OPENET
Policy

BUILT FOR 4G/5G

NETWORK

AND SERVICE CONTROL

5G OPC 2.0 : Openet Policy Controller
Widen your **5G advantage** even further

"OPC is a new generation of Policy Manager and a foundational function for unleashing more powerful 5G use cases in an evolving 5G environment"

INTRODUCTION

Beyond enhanced broadband and fixed-wireless access, 5G promises massive improvements in terms of differentiated revenue-streams that have long been sought by even the most innovative of operators. 5G promises a greater variety of more powerful devices that are capable of handling more applications. Those devices need to be identified and empowered by operators "out of the box". Some devices will be powered by 4G and 5G simultaneously working on the same device but on dedicated service "slices" which adds to the challenges of efficiently providing optimal experiences to users. **Openet Policy Controller (OPC)** is the next generation of Policy Manager and a fundamental enabler for advanced 5G environments. OPC 2.0 brings the advantage further.
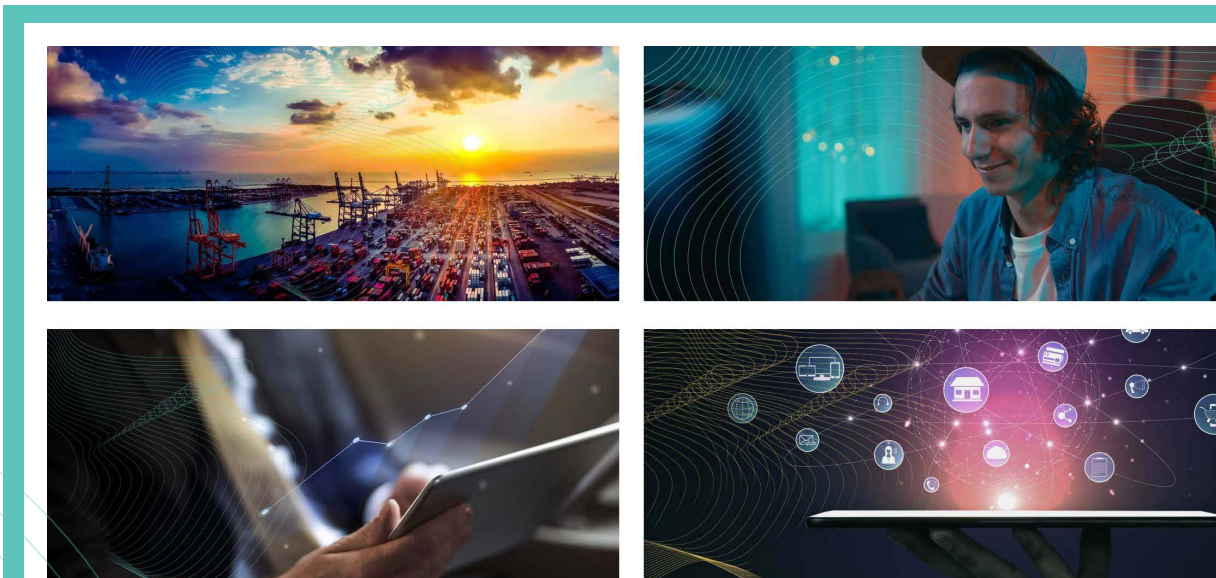
BEYOND BASICS

With backward compatibility, 4G PCRF features such as subscriber tracing and overload protection must of course remain intact with OPC. Deployments in a microservices-capable environment is assured and embedded via Forge – Openet's toolkit for 5G deployment, but backward-compatible for 4G/3G hybrid environments ensuring optimal use of existing resources.

Critically however, OPC is a new generation of Policy Manager and a foundational function for unleashing more powerful 5G use cases in an evolving 5G environment.

With OPC 2.0 we have extensive lessons learned from customer trials and live deployments. This includes understanding that certain open service mesh technologies are not telco grade. Testing has shown over 30% and as much as 50% overhead in using pure open source mesh vs the Openet developed version.

"The combination of connectivity with service-slice potential has been around for some time. OPC is now at the heart of this slicing potential in 5G"
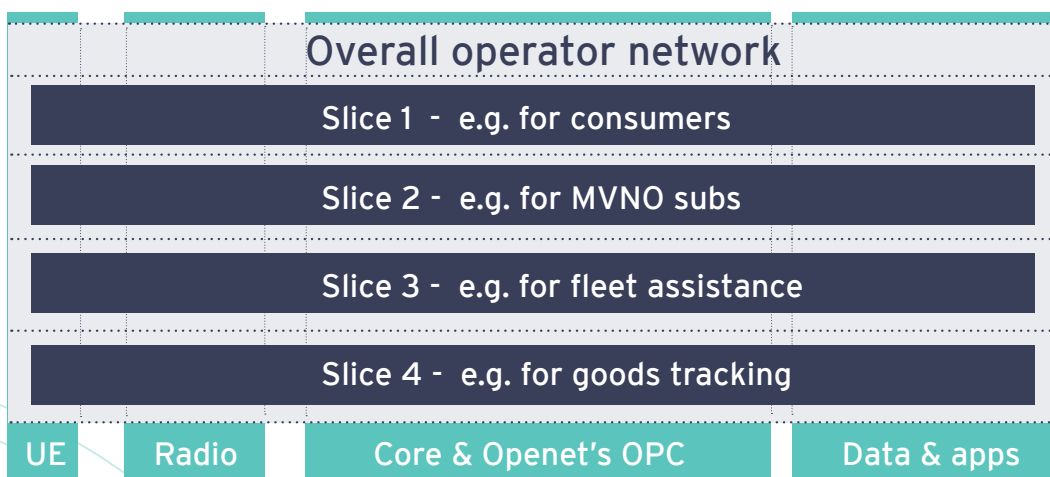
5G SIMPLIFIED

Regardless of additional complexities and challenges as well as opportunities that 5G represents, a fundamental objective of Openet has always been to reduce complexity and this continues with OPC. Industryleading deployment experience: cloud-based software (not hardware), network agnosticism, microservices - these have been part of Openet's DNA since before 5G was conceived. They are now fundamental to a successful 5G environment.

Opening the network to a broader ecosystem of partners and service enablement will be critical to the success of 5G. This includes ever more powerful access to data and AI. More than ever, opening up to an array of established and emerging partners in everything from gaming to industrial IoT will be core to differentiated value-creation. environment.

MORE DIFFERENTIATION MORE OFTEN

The combination of connectivity with service-slice potential has been around for some time. OPC is now at the heart of this slicing potential in 5G. It enables more testing of services more often as well as real-time reporting of cleanly controlled differentiation. It enables operators to be at the heart of new service trends, not a mere enabler.
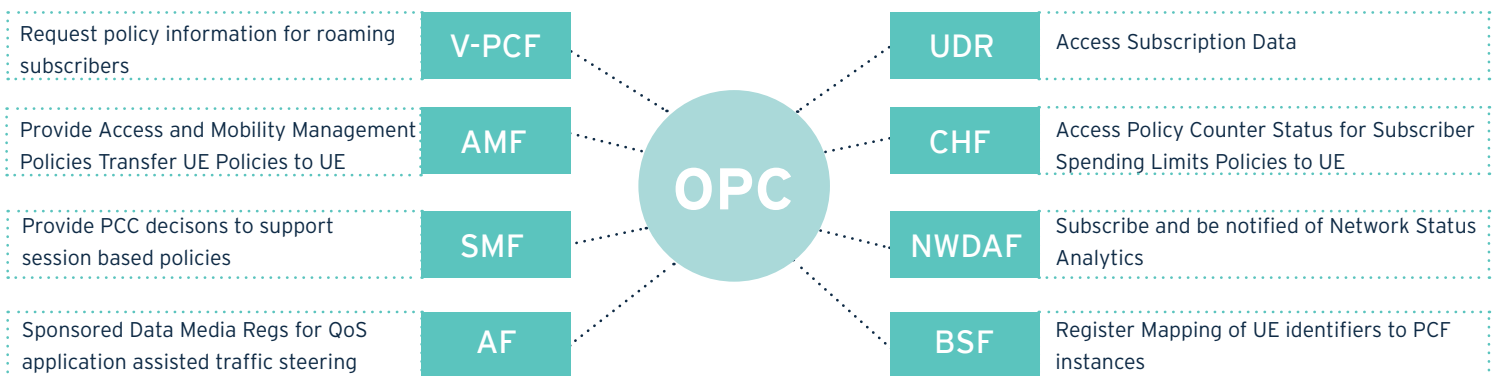
- Extreme usability, self-service and reporting

- Greater flexibility enabled by increasing arrays of open interfaces

- Rapid deployment for cloud-based, micro-services environments. Available to run on multi-cloud - Openet partners with AWS and Microsoft Azure

- Deployment distributed at the edge to enable more 5G use cases such as URLLC

- Backward-compatible for 4G/5G hybrid scenarios

- Rapid testing of services / service-slices more often and true differentiation

- Access to Openet Tier1 DevOps experience where required

Overall operator network

Slice 1 - e.g. for consumers

Slice 2 - e.g. for MVNO subs

Slice 3 - e.g. for fleet assistance

Slice 4 - e.g. for goods tracking

| UE | Radio | Core & Openet's OPC | Data & apps |

"Greater visibility and service control than ever before is enabled by OPC"
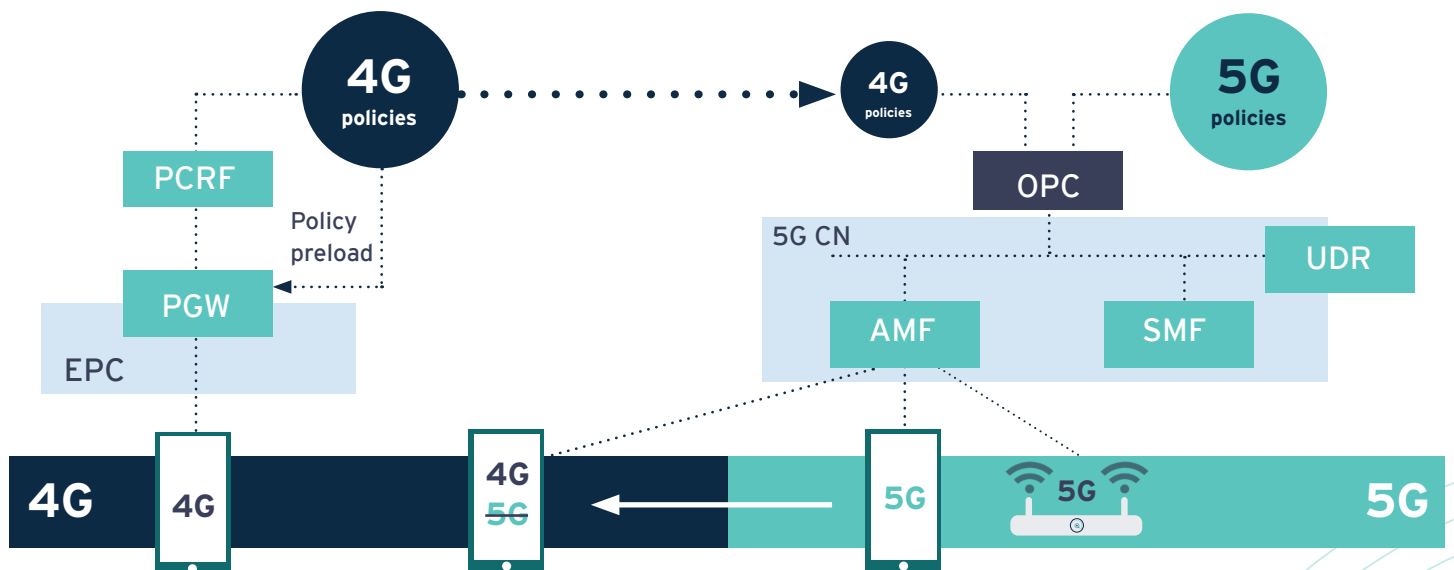
OPC: CRITICAL ROLE IN 5G

OPC plays a critical role in the rapid launch and control of services in the 5G environment and the enablement of differentiated services. A richer set of use cases include but are not limited to: gating controls, QoS, usage monitoring, application detection, roaming controls, traffic steering, "slice" enablement and combinational services. Greater visibility and service control than ever before is enabled by OPC.

Request policy information for roaming subscribers	**V-PCF**		**UDR**	Access Subscription Data
Provide Access and Mobility Management Policies Transfer UE Policies to UE	**AMF**	**OPC**	**CHF**	Access Policy Counter Status for Subscriber Spending Limits Policies to UE
Provide PCC decisons to support session based policies	**SMF**		**NWDAF**	Subscribe and be notified of Network Status Analytics
Sponsored Data Media Regs for QoS application assisted traffic steering	**AF**		**BSF**	Register Mapping of UE identifiers to PCF instances

OPC: SMOOTHER MIGRATION WITH OPENET

Every service provider is at a different starting point with 5G, even if they are aiming for standalone (core plus radio) 5G in the coming years. Depending on their particular starting point and available spectrum, operators will have different plans for rollout and use case prioritisation. OPC is designed to rapidly ease this transition while making best use of existing resources. OPC can be bundled with tools to import legacy policy configurations and create a corresponding configuration that is robust in a 5G environment.

Whether the focus is on 4G, 5G or hybrid environments, backward compatibility is also catered for via Openet's Data Bridge facilitating conversion from 4G to 5G, and the reverse if needed.

KEY OPC FEATURES

Usability	Single UI providing a rich and intuitive UX "Blueprints" - Out of box fully working set of functionality that can be deployed "as is" or customized as necessary to fulfil operator needs. Auto testability Designed to be highly observable - monitoring capabilities	**Operability**	Monitoring Dashboards Subscriber Tracing dashboard Subscriber Tracing dashboard Unified Logging and Alarming dashboards ONAP Support on-boarding and lifecycle management with ONAP
Cloud native	5G PCF, PCF+PCRF Supports HTTP/2 based communication All NF's are built using micro service design patterns All micro services are Stateless by design, only introducing Stateful services where necessary independently deployable as Docker containers Manage service upgrades and updates	**4G to 5G interworking**	Openet PCF & PCF+PCRF support migration options Deployable using the same CI/CD and software base. Operational efficiencies!
Rules engine	Blueprints and decision tables converted to runtime rules engine representation via CI:CD Flow Platform UI to allow operator to extend the stages with third-party supplied services (joint development/integrators)	**Offer catalog**	Simplified / Integrated into PCRF UI to manage entitlements + offers Automatic offer catalogue recommendation logic processing and exception handling within micro services
Testability & automation	Continuous integration and continuous development platform Platform for enabling innovation and partnerships	**5G partnerships**	Close partnerships to provide alignment of roadmaps and feature set Integration labs to introduce a complete end to end architecture
Upgradability	In-service updates (no more "upgrades" due to microservices) is paramount emphasis Elastic scaling is available on all stateless micro services Backwards compatibility	**API Driven - Ability to script & automate policy configuration**	All Interactions are via a published API
Legacy Migrations	An ability to import policies from the existing EPC and providing an equivalent policy in the 5G PCF Restful API to import legacy policy data and configuration + PCRF	**Overload protection/ robustness**	Excessive latency Overload conditions

ABOUT OPENET:

Openet, an Amdocs company, is a leading software and services provider to communications companies. Our deep domain expertise & understanding of complex systems, underpinned by the tenacity and determination of our people, enable us to radically transform how our customers do business, providing best in class digital and 5G business support systems.

In an industry where the only constant is change, our open and innovative technology is built for change. For the last 20 years we have helped the world's most innovative communications companies manage and monetise their business and evolve from communications companies to digital service providers. This gives our customers the power to enter new markets, open new revenue streams and increase profitability.

Openet. Built for Change

www.openet.com

OPENET PRODUCTS:

Openet Charging:
Real-time convergent charging for digital and 5G services.

Openet Policy:
Network policy control for next gen fixed, mobile and converged networks.

Openet Data:
Data management, data processing and data governance solution designed to collect and manage data at 5G volumes in real-time.
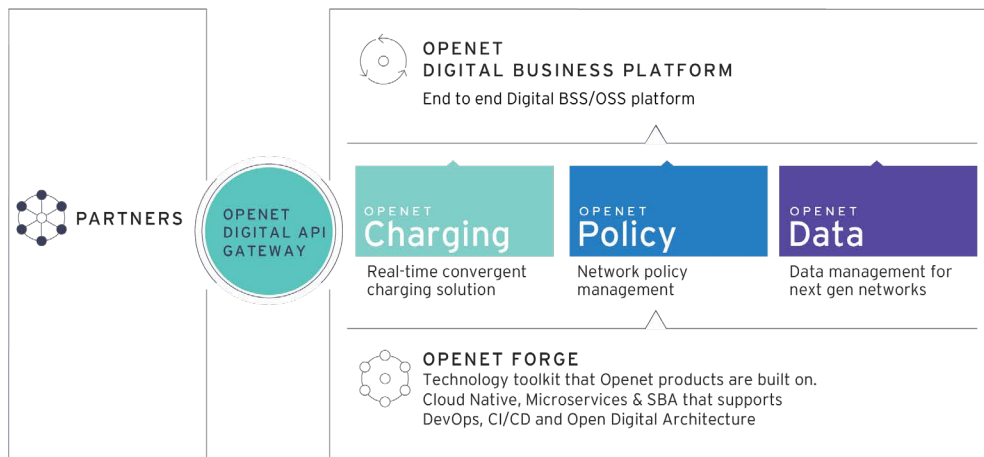
Openet Digital Platform:
End to end Digital BSS/OSS stack containing Openet & our partners' products.

Openet Forge:
The digital enablement toolkit which contains Openet's library of microservices, upon which all Openet products are built.

DELIVERING BUSINESS VALUE:
RESULTS REALISED BY OPENET CUSTOMERS

40%
Reduction in time to market for new offer creation

28%
Uplift in offer uptake

11%
Increase in mobile data ARPU

41%
Increase in mobile data revenues

OPENET PORTFOLIO

OPENET
An Amdocs Company

BUILT FOR CHANGE

OUR CUSTOMERS

AT&T, Bell, BT, Claro, Globe, Magenta, OPTUS, orange, Singtel, SoftBank, T-Mobile, Telia, TELKOMSEL, vodafone

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