



PoC#1 Intelligent Network Slicing Life Cycle Management



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Outline



- General Information
- PoC Architecture
- Implementation Details
- Showcase



- **ENI PoC Project#1:** Intelligent Network Slice Lifecycle Management
- **Timeline:** Approved in June 2018, Finalized in July 2019
- **Host/Team Leader:**



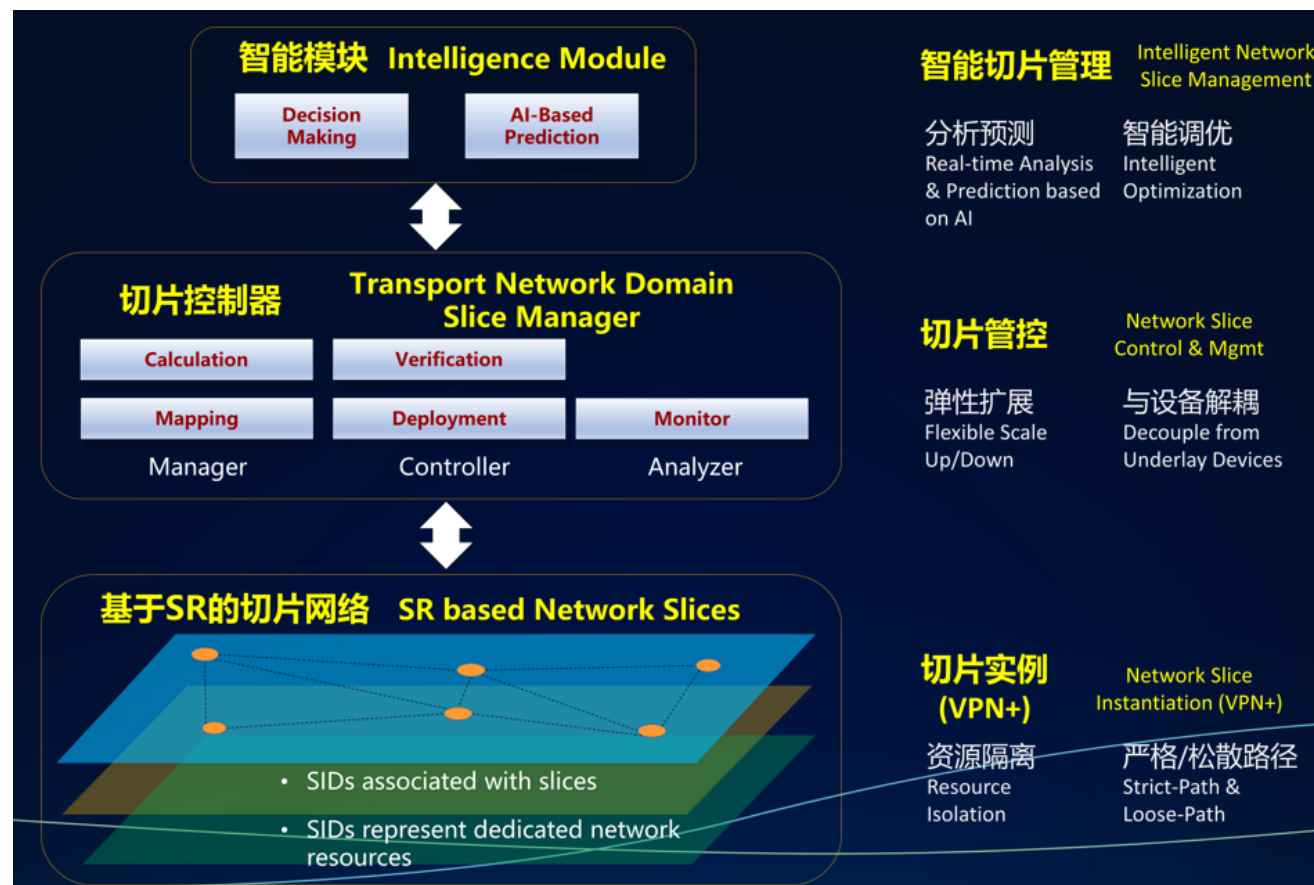
- **Team members:**

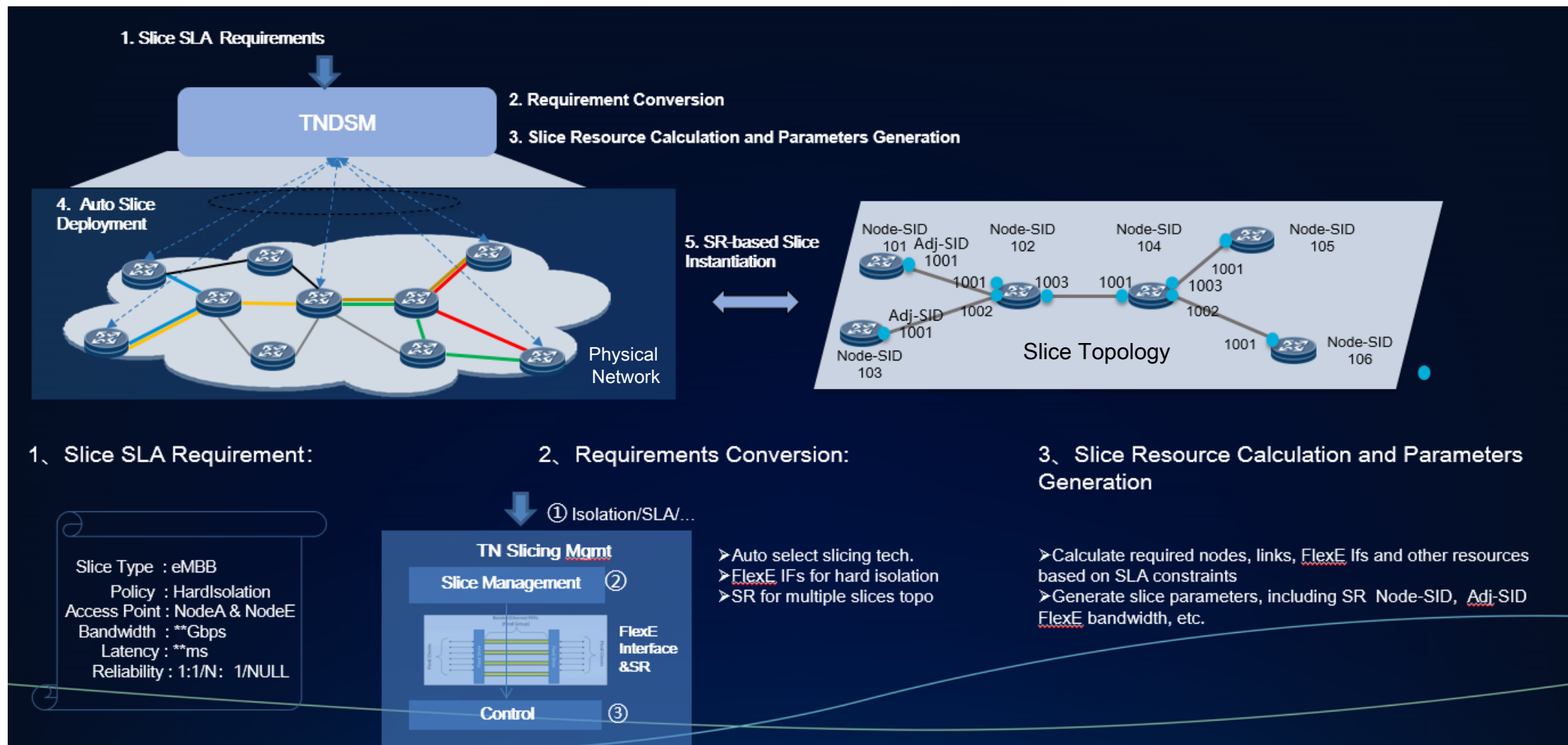


Introduction

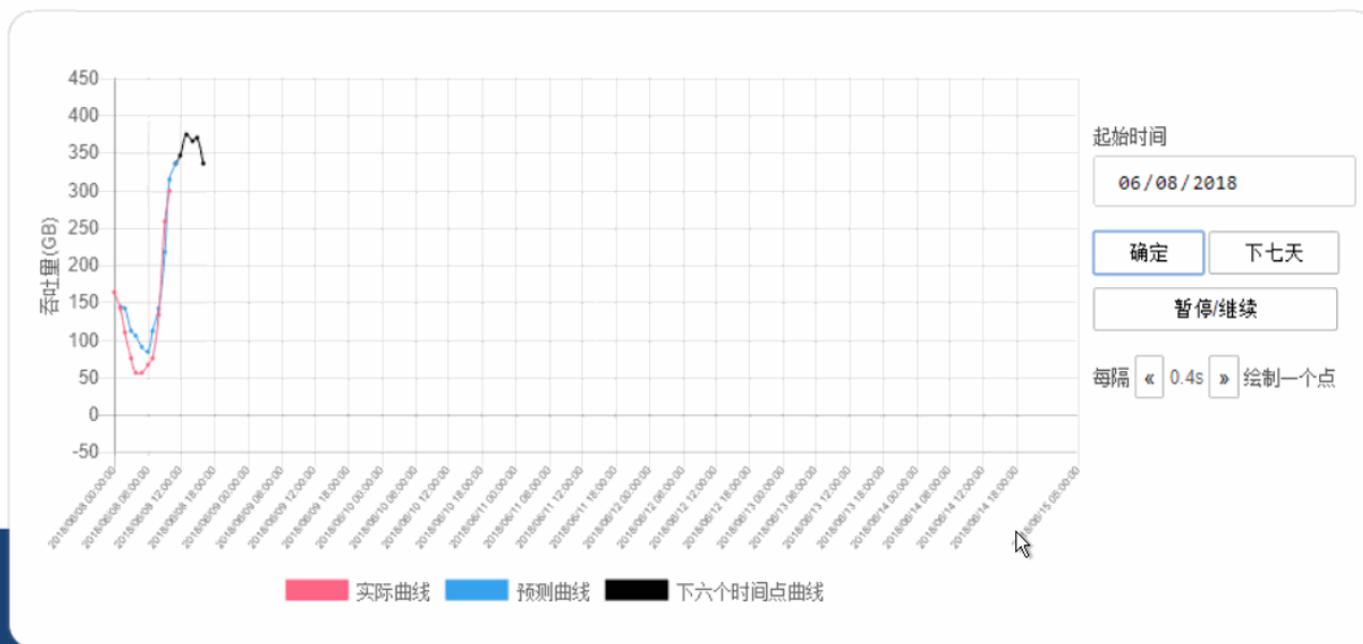
This solution includes three subsystems

- The underlying network provides isolation and independent control capabilities for the data plane and control plane of each slice.
- The slice controller automatically parses, calculates, configures, and delivers slice policies. Intent-based interface is provided for simplified slice creation.
- The intelligent module uses artificial intelligence models to perform real-time analysis, prediction, intelligent optimization of the network, and provides the network slice scaling policy.





基于人工智能的流量预测系统



127.0.0.1:8080/5GSlicing/Slice/

应用 建议网站 从IE中导入 样机 Business 招聘 研究 联合创新 5G网络分片 网络规划 日常 产业 开发设计 其他书签

5G Slicing | Slice

- Menu
 - Slice Creation
 - Slice Adjustment
 - Slice Query
 - Service Monitoring
 - Traffic Monitoring

Red Creation

NodeA NodeB

Save

SliceType : Slice_1 Policy : Hard Isolation

HighReliabilityEngine : Disable ReliabilityType : NULL

Latency : NodeA NodeB 4ms +

Bandwidth : NodeA NodeB 1G +

Interface NP Slice Engine TM Slice Engine

FlexE Enable Enable

VLAN Disable Disable

PTN

Interface NP Slice Engine TM Slice Engine

FlexE Enable Enable

VLAN Disable Disable

PTN

Create



TNSM Video

The system has been showcased 4 times:

- ETSI ENI#7 Meeting, China Telecom Beijing Research Institute , Beijing, 19 September, 2018
- Network Intelligence Forum, China Telecom Beijing Research Institute, Beijing, 20 September, 2018
- GNTC 2018, Nanjing, 14-16, November, 2018
- ETSI ENI#9 Meeting, 10 April, 2019



- We have successfully demonstrated the feasibility of using AI for network traffic prediction and decision making
- The system has demonstrated a solution realization of transport network slicing, providing network devices, network slice controller and AI module cooperation in network slicing management
 - Slice customization and isolation
 - Intent-based slice creation
 - Automatic slice creation and dynamic adjustment
- Possible interfaces for network slice management have been implemented
 - It helps in transport network slice interface definition and standardization



Thank you