

## Implementation plan Finished

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|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Study unit</b>                                             | Internet Infrastructure and Security (R0385), 5.0                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Implementation</b>                                         | CCA1721: 2/2017-2018 (15.01.2018 - 26.02.2018)                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Type</b>                                                   | INFORMATION INFRASTRUCTURE AND SECURITY (A845)                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Groups</b>                                                 | Primary: CCA17SY Others :                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Involved in the project</b>                                |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Lecturers</b>                                              |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Number of participants</b>                                 | <b>Minimum: Maximum:</b>                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Enrolment period</b>                                       | 27.11.2017 08:00 - 08.12.2017                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Main timing for implementation</b>                         | As intensive week(s)                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Applicability</b>                                          | <b>For exchange students:</b> Yes <b>For elective studies:</b> Yes <b>Open UAS student:</b> No <b>Suitable for virtual UAS:</b> Yes                                                                                                                                                                                                                                                                                     |
| <b>Teachers</b>                                               | Koponen Seppo (Teacher in charge), Salmenkylä Riku (Other teacher)                                                                                                                                                                                                                                                                                                                                                      |
| <b>Campus</b>                                                 | Laurea Leppävaara                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Main location for implementation</b>                       | Virtually                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Implementation method</b>                                  | Optima realization/student group, Web/virtual <b>Language:</b> English <b>Virtuality:</b> 3 cr <b>Integration of R&amp;D:</b> 0 cr                                                                                                                                                                                                                                                                                      |
| <b>Implementation class</b>                                   | LbD supporting knowledge and skills development                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Focus areas</b>                                            | Security, safety and social responsibility                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Evaluation at the latest</b>                               | 26.03.2018 <b>Storing of graded material ends.:</b> 15.06.2019                                                                                                                                                                                                                                                                                                                                                          |
| <b>Exam days</b>                                              |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Having completed the study unit the student is able to</b> | <p>The student is able to</p> <ul style="list-style-type: none"> <li>• describe the operations and protocols in global IP networks</li> <li>• calculate IP subnets and supernets</li> <li>• describe security vulnerabilities in IP network infrastructure</li> <li>• compare and contrast IPv6 to IPv4</li> <li>• describe the functional concepts and security risks in wireless networking</li> </ul>                |
| <b>Previous studies</b>                                       |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Previous studies, more information</b>                     | Students should be familiar with TCP/IP networking and protocols, Ethernet LANs and their operation and basics of IT security: Study units R0240 (or R0277) and R0242 (or R0280) (or A9149 or A9290 pre-2017) provide suitable background. NOTE: This study unit was previously available as "A9186 Networking Infrastructure". Those who completed this at the time cannot be approved to this current implementation. |
| <b>Learning objectives</b>                                    |                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Contents</b>                                               | The study unit is built around weekly assignments in Optima environment. There will also be weekly meetings at campus where the weeks learning will be discussed and presented.                                                                                                                                                                                                                                         |
| <b>Study material</b>                                         | CCENT/CCNA ICND1 Official Exam Certification Guide. 2nd ed.<br>ciscopress.comCCNA ICND2 Official Exam Certification Guide. 2nd ed.<br>ciscopress.comOther material announced at 1st. lecture                                                                                                                                                                                                                            |
| <b>Evaluation criteria and methods</b>                        | The evaluation is based on the weekly assignments at Optima, presentations and work at weekly meetings at campus and a final exam.                                                                                                                                                                                                                                                                                      |
| <b>Other arrangements</b>                                     |                                                                                                                                                                                                                                                                                                                                                                                                                         |