Network Innovation

Over the past decade, we've built a suite of software, machine learning and artificial intelligence tools that optimizes network performance; allowing us to dynamically add capacity; and automatically mitigate problems before they're experienced by customers.

COMCAST OCTAVE

Octave is AI technology that detects when modems aren't using all the bandwidth available to them as efficiently as possible and automatically optimizes customers' speed down to the household level, without any human intervention.

↑36%

Comcast Octave checks **4,000+** telemetry data points on tens of millions of modems across our network every 20 minutes.

Octave delivered a nearly **36 percent** increase in capacity directly to customers.

25 engineers worked from home and completed an Octave upgrade in **6 weeks** that would have normally taken 6 months.

NetIQ.

NetIQ uses machine learning to scan our core network continuously, making thousands of measurements every hour.

Detecting problems before they affect customers

Developed by Comcast engineers, the Smart Network Platform is a suite of software tools that automates many of our core network functions. As a result of this investment, we've been able to dramatically reduce the number and duration of outages our customers experience.

The future is virtual

While we are still early in the process, our transition toward a more virtualized, cloud-based network architecture has also played an important role in allowing us to manage accelerating demand and deliver faster, more reliable service. Virtualization means taking functions that were once performed by large, purpose-built pieces of hardware – hardware that required manual upgrades to deliver innovation – and moving them into the cloud.