

12/20/21 Authentication Risk Assessment Appendix B: Controls Matrix

#	Asset Owner	Asset Stores or Processes Customer Financial Information	Asset Name	Description	Vendor Name (or Asset Provider)	Inherent Risk	Dual Authorization / Dual Control	Multi-factor Authentication (What you know, What you have)	One Time Password (sent out-of-band)	Out-of-Band Verification (default control optional for internet and mobile banking)	White Listing (ie: Positive-Pay, Debit Blocks)	Out-of-Wallet Challenge Questions	Volume Anomaly Detection (automated)	Time-of-Day, Day-of-Week Anomaly Detection (automated)	Cookie-based Token	Dollar Amount Threshold Blocks	Storage of Data on "Endpoint" is encrypted.	IP Blocks (black lists)	Policies and Procedures for detecting and responding to fraud	2005 Challenge Questions	Endpoint Owners are required to destroy accumulated NPI.	Enhanced customer account maintenance controls	Manual Financial Institution Usage Approval (Business or Retail)	Manual Financial Institution Transaction Approval	Customer Education	Residual Risk
1	NAME REDACTED	Y	Business On-line Banking	E-Pay: Add a Vendor	VENDOR RADACTED	#REF!	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	2	0	1	#REF!	
2	NAME REDACTED	Y	Business On-line Banking	Commercial Customer Interface to initiate ACH transactions.	VENDOR REDACTED	#REF!	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	1	2	0	1	#REF!
3	NAME REDACTED	Y	On-line Banking	Change Password on Account	VENDOR REDACTED	#REF!	0	0	0	1	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	#REF!
4	NAME REDACTED	Y	On-line Banking	Forgot My Password	VENDOR REDACTED	#REF!	0	0	0	1	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	#REF!
5	NAME REDACTED	Y	Commercial Billpay	Customer interface to be able to initiate Billpay transactions.	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	#REF!
6	NAME REDACTED	Y	On-line Banking	Change Username on Account	VENDOR REDACTED	#REF!	0	0	0	1	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	#REF!
7	NAME REDACTED	Y	On-line Banking	E-Pay: Add a Vendor	VENDOR REDACTED	#REF!	0	0	0	1	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	#REF!
8	NAME REDACTED	Y	SMS Banking Transaction Functionality:	Balance All, One-way Transfer within existing Customer Accounts. Abbreviated history of last five transactions.	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	#REF!
9	NAME REDACTED	N	Business On-line Banking	Customer Administrator Change Password on Account	VENDOR REDACTED	#REF!	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	#REF!
10	NAME REDACTED	N	Business On-line Banking	Change Username on Account	VENDOR REDACTED	#REF!	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	#REF!
11	NAME REDACTED	N	On-line Banking	Change Password Initiated by Customer	VENDOR REDACTED	#REF!	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	1	0	0	1	#REF!
12	NAME REDACTED	Y	ATM	Customer Interface	VENDOR REDACTED	#REF!	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	#REF!
13	NAME REDACTED	Y	On-line Banking	Login to Account	VENDOR REDACTED	#REF!	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	#REF!
14	NAME REDACTED	Y	Mobile Application: Billpay	Billpay to EXISTING payees	VENDOR REDACTED	#REF!	0	0	0	1	0	1	0	0	0	1	1	0	0	0	0	1	0	0	1	#REF!
15	NAME REDACTED	Y	Mobile Web: Billpay	Billpay to EXISTING payees	VENDOR REDACTED	#REF!	0	0	0	1	0	1	0	0	0	1	1	0	0	0	0	1	0	0	1	#REF!
16	NAME REDACTED	Y	On-line Banking	Change E-mail Address on Account	VENDOR REDACTED	#REF!	0	0	0	1	0	1	0	0	1	0	0	0	1	0	0	1	0	0	1	#REF!
17	NAME REDACTED	Y	On-line Banking	E-Pay: Pay a bill	VENDOR REDACTED	#REF!	0	0	0	1	0	1	0	0	1	0	0	0	0	1	0	0	0	0	1	#REF!
18	NAME REDACTED	Y	SMS Banking: View Functionality	Balance Inquiries, Threshold alerts.	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	#REF!
19	NAME REDACTED	N	Remote Capture	Customer interface to be able to initiate Remote Deposit transactions.	VENDOR REDACTED	#REF!	0	0	0	0	1	1	1	0	0	1	0	1	1	0	0	1	1	0	1	#REF!
20	NAME REDACTED	Y	Business On-line Banking	Change E-mail Address on Account	VENDOR REDACTED	#REF!	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	#REF!
21	NAME REDACTED	N	Business On-line Banking	Login to Account	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	#REF!
22	NAME REDACTED	Y	SMS Banking: Registration	Client has to go out while logged onto Internet Banking. There will be a menu option for them to input their cell number.	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	#REF!
23	NAME REDACTED	Y	Business On-line Banking	E-Pay: Pay a bill	VENDOR REDACTED	#REF!	0	0	0	1	1	0	1	0	0	1	0	1	1	0	0	1	0	0	1	#REF!

[illegible]

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64	NAME REDACTED	Y	Telephone Banking	Telephone System Administration	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
65	NAME REDACTED	Y	CSI At-work	Employee Portal	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
66	NAME REDACTED	Y	On-line Banking	Stop Payment	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
67	NAME REDACTED	N	Social Networking Site(s)	Bank's Social Media Post	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
68	NAME REDACTED	Y	Telephone Banking	Check Balance	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
69	NAME REDACTED	Y	Laptops owned and used by the bank, or given access to bank assets.	List those with laptops.	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
70	NAME REDACTED	Y	Bank-owned iPads	List those give Bank-owned iPads.	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
71	NAME REDACTED	Y	Smart Phones owned by the bank, or given access to bank assets.	List those with employee- owned iPads.	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
72	NAME REDACTED	N	Ipods and storage devices owned by employees	Describe usage of employee owned devices in the organization.	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
73	NAME REDACTED	N	Social Networking Site(s)	Management Team Member Post on employee-owned Social Media Site.	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
74	NAME REDACTED	N	Social Networking Site(s)	User-level Post on employee- owned Social Media Site	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
75	NAME REDACTED	N	Facebook	Bank's Facebook Site	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
76	NAME REDACTED	N	Twitter	Bank's Twitter Site	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
77	NAME REDACTED	Y	MISER	BSA Reports from Miser	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
78	NAME REDACTED	N	LinkedIn	Bank's LinkedIn Page	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	
79	NAME REDACTED	Y	On-line Banking	Electronic Banking Maintenance Forms (customer setup changes, customer password changes)	VENDOR REDACTED	#REF!	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#REF!	

Notes

- EFT and ACH: Both are ACH transactions. An EFT is when we are the receiver of An ACH transaction, where An ACH is when we are the originator of a transaction.
- Mobile Banking was assessed based on the planned initial deployment.
- Controls marked with a blue background are vendor controls that need further investigation.