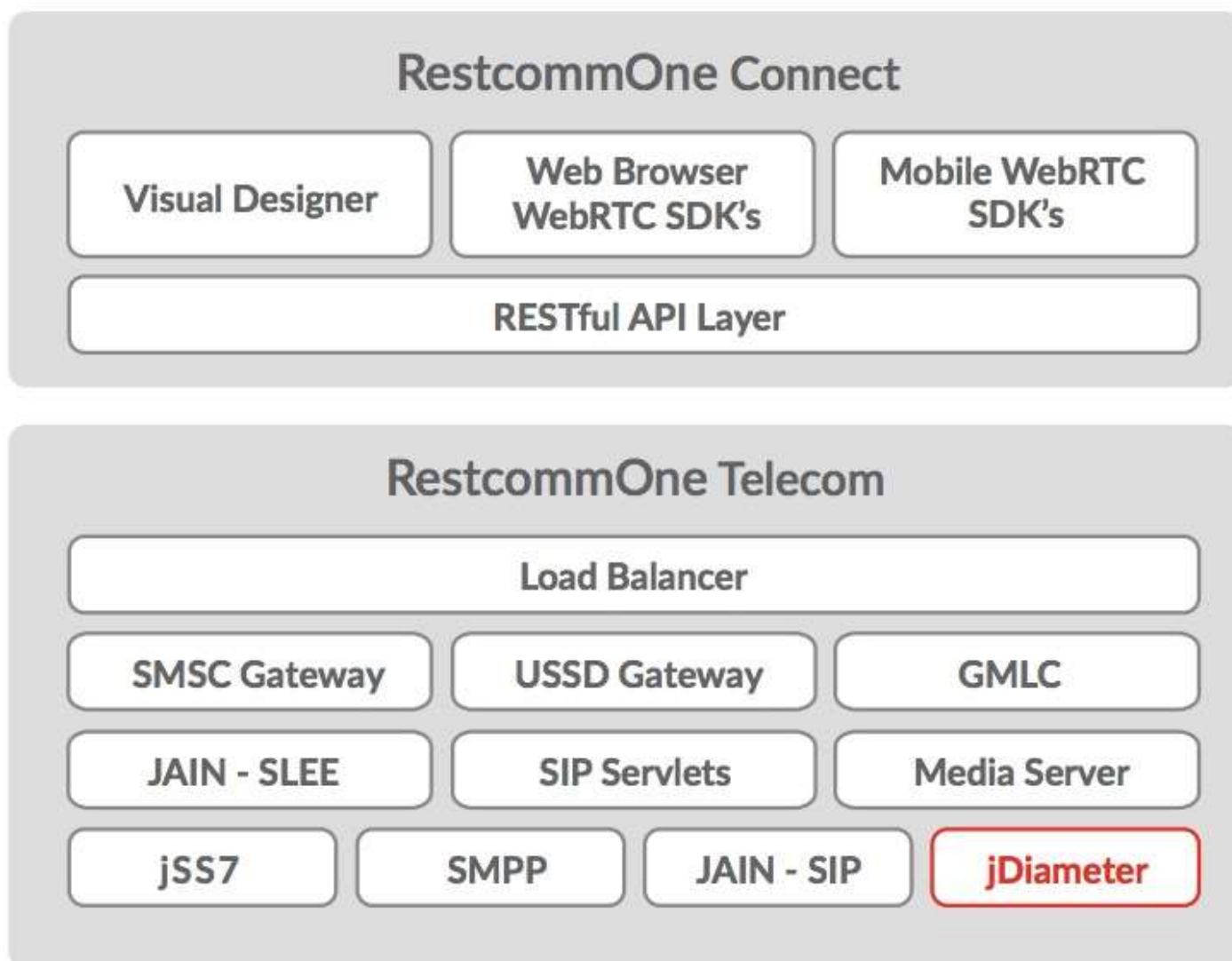


# RestcommONE jDiameter

## RestcommONE Core Components



## RestcommONE jDiameter

The **RestcommONE jDiameter** is a Java-based implementation of the Diameter standard for Authentication, Authorization, and Accounting (AAA) as defined by RFC 3588. The base protocol as well as the most important and widely used applications are provided. These are Credit-Control Application, Ro (Online Charging), Rf (Offline Charging), Sh, Gx, Cx/Dx, Gq, and S6a.

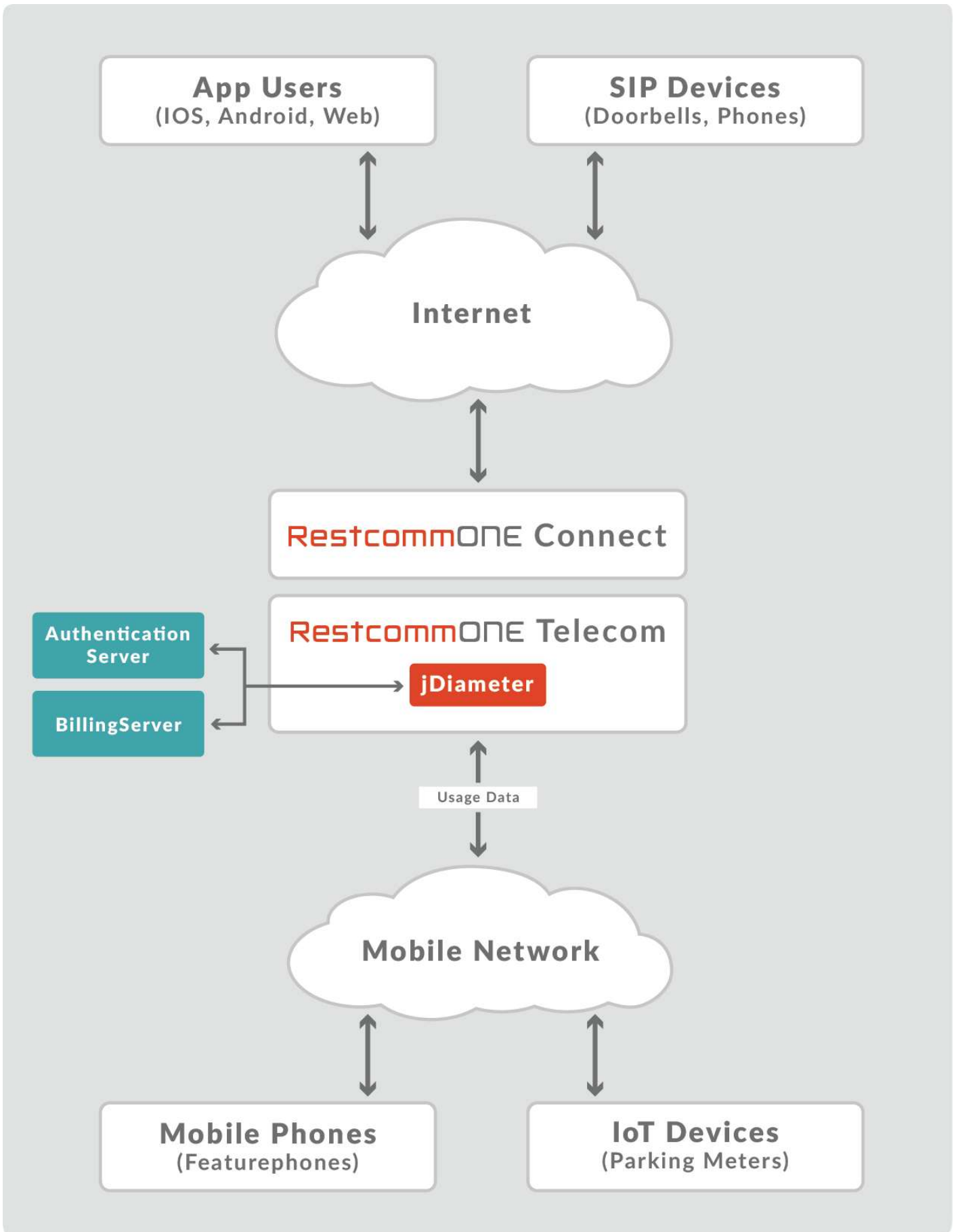
**RestcommONE jDiameter** includes integration interfaces for RestcommONE SIP Servlets and RestcommONE JAIN- SLEE Resource Adaptors. And features an extensible architecture that allows additional Diameter applications or modules to be connected.

The **RestcommONE jDiameter** stack offers all the capabilities of the RADIUS protocol and is compatible with existing RADIUS servers. It features several advanced features such as high availability and fault-tolerance support at stack level and for the RestcommONE JAIN– SLEE and RestcommONE SIP Servlets. The stack also provides statistics gathering for monitoring the stack health, an overload monitor to avoid congestion, several management and monitoring options.

**Diameter improves on RADIUS in the following ways:**

- Uses TCP/SCTP instead of UDP to improve transport reliability and flexibility
- Uses IPsec (mandatory) or TLS (optional) to secure communications between services
- Uses a much larger 32-bit address space for AVPs
- Supports both stateless and stateful modes
- Supports dynamic discovery of entries using DNS, SRV and NAPTR records
- Supports peer alignment by negotiation
- Supports RFC 3539 for transport layer failover
- Supports secure and scalable roaming
- Extensible to support new commands and AVPs

The RestcommONE jDiameter stack can be deployed as a standalone Diameter server connecting to 3rd Party applications and servers, as well as part of a complete RestcommONE solution utilizing RestcommONE Core and RestcommOne Connect services.



## Key Features an Benefits

- **Complete Diameter stack** providing both base and most important and commonly used services including Credit Control Application, Ro (Online Charging), Rf (Offline Charging), Sh, Gx, Cx/Dx, Gq, and S6a.
- **Supports Client, Server and Agent modes of operation** allowing the stack to act as a Proxy, Relay or Redirect Agent.
- **Dictionary and Validation support** allows easy vendor specific Diameter application support to be added. Diameter Message integrity validation is also provided.
- **SIP Servlets and JAIN-SLEE connectors** enable seamless integration of Diameter services into both new and existing networks.
- **High resiliency and availability** through fault-tolerance at both the protocol and SIP Servlet and JAIN-SLEE connector level.
- **On premises and cloud deployment options** provide outstanding flexibility for service provider and enterprise applications. Fully self-contained and highly optimized, the Diameter stack supports both network functions virtualization (NFV) and clustered virtual machine (VM) deployments.
- **Flexible operations and monitoring** for statistics gathering on the Java virtual machine (JVM) and Diameter stack health, and an overload monitor to avoid congestion. Several management and monitoring options including a scriptable command line interface and a web console for configuration and management.
- **Open Source software** is well-documented allowing your staff the opportunity to learn, optimize and customize the Diameter server to your evolving requirements free from vendor lock-in.