

SP-120665



## Setting the priorities for 3GPP Release 12



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# Overview on areas of interest

## Services and Business Opportunities

- Proximity Services
- DASH
- MachineTypeCommunication
- Single Sign On
- Study on Application Based Charging
- UP Congestion Mgmt

## Operational Excellence

- OSS Interface Harmonization
- SON
- Security Assurance
- High Efficient Video Coding
- Enhanced Voice Services over LTE
- Core Network Overload Solutions

Release 12

## Convergent Networks

- Policy and Charging Control for supporting fixed broadband access networks (P4C)
- IMS Network-Independent Public User Identities (INIPUI)
- IMS Business Trunking



# Services and Business Opportunities

(1/2)

## Proximity Services

- substantial future revenue driver for mobile operators
  - connect people with the same interest in close proximity
  - fills the emotional gap between anonymous use of the internet and direct contacts in reality

## Dynamic Adaptive Streaming over HTTP

- Optimized audio/video streaming adapts to different access network conditions and provides an optimized quality for different user equipments
- Standardization of HTTP streaming services is key for interoperability

## Machine Type Communication

- M2M enables innovative solutions for process optimization, machine monitoring and efficient resource deployment.
- Standardization is a key enabler to remove the technical barriers and ensure interoperable M2M services and networks.



# Services and Business Opportunities

(2/2)

## Single Sign On

- essential for operators to leverage their assets and their customers' trust while introducing new identity services
- will allow operators to become identity providers by providing user authentication based on operator-controlled credentials and policies

## Application Based Charging

- With traditional revenue streams under pressure and new patterns of usage (e.g. Smart phones) business models will need to adapt
- Application Based Charging is needed to enable different business models for IP-centric services

## UP Congestion Mgmt

- The increase in user traffic outpaces the growth in capacity, resulting in increased network congestion and degraded user service experience; this trend of rapidly increasing data traffic is expected to continue and accelerate
- objective: define the architectural requirements in order to scope/guide the work on user plane congestion mitigation



# Convergent Networks

## PCControl for fixed broadband networks (P4C)

- Support for Broad Band Forum Accesses, Interworking and Core Network Impacts. Further convergence, of policy and charging control for operators providing both 3GPP and BBF access.
- Converged policy and charging control for the scenarios with traffic routed to EPC and offloaded from the BBF access network for operators providing both 3GPP and BBF accesses.

## IMS Network-Independent Public User Identities

- Important feature to support key accounts / multinational companies
  - enables use of common addresses for non operator hosted services and IMS

## IMS Business Trunking

- As a part of Common IMS requirements, fixed broadband business communication requires the IMS to be able to connect with Next Generation Corporate Networks (NGCN), also known as IP-PBXs.
- Integration of IP-PBX implementations where IMS registration procedures are not used to connect with the IMS (static mode of operation, e.g. MS Lync) avoids competitive advantages of Non-IMS operators.



# Operational Excellence

(1/2)

## OSS Interface Harmonization

- Development of standardized interfaces for resource & service management functions
- Harmonization of management interface specifications for fixed and mobile networks in TM Forum and 3GPP SA5
- Implementation of operator requirements for management of converged networks from NGMN

## SON

- SON is key to improve quality and operational efficiency by autonomous network configuration and optimization functionality
- focus on configuration management, alarms, performance measurements, trace at eNB, SW management, inventory and Open Northbound Interface

## Security Assurance

- one global guideline for ICT product security instead of country-specific certifications
- certified infrastructure products allow faster time-to-market by providing higher security off-the-shelf, thus avoiding several correction and retest cycles



# Operational Excellence

(2/2)

## High efficient Video Coding

- The new H.265/HEVC can achieve similar subjective quality with an average rate of reduction of 58% compared to H.264/AVC encoder.
- The performance of HEVC for 3GPP services, namely PSS, DASH, MTSI, MMS, and MBMS will be evaluated with objective to extend the specifications accordingly.

## Enhanced Voice Services over LTE

- Full range codec providing super-wideband speech and audio quality for VoIP services.
- HD-Voice related extensions of terminal requirements and testing specifications.
- Extension of MTSI specification towards new codec and networks requirements.

## Core Network Overload Solutions

- Identify and document the possible scenarios that have high possibility for occurrence in the 3GPP network, which may result in overload for core network entities.
- Analyse the criticality of the scenarios and study ways to mitigate overload scenarios that are identified to be critical.



# Work items management in TSG SA

## (The symptoms)

### The situation today

- Work items are proposed by the working groups and only formally approved in TSG SA.
- Semi-regular prioritization exercises take place often:
  - Close to the end of the release
  - After Stage 1 has been finalized
  - Unstructured approach
- Several discussions took place in the past on managing the work items approval e.g.:
  - Increase the required number of supporting companies
  - Include at least an operator among the supporting companies

### ... and its consequences

- Lack of understanding of how a work item fits in the overall contents of the release
- Difficulty of understanding the interaction between work items and whether functionality is duplicated
- Working group goals take precedence over 3GPP goals
- Inconsistency in release contents
- Time-based releases rather than feature-based releases



# Work items management in TSG SA (the cure)

## TSG SA to take true ownership of work items approval

- In a similar fashion to the modus operandi of TSG RAN work items are proposed at TSG SA plenary
- TSG SA evaluates how the work item fits:
  - Release indicative timeline (spare capacity)
  - Release scope
  - Impact on the three stages
  - Other existing features
- Working groups may be tasked to generate detailed objectives at their next meeting
- Work item approval is as much a political decision as it is a technical decision

## ... and the benefits

1. Synchronization and harmonization of Stage 1, Stage 2 and Stage 3
2. Prioritization comes automatically
3. Leverage the availability of the heads of delegation
4. Leverage the presence of the working group officials
5. Avoid the TIMTOWTDI(\*) syndrome

(\*) Pronounced "Tim today" TIMTOWTDI stands for there is more than one way to do it





Thank you for your attention!

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