



INTITULE DU STAGE : 5G RAN Slicing

TUTEUR DE STAGE

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Numéro d'imputation du stagiaire	895 135

DESCRIPTION DU STAGE

Durée / Dates souhaitées	6 mois / Février 2019
Lieu du Stage	<input type="text" value="Gennevilliers"/>
Famille professionnelle	<input type="text" value="06-Logiciel"/>
Présentation du service / Contexte	The Advanced Information Technologies (TAI) laboratory at THALES is involved in cutting-edge IT projects aiming at the specification, design and integration of security and computer network infrastructures. THALES personnel has experts in several scientific fields: networking, especially for fixed and mobile IP network design, security architecture and information system. TAI is in charge of transferring technological building blocks to Thales' business lines
Contenu (principales missions)	<p>The slicing concept is one of the major breakthroughs introduced by the coming 5G standards that will deeply impact future communication paradigms. Indeed, ensuring isolation between different types of traffic and their respective requirements in terms of throughput, delays and loss ratio has become feasible in the core and the edge of the network with the latest network virtualization trends. However, extending these defined slices to the radio segment is still considered as a challenge. How to create virtually separated resources over a dynamically changing wireless link remains largely unsolved.</p> <p>During this internship, the candidate, after a thorough state of art review, will have to propose and implement appropriate radio resource management and scheduling algorithms capable to offer the required quality of services to the slices on the radio segment. To do so, the solution should be compliant to the proposed 5G RAN architectures, controller and APIs.</p> <p>The obtained solution will be validated on a local 5G prototyping platform.</p>

PROFIL RECHERCHE

Formation souhaitée Ecoles ciblées	Ecole d'ingénieur ▼ Bac+5 ▼
Stage de fin d'études	<input checked="" type="checkbox"/> OUI <input type="checkbox"/> NON
Compétences humaines et techniques : Outils, Langues, Logiciels ...	<ul style="list-style-type: none">- Mobile, core and Edge network architecture (4G) and evolutions- Wireless and resource management algorithms- srsLTE, 5G-EmPOWER, USRP SDR platform- Programming skills ; C++, Python,