**KA’IDOJIN MU’AMALA DA “PASSWORD” (MASTER)**

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**Mabudin Kunnuwa**

Ranar talatar da ta gabata ne aka bayar da sanarwa a ma’aikatarmu cewa akwai bikin cin abinci (walima) da wasu daga cikin ma’aikata suka shirya sanadiyyar samun karin girma (Promotion) da Allah ya albarkacesu dashi. Bayan sanarwar, nan take aka rika bi ofishi ofishi ana raba katin gayyata (lunch ticket) don tantance wadanda aka gayyata wajen wannan biki. Da lokacin zuwa yayi, na fito daga ofishina sai ga wani aminina ya leko, yace: “Baban Sadik har an fara raba abincin ne?” Nace: “A a, amma ni dai tuni na fito da “Password” di na.” Cikin mamaki sai yace mini, “Password kuma? Me ya kawo batun Password cikin walima?” Sai nan take na zaro katin gayyatar da aka raba mana, na nuna masa. Sai ya fashe da dariya, yace: “Lallai Password din ne kuwa.”

Daga cikin kalmomin da suka fi shahara a bakunan masu mu’amala da kayayyaki da hanyoyin fasahar sadarwa na zamani a yau, akwai kalmar “Password,” wanda a harshen Hausa nake fassara ta da: “Kalmar izinin shiga.” Babban dalilin shaharar wannan kalma shi ne girman mahimmancinta wajen shiga da fita da mu’amala da bayanai ta fuskoki daban-daban, a hanyoyin sadarwa na zamani. Saboda matsaloli da kusan a kullum galibin masu mu’amala da shafukan Intanet masu alaka da “Password” ke fuskanta, babu maudu’in da na fi samun tambayoyi da korafi a kai irin bangaren “Password”. Daga wadanda ke mance abin da suka, zuwa masu shigarwa a ce ba daidai bane, har a kai kan wadanda wasu ke sace musu “Password” din ta hanyoyin da nan gaba zan yi bayanai akai. Wannan yasa nayi alkawarin jero mana kasidu na musamman kan sha’anin “Password” da yadda yake.

Da farko za mu yi bayani kan ma’anar kalmar “Password”, da asalinsa; me yasa nayi amfani da kalmar “Password” wajen nufin katin gayyatar cin abinci da aka raba mana? Meye alakar dake tsakanin ma’anonin kalmomin biyu? Shin, wai “Password” na da wasu siffofi ne na musamman? In eh, guda nawa ne? Sannan, a daya bangaren, yana da nau’uka ne? In eh, guda nawa ne nau’ukansa? Yaya ake wasu ke sace wa wasu “Password” dinsu alhali ba su suka gaya musu ba, ba kuma gani suka yi a wani wuri a rubuce ba? Wasu hanyoyi ake bi a tsare “Password”? Wai shin ma tukun, ana iya nemo samfurin “Password” din wasu a Intanet? In eh, ta wasu hanyoyi ne? Wasu hanyoyi ake bi wajen zaban “Password” mai inganci, wanda ba kowa zai iya hararo shi ba, kuma meye hadarin dake tattare da irin wannan tsari? Jama’a, abin da yawa. Amma wannan kadan ne cikin tambayoyin wannan kasida ta musamman za ta duba. Sai a gyara zama don samun wadannan bayanai.

**Ma’anar Kalmar “Password”**

Sabanin yadda na saba a baya, ga duk wanda ya saba karanta rubuce-rubucena kan batun Intanet da hanyoyin mu’amala da wannan fasaha, ya san na saba amfani da: “Kalmar izinin shiga” ne, don nufin kalmar “Password”. Sai dai a wannan karo zan yi amfani da kalmar turanci ne, saboda wasu dalilai na zahiri. Kalmar “Password” wadda nake kira da suna: “Kalmar izinin shiga,” na nufin: “Wata kalma ce ko jerin haruffa da lambobi da alamomin rubutu da ake amfani dasu wajen tantancewa ko tsaro ga wasu bayanai kafin kaiwa gare su, ta hanyar na’urori da hanyoyin sadarwa na zamani.” Abin da wannan ke nufi shi ne: ma’anar kalmar “Password” na nuna abubuwa ne kamar haka: (1) Akwai kalma (misali: abdullahi ko ibrahim) ko haruffa dake cakude da lambobi ko alamomin rubutu (misali: isa1980 ko ali4389 ko audu32&&). (2) Amfanin kalmar shi ne tantance wasu bayanai dake tsare a wani mahalli. (3) Ana amfani da “Password” ne a kan na’urori da hanyoyin sadarwa dake da sila da wata kwamfuta mai dauke da bayanan da ake son kaiwa gare su, ko kuma kwamfutar dake dauke da bayanan kai tsaye.

**Asali da Tarihin “Password”**

Malaman tarihi a fannin kimiyya da fasahar sadarwa na zamani sun yi ta kokarin nemo hakikanin “Password” din farko da aka fara amfani da ita a duniya, amma abin ya ci tura. A tare da haka, tarihi ya dai hakaito sadda ake zaton an fara amfani da wannan tsari ne don tantance tsarin isa ga bayanai dake cikin wata ma’adana ta na’urar sadarwa na zamani. Bayanai sun nuna cewa wannan tsari ya samo asali ne tun farkon zamanin samuwar kwamfutoci shekaru sama da 60 da suka gabata. Babbar cibiyar binciken kimiyya na kasar Amurka mai suna “Massachusetts Institute of Technology,” (MIT) ta samar da wata kwamfuta a shekarar 1961 mai suna: CTSS, wadda ke amfani da wata babbar manhajar kwamfuta mai suna: “Time Sharing System” (TSS).

Wannan nau’in kwamfuta ta zo ne da tsarin tantance mai mu’amala, wato: “User Authentication,” wanda sai ka shigar da suna da kalmar izinin shiga sannan take budewa. Amma kafin wannan lokaci, masana suka ce asalin fahimtar da ta samar da wanann tsari na shigar da “Password” don tantancewa, ita ce tsarin gane juna ta amfani da kalmomi na musmaman. Daga baya wannan fahimta ta samu cikin tsarin gayyata ko shiga wani wuri dake bukatar gayyata ta musamman, kamar misalin da na bayar a mabudin wannan kasida. Daga nan aka sake samar da wannan ka’ida wajen tantance masu shiga gidan sinima, ta hanyar wasu lamnoni ko kalmomi da ake basu a rubuce, ga duk wanda ya biya kudi ko ya cika ka’idar da ake bukata. Da zarar ya so kofar shiga, sai a bukaci ya nuna lamba ko kalmar da aka bashi, don samun damar shiga.

Haka lamarin yaci gaba da tafiya zuwa sadda aka samar da wancan kwamfuta nau’in CTSS, a cibiyar binciken ilimi na kasar Amurka mai suna MIT. Wannan nau’in kwamfuta, kamar yadda bayani ya gabata a sama, tana dauke ne da babbar manhaja mai suna: “Time Sharing System,” wadda ke iya bayar da damar sadarwa tsakanin mutane biyu a lokaci guda. Wannan ita ce babbar manhajar kwamfuta ta farko da aka fara samar da tsarin hirar ga-ni-ga-ka, wato: “Realtime Chatting,” da tsarin Imel. Domin da irin wannan babbar manhaja ce babban masani Raymond Tomlinson (Ray Tomlinson) ya fara aika sakon Imel na farko, ta amfani da alamar @, wanda shi ne ake danganta samuwar wannan fasaha ta Imel gare shi a duniya baki daya.

Daga nan aka ci gaba da tsarawa tare da inganta wannan tsari na tantance masu kokarin kaiwa ga bayanai ta hanyar na’ura da hanyoyin sadarwa na zamani, har zuwa wannan lokaci da muke ciki.

**Rukunan “Password”**

Abin da wannan ma’ana ta kalmar “Password” ke nuna mana shi ne: “Password” na dauke ne da rukunai guda uku. Rukunin farko shi ne kalmar da za ayi amfani da ita don wakiltar mai kalmar. Rukuni na biyu shi ne tantancewa. Idan aka samu kalmar “Password” amma ya zama inda ake shigar da ita ba don tantancewa bane, ba za a kira wannan kalma da suna “Password” ba. Abin da tantancewa ke nufi a turance shi ne: “Authentication.” Sai rukuni na uku, wato mahallin da ake shigar da “Password” din; ko dai wata na’ura ce dake amfani da wata hanyar sadarwa na zamani wacce ke isar da mai kalmar zuwa kwamfutar dake dauke da bayanan da ake son isa gare su, ko ita kanta, idan kai tsaye yake shigar da “Password” din. Fahimtar wadannan rukunai na “Password” guda uku yana da mahimmanci sosai.

**Nau’ukan “Password”**

Kamar sauran tsare-tsare, “Password” na da nau’uka daban-daban, dangane da yanayinsa. Wasu nau’ukan suna shiga cikin siffofinsa. Asali dai, duk wata kalma ko hadakar kalma da ake amfani da ita wajen tantance mai son isa ga wasu bayanai ta hanyoyi da na’urorin sadarwa na zamani ana kiranta “Password” ne. A tare da haka, akwai wacce ke dauke da kalma sama da daya, misali: “garin-garki” ko “kanondabo” ko “Abincindabba.” Dukkan wadannan kalmomi “Password” ne. Amma saboda sun kunshi kalmomi sama da daya, don wakiltar “Password” daya, a fannin kimiyya da fasahar kariyar bayanai na zamani ana kiransu: “Passphrase” ne. Idan kalmar “Password” ta kunshi lambobi kadai, wadanda ke da iya adadi (kamar 4 ko 6 kadai), su kuma ana kiransu: “Passcord” ko “Passkey.” Shahararren sunan da aka sansu dashi shi ne: “Personal Identification Number” ko “PIN” a gajarce.

Nau’ukan “Password” da suka kunshi lambobi kadai ana amfani dasu ne ta hanyar wayoyin salula. Kuma lambobi ne; babu haruffa sannan babu wasu alamomin rubutu a cikinsu. Kamar kalmomin tsare wayar salula, duk lambobi ne. Kuma adadinsu ba ya wuce 4 zuwa 6. Wannan ya faru ne sanadiyyar kuncin mahalli da allon shigar da bayanansu (Onscreen keyboard) ke fama dashi.

**Wuraren Shigar da “Password”**

Bayan bayani kan rukunan “Password” a bangaren karshe na kasidarmu ta makon jiya, yana da kyau mai karatu ya san a wasu wurare ne ake shigar da “Password.” Tabbas a yayin bayani kan ma’anar “Password” mun ji cewa daga cikin bangarorin wannan ma’ana akwai wurin da ake shigar da kalmar. Wannan wuri shi ne mahallin farko da “Password” ke bi a yayin da ake kokarin tantance wanda ya shigar da kalmar, don bashi damar isa ga bayanai ko manhajar da yake son mu’mala dasu/ita. A asali da kuma tunanin al’ada na mutumin da bai saba mu’amala da hanyoyi da na’urorin sadarwa a baya ba sai yanzu, mun dauka wajen shigar da “Password” wuri daya ne ko biyu rak! Ko dai wajen shiga Dandalin Facebook, ko kuma wajen shiga kwamfutarmu, idan muna da ita. Wannan tunanin asali ne, ko tunanin wanda bai saba mu’amala bane da hanyoyi da na’urorin sadarwa na zamani.

Mahallin farko da tafi kowacce tsufa da ake shigar da “Password” a cikinta ita ce babbar manhajar kwamfuta, wato: “Computer Operating System.” Idan mai karatu bai mance ba, sadda muka yi bayani kan tarihi da samuwar “Password” mun zayyana wata babbar manhajar kwamfuta mai suna “Time Sharing System” (TSS), wacce ita ce babbar manhajar kwamfuta da ta fara zuwa da tsarin tantance mai mu’amala da kwamfuta idan yazo shiga, wato: “User Log In Authentication.” Duk sadda kazo shiga kwamfuta za a budo maka inda za ka shigar da kalmar “Password” dinka. Wannan tsari na samuwa ne a daidai lokacin da ake kunna kwamfutar a karon farko bayan an saya. A wannan lokaci ne ake shirya “Suna” (Username) da kalmar “Password” din mai kwamfutar. Idan ba a zabi “Password” ba a sadda ake tsara kwamfutar, duk sadda aka kunna ta, za ta budo shafin farko ne (Desktop) kai tsaye. Amma muddin an sa “Password”, to, za a budo maka shafin shigar da “Password” ne, wato “User Log In Page.” Wannan shafi akwai manhajar dake motar dashi a sadda ka kunna kwamfutarka. Wannan manhaja ita ake kira: “Winlogon.exe”

Mahalli na biyu da ake shigar da “Password” a bisa tilas shi ne wajen bude akwatin Imel. Bayan ka bayar da bayanan da suka shafeka, dole za ka zabi “Suna” (Username) da kuma Kalmar Iznin Shiga (“Password”). Wadannan abubuwa guda biyu su ne mabudai kamar yadda kuma su ne makullan akwatinka na Imel. Idan kazo shiga akwatinka na Imel, bayan ka shigar da suna (username), dole ne kuma ka shigar da kalmar zinin shiganka (password) da ka zaba a sadda kake bude Imel din a karon farko. Imel din na iya zama na kashin kanka ne wanda ka bude a daya daga cikin gidajen yanar sadarwa na Intanet, wato: Internet Mail Program (irin su Gmail, da Yahoomail, da Hotmail), ko ya zama na ma’aikatar da kake wa aiki ne, wanda su ne za su ba ka bayanan duka. In yaso idan ka shiga sai ka canza “Password” din. Wannan shi ne mahalli na biyu.

Mahalli na uku wajen shigar da “Password” shi ne Wayar salula. A zamanin baya a asali wayoyin salula kan zo ne haka kawai, babu wani tsarin kariya a tare dasu, domin a lokacin galibi kira kawai ake iya yi ko amsa kira na murya. Amma a yau wayoyin salula sun zama wasu kananan kwamfutoci ko ma’adanai na bayanan sirri masu mahimmanci, wanda dole aka sanya musu hanyoyin kariya. A halin yanzu wayoyin salula na da hanyoyin kariyar bayanai wanda shigar da “Password” ke daya daga cikinsu. Babbar hanyar kariya ga wayar salula gamammiya ita ce tilasta shigar da wasu bayanai kafin iya mu’amala da wayar bayan an kunna ta. Wannan, kamar yadda tsarin kwamfuta yake, ya danganci yadda mai wayar ya tsara ta ne a farko. Idan ka tsara a duk sadda ka kunna ko ta shiga halin hutu ta rika kulle kanta ne, sai ka shigar da kalmomin neman izni (passcord/passkey) kafin a bude maka, haka za ta zama. Idan kuma sai ka yi wasu zane ne (security pattern) a shafin wayar kafin a bude maka, haka za ta zama. Wadannan hanyoyi ne da a kullum ake dada inganta su don baiwa mai wayar salula natsuwa a zuciyarsa.

Mahalli na hudu wajen shigar da “Password” shi ne yayin mu’amala da na’urar ATM (Automated Teller Machine) wajen cirewa ko sanya kudi a taskar banki. Idan ka zabi karbar katin ATM don saukake hanyar mu’amala da bankinka, za a baka katin ne tare da wasika mai dauke da kalmar “Password” dinka, wato PIN Cord, ko “Personal Identification Number Cord.” Wannan wasu lambobi ne guda hudu (dole su zama hudu), wadanda dole ka rika shigar dasu a sadda kazo cire kudi a wannan na’ura ta ATM. A karon farko idan ka fara amfani da wannan PIN da aka baka, na’urar za ta kaika wajen canza lambobin ne kai tsaye. Da zarar ka canza zuwa lambobin da kake bukata, sai ka ci gaba da amfani da na’urar. Wannan ita ma mahalli ce daga cikin mahallan da dole ne kayi amfani da kalmar “Password.”

Mahalli na biyar shi ne na’urar sawwara bayanai, wato: “Photocopier Machine.” Wannan ita ce na’urar da ake amfani da ita wajen daukan hoton bayanai da aka buga a shafin takarda, don amfani dasu ta wasu hanyoyi daban. A zamanin baya ire-iren wadannan na’urori ba a sanya musu komai na kariya kafin amfani dasu. Amma a halin yanzu sukan zo da tsarin kariya na musamman, don tabbatar da cewa sai wanda aka aminta yayi amfani dasu kadai zai yi. Misali kamar a manyan ofisoshin gwamnati da na masu zaman kansu, wadannan na’urori an tsara su ne ta yadda sai ka shigar da wasu lambobi (PIN Cord) guda hudu kafin su baka damar sawwara takardar da kake son sawwarawa. Da su da wayoyin salula duk tsarin “Password” dinsu daya ne, wato lambobi ne da basu shige guda hudu.

Mahalli na shida shi ne wajen mu’amala da na’urar wasan kwamfuta, wato: “Game Console.” Akwai na’urorin wasan kwamfuta (Games) da kamfanoni da dama suka kera: irin su Sony PS2, da Sony PS3, da Sony PS4 na kamfanin Sony Pictures. Sannan akwai na kamfanin Microsoft mai suna: Xbox. Dukkan wadannan idan ka tashi mu’amala dasu dole sai ka shigar da kalmar izninin shiga, domin ana jona su ne da talabijin kwamfuta a daya bangaren. Sannan a daya bangaren kuma suna jone ne da rumbun adana bayanai na kamfanin (misali xBox na kamfanin Microsoft), sai an tantanceka tukun kake iya samun kaiwa ga bayanan. Sai an samu dacewa tsakanin sunan da ka bayar da kalmar izinin shiganka sannan za a baka damar iya mu’amala da wannan na’ura don buga wasan.

Mahalli na karshe da za mu dakata a kai shi ne wajen mu’amala da tashoshin talabijin masu amfani da tauraron dan Adam, wato: Cable TV Decoders. A wasu kasashe idan ka sayi layin don kallon ire-iren wadannan tashoshi za a baka suna da kalmar izinin shiga don tantance ka, tunda harka ce ta kasuwanci. Mu a nan Najeriya galibi kamfanonin tashoshin talabijin na tauraron dan adam sukan shigar da wannan kariya ne ta na’urar da talabijinka ke amfani da ita, wato: Satellite Decoder. Da zarar ka kunna na’urar, nan take sai na’urar ta nemo maka sigina kai tsaye. A tare da haka, ba ka iya canza wasu tsare-tsaren dake tashoshin sai ka shigar da “Password” a yayin da kaje bangaren tsare-tsare (Settings).

Wadannan wurare ko mahallai, a takaice, suna daga cikin wuraren da aka fi amfani dasu wajen shigar da “Password” a halin yanzu. Sai dai kuma, meye dalilin da yasa mutane ke kirkirar “Password”? A mako mai zuwa in Allah yaso za mu ji wadannan dalilai.

**Dalilan Amfani da “Password”**

Kamar yadda wuraren shigar da “Password” suka bambanta, haka ma manufofi da dalilan masu amfani da “Password” suka bambanta, suka nau’anta, sannan suka yawaita. Akwai mutum guda mai “Password” 20! Wani yana da 10! Wani “Password” dinsa duk basu shige 5 ba, wani 3, wani 2, wani kuma, kamar fitilar mota, “Password” dinsa kwara daya ce rak. Me yasa aka samu wannan bambanci? Hakan ya samo asali ne daga manufa da dalilan mai “Password” din. Wadannan dalilai dai masu bincike na kwakwaf a fannin kimiyya da fasahar sadarwa na zamani sun haddade su zuwa bangarori ne kamar haka:

*Mu’amala da Imel*

Masu amfani da “Password” suna yin hakan ne don samun isa zuwa ga sakonninsu dake akwatin wasikar Imel dinsu. Wadannan su ne rukunan mutane da suka fi yawa cikin masu amfani da “Password” a duniya baki daya. Domin bincike ya tabbatar da cewa akwai mutane miliyan dubu biyu da dari biyar (wato biliyan biyu da rabi kenan), masu dauke da akwatin Imel ya zuwa karshen shekarar 2014! A duk shekara ana aikawa da sakonnin Imel da adadinsu ya kai biliyan dubu casa’in, wato tiriliyon casa’in kenan (90 trillion)! A duk dakika guda ana aikawa da sakonnin Imel da adadinsu ya kai miliyan biyu da dubu dari takwas (2.8 million). Dukkan wannan adadi na masu Imel na nuna cewa lallai akwai “Password” na Imel kadai da ya kai wancan adadi na masu mallakar Imel kenan a duniya. Dankari! Wannan manufa na cikin manufofin mallakar “Password” da yafi kowanne karfi da tasiri a duniya.

*Mu’amala da Kwamfuta*

Kusan dukkan masu mu’amala da kwamfuta a duniya suna shiga ne bayan sanya “Password” a kofar shiga. Kadan ne cikin mutane wadanda ba a izna da karancinsu masu shiga kwamfuta kai tsaye ba tare da “Password” ba. Dalili kuwa shi ne, a yanzu duniya ta fadaka kan abin da ya shafi kariyar bayanai a kwamfuta da sauran hanyoyi da na’urorin sadarwa. Duk wata kwamfuta dake dauke da Gidan yanar sadarwa a matsayin Uwar Garke (Server), tana da “Password” rubi biyu ko ma uku. Na farko wanda za a shigar idan aka zo shiga kwamfutar (Log In Password), na biyu wanda za a shigar idan aka zo shiga zangon sadarwar da kwamfutar ke baiwa bayanai (Network Log In Credentials), na uku kuma wanda za a shigar idan aka zo loda mata bayanai a shafukan yanar sadarwar da masu ziyara ke mu’amala dasu. Wannan adadi ne mai yawa, domin a shekarar da ta gabata (2014) an kiyasta cewa akwai ire-iren wadannan kwamfutoci masu dauke da gidajen yanar sadarwa na Intanet kadai guda biliyan biyu.

Bayan wadannan kwamfutoci masu dauke da gidajen yanar sadarwa, akwai ire-irensu masu dauke da bayanai kadai, wadanda ba a jone suke da Giza-gizan sadarwa na duniya ba, wato: Network Server. Wadannan su ne ire-iren kwamfutocin manyan kamfanonin duniya wadanda ke dauke da bayanai kan ayyukansu na cikin gida. Su wadannan Allah kadai yasan adadinsu. Domin kamfanin HP kadai, mai kera kwamfutoci a duniya, yana da kwamfutoci sama da 800, a kiyasin shekarar 2012! Kuma dole ne suna dauke da “Password” dinsu. A takaice dai, manufa ta biyu ita ce bukatar amfani da kwamfuta kai tsaye, don sarrafa bayanai ko wasu manufofin daban kuma.

*Mu’amala da Manhajojin Kwamfuta*

Akwai manhajojin mu’amala na yau da kullum wadanda kafin ka fara amfani dasu dole sai ka shigar da “Password.” Ire-iren wadannan manhajoji sun kasu kashi biyu; akwai wadanda ke jone da Intanet zalla, don baka damar sadarwa da wasu dake wata uwa duniya, akwai kuma wadanda ke girke a Gajeren Zangon Sadarwa (Local Area Network) dake kamfanoni ko hukumomi. Wadanda suka shafi Intanet zalla sun hada da manhajar hira na Facebook (Facebook Messenger), da manhajar hira na Yahoo! (Yahoo Messenger), da manhajar Skype da dai sauransu. Wadannan manhajoji ne dake sauke a kan kwamfutarka ko wayarka ta salula, amma ba za ka iya amfani dasu ba sai ka jonu da Intanet, sannan ka shigar da suna da kalmar izinin shiga (“Username” and “Password”).

Kashi na biyu su ne wadanda ke Gajeren Zangon Sadarwa da ake amfani dasu wajen ayyukan ma’aikata ko ofis, don tara bayanai na kwastoma ko kuma bincike da dai makamantansu. Ire-iren wadannan sun haka da manhajar Oracle, da manhajar Lync da ake amfani da ita wajen sadarwa tsakanin ma’aikata dake ma’aikata guda. Kamfanin Microsoft ne yake da wannan manhaja. Wannan ke nuna mana cewa ashe ba dukkan manhajojin kwamfuta bane kawai za ka yi alkafira ka fada cikinta ka kama amfani da ita ba, akwai wadanda sai ka shigar da “Password” kafin a baka damar yin hakan.

*Mu’amala da Fasahar Intanet*

Daga cikin dalilan da ke sa mutane su bukaci “Password” akwai bukatar mu’amala da fasahar Intanet don fa’idantuwa da wasu bayanai na musamman dake wasu mahallai a giza-gizan sadarwa na duniya. A asali da kuma ka’ida, ba dole bane sai kana da “Password” kafin ka iya shiga da mu’amala da bayanan dake Intanet. A takaice ma dai, kashi casa’in cikin dari na bayanan dake Intanet ba sa bukatar “Password” kafin mai ziyara ya fara amfani dasu. To amma akwai wasu wurare da mai ziyara zai ga bayanai masu gamsarwa, wadanda ba zai iya wuce su ba. Da zarar ya bukata za a ce masa: “Register,” ko “Log In”, ko kuma “Are you registered? If no, then sign up,” ko wani abu makamancin haka. Wannan zai tilasta masa yin rajista a wannan mahalli, da samun “Password”na musamman don wannan mahalli.

Bayan haka, akwai zaurukan hira da majalisun tattaunawa (Chatrooms and Usergroups) wadanda ke zankame da ilimi mai dimbin yawa ga wanda ya san abin da yake nema. Ire-iren wadannan mahallai dole sai ka yi rajista a shafin Gidan yanar kafin a baka izinin shiga. Kwanakin baya wani Farfesa ke sanar damu cewa akwai wani zauren tattaunawa a Intanet, wanda ko kudi yana iya biya don kawai ya zama mamba, saboda fa’idar dake cikin zauren. Ka ga wanda ya fadi zance irin wannan, don ka ce masa yayi rajista kadai kafin samu shiga zauren, abu ne mai wahala a gare shi? Ko kadan. Don haka, wannan na daya daga cikin dalilan dake sa a mallaki “Password” a dole.

*Shiga Gajeren Zangon Sadarwa (LAN)*

Galibin ofisoshi na hukuma da ma’aikatu da kamfanoni suna da Gajeren Zangon Sadarwa (Local Area Network – LAN) wanda dukkan kwamfutocin dake ma’aikatar ke jone a jiki. A matsayinka na ma’aikaci a wannan ma’aikata ko hukuma, duk kwamfutar da kake amfani da ita tana jone ne da wata Uwar Garke (Server) dake girke. Wannan Uwar Garke na dauke ne da sunayen dukkan ma’aikatan ofishin, da adireshinsu na Imel wanda ma’aikatar ta basu. Da zarar ka kunna kwamfutarka ta Ofis, nan take za a budo maka inda za ka shigar da “Password” dinka. Sai ka yi haka sannan ma za ka samu damar iya mu’amala da kwamfutar. Ba wannan kadai ba, hatta Intanet idan ka tashi shiga, sai ka yi amfani da Suna da Kalmar izinin shiganka (“Username” and “Password”) kafin ka iya riskuwa ga giza-gizan sadarwa ta duniya. Kenan ashe mu’amala da sauran kwamfutocin dake wani Gajeren Zangon Sadarwa dole yana bukatar “Password”. Idan a ma’aikata ce ko hukuma, su za su baka adireshin Imel sannan ka zabi “Password” din da kake bukata, idan ka tashi canza wanda suka baka kenan.

*Saye da Sayarwa a Intanet*

Daga cikin dalilan mallakar “Password” akwai bukatar cinikayya a Intanet. Idan kaje wani shafin kasuwanci don sayan wata haja, dole za a bukaci kayi rajista a shafin. Yin rajistan shi zai samar maka da “Password” wanda dashi masu shafin za su rika tantanceka idan ka shigo don aiwatar da wani sha’ani. Haka idan kaine mai tallata hajojin, dole kana da suna da kalmar izinin shiga na Gidan yanar sadarwarka, da kuma kamfanin dake maka dillancin karban kudaden da masu sayan hajarka ke bayarwa don mallakar hajar. Wannan kam dole ne gare ka mallakar “Password,” kuma daya ne daga cikin dalilan dake sa a mallaki “Password” a bisa tilas.

*Mu’amala a Dandalin Abota*

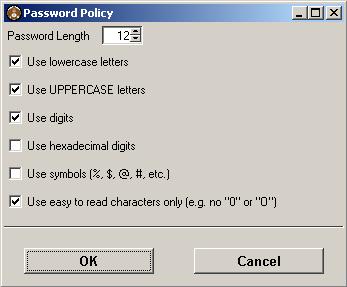
A zamanin yau babu abin da ke daukan hankulan mutane masu mu’amala da fasahar Intanet a duniya, musamman matasa, irin Dandalin Abota, wato: “Social Network,” ko “Social Media.” Wurare ne da samari da ‘yan mata da matasa da manya da dattawa maza da mata ke aiwatar da sadarwa don sanayya, ko kasuwanci, ko sadarwa, ko kuma abota irin ta yau da kullum. Wadannan dandamali na abota suna dauke ne a gidajen yanar sadarwa wadanda ke kan wasu madaukai na sadarwa a yanayin manhaja da tsarin sadarwar da tsarinsu ya sha karfin bayani a kasida guda. Shahararru daga cikinsu sun hada da Facebook, da Twitter, da MySpace, da Youtube, da Vimeo, da sauran ire-irensu.

Alkaluman bayanai sun tabbatar da akwai mutane sama da biliyan daya masu amfani da wadannan wuraren shakatawa a duniya a yau. Kamar yadda bayani ya gabata, ganin wadannan wurare na dauke ne a kan gidajen yanar sadarwa, wadanda ke dogaro da wasu manhajoji na sadarwa, kuma sun shafi bayar da bayanan duk mai sha’awar shiga, wannan ke tilasta samar da hanyar tantance dukkan mambobin dake da rajista a wadannan wurare. Don haka, bazai taba yiwuwa ba kaji wani yace maka yana da shafi a Dandalin Facebook amma kuma bai mallaki Suna (“Username”) da kalmar izinin shiga (“Password”) ba. Babu abin da yafi zama tilas irin mallakar wadannan abubuwa guda biyu. In kuwa haka ne, ashe dalili ne babba ga duk wanda ke son shiga ko yin rajista a ire-iren wadannan wurare da ya mallaki “Password” don yin hakan.

A mako mai zuwa in Allah ya kaimu, bayanai na nan tafe kan abin da ya shafi Siffofi da Dabi’u da kuma Ka’idojin “Password.” A ci gaba da kasancewa tare da mu, har kullum.

**Yadda Muke Zaban Password**

Bayan bayani kan dalilan da ke sa mutane su mallaki “Password” da mai karatu ya karanta a baya, zai dace mu ga irin yadda muke zaban “Password” a halin yanzu. Wato, a matsayinmu na masu mu’amala da hanyoyi da kayayyakin sadarwa na zamani masu bukatar “Password”, ta yaya muke zaban “Password”? Wannan tambaya tana da mahimmanci musamman idan muka yi la’akari da yawaita da kuma maimaituwan mu’amala da muke yi da wadannan na’urori. Kadan ne cikin masu mu’amala dasu wadanda za a iya kebancewa da basu mallaki “Password” ba. Amma kashi 90 cikin 100 za ka samu sun mallaka, musamman wadanda ke amfani da wayar salula wajen shiga shafukansu dake dandalin abota irin su: Facebook da Twitter da Youtube da sauransu.

Kasancewar “Password” wani abu ne da dole sai ka shigar kafin a baka damar aiwatar da abin da kake son aiwatarwa, yasa dole ga mai shi ya haddace shi. Tunda kuwa ya shafi hardacewa ne, ba kowa ke iya hararo abin da ya haddace lokaci guda ba, musamman idan ba yawan ta’ammali yake yi dashi ba. Misali, mutumin da ba ya amfani da “Password” dinsa sai sau daya a mako, zai fi saurin mancewa idan aka hada shi da wanda a kullum sai ya shigar da “Password” dinsa a shafi don samun shiga. A bangare na biyu kuma, akwai dalilan mantuwa. Wasu duk gajartan “Password” dinsu suna iya mancewa, a yayin da wasu kuma duk tsawonsa, zai yi wahala ka ga sun mance. Wadannan dalilai ne guda biyu dake taimaka wa masu ta’ammali da “Password” wajen zabansa; mai tsawo ne ko gajere, mai saukin haddacewa ne ko mai tsauri.

Galibin masu zaban “Password” sun fi yin amfani da sunaye. Ko dai sunansu, ko na mahaifansu, ko ‘ya’yansu, ko wasu daga cikin danginsu. Wadannan su ne kaso mafi yawa daga cikin masu amfani da sunaye a matsayin “Password.” Mata: ‘yan mata, da matan aure, da zawarawa musamman a Arewacin Najeriya, na cikin wannan rukuni. Masu kokari daga cikinsu ne ke kara lamba ko lambobi a gaban sunayensu don mayar dashi “Password”. Misali, kana iya ganin “Password” kamar haka: “jummai1” ko “hadiza21” ko “hajiya” ko “jummala” ko “talatu” ko “ibrahim00” ko “baballe” ko “ainau1” ko “zariya” ko “kanondabo” ko “katsina” ko “birninshehu”, duk a matsayin “Password.” Bahaushe dan Dandatsa (Hacker) ba zai sha wahala ba wajen sace ire-iren wadannan “Password” din, saboda saukinsu da zamansu “gama-gari.”

Wasu kuma su kan yi amfani da lambobi ne zalla. Misali, kwanan watan haihuwarsu, ko lambar wayarsu, ko lambar gidansu, ko lambar motarsu, ko su jirkita lambar wayarsu daga karshe zuwa farko, ko su cire lambobi uku na farkon lambarsu su bar sauran, da dai sauran dabaru, duk a matsayin “Password.” A wasu lokuta kuma su kan yi amfani da lamba daya zuwa goma (1 – 10) a matsayin “Password.” Wasu kuma suyi amfani da lamba daya zuwa shida ko bakwai ko takwas, duk dai a matsayin “Password.”

Idan muka koma bangaren harkokin rayuwa ma mutane kanyi amfani da bayanan da suka dangancesu ko suke sha’awa ko so, don mayar dasu “Password.” Misali, a addinance, galibin daliban ilimin addini musamman, da mata, da matasa kanyi amfani da kalmomi irin su: “yaasalaam” da “assalamualaikum” da “yaaAllah” da “subhaanallah” ko “alhamdulillah” ko wata kalma makamanciyar wadannan. A wani bangaren kuma wasu kanyi amfani da sunayen gwarazansu a rayuwa, kamar a fagen addini ko fina-finai. Ba abin mamaki bane ka ga matashi ko matashiya ta sa “Password” mai suna “alinuhu” ko “sanidanja” ko “safiyamusa” ko ma sunan fim na musamman, kamar: “0karni2” ko “masoyanzamani” ko “katanga” ko wani suna makamancin hakan.

Wasu kuma kanyi amfani da kalmomin turanci da suka shafi muradansu a matsayin “Password.” Wannan ya fi shahara a bangaren ‘yan mata dake soyayya da samarinsu. Bai sayi wuri ba kaga “Password” din mace a matsayin: “myheart” ko “mylove” ko “ineedyou” ko “iwantyou” ko kuma, a mafi yawancin lokuta, kana iya cin karo da mafin girman suna: “sweetheart” ko “sweetapples” ko “mycutie” da dai sauransu. Babban abin dariya, wasu kalmomin “Password” din ma’anarsu sai wanda ya sa su. Kana iya cin karo da “Password” din matashi kamar su: “londonguy” ko “followme” ko “jirginmasoya” ko kuma “fezbuk”, duk akwai su. Wani lamarin sai ya baka dariya. Daya daga cikin kalmomin da aka fi amfani dasu a baya a duniya baki daya ita ce kalmar: “password” ita kanta.

Daga bayanan da suka gabata, za mu ga cewa galibin mutane suna zaban “Password” ne ba tare da la’akari da tsaro ba, ko mahimmancin samun “Password” mai tsauri ba. Babban dalili shi ne, tunda dole ne sai da “Password” ake shiga shafi ko samun riskar nau’in bayanan da ake so, shi yasa mutane ke kaffa-kaffa wajen zaban abin da yake mai sauki a gare su. Nan gaba za mu fahimci hadari ko kuskuren dake tattare da hakan, amma kafin nan, ga bayani kan ka’idojin dake dauke da siffofin “Password” musamman a wannan zamani da muke ciki.

**Ka’idoji da Siffofin “Password”**

Saboda matsaloli da aka yi ta samu a baya, tun bayyanar tsarin “Password” zuwa yau, duniyar fannin sadarwa ta yi wa kanta kiyamullaili, inda ta fara neman hanyar kariya daga sake aukuwar abubuwan da suka auku a baya. Nan gaba mai karatu zai ga irin badakalar da tai ta faruwa a baya, a sashen da zan kira: “Tarihin Sace-sacen “Password” a Duniya.” A takaice dai, a halin yanzu an bullo da wasu ka’idoji da dukkan hukumomi da kamfanoni a duniya ke bi wajen tsarawa da kintsa bayanansu, daga ciki har da ka’idojin zaban Imel da Password. Wannan ka’ida ita ake kira: “Password Policy,” wanda ka’ida ce dake karkashin “Email Policy.”

Dukkan kamfanonin sadarwa na duniya dake baiwa mutane damar bude shafi ta hanyar Suna (username) da Kalmar izinin shiga (“Password”) a yau suna da ka’idoji na musamman da suke amfani dasu wajen yin hakan. Wasu ka’idojin suna da tsauri, wasu kuma masu sauki ne. Wadannan ka’idoji, wadanda ke karkashin tsarin “Email Policy” ne, wato ka’idojin tsarawa, da bayarwa, da adanawa da kuma lura da bayanan da suka shafi harkar Imel na kamfanin kenan. Wadannan tsare-tsare suna taimaka wa kamfanin ne wajen tantance jama’ar da yake hulda dasu. Idan hukuma ce ta gwamnati ko masu zaman kansu, hakan na bata damar tsara harkar suna da kalmomin izinin shiga da za ta ko take baiwa ma’aikatanta ne. Wannan ke sa dukkan ma’aikatan kamfanin su mallaki tsarin suna da kalmar izinishin shiga mai siffa iri daya.

Wadannan ka’idoji na Imel suna dauke ne da ka’idojin “Password” a daya bangaren. Ba komai wadannan ka’idoji suka kunsa ba illa siffofin da ake so kowane “Password” ya mallaka. Wadannan siffofi kuwa su ne:

*Tsawo (Length)*

Wannan shi ne iya karancin haruffa ko lambobin da ake so ka sa a matsayin “Password” dinka. Ma’ana, daga haruffan da adadinsu ya kai kaza, misali. A zamanin baya farkon bayyanar Imel, kamfanoni irin su Yahoo da Hotmail da Excite da American Online sun kayyade tsawon “Password” din da dukkan mai son bude Imel dasu zai kayyade ne. A lokacin nan, dole ne tsawon “Password” ya kai haruffa ko lambobi ko hadakar haruffa da lambobi guda shida (6). A haka lamarin yaci gaba har zuwa shekarar 2004 ko 2005, lokacin da kamfanin Google ya samar da manhajar Imel dinsa mai suna: Gmail. A takaice dai, wannan tsari na ka’idojin “Password” ne ke sa kamfani ya kayyade yawan haruffa ko lambobin da za ayi amfani dasu a matsayin “Password.”

*Hadaka (Combinations)*

Abu na biyu cikin ka’idoji da siffofin “Password” shi ne Hadaka; me da me ake so ka hada don samar da “Password” dinka. A baya kamfanonin Imel da sadarwa a duniya basu damu da wannan ba, kamar yadda basu damu da yawan haruffa ba sosai. Amma a karkashin wannan ka’ida ta “Password Policy,” kamfanoni kan sa ka’idoji kan nau’ukan haruffan da suke so ayi amfani dasu a matsayin “Password.”

*Tsawon rayuwa (Longevity)*

Rayuwar “Password” wani maudu’i ne mai zaman kansa na bincike a fannin kimiyya da fasahar sadarwa, musamman wajen kariyar bayanai. Abin da wannan ke nufi shi ne, daga lokacin da ka zabi “Password” dinka, kwamfutar da ta karbi “Password” din nan take za ta fara kirga kwanakin wannan kalma da ka shigar. A karkashin wannan ka’ida, dole ne ya zama kowane “Password” yana da iya adadin kwanaki (makonni, ko wata, ko shekara, ko shekaru, misali) da aka deba masa. Da zarar ya rage ‘yan kwanaki (kamar kwanaki 10 misali) lokacinsa ya kare, sai kwamfutar ta fara sanar dakai cewa ka canza “Password” din.

Sai dai wannan ka’ida galibi a kamfanonin hukumomin gwamnati ne ko kamfanoni masu zaman kansu. Amma kamfanonin sadarwa na Imel ba su tilasta wannan ka’ida, sai dai su shawarceka, musamman idan suka fahimci wani na yunkurin sace maka “Password” dinka.

*Yanayi (Nature)*

Wannan shi ake kira “Nature”, wato yanayin da ake so kowane “Password” ya kasance a ciki. Abin da wannan ke nufi shi ne: nau’ukan abin da kowane “Password” ya kunsa – haruffa, da lambobi, da alamomin rubutu da dai sauransu. Misali, a wasu daga cikin hukumomin gwamnati, ka’ida ce idan kazo zaban “Password” dole ne ya hada da babban harafi (capital letter), da lamba, da alamomi ko isharorin rubuta na musamman (special characters). Kana iya ganin “Password” haka: “Jamilu@2013” ko “Idris12\*\*” ko “Abdul00%%”, misali. Ba su kadai ba, hatta kamfanonin sadarwa masu bayar da Imel a duniya yanzu sun fara amfani da wannan ka’ida. Babbar hikimar dake karkashin yin haka shi ne don tsaurara matakai tare da dakile yunkurin masu sace wa mutane “Password” karfi da yaji. Sai dai kuma, wannan tsari yana da nasa matsalar, kamar yadda mai karatu zai gani nan gaba.

*Haramtattun alamomi (Prohibited Elements)*

Wadannan su ne nau’ukan haruffa ko lambobi ko alamomin rubutu da aka haramta amfani dasu a matsayin “Password” ko a cikin “Password.” Wannan ka’ida ce da kowane kamfani ko hukuma take da nata tsari a kai. Misali, a wasu ma’aikatun, haramun ne karkashin wannan ka’ida “Password” dinka ya kunshi kalmar “password”, ko alamar “@”, misali. A wasu ma’aikatun kuma haramun ne yin amfan da kalmomin turanci dake cikin kamus, wato: “Dictionary Words,” misali.

Wadannan, a takaice, su ne wasu daga cikin ka’idojin “Password” da ake amfani dasu a halin yanzu a duniya.

**Tarihin Fasakwaurin “Password” a Duniya**

Kasancewar “Password” wani makami ne mai matukar mahimmanci, mabudi ne dake sadar da duk wanda ya mallake shi ga abin da yake son kaiwa gare shi na bayanai, yasa kowa ke kaffa-kaffa da nasa. Abu na farko da duk wani gidan yanar sadarwa mai bayar da damar bude akwatin Imel a gidan yanar sadarwarsa ko wani kamfani ko ma’aikata ko hukuma dake baiwa ma’aikatanta ko jami’anta akwatin Imel ke yi a farkon lamari, shi ne fadakar da duk wanda suka ba “Password” cewa ya rike kalmar da mahimmanci; kada ya baiwa kowa, kuma kada ya bari wani ya gani a sadda yake shigarwa da dai sauransu. Meye dalili?

Babban dalilin hakan kuwa bai wuce irin kwamacala da badakalar da aka samu a shekarun baya, sadda mutane basu cika damuwa da boye bayanansu na Imel ko akwatin sadarwarsu ba. Sadda galibin hukumomi da kamfanoni basu cika tsaurara matakai ba wajen tabbatar da kariya ga bayanan mutanen da suke hulda dasu. Wannan ne ya haifar da wani bakin zamani inda sace-sace da fasakwaurin “Password” ya bunkasa a duniya baki daya. ‘Yan Dandatsa (Hackers) suka rika shiga rumbunan bayanan kamfanonin Imel (irin su Yahoo, da Google, da Microsoft), da gidajen yanar sadarwa na dandalin abota (irin su LinkedIn, da Adobe, da Twitter, da Americaonline) don sacewa da hankado bayanan sirrin mutane, suna sayarwa ko amfani da hakan don sace bayanan dake cikin Imel din jama’a don wata bukata daban.

A cikin kasidarmu mai take: “Duniyar ‘Yan Dandatsa” wanda aka buga a wannan shafi a shekarar 2010, mun yi bayanin dalilan dake sa ‘Yan Dandatsa aiwatar da ire-iren wadannan ayyuka na assha. Bayan neman duniya, akwai son burgewa, akwai ramuwa, akwai yarinta/kuruciya, sannan akwai nuna isa. Ba wai “Password” kadai ba, hatta lambobin katin adashin banki (Credit Card Numbers) na mutane suna sacewa. A wasu lokuta kuma su sace lambar katin tallafin kasa (Social Security Number) da hukuma ke baiwa marasa aikin yi a kasashensu (kamar Amurka da Ingila misali), don samun debe dan canjin da ya rage musu a ciki. Sabanin yadda muke fahimta, wadannan lambobi na katin adashin banki da na katin tallafin kasa da hukuma ke baiwa mutane a wadancan kasashe, duk su ma “Password” ne.

A yau in Allah ya so za mu koma dakin tarihi ne, don sanin wasu daga cikin shahararrun sace-sace da fasakwaurin “Password” da aka yi a baya. Wannan zai taimaka mana wajen sanin mahimmancin “Password” dinmu, don agaza mana wajen kara kaimi a fagen basu kariya a kowane lokaci.

*Yuli 16, 1998*

Ranar 16 ga watan Yuli na shekarar 1998 ne hukumar binciken kimiyya ta duniya dake kasar Suwizalan, wato CERT, ta ruwaito yadda wani Dan dandatsa ya afka wa wata kwamfuta ko kwamfutoci, inda ya sace a kalla “Password” da adadinsu ya kai 186,126. Sadda ya sace wadannan “Password” a hakikanin yanayinsu ya sace su, ba ya sace ne a yanayin kulluwa, wato “Encrypted Form.” A wannan yanayi, kana iya ganin lambobi ko bayanai masu wakiltar “Password” din ne, amma ba hakikaninsu ba. Amma akwai manhajojin kwamfuta da ake amfani dasu don “bude” su da bayyana hakikaninsu, kamar yadda za mu yi bayani nan gaba. A lokacin da aka kama wannan Dan dandatsa, tuni ya riga ya kwance/bude guda 47,642 daga cikin wancan adadi da ya sato.

*Disamba 2009*

A cikin watan Disamba na shekarar 2009 an ruwaito cewa, a cikin wani sata na musamman da ya auku a gidan yanar sadarwar kamfanin “Rockyou” dake [www.rockyou.com](http://www.rockyou.com), wani Dan dandatsa ya sace “Password” da adadinsu ya kai miliyan 32! Wannan adadi ne mai girman gaske. Yana gama sace wadannan “Password” nan take ya jera su a shafinsa na Intanet gaba dayansu, ba tare da bayyana sunayen masu “Password” din ba. Wannan Dan dandatsa ya yi amfani da tsarin “SQL Injection” ne, wanda daya ne daga cikin hanyoyin da ‘yan Dandatsa ke bi wajen sace “Password” daga rumbun bayanai na kwamfuta dake Intanet ko wani Zangon Sadarwa. Cikin sauki ya aiwatar da wannan ta’asa, domin “Password” din gaba dayansu an taskance su ne a hakikaninsu (Clear Text), ba tare da wata kariya ba.

*Yuni 2011*

A watan Yuni na shekarar 2011 wasu ‘Yan dandatsa sun barko cikin rumbun bayanan hukumar NATO dake nahiyar Turai, inda suka sace bayanan kwastomominsu dake sayan littattafai a shafinsu na yanar gizo. Wadannan bayanai na mambobin shafin ne masu rajista, wanda adadinsu ya kai 11,000. Bayanan sun hada da Sunan Yanka (First Name), da Sunan Mahaifi (Last Name), da Sunan Imel (Username) da kuma “Password” dinsu gaba daya. Kuma nan take wadannan ‘yan dandatsa suka bayyana bayanan a shafinsu na Intanet, don nuna isa. Da bincike ya kai makura, sai aka gano kungiyoyin suka aiwatar da wannan ta’asa. Kungioyin kuwa sun hada da kungiyar “Anonymous” (shahararriyar kungiyar Dandatsa da tayi fice a duniya baki daya), da kungiyar “LulzSec” (wacce ita ma ta shahara wajen dandatsanci). Sun yi wannan aiki danye ne cikin wani yunkuri da suka sanya wa suna: “Operation AntiSec.” Babbar manufar wadannan kungiyoyi shi ne, sato bayanan sirri a ko ina suke, ta amfani da kowace hanya, don bayyana wa duniya. A ra’ayinsu, sunce bai dace ace akwai wasu bayanai da ake boye wa wasu sai wasu kadai suke isa gare su ba, ko kadan. Dankari! Wani aikin sai ‘yan dandatsa.

*Yuli 11, 2011*

A ranar 11 ga watan Yuli na shekarar 2011 dai har wa yau kungiyar ‘Yan dandatsa ta “Anonynmous” ta afka wa manyan kwamfutocin kamfanin “Booz Allen Hamilton” dake yi wa hukumar tsaron Amurka ta Pentagon aiki, inda ta sace bayanan sirri (Suna da kalmar iznin shiga – Usernames and Passwords) na jami’an sojin Amurka da adadinsu ya kai dubu casa’in (90,000)! Wannan yunkuri nasu, wanda kungiyar ta sanya wa suna: “Military Meltdown Monday,” yai sanadiyyar sace bayanan da suka hada da na jami’an sojin kasa na kasar Amurka, da na sojin sama, da na sojin lura da sadarwa na kasar Amurka, da Hukumar Tsaron Cikin gida (Homeland Security), da na jami’an hukumar ofishin shugaban kasa, da na wasu ma’aikatan da ake kyautata zaton ‘Yan kwangilar da hukumar ke amfani dasu ne wajen aikace-aikacensu. Duk da cewa hukumar ta kulle wadannan “Password” din ne ta amfani da tsarin layance bayanai na “SHA1”, da aka kwance su gaba daya, sai ya bayyana cewa hatta sojoji su ma suna amfani da kalmomin “Password” masu saukin ganewa da tunawa.

*Shekarar 2012*

Shekarar 2012 ce shekarar da a cewar masana harkar kariyar bayanai a fannin sadarwa ta duniya, tafi kowace shekara yawaitan sace-sacen “Password” a duniya baki daya. Domin a watanni ukun farko na shekarar kadai, an sace “Password” da adadinsu ya kai miliyan 9! A shekarar ce aka sace “Password” guda miliyan shida da rabi (6.5 Million) daga gidan yanar sadarwa na abota da neman aiki a Intanet, wato “LinkedIn” ([www.linkedin.com](http://www.linkedin.com)). Wannan ya faru ne a watan Yuni na shekarar. A lokacin ne kuma aka sace “Password” miliyan ashirin da hudu (24 Million) daga gidan yanar sadarwan kamfanin “Zappos” ([www.zappos.com](http://www.zappos.com)). Wadannan “Password” an sace su ne tare da Sunayen (Usernames) masu su gaba daya. Sha yanzu magani yanzu kenan. Har wa yau, a cikin shekarar ne aka sace zallan “Password” guda miliyan daya da rabi (1.5 Million) na masu rajista a gidan yanar sadarwar “eharmony” ([www.eharmony.com](http://www.eharmony.com)). Wannan sata ta kunshi Sunaye ne tare da “Password” dinsu.

*Nuwamba 2013*

A shekarar 2013 cikin watan Nuwamba, kamfanin “Trustwave” dake bincike kan harkar kariyar bayanai a duniya ya fitar da wani labari dake kunshe da wata badakala na satar “Password” da kamfanin yace ya shafi gidajen yanar sadarwar dandalin abota da dama. Abin da ya faru kuwa shi ne, wasu ‘yan Dandatsa ne suka dasa wata manhaja dake iya kallo da hardace dukkan abin da mai kwamfuta ke shigarwa ta hanyar allon rubutunsa (Keyboard), kuma ta aika wa wadanda suka dasa ta nan take. Wannan manhaja da a fannin kimiyyar kariyar bayanai ake kira da suna: “Keylogger” ta hardato musu Suna (username) da “Password” din mutane sama da miliyan biyu daga gidajen yanar sadarwa irin su: Facebook (“Password” 318,000), da Gmail (“Password” 70,000), da Yahoo! (“Password” 60,000), da Twitter (“Password” 22,000), da Odnoklassniki (“Password” 9,000), da ADP (“Password” 8,000), da shafin LinkedIn (“Password” 8,000). Wadannan wasu ne daga cikin shahararrun gidajen yanar da wannan manhaja ta sato bayanan da aka shigar musu a lokacin.

Wannan kamfani na “Trustwave” yace da ya bibiya hakikanin rumbun dake adana wadannan “Password” da manhajar take satowa, sai ya ga a kasar Holand Uwar-garken (Server) take. Wannan kamfani yace nan take ya sanar da wadancan gidajen yanar sadarwa kan abincikensa, inda suka gudanar da bincike na musamman su ma, tare da bayyana wa jama’a abin da ya faru.

**Hanyoyin Sace “Password”**

A makon jiya mai karatu ya karanta irin yadda ‘yan Dandatsa (Hackers) ke sace “Password” din kamfanoni ba ma mutane kadai ba, masu dimbin yawa, saboda manufofin da bayaninsu ya gabata. Da yawa cikin mutane kanyi mamakin yadda haka kan kasance, musamman ganin cewa shi “Password” kalma ce ta “Sirri.” Ba abin mamaki bane. Domin ni kaina sadda na fara mu’amala da wadannan kafafe na sadarwa tare da hanyoyi da na’urorin da ake amfani dasu wajen yin hakan, na sha mamakin hakan. Amma daga baya sai na fahimci (sanadiyyar zurfafa karatu da kuma dabi’ar yau da gobe) wannan ba wani abin mamaki bane, sai dai abin bakin ciki ne. Shiga hakkin mai kaya ne, wanda bai dace ba. Sannan sanadiyyar hakan ma, mutunci da dukiya masu dimbin yawa kan salwanta. Duk da haka, ta wace hanya wadannan mutane ko duk ma wani mai satan “Password” ke bi wajen yin hakan? Abu ne mai sauki, wai cire wando ta ka.

A duk sadda aka ce ga wata hanya mai sauki wajen tafiyar da harkokin rayuwa, wacce ke baiwa dan adam karin ‘yanci daga kangin kunci da wahala da a baya ya samu kansa, a yayin da mutane ke farin ciki da murnar samun wannan sabuwar hanyar saukake al’amuran rayuwa, wasu na can a cikin dakunansu ko zaurensu ko dakunan bincike, suna tunanin yadda za su iya waske wannan sabuwar hanya don wata bukata ta kashin kansu mummuna. Misali, bayyanar shafukan Dandalin abota (irin su Facebook da Twitter da Youtube da Google Plus da MySpace dsr) ya bayar da hanya mafi sauki wajen tafiyar da rayuwa a bangaren sadarwa. Zumunci ya samu wata sabuwar hanyar bunkasa shi. Kasuwanci ya samu sabuwar hanyar habbaka shi. Alakoki sun samu sabuwar hanyar karfafa su – duk nisan masu alaka kuwa. Wannan ci gaba ne. To amma da mujurimai suka lura da yadda jama’a suka ahama wajen turbude rayuwarsu a wadannan wurare don fa’idantuwa da amfanonin dake cikinsu, sai su kuma suka kirkiri hanyoyin sace-sace, da kisan gilla, da sace jama’a musamman kananan yara, da yada batsa da ashararanci da dai sauran miyagun hanyoyi.

Wannan tsari ne na rayuwa. Tunda kirkirar “Password” na da manufofi (kamar yadda mai karatu ya gani makonni biyu da suka gabata), hakan ne ya baiwa masu satar “Password” damar kokarin kaiwa ga su “Password” din, don mallakar hakkokin da ba nasu ba, ko don wasu manufofi na shirme maras kima. Dangane da haka, binciken masu bincike a fannin hanyoyi da na’urorin sadarwa na zamani ya tabbatar da samuwar hanyoyin sace “Password” da dama. Wasu daga cikinsu na gama-gari ne, wasunsu kuma sai kwararru, hakikanin ‘yan ta’adda a fannin kenan. Allah tsare mu da ta’addanci. Ga wadannan hanyoyi nan, kashi na farko:

*Aminci da Amintuwa*

Wannan ita ce hanya mafi sauki kuma mafi hadari. Karkashin wannan tsari, mai “Password” ne zai baka “Password” dinsa da kansa, saboda amince maka da yayi don ka aiwatar da wani abu na gyara ko maslaharsa ko maslahar kanka. Saukin wannan hanya kenan. Hadarin dake cikinsa fa? Shi ne hakan na iya sa ka rika amfani da “Password” din wajen shiga shafinsa ko akwatinsa na Imel misali, ba tare da saninsa ko amincewarsa ba. Nan ne laifin yake, kuma shi yasa hakan ya zama sata. Galibin samari da ‘yan mata dake alaka a dandalin abota kan yi haka. Budurwa ta baiwa saurayinta “Password” din shafinta na Facebook, ko dai saboda tsananin soyayya da amincewa ko kuma sanadiyyar tuhuma da yake mata ko take tsoron nan gaba zai mata. Wasu samari ma kanyi haka. Amma galibi ‘yan mata sun fi yin wannan. A karshe, irin wannan shiri kan kare da matsala mai girman gaske ne, wasu lokuta ma ya kai ga rabuwa. A takaice dai, hanyar “Aminci da Amintuwa” ita ce hanyar farko kuma mafi sauki da masu satan “Password” ke bi wajen sacewa.

*Zamba Cikin Aminci*

Wannan shi ake kira “Social Engineering” a fannin kimiyya da fasahar sadarwa na zamani. Tsari ne da barawon “Password” ke bi wajen gano “Password” din wanda yake son sacewa, ta hanyar hira dashi. Hanyar farko ta kunshi yi masa tambayoyi cikin zance, ko a rubuce, ta hanyar hirar ga-ni-ga-ka (Real Time Chatting), wanda ta wannan dalili zai gaya masa “Password” dinsa da kansa. Hanya ta biyu ita ce ta hanyar sanin dabi’u da halayyar mai “Password” din. Misali, ya san sunansa, da danginsa, da ‘ya’yansa, da wurin aikinsa, da abubuwan da yake so a harkokin rayuwa, kamar abinci, ko abin sha, ko wani fim, ko wani gwarzo, ko wata kalma ko kalmomi da yake yawan maimaita su, da dai sauransu. A yayin da bawaron “Password” din ke kokarin gano wadannan bayanai daga mai su, ko kadan ba zai taba tunanin yana hakan bane don wata manufa. Amma a karshe, ta hanyar wadannan bayanai ne zai tsinci abubuwan da za su shiryar dashi zuwa gano hakikanin “Password” din abokinsa ko budurwarsa. Wannan tsari na “Social Engineering” shi ne masana a yau ke kira: “The Gentleman Thief.”

*Kirdado*

A wasu lokuta kuma barawon “Password” na iya amfani da tsarin “Kirdado,” ko “Guessing” kamar yadda masana a fannin kariyar bayanai na zamani ke kira. Bambancin wannan tsari da tsarin “Social Engineering” shi ne, a wannan bangare mai kirdadon bai san mai “Password” din ba, ko kuma ya sanshi, amma babu wata amincewa ko abota a tsakaninsu. A wancan bangare, mai “Password” din na hira da barawon ne sanadiyyar “amince” masa da yayi. Ko dai saboda kusanci ko alaka ta ‘yan uwantaka. A wasu lokuta kuma barawon na iya amfani da wata fuska sananniya don neman aminci da natsuwar mai “Password” din, idan har bai sanshi ba. Wannan kuma wani nau’i ne daban da bayani zai zo kansa kusa.

A takaice dai, daga cikin hanyoyin da barayin “Password” ke bi wajen sace wa jama’a kalmominsu na sirri akwai tsarin “Kirdado,” wato: ‘Guessing.’ Hakan kuma ya kunshi shigar da kalmomi daban-daban ne, wadanda mai shigarwa ke tsammanin su ne “Password” din, don neman dacewa. Wannan tsari ya kasu kashi biyu: akwai na gama-gari, wanda shi ne nake nufi a nan. Akwai kuma wanda ya kunshi amfani da manhajar kwamfuta ta musamman don aiwatar da wannan tsari. Bayani kan wannan na tafe karkashin “Manhajojin Satar “Password.”

*Leke*

Amfani da leke don ganin me ake shigarwa a matsayin “Password” na cikin hanyoyi na gama-gari, kuma shahararru; musamman a wuraren da jama’a ke yawan taruwa – irin su filin saukan jiragen sama, da makarantu, da dakunan mu’amala da kwamfuta da intanet da sai sauransu wurare makamantansu. Wannan tsari shi ma kashi biyu ne; akwai tsarin kallo na kai tsaye a yayin da mai “Password” ke shigar da kalmomin, ko dai sanadiyyar kusancin wurin zama ko ta hanyar yin mike da wuya don hango abin da ake shigarwa. Sai hanya ta biyu da ta kunshi dasa na’urorin daukar hoto ko masu nado bidiyo, don hango kalmomin da mai “Password” ke shigarwa. Duk wadannan yunkuri ne da barawon “Password” ke yi wajen ganin hakikanin kalmomin da ake shigarwa.

*Barayin Tsintau*

Wannan tsari shahararren tsari ne na satar “Password” din jama’a ta hanyar bibiyar shafukan Intanet don tsinto “Password” din da wasu suka sato daga rumbun adana bayanan wani gidan yanar sadarwa. Misali, a makon jiya mun yi bayani kan tarihin sace-sacen “Password” a duniya, har muka bayyana yadda masu yin hakan kan kalato abin da suka sato su zuba su a shafin Intanet, ware-wake don kowa ya gani; ga suna (username) da kalmar izinin shiga (password) a fili kowa na gani. To bayan sun yi haka, akwai wadanda ke zuwa su kwafi wadannan “Password” din da bayanan da suka dangance su, don amfani dasu a shafukan kasuwanci (irin su PayPal da bankuna da sauransu) don ribatar abin da ke cikinsu na dukiya kafin masu “Password” din su fadaka su canza. Wannan tsari shi ake kira “Password Recycling” a fannin sadarwa na zamani. Masu yin hakan kuma na kira su: “Barayin Tsintau” ne saboda sai an sato sannan suke tsintar abin da aka sato. Sun zama barayi ne su ma tunda abin da suka gani a bayyane na bayanai ba nasu bane, kuma sun san satowa aka yi.

**Makon Jiya**

A makon jiya masu karatu sun ga bayanai kan wasu daga cikin hanyoyin da ‘Yan Dandatsa ke bi don satar “Password” wadanda, kamar yadda na sanar a makon, hanyoyi ne na gama-gari. Abin da wannan ke nufi kuwa shi ne, ba su bukatar wata kwarewa ta musamman. Da kirdado, da tunani, da tsabar naci, da leke ko hangen abin da mai shigar wa da “Password” ke shigarwa, duk hanyoyi ne masu sauki da barayin “Password” ke bi wajen sacewa. A yau cikin yardar Allah za mu ci gaba da bayani kan ragowar hanyoyin da suke bi, amma wadanda ke bukatar kwarewa ta musamman, ba kamar wadanda suka gabata ba. Mu je zuwa, wai mahaukaci ya hau kura:

*Amfani da Na’urar “Wi-Fi”*

Daga cikin hanyoyin mu’amala da fasahar Intanet ta amfani da wayar salula ko kwamfuta ko sauran na’urorin sadarwa (irin su iPad da sauransu), akwai na’urar Wi-Fi. Wannan na’urar aikinta shi ne yada yanayin sadarwa a iya kadadar sadarwar da aka kera ta akai. Akwai wadda ke iya mamaye unguwa guda. Akwai mai iya mamaye iya hekta guda. Akwai mai iya mamaye iya fadin gida da harabarsa. Akwai mai iya mamaye iya dakunan dake madaidaicin gida guda. Akwai wanda kuma a iya falo ko dakin kwana kawai take iya yada yanayin sadarwar. Suna nan kala-kala.

Idan aka girke wannan na’ura a wuri, ana iya jona dukkan na’urorin sadarwar da ake dasu a wurin. Misali, idan a gidanka kana da kwamfuta guda daya, matanka uku kowacce na da wayar salula guda daya, ‘ya’yanka biyar kowannensu na da kwamfutarsa guda daya, sannan ga taka wayar salular; duk kana iya jona su a jikin wannan na’ura don aiwatar da sadarwa a tsakanin dukkan na’urorin. Hakan zai yiwu ne idan aka mayar da daya daga cikin kwamfutocin ta zama Uwar garke, wato “Server” kenan. A tsakanin wannan Uwar garke dole ne a samu wata na’ura mai suna “Router,” wacce aikinta shi ne dillancin hada alaka tsakanin uwar garken da sauran na’urorin dake wannan zango na sadarwa. Na’urar Router ce za ta baiwa kowace na’ura (kwamfuta ce ko wayar salula) dake makale a zangon lambobi na musamman masu suna: IP Address. Da zarar ka kayi kokarin aiwatar da sadarwa tsakanin wayarka ko kwamfutarka a wannan gida ta amfani da wannan na’ura ta Wi-Fi, nan take za a tantance wayarka ta cikin na’urar Router, ta zarce ta Uwar garke, sannan ka shiga Intanet. Haka abin yake.

Inda masu satar “Password” ke shigowa shi ne wajen na’urar Router. Na’urar Router ce ke iya gani da sanin bayanan da dukkan na’urorin sadarwar ke karba ko aikawa a wannan Zango, domin ta cikinta suke bi tana tantance su kafin hakan ya faru. A ka’idar sadarwa kuwa, duk na’urar dake jone a wannan zangon sadarwa, wacce ke amfani da na’urar Wi-Fi don shiga Intanet ta hanyar bin Router da Uwar garke, idan aka yi amfani da wata manhaja ko masarrafa ta musamman, za su iya ganin hakikanin bayanan da wayarka ko kwamfutarka ke karba ko aikawata tsakaninta da shafin da kake mu’amala ko nazari a cikinsu a lokacin da kake yi.

Manhajar “Wi-Fi Sniffer” manhaja ce da ake amfani da ita wajen iya hangowa ko ganin irin bayanan da na’urorin sadarwa ke aikawa ko karba a tsakaninsu da wasu na’urorin dake wata uwa duniya. Idan aka yi rashin sa’a wanda ke lura da wannan Zango na sadarwa bai sanya matakan tsaro ta hanyar hana kowace na’ura iya jonuwa da zangon sai da izini ba, to, barawon “Password” na iya zuwa da na’urarsa mai dauke da manhajar “Wi-Fi Sniffer” don jonuwa da zangon sadarwar, tare da tace dukkan bayanan da na’urorin ke aikawa ko karba a tsakaninsu. Bayanan kuwa sun hada da: adireshin shafukan da suke shiga ko suka shiga a baya, da suna (username) da kalmar izinin shiga (password), da adireshin Imel, da kalmomin sirrin wayar salular da ake amfani da ita wajen wannan sadarwar da dai sauran bayanai.

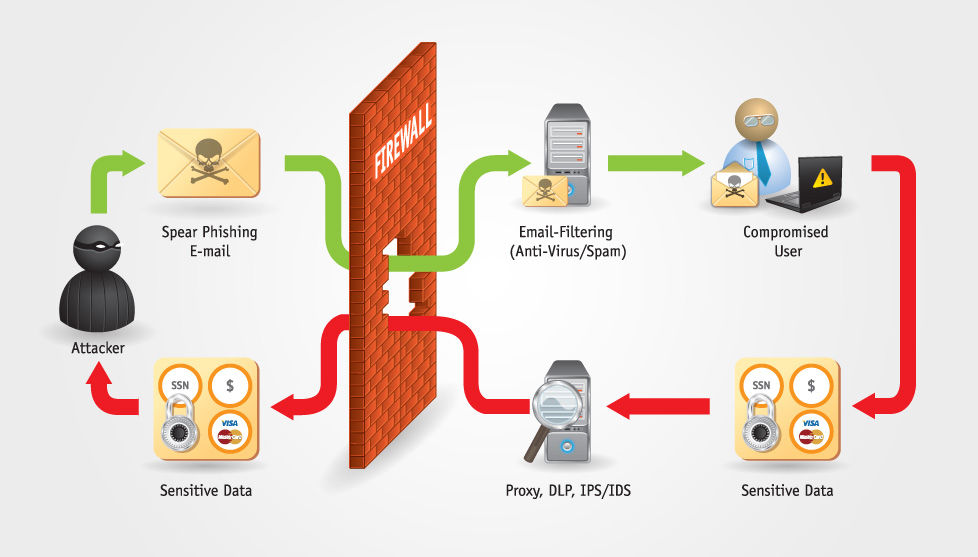
Ire-iren wuraren da ake iya samun zangon sadarwa ta na’urar Wi-Fi dai suna da yawa. Galibi wurare ne da mutane ke yawan taruwa don jira ko aiwatar da wani abu. Misali, kamar dakin jira a filayen jirgin sama, da dakunan shan shayi a galibin kasashen nahiyar Turai da Amurka (Coffee Café), da wurare na musamman da hukuma ko wani kamfanin sadarwa ke kebancewa don fa’idar jama’a (misali, irin su *Millennium Park* dake birnin Abuja), da makarantu, da filayen kwallon kafa da dai sauransu. A wadannan wurare ba a sanya matakan tsaro a na’urorin dake sadar da wayoyi ko kwamfutoci masu jonuwa da zangon sadarwar. Domin wuri ne budadde; kowa yazo ya shiga. Hadarin dake ciki kuma kai kasan yadda za ka kare kanka. Don haka idan ka samu kanka a wuri irin wannan, sai kasan yadda za kayi taku. Bayanai kan yadda za kare kai daga barayin “Password” na nan tafe.

*Amsar “Tambayar Sirri”*

Hanyar satar “Password” ta amfani da Amsar Tambayar Sirri (Security Question Answer) galibi takan shafi wadanda aka sace musu “Password” dinsu ne, har aka zuba a Intanet wani ya sace, ko kuma wanda ya sace ta hanyar “Zamba cikin aminci” da bayaninsa ya gabata. Idan barawon kwararre ne, a ka’ida yakan yi nazarin mahallin da ya samu shiga da “Password” din da ya sace ne. Idan akwatin Imel ne misali, akwai Tambayoyin Sirri (Security Question) da mai shafin yayi wa kansa kuma ya bayar da amsar. Dukkan amsoshin da ya bayar ana iya ganinsu ware-wake idan aka shiga bangaren tsare-tsaren akwatin Imel din, wato: Settings. Idan barawon yasan wadannan amsoshi, to, ko daga baya ka canza “Password” dinka, yana iya kokarin iya sake shiga, idan aka ce masa an canza “Password” din, zai nemi ya sake canzawa. A yayin da yazo wajen canzawa kawai za a tambaye shi amsoshin wadancan tambayoyin sirri ne, kuma ya sani. Da zarar ya amsa tambayoyin shikenan, sai a bashi damar sake canza “Password” din. Ka ga shafinka ya rasa ‘yancinsa kenan. Ga ka da gida, amma wani yana rike da mabudin gidan, kuma barawo ne, kuma baka sanshi ba. Duk da cewa a halin yanzu shafukan Imel dake Intanet sun daina amfani da wannan kalma ta amsoshin tambayar sirri ita kadai, musamman kamfanin Google a manhajarsa ta Gmail. Amma kada mai karatu ya sake, a rika canza “Password” lokaci zuwa lokaci. Akwai masu “Password” din da tun budewa shafinsu basu taba canzawa ba. Wannan kuskure ne mai girman gaske.

*Gidan Yanar Bogi (Phishing)*

Daga cikin hanyoyi shahararru, kwantattu wadanda ba kowa ke iya gane su ba, akwai yin amfani da gidan yanar bogi don sace “Password” din mutane, cikin sauki. Wannan dabara mummuna ita ake kira “Phishing” a ilimin kimiyyar sadarwar zamani. Kuma hakan na yiwuwa ne ta hanyar kirkirar shafin karya da a harshen kimiyyar sadarwa da tsaron bayanai ake kira: “Web Site Cloning.” Wannan hanya ta sace “Password” din jama’a tana da shahararrun fuskoki guda biyu ne, kuma kadan cikin kadan na mutanen dake mu’amala da shafukan Intanet a duniya ne suka san wadannan hanyoyi. Sauran jama’a dai sai Allah, wai Dan daudu a kabari.

Fuska ta farko ita ce gina shafukan Intanet sanannu, wadanda suka san galibin jama’a na ziyartarsu a kai-a kai don bukatun kasuwanci da hada-hadar kudi. Ire-iren wadannan shafuka sun hada da gidajen yanar sadarwa na bankuna, da na makarantu (shafukan da ake biyan kudade), da shagunan saye da sayarwa. Wannan shi ake kira “Website Cloning.” Da zarar sun gina shafi mai kama da na kamfanin da suke son jawo hankulan mutane gare shi, sai su masa rajista da adireshi mai kama da wanda aka sani. Misali, suna iya gina shafin yanar sadarwa na bankin GTB (Guaranty Trust Bank). Komai iri daya da na bankin. Adireshin shafin ma sai su zabi wanda ya kusan dacewa da na bankin. Idan Allah bai s aka hardace adireshin gidan yanar sadarwar bankin ba, kana shigar da nasu kawai za a zarce da kai wancan na bogin.

Abin da suke bukata shi ne bayananka; suna (username), da kalmar izinin shiga (password), watakila da lambar taskar ajiyarka, idan banki ne. Da zarar ka shigar da wadannan bayanai a shafin da aka tanada, za su zarce ne zuwa rumbun adana bayanan barawon, a cikin kwamfutar dake dauke da gidan yanar sadarwar, maimakon na bankin da kake zato ko kake da tabbacin a shafinsu kake. Daga nan zasu kwashe bayanan cikin sauki don cin ma manufar da suke bukata ba tare da wata wahala ba.

Fuska ta biyu ta kunshi aiko wa mutane sakonnin bogi (Spam Mails) ta akwatin Imel dinsu, masu dauke da Rariyar Likau (Web Link). Wannan rariyar likau na dauke ne da bayanai masu jan hankali. Misali, a sakon Imel din za a ce maka ga wata fa’ida nan misali, idan kana bukatar kaiwa gare ta, to, ka latsa rariyar likau dake kasa. Kana matsawa, sai a zarce da kai wancan shafi na bogi (cloned site), inda za ka shigar da bayanai. Na san da yawa cikin masu mu’amala da Imel, kai da ma Facebook a yanzu, sun sha samun sakonnin Imel daga wasu mutane da basu taba saninsu ba, masu dauke da labarai na tausayi dake bukatar taimako, ko kuma alkawuran kudi masu tsoka, ko kuma, a daya bangaren, ace maka bankinka na bukatar ka sabunta bayanan katinka na ATM.

Masu wannan dabara ta karshe sukan lika rariyar likau a kasan bayanan, sai a ce ka matsa rariyar don isa ga fam din da ake son ka cika. Kwamfa! Da zarar ka matsa, akwai wata fasaha mummuna dake makale a jikin bayanan daka matsa. Wannan fasaha dai ba wani abu bane face yar karamar manhaja ce da aka gina ta da dabarun gina manhajar kwamfuta mai suna “Java Script.” Bayanan dake cikin wannan fasaha dai aikinsu shi ne, da zarar ka matsa rariyar da suke dauke a cikinta, sai su shige cikin manhajar lilo da kake amfani da ita (wato “Browser”), kai tsaye. A ciki za su ci gaba da zama. Shafin da zai budo maka ba wani abin kirki a ciki. Daman dabara ce da yaudara. To meye matsalar wannan fasaha ta “Java Script” da ta shige cikin masarrafar lilo?

Matsalarta ita ce, za ta tabbata ne a cikin manhajar lilonka, da’iman. Kuma ba za ka iya gane samuwarta a ciki ba, ko kadan. Sabanin kwayar cutar kwamfuta mai sumarwa ko haukatar da kwamfuta, wannan fasaha tana aikin leken asiri ne a kwamfutar. Duk shafin da ka shiga, ka bayar da suna (username) da kalmar izinin shiganka (password), ko ka shigar da lambobin katin ATM dinka, nan take wannan fasaha za ta rika aika wa magininta wadancan bayanai, kai tsaye. Wannan manhaja ita ake kira “Keylogger,” saboda tana aikawa da bayanan ne daidai lokacin da kake shigar dasu da zarar ka latsa maballan kwamfuta ko wayar salularka. Ita ce masifar da tafi kowane kwayar cutar kwamfuta hadari a duniyar kimiyya da fasahar bayanai na zamani. Tana iya kwashe shekaru iya zamanin da kwamfutar ke raye, tana cin karenta babu babbaka. Wannan na daga cikin hanyoyin satar “Password” masu sarkakiya wanda kwararrun barayi a duniyar yanar gizo suka fi amfani da ita.

*Amfani da Shafin Google*

Manhajar “Matambayi Ba Ya Bata” (Search Engine) dake shafin kamfanin Google yana da matukar mahimmanci wajen neman bayanai nau’uka daban-daban. Ba bayanai na rubutu kadai ba, hatta alamomin rubutu da ramzozi, duk ana iya binciko su, a samu bayanai kan hakikaninsu. Hada har da hotuna, da sauti, da kuma bidiyo, duk suna nan birjik. An gina wannan manhaja ne a farkon lamari a shekarar 1995, sadda masu kamfanin (Larry Page da Sargey Brin) suke karatun digirinsu na uku a jami’ar Standford dake kasar Amurka. Sannan kowannensu bai shige shekara 25 ba. Wannan manhaja mai suna “Google Bot” yana yawo ne rariya-rariya, loko-loko a giza-gizan sadarwa na duniya, don kalato rariyar likau dake sadar da gidajen yanar sadarwa daga bangarorin duniya daban-daban. Da zarar ya kalato wadannan bayanai sai ya jera su a rumbun adana bayanai na kamfanin, wato “Servers.” A halin yanzu kamfanin ya bunkasa, sanadiyar ingancin wannan manhaja wajen gudanar da aikinsa.

Tsarin neman bayanai a Google ya kasu kashi biyu, a mahangar kwararru. Akwai tsarin neman bayanai n agama-garin mutane, wato ka shigar da kalma ko rabin jimla ko taken kasidar da kake bukata, nan take a aiko maka da bayanan da suka dace da bukatarta. Wannan shi ne abin da galibin mutane suke yi, ko hanyar da galibin mutane suka fi bi wajen neman bayanai a shafin Google. Sai dai a karkashin wannan tsari, akwai nau’ukan bayanan da ba za ka iya samu ba ko da ka shigar dasu, kamar adireshin Imel din mutane. In dai ta wannan hanya ce ta gama-gari, ba za ka samu ba. Domin hakan ya saba wa ka’idar da kamfanin ke gundanuwa a kai, kuma shiga hakkin wasu ne. Amma sai dai wannan ka’ida ce gurguwa, domin abin da wannan manhaja ta “Google Bot” ke kalatowa ya wuce gona da iri.

Tsari na biyu shi ne wanda kwararru ke amfani dashi wajen kalato bayanan sirri kuma masu mahimmanci, wadanda suka dace da abin da mai bincike ko tambaya ke so. Wannan tsari ba kowa ya sanshi ba. Idan aka kasa masu amfani da manhajar Google Bot zuwa kashi 100, kashi 95 basu san wannan tsari ba. Ta amfani da wannan tsari da ake kira “Google Keyword Search Terms,” kana iya samun adireshin Imel din mutane, da “Password” dinsu, da lambobin titunan unguwanni, da lambobin katin adashin bankin (Credit Card Number) mutane da dai sauran bayanan sirri. Kalmomi ne da alamomin neman bayanai da kamfanin Google ya samar, wadanda wancan manhaja tasa mai suna “Google Bot” ke iya fahimtarsu (ko ma yake amfani dasu wajen kalato bayanai).

Ta amfani da wannan dabara na biyu ne wasu daga cikin ‘yan dandatsa ke amfani wajen kalato “Password” din da a baya wasu suka sace, ko wadanda ke makare a Uwar garken wani gidan yanar sadarwa, ko kuma wadanda ke cikin wani tsohon gidan yanar sadarwa da aka daina amfani dashi a giza-gizan yanar duniya. Babban tasirin wannan hanya wajen zakulo bayanan sirri ya ta’allaka ne ga karfin manhajar “Google Bot” wajen iya shiga lungu-lungu a shafukan yanar sadarwa, da zimmar zakulo haram da halas. Na san mai karatu ya fahimci abin da nake nufi a nan; ba sai an yi karin bayani ba.

*Amfani da Manhajojin Kmamfuta na Musamman*

Akwai manhajojin kwamfuta na musamman da aka gina don satar “Password” kai tsaye. Akwai wadanda ke taimakawa wajen gano “Password” ta hanyar kirdado. Wannan tsari shi ake kira “Brute Force.” Akwai wadanda ke iya kwance “Password” din da aka layance shi. Bayani kan wadannan manhajoji na tafe filla-filla a sashen dake tafe mai take: “Tsarin Adana “Password” a Kwamfuta.” Abin nufi a nan shi ne, barayin “Password” na dada habbaka ne sanadiyyar yawaita da ingantuwan manhajojin satar “Password” da ake ginawa a yanzu. Wadannan manhajoji, abin mamaki, kana iya samunsu kyauta babu ko sisin kwabonka! Illa dai galibinsu na bukatar kwarewa ta musamman wajen sarrafa su ne, tare da hakuri da juriya da lokaci, don samun abin da ake nema. Barayin “Password” duk sun mallaki wadannan dabi’u, tunda sun san abin da suke nema, duk da haramcinsa.

**Makon Jiya**

A makon jiya mai karatu ya samu bayanai kan ragowar hanyoyin da ‘yan Dandatsa ke bi wajen sace “Password” din mutane, tare da nuna cewa daga cikin hanyoyin da suke amfani dasu akwai amfani da manhajojin kwamfuta masu iya kwance “Password” duk yadda aka layance shi. A yau za mu dubi wasu daga cikin wadannan manhajojin kwamfuta da ake iya sace “Password” dasu, tare da kwance su bayan an sace. Sannan muyi nazari kan wuraren da kwamfutocin da muke amfani dasu a hannunmu ko a office – wato kwamfutoci gama-gari nake nufi – don sanin ina ne suke adana “Password” din da muke shigarwa don bamu damar shiga kwamfutar a duk sadda muka shigar. In Allah yaso kuma za mu dubi yadda idan ka mance “Password” din kwamfutarka, ta yaya za ka iya canza wani “Password” din ta hanya mai sauki? Idan da lokaci a mako mai zuwa zamu yi nazari har wa yau kan yadda gidajen sanar sadarwar da muke mu’amala dasu suke adana “Password” din mu a rumbun adana bayanansu (Database).

*Tsarin Kwance “Password”*

Tsarin “layance “Password”” hanya ce da ake amfani da ita a wannan zami namu don baiwa bayanan mutane dake makare a kwamfutocin gidajen yanar sadarwa musamman, kariya daga kaiwa gare su ta hanyar da bata dace ba, kuma ba tare da izini ba. Idan mai karatu bai manta ba har wa yau, a sadda nake bayar da ma’anar kamar “Password” na nuna cewa kalma ce da ake amfani da ita don tantance mai kokarin kaiwa ga wasu bayanai dake wani wuri tsararre. A duk sadda dan Dandatsa (Hacker) ya samu isa ga wani rumbun adana bayanai mai dauke da “Password” din jama’a, a kowane irin yanayi bayanan suke (mai karatu zai ga bayanai kan nau’ukan hanyoyin taskance “Password” nan kadan) zai kwashe su ne, ko ince ya sace su gaba daya. Idan ya gudu ya koma masaukinsa hankalinsa ya kwanta ba a kama shi ba, sai nan take ya fara tunanin hanyoyin kwance su don amfana dasu.

Ta wace hanya ‘yan Dandatsa ke sato “Password” din mutane dake a yanayi irin wannan? Wannan ne ya kaimu ga manhajojin sace “Password” dake yayi a wannan hali da muke ciki. Akwai manhajojin sace “Password” da aka layance (Encrypted Passwords) masu dimnin yawa. Kuma kamar yadda na sanar a baya, samun ire-iren wadannan manhajoji ba wahala ga mai bukata, amma amfani dasu na bukatar kwarewa mai karfin gaske. Wasu ma ba a iya amfani dasu a kan kwamfuta mai dauke da babbar manhajar Windows, sai a kan mai dauke da Linux ko Unix misali. Wanda kuma ba kowa ke iya mallakarsu ba ma a nan balle iya sarrafa su. Galibi sai kwararru a harkar kwamfuta, ko wadanda suka iya mu’amala dasu a wasu kasashen Turai gabanin dawowarsu gida Najeriya.

Layance “Password” shi ake kira *Password Encryption* ko *Password Hashing/Salting.* Tsarin kwance “Password” daga halin da yake ciki kuma shi ake kira: *Password Cracking.* Fannin ilimin dake bincike kan wadannan abubuwa kuma shi ake kira: *Cryptography & Ecryption.* Bayan wannan fanni, akwai wadanda ke kwarewa kan ilimin kariyar bayanai da gano hanyoyin sacewa ko kwance “Password” da manufa ta gari, a matsayin sana’a karbabbiya. Wannan fanni shi ake kira: *Certified Ethical Hacking.* Wanda ya kware a wannan fanni kuma shi ake kira: *Certified Ethical Hacker.* Wanda ya kara kwarewa kan wannan fanni kuma shi ne wanda ya karanci fannin: *Penetration Testing.* Shi kuma ana kiransa: *Certified Penetration Tester (CPT).*

Masu koyon wannan ilimi a makarantu da jami’o’i da cibiyoyin binciken ilimin sadarwa na zamani (ciki har da mai Magana) suna amfani ne da galibin wadannan manhajoji dake iya gano inda makwancin “Password” yake a ko ina ne a giza-gizan sadarwa. Domin daga cikin jarabawa da ake wa dalibai a wannan fanni, akwai wadanda idan suka zo jarabawarsu ta karshe, za a basu sunan jakar wasu bayanai ne (file name) a ce su nemo inda jakar bayanin take a duniyar intanet, karkashin sa’o’i 24! Abin da ake bukatar su mika a matsayin jarabawarsu, ita ce hakikanin jakar bayanin da aka basu sunanta. Da zarar sun gano inda take kuma suka aika, sun ci jarabawa kenan. Wannan aiki ne Ja, inji mutan garin Dan ja a Katsina. Amma da zarar ka ci shikenan.

Shahararrun manhajojin dake iya layance “Password” suna da yawa. Goma daga cikinsu ne: “Brutus,” da “RainbowCrack,” da “Wfuzz.” Sai “Cain and Abel,” da “John the Ripper” (wanda nake kira “Jatau Mahandami”), da “THC Hydra,” sai kuma “Medusa.” Saura sun hada da: “OphCrack,” da “L0phtCrack,” sai na karshe, wato “AirCrack-NG.” Wadannan manhajoji kayan aiki ne mai girma da tasirin gaske, amma ga wanda ya iya amfani dasu, ya san karfinsu, ya kuma san wanne yafi dacewa a wane yanayi ko hali. Wasu ana iya amfani dasu a kan kwamfuta mai dauke da babbar manhajar Windows. Wasu kuma dole sai ta amfani da mai dauke da babbar manhajar Linux ko Unix. Wasu kuma suna da nau’uka bibbiyu ne; da na Windows, da kuma na Linux/Unix. Kamar yadda na fada a farko, gaibinsu kyauta ne. Wasu kuma na kudi ne. Wasu kuma na kyauta ne amma idan ka bayar da abin goro ba laifi. Wato tallafi kenan.

*Ina Babbar Manhajar Windows ke Adana “Password”?*

Ga duk wanda ya saba mu’amala da kwamfuta mai dauke da babbar manhajar Windows, dole ya zama akwai inda yake shigar da “Password” dinsa a duk sadda yazo bude ta. Hakan ne ke bashi damar isa gareta, tare da yin abin da yake son yi ba tare da matsala ba. In kuwa haka ne, a ina ne wannan babbar manhajar kwamfuta ke adana wannan “Password” din da ake shigar mata a yayin da mai mu’amala da ita yazo shiga huruminsa? Shin, ko mai karatu ya taba yi wa kansa ko waninsa wannan tambayar? In eh, wace amsa ka samu?

Babbar manhajar Windows na adana dukkan “Password” din da aka shigar mata tabbas, amma ba a iya isa ga jakar bayanan dake dauke da wadannan “Password” din idan kwamfutar tana kunne. Da farko dai, Windows kan adana “Password” din ka shigar mata ne a wani burgamin adana bayanai mai suna: *Sam Folder.* A hakan ma, ba za ka iya ganin “Password” din balo-balo ba. Domin tana adana su ne ta amfani da tsarin *NTLM,* wato *NT LAN Manager.* Wannan ka’ida ta adana “Password”, duk da cewa kwararru a harkar sadarwa da kariyar bayanai sun nuna yana da rauni, amma har yanzu dashi kamfanin Microsoft ke amfani wajen adana “Password” din masu kwamfuta. Titin da ake bi wajen isa ga wannan burgamin bayanai mai suna *Sam* ita ce: C:\WINDOWS\System32\Config\Sam

Wannan titi ne mai saukin isa gare shi, amma bayan an kashe kwamfutar. Idan kwamfutar na kunne ba za ka iya isa gare ta ba. To, me wannan adireshi yake nufi? Da farko dai, harafin “C” dake farkon adireshin na ishara ne ga hakikanin ma’adanar kwamfutar dake dauke da babbar manhajar kwamfutar gaba daya, wato: *Drive C.* Kalmar “WINDOWS” kuma babbar burgamin dake dauke da dukkan bayanan da suka shafi babbar manhajar Kenan. Ma’anar “burgami” shi ne: “Folder.” Kana shiga wannan burgami na WINDOWS sai ka gangara zuwa burgami mai suna: “System32” haka yake a rubuce. Kana shiga ciki, sai ka zarce burgami mai suna: “Config,” wanda a cikinsa ne burgamin “Sam” yake. Idan ka shiga cikin burgamin “Sam” za ka ci karo da hakikanin jakar dake dauke da “Password” dinka, idan kwamfutar taka ce.

Sai dai kamar yadda na fada a baya, ba za ka iya isa ga wannan bayani ba idan a kan kwamfutar kake, domin tana kunne ne kuma baza ta baka dama ba. To meye abin yi? Kana iya kashe kwamfutar, sai ka cire babbar ma’adanarta, wato: Hard Disk Drive (HDD), ka samu wata kwamfutar ka jona mata, don ganin dukkan bayanan dake ciki. Daga nan sai kawai ka zarce wancan jakar bayanai don kwaso jakar dake dauke da “Password” din. Idan hakan zai maka wahala, akwai wata hanya. Kana iya samun faifan CD/DVD mai dauke da babbar manhajar Linux (kamar nau’in “Backtrack 5” ko kuma “Kali Linux”), sai ka shigar wa kwamfutar a sadda take kunne, sannan ka kashe ka sake kunna ta (Restart), da zarar ta fahimci samuwar wannan CD/DVD nan take za ta tambayeka ko kana son lodawa ne, sai kace eh, ta hanyar matsa kowane maballin shigar da bayanai dake ka allon shigar da bayanai. Wannan zai loda babbar manhajar, ta hanyar baka zabi kan yadda kake son amfani da ita a kwamfutar. Ka zabi cewa za ka yi amfani dashi ne ta hanyar CD/DVD kadai. Wannan zai baka damar shiga kai tsaye ba tare da an goge maka babbar manhajar kwamfutar Windows dinka ba. Wannan shi ake kira: *Booting From Live CD/DVD.*

Da zarar ka shiga sai ka gangara kan burgamin dake dauke da babbar manhajar Windows kasai ka bi titin da aka ayyana a baya don isa ga burgamin *Sam* dake dauke da “Password” dinka. Bayan ka samu “Password” din, dole sai ka yi amfani da daya daga cikin manhajojin dake iya tacewa, tare da kwance “Password” kafin ka ga hakikanin bayanan da “Password” din ya kunsa.

Bayan wancan titi har wa yau, kana iya amfani da wani titin daban, don isa cikin sauki. Wannan titi mafi sauki ita ce: %winDir%\system32\config\sam. Sai dai idan kana son amfani da wannan titi, to, dole sai kaje “Start”, a bangaren dama daga kasa za ka ga alamar “Run” sai ka matsa. Idan ya budo sai ka shigar da adireshin. Sai dai kamar yadda nace, baza ka iya isa ga mahallin ba sai kwamfutar tana kashe. Shi yasa da zarar ka shigar da adireshi (in ka hada da kalmar “Sam”) za a ce maka Windows baza ta baka damar isa ga mahallin da ka bukata ba.

*Yadda Manhajar Linux/Unix ke Adana “Password”*

Bayan bayani kan yadda babbar manhajar Windows ke adana “Password” da wurin da take adanawa, zai dace masu karatu su san yadda sauran manyan manhajojin kwamfuta da suka shahara bayan Windows, suke adana “Password” a kwamfutocin dake dauke dasu su ma. Kamar yadda na shaida wa mai karatu a baya kuma ya sani, wadannan manyan manhajojin kwamfuta basu shahara a wannan bangaren duniyar da muke rayuwa ba. Amma duk da haka, bayani kan hakan bazai zama bata lokaci ba ga mai karatu. Nan gaba akwai tabbacin zasu shahara a nan in Allah ya yarda. Musamman ganin cewa babbar manhajar Linux ma kyauta ake bayar da ita (in ka kebe irin su nau’in “Red Hat” da “Slackware SUSE,” da “Cent OS”).

A babbar kwamfuta mai dauke da babbar manhajar Linux, ana adana “Password” ne a wannan titi: “/etc/shadow.” Wannan ita hanya ko titin da galibin zubin babbar manhajar Linux ke adana “Password”. Amma a zamanin baya suna adanawa a wannan titin ne: “/etc/passwd.” A babbar manhajar MAC OS X kuma na kamfanin *Apple,* ana adana “Password” ne a wannan titi: “Utilities>Keychain Access”. Wadannan bayanai dai isharori ne da idan ba masu amfani da babbar bane, gane abin da suke nufi yana da wahala. Amma a takaice, ba su da bambanci da tsarin gano inda “Password” ke adane a babbar manhajar Windows. Abin nufi, suna ishara ne zuwa ga wurare da mahallin da aka adana “Password” din.

*Idan Na Mance “Password” Din Kwamfuta ta*

Bayan bayani kan inda ake adana “Password” a manyan manhajojin kwamfuta, abu ne sananne cewa mantuwa dabi’a ce ta dan adam; idan mutum ya mance “Password” din kwamfutarsa, ta yaya zai gano ko kuma goge wancan na farkon tare da shigar mata da sabo ba tare da ya rasa bayanansa ba a takaice, ko tunanin goge babbar manhajar ma ba idan abu ya faskara? Lokuta da dama (ga wadanda basu sani ba) idan mutum ya mance “Password” din kwamfutarsa, ba tare da ya tanadi hanyar maido ta ba ta amfani da wani mazubi (Windows Password Reset Disc), to, ba abin da ake cewa sai dai a goge babbar manhajar don zuba mata sabo, wato: “Formatting” Kenan.

Wannan kuskure ne mai girman gaske, kuma hakan kan bayu zuwa ga rasa dukkan bayanan da mai kwamfutar ya mallaka gaba daya. Wannan gazawa ce ga masanin kwamfuta ya dauki wannan hanya wai don kawai an mance “Password” din. To meye abin yi?

Akwai hanyoyi da dama da masana suka tanada don ceto “Password” din kwamfuta da mai ita ya mance, ko kuma a kalla goge waccan tsohuwar da aka mance don shigar da sabuwa, ba tare da an rasa bayanan kwamfutar ba ko kuma goge babbar manhajarta. Wannan abu ne mai sauki, wai cire wando ta ka!

A farkon lamari ma dai, an tanadi hanyar da za ka iya taskance “Password” din da ka shigar wa kwamfutarka ta hanyar amfani da kananan ma’adanar bayanai na zamani – irin su *USB Flash Disk,* da faifan *CD,* ko kuma faifan *DVD* idan abin ya kai makura. A zamunnan baya akan yi amfani da ma’adanar *Floppy Disk* ce, amma a halin yanzu an daina yayinta. Akwai inda aka tanada maka a bangaren tsare-tsaren kwamfutar, wato: “Control Panel,” sai ka zarce “User Accounts,” a bangaren hagu daga kasa za ka ga inda aka rubuta “Create Password Reset Disk,” sai ka makala wa kwamfutarka wannan ma’adana, don bata damar taskance maka “Password” dinka cikin yaren da take iya fahimta. Da zarar ta gama za ta sanar da kai, sai ka cire, ka adana wannan ma’adana. Duk sadda ka mance “Password” dinka sai ka dauko ta ka jona wa kwamfutar, nan take za ta fahimci bayanan dake ciki sai a baka damar shiga.

To amma idan tun a farko baka tanadi wannan hanya ba fa? Yaya kenan? Abu ne mai sauki, amma ga wanda Allah ya sawwake masa.

Akwai nau’ukan dabaru da kuma masarrafai na musamman da aka tanada masu taimaka wa mutum wajen dawo da “Password” dinsa dake kwamfutar. Wadannan hanyoyi su ake kira: “Password Recovery Tools.” Sannan akwai wadanda za su taimaka maka ne wajen goge wancan tsohuwar “Password” din, don baka damar shigar da sabuwa. Sai dai dole ne a duk sadda ka samu kanka cikin bukatuwar ire-iren wadannan hanyoyi ka fahimci cewa wadannan abubuwa ko hanyoyi an samar dasu ne don amfanin kai da amfanar da mutane, ba hanyoyi bane da aka kirkira don baiwa ‘yan ta’adda saukin isa ga bayanan mutane ba. Samun wannan tunani a kwakwalwarka zai taimaka maka wajen fa’idantuwa dasu ba tare da samun wasuwasin juyar da manufarka don aikata ta’addanci ba.

Daga cikin dabaru akwai wadda za ka iya yi ba tare da kashe ko sisinka ba wajen warware matsalar. Misali, mu kaddara kana da kwamfuta nau’in Windows 7 ko Windows Vista, sai ka mance “Password” dinta. Ka kasa tunawa gaba daya. Kuma kana da bayanai masu matukar mahimmancin da baza ka so a ce an goge babbar manhajar ba gaba daya. Abu ne mai sauki. Sai kawai ka kashe kwamfutar ka sake kunnawa, kafin ta gama kunnuwa sai ka sake matsa maballin kashewa (Power Key) nan take. Idan ta fara kunnuwa za a kaika inda aka rubuta: “Start Windows Normally,” da “Repair Windows (recommended)” sai ka zabi na biyun.

A takaice dai masana kanyi amfani da wannan hanya ne wajen isa ga dukkan bayanan babbar manhajar kwamfutar (Operating System Files), tare da kwafa da canza sunayen wasu manhajoji guda biyu (“sethc” da “cmd”) don yin amfani dasu wajen goge wancan tsohuwar “Password” din da ka mance, tare da shigar mata da wani sabo. Karkashin wannan dabara, za ka iya ganin dukkan sunayen masu hurumi a kwamfutar (User Accounts). Wannan hanya ce mai sauki. Da zarar ka samu biyan bukata sai ka sake amfani da wannan hanya wajen goge sunayen manhojin da ka kwafa da wadda ka canza mata suna zuwa asalinta. Wannan daya ne daga cikin hanyoyin. Duk da cewa ba bayani nayi filla-filla ba saboda dalilan tsaro.

Ta bangaren manhajoji kuma akwai irin su “OphCrack” wacce za ka iya amfani da ita wajen gano “Password” din dake kwamfutarka ko da guda nawa ne, iya gwargwadon tsauri ko saukinsu. Kana iya saukar da manhajar daga gidan yanar sadarwar masu manhajar, sai ka kona ta cikin faifan CD, ko cikin ma’adanar Flash. Sai ka kashe kwamfutar, ka tsofa ma’adanar a jikin kwamfutar, ka sake kunna ta. Kafin ta fara kunnuwa sai ka matsa “F10” ko “escape” daga allon shigar da bayananka (ya danganci nau’in kwamfutarka da kamfanin da ya kera. Abin nufi dai za ka shiga “Boot Options” ne) don baiwa kwamfutar umarni ta kunna kanta daga manhajar dake cikin ma’adanar Flash da ka Makala mata ko na CD. Da zarar ta fara haka, shafi zai budo wanda zai baka damar gano duk “Password” din dake kwamfutar, cikin sauki.

Bayan manhajar “OphCrack” kuma akwai “PC Login,” wadda ke iya taimaka maka wajen goge tsohuwar “Password” din da ka mance, don shigar da wata sabuwa. Kamar wadda ta gabace ta, ita ma saukarwa ake daga gidan yanar sadarwar mai manhajar, sannan a tsofa wa kwamfuta ta loda manhajar daga gare ta kai tsaye, don baka damar gogewa ko hana kwamfutar bukatar shigar da “Password” ma a duk sadda ta gama kunnuwa.

Idan manhajar “PC Login” bata gamsar da bukatarka ba, akwai manhajar “Kon Boot,” wacce ke gudanar da aiki irin nata. Sai dai wannan manhajar ta kudi ce. Ba a samunta kyauta. Amma aiki kam ko agogo bai kai ta ba. Kana iya loda manhajar a cikin ma’adanar filash, sai ka sake kunna kwamfutar tare da bata umarnin ta loda manhajar kai tsaye yayin da take kunnuwa. Wannan zai kai ka cikin manhajar, inda za ka iya goge dukkan “Password” din dake cikin kwamfutar. Da zarar ka sake kunnawa za ta mike garau, ba tare da an bukaci ka shigar da “Password” din ba. Sai ka sake sanya wa huruminka (User Account) wata sabuwar “Password” don kariya.

Wadannan kadan ne cikin hanyoyin da mai karatu zai iya bi wajen magance ire-iren wadannan matsaloli dake tasowa sanadiyyar dabi’ar mantuwa da shagala, ko kuma kuskure da ba a rasawa a yayin tafiyar da rayuwa wajen mu’amala da na’urar kwamfuta.

*Rayuwar “Password” a Gidajen Yanar Sadarwa*

Bayan mai karatu ya fahimci yadda kwamfutoci ke adanawa tare da layance “Password” din da mai kwamfutar ke shigar musu, don bashi damar shiga da aiwatar da abubuwan da yake bukata, a halin yanzu za mu jirga bangaren gidajen yanar sadarwa na Intanet, don fahimtar yadda su kuma suke adana “Password” din da muke shigarwa idan mun tashi shiga shafukansu don aiwatar da abin da muke son aiwatarwa. Abin da wannan zance ke nufi shi ne, shafinka na Dandalin Facebook, idan ka tashi shiga kana shigar da “Password” dinka bayan suna ko? In eh, a ina masu shafin Facebook ke adana wannan “Password” din naka, ta yadda a duk sadda ka tashi shiga suke iya shaida ka ta hanyar abin da kake shigarwa? Kana shiga akwatin Imel dinka ko? In eh, idan ka shigar da suna (username) da kalmar sirrinka (password) a karon farko, a ina masu gidan yanar suke adana bayanan, ta yadda idan ka tashi shiga suke iya shaida ka da wanda ka shigar?

Duk wani shafi da kake iya shigansa ta hanyar bayar da suna (username) da kalmar sirri (password) a Intanet, to, akwai inda masu shafin ke adana bayanan, ko makwafinsa. Sai dai hanyoyin adanawar da kuma kwafan bayanan ne suka sha bamban. Ya danganci tsarin da kowane gidan yanar sadarwa ke amfani dashi. Akwai hanyoyi guda biyar ko shida da masu shafukan yanar sadarwa ke amfani dasu wajen adanawa tare da kwafan bayanan masu ziyarar gidajen yanar sadarwarsu ta hanyar suna (username) da kalmar sirri (password).

*Tsarin Tantance Masu Ziyara*

Kafin mu kutsa cikin bayanai kan hanyoyin da masu shafukan Intanet ke amfani dasu wajen adana bayanan masu ziyara a shafukansu, zai dace mai karatu ya fahimci tsarin tantance masu ziyara a shafukan yanar sadarwa a Intanet. Wannan tsari shi ne kashin bayan tsaron bayanan masu ziyara a Intanet. Kuma dukkan gidajen yanar sadarwa masu mu’amala da masu ziyara kai tsaye ta hanyar adireshin Imel, dole su tanadi hanyar tantance wadanda ke shiga shafukansu. Wannan tsari shi ake kira: “User Authentication.”

Da zarar kaje shafin Dandalin Facebook ko Gmail ko Yahoomail ko Hotmail don kokarin isa ga shafi ko akwatin Imel dinka, za a tarbeka da shafin shigar da suna kalmar izinin shiga ne, wato: “User Login Page.” Idan ka shigar da sunanka (username), sai ka gangara kasa ka shigar da kalmar izinin shiganka (password), sannan ka “Ok” ko “Login” ko “Enter” (ya danganci tsarin shafin yanar da kamfanin). Da zarar ka yi haka, ka gama naka aikin Kenan. Nan take shafin zai aika wadannan bayanai da ka shigar. Amfanin yin hakan kuwa shi ne don a tabbatar kai din ne dai, ba wani bane yake kokarin isa ga shafinka ta amfani da bayananka. Tunda ba wai gaba-da-gaba kake da masu adana shafin ba balle su ce: “eh, lallai kai ne mai wannan shafin, ba sai ka shigar da bayanan ba.” Haka wannan tsari yake a bankunan da muke ajiyan kudi dasu, ko ma a ce nasu tsarin ya fi wannan tsauri. Domin ko da kanka kaje sai an duba cikin kwamfuta an tabbatar hoton da ka bayar, da sa hannunka (signature) sun dace da abin da ka bayar a sadda kake bude taskar ajiyar. Sai an tabbatar da wannan sannan a mika maka adadin kudaden da ka bukata.

A yayin da kake jiran shafinka ya budo ko akwatin Imel dinka ya budo bayan ka shigar da wadannan bayanai, a nata bangaren, manhajar da ta karbi wadancan bayanai tana can tana da kokarin tabbatar da dacewarsu da bayanan da ka bayar yayin bude shafi ko akwatin Imel din ne. Da zarar ta gama tabbatar da dacewarsu, sai kawai kaga shafinka ya budo, dauke da sakonninka. Amma idan aka samu kuskure wanda ya haddasa rashin dacewa tsakanin bayanan biyu, sai ace maka: “Wrong Username or Password,” ko kuma “The Password you supply did not match the username.” Ma’ana, kalmar sirrin da ka shigar bai dace da sunan da kake kokarin isa gare shi ba. Nan gaba za mu yi bayani kan hanyoyin da ake bi a warware matsalar rashin dacewar suna da kalmar izinin shiga a Facebook da shafukan Imel gaba dayansu.

Wannan shi ne tsarin tantancewa, wanda gidajen yanar sadarwa na Intanet ke amfani da nau’ukan dabarun gina manhajar kwamfuta (Computer Programming Languages) daban-daban wajen aiwatar dashi. Wasu kan yi amfani da manhaja ko tsarin da aka gina da “Python,” wasu kuma wanda aka gina da “Java,” wasu wanda aka gina da “Perl,” wasu kuma wanda aka gina da “PHP” ko kuma hadakar ukun baya in ka cire nau’in “Java.”

*Manhajojin Adana “Password”*

Tsarin tantance masu kokarin shiga shafuka tsararru a Intanet (Secured Pages) ya ta’allake ne kacokam da bayanan dake makare a rumbunan adana bayanai (Database System) da wadannan gidajen yanar sadarwa ke amfani dasu wajen alkinta bayanan masu ziyara a shafukansu. Kowane gidana yanar sadarwa yana da bangarori guda biyu ne mahimmai. Bangaren farko shi ne “Idon gari,” wato shafin da masu ziyara ke iya gani kuma suke mu’amala dashi kai tsaye. Wannan bangare ya shafi babban shafin gidan yanar sadarwar, wato: “Homepage” da duk wani shafi da za ka iya shiga kai tsaye ba tare da matsala ba a gidan yanar sadarwa, don karanta sakonni ne ko labaru ko kasidu ko makaloli, duk matsayinsu daya. A harshen turancin sadarwa na zamani ana kiran wannan bangare da suna: “Front End.”

Bangare na biyu kuma shi ne bangaren da masu ziyara ba su iya isa gare shi ta kowanne yanayi (musamman idan ba kwararru bane su a fasannin adana bayanai). Wannan bangare ya kasu kashi biyu. Kashi na farko shi ne wanda ba a iya shiga sai bayan an tantance mai kokarin shiga. Wannan ya hada da shafukan masu shafi a Dandalin Facebook, da akwatin Imel mai dauke da sakonni, da duk wani bayani da ka mallaka a wani shafi amma ba ka iya isa gare shi sai an tantance ka. Kashi na biyu shi ne bangaren da babu mai iya isa gare shi sai masu gidan yanar ko kamfanin dake dauke da bayanan gidan yanar a kwamfutarsa. Wannan bangare shi ake kira “Back End.” Kuma shi ne mai dauke da ainihin manhaja ko masarrafar dake dauke da bayanan gidan yanar gaba daya.

Kamfanonin gidajen yanar sadarwa sun sha bamban wajen tsarin adana bayanan masu ziyarar shafukansu ko abokan huldarsu. Ma’ana, ba wai manhaja iri daya suke amfani da ita ba gaba dayansu. Dalili kuwa shi ne, kowane kamfani yana adana bayanai ne iya gwargwadon karfinsa, da mahangarsa wajen kasuwanci ko bude shafin, da karfin hakkin masu ziyarar shafinsa a kansa, da kuma iya girman himmansa wajen kokarin kiyaye amana ta kasuwanci da mutuncin abokan huldarsa. Amma ko ma da wace irin manhaja yake taskance bayanansa, dole manhajar na dauke ne da fuska biyu, kamar yadda shafinsa na Intanet ke dauke da fuska biyu, wanda bayaninsu ya gabata.

Manhajojin taskance bayanai ko Rumbunan adana bayanai suna nan da yawa. Akwai kanana, irin su: “Microsoft Office Access,” da “Peachtree,” da dai sauransu. Sannan akwai matsakaita irin su: “SAP Sybase IQ,” da “Teradata.” Sannan akwai manya irin su: “Oracle Database,” da “Microsoft SQL Server” na kamfanin Microsoft, da “MySQL,” wanda kyauta ake bayar ita ga mai bukata. Manyan su ake kira: “Enterprise Resourse Planning” (ERP), domin suna dauke da tsarin taskance bayanai da ya shafi dukkan fannonin ayyukan kasuwanci na zamani a duniyar yau.

Wadannan manhajoji, kamar yadda bayani ya gabata a sama, suna da fuska biyu ne. Akwai bangaren mu’amala dasu, wato: “User Interface” ko “Front End.” Wannan banagare ne masu shigar da bayanai ke amfani dasu kai tsaye wajen loda wa manhajar bayanan da ake bukata, ta amfani da fam (wato: “User Forms” ko “Input Forms”). Wannan idan ana amfani dasu kai tsaye kenan, ba wai a gidan yanar sadarwa ba.

Dayan bangaren kuma shi ne asalin rumbun dake dauke da bayanan baki daya, mahallin da dukkan abin da ake shigarwa na sunaye da kalmomi da haruffa da lamobobi ke zuwa, don a taskance su. Wannan bangare yana dauke ne da wofintattun jadawali (Empty Tables). Da zarar an fara shigar da bayanai sai su rika zuwa suna zama a cikin jadawalin. Wannan bangare shi ake kira: “Back End” kamar yadda na ambata a baya. Idan ka shiga gidan yanar sadarwa ka ga an umarceka da shigar da suna da kalmar sirri a wasu wurare, da zarar ka shigar, suna zarcewa ne kai tsaye zuwa cikin wannan rumbu da bayaninsa ya gabata.

A tsakanin bangarorin kowace manhajar rumbun adana bayanai, akwai “Dan aike” da ake kira: “Database Connector,” wanda ke hada alaka tsakanin bangarorin guda biyu. Shi ne kamar titi da wadannan bayanai da ake shigarwa suke bi, don samun isa ga wannan mahalli mai dauke da jadawali. Wannan titi yana da matukar mahimmanci, domin da zarar an rasa shi, ba za a samu alaka tsakanin bangarorin biyu ba. Domin shi ne yake karbar bayanai ya kuma zuba su a can. Tsarin dake motar dashi kuwa shi ake kira: “Database Instance.” Sai an samu wannan tsari sannan titin ke iya aiwatar da aikinsa. Shi ne kuma yake zuba bayanan a irin yanayi ko siffa ko dabi’ar da ake so su kasance a ciki, da zarar sun shiga cikin wannan jadawali dake cikin rumbun adana bayanai.

Ya zuwa yanzu, na tabbata mai karatu ya fahimci tsarin tantance masu shigar da bayanai a rumbun adana bayanan gidajen yanar sadarwa, da bangarorin da kowane gidan yanar sadarwa ya kasu, tare da bayani kan irin nau’uka da bangarorin da manhajojin rumbun adana bayanai suka karkasu. Abin da ya rage shi ne yadda wadannan rumbunan adana bayanai suke adana “Password” dinmu da zarar mun shigar.

A makon da ya gabata na yi alkawarin kawo hanyoyin da masu gidajen yanar sadarwa (irin su Facebook da Google da Yahoo da sauransu) ke bi wajen taskance “Password” din da muke shigarwa, musamman. To amma saboda ganin cewa, sadda muke shigar da “Password” dinmu akwai abubuwa da dama dake faruwa, cikin tsare-tsare masu ban mamaki, tare da wani mahalli na musamman da “Password” din ke shiga bayan mun bayar, na ga dacewar yin amfani da wannan mako don fadakar damu kan haka. Amma a makon gobe in Allah yaso, wadannan hanyoyi zasu zo wa mai karatu dalla-dalla.

A ci gaba da kasancewa tare damu.

Ga bayanai nan dalla-dalla kan wadannan hanyoyi: