TJ6003W

Tejas Evolved Packet Core Solution

Highlights:

- Low foot-print highly scalable platform from 1,500 users to 200,000 users
- 3U Standard 19 inch rack mountable ATCA chassis
- Optional redundancy for power input and chassis management functionality
- Shelf assemblies are designed usinField Replaceable Units (FRU) enabling easy maintenance and high availability
- Single box solution incorporating all EPC components - MME, PCRF, HSS, S-GW and P-GW
- High Availability option for both control plane and data plane on the same chassis
- Highly distributed architecture – data plane and control plane can optionally be redeployed to physically reside in different locations

Key Benefits:

Efficiency: All the components of Tejas EPC- MME, PCRF, HSS, P-GW and S-GW reside on common high performance network processor blades.

Distributed Operation: For operational efficiency, it may be required to separate control plane and deploy it physically separate from the data plane. With just software configuration changes, the Tejas EPC platform allows for this distributed architecture seamlessly.

Overview:

TJ6003W is a compact 19-inch rack mountable form factor system, yet highly scalable to provide all the functions of the 3GPP Enhanced Packet Core. The TJ6003W Tejas EPC system is scalable to 200,000 subscribers within the same form factor. Scalability is also possible in terms of backhaul data rate.

For fault tolerance, the EPC system supports “high-availability” operation, with redundancy in both the control plane and the data plane.

Tejas EPC consists of five principal EPC components: MME, SGW, PGW, HSS, and PCRF. MME, HSS and PCRF are the control plane components and SGW and PGW handle the data plane traffic. All these EPC components run in real-time on the Tejas embedded platform.

Tejas EPC platform is used in conjunction with an external Element Management System (EMS), a web-based interface, which is used for managing all these components.

Redundancy of Control and Data Planes: Tejas EPC can be deployed with 1:1 control plane and N:1 data plane redundancy. This provides high availability for the total solution, in conjunction with redundancy for power supply and chassis manager.

Technical Specifications

Technology
3GPP

Modules
MME, PCRF, HSS, S-GW and P-GW

Form Factor
3U 19 inch rack mountable
448mm by 134 mm by 414 mm
14.5 kg

Power Supply & Consumption
-48V DC (optional AC mains variant)
200 Watts (without high availability)

Environmental & EMI-EMC
Operating Temperature: 0deg C to 50deg C
Relative Humidity: 10% to 90% non-condensing
ETSI/EN 300386
EN 55022 Class A
FCC Part 15 Class A

Redundancy
Dual power supply option
Dual ATCA chassis controller option
High Availability Option (1:1 redundancy) for control plane with redundant Packet Processor Blade
High Availability Option (1:N) for data plane on the same Packet Processor Blade

Features

NAS signaling and security

Paging (UE reach ability) procedures

Tracking Area list management

PDN GW and Serving GW selection

MME selection for handovers with MME change

Roaming (S6a towards home HSS)

Authentication

Bearer management

Quality of service

Policy Enforcement

IPv6/IPv4 Support for signaling

IPv4, IPv6, IPv4v6 UE address

Multiple Session Support for LTE (up to 11)

Multiple bearer support for LTE (up to 11)

Multiple PDP Context support

Static Policy

Dynamic Policy

IP Address Allocation

Range of Local Pool

DHCPv4/V6 Client

Offline and online Charging options

System and Subscriber Tracing

Alarms

SGW Handover Support

Multiple Data path support with single control plane

Lawful Intercept

Rate Control with bearer pre-emption

CSG Support

Usage Monitoring Support

Rate Enforcement

Buffering of data during idle mode

Emergency Call Support

IMEI check support using EIR query

GTPv2/PMIP based selection of SGW/PGW

Dynamic policy through AF

Multi operator support

Flexible policy control

*Specifications are subject to change without notice

68-72 Church Street, Suite 6
Northbridge, MA 01588
USA

TEJAS® NETWORKS
Software Enabled Transformation

Plot No 25, JP Software Park
Electronic City Phase 1
Bangalore 560 100, India