Insights from the 2022 Application Protection Report:

In Expectation of Exfiltration

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Hi, nice to meet you. I'm Shain.

Shain Singh

Principal Security Architect @F5

- 25+ years in security, networks and IT
- Across telco/ISPs, education and government sectors
- Current Interests:
  - DevSecOps (Continuous security in operations)
  - 5G Security (IIoT, Smart Cities, Edge Networks)
  - API/Application Security
  - Government/Industry Standards and Compliance

Social

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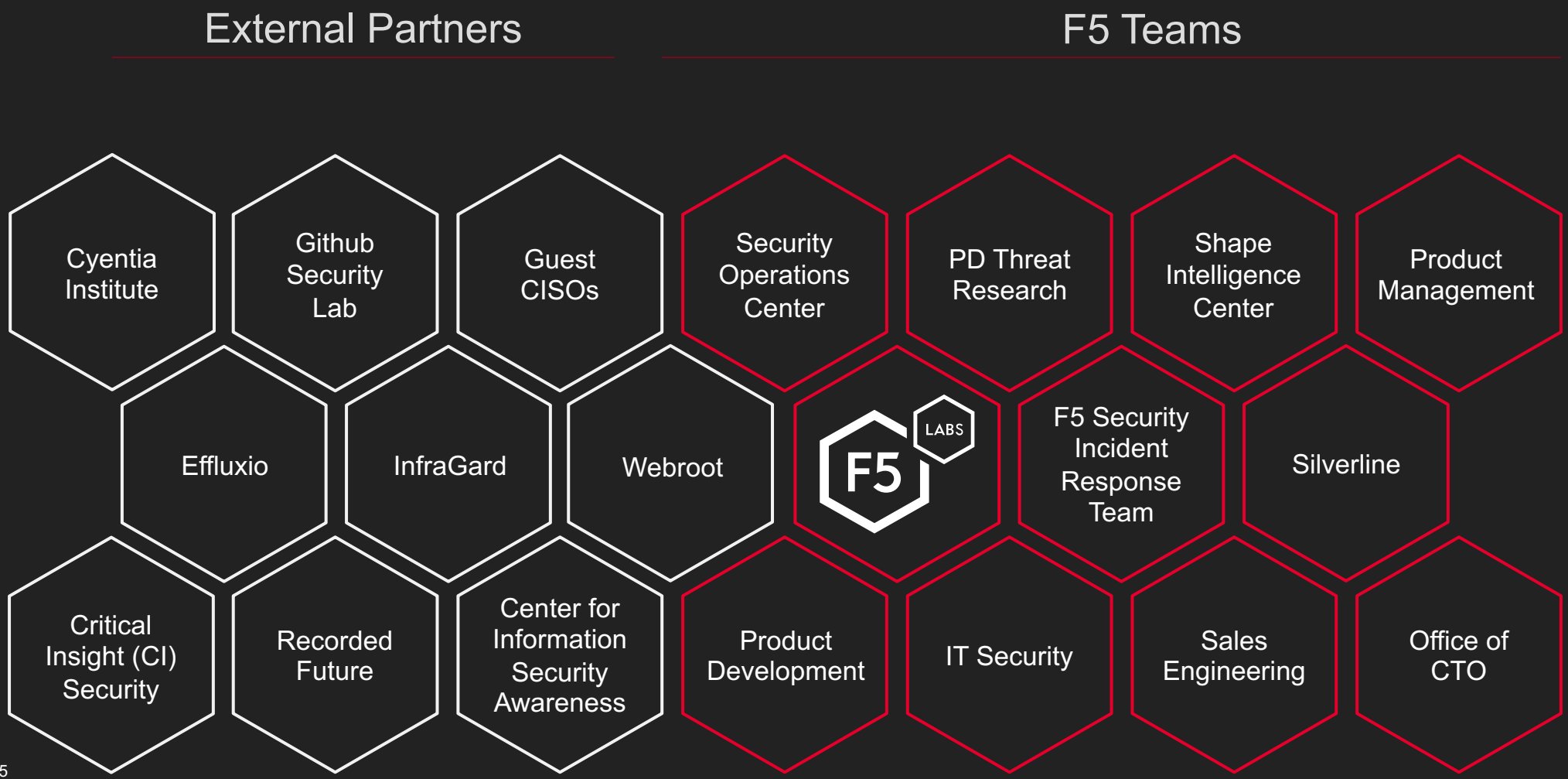
Professional Memberships

Data Sources



Application Protection Report

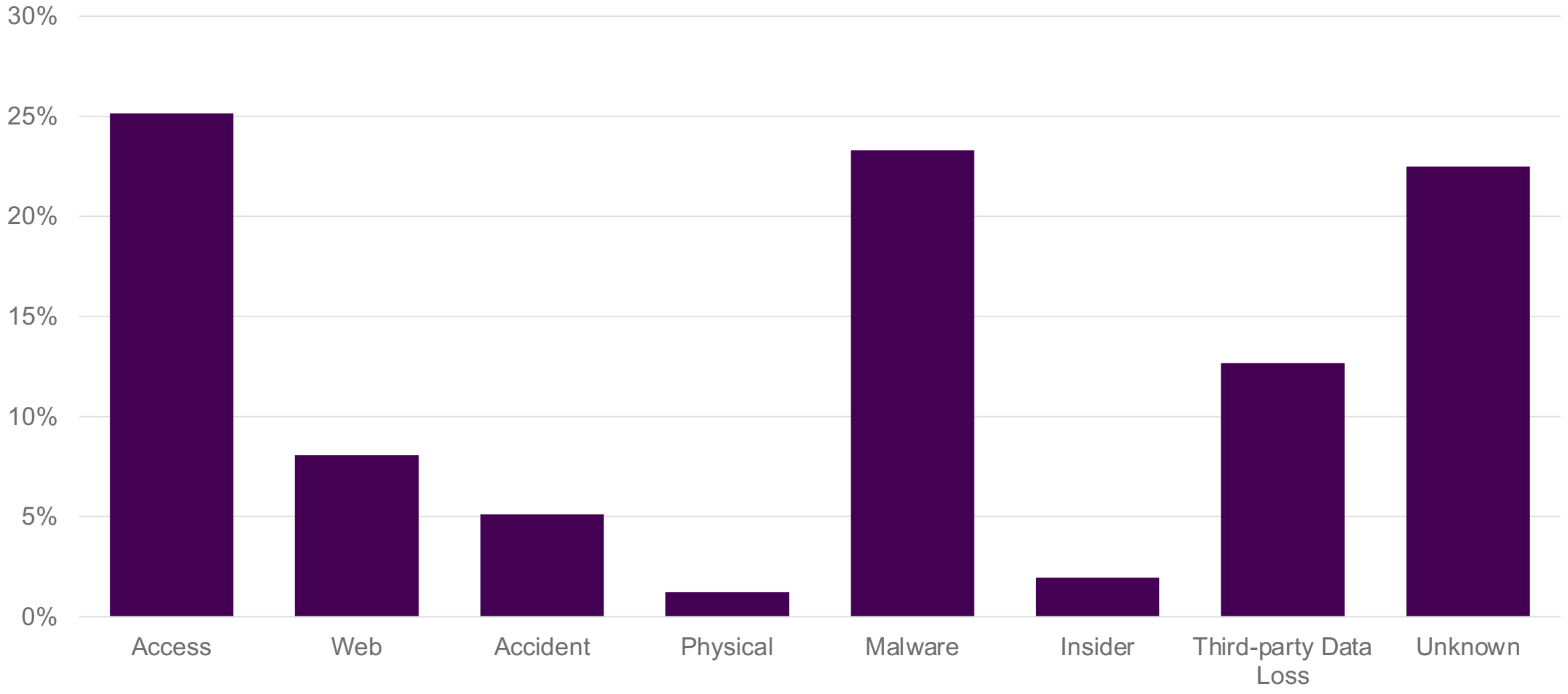
Using data to unite tactics and strategy in risk-based security

Agenda

- Data Breach Insights
  - Breach causes over time
  - 2021 breach causes by industry
- Attack Chain Analysis
- Recommended Mitigations

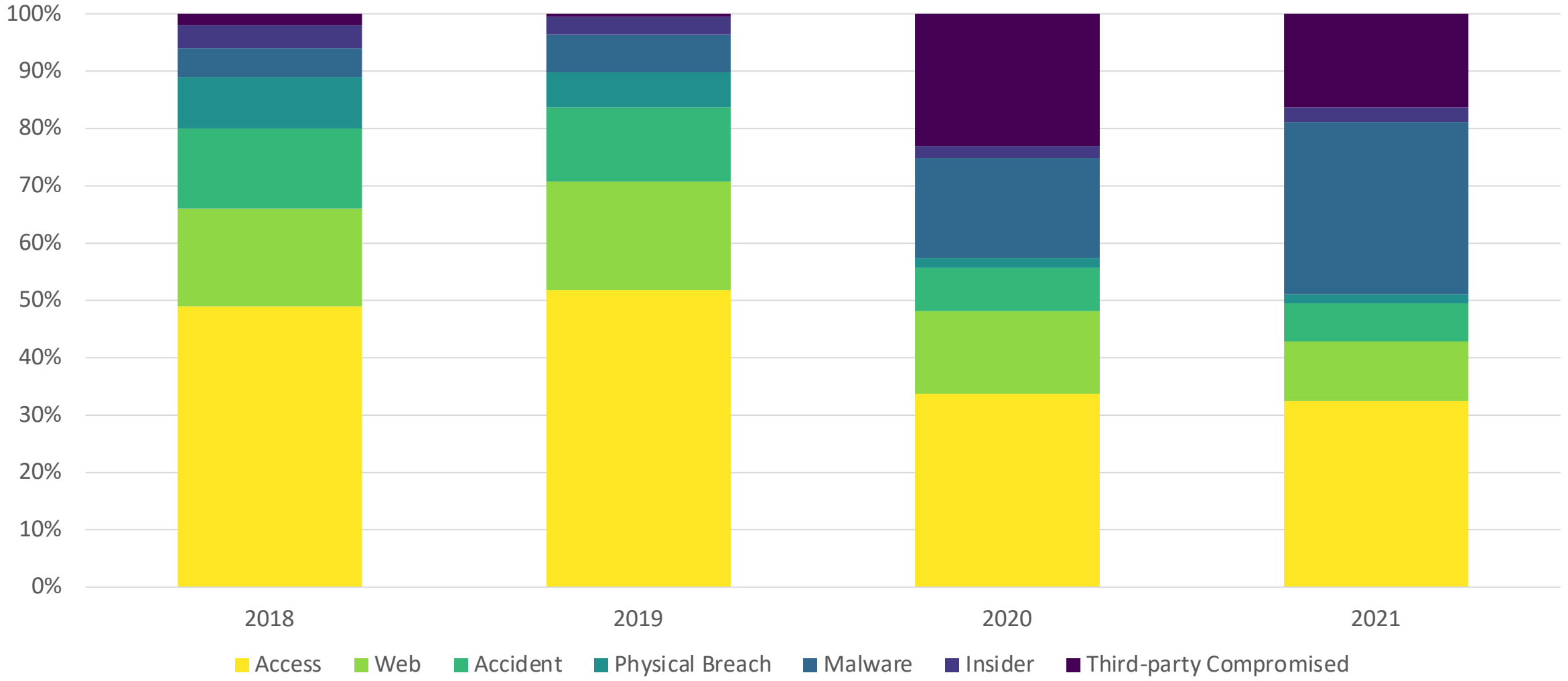
2021 Data Breach Distribution

Simple view, Application Tiers Model, *n* = 980



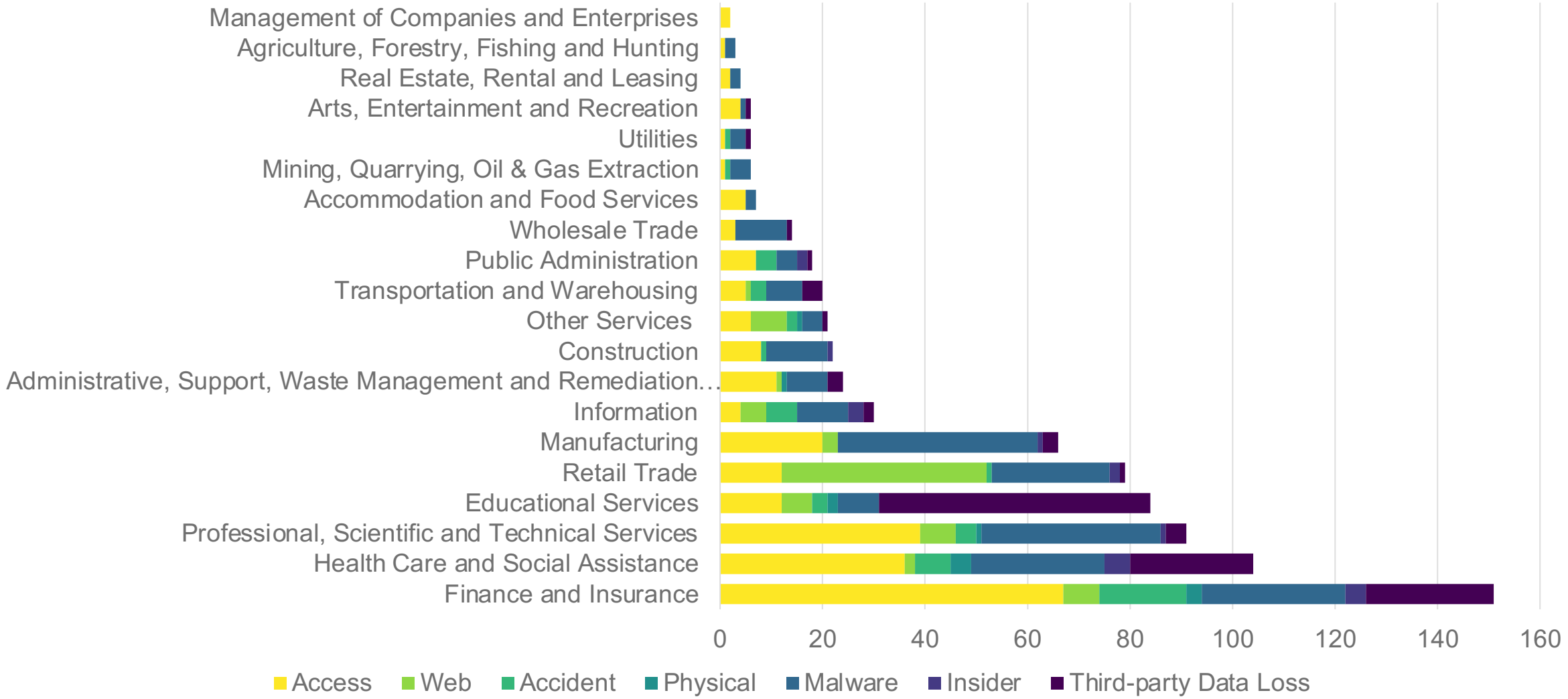
2018 - 2021 Data Breach Distribution

Historical view, Application Tiers Model

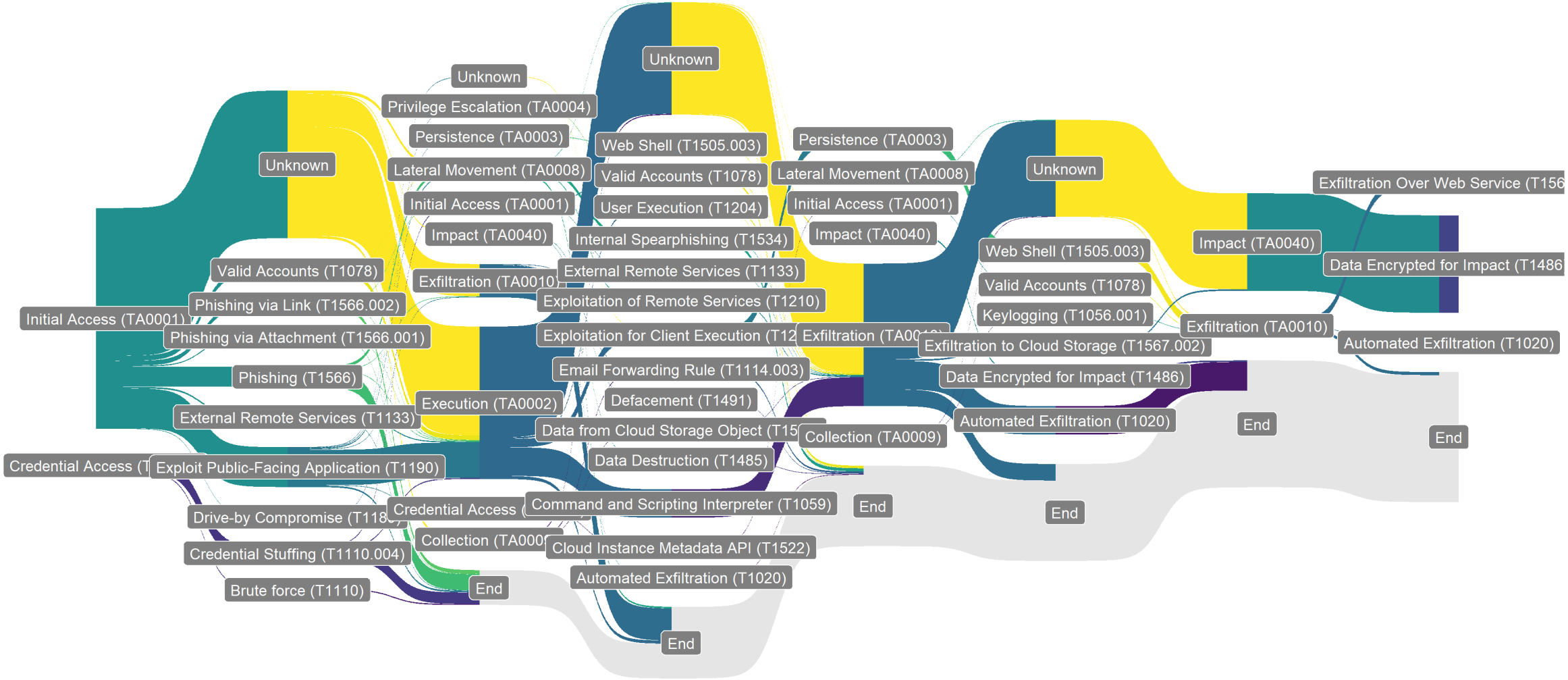


2021 Data Breach Distribution by Industry

Sector x Breach Cause, Application Tiers Model, unknowns removed, *n* = 758



Data Breach Attack Chain Analysis



Recommended Mitigations

Arbitrary effectiveness coefficient = frequency x coverage

Mitigation	Arbitrary Effectiveness Coefficient
Data Backup	1.26
Network Segmentation	0.85
Restrict Web-Based Content	0.85
Application Isolation and Sandboxing	0.68
Exploit Protection	0.68
Privileged Account Management	0.68
Disable or Remove Feature or Program	0.61
Update Software	0.51
Network Intrusion Prevention	0.50
User Training	0.43
Filter Network Traffic	0.38
Antivirus/Antimalware	0.36
Vulnerability Scanning	0.34
Multifactor Authentication	0.29
Execution Prevention	0.24

Thanks for listening!

Find the full report at www.f5.com/labs/application-protection