

# Technical Strategy Summary

## 1 Production of this strategy

1.1 The production of this strategy started with listing the requirements expressed by the following list of stakeholders

- Members
- Tag Holders
- Registrants
- Public Register Subscribers
- Staff
- Management
- Directors
- Government agencies
- Internet Community
- Internet Users (Public)
- Policy Advisory Board
- Trademark Holders

1.2 This list was then added to with the requirements of maintaining the core operational systems.

1.3 A gap analysis was then performed comparing this list to current level of provision. The final stage was the prioritisation of the gaps.

1.4 From this two documents emerged, a technical strategy, of which this is a summary and a draft project list. With the resource planning now well underway the project list is now being followed and the projects delivered.

## 2 Priorities for Technical Resources

2.1 From the process above a list of priority areas emerged that covered the individual needs identified.

2.2 Secure and robust infrastructure. This covers all external services such as the name servers as well as all internal systems such as the finance system. The priority is to set and maintain an appropriate level of robustness and security for each system.

2.3 External systems. This is specifically about external systems such as the name servers, whois and automaton. This priority is to introduce the required enhanced functionality of these systems in the specified timescales.

2.4 Internal operational systems. There a number of these systems within Nominet and this list is growing as further business needs are identified and met. Four such systems are currently under development. The priority is the development of these new systems and the enhancement and integration of existing systems.

- 2.5 Internal administrative systems. These are the systems that are common to most businesses but are often just as critical for the operation of the business as the specific operational systems. The priority is the sourcing and implementation of these systems and the customising and integration of these with other administrative and operational systems.
- 2.6 On-line system access for stakeholders. This is distinct from the external systems mentioned above with the difference being that this priority is about web access to internal systems or specific systems for stakeholders.
- 2.7 Management information. This is a very broad remit and ultimately covers management information for all stakeholders. There is only limited management information available currently and this priority is about developing the volume, depth and process by which such information is gathered.

### **3 Delivering this Strategy**

- 3.1 Those delivering this strategy will need a plan as to how they are going to do it and stakeholders need a framework for how they will measure how well it is being delivered.
- 3.2 Ethos. This is a new statement of ethos enshrining the principles of customer service, alignment with the business and transparency of processes.
- 3.3 Effective team. The technical department has had some recruitment problems in the past but is now up to full strength. The next challenge is to get the talented individuals to operate as an effective team, with all appropriate processes and skills in place.
- 3.4 Rules and regulations. There are certain rules and regulations that are need to have for the effective running of our services and infrastructure. These are both internal, such as a Use of IT Policy for all staff and external, which currently this mean automaton and WHOIS abuse policies.
- 3.5 Measuring performance. Performance for those services managed by the technical department has always been measured but the need now exists for a full performance management framework. This includes such areas as service level targets, which are descriptions of the service levels that will be maintained for the public services at the core of Nominet's operation.
- 3.6 Methodologies. A pragmatic approach will always be taken to methodologies, adopting the most useful parts of these methodologies rather than following them slavishly. Those best practice methodologies from which elements are currently used include ITIL (IT Infrastructure Library), which is best practice on managing IT service departments and PRINCE2 (PProjects In a Controlled Environment 2), which is best practice for managing projects.
- 3.7 Maximise business benefits, minimise business cost. This is a set of principles that state specifically how the technical strategy will maximise benefits and minimise costs.

- Pragmatic technology choices.
- Vendor and staff dependency reduction.
- Minimising total cost of ownership.
- Bias towards open source.
- Automation of processes.

3.8 Incorporation of good ideas. The community of registries and the wider Internet community have a wealth of good ideas and many share them willingly. The following set of principles govern our involvement in this area

- Incorporation of best practice.
- New technology.
- Joint working.
- Contribution to the community.

3.9 High availability operations. Certain of Nominet's core systems must have only the smallest amount of downtime as they provide services that are critical to the UK Internet infrastructure. To ensure this is the case the following strategies are employed

- Diversity. This includes from multiple live systems, heterogenous system configurations and multiple suppliers.
- Fault and disaster recovery plans. This covers a wide range of areas including, fully configured redundant hardware, the use of risk assessments, automatic monitoring and alerting systems, external support contracts and a thorough procurement process.
- Protection against malicious activity. Some of this is technology based such as the use of vulnerability scanners and intrusion detection systems, the rest is informational including the monitoring of security web sites, thorough testing and external penetration testing.
- Clear operational procedures. In particular this is formal change management and problem management.

3.10 Successful systems sourcing. Nominet has traditionally invested heavily in the development of systems to meet the business need. When the need for a new system is identified an assessment will be made as to how to meet that need with all of the principles of systems development below being considered.

- User convenience.
- Data quality.
- Intellectual property.
- Single technical framework.
- Quality.
- Total cost of ownership.
- Project management.
- Development strategy.
- Appropriate sourcing.

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