



Tuned In and Locked Up

A Brief exploration of digital activity
and privacy concerns in incarcerated
facilities in California.

W210 Network
Security



Prepared by

Taylor M. Rainey

saylortailor@berkeley.edu

December 8, 2021

Abstract

In the interest of combating recidivism and providing rehabilitative opportunities, California's Department of Correction and Rehabilitation (CDCR) collaborated with the California Department of Technology (CDT) and private corporation Global Tel Link (GTL) to implement a statewide tablet program for the next six years. According to the California Department of Correction and Rehabilitation, there are approximately 156, 221 individuals reported in CDCR prison population¹. These reports exclude data from immigrant detention centers and juvenile detention facilities, spanning across the state amassing to 32 prison sites, 115 local jails, and 36 conservation and fire camps. It is projected that tablets will be accessible to eligible incarcerated individuals in California's prison population by the end of 2023.

The move can be interpreted as an attempt to legally provide technology access to incarcerated individuals and provide an alternative source of telecommunication. Although the adoption of tablets would be a welcomed change for those incarcerated and their social network, the program presents a privacy dilemma for those who are not incarcerated. The GTL Inspire product tablets' security features not only gather and monitor the data of the incarcerated population but store the personally identifiable information (PII) data of non-incarcerated folks who interact with them. As the evolution of technology continues and is incorporated into incarcerated facilities, it's imperative to watch and highlight violations of digital civil liberties to deter malpractice and search for a middle ground between the security of facilities and the privacy of individuals. This paper is an overview of California's Communication and Technology programs in incarcerated facilities and information security practices.

Background

After two years of a viral pandemic, where telecommunication and cybersecurity were made the priority and basis of every interaction, what happened to individuals in our society that are legally and physically restricted from technological access and its benefits? This is the case for incarcerated individuals, where the statistic for contracting coronavirus was 1 in 3 in every prison². Due to health and safety concerns, physical visitations were paused, cutting a vital resource of socialization for those incarcerated and highlighting the limitations of telecommunication in incarcerated facilities.

This procedure presented challenges to the mental and behavioral well-being of incarcerated individuals, on top of their physical health being threatened by limitations to physical distancing in facilities due to overcrowding and security measures, and financial strain of incarcerated communication rates. Family and friends of those incarcerated protested across the state of California organized protests to voice concern for a spike of death of incarcerated facilities, lack of resources for those incarcerated to protect themselves in California facilities, and lack of communication³.

¹ Division of Correctional Policy Research and Internal Oversight: Office of Research, 2021

² National Commission on COVID-19 and Criminal Justice et al., 2021

³Gonzalez, 2020

In the state of California, families, and associates of incarcerated individuals have the option of legally communicating with loved ones via:

- collect and advance payphone calls
- video calls via tablet and kiosk
- tablet and kiosk emails
- written letters and emails

These options all come with standard rates, with an allotted free 15-minute video call with an approved member from their contact list every two weeks. An interstate 15-minute call is priced at \$0.375 with collect and advanced phone payment options. These rates provided by the CDCR exclude data on various regional service fees and Advance Pay One Call transaction fees of \$0.99 per call. Additionally, the overview of phone rates includes in fine print that international calls are charged at \$0.07 per minute⁴. Although these rates are favorably reduced compared to the previous years there is a considerable lack of relevant reporting on present additional taxes, surcharges, and relatively new cost of video visits.

GTL Inspire tablets not only promise a heightened experience for communication for incarcerated individuals and their families but an alternative source of intelligence for Facility Management. Incarcerated social interactions whether physical or virtual are recorded and surveilled with various levels of severity, dependent on the facility security level and incarcerated individuals' behavior status. It can be noted that these devices are privileges that can be taken away based on facility management regulations. The GTL Inspire tablets include technical features that⁵:

- restrict tablet-to-tablet communication
- facial detection for an additional authentication mechanism
- live surveillance for staff to track inmate usage
- automated detailed reporting and auditing
- one-click tablet disable and inmate-access disable

Furthermore, families and friends of incarcerated individuals are faced with a Hobson's Choice of accepting the privacy terms and policy of GTL or not enjoying video communication with loved ones at all. Approval of correspondence and contact information is required for non-incarcerated individuals before any telecommunication activity. The process involves account creation on the GTL website that according to GTL's privacy statement is allowed to collect an array of information from name and location to other webpages a user visits before or after using GTL's messaging service⁶. Content of messages drafted and payment transaction information, that is already monitored, can be shared with third parties and law enforcement⁷.

⁴ Connect Network & Global Tel*Link, 2021

⁵ Global Tel Link, 2018

⁶ GTL, 2020

⁷ Raheer, 2016

Network Security and Incarcerated Facilities

The priority of incarcerated facilities is the security of their property, which includes their information and network security. CDCR network topology uses Local Area Network (LAN), main distribution frames (MDF), intermediate distribution frames (IDF), and switches to support approved users' limited activity on sites⁸. These activities cover kiosk access, tablet services, administration requests, and telehealth services. Remote services that include email, internet usage, and enterprise applications are accessed using a Wide Area Network (WAN) that uses a secure and encrypted network that creates a data tunnel between local devices and remote servers.

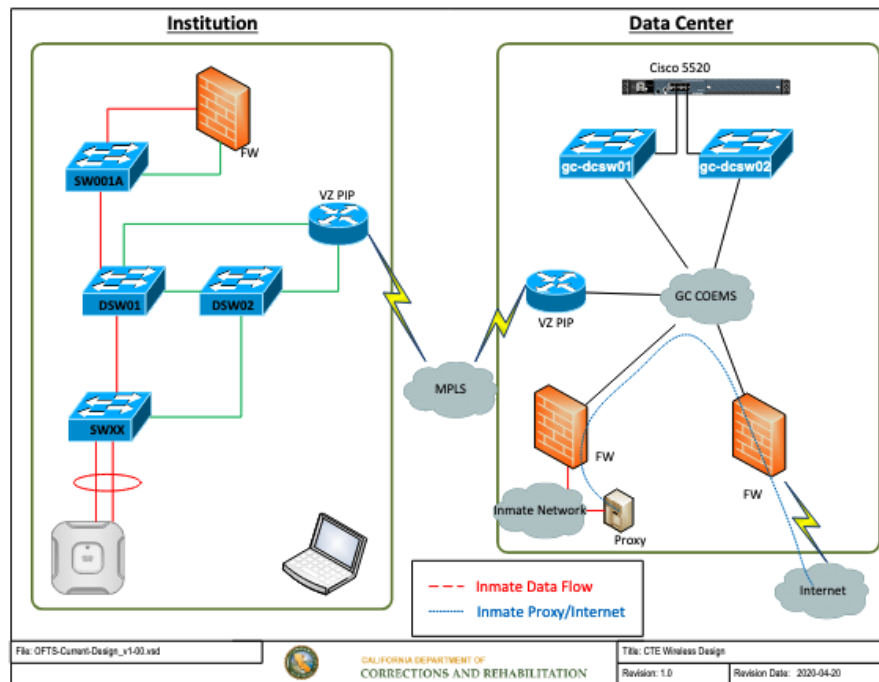


Figure 2-2: Inmate Data Flow

9

CDCR's network environments originally focused on security solutions in incarcerated facilities but proposed communications and technology solutions with their new contract with GTL. Despite the benefits of technology, their vulnerabilities present challenges and risks to the physical security of incarcerated sites. An example of these challenges is an instance of over-powering system grids to exploit a facility's security design to unlock cell doors which were explored and researched by the University of California, Berkeley professor Tiffany Rad¹⁰. Similarly, there are risks and damages of telecommunication exploitation that are exhibited in contraband communication devices.

⁸ California Department of Corrections and Rehabilitation, 2021

⁹ California Department of Corrections and Rehabilitation, pg. 22, 2021

¹⁰ DefConConference, 2013

Cellphones are a highly beneficial contraband item to incarcerated individuals. The device circumvents monitoring procedures allowing privacy and internet access which is prohibited for incarcerated individuals in correctional environments. Efforts, to stop activity wireless technology include introducing signal jamming laws that are prohibited by the FCC¹¹ and increasing the severity of penalties upon discovery. Although contraband communication is illegal in CDCR incarcerated facilities with penalties of fines, criminal charges, and loss of privileges for incarcerated individuals there remains a growing epidemic of cell phone contraband¹². The benefits of access to unmonitored communication and technology outweigh the risk of punishment for incarcerated individuals, who can pay up to \$1,000 for a cellphone, oftentimes acquired by transaction with a facility staff member¹³.

GTL's contract with CDCR facilities allows call detail records (CDR) and call recording data to be accessed and stored through GTL's facility management system. ¹⁴Data held in this system also include employee access records and cardholder data environment (CDE) transported using Transport Layer Security (TLS), a cryptographic protocol with end-to-end encryption. Their public documents do not go into further detail or specify which version of TLS is incorporated, and depending on the version can still be vulnerable to Man in the Middle attacks (MITM) cyber-attacks. Furthermore, in relation to cyber security measures, GTL mentions "multi-layers of 128-bit" encryption and a "stateful" firewall. A stateful firewall is capable to track and monitor active network connections of incoming traffic situated at the Network and Transport Layer¹⁵. Summed up, GTL claims to use best security practices to prevent and monitor unauthorized access from the internet by incarcerated users and customer data traffic. However, there is still a lack of consolidated information that explores compatibility in communication services for non-incarcerated individuals and the security of their meta-data across the state of California.

Literature Review

Video visitation is an extensively studied telecommunication service in incarcerated environments, however, lacks a technologist perspective on the topic matter beyond those representing platform services. Private companies introduced video-visitation software and kiosks as a means to replace physical visitations, make a profit and increase security. Simultaneously, the entire prison industrial complex worked in tandem to promote the entire scheme as a beneficial move to incarcerated individuals and families. This supposed "double bind" of technological advancements benefitting inmates while furthering the profits of the prison industrial complex was explored by Patrice A. Fulcher¹⁶. Fulcher's analysis of the

¹¹Federal Communications Commission, 2020

¹² California Department of Correction and Rehabilitation, 2019

¹³ Riley, 2018

¹⁴ Global Tel Link, 2017

¹⁵ Fortinet, n.d.

¹⁶ Fulcher, 2013

widened ability for incarcerated individuals to keep in contact with family members does not overshadow the profiteering agenda of the incarcerated system. However the relativity of the research, since its publication in 2013, provokes an updated discussion on the introduction of tablets into the incarcerated technology ecosystem and further discussion of surveillance on incarcerated individuals.

Surveillance in incarcerated facilities takes on a pervasive role that has formed the basis of incarcerated security operations and technological equipment design. Understanding the impact of surveillance not only on incarcerated individuals but their associated contacts can help shape public opinion on the severity of these security measures in favor of best information privacy practices. The intersection of surveillance protocol and ethical concerns is explored by Kentrall Owens and researchers of Carnegie Mellon University¹⁷. While researching possible and legal ways non-incarcerated individuals are able to protect their information during transactions with facilities, it was difficult to grasp the full picture.

During this research, I was unable to interview any person currently inside or who had personal past incarcerated experience with a California correctional facility. The paper's qualitative data of interviews collected perceptions on surveillance and challenged those impacted by the justice system to consider the tech industry's role in the prison industrial complex. The study participants' perspectives and recommendations shared insight into the alarming nature of surveillance, lack of privacy transparency between platform providers (GTL, Securus) and individuals, and the need for ethical consideration in equipment and network design. An enhancement to this study would be the surveillance perception of those currently or previously incarcerated, though the process to gain interview access to an incarcerated individual through legal means is another long and difficult process.

Discussion

The cost of communication varies based on county and facility type in the state of California. However, the time restriction, and reminder to "watch what you say" are a burden on both incarcerated individuals and their associated contacts. For a deeper understanding, I interviewed Morgan Zamora (3L Law Student at University of California Hastings College of the Law), a former law clerk for the non-profit Root & Rebound (R&R)¹⁸, a reentry services organization located in Oakland, California that provides direct legal services to system-impacted individuals throughout the state. Her written correspondence and telecommunication experience with the Reentry Legal Hotline interacted with GTL platform services and Securus Technologies platforms. Securus Technologies¹⁹ is another prison communications firm with a history of utilizing surveillance and tracking technology that can be used outside prisons for non-incarcerated individuals.

¹⁷ Owens et al., 2021

¹⁸ R and R, n.d.

¹⁹ Asher-Schapiro and Sherfinski, 2021

The Reentry Legal Hotline operates on Fridays through their business hours to accept collect calls from incarcerated facilities and support families impacted by the justice system²⁰. Hotline operations adhere to the restrictions of facilities that include a 15-minute time limit per call and a recorded session that may only host two parties. Three-way calls, even with incarcerated caller's lawyer or family are strictly prohibited with violation results of telephone privileges restricted, suspended, and ultimately terminated²¹.

15 minutes is a finite time to discuss any subject matter, let alone advise legal information to incarcerated individuals. Zamora described the content nature of hotline calls to be logistical rather than legally dominated. Clients of R&R can call for contact information to an attorney, updates on their case, changes in laws, and general, "What's next?" questions. Incarcerated individuals tend not to have access to this information due to lack of technology and communication access and are reliant on the CDCR's discretion to divulge. Electronic communication helps reduce the extremely long turnaround time for information dispersal. When R&R utilizes written correspondence with legal information, it can take a minimum of a month to reach a client due to organization backlog at facilities, mail processing time, transportation, and sorting. These calls are also impacted by the network equipment used in facilities.

"Calls drop...and I'm not sure if it's because of the company or the devices at the prisons...sometimes these prisons are in remote locations in the desert or in the mountains and you couldn't get service even if you had the best service provider. So imagine you're funneling in hundreds of communication calls at a time in these facilities..." - Morgan Zamora

Due to R&R's non-profit status and service history with CDCR, Zamora did not input her PII or sign any privacy waivers. However, this does not prevent the communication platform or the incarcerated facility's ability to trace back the telecommunication interaction to her. As aforementioned, the calls are recorded and stored in platform data centers that can be reviewed and transferred to law enforcement agencies. Data of voice recordings and content matter can later be used as inculpatory evidence in active cases or used by CDCR staff against incarcerated individuals "in some way or another." There are even patents filed by GTL and Securus, that wish to incorporate voice matching and recognition technology in data security practices²². Although providing as limited PII information as possible is the best and only way for R&R staff and incarcerated individuals to protect themselves using telecommunication, this impedes R&R's capacity to provide relevant aid and resources. The inability to discuss privileged and case-specific information on recorded calls is a huge hindrance to the quality of help that ultimately impacts the client.

"When on calls with clients, I don't usually state my full name and not so my clients don't know

²⁰ *Reentry Legal Hotline – Root & Rebound*, n.d.

²¹ Zoukis Consulting Group, 2021

²² B. Lipton & Quintin, 2021

me but because you don't know where my name and this information will end up because it is stored...I don't usually think about my information when I am on these calls. They already got me, they know everything about me, but more so for the client who is used to the recording and monitoring...they don't always think these calls can be used against them later.." - Morgan Zamora

A major takeaway from my conversation with Zamora was the emphasis on how much privacy and technology access would enhance an individual's chance of survival in incarcerated facilities and re-entry back to the public population. Aside from the issue of lack of access to important information, the withholding of technology from incarcerated individuals further decreases their chances of successful reintegration and increases their likelihood of recidivism. When those on the inside are released into the general population, they often lack the skills and knowledge necessary to become competitive applicants in a job market highly reliant on technological proficiency. Considering R&R's organizational operation based in Oakland, California the statement holds weight considering the Bay Area's proximity to Silicon Valley and technical industry giants. The continuation of technology integration into CDCR facilities to enhance security must come with the digital responsibility to benefit individuals socially, professionally, and academically. It is not an exaggeration to say, a criminal sentence is a death sentence, but to be released and be "technically disinclined" in our society is the nail in the coffin.

Conclusion

This paper is only but a brief overview of the massive issue that is mass incarceration, prison for-profit systems, and the negative impact cyber security operations have on our most disenfranchised communities. Information management and data collection in incarcerated facilities are cyber-security issues that are legally allowed and should enrage the general public. As developing privacy concerns are presented to challenge the security of our information in technology products, similar technology with minimal regard for user data has already acquiesced into incarcerated facilities. Deprivation of technological benefits and security over privacy practices is another dehumanizing aspect of our brutal system and it's time to address the technology industries' role. If technology continues to evolve and progress the future of how it manages our "justice" facilities should too.

References

- California Department of Corrections and Rehabilitation. (2021, January). *Communications and Technology Solution(CTS)*. Prison Phone Justice.
https://www.prisonphonejustice.org/media/phonejustice/California_CDRCR_-_GTL_Amendment_1_2020-2026.pdf
- Connect Network & Global Tel*Link. (2021, March). *Notice to Family and Friends*. ConnectNetwork.
https://web.connectnetwork.com/wp-content/uploads/2021/03/GTL-CN-CDRCR_Rate-Sheet_Eng_March_16_2021-r4-Accessible-v2.pdf
- Division of Correctional Policy Research and Internal Oversight: Office of Research. (2021, December). *Weekly Report of Population As of Midnight December 1, 2021*.
- California Department of Corrections and Rehabilitation.
<https://www.cdcr.ca.gov/research/wp-content/uploads/sites/174/2021/12/Tpop1d211201.pdf>
- Finkel, M. & Bertram, W. (2019, March 7). *More states are signing harmful “free prison tablet” contracts*. Prison Policy Initiative.
<https://www.prisonpolicy.org/blog/2019/03/07/free-tablets/>
- Fulcher, P. (2013). The Double-Edged Sword of Prison Video Visitation: Claiming to Keep Families Together While Furthering the Aims of the Prison industrial complex. *Florida A & M University Law Review*, 9(5), 1–31.
<https://commons.law.famu.edu/cgi/viewcontent.cgi?article=1099&context=famulawreview>
- Global Tel Link. (2018). *GTL Tablet Security*.
https://www.gtl.net/wp-content/uploads/2018/05/GTL-Tablet_Security.pdf
- Gonzalez, V. (2020, April 13). *Families of inmates protest COVID-19 cases across CA prisons*. KCRA3 News.
<https://www.kcra.com/article/families-inmates-protest-covid-19-cases-across-ca-prisons/33600305>
- GTL. (2019, July 18). *GTL Tablet Solutions* | GTL. GTL | The Corrections Innovation Leader.
<https://www.gtl.net/gtl-tablet-solutions/>
- GTL. (2020, January 2). *Privacy Policy* | GTL. GTL | The Corrections Innovation Leader.
<https://www.gtl.net/privacy-policy-en/>
- Lipton, B., & Quintin, C. (2021, September 23). *The Catalog of Carceral Surveillance: Voice Recognition and*. Electronic Frontier Foundation.
<https://www.eff.org/deeplinks/2021/09/catalog-carceral-surveillance-voice-recognition-and-surveillance>

Lipton, B., & Quintin, C. (2021, September 16). *The Catalog of Carceral Surveillance: Exploring the Future of*. Electronic Frontier Foundation.
<https://www.eff.org/deeplinks/2021/09/uncovering-incarceration-tech-introducing-catalog-prison-surveillance>

Maass, A. M. A. D. (2016, January 21). *The FCC Should Ensure Digital Rights for Prisoners and Their Families*. Electronic Frontier Foundation.
<https://www.eff.org/deeplinks/2016/01/fcc-should-ensure-digital-rights-prisoners-and-their-families>

Matthew Clarke. (2020, July 1). *Report: JailCore Left Prisoners' Data Unprotected Online* | Prison Legal News. Prison Legal News.
<https://www.prisonlegalnews.org/news/2020/jul/1/report-jailcore-left-prisoners-data-unprotected-online/>

National Commission on COVID-19 and Criminal Justice, Schnepel, K., Abaroa-Ellison, J., Jemison, E., & Engel, L. (2021, April). *COVID-19 Testing in State Prisons*. Council on Criminal Justice.
https://build.neoninspire.com/counciloncj/wp-content/uploads/sites/96/2021/07/covid-19_testing_in_state_pr.pdf

Owens, K., Cobb, C., & Cranor, L. (2021). *"You Gotta Watch What You Say": Surveillance of Communication with Incarcerated People*.
https://homes.cs.washington.edu/~kentrell/static/papers/FMIP/Owens_CHI_2021_camera_reading.pdf

Raher, S. (2016, January 21). *You've Got Mail*. Prison Policy Initiative.
<https://www.prisonpolicy.org/messaging/report.html>

Tablets and Telephone Calls. (2021, November 3). Family & Friends Services.
<https://www.cdcr.ca.gov/family-resources/gtl-tablets/>

Telephone Service for Incarcerated Individuals. (2020, October 27). Federal Communications Commission.
<https://www.fcc.gov/consumers/guides/telephone-service-incarcerated-individuals>

Zoukis Consulting Group. (2021, October 24). *Prison Phones | How Many Phone Calls Do Inmates Get a Day?*
<https://prisonerresource.com/prison-life/communication/inmate-telephones/>