry has the acceptance of the community that .vu serves.

Definition

That the consensus of the community is that the DNS Practice Statement provided by The Registry provides:

- Sufficient explanation of the technical facets of the .vu Name Service that the community directly interacts with;
- Confidence that The Registry has sufficient knowledge of the required technology and global best practice to correctly operate the .vu Name Service;

Target

The Registry is required to ensure the community acceptance for its DNS Practice Statement.

Method and Reporting

TRR will gauge the level of community acceptance independently of The Registry, taking into account any surveys that The Registry conducts. TRR will decide at its own discretion whether community acceptance is sufficient for The Registry to have met or partially met this target, or whether the target has been missed.

2. DNS Performance

Objective

To manage and monitor the transaction response times for the .vu Name Server Hosts.

Definition

This definition applies to the following servers:

- All The Registry managed .vu Name Server Hosts;
- For outsourced DNS providers, a sample of .vu Name Server Instances that are accessible from Vanuatu.

This metric measures the ability of the servers listed above to service the query load within a specified average transaction response time.

Target

The servers must be able to handle:

- 100 UDP queries per second with no more than 5 millisecond average latency;
- 100 TCP queries per second with no more than 50 millisecond average latency.

Method and Reporting

The .vu Name Server Hosts performance is tracked and measured for a specific server at each of the following points:

- When a new managed .vu Name Server Host is commissioned;
- When a significant configuration change is made to any of the servers.

Test results will be reported in the monthly report as and when the tests are conducted.

3. DNS Planned Outages

Objective

To manage and monitor the planned outages for the .vu Name Server Host Servers within the defined parameters, to ensure that the .vu Name Service is not disrupted.

Definition

A planned outage of any of the DNS servers relates to approved events that are scheduled and notified in advance by The Registry. It includes periodic maintenance and urgent, but controlled, maintenance to correct software or hardware problems.

Target

- Single outages ≤ 4 hours
- Total outages ≤ 8 hours / month
- No more than two .vu Name Servers should be scheduled for a planned outage at the same time.

Calculation

- Each individual planned outage is recorded.
- The total of all the individual planned outage times in minutes in the calendar month period are measured.

Method and Reporting

All planned outages are recorded on a per outage basis but measured and reported monthly.

4. DNS Integrity

Objective

To manage and monitor the integrity of the .vu TLD zones and the .vu Name Servers.

Definition

The Integrity of the DNS Servers requires ALL the following to be met:

- All zones across all .vu Name Servers shall be correct and consistent in line with DNS Practice Statement.;
- During the zone push window time all .vu Name Servers shall respond using either the current (new) or the immediately preceding (old) zone.

Target

The .vu zones are required to be 100 % correct as defined by DNS Practice Statement and consistent across all .vu Name Servers outside of a zone push period, excluding servers in a planned outage.

Method and Reporting

.vu Name Service integrity is tracked and reported on a per incident basis but measured monthly.

5. .vu Name Server Availability

Objective:

To manage and monitor the availability of the .vu Name Servers for the .vu TLD.

Definition

A .vu Name Server shall be deemed available when it is providing correct responses in line with the DNS Practice Statement.

Target

- Each .vu Name Server must meet 99 % availability over the month.
- Each .vu Name Server must meet 95 % availability over any 24 hour period.
- Each .vu Name Server must respond to 99 % of queries it receives.
- No more than two .vu Name Servers may be unavailable at any one time, whether for planned or unplanned outages.

Calculation

- Percentage available = (Scheduled availability Unscheduled Outage time) / (scheduled availability)
 x 100.
- Scheduled availability is the number of minutes in the calendar month period being measured.
- Unscheduled .vu Name Server outage time is calculated for each DNS server by summing up the
 times of the individual DNS server outages that occurred during the period. Elapsed time of an
 outage is measured in minutes from the time the .vu Name Server is unavailable (see availability
 definition above) until it is again available.

Method and Reporting

.vu Name Service Availability is tracked and reported on a per incident basis but measured monthly.

6. DNS Zone Push

Objective

To manage and monitor the scheduled regeneration and propagation of the .vu zone from the primary .vu Master DNS servers to the slave DNS servers within the zone push window.

Definition

The .vu DNS Zone Push requires ALL the following to be met:

- The zone is regenerated with the correct format and content received from the SRS database and available to disseminate within the required timeframe;
- .vu TLD and 2LD zones shall be disseminated accurately to the .vu Name Servers;
- Each .vu Name Server must receive the zone and make them available for use within the required timeframe;

Target

- At least 6 zone pushes per day.
- No more than 60 minutes for a zone push.

Method and Reporting

Zone pushes should occur at an agreed schedule. The timetable for zone pushes is published on The Registry website.

The DNS Zone Push window duration may be altered by agreement with TRR as The Registry business requirements change.

The DNS Zone Push to the .vu Name Servers is tracked and reported monthly by exception.

SCHEDULE B – SRS SERVICE LEVEL STANDARDS

The SRS Service Level Standards are provided to ensure that the Register is equally accessible to all Registrars and is available as often as is practicable. The Service Level Standard targets specified in this contract are measured and averaged over a calendar month.

The following table is a summary of Service Level Standards, which are further defined in later sections:

Service Level Standard	Target	
SRS Availability	99 % Available	
EPP Service Availability	98 % Available	
WHOIS Availability	98 % Available	
WHOIS Update Time	≤ 60 minutes	
SRS/WHOIS Planned Outages	Single outages ≤ 4 hours Total outages ≤ 8 hours / month	
SRS Integrity	100 % accurate	
SRS Performance	Transaction Type	Target Response Times
	Averaged over a month at the SRS front-end	
	DomainDetailsQry	≤ 1 second
	WHOIS Query	≤ 2 seconds
	UDAIValidQry	≤ 1 second
	DomainUpdate	≤ 1 second
	DomainCreate	≤ 1 second
	GetMessages	≤ 1 second
	EPP session command	≤ 4 seconds
	EPP transform command	≤ 4 seconds
	EPP query command	≤ 2 seconds

METRICS

7. SRS Availability Standard

Objective

To monitor and manage the SRS service availability.

Definition

Availability of the SRS requires that Registrars are able to successfully complete valid read and update (write) transactions to the SRS.

Target

The required SRS online service availability is 99 % (excluding planned outages).

Calculation

Percentage available = (Scheduled availability – Unscheduled Outage time) / (scheduled availability) x 100.

Scheduled availability is the number of minutes in the calendar month period being measured.

Unscheduled outage time is calculated by totalling all of the individual outages that occurred during the period. Elapsed time of an outage is measured in minutes from the time the SRS Service is unavailable (see availability definition above) until it is again available.

Unscheduled outage time will not include approved planned outages for maintenance or shutdown times as documented in The Registry Operations manual or Change Management process.

Method and Reporting

All outage incidents are recorded and SRS Service Availability is tracked on a per incident basis but measured and reported on a monthly basis.

8. WHOIS Availability Standard

Objective

To monitor and manage the WHOIS Service availability.

Definition

Availability of the WHOIS requires that users are able to successfully query the WHOIS service in accordance with the .vu WHOIS Policy.

Target

The required WHOIS online Server availability is 98 % (excluding planned outages).

Calculation

Percentage available = (Scheduled availability – Unscheduled Outage time) / (scheduled availability) x 100.

Scheduled availability is the number of minutes in the calendar month period being measured.

Unscheduled outage time is calculated by totalling all of the individual outages that occurred during the period. Elapsed time of an outage is measured in minutes from the time the WHOIS Service is totally unavailable (see availability definition above) until it is again available.

Unscheduled outage time will not include the approved planned outages for maintenance or shutdown times as documented in The Registry Operations Manual or Change Management process.

Method and Reporting

All outage incidents are recorded and WHOIS Service Availability is tracked on a per incident basis but measured and reported on a monthly basis.

9. SRS/WHOIS Planned Outages

Objective

To manage and monitor the SRS/WHOIS planned outages within the defined planned outage parameters.

Definition

A planned outage of the SRS/WHOIS relates to events that are scheduled and notified in advance to SRS/WHOIS users. It includes periodic maintenance and urgent, but controlled, maintenance to correct software or hardware problems.

SRS/WHOIS Planned outages must be published prior to the outage start time.

Target

- No single planned outage will be scheduled to exceed 4 hours.
- The total of all planned outages are to be less than 8 hours in a month.

Calculation

- Each individual planned outage is recorded.
- The total of all the individual planned outage times in minutes in the calendar month period being measured.

Method and Reporting

All planned outages are recorded on a per outage basis but measured and reported on a monthly basis.

10. SRS Integrity

Objective

To monitor the SRS integrity to ensure the data received is accurately stored, retrieved, disseminated and transactions are processed in the order they are received.

Definition

Integrity of the SRS requires ALL the following to be met:

- the receipt and retention of registration data from Registrars is correctly recorded in the SRS database, in the order they are received and at the time of receipt;
- dissemination of registration data in the .vu TLD and public WHOIS service is a correct representation of the data stored in the SRS database at the time of access;

Target

The SRS data is required to be 100 % correct with no valid complaints regarding data integrity.

Method and Reporting

SRS data integrity is tracked and reported on an exception basis in the scheduled monthly reports.

All complaints will be totalled and reported on during the reporting period.

11. SRS/WHOIS Performance

Objectives

- To continuously monitor all Registrar SRS transaction response times at the SRS front-end servers.
- To continuously monitor the public WHOIS service response times from a point outside the firewall.
- To ensure that the systems are managed and tuned to maximise the transaction performance to meet the defined parameters.

Definition

To measure the average transaction response time for all valid Registrar SRS transactions at the SRS frontend servers.

To measure the average WHOIS service transaction response time at a point immediately outside the firewall to the SRS front-end WHOIS server, by periodic active WHOIS queries.

Registrar transactions with the SRS may be made through an XML-based protocol. A single 'XML request' may contain one or more transactions. A single 'XML response' may contain an error response, or one or several valid responses that relate to the transactions in the 'XML request'.

Registrar transactions with the SRS may be made through EPP. The EPP response requirements are included in the Service Level Standard specifications at the commencement of schedule B.

Requests made to the public 'WHOIS' service use the WHOIS protocol documented in RFC 3912.

<u>Target</u> The following transactions are time critical transactions and have defined target average response times:

Transactions	Minimal	Good	Excellent
DomainDetailsQry	≤ 0.9 s	≤ 0.75 s	≤ 0.5 s
Whois	≤ 1.5 s	≤ 1.0 s	≤ 0.5 s
UDAIValidQry	≤ 1.5 s	≤ 1.0 s	≤ 0.5 s
DomainUpdate	≤ 1.5 s	≤ 1.25 s	≤ 1.0 s
DomainCreate	≤ 1.5 s	≤ 1.25 s	≤ 1.0 s
GetMessages	≤ 0.9 s	≤ 0.75 s	≤ 0.1 s
WHOIS Service	≤ 2.0 s	≤ 1.75 s	≤ 1.5 s

Any average response time greater that Minimal is a breach of this contract.

Calculation

A minimum of 50 transactions/month for any of the transactions above is required to merit any measurement specified in this contract.

The following daily Registry batch transactions are excluded from the response time calculations:

- The Domain Name Renew; and
- Release Domain names.

The average response time for each transaction type is the 95 % truncated mean of all the transactions within the measurement interval. This means that the 2.5 % that take the longest time and the 2.5 % that take the shortest time are discarded and the mean calculated for the remainder.

Method and Reporting

As some transactions can contain multiple requests and/or multiple types of transactions then these transactions are subject to the Registrar behaviour in using The Registry. Should the usage patterns change this could change the mix of transaction types and the number of requests. In turn this could change the volume and response times. Should this happen it may be required to review the response times in the light of any such new behaviour/trend.

It should be noted that a Registrar's system can either by design or error create excessive transaction rates that can cause the performance to be sub-optimal and therefore can cause the target response times to be exceeded. These events will be fully investigated and reported. Regular periods of excessive transaction rates that are known and accepted will be excluded from the calculations.

- SRS Front-end Transactions response times are recorded from the time the transaction is received until the time the response is sent at the SRS front-end.
- The WHOIS service transaction is measured from outside the Firewall.

Average Response times are reported on monthly.

SCHEDULE C – OPERATING AND REPORTING REQUIREMENTS

The purpose is to ensure that The Registry manages and operates the Register and the DNS in a professional, security-conscious manner, to international industry best-practice standard.

OPERATING REQUIREMENTS

The Registry will operate .vu so as to ensure that:

- The .vu infrastructure and data are secure from all manner of foreseeable threats.
- In the event of a serious disaster .vu continues to operate.
- The incidence and impact of serious technical failures are reduced to as low as possible.
- All changes are managed in a detailed process.

The Registry must ensure that authorised Registrars:

- Have sufficient notice and documentation of any intended system change to allow them to upgrade their own systems, dependent on the scale and urgency of the change.
- Can contact The Registry as necessary, dependent on the seriousness and urgency of their problem.
- Receive support and assistance as necessary, dependent on the seriousness of their problem.

REPORTING REQUIREMENTS

The Registry shall report monthly to the Regulator (**TRR**) against the Register performance and Register management standards specified. This report should also include any relevant reports and any other material reasonably requested by TRR.

- The Registry will supply the reports as specified in this section on or before the 9th working day of the month.
- The Registry will provide statistics for publication on the 7th working day of the month. These figures will include the general summary of creates, renewals and total numbers for each of the separate second level and top level .vu registrations.
- The Registry will contribute to the joint monthly .vu newsletter produced by TRR.
- The following reports will be provided by The Registry in a format as agreed from time to time.

Report description	Frequency
General reports	
SRS and DNS Performance as per Schedules A and B. Response times by transaction, for previous month, YTD (where detail available).	Monthly
Annual report against performance and statistics.	Annually
Annual update on Business Continuity/Disaster Recovery measures implemented or improvements made.	Annually
Complaints received if any, including status and resolution.	Monthly
Reporting against performance and management standards, response times to emergencies, downtime of SRS/DNS both scheduled and unscheduled as per Schedules A and B.	Monthly
Registrar activity – those connected / disconnected or action taken against.	Monthly
Statistical/System reports	'
Number of registrations, YTD, (where detail available) • total • per second level domain • per Registrar • with IPv6 glue • with DS records	Monthly
Number of cancellations, pending release, released, YTD, (where detail available) • total • per second level domain • per Registrar	As requested
Number of changes, YTD, (where detail available) total per second level domain per Registrar	As requested

SCHEDULE D – REGISTRAR METRICS

This schedule defines the measures to be undertaken to evaluate the satisfaction of registrars in the authorisation and connection process, and then on an on-going basis.

Metric description	Measured by	Frequency
Registrar application to connection process	TRR	Each new connection
Registrar satisfaction survey	The Registry	Annual

Definitions and Terminology

ccTLD Country Code Top Level Domain – see Top Level Domain

gTLD Generic Top Level Domain – see Top Level Domain

Domain Name

A unique alpha-numeric string (which may contain a limited number of punctuation marks) which is registered within a Top Level Domain. May also refer to a top level domain, for example ".vu is the domain name for Vanuatu"

Domain Name Server – see Name Server

Domain Name System

The Domain Name System (DNS) is a hierarchical decentralized naming system for resources connected to the Internet associating domain name data assigned to each of the participating entries and translating more readily memorized domain names to the numerical IP addresses needed for locating and identifying computer services and devices with the underlying network protocols.

DNSSEC

The Domain Name System Security Extensions (DNSSEC) is a set of extensions to the DNS which provide to DNS clients (resolvers) origin authentication of DNS data, authenticated denial of existence, and data integrity, but not availability or confidentiality.

IP Number / IP Address The Internet Protocol (IP) number which allows resolution of domain names.

Local Internet Community

The Local Internet Community (LIC) comprises of the businesses, organisations, Government, individuals, academia and the technical community, and potential internet users who have an interest in the Internet operations relating to Vanuatu, including Domain Name Registrants for .vu who have names registered in the .vu domain name, and internet users at large.

Name Server

A Name Servers (NS or DNS) allows resolution of human-memorable domain names and hostnames into the corresponding numeric Internet Protocol (IP) addresses.

Name Server Host

A Name Server Host means an individual server that is responsible for providing authoritative DNS resolution services for a Top Level Domain

Name Server Instance

A Name Server Instance means an anycast node of one or more TLD Name Server Hosts.

Register The database containing the details of all individual domain names in a Top Level Domain

Registrant The individual or organisation that has one or more registered domain names

Registrar

An individual or an organisation that has been authorised by the Regulator to sell domain names to Registrants and is able to interact directly with a Top Level Domain Registry

Registry

- 1. May mean the organisation that is designated to operate the Register for a Top Level Domain
- 2. May also mean the database of domain names, possibly more accurately defined as the Register

Regulator

The Regulator is the person or organisation officially authorised to develop and enforce the policies, and to authorise and sanction Registrars within a Top Level Domain, in the case of .vu, this is the office of the Telecommunications and Radiocommunications (TRR) as specified in the .vu legislation in Vanuatu

Shared Registry Service (SRS)

A database of domain names established by the Registry for a Top Level Domain, which enables individual Registrars to directly insert data into the Register on behalf of their Registrants

TCP The Transmission Control Protocol (TCP) is one of the main protocols of the Internet protocol suite.

TCP/IP

The Transmission Control Protocol (TCP) and the Internet Protocol (IP) unite to form TCP/IP. This protocol suite provides end-to-end data communication specifying how data should be packetized, addressed, transmitted, routed, and received. It is organized into four abstract layers which classify all related protocols according to the scope of networking involved. From lowest to highest, the layers are the link layer, containing communication methods for data that remains within a single network segment (link); the internet layer, providing internetworking between independent networks; the transport layer handling host-to-host communication; and the application layer, which provides process-to-process data exchange for applications.

Top Level Domain (TLD)

May be a country code top level domain (ccTLD) like .vu or .nz, or a generic top level domain (gTLD) like .com or .pacific, as is formally recognised by ICANN and included in the IANA database at www.iana.org

- TRR The office of the Telecommunications and Radiocommunications Regulator in Vanuatu
- **UDP** User Datagram Protocol (UDP) is one of the core components of the Internet Protocol suite
- .vu The ccTLD relevant to the Republic of Vanuatu

WHOIS

WHOIS is a query and response protocol used for querying databases that store the registered users for a TLD and stores and delivers database content in a human-readable format.

Zone File

The zone file contains mapping between domain names and IP addresses and other resources, organized in the form of text representations of resource records, for a top level domain.

Zone Push or Zone File Push

The point in time of publication of the latest version of the zone file for a top level domain