

Memorandum of Understanding

between

**Cisco International Limited (Cisco),
9-11 New Square, Bedfont Lakes, Feltham, Middlesex, TW 14 8HA, United Kingdom,**

and

**Free and Hanseatic City of Hamburg (FHH),
represented by the Authority for Business, Transport and Innovation (BWVI),
Alter Steinweg 4, 20459 Hamburg, Germany,**

hereinafter referred to as the "Parties".

§ 1 Object of this Memorandum

Cisco is a leading company in the area of electronic data processing. Under the name "Smart+Connected Communities (S+CC)", it has developed concepts intended to improve the control of typical urban flows (e.g. transport) through the use of integrated electronic data processing. Cisco would like to give FHH the opportunity to become familiar with and test different approaches in the S+CC concept without obligation in pilot projects.

§ 2 Pilot projects

(1) The intention is to explore pilot projects further in the following areas

- Transport and services for residents (Smart City)
- Port (Smart Port)
- Hafen City/Port City.

A list of the possible pilot projects in these areas can be found in the enclosed **Annex A**.

(2) A "pilot project" is defined as the initial deployment of a system in sub-areas of the possible ranges of application to test out its feasibility in a practical way.

(3) it is the Parties' intention to set up a common working group to plan and manage the implementation of these pilot projects.

(4) Other partners, including local ones, are to be involved in the implementation of these pilot projects (Eco-system). Generally speaking, non-proprietary interfaces are used, meaning that, in principle, it is possible to transfer [the work] to other geographical regions. It is also possible to use different components to those provided by the original partners in the eco-system.

(5) In any case, the legal admissibility of the pilot projects is a precondition for their implementation. Legal admissibility is not given if there are any legal regulations in opposition to it. Legal admissibility is given where agreements already exist with other companies in the

FHH, which, based on an assessment made by FHH, are in opposition to it. Irrespective of the above, a pilot project will only be carried out if both Parties are in agreement with it.

(6) Governance issues (including data security, data protection, standardization) are taken into account during the design and implementation of all pilot projects, as they are of significant importance for the sustainable success of each S+CC solution.

§ 3 Tasks of the Parties

(1) The FHH shall nominate a contact person who is responsible for drawing up a basic policy, for the connection between Cisco and the Hamburg persons/companies concerned, and for implementing the measures based on this memorandum.

Cisco and FHH shall nominate the persons in the enclosed Annex B as persons with primary responsibility for the activities described in this memorandum.

If it is necessary or advantageous to use the FHH network for the pilot projects; the tax authorities are available as a contact partner for quick verification. The most important criterion during this verification is the integrity of the network and the data.

(2) Based on its S+CC concept, Cisco is prepared to support the FHH with the development of its digital agenda.

Cisco is prepared to stage and manage several workshops with relevant stakeholders to initiate the individual pilot projects and to follow their progress.

Cisco is prepared to support the FHH with involving other partners, including local ones (Eco system).

Cisco is prepared to help with the evaluation for supporting potential start-ups from the FHH as a part of its overall innovation fund program.

(3) Both parties have an interest in exploring the prerequisites and the benefits of using network-based electronic data processing, also over and beyond the pilot projects mentioned. This can take place for instance as part of cooperative ventures between Cisco and junior/high schools, vocational schools and FHH colleges in the field of education and research or by incorporating the content of the MIT Media Lab with the FHH, to become its European "Living Lab City" partner.

§ 4 Next Steps

A workshop is scheduled for the end of May 2014 which will cover the pilot projects and cooperative ventures. This step shall clarify the technical possibilities, constraints and potential impediments and compare them with the potential utility for city and residents. On this basis, local partners should then be found for promising pilot projects and cooperative ventures and the information and communication network technology architecture shall arise. At the end of June 2014, it should then be decided whether and if so, which pilot projects are

to be implemented. To implement the pilot projects and cooperative ventures, mandatory agreements may need to be made between the persons involved.

§ 5 Legal status of this memorandum, coming into effect, and termination

(1) This memorandum notes down the current thoughts of the parties concerning the additional steps to take. The parties are not obliged to enter into contracts based on this memorandum.

(2) With the exception of §§ 5, 6 and § 7, the provisions of this memorandum are not binding for any party and shall not constitute any rights or obligations for any party. Each party is entitled to terminate the memorandum at any time without specifying any reasons without any liability vis-a-vis the other party in any form.

(3) With the implementation of this memorandum, the parties are acting at their own risk and cost. No party may demand recompense or a reimbursement of expenses on this basis.

(4) Cooperation with other partners with identical or different objectives is not prohibited by this memorandum for either of the Parties.

(6) This memorandum shall come into force as of the date of the last signature and shall remain in effect for four (4) years. It can then be extended by mutual agreement.

(7) Each party is entitled to terminate this memorandum at any time for whatever reason with a notice period of thirty (30) days by sending written notification to the other party.

(5) For none of these parties does this memorandum constitute a promise for future contractual agreements, revenues, sales opportunities, profits or similar arising from this memorandum or in association with the subject of this memorandum.

§ 6 Confidential information

(1) The parties agree to treat information identified as confidential as confidential also beyond the end of their period of cooperation, provided that the legal conditions applicable to them allows them to do so. The FHH emphasizes that, in particular, they are subject to the legal publication and information obligations under the Hamburg Transparency Act dated 06/19/12 (HmbGVBl. 2012, page 271) which cannot be waived contractually.

(2) The parties may use the knowledge gained from the pilot projects beyond the completion of their period of cooperation (e. g. for invitations to tender), providing that they do not infringe in particular, upon operating- and business secrets requiring protection.

(3) If more detailed regulations are required when implementing the individual pilot projects concerning use permissions and confidentiality, these should be made separately. When implementing pilot projects, special agreements on confidentiality and usage rights may also be necessary when legal entities not involved in this memorandum, e.g. such as the HPA, HHAG or HCH, are involved in the planning and realization.

(4) Upon concluding the period of cooperation, any documents and materials which have been handed over must be returned.

§ 7 General provisions

(1) All marketing- and advertising measures in association with this memorandum require mutual written declaration by the parties prior to distribution or publication. No party is to be barred from undertaking their normal marketing efforts in association with their standard products and services.

(2) This memorandum and all actions in association with it are subject to German law. The agreed court of jurisdiction is Hamburg.

Hamburg, 04/30/14

Free and Hanseatic City of Hamburg

Cisco International Ltd.

Legally-valid signature

Legally-valid signature

Name in block capitals

Name in block capitals

Title:

Title:

Date

Date

Wim Elfrink
Executive Vice President
Cisco International Ltd.

Annex A

Potential pilot projects

1. Transport and resident services

a. Smart street-lighting

Prototypes are used in an area determined LSBG to examine to what extent existing lighting can be enhanced with "smart" system installation and what additional benefit this would entail. In general, "smart solutions" can be achieved when control capabilities and communication capabilities can be achieved at the same time. The additional benefit can arise from the combination of these two basic artifacts

b. Smart control of light signal systems

Examines the possibility of providing additional communication units at a light signal system (LSA) selected by LSBG in order to provide internal data from LSA on-site. The evaluation must cover which data can be used and how. A possible user group could be physically disabled persons whose mobility could be aided through additional information.

In addition, a variant deviating from the conventional construction method is analyzed which could enable a value-for-money structure of the existing network for traffic control. In particular, this should be considered in a peripheral area where conventional construction is very cost-intensive.

c. Smart recording and control of transport flows

An ICT solution which creates thermal maps with which the flow of persons and traffic around traffic lights is recorded. A recording and modeling of transport flows beyond the bare topic of traffic counts and the responsibility of the Office for Roads and Road Traffic could be useful for transport planning. Applications in this regard would need to be checked with the Hamburg Data Protection Officer from a data protection perspective.

d. Smart residents' service

A place for protected electronic communication with customer service centers for public services in a specific region determined by the FHH. This solution would improve accessibility to the FHH residents' service.

2. Port

a. Smart parking control for trucks and loaders

An intelligent solution for parking semitrailers in an area provided by the HFA. The purpose of this solution is to improve the traffic and parking situation involving semitrailers.

b. Integrated control of traffic flows and infrastructure management

An integrated traffic and infrastructure management solution in an area already defined by the HPA. The overarching objective is the input and use of real-time road traffic information to prevent traffic jams and identify potential faults.

c. Smart control of street-lighting

A solution for smart street lights in an area defined by the HPA. This solution would enable greater control of lamp posts and simplify maintenance.

d. Smart input and handling of emissions data

A smart solution for environmental control (noise/temperature/air humidity/air/contamination). This solution would supply valuable data to improve analysis applications and predictions.

3. "Hafencity"/Port City

a. Solution for an integrated e-mobility concept

Integrated e-mobility solution. Based on a stationary car-sharing solution which it is planned will belong to a specific district within the "Hafencity" (Port City). The main idea is to reduce and optimize traffic in and around the "HafenCity" by offering various e-mobility possibilities such as e.g. cars/electric cars, vehicles, electric cycles to individual households in all buildings in the selected districts to offer a concept of integrated mobility.-

b. Smart Building Solution

A smart building solution in a designated office building or multi-purpose building in the "HafenCity". This solution uses the power of smart networks, reduces CO2 footprint, provides large-scale and integrated system information, generates timely, integrated system information, creates a safe, healthy and productive environment, improves the productivity of office workers and the rental state of commercial and retail buildings.

c. Sustainability pavilion

In addition to the potential ICT pilot projects in the "HafenCity", the idea was also discussed of presenting the possibility of demonstrating specific S+CC solutions and targeted optimal implementations of the solution for integrated mobility in the HafenCity sustainability pavilion.

Annex B

Responsible persons and contact persons

For the partners, the following persons are named to track the implementation of this agreement and the targets named therein.

ROLE	CISCO	FHH	Task
Executive Sponsor	Wim Elfrink	Frank Horch	Strategic and political securing of the objectives agreed in the MoU within its own organization and between the FHH and Cisco.
Co-Executive Sponsor	Amr Salem	Dr. Bernd Egert	<ul style="list-style-type: none">- Set, in their area of responsibility, the basic course.- Solve overarching conflicts.- Accept (partial-) results.
Smart City Engagement Management	Markus Wissmann	Dr. Alexandra Schubert	<ul style="list-style-type: none">- Communication and control of commonly agreed objectives of this MoU, between the individual projects, between this and the steering group and between the FHH and Cisco as a partner of the MoU.- Ensures reciprocal coordination (on the FHH side and between FHH and Cisco).- Reporting to the members of the steering group and obtaining decisions there if required.

In addition, the following responsibilities are named on the Cisco side:

Smart City Architect	Laurent Andriantsiferana	Support in the network architecture area and related questions.
System Engineer	Joachim Baumann	Local contact person for network technology

The following additional contact persons are nominated on the FHH side:

Pilot project	Institution	Project Head	Contact person, Technology
1a to b	Agency of Roads, Bridges and Water	Gèrard Rose	Torsten Schaft
1c	Authority for Business, Transport and Innovation, Office for Roads and Road Traffic	Robin Hinz	
	Agency of Roads, Bridges and Water	Gèrard Rose	Torsten Schaft
1d	Local Government Office of Wandsbek	Christian Kower (W/ D 2)	
	Tax Office		Jörn Riedel
2	Hamburg Port Authority (HPA)	Dr. Sebastian Saxe, Lutz Birke	Ulrich Baldauf
3	HafenCity Hamburg GmbH	Hape Schneider	