

Performance Support for the Modern Workforce

How RemoteSpark™ Works

RemoteSpark™ is a user-focused Mixed Reality (MR) performance support tool designed with field workers in mind. It combines the physical and digital worlds by creating a hands-free, supportive environment for workers to instantly access 2D and 3D holographic assets to support task completion, operational efficiency, training, and digital transformation efforts in an independent and autonomous manner.

RemoteSpark also equips workers with the power to establish a low-bandwidth, secure video and audio call with subject experts should extra assistance be required and is supported by a robust security infrastructure.

Spatial Computing

Your location becomes the gateway to your information, knowledge and expertise. Workers can see and find content in the physical locations when it is needed.

Digital Operational Instructions

Pin 2D and 3D content in the physical space, so users have all task relevant information within their workspace.

Remote Experts

For scenarios when extra assistance from a subject matter expert is required, place contact pins within workspaces or near equipment to initiate support calls.



Elevated Training Support

Deliver immersive on-the-job training to speed up on-boarding and provide a seamless integration of new employees into your operations



Reinforce Operations

Create worker autonomy and overcome memory recall limitations on in-frequent or new maintenance and repair tasks enhancing task accuracy



Close the Skills Gap

Improve knowledge transfer and up-skill workers on a task while they do it. Improve performance by 34% on first attempt¹ and learning retention by 75%²



Reduce Expert Travel

Troubleshoot in real-time by sharing operationally critical assets or have subject matter experts provide guidance remotely

Knowledge Where You Need It.

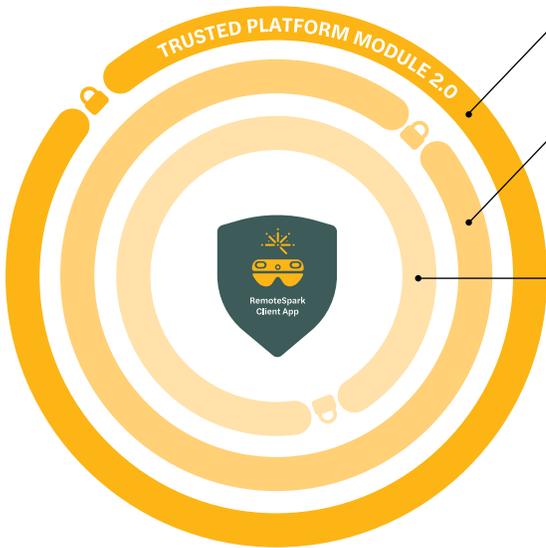
At Kognitiv Spark, security isn't an afterthought, it's the cornerstone of everything we build and everything we do.

¹Boeing study, <https://www.recode.net/2015/6/7/11563374/boeing-saysaugmented-reality-can-make-workers-better-faster>

²Magid Abraham and Marco Annunziata, "Augmented reality is already improving worker performance; Harvard Business Review, March 13, 2017

REMOTESPARK Client Layers of Security

RemoteSpark and HoloLens



Full Device Encryption

It's recommended that the Windows 10/11 PC and HoloLens hosting the RemoteSpark Client has BitLocker enabled to enforce full-disk encryption.

Device & Network Authentication

It's recommended that the device requires authentication by Azure Active Directory (AAD). Two-factor authentication can be enforced, as well as organizational password policies. To authenticate into the RemoteSpark application, an AAD or RemoteSpark account is also required. Windows Hello support is offered for HoloLens 2 devices.

MS Verified Windows 10/11 App

The RemoteSpark Client Application is verified by Microsoft for security and quality issues before being available in the Microsoft Store.

Network Activity

All network activity between the client/server, and peer to peer (video calls) are always encrypted.

RemoteSpark Server Security Architecture

Cloud or On-Premise

The RemoteSpark Server system runs either in the Microsoft Azure Cloud or a sub-set of the system can be run on the customer's premise using Azure Stack or Windows Server. Azure has over 70 security certifications.

Firewalls, Monitoring and Alerting

The system is protected by the layers of Azure Firewalls and other network protection systems. Activity is logged for security and performance monitoring. When defined thresholds are reached, Kognitiv Spark is alerted of the anomaly and action initiated. When running on On-Premise, the logging and alerts will need to be designed and monitored by the customer's On-Premise staff.

RemoteSpark Server

The RemoteSpark Server Services is a collection of application tiers developed by Kognitiv Spark to support the RemoteSpark Client. Developers do not have access to production systems.

Encrypted Content

All content stored and generated by RemoteSpark is stored on Azure Storage and is encrypted at rest and transmitted via TLS 1.2. The files are encrypted with 256-bit AES and the service is FIPS 140-2 compliant.

Application Data

The data storage used by RemoteSpark is encrypted at rest. Only the RemoteSpark Server can access the data on behalf of the client and it has no access to the public internet.

STUN/ TURN Servers

These servers facilitate the audio/video call. They help determine if the video call can be directly connected between two peers or needs to be relayed through the TURN server. 90% of all video calls are connected directly and the video and audio do not go through any Microsoft or Kognitiv Spark servers. When a call requires a TURN server, the video signal is not stored at any time and the encryption/decryption keys are not accessible by the TURN server, so the TURN server is only a relay of encrypted data.

