PLATFORM DEMO VALIDATION IN HOLO LIGHT USE CASE

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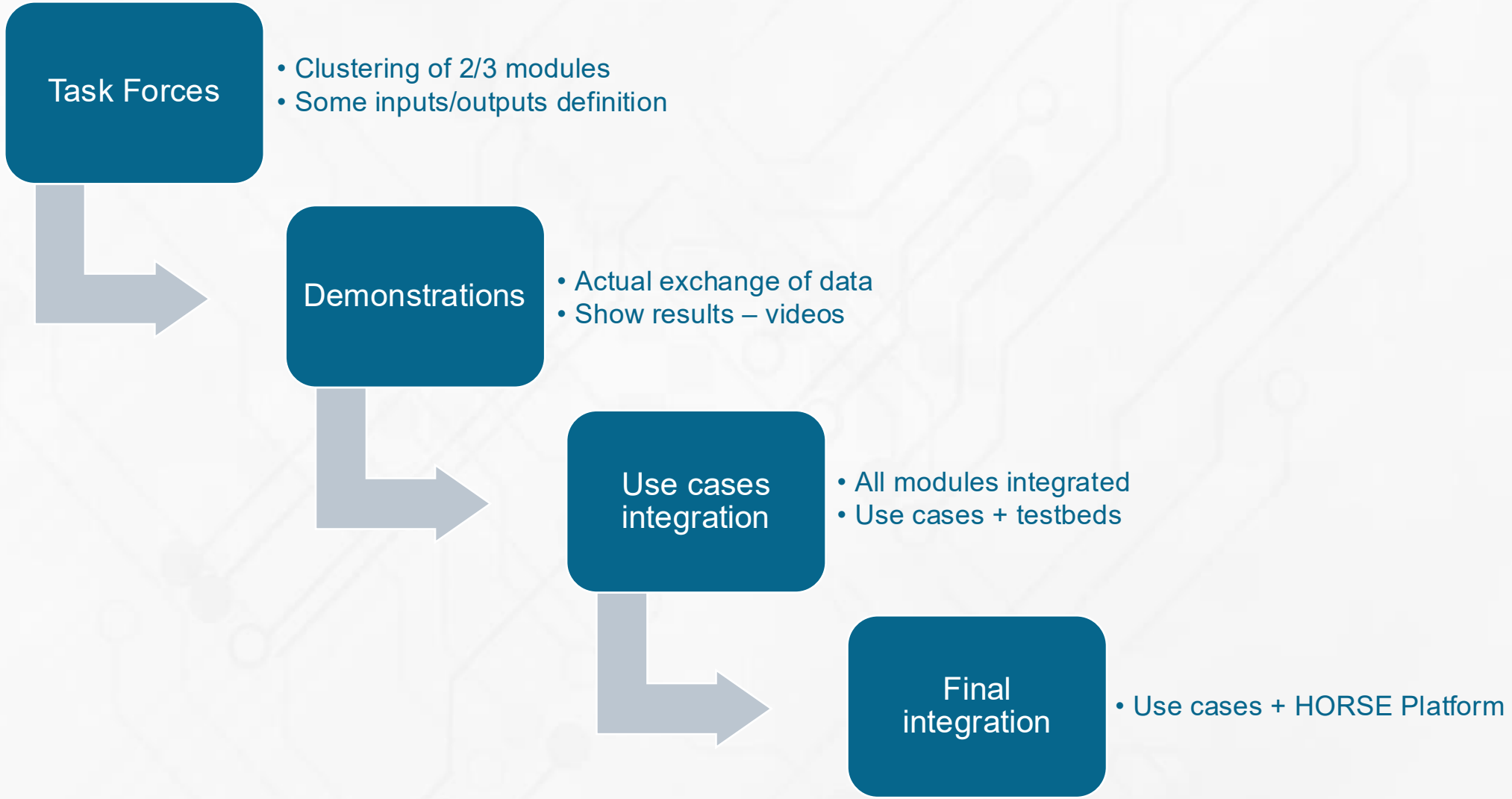
INTEGRATION AND VALIDATION SCOPE

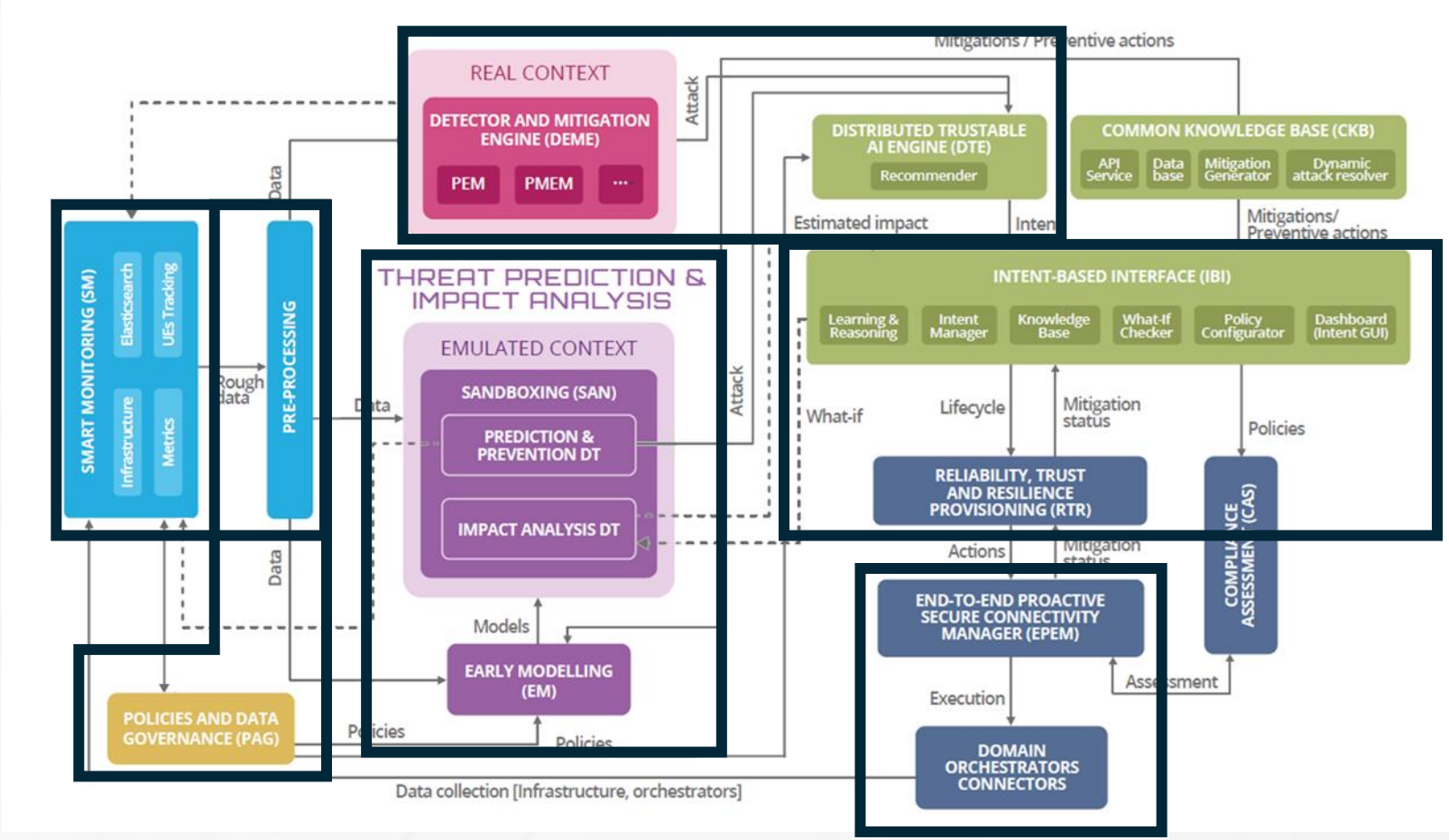
- Development of the IBI component in the HORSE architecture.
- Identification and characterization of KPIs for assessing the applicability and performance of the HORSE platform.
- Definition and applicability of a methodology for the integration of the HORSE platform towards a fully operational PoC.
- Designing of a coherent demonstration strategy on a well-defined set of two use cases aimed at validating the HORSE benefits.
- Validation of the HORSE platform by means of the demonstrators associated with the relevant use cases.
- To gather, analyze and apply the results from the HORSE platform validation.
- To produce a final release of the HORSE platform.

PATH TO FINAL INTEGRATION



STEP BY STEP – FROM TASK FORCES …

- Task Forces to start the integration process

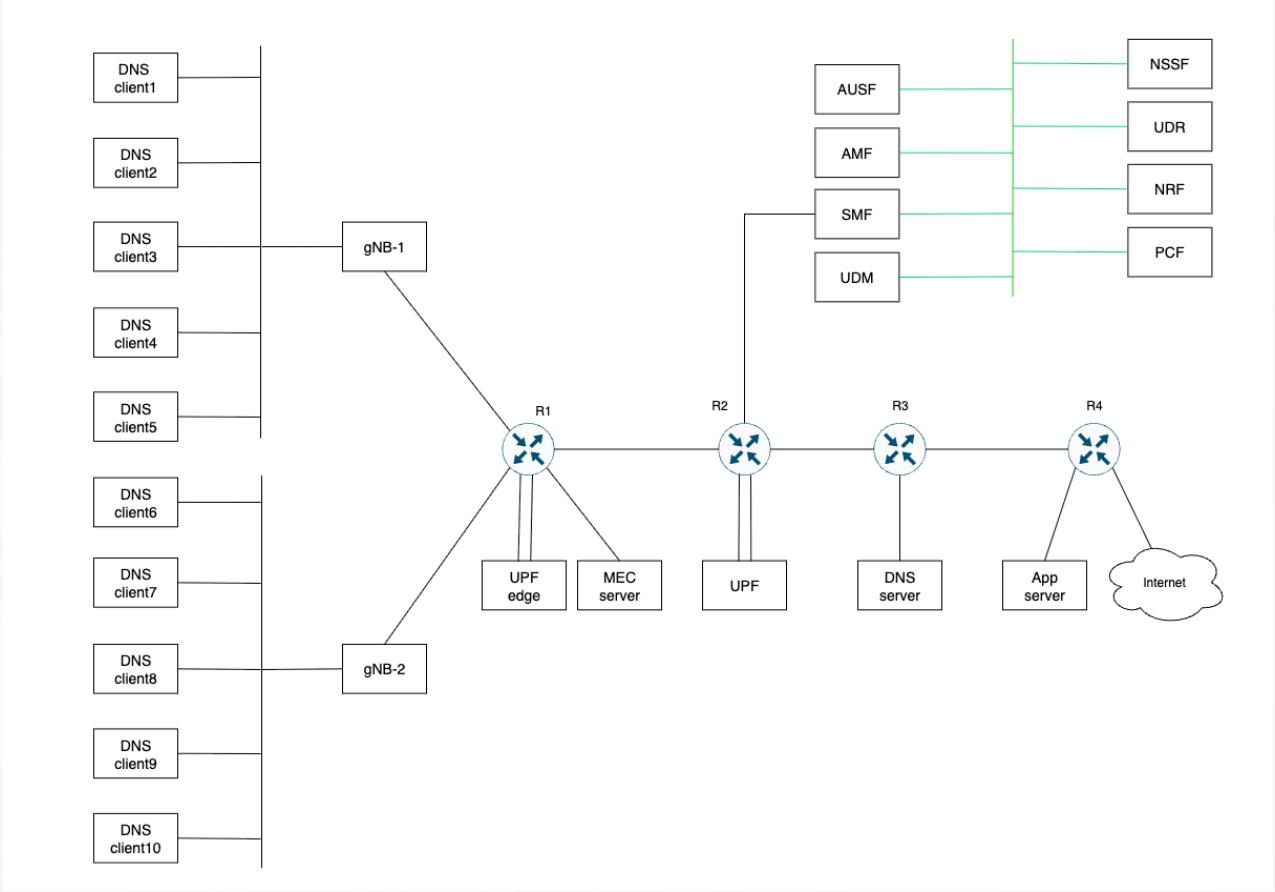


… TO FINAL DEMONSTRATIONS

Demo #	Name	Testbed
0	Hello world	UPC
1	Detecting NTP DDoS Amplification attack	CNIT
2	Prediction & Impact Analysis DNS Amplification attack	UMU
3	Prediction & Impact Analysis DDoS in download link	UMU
4	Detecting DT data poisoning	CNIT
5	Enforcing multidomain mitigation actions	UPC
6	Man in the Middle on IBI	UPC
7	API & Network Functions Exposure	CNIT
8	Predicting attack on signaling PFCP traffic	UPC
9	EFACEC Use Case	UPC/UMU
10	HOLO Use Case	CNIT

MAIN INTEGRATION CONTRIBUTIONS

- Common topology
  - Real deployment → testbeds
  - Emulated → Network Digital Twins
- Data generation in the testbeds
  - Real 5G equipment and servers
- IBI dashboard with the attack lifecycle



USE CASE - THE XR MULTIUSER SESSION

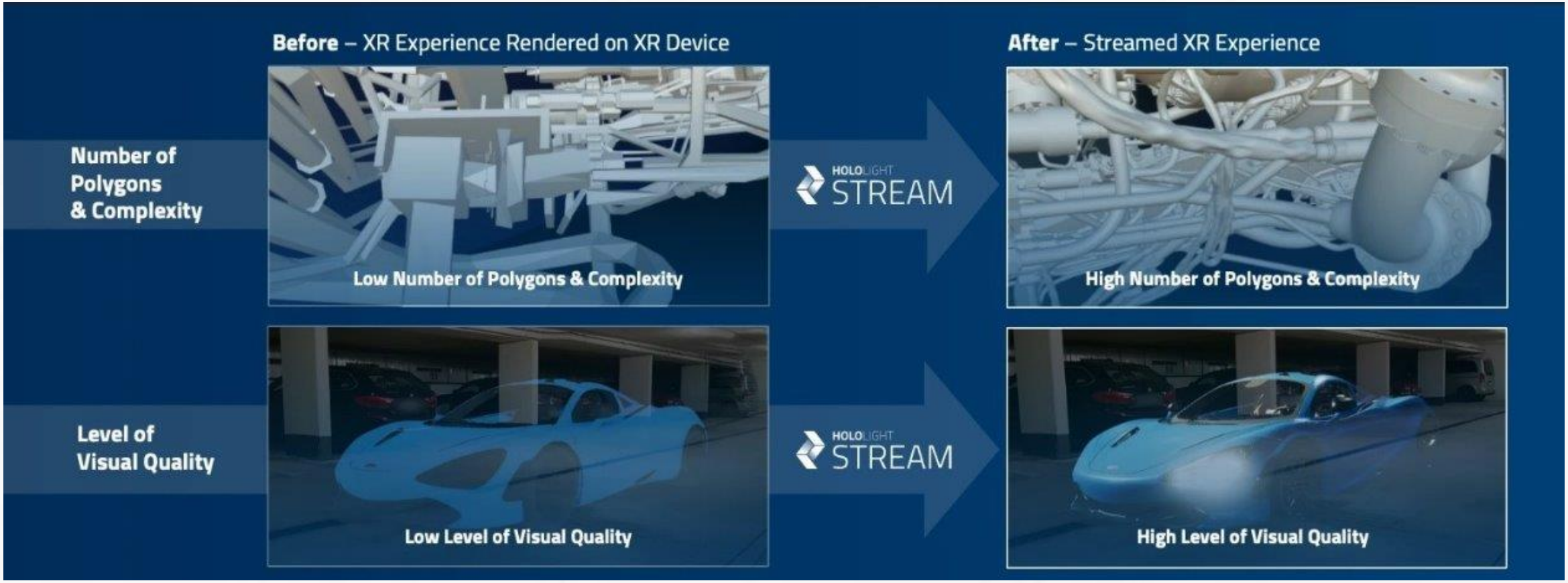
HOLOLIGHT SPACE

- Hololight Space is an immersive design and engineering review tool for complex CAD data.
- The user can import high polygonal CAD models and interact with the parts for prototyping or review.
- The tool has found its userbase in manufacturing industries as well as for educational purposes including training and ergonomic tests.
- The solution is scalable, safe, economic, and user-friendly.

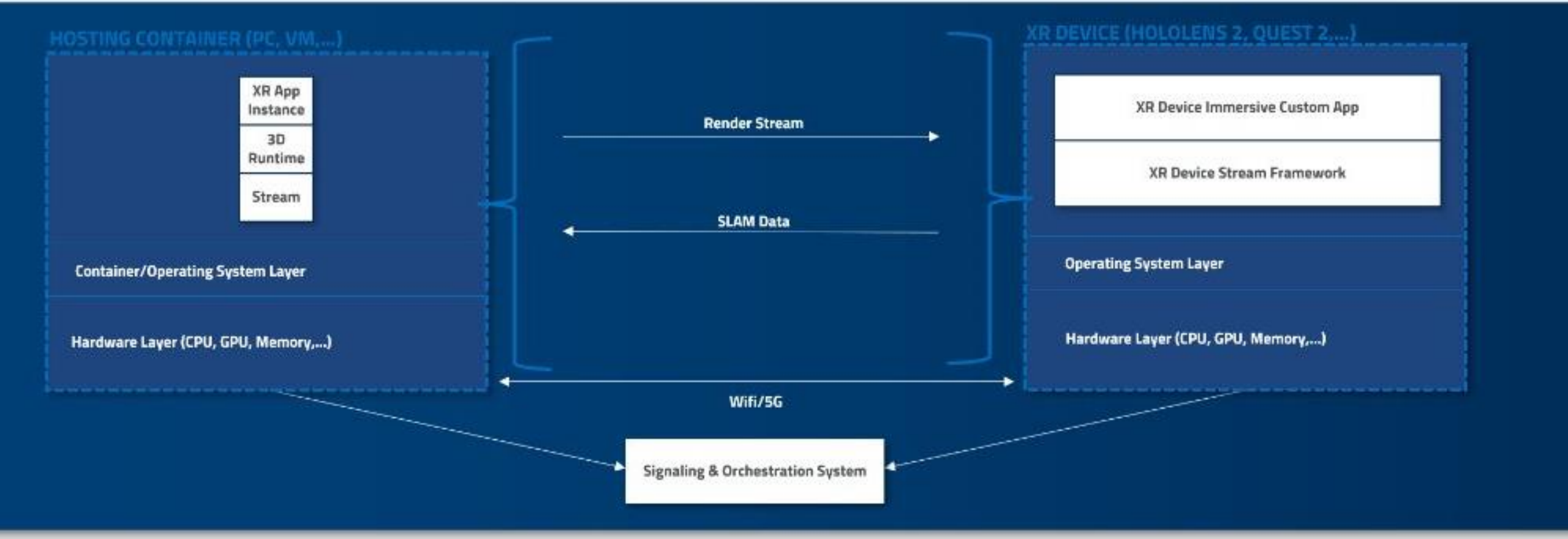
HOLOLIGHT STREAM

- Hololight Stream is the backbone of Hololight Space
- Hololight stream is is a remote rendering solution that enables real-time streaming of entire Augmented Reality (AR) and Virtual Reality (VR) applications.
- By offloading the rendering on powerful servers, Hololight Stream bypasses the limitations of mobile devices and adds data security by not sharing the data with the mobile devices
- Enables device agnostic approach irrespective of AR/VR or other technologies

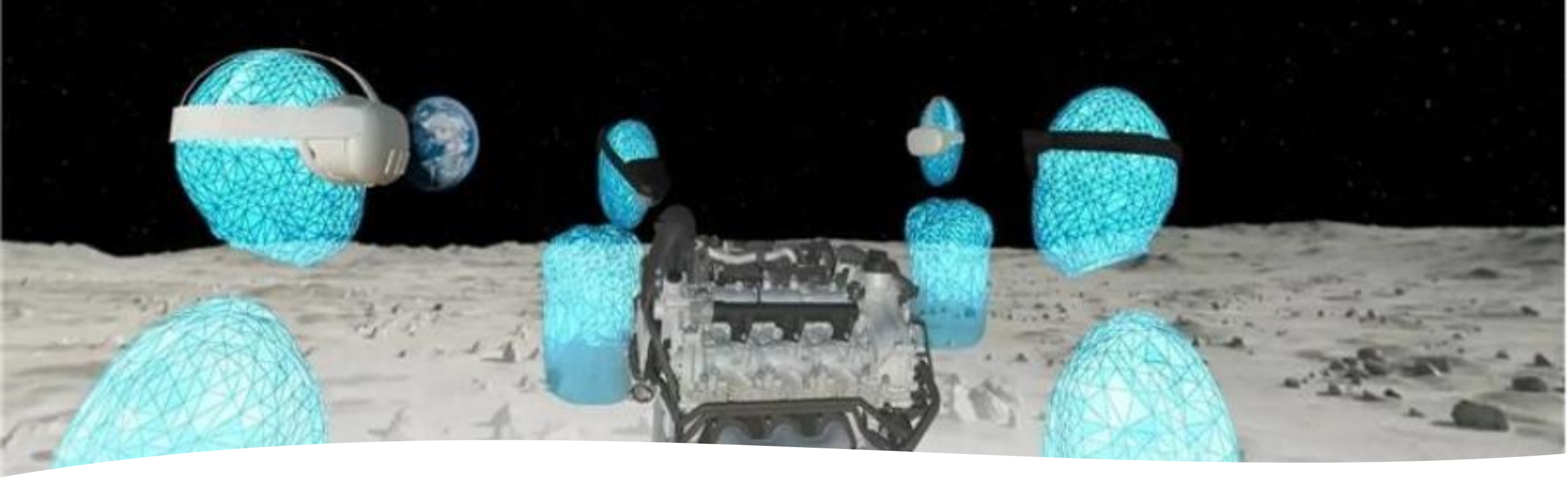
REMOTE RENDERING OF XR APPLICATION



Streaming Architecture (High-Level Data Flow)



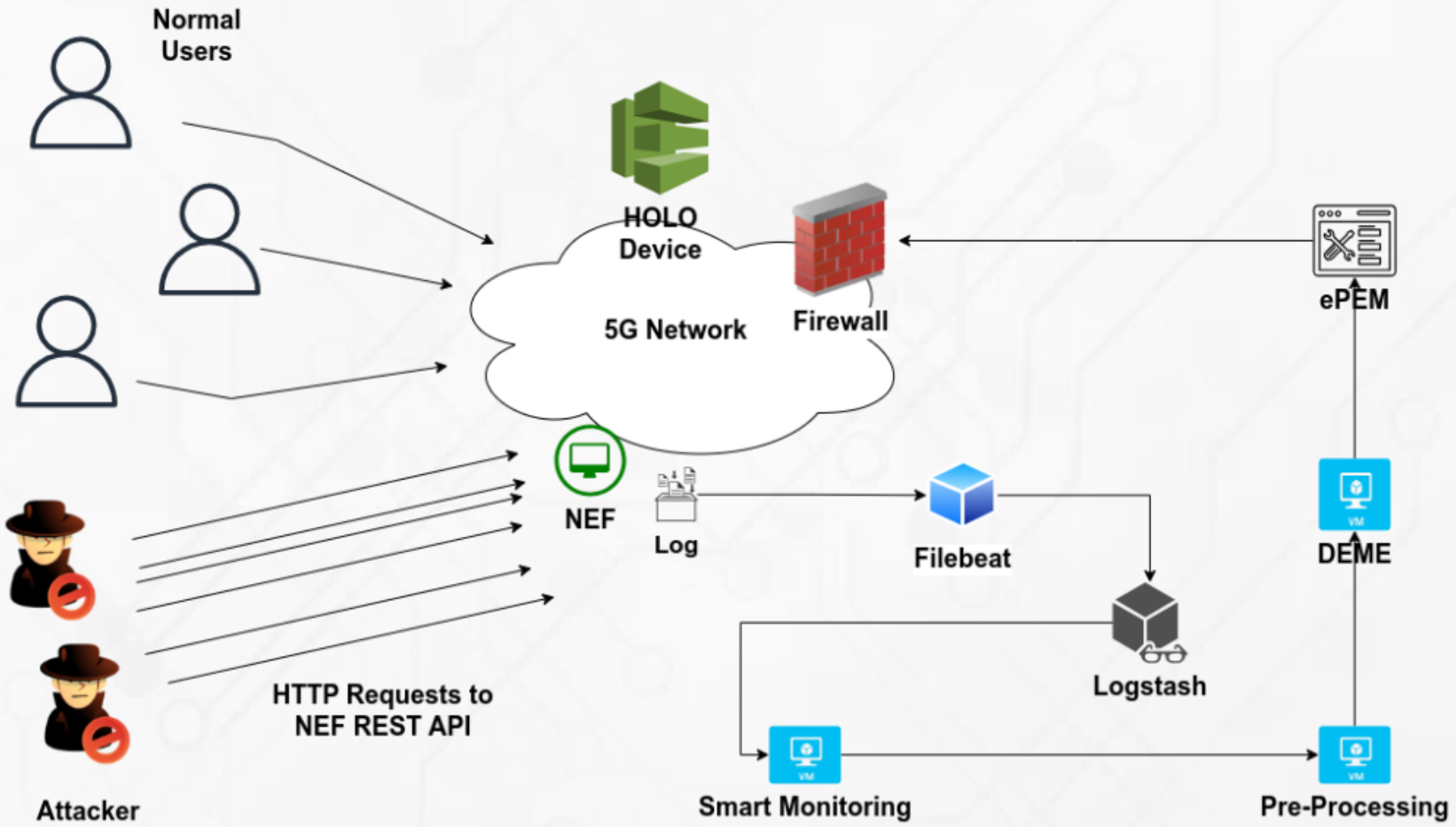
A unified communication layer with simplified data-source management



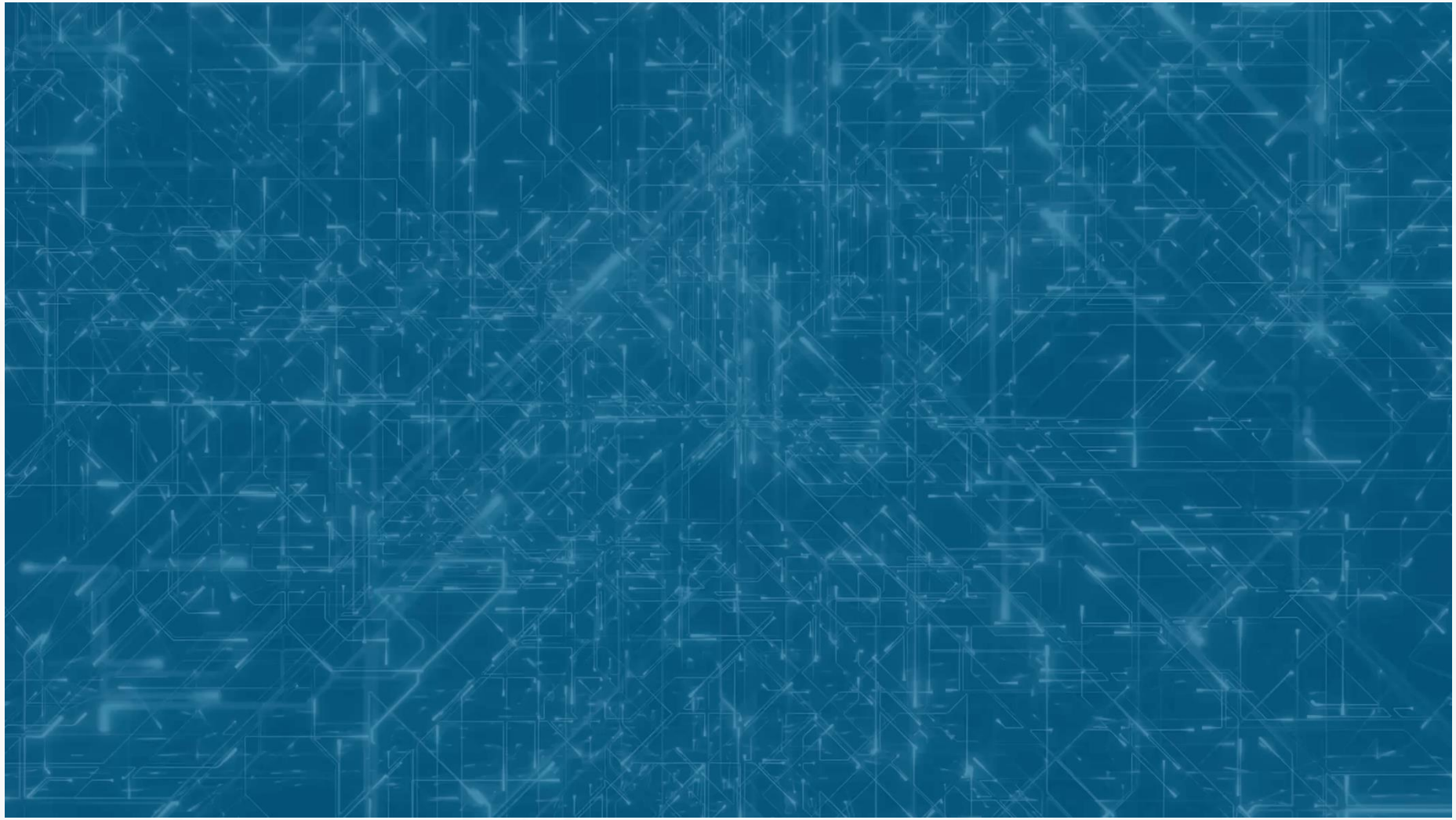
USE CASE - THE XR MULTIUSER SESSION

- For our solution to become **scalable**, we need to **virtualise** the application by hosting it on a cloud**.**
- In this case, security for sensitive data is very important. HORSE infrastructure can help the use case by identifying and defending such attacks.

API EXPOSURE OVERVIEW



USE CASE - THE XR MULTIUSER SESSION



CONCLUSIONS

- HORSE delivers an **integrated ecosystem** where intelligent security policies, AI-driven decision making and real-world validation converge.

- The **structured integration methodology** ensures a technically robust, resilient, and deployment-ready platform.

- The **integration with the HOLO XR Use Case** validates the platform in critical applications that demands ultra-low latency and end-to-end security orchestration.

THANK YOU FOR YOUR ATTENTION

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