

***Business Plan & Application  
for  
ScotNom Limited***

***A Proposal for a Domain***

***Registry for Scotland***

**Draft:** 19 March 2001

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## *Executive Summary*

This business plan covers the infrastructure and investment required to operate domain names for Scotland. In the first instance, the domain under consideration is .scot.uk. In due course the company may also seek to operate .sco however the infrastructure (and hence investment) required will be approximately the same.

ScotNom Limited is a non-profit making company, limited by guarantee, running these domains for the benefit of the Scottish economy. As such this plan aims at break even.

This form of corporate structure makes conventional fund raising difficult. Therefore ScotNom will work in partnership with Scotland Online (“Operations Company”). All Operational Activities will be delegated to the Operations Company.

# *Charter, Statement and Declaration for .scot.uk*

## **The Charter**

This domain will be for Scottish organisations or those that wish to be associated with Scotland. Names will be registered on a first-come, first-served basis, with the minimum of restrictive criteria. The regulations for the domain will be closely based on those for .co.uk.

It is envisaged that the primary users of the domain will be Scottish businesses who have been unable to secure the name they require under .co.uk or who specifically want to emphasise their Scottish origin or focus.

## **The Statement**

### *Benefits*

As well as creating significant marketing and promotional opportunities for organisations of all type the new domain will have a number of benefits for the Internet community, including users, ISPs and website managers.

From a user's perspective the domain will help to identify whether a website or email address is connected with Scotland. For example, this will assist e-commerce users who are seeking a local supplier or help researchers who are looking for Scottish related information.

Once the Scottish Internet Exchange is fully operations the use of a .scot.uk domain may help to automatically route users to a local, Scottish based, mirror site in order to speed connection and minimise use of backbones.

The domain will also assist website owners in collecting more accurate demographic information on their visitors.

It is clearly the case that there is limited space under .uk however there is no very obvious competitor for .scot in the namespace. Space is also currently available for English, Welsh and Northern Irish second level domains should a need be identified.

## *Support*

The Scottish Executive, Scottish Enterprise and several leading Internet companies in Scotland have been approached regarding this proposal and there has been widespread support.

The following organisations have agreed to be Founder Members of ScotNom Limited:

- The Scotsman
- Scottish Media Group
- Cap Gemini
- NSL Internet Limited
- Maclay Murray & Spens
- Scotland Online
- DNS

## *Expected Number of Registrations*

Scotland is approximately 10% of the UK population, therefore the expectation is that .scot.uk will attract circa 10% of the .co.uk registrations. The figure used in this document is 10,000 registrations per month. The first month will attract more registrations, for that month 20,000 are expected.

## *Appropriate Use of Limited Resources*

There are clearly a limited number of subdomains available under .uk, both in terms of the namespace available and in terms of ease of use of the address space if we accept that it is desirable for there to be sufficiently few subdomains that users will be aware of and understand the significance of all.

It would seem that the general rule for a hierarchical system such as domain names would be that higher level names should have a significant proportion of the total address space. In the case of .scot.uk this is a subdomain which covers 10% of the total constituency of the UK and would therefore seem appropriate to deal with at this level.

Moving away from the generality to the specific case of .uk domain names the question is on what basis should the name space be divided up. Up till now the basis has been on type of organisation, .scot introduces the concept of geographic split. There is some precedent for this (the .us domain is divided by State for example and in organisations this is commonplace) and given that there is limited scope for further division based on organisation type this would appear to be a sensible evolution of .uk policy.

## **Declaration**

The directors of ScotNom are aware of no facts, information or risks that might reasonably be prejudicial to ScotNom's trusteeship of .scot.uk.

# ***Markets and Marketing***

## **Target Market**

The target market for ScotNom will be:

- Internet Service Providers and similar
- Domain registration companies
- Web design businesses

ScotNom will not aim to sell direct to Scottish businesses.

It would appear that the geographic focus for the company would be Scotland, however as many Scottish businesses use English ISPs it is more appropriate to regard the UK as the primary target market. In addition there will be some demand from abroad, however no particular marketing effort need be directed there.

## **Promotion**

Promotion of the domain will be through

- PR
- Press editorial
- Direct mail
- Web

No advertising will be necessary, although it is expected that members of ScotNom will advertise the domains.

## **Competition**

ScotNom will have a benevolent monopoly on the domain names it acts as registrar for. However companies may choose to register their name under other domains. In particular .com and .co.uk are very popular for Scottish businesses.

The price for .scot.uk should reflect the competitors.

## **Pricing**

Domains will be priced at £10 for two years for members or £80 for two years (non-members).

Membership is £500 to join and then £100 per year to renew.

The retail and membership price are the same as Nominet UK's. The price for members is slightly higher as ScotNom will not have the same economies of scale that Nominet benefits from.

## ***Products***

The products of ScotNom will be:

- Membership
- Registering domains under .scot.uk
- Registering other Scottish domains in due course (.sco)
- Operating a central name server
- Operating a whois server
- Providing support on issues directly related to the registrar activity
- Dispute resolution

It is important to note that the company will not get involved in any non-core activities. In particular, it will avoid activities that conflict with its members' interests.

It should be noted that it is highly speculative that ScotNom will ever be able to offer a .sco domain name given the difficulty and demand at the top level. If in the years to come this domain does become available ScotNom would continue to offer and promote .scot.uk. alongside .sco.

## *Operations*

The following operations will be contracted out to the Operating Company:

- Domain registration
- Operation of whois service
- Operation of primary name server
- Billing and credit control
- Support

Two further suppliers will be found to run the secondary and tertiary nameservers. For maximum redundancy different companies, using different hardware, networks and name server software will be chosen.

This will leave a minimal operational role for ScotNom, consisting of

- Marketing
- Dispute resolution
- Monitoring the outsourcing contract
- Policy
- Planning for additional Scottish domains
- Website

It should be noted that paper certificates will not be issued for .scot.uk domain names. A paper based proforma will be used for confirming acceptance of terms and conditions, transfer of ownership of a domain and requesting deletion of the domain name. These documents will be available to download from the ScotNom site.

Space in a fully serviced office or business centre will be obtained along with suitable Internet access.

The most onerous of the activities above is the dispute resolution. By adopting Nominet's rules and procedures as much as possible, allowing for the differences in Scots Law, much use should be made from the experience gained.

The Operating Company was selected by a competitive tender process. It was decided to restrict the invitations to tender to Scottish companies only and to ensure that the company had substantial resources (both in terms of manpower and financial). Iomart Group plc, Scotland Online Limited and Dow Carter Limited were invited to tender. The tenders were scored on a number of criteria and Scotland Online won. Richard Callison, Andrew Veitch and Frank Binnie excused themselves from the selection committee on the basis of conflicts or potential conflicts of interest. A lawyer from Maclay, Murray and Spens was present throughout to advise on procedure.

## ***Financial Analysis***

This section should be read in conjunction with the spreadsheets and the assumptions in Appendix D.

ScotNom will be working on the basis of a 60%/40% revenue split, in our favour, with Scotland Online.

The company operates with a cash positive balance throughout, the only exceptions are February and March 2001. This is caused by capital expenditure in January, if this expenditure is shifted to leasing then the cash shortfall disappears.

A cash balance does build up in the business as it continues to trade. This balance would be used to fund a .sco application to ICANN and associated infrastructure.

## *Appendix A: The Rules for .scot.uk*

1. The purpose of this document is to describe the rules for the allocation of names within the *.scot.uk* second level domain.
2. This procedure applies to all names requested for allocation within the *.scot.uk* domain.
3.
  - 3.1 The rules given here apply to all requests for names in the *.scot.uk* domain. It is not intended to offer registrations in subdomains below *.scot.uk*.
  - 3.2 Where a dispute over the interpretation of the rules exists, the Council of Management of ScotNom Limited ("ScotNom") shall rule on the interpretation. Appeals against a ruling of the Council of Management may be made to the Steering Committee.
  - 3.3 All NEW domain requests will conform to RFCs 1034, 1035, 1122, 1123 and any subsequent replacements. In addition, ScotNom will apply a further set of restrictions on names, as described below. For designated zones the requests will be handled by an automaton/robot. This robot will apply the appropriate RFC's, the rules and a check against the list of existing domain names. It will also check that operating name servers exist for the request.
  - 3.4 If the rules are changed in the future, some names approved under one set of rules might be rejected under the changed rules. No rule change will ever affect the status of a name which has been approved before the change unless sound technical reasons require this.
  - 3.5 ScotNom may cancel a registration or suspend delegation of a name
    - if the name is administered in a way likely to endanger operation of the DNS
    - if the basis on which the name was registered has changed (e.g. the organisation making the application no longer exists.) This does not include a change in the UKNIC rules for names subsequent to the name being delegated but does include the case where the automaton failed to correctly apply the existing rules.
    - if it is drawn to ScotNom's attention that the name is being used in a manner likely to cause confusion to internet users.
    - where ScotNom has been informed that legal action has been commenced regarding use of the name.
    - where ScotNom is of the opinion that one of the above events is likely to occur.
  - 3.51 If any party affected is dissatisfied with ScotNom's decision to suspend (or not to suspend) delegation of a name, ScotNom will, at that party's request, refer the suspension to an independent expert for a written recommendation that ScotNom should confirm or revoke its decision.
  - 3.52 ScotNom maintains a list of independent experts. They will each be consulted on a rota basis, subject to any conflicts of interest identified by the expert in question.
  - 3.53 The expert will be sent copies of all letters, faxes, e-mails and notes, together with a short statement by ScotNom, confirming the background, timing and implementation of its decision.

3.54 The interested parties will be informed by ScotNom of the referral to the expert and provided with copies of relevant documents. The expert will invite the parties affected by the suspension, or failure to suspend, to make one written submission, within 14 days, of his or her receipt of all documents referred to in paragraph 6.

3.55 Neither party will have the right to call for a hearing before the expert at which witnesses would be examined. The expert may invite the parties to appear before him or her.

3.56 The expert will issue his or her written recommendation to ScotNom with reasons, with copies to any other party, no later than one month after receipt of the documents referred to in paragraph 5.3 from ScotNom

3.57 Immediately on receipt of the expert's recommendation, ScotNom will reconsider its early decision to suspend, or not to suspend, the delegation of the name. A final decision will be made and confirmed to all affected parties.

3.6 SYNTAX rules for domain name requests. [These rules apply at the top level delegation only i.e. *xxx.scot.uk* but not within a delegated domain.]

### **Mandatory Rules**

- Two letter names are not allowed, reserved for ISO country codes.
  - Two character names are allowed. i.e. *3x.scot.uk* where the format is not *aa.scot.uk*.
  - All second level names of *.uk* are banned from being used as third level names. e.g. *nhs.scot.uk* would be banned as it is a second level name.
  - All top level domains are banned from being used as third level names. e.g. *net.scot.uk* and *org.scot.uk* are not allowed.
  - All one character domain names (ie *[a-z0-9].scot.uk*) are reserved for possible future sub-domain usage.
  - There shall be at least two nameservers for the domain (with addresses specified in the request) operating *at the time* the request is submitted. There is no restriction on the physical location or IP address of these nameservers.
4. A record will be created in ScotNom's database where management of the zone is delegated to ScotNom from which NS records will be generated and loaded into the primary nameservers for the zone.
  5. All registrants will be bound by Nominet UK's Terms and Conditions for the Registration of Domain Name and Rules for *.uk* Domain and its Sub-Domains, in both cases as amended from time to time.

## ***Appendix B: Dispute Resolution Policy***

On learning of a dispute about an Internet Domain Name registered under a sub-domain of the scot.uk Level Domain, between the organisation or individual and another laying claim to a stronger right to register it, Scotnom will assist the parties by providing the following services:

- Investigation
- Formal action under the rules
- The ScotNom Alternative Dispute Resolution Service

### **Investigation**

1. Scotnom will seek to establish whether a mutually acceptable resolution to the dispute can be found by the impartial intervention of Senior Executive staff of Scotnom.

### **Formal action under the rules**

2. Under the rules for the sco.uk or scot.uk domain and sub-domains, Scotnom may suspend delegation of an Internet Domain Name in certain circumstances. The dispute that arises most frequently is where it is drawn to Scotnom UK's attention by a third party that in their view a Domain Name is being used in a manner likely to cause confusion to Internet users. There are other more objective circumstances, which may lead to suspension, including where it is drawn to Scotnom's attention that a Domain Name is administered in a way likely to endanger operation of the DNS.

3. If investigation does not lead to a mutually acceptable resolution of the dispute, Scotnom will consider the evidence assembled during the investigation to determine whether the delegation of the Domain Name should be suspended.

4. If any party affected is dissatisfied with Scotnom's decision to suspend (or not to suspend) delegation of a Domain Name, Scotnom will, at that party's request, refer the suspension to an independent expert for a written recommendation that Scotnom should confirm or revoke its decision.

5. Scotnom maintains a list of independent experts. They will each be consulted on a rota basis, subject to any conflicts of interest identified by the expert in question.

6. The expert will be sent copies of all letters, faxes, e-mails and notes, together with a short statement by Scotnom, confirming the background, timing and implementation of its decision.

7. The interested parties will be informed by Scotnom of the referral to the expert and provided with copies of relevant documents. The expert will invite the parties affected by the suspension, or failure to suspend, to make one written submission, within 14 days, of his or her receipt of all the documents referred to in paragraph 6.

8. Neither party will have the right to call for a hearing before the expert at which witnesses would be examined. The expert may invite the parties to appear before him or her.

9. The expert will issue his or her written recommendation to Scotnom with reasons, with copies to any other party, no later than one month after receipt of the documents referred to in paragraph 6 above from Scotnom.

10. Immediately on receipt of the expert's recommendation, Scotnom will reconsider its earlier decision to suspend, or not to suspend, the delegation of the Domain Name. A final decision will be made and confirmed to all interested parties.

11. If either party is dissatisfied with Scotnom's final decision on suspension of delegation of the Domain Name, Scotnom will inform the parties of the Scotnom Alternative Dispute Resolution Service, administered by the Centre for Dispute Resolution (CEDR) and forward to them details of the service. If one of the parties refuses to enter into a mediation agreement (or mediation does not resolve the dispute), the dissatisfied party will remain in a position to seek advice from its lawyers about pursuing its case by litigation in the courts or (with the agreement of the other party) in arbitration.

### **The Scotnom Alternative Dispute Resolution Service**

12. Scotnom ADR is a form of mediation whereby parties to a dispute agree with a neutral third party intermediary to assist them to reach a negotiated settlement agreement. Mediation fees and expenses are borne by the parties. The process aims to avoid the delay, expense and confrontation associated with litigation and arbitration. Parties invoking the Scotnom ADR Service do not have to pay a membership or arrangement fee to CEDR. Mediation fees will be quoted, from CEDR on request.

13. Mediation (sometimes described as conciliation) is non-binding in that there is no commitment to settle and the mediator has no power to impose a solution. However, when an agreement is reached it may be documented and signed by the parties. This will create an enforceable contract at the option of the parties, which can be used in Court.

14. CEDR will be appointed to provide accredited intermediaries for Scotnom at a specially reduced rate, and to administer the Scotnom Alternative Dispute Resolution Service. The organisation is an independent non-profit making body whose aims are supported by the CBI, the DTI and the IOD. They offer a free telephone advice line for parties interested in taking an Internet domain name dispute to mediation, subject to common sense restraints.

*Appendix C: Proposal from Operating Company*

**Proposal for Commercial Partnership with  
Scotnom.**

**Patricia Somerville**  
**Scotland On Line**

**12 February 2001**

## **Scotland On Line- Company Profile**

Scotland On Line Ltd represents a joint venture by two of Scotland's largest and most respected companies – Thus plc, part of the ScottishPower group, and D. C. Thomson & Co. Ltd, a major force in UK publishing.

Scotland On Line is an Internet Service Provider based in Dundee and has been established since December 1995. Scotland On Line was the first Scottish-based Internet Service Provider to supply a primary Internet connection in Scotland. Scotland On Line has been in operation for over five years and, as such, is an established player within the Scottish Internet industry.

Scotland On Line is ideally placed, through the patronage of the parent companies, to provide complete business solutions ranging from web hosting to leased circuit connections. Utilising the Thus advanced fibre optic network, Scotland On Line offers the highest standards of resilience and redundancy, with all circuits monitored 24 hours a day, every day.

Scotland On Line has a dedicated team of 65 staff, who have been specifically recruited to ensure the company delivers the full potential of the Internet to Scottish businesses. The combination of this experience coupled with the resources and commitment of the shareholders means that Scotland On Line offers the highest standards in the Internet industry, both technically and in terms of customer service.

There has been significant investment in the infrastructure of Scotland On Line, facilitating the bid to be a partner for Scotnom. Scotland On Line can provide a quality service utilising considerable experience gained over many years in the Industry to deliver, maintain and support this service as required.

Scotland On Line has supplied services for many clients including:

Scottish Provident  
Royal Bank of Scotland  
Abbey National  
Scottish Enterprise  
Insurance Direct  
Scottish Widows  
ScottishPower  
Midlothian Council

## **PROPOSAL OUTLINE**

This proposal has been divided into three key sections:

1. Technical
2. Operational
3. Financial

The technical section outlines Scotland On Line's proposed solution design, network infrastructure, technical specifications of the hardware to be employed, disaster recovery, provision of service and security.

The operational section indicates Scotland On Line's proposal in terms of a service level agreement, facilities within both the ScottishPower and Scolocate Data Centres, customer support, the launch and a brief description of the project team.

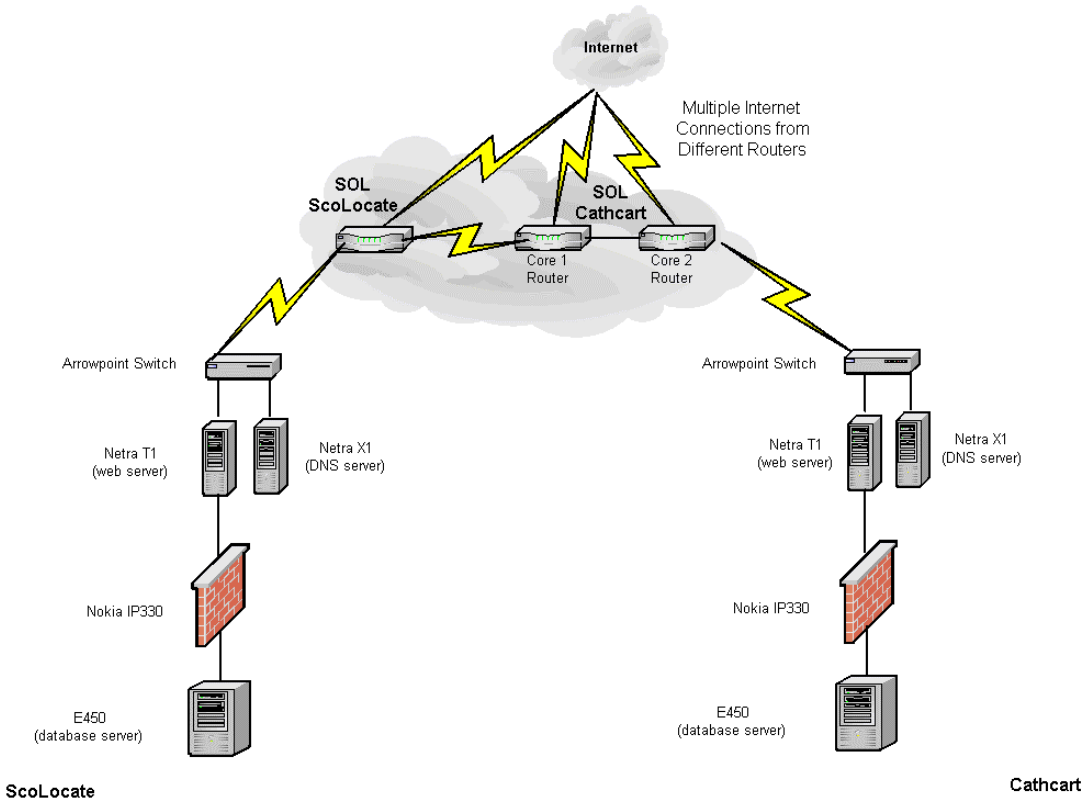
The financial section covers the plan for billing and credit control and includes a statement on Scotland On Line's financial status.

Scotland On Line has been advised that Nominet is supportive of the Scotnom proposal. Scotland On Line would seek to work closely with Nominet and choose to replicate the processes and procedures used by Nominet wherever possible. This proposal has assumed that Nominet will be co-operative in this regard and will provide Scotnom's commercial partner with versions of the applications and codes which Nominet has developed. If this is not possible Scotland On Line will enter discussions with other registries and failing that develop the code in-house.

If any further information is required, please contact Patricia Somerville at [psomerville@scotlandonline.co.uk](mailto:psomerville@scotlandonline.co.uk) or by telephone on 01382 429003 or 07887 658976.

# 1. TECHNICAL

## Solution Design



The proposed solution offers two database servers sitting behind two Nokia IP330 firewalls and then connecting to two web servers and two Arrowpoint Load Balancing Switches, as in the diagram above. The web servers will handle the web-based whois queries and the PGP encryption, the primary DNS servers will handle DNS only and the database servers will store the customer and domain name details.

This solution has been designed to offer the resilience, security and system critical operational availability that is required for this project.

The Arrowpoint switches will enable the flexibility necessary to deliver this project, allowing operations to be scaled up or down and servers to be replaced or upgraded transparently, without any loss of service.

## **Infrastructure**

Scotland On Line provides Internet services utilising Cisco router technology and multiple ATM connections to London.

### **Arrowpoint Load Balancing Switches**

One of the main benefits of using these switches is their ability to failover across multiple sites.

Server load balancing is in place to address scalability and reliability issues associated with single server operation. By "front-ending" servers containing identical information or "content", server load balancing technology can direct requests for that content to those servers based on a limited determination of server load. These switches will enable us to remove any of the servers to upgrade or fix any faults without any loss of service.

Load balancers test the availability of Web servers by sending various "keep alive" messages to the server on a periodic basis. Opening a TCP session to the server can test specific applications, and content availability can be verified by sending an HTTP message. In the event of a failure, the load-balancing device will remove the server/device from its availability table, and direct traffic to another server.

ArrowPoint Content Aware (ACA) server selection provides the optimal server response to client requests - improving Web response time. ACA eliminates complex "hand-tuning" by operators - automatically tuning its algorithm based on dynamic server load and performance.

The Arrowpoint switches will also act as a security layer. Access control lists will be used to provide filtering and supply a level of security for the web servers.

### **Database Servers**

This solution provides two Sun E450 database servers to store the customer and domain name information. The Oracle servers will also provide the back end whois facility to question domain name availability and provide dns server information. Scotland On Line uses Sun servers within it existing infrastructure to guarantee the highest quality service provided. Scotland On Line has a service level agreement with Sun regarding the maintenance of these servers. Sun provides solutions offering maximum uptime, unmatched scalability, terabytes of capacity, and seamless connectivity. With a solution focused approach and uncompromising commitment to quality and service, Sun has earned a position among the top UNIX server vendors.

### **Web Servers**

Sun's Netra T1 servers will be used to provide the two web servers. Sun's Network Servers are flexible, providing applications and services with excellent scalability. The web servers will provide the Whois and PGP functions.

### **DNS Servers**

Sun's Netra X1 servers will be used to provide the two DNS servers. The Netra X1 is a new server recently announced by Sun, which will be available from March 2001. The

Netra X1 is basically a slimmed down version of the T1 and will be used to provide the Primary DNS function.

### **Nokia IP 330**

These will be used as the firewall for the project. The policy for the firewall will be created, then applied and the system penetration tested by Scotland On Line. Once finished, the entire solution will be penetration tested by a third party company and any problems found will be resolved prior to the delivery of the service.

### **Check Point Firewall-1**

Ideally suited to provide secure Internet connectivity, the IP330 combines high performance IP routing with a full implementation of the CheckPoint Firewall-1™ enterprise security suite.

### **Security**

There are two levels of security implied within the proposed solution. The Arrowpoint switches will provide Access Control Lists as a first layer of security and Nokia IP330 firewalls as a second layer, which provide maximum security benefits to protect the database.

Scotland On Line has Checkpoint Firewall 1 accredited engineers who contribute to the monitoring and management of firewalls. All firewalls are regularly penetration tested and firewalls are subject to third party penetration tests prior to completion of the installation process.

Once both parties are satisfied with the security implementation, Scotland On Line will call upon the services of a third party penetration testing company to do a remote penetration test of the system and provide a report on their findings (currently NTA Monitor). Any holes found will be discussed, and appropriate action taken. The system will then be re-scanned by Scotland On Line.

Scotland On Line will scan the service on a monthly basis, and a third party company will test the system on an annual basis. Scotland On Line will scan the service using ISS, Retina, Saint, Sara, Nessus, nmap and ndiff.

### **Disaster recovery strategy**

The solution offered provides duplication at all points, including providing service in two different data centres. In addition, all services would be backed up and backups kept off-site. Further details of this are covered in the Operations section.

### **Ability to deliver the system quickly**

Utilising existing personnel, network and servers will enable Scotland On Line to deliver this project in a fairly short timescale.

Factors which may extend the delivery schedule include:

- i. Failing to source appropriate applications code
- ii. Delay in Scotnom agreeing web site design and sign off of web design
- iii. Delay in Scotnom identifying required reporting functions and sign off of agreed reporting facilities.
- iv. Third party hosting of secondary DNS services

Scotland On Line would seek to have agreed requirements regarding the above points, prior to the agreement of a launch date.

## **2. OPERATIONAL**

Scotland On Line use both Scolocate and ScottishPower's Data Centre to provide services. As such, Scotland On Line has service level agreements in place with both parties.

### **ScottishPower Data Centre**

#### **Power**

There is supply resilience with twin supplies to building with auto switch over if power failure. Also, all equipment is fed from a "clean" supply (i.e. no spikes in supply).

#### **Reliable Air Conditioning**

ScottishPower guarantee an air temperature that will neither drop below 18°C nor be in excess of 26°C.

#### **Reliable Security**

The physical security of the building is excellent. The building is manned 24 hours a day, 365 days a year. There are four levels of physical security before entry to the Data Centre. Admittance provided only as authorised by prior agreement in writing with Clients.

All systems are backed up nightly with backups stored off site for disaster recovery.

#### **Fire Detection and Suppression**

The Data Centre is secured by a Halon gas fire protection system.

### **Scolocate Data Centre**

#### **Power**

ScoLocate ensures that power of suitable quality is available from one of or both of the primary distribution box bus bars for more than [99.995]% of the time averaged over 300 consecutive days.

#### **Air Conditioning**

ScoLocate guarantees that for 99.50% of the time, over an average period of 365 days, the Licensed Space air temperature as supplied "on" to Equipment from the source plenum will neither exceed 25°C or drop below 15°C, and for 95% of the time over an average period of 365 days the Licensed Space air temperature as supplied "on" to Equipment from the source plenum will neither exceed 22°C or drop below 18°C.

#### **Security**

ScoLocate guarantees that the Licensed Space is continually electronically and physically secured, with CCTV coverage of all access doorways, with all staff and visiting personnel adequately identified, monitored and supervised, and access security and admittance provided only as authorised by prior agreement in writing with Clients.

#### **Fire Prevention**

The Equipment Room is protected by a Very Early Smoke Detection (VESDA) system. The VESDA Laser System detects very low levels of smoke and sounds an alarm before visible smoke and flames are present. The VESDA is installed throughout the Equipment Room and constantly samples air by means of a sampling infrastructure in the ceiling

void. The Stair Wells and Upper Office Area are protected by Minerva Smoke Detectors. They also trigger an alarm if smoke is detected within their localized area.

There are two forms of suppression. Throughout the facility there are carbon dioxide charged fire extinguishers and a Wormauld Fine Mist System. This system remains dry at all times, only charging with water when a fire has been detected. This system has a discharge inhibit function in order to circumvent localized suppression.

### **Monitoring Services**

All of the main services including Primary DNS, Whois and Database servers will be monitored.

Monitoring of server performance is performed in two ways.

1. ICMP Ping monitoring of each machines primary Ethernet interface.
2. Service monitoring on a per address/port pair basis.

The standard service monitoring function is in the form of a PING request being issued from the Corporate Support monitoring system to the server, providing a check on server every 4 minutes.

In the event of a server failing to respond to 3 monitoring request (i.e. after 12 minutes), the monitoring system will escalate the error to a critical level and advise the fault level via pager to the duty Corporate Support Engineer.

All servers will be monitored and supported 24 hours a day, every day.

### **Backup Services**

The solution will be recoverable from backup tape in the event of a disaster. Backup on all systems are performed to the dedicated backup device attached to each server.

A complete system can be restored from only one tape. Scotland On Line maintains 1 year's worth of backup archives by using a monthly tape that is only used once per year. Backups are considered a critical part of service provision and their operation is performed with the utmost care.

Tapes are kept on site for 1 day after they have been used, (for example, Monday's tape is on site until Wednesday morning) after which they are taken off site and kept in a secure data storage location until next required.

## **Service Level Agreement**

The SLA for this project will reflect the robustness and reliability of the solution. It will contain realistic contract terms including migration of the solution in-house and compensation for service below the agreed levels of service.

Scotland On Line will also ensure that any SLA's between Scotland On Line and any third party suppliers reflect and support that agreed between Scotland On Line and Scotnom.

The escalation route for faults is as follows:

- A) Reporting of faults is to the Customer Service Centre, which operates a 24 x 7 x 365 facility.
  
- B) Should the level of response and quality of action be unsatisfactory then the following escalation process is available, commencing with the Customer Services Manager.

Designation	External No.	Email
Alison Wallace Scotland On Line Customer Services Manager	01382 429051	cust-serv@scotlandonline.co.uk
Malcolm Dobson Scotland On Line IT Manager	01382 429002	mdobson@scotlandonline.co.uk
Richard Callison Scotland On Line General Manager	01382 429007	rcallison@scotlandonline.co.uk

## **Customer Support**

Scotland On Line already has a highly experienced Corporate Support Department capable of handling a significant volume of calls. The Corporate Support Department operates a primary and secondary contact system which enables us to both provide a customer-friendly contact at the end of the phone and leaves the engineers free to solve all problems.

The Customer Services Department operates a Call Logging System, which enables Scotland On Line to provide statistical information showing the number of each type of call and the appropriate solution. This can in turn be used to provide reporting information. This allows the identification of any recurring problems and enables the engineers to troubleshoot these appropriately.

Scotland On Line has also experience of developing online support pages to instruct and inform customers how to use the range of services. These in turn reduce the number of telephone support calls being handled. In addition, Scotland On Line has expertise in dealing with high volumes of electronic mail, both in demand for services and in demand for support. Procedures have been developed to ensure the speedy and effective distribution and reply for all electronic requests.

If the enquiries result in too high a number of calls for Scotland On Line to maintain the quality of service, additional staff would be employed to meet any agreed service level.

It is perceived that the most work would be required immediately prior to launch facilitating the processing of member information, PGP encryption keys, etc. This work would be carried out by existing staff.

Scotland On Line does not propose to post out domain name certificates. If Scotnom decide this is an essential function, further administration staff would be needed. Electronic confirmation of domain name registration will be provided on an annual basis.

Scotland On Line would seek to take advice from Scotnom and Nominet regarding the length of time to keep any paper and fax orders. It is assumed this would be a fairly lengthy period to facilitate audit trails and either hard copies can be kept or scanned and stored as electronic copies, whichever option is preferred.

A dedicated fax machine would be provided to permit orders and transfers.

## **Project Management**

Scotland On Line has a dedicated team of database and applications development engineers experienced in the delivery of mission critical solutions for key clients, such as Scottish Provident, Abbey National, Insurance Direct, ScottishPower and Scottish Widows.

This service will be maintained by a designated Project Manager. The Project Manager will be responsible for implementing the project as described in this document and for the continued delivery of the service to agreed service levels.

The structure for the management of the project is as follows:

### **Patricia Somerville – Corporate Sales Manager**

A business and IT graduate, Patricia will be the Project Manager for Scotnom.

Patricia has a background of over six years experience within the Internet marketplace. She manages the Corporate Sales team, which sells such services as leased lines, frame relay, domain name registration and server hosting. She also manages a number of key accounts including Midlothian Council, Cable & Wireless, Conoco and Shell.

Patricia is also responsible for New Product Development within Scotland On Line and has had previous experience of delivering and managing key projects for customers and for Scotland On Line. She has project managed the delivery of ATM services into Scolocate and established service level agreements with them.

Patricia is the primary contact for this project. She can be contacted for any further information by email at [psomerville@scotlandonline.co.uk](mailto:psomerville@scotlandonline.co.uk) or by telephone on 01382 429003.

### **Malcolm Dobson - Head of IT**

Malcolm has significant experience within the Internet industry. He has established a reputation for expertise within the Internet community, helping Scotland On Line to become a leading force within the Internet industry in Scotland.

Malcolm manages an IT Department of 22 staff and co-ordinates all aspects of network infrastructure advances.

### **Chris Plank – Senior Technical Consultant**

Chris has implemented several key projects for Scotland On Line including the building, implementation and management of Scottish Widows, Abbey National and Insurance Direct.

### **3. FINANCIAL**

#### **Payment Methods**

Scotland On Line currently manages billing and credit control for over six thousand customers. The billing system automatically generates renewal invoices based on a length of service period. It also automatically creates e-mail invoices, reminders and cessation of service notices. This is backed up by traditional paper invoices and reminders if the customer requires this facility.

The Scotnom project will be incorporated into the existing system by setting up each reseller as a customer with an annually renewable registration fee plus a range of domain names associated with each account. Domain registrations requested by resellers will be billed on the 1<sup>st</sup> day of the month following date of registration. A list of each domain name registered will be attached to the monthly account.

Scotland On Line recommend that while the annually renewable registration fee can be paid by cheque, direct debit or credit/debit card, all domain registrations should be paid for by credit/debit card or direct debit. This limits credit control administrative costs.

Scotland On Line currently clears all electronic credit card payments through Worldpay – a secure payment gateway. The standard checks on credit cards are also carried out by them as part of this process. Direct debit arrangements are set up on completion of an authorised direct debit form to be completed by resellers and processed through normal banking facilities by Scotland On Line. Non-members will be able to make registrations at a cost of £80 per annum.

Scotland On Line would seek to ensure payment was received using its standard debt recovery process: invoice sent, two reminders sent, suspension of service. Invoices and reminder are sent out both electronically and on paper copy if required.

Scotland On Line anticipates that one additional member of staff will be required to assist in the processing of financial information.

#### **Financial Stability**

Thus plc fully supports Scotland On Line's bid to become the operating company for Scotnom. In the unlikely event that Scotland On Line is unable to continue the service to Scotnom, Thus is prepared to discuss continuance of the service with Scotnom.

Scotland On Line has a current annual turnover in excess of £3,000,000.

Should further financial information be required, Scotland On Line would be happy to provide a copy of its last posted accounts 1999 – 00.

## **Costs & Revenue**

Based on the proposed membership payment of £500 and £10 per annum for registrations or £80 per annum for non-member registrations, Scotland On Line proposes that all revenues will be distributed on a 60/40 split, with Scotnom getting the higher percentage. Revenue would be paid to Scotnom subject to agreed terms. Scotland On Line estimate that this project will have an overall cost in excess of £200,000. All costs for the infrastructure as listed in this document will be absorbed by Scotland On Line. Scotland On Line will have to employ additional staff to cope with financial administration.

Scotland On Line uses all of the above in its day-to-day business and this project would be an extension of existing services rather than developing them, thereby helping to ensure prompt delivery of this project.

In conclusion, Scotland On Line submits this proposal for your consideration and would be happy to discuss any aspect of it in greater detail with you, if required.

## ***Appendix D: Financial Assumptions***

Note that no sensitivities have been presented – these will be done once there is clarity on the rest of the figures.

### **General Assumptions**

- i. VAT has been assumed at 17.5% on all sales and purchases.
- ii. VAT is paid or received quarterly in March, June, September and December.
- iii. No account has been taken of Corporation Tax.
- iv. Inflation has been ignored.
- v. No consideration has been given to currency costs.
- vi. The company is operating without an overdraft.
- vii. There were £20,000 of professional fees prior to the start of this plan

### **Trading Assumptions**

Sales are assumed to be approximately 10% of the sales for .co.uk with an initial rush in the first month with companies attempting to grab domains. For simplicity, sales have been recognised in the month they occur however the auditors may prefer to see the sale apportioned over the lifetime of the contract.

### **Cost Assumptions**

The **cost of sale** is the revenue split with the Operating Company.

**Professional fees** are £10,000 a month for legal fees relating to disputes. In addition a charge of £10,000 per year is applied for audit fees.

**Training** is 5% of payroll.

**Other** includes bank charges.

The **bad debt provision** is 1% of turnover.

**Backup name servers** are the cost of two co-located servers (£5000 each per annum) to serve as backup name servers for the domain, should the Operating Company's server fail.

**Capital expenditure** is largely office equipment.

## ***Appendix E: Terms and Conditions***

The contract between the Applicant and ScotNom Limited ("ScotNom") contains the following terms and conditions.

- 1 ScotNom's *The Rules for .scot.uk* and the procedures of ScotNom's *Dispute Resolution Policy*, in each case as amended from time to time, form part of the contract. Copies of those Rules and procedures may also be obtained directly from ScotNom.
- 2 If the Applicant uses an agent for payment of fees, ScotNom will first seek payment from the agent; but if the agent does not pay the fees for whatever reason, ScotNom will have the right to recover the fees from the Applicant.
- 3 The Applicant (or the transferee, as the case may be) will:
  - 3.1 (except where this is the responsibility of the Applicant's agent) obtain the consent of individuals whose personal data are to be held on the Register of .scot.uk Domain Names to the access referred to in Clause 7.10 below;
  - 3.2 pay the initial registration fee to ScotNom within one month after the issue of ScotNom's invoice;
  - 3.3 sign and return the proforma reply form, issued by ScotNom under clause 4.2 below, confirming the Applicant's acceptance of these terms and conditions;
  - 3.4 promptly notify ScotNom of any change to its registered details, including where an agent is appointed, any change to the agent's details; and
  - 3.5 promptly notify ScotNom of any actual or threatened proceedings brought in respect of the name used as a Domain Name whether by or against the Applicant.
- 4 ScotNom will:
  - 4.1 process the application and consider whether to accept or reject it in accordance with the criteria laid down in ScotNom's *The Rules for .scot.uk* in force at the time of the application for registration.
  - 4.2 (if the application is accepted) enter the Domain Name and other relevant details in the Register of .scot.uk Domain Names as a pending registration and issue a proforma reply form to the Applicant; if the application is not accepted, ScotNom will notify the Applicant or the agent and return any payments received;
  - 4.3 convert the pending registration to a full registration on receipt of both the initial registration fee and proforma reply form; and
  - 4.4 (subject to clause 11 below) on receipt of (i) ScotNom's then current proforma transfer certificate duly completed and validly executed by the Applicant and the relevant transferee and (ii) the transfer fee applicable at the time of the transfer, register the details of a transferee of the Domain Name registration.

- 5 The initial registration period is two years from the date of the application for registration. Thereafter, the registration may be renewed indefinitely for further periods of one or more years, on payment of the renewal fees applicable from time to time, and subject to clause 11 below.
- 6 The Applicant (either directly or via an agent) may surrender the registration of the Domain Name by notice in writing to ScotNom at any time by sending to ScotNom ScotNom's then current proforma surrender notice duly completed and validly executed by the Applicant. No other method of surrender is permitted. Once the Domain Name and the Applicant's details have been entered in the Register of .scot.uk Domain Names as a full registration no refund of fees will be payable by ScotNom
- 7 IMPORTANT
  - 7.1 ScotNom is entitled to register Domain Names on a first come, first served basis, whether or not it has received payment for their registration; and, until ScotNom has confirmed it as a pending registration, there is no guarantee that the Domain Name applied for will be entered in the Register as such. Applicants are advised not to take any action in respect of the registration of a Domain Name before it becomes a full registration.
  - 7.2 If payment is not received by ScotNom, ScotNom is entitled to cancel the pending registration by notice in writing to the Applicant or the agent.
  - 7.3 ScotNom may cancel the registration or suspend the delegation of a Domain Name in exceptional circumstances by notice in writing to the Applicant or the agent. Exceptional circumstances include, in particular: where to maintain the registration would put ScotNom in conflict with statutory obligations or the terms of a Court Order, or where the registration or use of the Domain Name conflicts with ScotNom's *The Rules for .scot.uk* in force from time to time.
  - 7.4 ScotNom does not accept any responsibility for the use of any Domain Name on the Register of .scot.uk Domain Names and in particular for any conflict with trade marks, registered or unregistered, or with rights to names in other contexts. An entry in the Register of .scot.uk Domain Names is not intended to be evidence of ownership of the name used as a Domain Name.
  - 7.5 ScotNom will use its reasonable endeavours to ensure that the appropriate details of the Applicant's registration are correctly entered and maintained in the Register of .scot.uk Domain Names. All conditions and warranties which may be implied (by law or as a result of prior negotiations) into the contract between ScotNom and the Applicant are excluded to the extent permitted by law. In no circumstances will ScotNom be liable for any loss of profit, business or anticipated savings suffered by the Applicant.
  - 7.6 ScotNom's liability to the Applicant under the contract or otherwise (including liability for negligence) is limited to 125% of the registration fees paid in respect of a particular period of registration.
  - 7.7 The Applicant warrants to ScotNom that the details submitted by the Applicant to ScotNom are true and correct, and represents and undertakes that future additions or alterations to those details will be true and correct.

- 7.8 The applicant warrants to ScotNom that neither the registration of the Domain Name nor the manner in which the Domain Name is directly or indirectly used infringes the legal rights of a third party. ScotNom's remedies under this warranty will continue to be available after completion of the registration process and notwithstanding any subsequent surrender, cancellation or transfer of the registration of the Domain Name.
- 7.9 The Applicant indemnifies ScotNom and each of the members of its Council of Management against any claim that the registration of the Domain Name or the manner in which the Domain Name is directly or indirectly used infringes the legal rights of any third party (except for claims arising from ScotNom's negligence or breach of the terms of the contract); and indemnifies them against the reasonable costs and expenses, however they may arise, incurred in defending or dealing with such a claim.
- 7.10 The Register of scot.uk Domain Names will include the names of the Applicant and the Administrative Contact and other details relating to them. This information (if it refers to individuals) is 'personal data' for the purposes of data protection legislation. ScotNom may allow other organisations and members of the public to access the data for the purpose of obtaining information about the registration of the Domain Name or any other related purpose. In particular, ScotNom may require to enter into contracts with technology partners from time to time under the terms of which ScotNom may transfer such personal data to them for the purpose of operating the Register of .scot.uk Domain Names and related purposes.
- 8 The restrictions and indemnities in clause 7 above are considered to be reasonable in the context of ScotNom's status as a not-for-profit company limited by guarantee which is performing a service on a cost-recovery basis.
- 9 If any clause of these terms and conditions is held to be invalid or unenforceable in whole or in part, the invalid or unenforceable wording shall be deemed to be omitted.
- 10 The contract may be assigned by ScotNom. The Applicant may assign the contract subject to any change made pursuant to clause 11 below, and transfer the registration of the Domain Name, by sending to ScotNom (i) ScotNom's current proforma transfer certificate duly completed and validly executed by the Applicant and the relevant transferee and (ii) the transfer fee applicable at the time of the transfer. No other method of transfer is permitted.
- 11 ScotNom may change the terms and conditions of the contract on renewal or transfer of the registration of the Domain Name. All transfers and renewals will be made under ScotNom's *Terms & Conditions for the Registration of Domain Names* current at the time of the transfer or renewal and, in the case of a transfer, as agreed by the Transferor.
- 12 Any notice to be given under the contract shall only be deemed to be served if delivered by hand or sent by pre-paid post, by fax or e-mail, to the party to whom it is given at its last known postal or e-mail address or fax number. The notice will be effective: if delivered, on delivery; if sent by fax or e-mail, when the sender receives confirmation of receipt; and if sent by post, on the fourth day after posting.

- 13 These terms and conditions, together with the Rules and procedures referred to in clause 1 above, constitute the entire agreement between ScotNom and the Applicant for the registration of the Domain Name, and supersede all prior agreements, understandings and representations whether oral or written. Subject to clause 11 above, no variation may be made to the contract unless it is in writing and signed by authorised representatives of the Applicant and ScotNom.
- 14 The contract shall be governed by Scots law, and the Applicant and ScotNom irrevocably submit to the exclusive jurisdiction of the Court of Session in Edinburgh in relation to all matters relating to the subject matter of the contract.