netFLEX®

Problem... Solution... Outcome
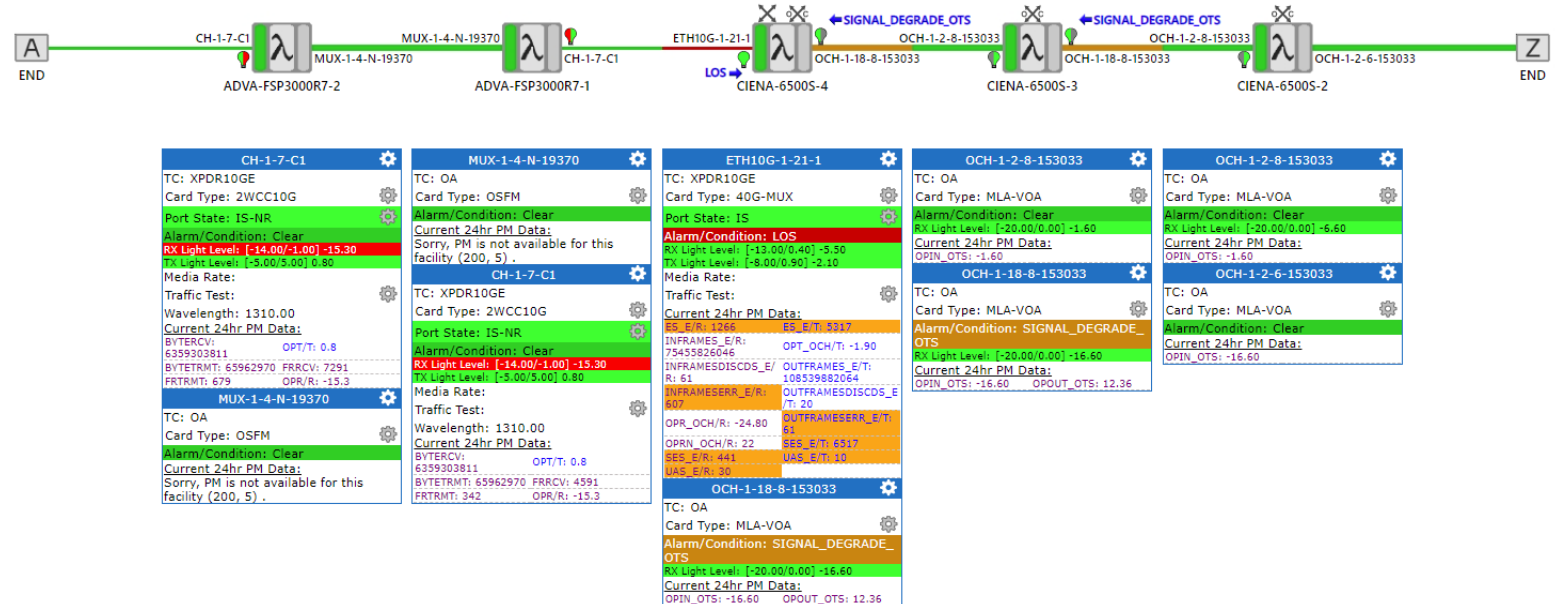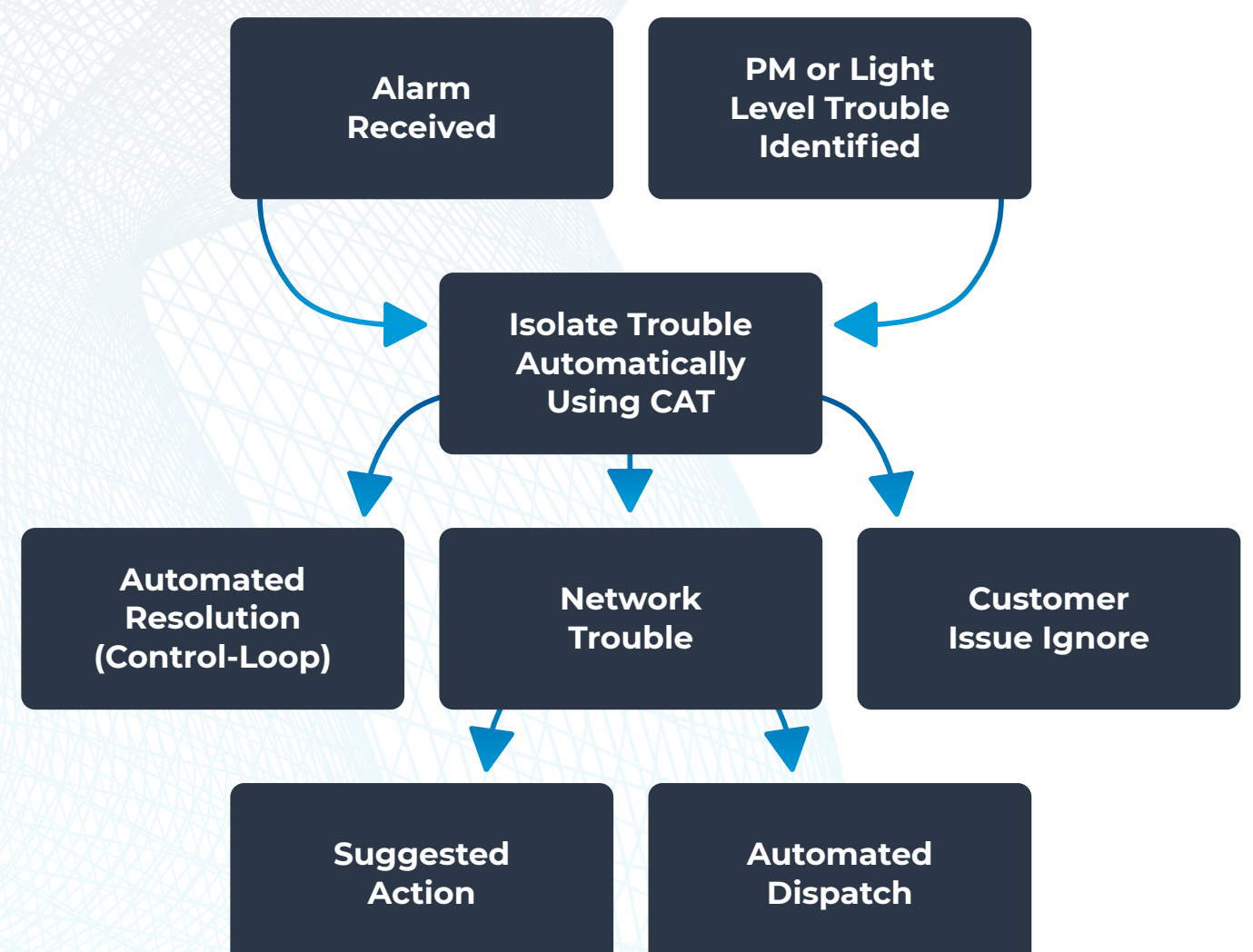
When a service impact in the optical transport domain occurs today, technician time and understanding to resolve is excessive and reactive. The tech must determine service-path (from static OSS or disparate EMS'), nodes traversed, familiarity with all nodes involved to login/run troubleshooting commands to isolate and resolve the issue. This can take 20-30 minutes, requires vast understanding of the technologies involved, and occurs 'much after the fact.'

With **netFLEX®** a single UI-click or API-call against the customer's circuit initiates **Circuit Analysis Tool® (CAT)** to automatically determine the service path from 'active inventory,' automatically retrieves critical information for each node, presents a single-analysis-view, and most probable isolation for remediation. Control automation options are then presented to restore service.

Automated End-2-End, **netFLEX CAT** provides simplified service-path troubleshooting for complex Legacy and Nextgen optical networks. With wide support for disparate suppliers and technologies, it eliminates the need for specialized skills for individual network technologies, and reduces the 20-30 minute troubleshooting time to 1-2 minutes. In addition, **netFLEX CAT** eliminates excess cost by assuring that resources are dispatched correctly the first time and only when necessary. Available through a common UI and API framework, **netFLEX CAT** makes multi-vendor optical networks all look the same to users and integrated OSS and SDN Orchestration systems.

Proactive Optical Waves Restoration™ (POWR) then takes this a step forward, as a policy-driven input at service instantiation (or after). **netFLEX PCE** for upfront control automation of A-to-Z provisioning, incorporates policy for ingestion of realtime data and decisioning to enact **CAT** to auto-detect, -test, -triage, and auto-restore to original business (service) intent.

Human action, to restore a Waves Service impact, in reactive fashion – now replaced by **POWR** for near-realtime detection and resolution (leveraging **netFLEX Intent Based Networking (IBN)**).

Circuit Analysis Tool®

CAT Reduce Troubleshooting From 20-30 Minutes to 1-2 Minutes

POWR Programmable Waves Restoration, No Human Action

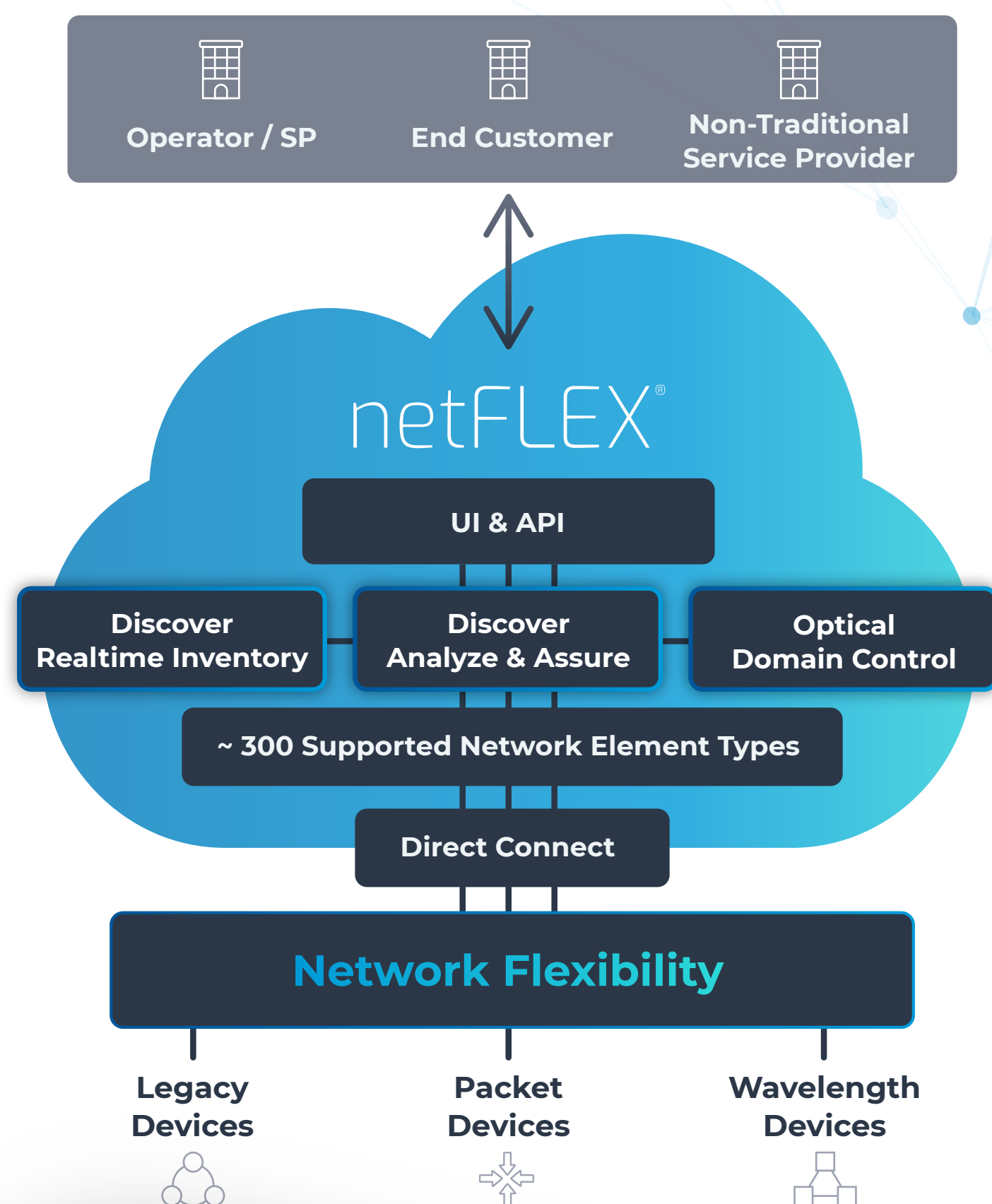**netFLEX.lightriver.com**

netFLEX®

Simplify, Standardize, Personalize

netFLEX was architected for end-to-end network and service automation where realtime (discovered) inventory, actionable analytics, and control automation were built for SDN abstraction to allow for uniform management of multi-vendor and multi-technology and make it 'all look the same.' This comprehensive Optical Domain Controller Framework supports full life-cycle service automation of legacy and nextgen transport networks. netFLEX supports a full complement of network-health-automation leveraging data/analytics to baseline performance and make it all 'actionable.'

The ultimate differentiation for LightRiver is that we participate in the end-2-end engineering, design, lab/factory commissioning, field install, and network management and automation of some of the most complex, multi-vendor, technology diverse and largest optical networks on the planet. This visibility and touch, allows us to build advanced automations against that which is deployed in the real world vs. that which is developed against captive lab environments.

netFLEX®
Realize True Network Flexibility

- **SDN**:
  Optical Domain Control for end-2-end network abstraction

- **Only Multi-Vendor Solution:**
  That includes discovered inventory, actionable analytics, & control automation

- **Network FLEXibility:**
  Across every functional area

- **Programmability:**
  Of visibility & control, as the operator & customer would define

- **Digital Experience:**
  Enablement of UI, API, and program-and-go for every functional area

For each functional area, and in total - Industry Best!

Operator / SP   End Customer   Non-Traditional Service Provider

netFLEX®

UI & API

Discover Realtime Inventory | Discover Analyze & Assure | Optical Domain Control

~ 300 Supported Network Element Types

Direct Connect

Network Flexibility

Legacy Devices   Packet Devices   Wavelength Devices

CONTROL · DISCOVER · ANALYZE · netFLEX