USE CASE

Command & Control: Securing Remote Access

Key Customer Concerns

- Unauthorized access to key control terminals
- Delays in configuration input and execution
- Cost of dedicated hardware solutions
- Man-in-the-middle attacks
- Impact to performance and functionality of security

Ubiq Benefits

- Enables integration of security directly into applications or devices
- No system performance impact – works even on a Gen1 Raspberry Pi
- Ultra-low latency provides real-time user experience
- Faster and more secure than SSL
- Eliminate cost of custom security engineering
- Accelerate time-to-market and pursue new targets

THE SITUATION

In order to better compete in the market and fulfill ever-increasing customer needs, businesses need to be connected and agile. Traditional closed networks and devices are now forced to be internet connected and remotely controlled – tearing down the proverbial wall between Information Technology (IT) and Operational Technology (OT) environments.

What has been termed the "fourth industrial revolution", or Industry 4.0, is affecting almost every industry and transforming how businesses operate. Technologies are developed to connect the physical world with the digital world, including advanced automation and robotics, artificial intelligence, IoT, sensor technology and data analytics.

While this innovation helps to drive successful business outcomes, it also introduces significant risk to processes dealing with remote access.

Having real-time access to production, logistics, and monitoring information can enable better connectivity between customers and supply chains – but without a way to secure remote access, risks including major production delays, leakage of proprietary processes and loss of control over a critical remote public safety asset from a hostile threat (e.g. power grid control, industrial valve, etc.), could be catastrophic, and even lead to loss of human life.

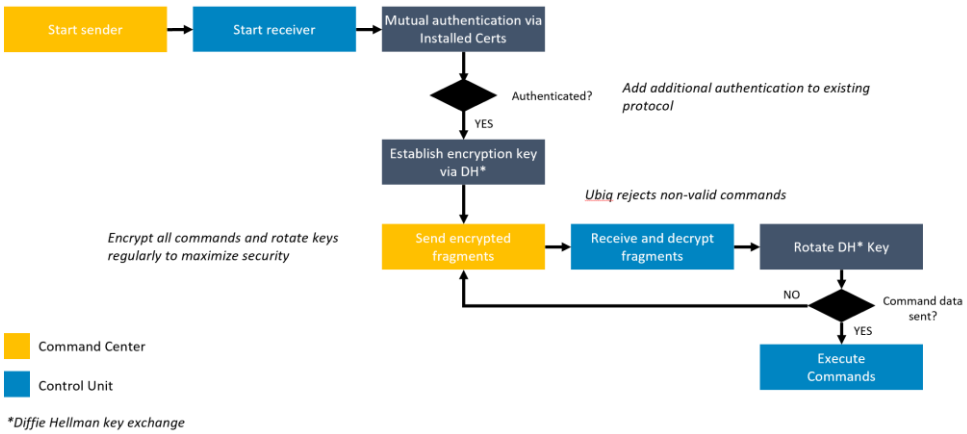
CHALLENGES

With 5G on the horizon, network latency is no longer the bottleneck to real-time remote access. Delays added by traditional software solutions simply cannot be accepted particularly for sensitive operations that pertain to safety.

In addition to latency challenges, it may not be feasible to implement dedicated security hardware to enable access. Sites may contain only a single device and subsequently costs can become an issue.

UBIQ

Ubiq Secure C2



Finally, more often than not, devices and applications are rushed into the market with insufficient security, at times, protected by helpless username/password authentication.

HOW UBIQ SDK HELPS

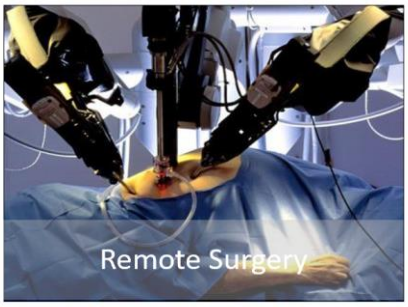
Ubiq enables high-performance, high-security remote access between any two devices running Android, Windows or Linux. Our 100% pure software solution, enables customers the ability to integrate the functionality directly into their existing application or platform, saving time and money on highly complex security engineering efforts.

Ubiq helps to secure access in the following ways:

- AUTHENTICATION: Enable authentication via a multi-patented security model, ensuring only authorized hosts may connect
- LIMIT ACCESS: Restriction of access to only authorized hosts
- KEY ROTATION: Persistent rotation of keys – even if an attack manages to decrypt a single command, the subsequent commands are secured with unique keys
- PROPRIETARY SECURITY MODEL: Devices receive uniquely secured commands secured. If the device receives a command (even if correct) and even from an authorized user account hijacked by the attacker, it will be discarded
- HIGH PERFORMANCE: Ubiq's multi-patented security model is extremely efficient and introduces virtually NO performance impact, allowing customers to deploy on low compute devices
- ANY SIZE DEVICE: Software footprint is extremely lightweight, ranging from only 5-15MB on average
- EXTREMELY LOW LATENCY: Minimal latency with <1 microsecond response time on commands

REAL-WORLD APPLICATIONS

Enable secure remote access and real time control of drone flight and camera operations.



Perform surgery from across the globe without fear of 3rd party intervention or inaccurate control.

Ensure traffic lights respond quickly but only to authorized emergency vehicles passing through.