Cambodia
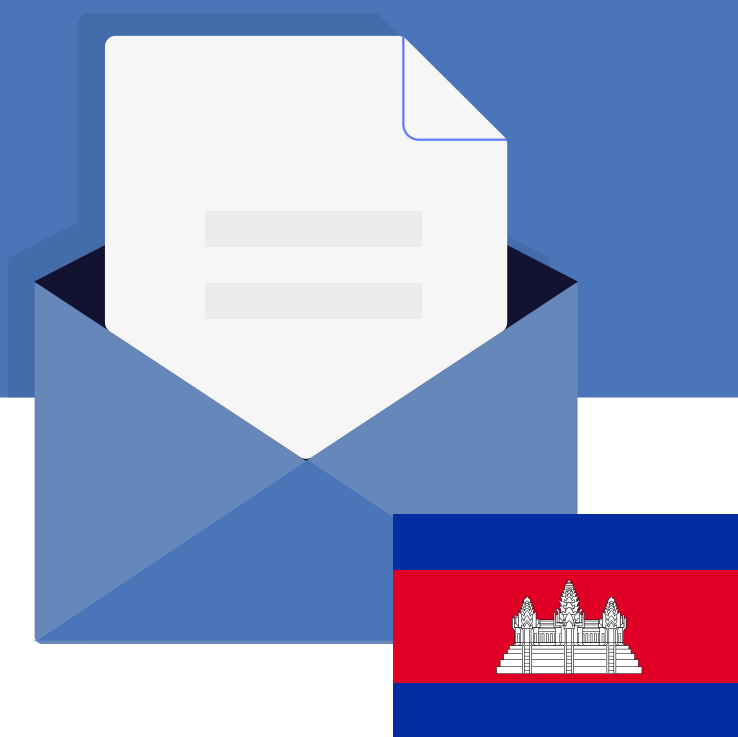# DMARC & MTA-STS Adoption
Report 2024

Cambodia DMARC & MTA-STS Adoption Report 2024

According to the Ministry of Posts and Telecommunications, cyber attacks in Cambodia increased by 28% last year. This concerning increase can be attributed to several factors, among which:

- ▶ Growing adoption of cloud computing and Internet of Things (IoT) devices across different organizations and industries
- ▶ Rapid increase in the number of sophisticated threats (e.g. ransomware and phishing scams) that have put businesses at increased risk
- ▶ lack of professionals in the field

Over 60% of Cambodian companies are expected to migrate to cloud-based solutions by 2024, potentially leading to an even higher increase in demand for cloud security specialists of up to 25%. However, Cambodia does not have enough professionals in the field of cyber security to meet the demand in the job market. According to Joseph Smith from AUPP, Cambodia is suffering from a huge shortage of skilled cybersecurity experts. As sectors such as banking, healthcare, and e-commerce are becoming increasingly more vulnerable to cyber attacks, the shortage of skilled personnel might imply a very dangerous situation for different public and private organizations in different sectors in Cambodia.

This report will delve into the current state of email security protocols across various sectors in Cambodia (e.g. healthcare, business, education, telecommunications, etc.), providing insights into the country's cybersecurity landscape and identifying areas for improvement.

Assessing the Threat Landscape

In our Cambodia DMARC and Email Authentication Adoption Report for 2024, we will address the following major concerns:

- What's the current landscape of SPF and DMARC implementation?

- How widespread is the adoption of MTA-STS?

- What percentage of domains have DNSSEC enabled?

- What steps can Cambodia take to enhance email security and prevent impersonation attempts?

- Which industries are most at risk of falling victim to phishing attacks?

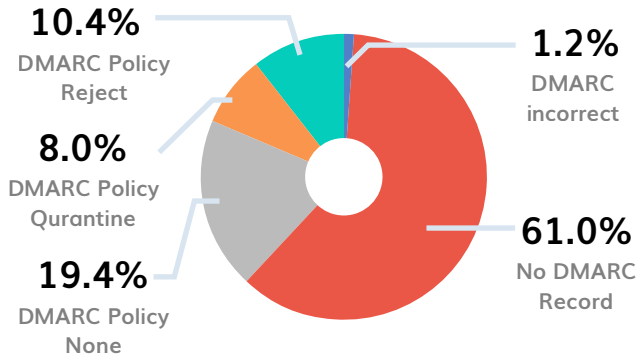- What strategies can organizations employ to defend against email-based threats?

Sectors Analyzed

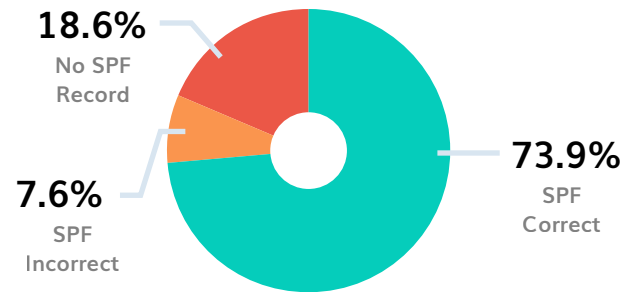Overall, over **490 domains** have been analyzed across **7 sectors** in Cambodia:

- Healthcare
- Banking
- Government
- Telecommunication

- Transport
- Education
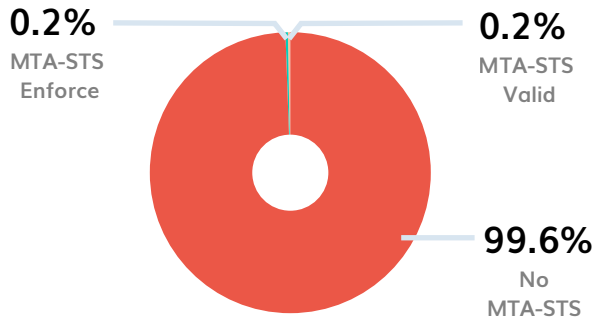- Miscellaneous - Businesses

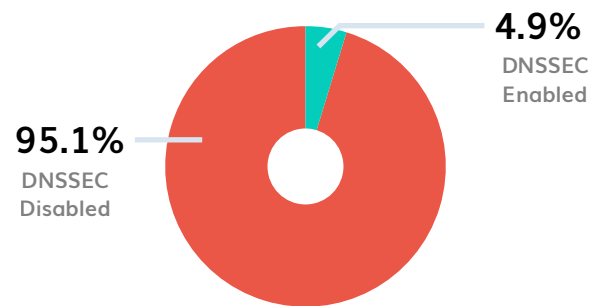# What Do the Numbers Say?

DMARC Distribution in Cambodia

10.4%
DMARC Policy Reject

8.0%
DMARC Policy Quarantine

19.4%
DMARC Policy None

1.2%
DMARC incorrect

61.0%
No DMARC Record

SPF Distribution in Cambodia

18.6%
No SPF Record

7.6%
SPF Incorrect

73.9%
SPF Correct

MTA-STS Distribution in Cambodia

0.2%
MTA-STS Enforce

0.2%
MTA-STS Valid

99.6%
No MTA-STS

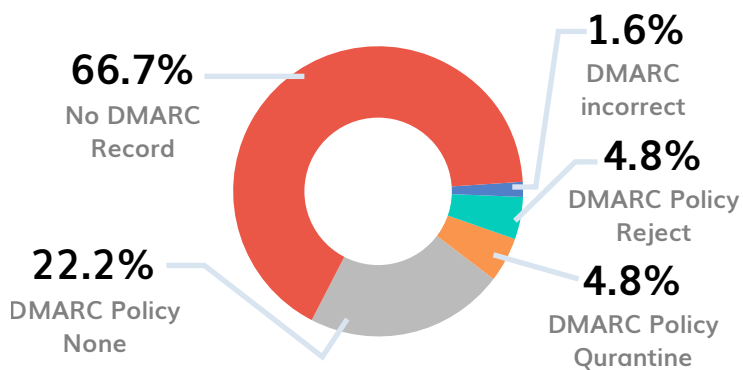## DNSSEC Distribution in Cambodia

4.9%
DNSSEC Enabled

95.1%
DNSSEC Disabled

Sector-wise Analysis of Domains in Cambodia

Healthcare Sector

DMARC Adoption

66.7%
No DMARC Record

1.6%
DMARC incorrect

4.8%
DMARC Policy Reject

22.2%
DMARC Policy None

4.8%
DMARC Policy Qurantine

SPF Adoption

66.7%
SPF Correct

22.2%
No SPF Record

11.1%
SPF Incorrect

MTA-STS Adoption

100%
No MTA-STS

DNSSEC Adoption

95.2%
DNSSEC Disabled

4.8%
DNSSEC Enabled
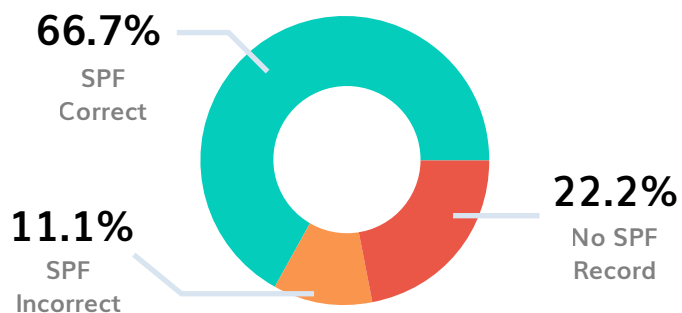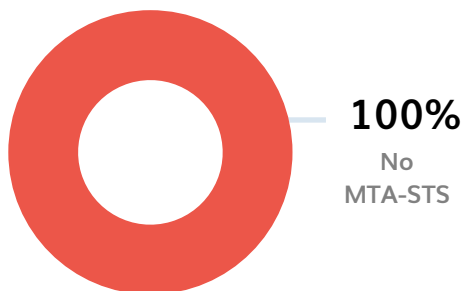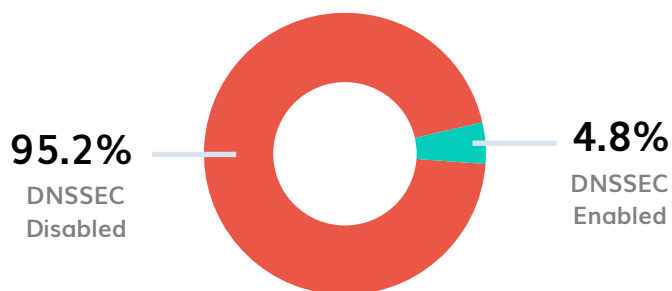
Banking Sector

DMARC Adoption

51.1%
No DMARC Record

18.0%
DMARC Policy None

0.0%
DMARC incorrect

13.1%
DMARC Policy Reject

14.8%
DMARC Policy Qurantine

SPF Adoption

82.0%
SPF Correct

13.1%
No SPF Record

4.9%
SPF Incorrect

MTA-STS Adoption

100%
No MTA-STS

DNSSEC Adoption

91.8%
DNSSEC Disabled

8.2%
DNSSEC Enabled
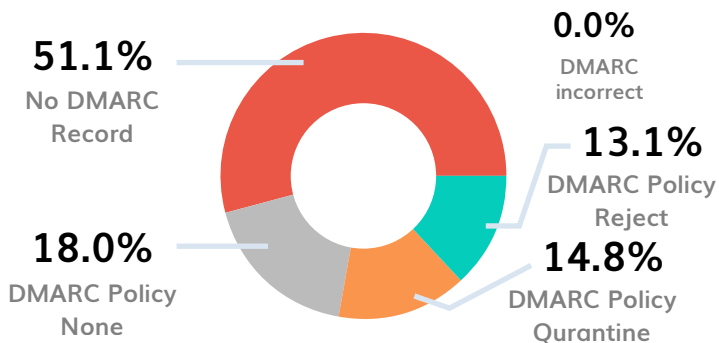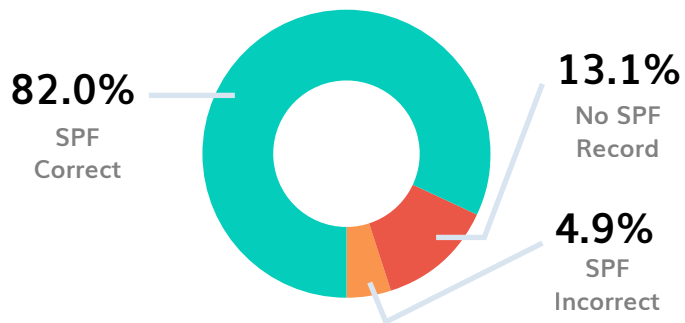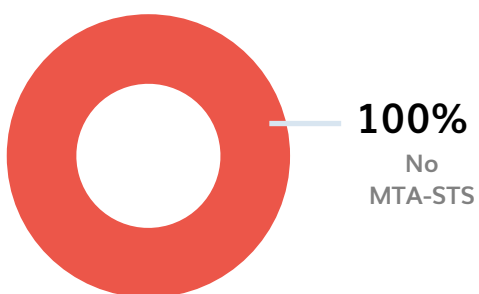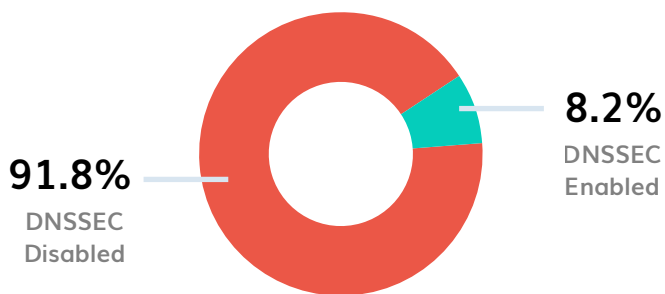
Government Sector

DMARC Adoption
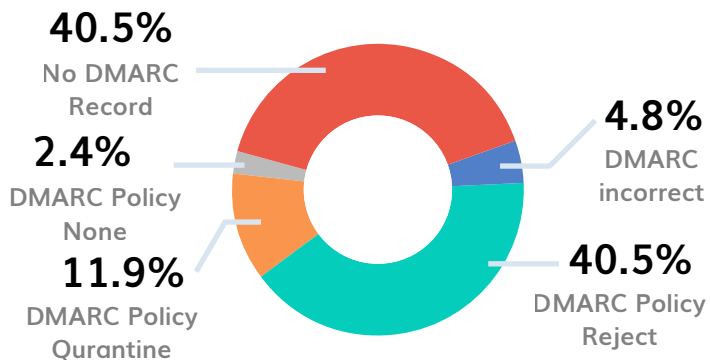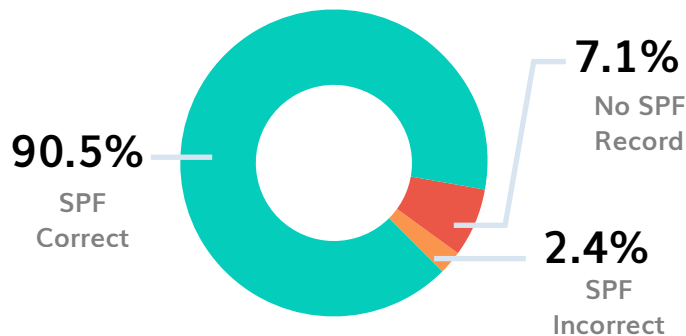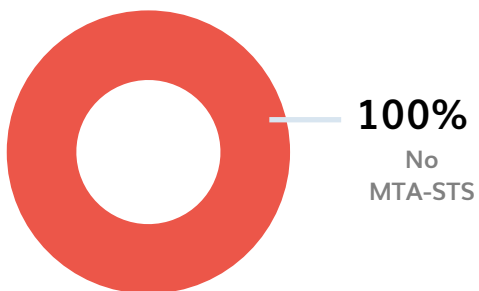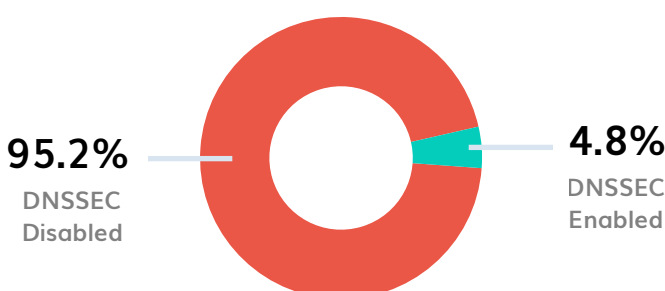
40.5%
No DMARC Record

2.4%
DMARC Policy None

11.9%
DMARC Policy Qurantine

4.8%
DMARC incorrect

40.5%
DMARC Policy Reject

SPF Adoption

90.5%
SPF Correct

7.1%
No SPF Record

2.4%
SPF Incorrect

MTA-STS Adoption

100%
No MTA-STS

DNSSEC Adoption

95.2%
DNSSEC Disabled

4.8%
DNSSEC Enabled

Telecommunication Sector

DMARC Adoption

50.0%
No DMARC Record

25.0%
DMARC Policy None

0.0%
DMARC incorrect

5.0%
DMARC Policy Reject

20.0%
DMARC Policy Qurantine

SPF Adoption

85.0%
SPF Correct

10.0%
No SPF Record

5.0%
SPF Incorrect

MTA-STS Adoption

100%
No MTA-STS

DNSSEC Adoption

100%
DNSSEC Disabled
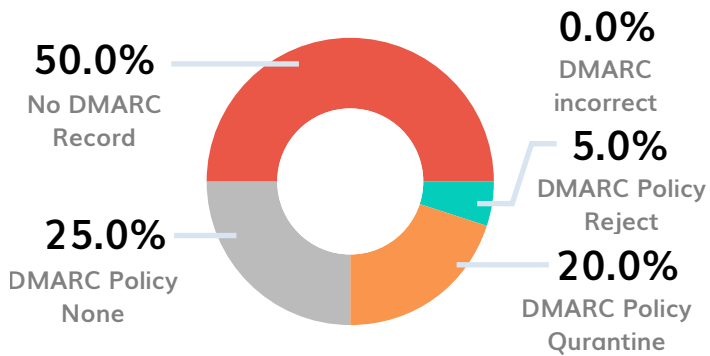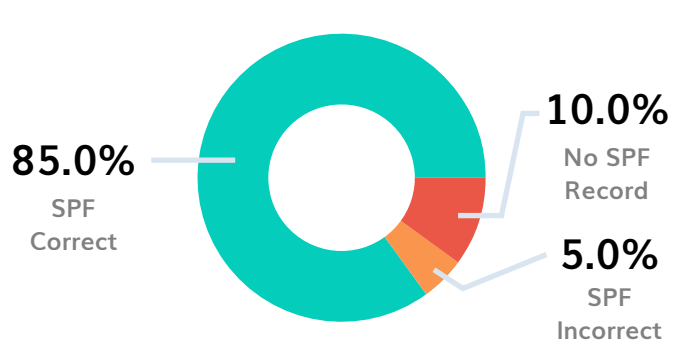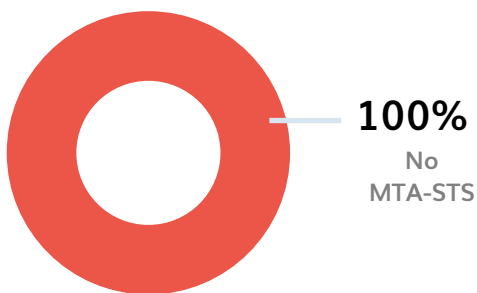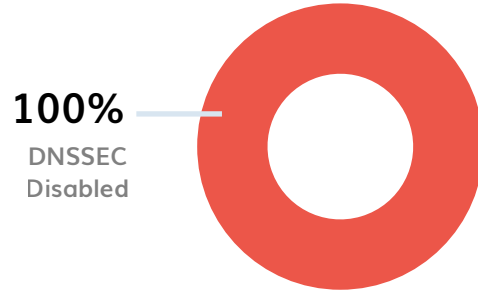
Transport Sector

DMARC Adoption

58.2%
No DMARC Record

17.9%
DMARC Policy None

0.0%
DMARC incorrect

16.4%
DMARC Policy Reject

7.5%
DMARC Policy Qurantine

SPF Adoption

73.1%
SPF Correct

20.9%
No SPF Record

6.0%
SPF Incorrect

MTA-STS Adoption

97.1%
No MTA-STS

1.5%
MTA-STS Enforce

1.5%
MTA-STS Valid

DNSSEC Adoption

98.5%
DNSSEC Disabled

1.5%
DNSSEC Enabled
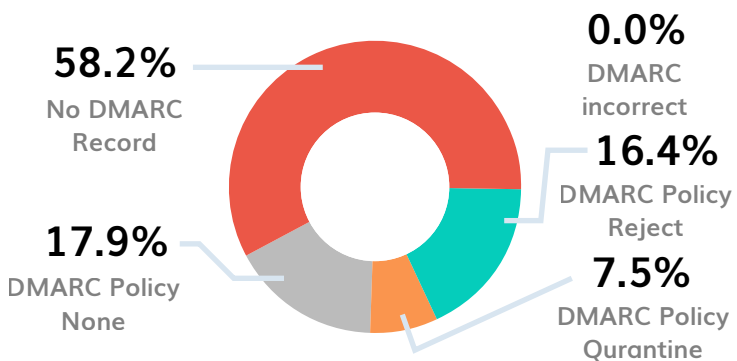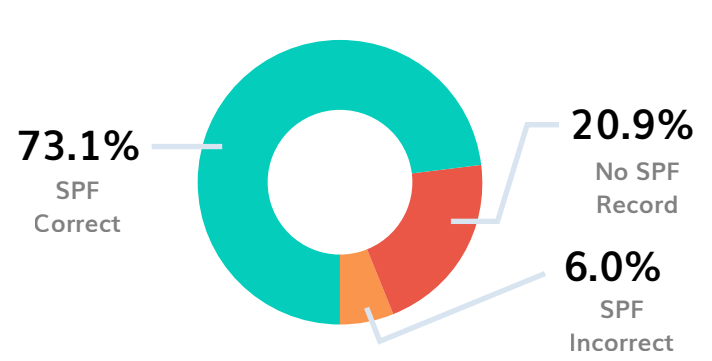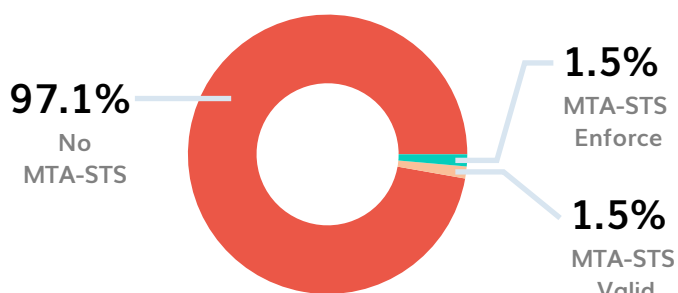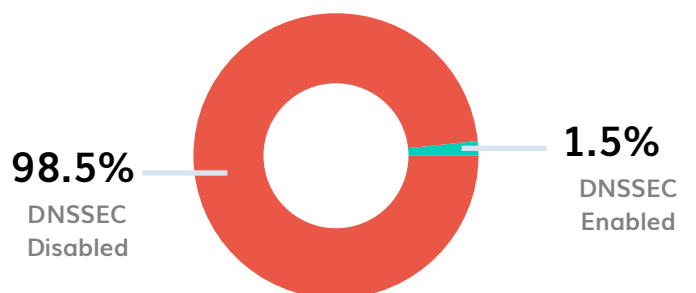
Miscellaneous - Businesses

DMARC Adoption
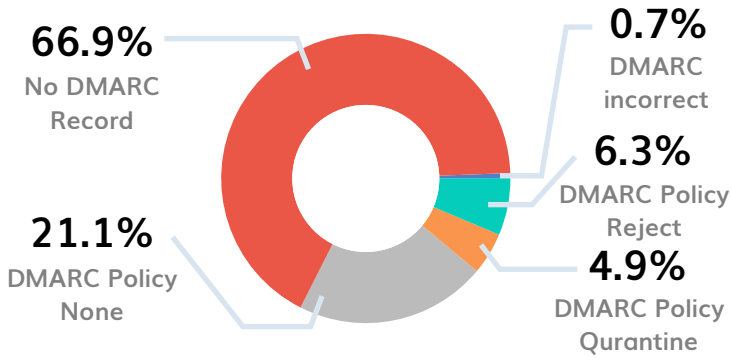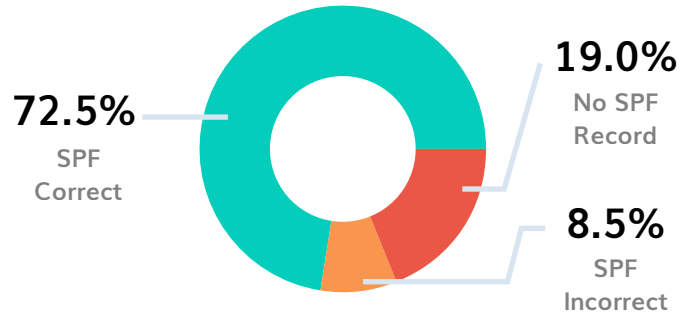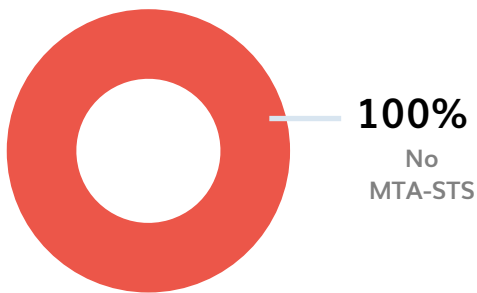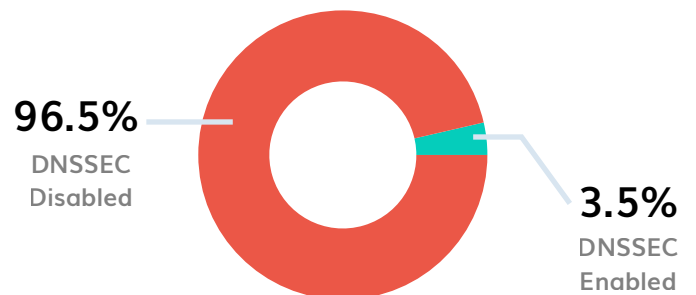
- **66.9%** No DMARC Record
- **21.1%** DMARC Policy None
- **0.7%** DMARC incorrect
- **6.3%** DMARC Policy Reject
- **4.9%** DMARC Policy Qurantine

SPF Adoption

- **72.5%** SPF Correct
- **19.0%** No SPF Record
- **8.5%** SPF Incorrect

MTA-STS Adoption

- **100%** No MTA-STS

DNSSEC Adoption

- **96.5%** DNSSEC Disabled
- **3.5%** DNSSEC Enabled

Education Sector

DMARC Adoption

- **66.3%** No DMARC Record
- **23.2%** DMARC Policy None
- **2.1%** DMARC incorrect
- **2.1%** DMARC Policy Reject
- **6.3%** DMARC Policy Qurantine

SPF Adoption

- **66.3%** SPF Correct
- **9.5%** SPF Incorrect
- **24.2%** No SPF Record

MTA-STS Adoption

- **100%** No MTA-STS

DNSSEC Adoption

- **91.6%** DNSSEC Disabled
- **8.4%** DNSSEC Enabled
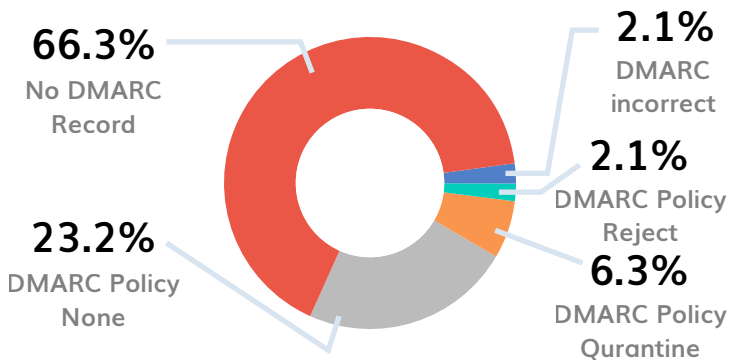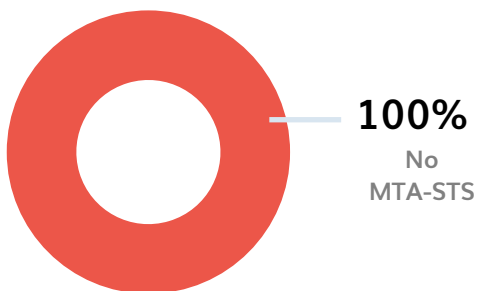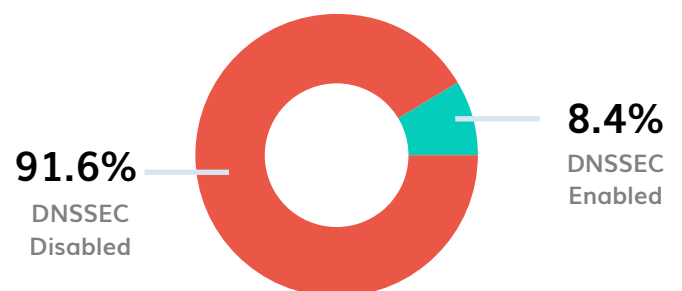
Comparative Analysis of SPF Adoption among Different Sectors in Cambodia

% SPF Adoption

Sector	SPF Correct	SPF Incorrect	No SPF Record
Banking	82.0%	4.9%	13.1%
Education	66.3%	9.5%	24.2%
Goverment	90.5%	2.3%	7.1%
Healthcare	66.7%	11.1%	22.2%
Miscellaneous - Businesses	72.5%	8.5%	19.0%
Telecom	85.0%	5.0%	10.0%
Transport	73.1%	6.0%	20.9%

Legend: ■ SPF Correct ■ SPF Incorrect ■ No SPF Record
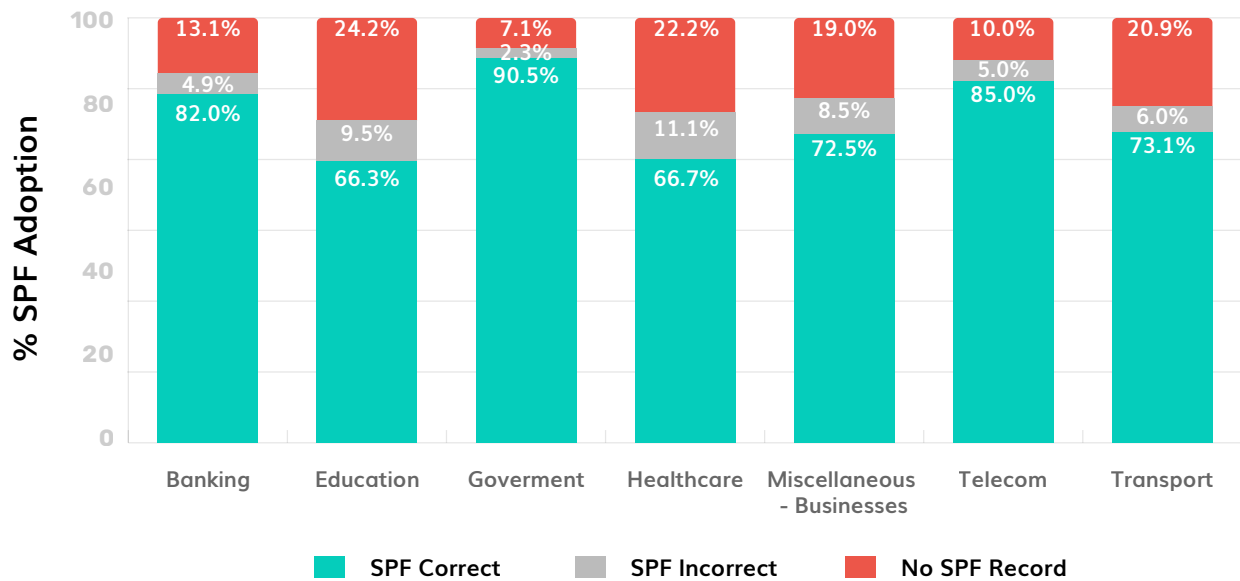
Comparative Analysis of DMARC Adoption among Different Sectors in Cambodia

% DMARC Adoption

Sector	DMARC Policy Reject	DMARC Policy Quarantine	DMARC Policy None	No DMARC Record	DMARC Incorrect
Banking	13.1%	14.8%	18.8%	54.1%	
Education	2.0%	6.3%	23.2%	66.3%	2.1%
Goverment	40.5%	11.9%	2.3%	40.5%	4.7%
Healthcare	3.0%	4.7%	22.2%	66.7%	1.5%
Miscellaneous - Businesses	6.3%	4.9%	21.1%	66.9%	0.7%
Telecom	5.0%	20.0%	25.0%	50.0%	
Transport	16.4%	7.5%	17.9%	58.2%	

Legend: ■ DMARC Policy Reject ■ DMARC Policy Quarantine ■ DMARC Incorrect ■ DMARC Policy None ■ No DMARC Record

Comparative Analysis of MTA-STS Adoption among Different Sectors in Cambodia

% MTA-STS Adoption

	Banking	Education	Goverment	Healthcare	Miscellaneous - Businesses	Telecom	Transport
	100%	100%	100%	100%	100%	100%	1.5% / 98.5%

Legend:
- MTA-STS Enforce
- MTA-STS None
- MTA-STS Testing
- No MTA-STS
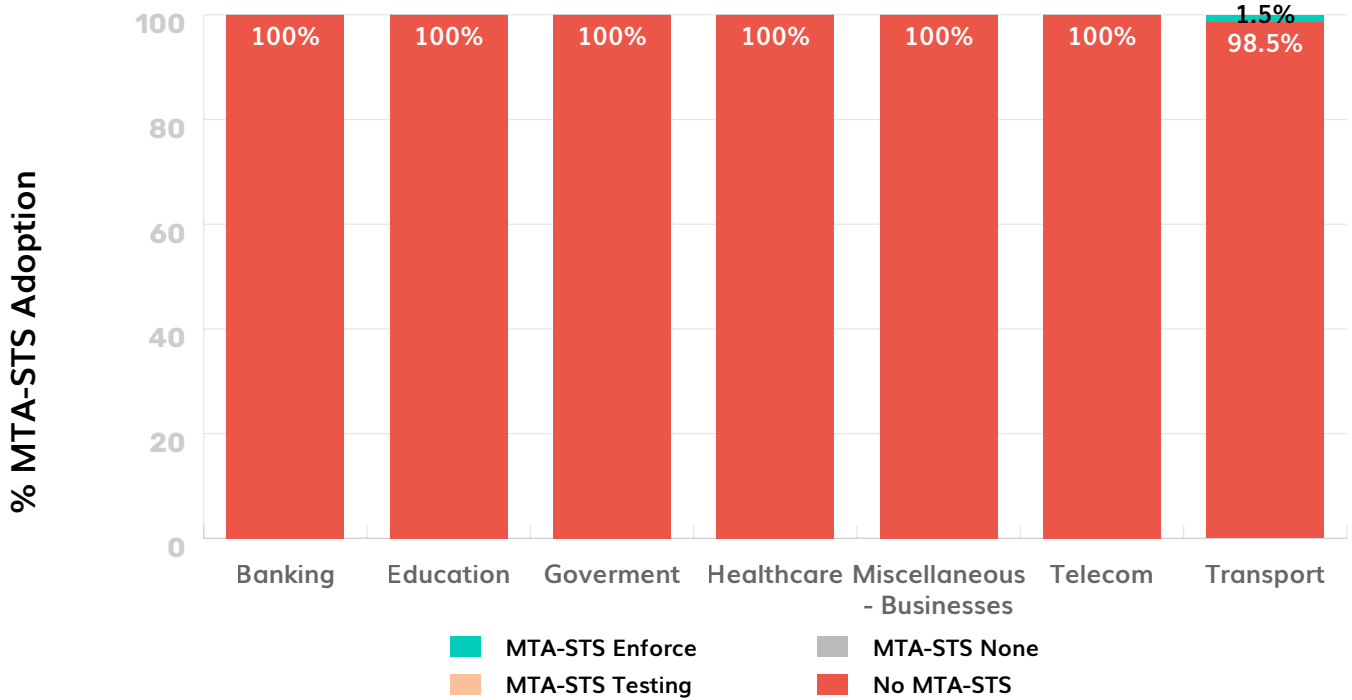
Comparative Analysis of DNSSEC Adoption among Different Sectors in Cambodia

% DNSSEC Adoption

	Banking	Education	Govermen	Healthcare	Miscellaneous - Businesses	Telecom	Transport
Disabled	91.8%	91.6%	95.2%	95.2%	96.5%	100%	98.5%
Enabled	8.2%	8.4%	4.7%	4.7%	3.5%		1.5%

Legend:
- DNSSEC Enabled
- DNSSEC Disabled
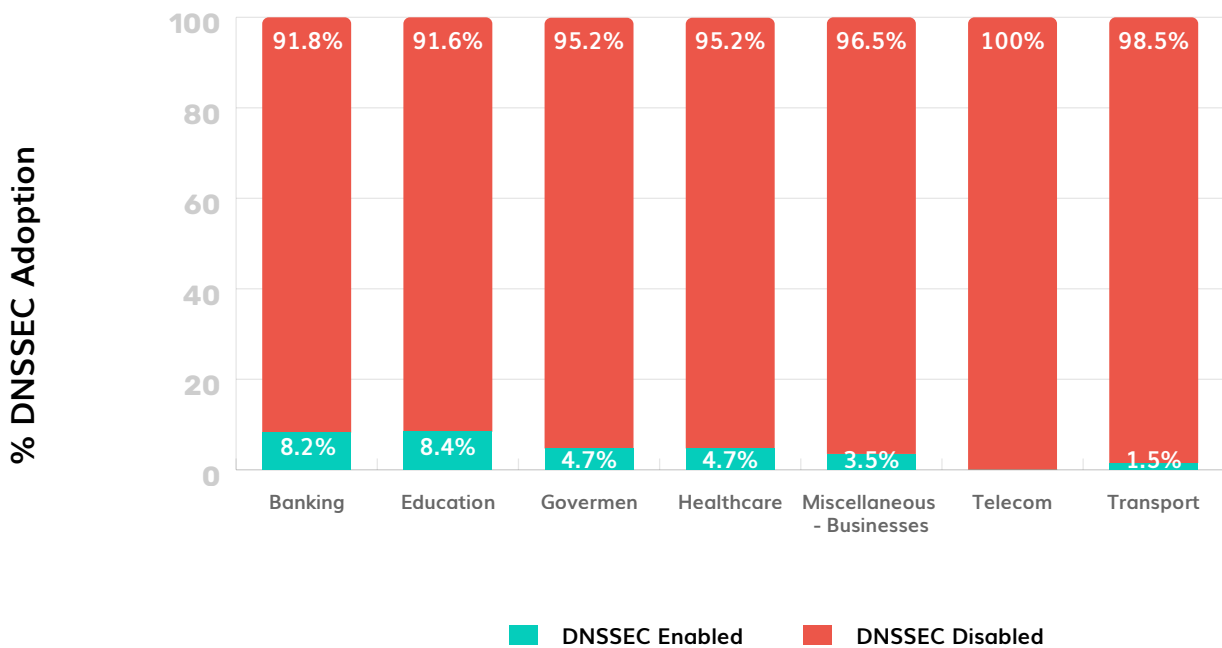
DMARC & MTA-STS Adoption Rates:
Key Statistics

▶ **40.5% of Cambodian governmental entities** in Cambodia **do not have a DMARC record**, putting governmental communications at high risk of spoofing attacks.

▶ **22.2% of Cambodian organizations in the Healthcare sector do not have an SPF record**, while 11.1% of entities in the same sector have incorrectly implemented SPF.

▶ Only **39% of domains** in Cambodia have **DMARC correctly configured**, while over **61% have no DMARC record.**

▶ **100%** of Telecommunication domains in Cambodia **have DNSSEC disabled**.

▶ No healthcare, business, education, banking, government, or telecommunications domains in Cambodia have **MTA-STS enabled**.

▶ **74% of Cambodian domains have SPF setup correctly**, which is relatively higher compared to many other countries in Southeast Asia.

Critical Errors Organizations in Cambodia Are Making

From the above analysis, we have identified some errors that organizations in Cambodia are making regarding the adoption of email authentication protocols.

1 DNSSEC is completely disabled for the stark majority of domains in all the sectors. As a result, many public and private entities may be highly vulnerable to DNS-based attacks.

2 MTA-STS is not enabled for domains in the majority of the sectors, except transport. Even in the transport sector, MTA-STS configuration is extremely low.

3 The government sector is experiencing a higher rate of DMARC implementation challenges compared to other sectors.

4 Most entities across various sectors in Cambodia do not have a DMARC record.

5 The telecommunication sector has a relatively higher adoption of permissive DMARC policies (i.e. p=none) compared to other sectors.

How Can Organizations in Cambodia Improve Email Security & Deliverability?

▶ If you're looking for ways to improve email security and deliverability in Cambodia, consider the following:

1 Ensure you're protected against DNS-based attacks by enabling DNSSEC.

2 Use automated tools for error-free SPF, DMARC, and MTA-STS record generation to avoid any syntax-related errors when implementing different policies and protocols.

3 Enable MTA-STS for all sectors in Cambodia, including healthcare, education, government, etc.

4 Replace p=none permissive policies with stricter p=reject DMARC policies across different sectors and in the telecommunication, education, business, and healthcare sectors in particular.

5 Ensure correct DMARC adoption for the government sector in particular.

6 Provide an accurate and comprehensive DMARC record for all sectors.

7 Invest in training future IT professionals to reduce the shortage of cybersecurity specialists in Cambodia.

How Can PowerDMARC Help?

At PowerDMARC, we provide customized solutions revolving around a wide range of internet protocols, including DMARC, SPF, DKIM, MTA-STS, TLS-RPT, and BIMI for businesses operating in different parts of the world and a variety of sectors. This means we can help you in a variety of ways, from configuration to detailed and consistent DMARC reporting.

If you need support addressing any of the challenges addressed above, feel free to reach out to us at support@powerdmarc.com to get the necessary assistance. Your query doesn't have to be related to Cambodia.