SPACE ARMOUR

DELIVERING AUTONOMOUS, INTELLIGENT OPERATIONS IN SPACE

—with Cryptographic Integrity and Zero Trust Cybersecurity

Modular, integrated, space-optimized AI Engine

Blockchain-enabled cryptographic timestamps and records

Zero Trust Gateway and ultra-secure end-to-end communications

THE NEXT GENERATION OF SPACE SYSTEMS—SATELLITES, SPACE STATIONS, AND AUTONOMOUS INFRASTRUCTURE—IS EVOLVING RAPIDLY AND FACES THREE KEY CHALLENGES

Reliance on Earth

Ground-based processing creates latency, bandwidth dependency, and limits true autonomy

Data overload with no onboard intelligence

Satellites generate high volumes of data but lack the ability to process or act on it in real time

Lack of trusted operations

Space operations lack robust security, and in-orbit autonomous decisions have no verifiable trail

https://spacearmour.io

SPACE ARMOUR

SPACE ARMOUR IS BUILDING THE AI INFRASTRUCTURE LAYER FOR ORBIT— ENABLING INTELLIGENT, AUTONOMOUS OPERATIONS WITH CRYPTOGRAPHIC TRUST AND EMBEDDED SECURITY

01

QXLI - Orbital AI Engine
A modular, integrated space-optimized AI system deployed on the NVIDIA Jetson Orin platform / in-orbit Cloud infrastructure

02

Onboard Blockchain Node
Co-deployed with the AI engine, it cryptographically timestamps and records AI inferences, decisions, and telemetry
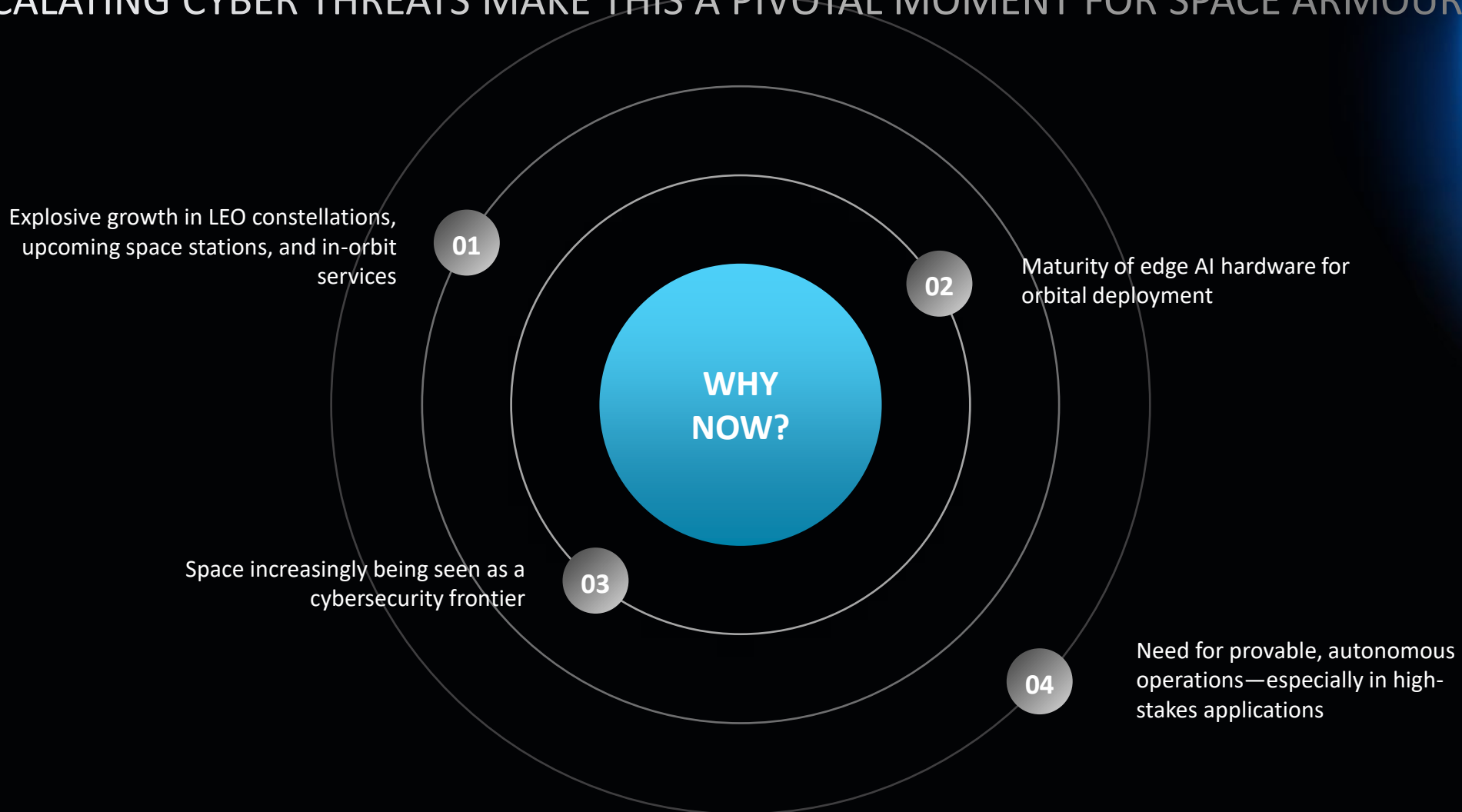
03

Zero Trust Security Gateway
Zero Trust security system extended to secure space assets and enable ultra-secure end-to-end communications

WHY NOW? A SURGE IN GLOBAL SPACE ACTIVITY, RISING DEMAND FOR REAL-TIME INTELLIGENCE, AND ESCALATING CYBER THREATS MAKE THIS A PIVOTAL MOMENT FOR SPACE ARMOUR

Explosive growth in LEO constellations, upcoming space stations, and in-orbit services

01

Maturity of edge AI hardware for orbital deployment

02

WHY NOW?

Space increasingly being seen as a cybersecurity frontier

03

Need for provable, autonomous operations—especially in high-stakes applications

04

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THE MARKET: ACCORDING TO MCKINSEY, THE GLOBAL SPACE ECONOMY REPRESENTS A $1.8 TRILLION GROWTH OPPORTUNITY, FUELED BY SATELLITE DATA, AI, AND IN-ORBIT INFRASTRUCTURE

Total Addressable Market

$370B+

Space AI, Infrastructure, and Security
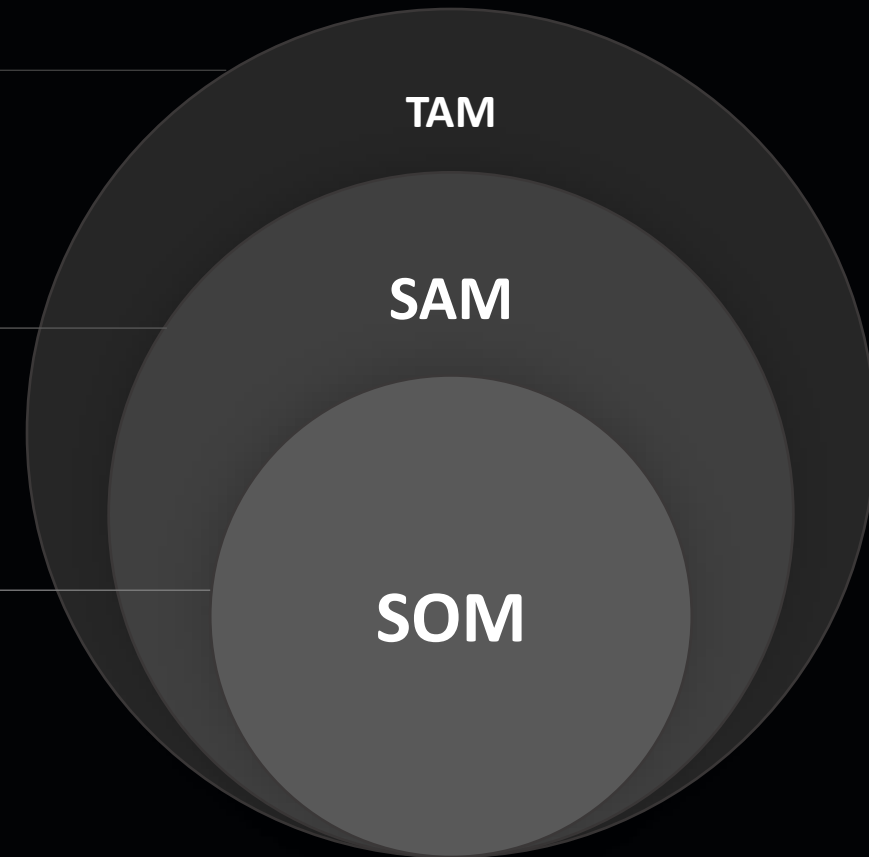
Service Addressable Market

$10B+

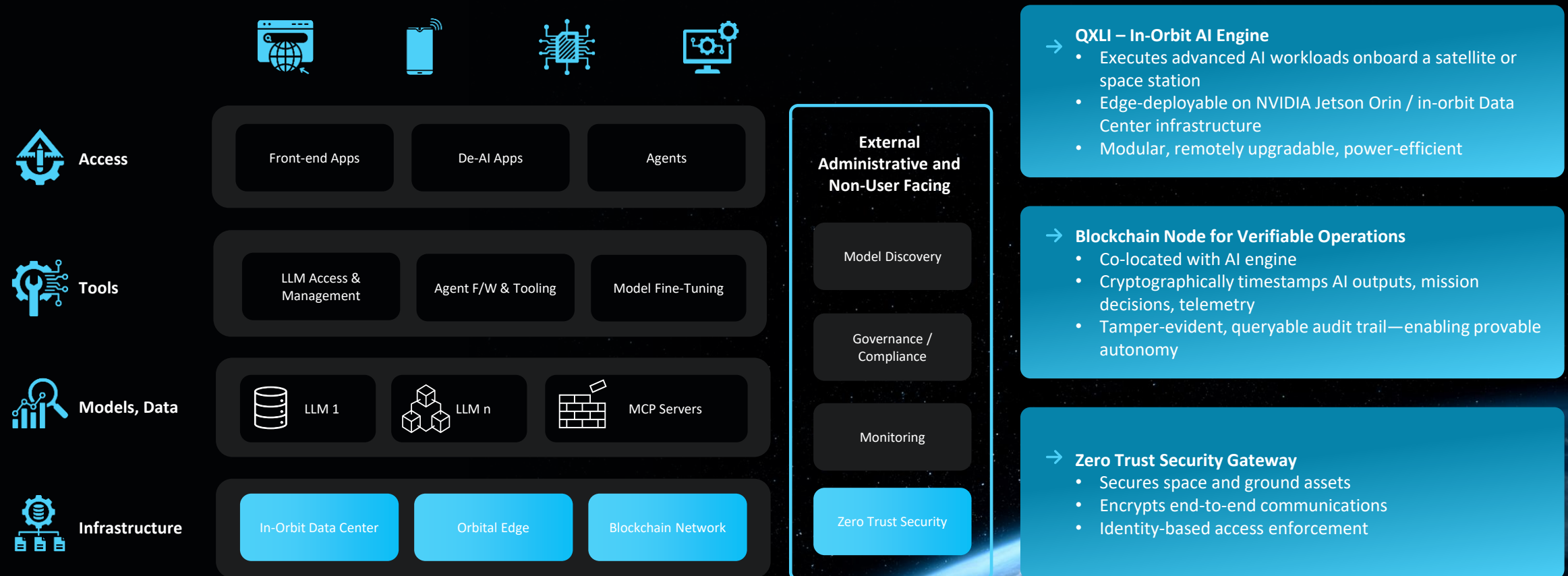Autonomous Satellites, Orbital Platforms

Service Obtainable Market

$500M

Early Adopters (Earth Obs, In-Orbit Services, Secure Comms)

TAM

SAM

SOM

SPACE ARMOUR UNIQUELY INTEGRATES AI OPTIMIZED FOR IN-ORBIT OPERATIONS WITH CRYPTOGRAPHIC TRUST AND EMBEDDED SECURITY—ENGINEERED FOR REAL-WORLD SPACE DEPLOYMENT

Access

| Front-end Apps | De-AI Apps | Agents |

Tools

| LLM Access & Management | Agent F/W & Tooling | Model Fine-Tuning |

Models, Data

| LLM 1 | LLM n | MCP Servers |

Infrastructure

| In-Orbit Data Center | Orbital Edge | Blockchain Network |

External Administrative and Non-User Facing

- Model Discovery
- Governance / Compliance
- Monitoring
- Zero Trust Security

QXLI – In-Orbit AI Engine
- Executes advanced AI workloads onboard a satellite or space station
- Edge-deployable on NVIDIA Jetson Orin / in-orbit Data Center infrastructure
- Modular, remotely upgradable, power-efficient

Blockchain Node for Verifiable Operations
- Co-located with AI engine
- Cryptographically timestamps AI outputs, mission decisions, telemetry
- Tamper-evident, queryable audit trail—enabling provable autonomy

Zero Trust Security Gateway
- Secures space and ground assets
- Encrypts end-to-end communications
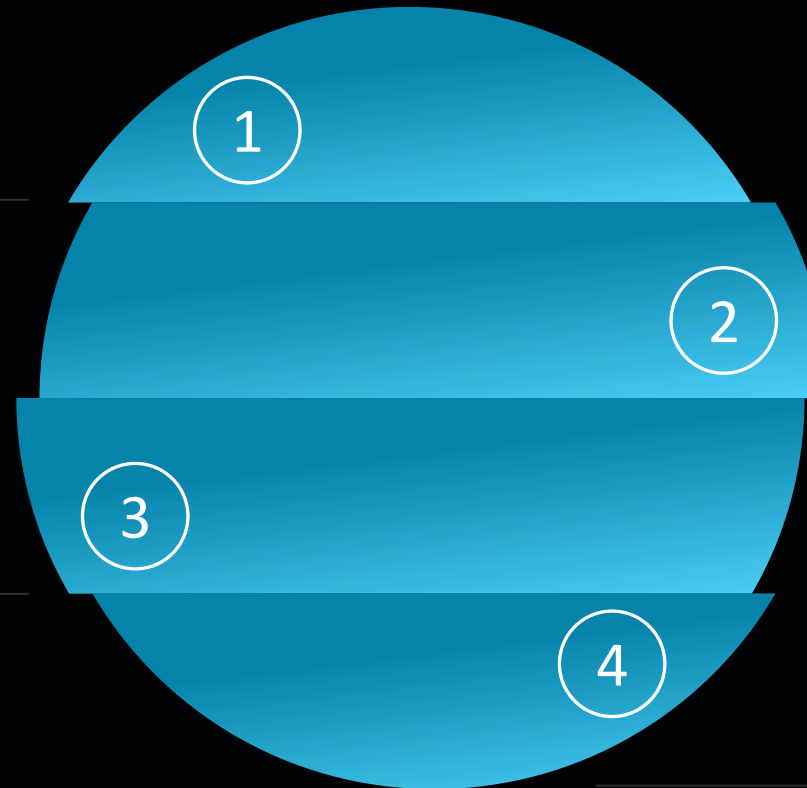- Identity-based access enforcement

OUR **ORBITAL INTELLECT LAB** SERVES AS BOTH AN INNOVATION HUB AND A COLLABORATIVE RESEARCH PLATFORM—ACCELERATING THE DEVELOPMENT OF AI TECHNOLOGIES FOR IN-ORBIT DEPLOYMENT

Internal Optimization
Initially, utilized by the Space Armour team for internal testing, and optimization

Ground-Based R&D
The tech stack—deployed on NVIDIA hardware—set up for hands-on R&D

Open Collaboration
Platform opened to partners & academic institutions, to explore AI-driven use cases in orbit

In-Orbit Validation
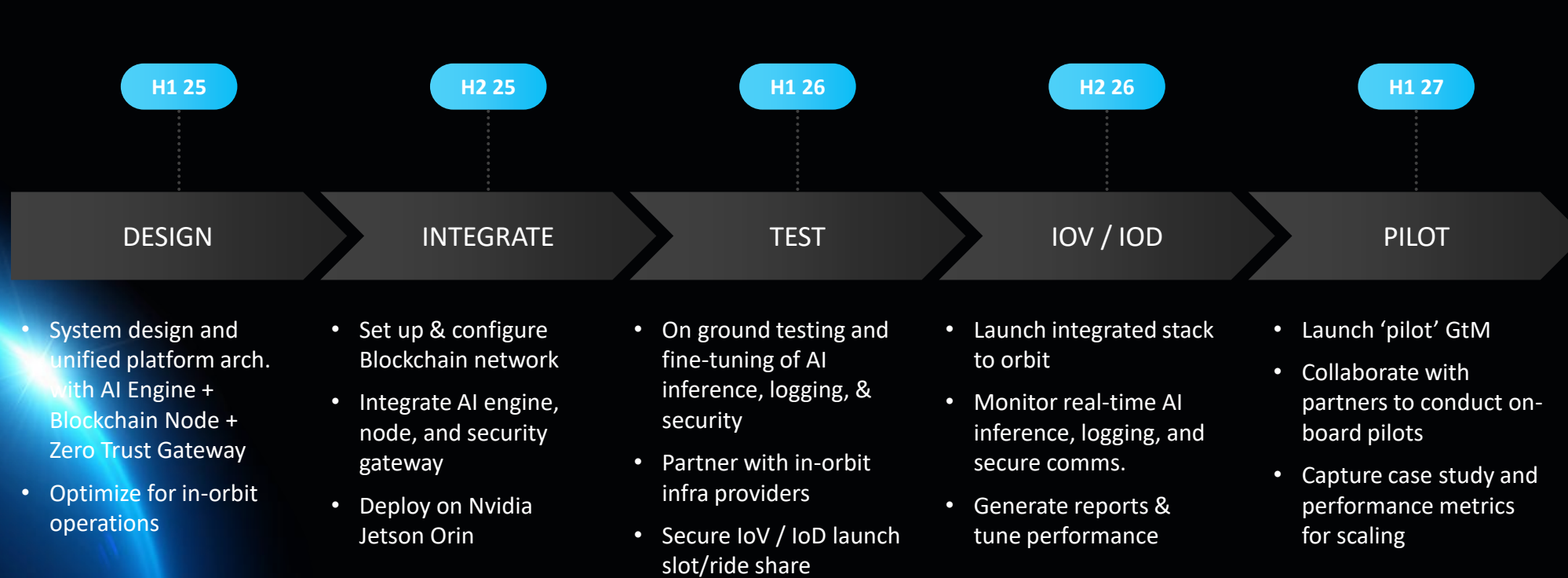The platform launched aboard a satellite / space station for in-orbit pilots and demonstration

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![SPACE ARMOUR]

OUR NEXT STEPS: RAISE SEED CAPITAL, COMPLETE ON-GROUND TESTING, AND CONDUCT IN-ORBIT VALIDATION & PILOTS ABOARD A SATELLITE OR SPACE STATION

H1 25	H2 25	H1 26	H2 26	H1 27
DESIGN	**INTEGRATE**	**TEST**	**IOV / IOD**	**PILOT**

DESIGN
- System design and unified platform arch. with AI Engine + Blockchain Node + Zero Trust Gateway
- Optimize for in-orbit operations

INTEGRATE
- Set up & configure Blockchain network
- Integrate AI engine, node, and security gateway
- Deploy on Nvidia Jetson Orin

TEST
- On ground testing and fine-tuning of AI inference, logging, & security
- Partner with in-orbit infra providers
- Secure IoV / IoD launch slot/ride share

IOV / IOD
- Launch integrated stack to orbit
- Monitor real-time AI inference, logging, and secure comms.
- Generate reports & tune performance

PILOT
- Launch 'pilot' GtM
- Collaborate with partners to conduct on-board pilots
- Capture case study and performance metrics for scaling

Partner logos:
- UK SPACE AGENCY ACCELERATOR
- SSTL Singapore Space & Technology Ltd
- NVIDIA Inception Program
- Enterprise Singapore
- SELECT FLORIDA
- Google Cloud
- SPACE FACULTY

ⓘ **Space Armour is an alumnus of the UK Space Agency's Accelerator Program, and a member of NVIDIA's Inception Program and the SSTL ecosystem**

SPACE ARMOUR

REACH US

Join us as we empower secure, autonomous, intelligent operations for the Space age

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