The SCOPE Alliance; FAQ

2008 V2.6

1. What is the SCOPE Alliance?

SCOPE is an association of Network Equipment Providers aimed at accelerating the deployment of Carrier Grade Base Platforms for service provider applications. As of January 2008 SCOPE Sponsor members include Alcatel-Lucent, Ericsson, Huawei, Motorola, NEC, Nokia Siemens Networks and Nortel.

2. What is the SCOPE mission?

Scope's mission is to enable and promote the availability of open carrier grade base platforms based on Commercial Off The Shelf (COTS) hardware / software and free open source software building blocks, and to promote interoperability to better serve Service Providers and consumers.

3. What is meant by Carrier Grade?

In the platform domain, carrier grade groups a number of characteristics specific to the telecom industry such as high-availability, environmental standard compliance for central office (NEBS) and extended life cycles.

4. What is a profile?

A profile is a subset of existing open specification from bodies such as PIGMG, Linux Foundation, SA Forum and others. This subset – or profile – reflects the technical requirements regarding the interfaces and building blocks to form a Carrier Grade Base Platform to meet the Service Providers' requirements.

5. What is a gap?

Gap relates to the absence of open architecture and interfaces specification or missing required feature(s) within one platform area which might create fragmentation in the supplier market by allowing different incompatible implementations to be developed.

6. What are the specific deliverables of SCOPE?

Specification Profiles: SCOPE looks into a given open specification (such as the SA Forum Application Interface Specification) and makes an analysis based on knowledge of Carrier Grade systems and their requirements. Necessary and sufficient options or features are selected to be described in specification profiles. Profiles are then made public.

Gap analysis: If the previous requirement analysis points out missing options or features, they are documented and individual member companies work with specification organizations to address these gaps.

Reference architecture: SCOPE has created a reference architecture of CGBP giving guidelines on how such platforms could be built using open specification based COTS / FOSS components.

Technical position paper: describes the above mentioned reference architecture and other necessary details of CGBP to help the industry gain a better insight into the thinking and direction of SCOPE.

Position Paper: A less technical paper describing SCOPE's goals, strategy and/or procedures on a particular topic for the benefit of the industry

7. What has the SCOPE Alliance accomplished to date?

To date SCOPE has completed a number of significant projects including the Reference architecture, ATCA profile & Gaps, microTCA profile, AMC port mapping, Middleware profile & gaps, Linux profile & gaps, and definition of terms.

8. Could you provide some examples of common options specified in SCOPE profiles?

- In the ATCA V2.0 one of the thermal options is to require suppliers to supply measured values of acoustic noise versus airflow volumes. Another example in the data transport interconnect is the dual star fabric topology. Third example is to require disk life expectancy of 5 years and more in the “beyond ATCA” section.

- The CGL 1.0 profile delivered prioritization of the 247 CGL 4.0 requirements. 108 of them were set as mandatory. Example is “PRF 10.0 CGL benchmark”.

- The CG MW 1.0 profile prioritized the SAF AIS services as for example requiring as mandatory the implementation of AMF, IMM, CLM, NTF.

9. How will Service Providers, NEPs, and their suppliers benefit from SCOPE?

Service providers benefit by being able to accelerate service deployment on a stable and flexible platform with confidence. Platform building blocks consistent with SCOPE profiles will enable the integration of the carrier grade features required by Service Providers.

By identifying common features that are important for NEPs, SCOPE profiles enable improved interoperability and a real multi-vendor ecosystem. NEPs will benefit from a faster time to market, investment protection, increased life cycle span, high availability, and environmental standard compliance.

By specifying common profiles for the HW, the operating system and the middleware, SCOPE expects to reduce the fragmentation of the ecosystem and to create the volumes needed to motivate ISVs to produce building

blocks & components (data bases, stacks, …) for the CGBP. SCOPE profiles will help building block vendors to obtain requirements from NEPs and to release products consistent with them.

10. How is SCOPE structured / organized?

The SCOPE Alliance was launched on January 16, 2006 and is structured as an independent program of the IEEE Industry Standards and Technology Organization (IEEE-ISTO). SCOPE's structure is formalized in its Operating Procedures.

SCOPE membership includes Sponsor, Contributor and Supporter members. SCOPE is headed by the Board of Directors.

Membership in the SCOPE Alliance is open to any Network Equipment Provider (NEP) who supports the alliance's goals.

SCOPE conducts its work within committees established by the Board of Directors.

11. What is the relationship between SCOPE & IEEE-ISTO?

SCOPE is a program within IEEE-ISTO. SCOPE is governed by its own bylaws and the guidelines of IEEE-ISTO. IEEE-ISTO also provides SCOPE with website and public relations services.

All material produced by SCOPE is the sole responsibility and property of SCOPE.

12. How does SCOPE relate to & interact with other specifications organizations?

SCOPE is not a specification body, SCOPE creates profiles or subsets of existing specifications that it believes should be used in the implementation of COTS & FOSS building blocks that are best suited for Carrier Grade Base Platforms.

Other bodies such as PICMG, SAF and Linux Foundation are composed of many companies from various industries and therefore have different objectives leading to the creation of specifications that are broad in scope with many options suited for different industries.

As a formal body SCOPE will liaise with relevant industry organizations but will not, as an organization, make contributions to other organizations. It will leverage the extensive mutual membership between SCOPE and other related organizations.

13. Who can join SCOPE?

Any company supporting our vision, mission and willing to contribute to this effort may apply for membership. Candidate members need to be approved by the Board of Directors.

14. What are the Boundaries of SCOPE's work?

SCOPE will not create any new IPR nor will it drive specific extensions into existing specifications. All standardization activities will continue to be driven independently by member companies existing engagements with other standards bodies and liaisons as they see fit. As such SCOPE will not create new intellectual property nor will it bring any member companies' intellectual property into its work.

In summary:

- SCOPE will not create any IP (Intellectual Property)
- SCOPE will not create any specifications
- SCOPE profiles will be limited to parts of the CGBP it believes are a commodity or will be in the very near future and are otherwise not areas of differentiation between companies.
- SCOPE will initially focus on “Control Plane” issues.
- SCOPE will make every effort to avoid overlap with any other OPEN industry initiatives or body.

15. If SCOPE did not exist, what would the impact be on COTS adoption in the carrier Grade Platform space?

SCOPE provides guidance to the ecosystem without which the COTS adoption of Carrier Grade Platform standards and specifications would be a slower process. SCOPE considers all relevant standards and specifications in a Carrier Grade Platform context and will identify any gap, promote and enable consistency across all relevant standards and specifications.
Due to the richness and flexibility of existing standards and specifications, the market would likely be fragmented and the advantages of economies of scale would be lost.

16. What is SCOPE’s short and long term plan to achieve its mission?

To achieve its goals, SCOPE has created reference architecture and profiles for hardware, middleware and operating system. SCOPE will periodically identify parts of existing open specifications that, in its view, need enhancement and address these parts (gaps) through its member companies’ work with specification bodies. Once profiles are complete, SCOPE publishes and promotes these profiles to encourage the industry to utilize them in their products.

17. Why is SCOPE focusing on base platform and tools only?

SCOPE is focusing strictly on areas of the CGBP that are mature and are going to be commoditized now or in the near future and therefore not an area of differentiation. SCOPE must also limit its work to parts of the base platform that are addressed by Open Interface Specifications and Free Open Source Software. Over time SCOPE may consider additional areas. In parallel, SCOPE identifies gaps and encourages open specifications in related domains.

18. Why focus on control plane initially?

SCOPE members agree on a common definition of the platform architecture for the applications within the control and service layers. The common denominators within this space for any application are: flexibility of and fast development, easy portability, high density (processing capabilities, I/O...), carrier grade features. The same exercise is not yet anticipated within the transport layer due to the prevalence of HW Intellectual Property and competition/ differentiation aspects.

19. How can SCOPE be efficient without creating new IP (Intellectual Property)**?**

As SCOPE’s mission is to profile and analyze gap in existing open spec its role is more to streamline the COTS ecosystem on given directions and to

influence other standard bodies. To be efficient SCOPE relies on individual members that are also members of other standard bodies, helping as such to create synergies.

20. Why is Virtualization included in SCOPE activities?

Virtualization is an emerging technology enabling significant improvements such as porting legacy software on new platforms technology, optimizing HW resource usage and using multi-core processors. However, there is not enough standardization effort in this area and SCOPE aims at identifying the gaps and encourages appropriate activities.

21. Why are tools, not being commoditized, included in SCOPE?

Tools are essential to enable a living COTS marketplace of interchangeable components. Today standards development organizations and FOSS initiatives have so far not tackled this issue adequately with respect to the needs for CGBP. SCOPE will consider and promote all initiatives that aim at creating open specifications or standards in this direction.

22. Are Base Stations excluded from SCOPE focus?

SCOPE does not exclude Base Stations although the primary focus is put on control servers**.** Some part of the related technology may be applicable to base stations.

23. Is SCOPE's goal to lead to shorter development cycles or lower costs?

SCOPE output will likely influence both of these parameters, but the first purpose of SCOPE is to reduce the efforts NEPs put in non-differentiating technology to enable NEPs to focus the effort into the applications.

24. Will SCOPE intent to reduce the integration effort?

NEPs are already using integrated systems from OEMs in some products. SCOPE founding members anticipate that SCOPE profiles will simplify the integration effort and increase the possibility to use more COTS/FOSS components.

25. How could SCOPE address requirements when there are no related open specifications or even no related industry standard?

SCOPE will publish gap analysis to the existing standard bodies, and if the topic does not fit any existing one it would be published to the industry only in order to influence vendors and possibly trigger creation of new open specifications or FOSS.

26. NEPs traditionally do have their proprietary middleware, are they prepared to apply open specifications?

The founding companies believe that over time there will be a shift from today's proprietary system to systems based on open specifications and COTS building blocks. Each company will choose when and how to make this transition.