

Cyber Security Trends Impacting the Public Sector

Threats, trends, and recommendations

CERTIFIED PUBLIC ACCOUNTANTS
& BUSINESS CONSULTANTS

 RubinBrown

Cyber Security Trends Impacting the Public Sector

Threats, trends, and recommendations

CERTIFIED PUBLIC ACCOUNTANTS
& BUSINESS CONSULTANTS

 RubinBrown

Cyber Security Trends Impacting the Public Sector

Threats, trends, and recommendations

CERTIFIED PUBLIC ACCOUNTANTS
& BUSINESS CONSULTANTS

 RubinBrown



Introductions

- Jimmy Dominguez, City of Westminster
- Rob Rudloff, Partner Cyber Security Services, RubinBrown LLP

2



- # Introductions
- Jimmy Dominguez, City of Westminster
 - Rob Rudloff, Partner Cyber Security Services, RubinBrown LLP
- 2



Introductions

- Jimmy Dominguez, City of Westminster
- Rob Rudloff, Partner Cyber Security Services, RubinBrown LLP

2





Cyber Security – Last Year in Review

What we hoped hackers were doing

What they were really doing....

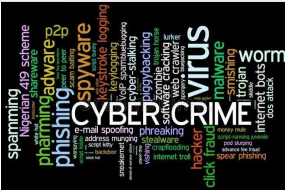
Rubin Brown



Cyber Security – Last Year in Review



What we hoped hackers were doing



What they were really doing....

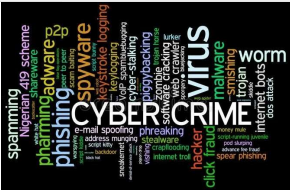




Cyber Security – Last Year in Review



What we hoped hackers were doing



What they were really doing....



Cyber Security – Last Year in Review



What we hoped hackers were doing

What they were really doing....





Cyber Attacks - Motivation

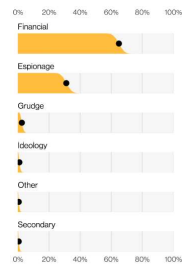


Figure 58. Top Motives in Basic Web Application Attacks breaches (n=259)

Verizon Data Breach Investigations Report, 2022



Statistics from 2021

Industry	Incidents				Breaches			
	Total	Small (1-50)	Large (51-100)	Very Large (101+)	Total	Small (1-50)	Large (51-100)	Very Large (101+)
Total	23,896	2,065	636	21,955	5,212	715	255	4,242
Accommodation (72)	156	2	1	153	69	1	1	67
Administrative (54)	39	5	7	27	19	3	5	11
Agriculture (9)	243	1	1	241	39	1	0	38
Construction (23)	127	21	7	99	57	8	5	44
Education (81)	1,241	12	48	1,081	282	57	15	210
Entertainment (76)	215	12	5	198	90	6	3	81
Finance (52)	2,527	103	50	2,374	690	56	32	602
Healthcare (82)	849	36	14	799	571	14	10	547
Information (58)	2,561	59	25	2,477	378	27	10	341
Management (55)	6	1	2	5	2	0	0	2
Manufacturing (51-33)	2,337	168	74	2,095	338	54	22	262
Mining (21)	231	0	0	231	132	0	0	132
Other Services (81)	190	16	1	173	107	8	1	98
Professional (54)	3,566	1,095	144	2,327	881	263	52	566
Public Administration (52)	2,782	110	88	2,584	937	74	25	438
Real Estate (54)	18	11	9	8	14	10	2	2
Retail (44-45)	629	107	68	454	241	54	35	152
Transportation (48-49)	305	26	38	241	137	17	23	97
Utilities (22)	172	20	14	138	47	14	3	30
Wholesale Trade (42)	166	79	33	54	68	38	8	22
Unknown	5,434	11	11	5,412	651	1	3	647
Total	23,896	2,065	636	21,955	5,212	715	255	4,242

Table 2. Number of security incidents and breaches by victim industry and organization size
Verizon Data Breach Investigations Report, 2022



Overall

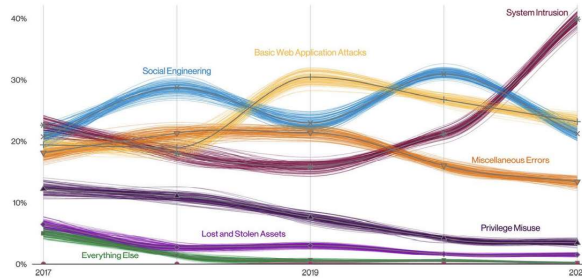


Figure 33. Patterns over time in breaches

Verizon Data Breach Investigations Report, 2022



Public Sector specific

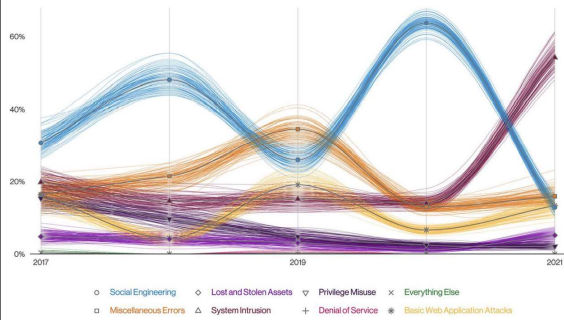


Figure 100. Patterns over time in Public Administration breaches
Verizon Data Breach Investigations Report, 2022



Why phishing is so prevalent?

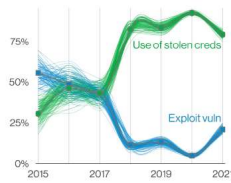


Figure 55. Exploit vuln vs Stolen creds over time in Basic Web Application Attacks breaches

Verizon Data Breach Investigations Report, 2022



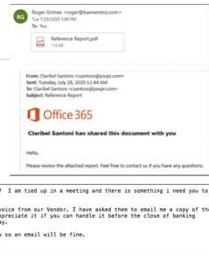
What can we do about it?

- Protect and Enable People
- Improve Processes
- Invest in Technology



People

- Use a Password Manager
- Security Awareness Training
- Encourage Reporting

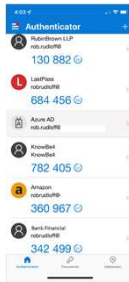


10

RubinBrown

Technology

- Multi-Factor Authentication EVERYWHERE Possible!!
- Backup Solution(s)
- Endpoint Protection
- Monitoring

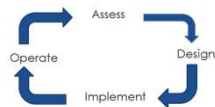


11

RubinBrown

Process and Plans

- Assess and Update
- Incident Response Plan
- Disaster Recovery Plan
- Business Continuity Plan



12

RubinBrown

Resources

- Colorado Statewide Internet Portal Authority (SIPA)
- Multi-State Information Sharing and Analysis Center (MS-ISAC)
- Department of Homeland Security (DHS)
- Cybersecurity & Infrastructure Security Agency (CISA)

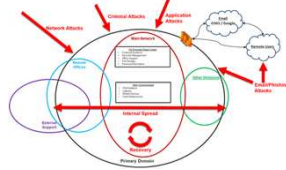
SHIELDS UP



13

Next Steps

- Assess the Organization
 - Understand Strengths and Weaknesses
 - Make Informed Decisions
 - Actively Manage Risk



14
