LK DOMAIN REGISTRY
Your Sri Lankan Identity in Cyberspace

ICANN 85 COMMUNITY FORUM

Best Security Management Practices

From Policy to Practice

Information Security Management System - ISMS

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Who We Are

LK DOMAIN REGISTRY
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- LK Domain Registry, the pioneer in Sri Lanka's Internet journey, driving digital growth for over 3 decades, was **established in 1990**
- Sole administrator for **Sri Lanka's official country code top-level domain (.lk)**
- 2 IDNs - **.ලංකා** and **.இலங்கை**
- Actively contribute to developing and improving the internet infrastructure across the nation.

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BestWeb.lk

TOP WEB.LK

FOUNDATION.LK
Digitally Empowering Communities

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HITHAWATHI

Visit ***www.domains.lk*** for more info...

Why Security Is Essential for a ccTLD

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ccTLD

ccTLD represents the country on the Internet

Any failure directly affects public trust and confidence.

Service Reliability

Cyberattacks/Short outage can disrupt services people rely on every day.

Economic & Social Impact

Even a short outage can halt critical digital services, payment gateways and e-commerce, causing financial and operational losses.

Stability and Trust

Robust security ensures the domain remains stable, reliable and trusted by citizens, businesses and government services.

Self-Assessment...

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1. Have you identified all the **risks** relevant to your organization?
2. Are the necessary **controls** in place to mitigate these risks?
3. Are your policies aligned with **international standards** and best practices?

Risks Faced by a ccTLD

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Cyberattacks

- DDoS
- Ransomware
- DNS hijacking
- Registry hijacking
- Insider Threat

Service Outages

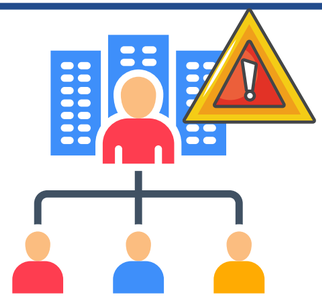
- Hardware failures
- Software bugs
- Misconfigurations

Data Breaches

Unauthorized access can expose sensitive registrar, user or operational data.

Phishing and Fraud

Malicious actors can exploit the ccTLD for phishing sites, malware or scams.



Third-Party Risks

Weak Security in registrars, resellers, hosting providers or partners can indirectly affect a ccTLD.

Why We Needed a Structured Approach

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Ad hoc fixes leave gaps

Quick, one-off solutions cannot protect a critical national asset.

Consistency is critical

Security must follow repeatable processes, not rely on individuals.

Resilient governance

Policies and controls must remain effective even when staff change.

Proactive, not reactive

A structured approach helps anticipate risks before they become incidents.

Structured Approach

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Information Security Management System (ISMS)

Core Components

Risk Management
Identify, assess and mitigate information security risks before they impact the organization.

Policies and Procedures
Documented guidelines on handling, storing and sharing data responsibly.

Governance
Leadership involvement, accountability and employee awareness & training.

Controls
Identify, assess and mitigate information security risks before they impact the organization.

Monitoring and Audit
Continuous review to ensure controls are effective and compliant with standards.

LK Domain Approach vs. ISO 27001

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25+ Structured Policies & Procedures

93 Controls

- 37 ***Organizational***
  Policies, risk management and supplier relationships.
- 8 ***People***
  HR security, onboarding and security awareness.
- 14 ***Physical***
  Secure areas, equipment security and surveillance.
- 34 ***Technological***
  Networking, endpoint security and data masking.

LK Domain Information Security Management System (ISMS)

- ISO 27001 is the base framework
- Extracted the most important relavant sections
- Structured Policies & Procedures
  18 *Procedure Documents*
- **88** Controls
  - *37 Organizational*
  - *6 People*
  - *12 Physical*
  - *12 Technological*

What we Implemented

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Core Focus : **Confidentiality** **Integrity** **Availability**

Strategy & Governance

How we lead and make decisions

- Roles and Responsibilities
- **Information Asset Management**
- **Risk Assessment & Treatment**
- ISMS Mandatory Procedure

Technical Operations & Defense

How we protect the digital infrastructure

- **System Access Control**
- **Virus & Malicious Software Prevention**
- **Vulnerability Assessment and Management**
- **Log Management**
- **Backup and Recovery**

Lifecycle & Change Management

How we build and update systems safely

- Software Development Lifecycle
- **Change & Release Management**
- Performance Availability and Capacity Management
- Service Level Management

Physical & Human Resource

Protecting the office and managing the people

- Physical and Environmental Security
- **Media Handling & Disposal**
- Human Resources Security

Resilience & Response

What we do when things go wrong

- **Information Security Incident Management**
- **Disaster Recovery and Business Continuity Plan**

Continuous Assurance

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Continuous Audits are mandotory

Internal Audits
Regular checks to ensure policies and controls are properly implemented. (Bi-Annual)

External Audits
Periodic, independent reviews by an external party (Annual)

Control Reviews
Ongoing assessment to confirm security measures remain effective

Monitoring Activities
Continuous tracking of systems and incidents to detect issues early

Lessons Learned
Using audit and incident findings to improve processes

Management Review
Leadership oversight to guide decisions and strengthen security

Challenges Faced During Implementation

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Cultural Resistance - Staff saw ISMS as extra work or audit pressure.
- ✅ *Awareness sessions, leadership support and linking security to daily responsibilities*

Documentation Overload - Large number of policies, procedures and records required.
- ✅ *Prioritized critical documents first, used simple templates, avoided unnecessary paperwork.*

Balancing Operations and Compliance - Operational teams focused on uptime, not documentation.
- ✅ *Integrated controls into existing workflows instead of creating parallel processes.*

Defining Clear Scope - Difficulty deciding what systems and processes to include initially.
- ✅ *Conducted a structured scoping exercise based on risk and business impact.*

Risk Assessment Complexity - Identifying and evaluating risks in a consistent way.
- ✅ *Developed a simple risk methodology and trained key staff.*

Resource Constraints - Limited time and manpower while maintaining daily operations.
- ✅ *Phased implementation plan with clear milestones and responsibilities.*

Control Ownership Confusion - Unclear accountability for certain controls.
- ✅ *Assigned control owners and documented roles formally.*

Benefits You Gain from Implementing an ISMS

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Clear Understanding of Risks

You know what can go wrong and how serious it could be.

More Confidence and Trust

Partners, customers and management feel safer working with you.

Better Handling of Incidents

If something goes wrong, the team knows what to do.

Fewer Surprises

Problems are identified early instead of after damage is done.

Reduced Mistakes

Clear procedures reduce human errors.

Improved Team Awareness

Staff become more careful and mindful in their daily work.

Stronger Leadership Oversight

Management has better visibility into security and can make informed decisions.

Opens the Path to ISO 27001 or International Standard Certification

THANK YOU!

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