APEX STANDARDS

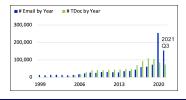
ETSI Listserv / 3GPP Email Reflector & TDoc Tracking System

ach 3GPP meeting is jammed with action items; many more happen in between meetings. A corporation must plan for the contribution of TDocs prior to a meeting. This process entails iterating with colleagues in Research and Development (R&D) to determine the best solution or recommendable strategy to satisfy a technical requirement. This entails consulting with product or manufacturing colleagues to determine the time and cost effectiveness of the solution. This also entails consulting with colleagues in the Intellectual Property Rights (IPR) department to determine whether the company's licensing position changes in the event that patentable subject matter is identified, or, even better, if the company owns relevant patents that have the potential to become essential to a new standard. During a meeting, a company's delegates must present their TDocs and defend their positions. After a meeting, a company summarizes the previous meeting week and brainstorms about follow-up and new action items for the next one. The same cycle repeats itself for between ten to twelve times every year.

A substantial chunk of time is spent developing arguments and supporting materials that can be used to persuade the other companies at the next meeting. Strategically, but cautiously, a company surfaces its interest in advance to garner community attention, identify other companies who may potentially share a similar position in order to collaborate (and co-source) on a TDoc, and to assist it in anticipating possible objections that may better be addressed prior to 3GPP formally considering the idea in a written-up TDoc. Before a delegate travels around the globe, email reflectors act as a medium for organizations to communicate differences and address less critical yet not-too-controversial issues offline. This provides the company with advance leverage when a topic takes shape. Another scenario is that when agenda items or issues remain unresolved at the end of the meeting week, organizations turn to the email reflector, which provides more time to thrash out a solution that may finally appear acceptable to all parties.

E Meeting: the Combined Experience of being Offline and Online

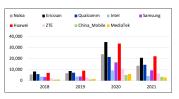
The role of email reflectors expanded dramatically after Electronic Meetings (E Meeting) replaced Face-to-Face (F2F) meetings as a result of the global pandemic (Covid-19) that rendered any travel dangerous. The E Meetings have been held since Feb 2020, when Balázs Bertényi, then-3GPP RAN Chairman, announced the changeover. F2F remains elusive amid Covid-19 at the time of this writing.



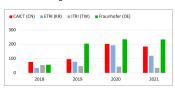
Extensive Documentation beyond TDoc for the First Time

Email reflectors were used to communicate less technical and less sensitive differences. or as formality or endorsement in a paper trail when a feature's standardization was nearing completion; they were not intended to convey serious thoughts or outstanding issues. Unprecedented, 3GPP had to pivot, by moving all discussions to email exchanges, which otherwise took place in gigantic convention centers (or an isolated, casino desert town) with thousands of delegates congregating and debating. On the positive side, however, the email threads document negotiation details, reasoning, and logical thinking behind written-up TDocs, therefore providing evidence to trace back how discussions were navigated and how decisions were made when necessary. To see the whole picture, Apex Standards researchers investigate the ETSI Listsery database (1999-Sep 30, 2021), which holds 3GPP email reflectors. Our analysis follows.

The total number of emails in 2020 quadrupled that of 2019, considerably exceeding any year's TDocs count. In 2021, the figure is lower, but by year's end, we expect a comparable number of email counts to that of 2020. Put into perspective, RAN 1 alone witnessed 9,564 emails for R1-106-e in Aug 2021. On average, a RAN 1 delegate reviews 308 emails every day, or 13 emails per hour. If the delegate is assigned to follow multiple WGs, that number grows.



Ericsson, Huawei, Nokia, Qualcomm, and Samsung sent in the most emails, followed by ZTE, China Mobile, and MediaTek, all of whom are long-time 3GPP veterans.



Compared within national research institutes, Germany's Fraunhofer leads the pack, followed by China's CAICT, South Korea's ETRI, and Taiwan's ITRI.

5G & 6G: New Opportunities and New Challenges Demand New Vertical Discussions

Between 2018 and 2021, a total of 117 new entities join email discussions for the first time, with the U.S. accounting for 25%, China 15%, Germany 9%, France 8%, and Japan 4%. By industry, Satellite/NTN accounts for 16%, Security 15%, followed by Multimedia, IoT, Mission Critical, and Automotives. They symbolize the dissemination of companies' efforts to have new opinions heard beside a TDoc submission, as well as, a new route for serious exchanges that extend beyond water testing.

Description	Nation	Entity	Vertical	TSG/WG
Canada Canada National Service 10	China	New Email Discussants in 2018 (sorted by # of emails) Unisoc Technologies Co., Ltd (formerly Spreadtrum, 紫光展锐科技有限公司)	Semiconductor	
## 1985	Canada	Omesh Networks Inc.	R&D	RP, R2, R3, S1
Seam Serman Serman submemous in between treated and process Serman Serma	1141100			
Personal			Multimedia	RP, R4
Page				
Paper Pa		Pathfinder Wireless Corp.	Comm. Equipment	
19.5 Hagben Nation Speak (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1968) (1969				RP, S1, S2
19.				
19.5 19.1 Part Print				RP, R4
March Ma				
No.				
Sea Common 19 19 19 19 19 19 19 1		Novamint Ltd		R1, S1
Part				
Bedgum				
Change				
Totaley				
Common		Aselsan A.Ş.	Satellite	R2
No. Availa Communication Group to Expose Souther 유민주 Per Arraco Control February Supraise (PES National Control to Space Souther 유민주 Per Arraco Per Arracoo Per A				
Seale Contech February Seale				
Fance				
Japan	France	Eutelsat Société Anonyme	Satellite	RP
19.				
Resell (PASM IL (PA'S) 1037-2071)	U.S.	Perspecta Labs Inc.	Defense Comm.	S1
New Email Discussate in a 2019 (wind style of emails)		RunEL NGMT Ltd. (רנאל נגמט בע"מ)		
Fahrware Hein Ha Precessor Including Co. List (原来) 研究		New Email Discussants in 2019 (sorted by # of emails)		
U.S. Loon LLC (Bubbadoury of Aphabet Inc.) (Coopee) India Sanahyan Labs Princed India Sanahyan Labs Princed U.S. Sanahyan Labs Corporation U.S. Manyan Technology Corporation of U.S. Sanahyan U.S. Sanahyan Labs Corporation U.S. Manyan Technology Corporation U.S. Manyan T		Hon Hai Precision Industry Co., Ltd. (鴻海精密工業股份有限公司)		
Spent CLAP ACLANK (Mr. (性性を含ませら CAP ACLANK)	U.S.	Loon LLC (subsidiary of Alphabet Inc. / Google)	High Altitude Platform (HAPS)	RP
US Social for Social				
Netherlands Digital Forenses Orderzeek (PiCP) Netherlands Minasterie van Justite (Dutch Minasty of Justice) Statistie RP, SP P China Asaletia Corporation (PiCP) Netherlands (PiCP) (P	U.S.	Swift Navigation Inc.	Precise Positioning	RP, R2
Security				
Japan Raisum Group, Inc. (後天ゲルー子株主会社) Security S7 China Chan Grandoutsiny Newfor Co. 11d (中国では日本教育を発生の) Broadcasting New Pr. M. Sweden ENEA Assistation Security C4 Automative SA Satisfies Text S	U.S.	Intelsat Corporation	Satellite	RP, SP
Remain Chana Groundstarty Network Co. Ltd. (中田子 神神 社会の可)				
Cermany Damiller Absongs-selectaria Automotive SA Automotive SA Rep Spain Selection Services S1 (Sababul) Statistic SP RN Spain Selection Services S1 (Sababul) Statistic SP RN Saudi Arabia San Sauditer Proceedings 144 (日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本日本	China	China Broadcasting Network Co. Ltd. (中国广播网络有限公司)	Broadcasting	RP, R4
China One-Plus Technology Co. Ltd (京野性子が世紀の日本) Statistic of Tomes Stand Arabia Comman Assa Statistic Falecommunications Hodings Ltd (京田神田大学 (京田神田大学 (京田神田大学) Statistic of Tomes Assa Statistic Falecommunications Hodings Ltd (京田神田大学) Regulatory Rd China Assa Statistic Falecommunications Hodings Ltd (京田神田大学) Regulatory Rd China Assa Statistic Falecommunications Hodings Ltd (京田神田大学) Regulatory Rd China Assa Statistic Falecommunications Hodings Ltd (京田神田大学) Regulatory Rd China Chi				
Satellie RP SASIAM Arabia Comm. 8 Information Technology Commensor (CTC ジェルンドンター Regulatory R4 U.S. Tococ Corporation Comm. 8 Information Technology Commensor (CTC ジェルンドンター Regulatory R4 U.S. Tococ Corporation Comm. 4 Information Technology Commensor (CTC ジェルンドンター Regulatory R5 Satellie RP Info Report	China	OnePlus Technology Co., Ltd. (深圳市万普拉斯科技有限公司)	UE	RP, R4
Saudi Aababa Comm & Information Technology Commension (CITC ユーカルー 4年)、アルフィンス (Page 1971)				
Germany Deutsches Zentrum für Luß- und Raumfahrt (DLR, German Aerospace Center)	Saudi Arabia	(هيئة الاتصالات ونقلية المعلومات, Comm. & Information Technology Commission (CITC)	Regulatory	R4
Inco Networks Ltd. (アンロ のアロンロンの)				
India	Israel	Inno Networks Ltd. (אינו נטוורקס בע"מ)	IoT	C1
France Union internationale des chemins de fer (IUC. International Union of Rañeways)				
U.S. Martors Schware. Inc. Germany Martors Schware. Inc. Germany Control SST Albacepaseslectant (ここれを Schware. Inc. Germany Control SST Albacepaseslectant (ここれを Schware. Inc. China Goniph Data Networks Technology Co. Ltd (高神珠形が持続大発分析限公司) infrastructure RT China Goniph Data Networks Technology Co. Ltd (高神珠形が持続大発分析限公司) infrastructure RT China Goniph Data Networks Technology Co. Ltd (三神移張珊僧技术限分析限公司) infrastructure St. China China China State	France	Union internationale des chemins de fer (UIC, International Union of Railways)	Railway	S1
U.S. Marion Soltware, loc. Germany Marion Soltware, loc. China Guniph Data Nebros Set Tarking pessells chaft China Guniph Data Nebros Set Technology Co. Ltd (に調達が開州合統・大阪分育研会) Infrastructure R1 China Quarted Wireless Solutions Co., Ltd (上海様ち返帰行社・大阪分育研会) Infrastructure R1 China Guniph Data Nebros Technology (平湖北子村社阪分育研会) Infrastructure S2 U.S. MITRE Corporation Search Systems Ptv Search Search State Sta				
Germany		New Fmail Discussants in 2020 (sorted by # of emails)		
China Ounced Wreless Solutions Co., Lid. (上頭移蓝细胞技术服分有限公司) loT R. R. R. Z. Australia Australia Ounced Wreless Solutions Co., Lid. (上頭移蓝细胞分析形型) Security S. 3 U.S. MITRE Corporation Security S. 3 China Show/hen Vispractice Technology (采加张行科技服分有限公司) inhashructure S. 5 France A. TEME S. A. Multireedia R. P. S. 4 Germany Polluce Niceders auchsen (Police of Lower Saxony) Security S. 3 U.S. Sacabook inc. Multireedia R. P. S. 4 Security S. 3 New Zealand W. F. Certification O. Multireedia R. P. R. 4 New Zealand United (Telecom New Zealand) Operator R. P. R. 4 U.S. Visprace (Police Services Norway) Security S. 3 New Zealand Limited (Telecom New Zealand) Operator R. P. R. 4 U.S. Visprace (Police Services Norway) Security S. 3 New Zealand Limited (Telecom New Zealand) Operator R. P. R. 4 Trance Brazel V. B. Telecom Par & Telecomunicators Lida (VB Telecom) Operator R. P. S. 5 France Brazel V. B. Telecom Par & Telecomunicators Lida (VB Telecom) Operator R. P. S. 5 France Commany Probus Communication Technology Lid. (上海別科治信技术利理公司) IoT R. R. 5 Germany Probus CombH Communication Technology Lid. (上海別科治信技术利理公司) IoT R. R. 5 U.S. More Electronic Solutions Healthcare to T. R. 5 U.S. More Media Li C. S. S. A. Avero Li C. S. Security S. 3 U.S. More Electronic Solutions R. R. 6 U.S. The Center for Internet Security, Inc. (CIS) Security S. 3 Lucambourg Our Technology Institute (CIS) Security S. 3 Lucambourg Our Technology Institute (CIS) Apparation R. R. B. A. Avero R. R. R. A. Avero C. S. Avero C. S. A. Avero C. S	III C		lafa-starebras	CD C4 CD C2
Australia Sofiel Systems Ply Ltd U.S. MITRE Corporation Security S3 U.S. MITRE Corporation Network Prance Communication (Prance Communication Communicatio		Matrixx Software, Inc.		CP, C1, SP, S2 C1, RP, S6
China Shonzhen Vesprachoe Technology (常到地产行科技教育) infrastructure S 5 France ATEMS A Multimedia RP SA Germany Polize Nicoles sachson (Police of Lower Saxony) Socially S 3 U.S. Facebook inc. Multimedia RP Finand Wife Cartification O P Germany Polize Nicoles Services Norway S Socially S Sachies Technology	Germany China	Matricx Software, Inc. Kontron S&T Aktiengesellschaft Gohigh Data Networks Technology Co., Ltd. (高鸿数据网络技术股份有限公司)	loT Infrastructure	C1, RP, S6 R1
France Officers of Public Nedersandson (Pictics of Lower Saxony) Security S3 (Paris Nedersandson (Pictics of Lower Saxony) Security S3 (Paris Nedersandson (Pictics of Lower Saxony) Security S3 (Paris Nedersandson Special	Germany China China	Matrixx Software, Inc. Kontron SAT Aktiengesellschaft Gohigh Diata Networks Technology Co., Ltd. (高海乾視网络技术股份有限公司) Quedell Wireless Solutions Co., Ltd. (上海移远拥宿技术股份有限公司)	IoT Infrastructure IoT	C1, RP, S6 R1 R1, R2 S3
U.S. Facebook Inc. Prinard Williams (Prinard Prinard	Germany China China Australia U.S.	Matrox Software, Inc Kontron S&T Aktiengesellschaft Gologh Data Networks Technology Co , Ltd (高河支港内哈社木股份有限公司) Queedd Wireless Solutions Co , Ltd. (上海移远端倍技术股份有限公司) Sottel Systems Pty Ltd MTRE Composition	loT Infrastructure IoT Security Security	C1, RP, S6 R1 R1, R2 S3 S3
Finland WF Certification Oy McCorsularion	Germany China China Australia U.S. China	Matrixo Software, Inc. Kontron SAT Adirguesialchaft Gohgh Data Networks Technology Co., Ltd. (高海監視网络技术股份有限公司) Guedd Wineless Solkondoo, Ltd. (上海移运通信技术股份有限公司) Solidal Systems Py Ltd MITRE Corporation Steruhen Neparator Technology (深刻坛行科技股份有限公司)	IoT Infrastructure IoT Security Security Infrastructure	C1, RP, S6 R1 R1, R2 S3 S3 S5
New Zealand United Cifectom New Zealand New Zeal	Germany China China Australia U.S. China France Germany	Matrixo Software, Inc. Kontron SST Adengoesischaft Garbagh Data Networks Technology Co., Ltd. (高海底提供所含核大混价有限公司) Ouedel Wireless Soktions Co., Ltd. (上海移远通信技术股份有限公司) Suital Systems Py Ltd. MITRE Corporation Sheruhen Wagnateo Technology (深刻压行科技股份有限公司) ATEME S.A Police Nedersearchen (Folice of Lower Saxony)	loT Infrastructure IoT Security Security Infrastructure Multimedia Security	C1, RP, S6 R1 R1, R2 S3 S3 S5 RP, S4 S3
US. Warman LLC Infrastructure R4 Brazel W To Telecom Pia e Telecomunicacoses Lida (W To Telecom) Cprestor R5 Prance Broadpeak Multimedia S2 China Shanghat Langbo Communication Technology Lid (上海門州地信技术利限公司) Io T R1 R1 US. Middle Lectionic Middle S2 Communication Technology Lid (上海門州地信技术利限公司) Io T R1 R1 US. Middle Lectionic Middle Multimedia S2 Communication China	Germany China China Australia U.S. China France Germany U.S. Finland	Matrixo Saft Matinguesischaft Garbyth Data Networks Technology Co., Ltd. (高河建港州州合設大港份分別社会司) Cuedel Wireless Soktions Co., Ltd. (上海移运通信技术股份有限公司) Sofial Systems Ply Ltd. MITRE Composition Strenden Wagnation Technology (深圳设行科技股份有限公司) ATEMIE S.A. Potice Nedersearchisen (Police of Lower Saxony) Facebook Inc. WE Certification Dy	loT Infrastructure toT Security Security Infrastructure Multimedia Security Multimedia Centification	C1, RP, S6 R1 R1, R2 S3 S3 S5 RP, S4 S3 RP
France Broadpeak Stoadpeak Stoadpe	Germany China China Australia U.S. China France Germany U.S. Finland Norway	Matrixo Software, Inc. Kontron SAT Adangueselischaft Gohigh Data Networks Technology Co., Ltd. (高海技術网络技术股份有限公司) Queedd Wireless Soldions Co., Ltd. (上海移运網信技术股份有限公司) Sotel Systems Ply Ltd MITRE Corporation Sheruchen Vispandsor Technology (深圳运行科技股份有限公司) ATEME S.A Polices Nodes sachsen (Folice of Lower Saxony) Facebook Inc. WE Certification Cy Politiest Tjennester (Police Services Norway)	loT Infrastructure loT Security Security Infrastructure Multimedia Security Multimedia Certification Security	C1, RP, S6 R1 R1, R2 S3 S3 S5 RP, S4 S3 RP R5 S3
China Shanghai Langbe Communication Technology Lift (上海門科伯在技术有限公司) 5curring Windows Manager Manager Communication Technology Communication Techn	Germany China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S.	Matrixo Software, Inc. Kontron SAT Adangueselischafl Gohigh Data Networks Technology Co., Ltd. (高海技術网络技术股份有限公司) Queed Wireless Solutions Co., Ltd. (上海移运编码技术股份有限公司) Sotel Systems Py Ltd MITRE Corporation Sheruchen Vispandaco Technology (深圳近行科技股份有限公司) ATEME S.A Polices Nedersachsen (Police of Lower Sarony) Facebook inc. WE Conflication Oy Politiest Tjenester (Police Services Norway) Spant New Zealand Limited (Telecom New Zealand) Vanna LLC	loT Infrastructure loT Security Security Infrastructure Multimedia Security Multimedia Certification Security Operator Infrastructure	C1, RP, S6 R1 R1, R2 S3 S3 S5 RP, S4 S3 RP R5 S3 RP, R4 R4
Certinary Probus Greib Certinarium FS U.S. Moke Electronic Solutions Heightane to F R2 U.S. One Media Lt.C Broadcasting RP U.K. Spectrum Insight Ltd Consultancy R4 Portugal Alters Late S A Averor Info & Consultancy R4 U.S. The Center for Internet Security, Inc. (CIS) Society Solution Society S3 Automative R1 U.S. The Center for Internet Security, Inc. (CIS) Society S3 Automative R1 R4 R4 R4 R4 R4 R4 R4	Germany China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil	Matrixo Saftware, Inc. Kontrion Saft Matingerellschaft Carbigh Data Networks Technology Co., List (高河東洋用州市社大河) Cuetal Wireless Solutions Co., List (高河東洋用州市社大河) Cuetal Wireless Solutions Co., List (上海移运通/技术股份有限公司) Solution Systems Py List MITRE Comparation Sheruhen Wasparation Technology (東州東洋科技股份有限公司) ATEME S.A Place New Services (Police of Lower Saxony) Facebook Inc. WE Certification Cy Polities Tjenester (Police Services Norway) Spark New Zealland Limited (Telecom New Zealand) Vannan LLC Via Telecom Pas is Telecomunicacoes Lidia (VB Telecom)	IoT Infrastructure IoT Security Security Infrastructure IoT Security Infrastructure Multimedia Security Multimedia Certification Security Operator Infrastructure Operator Operator Operator Infrastructure	C1, RP, S6 R1 R1, R2 S3 S3 S5 RP, S4 S3 RP R5 S3 RP, R4 R6
US Om Media LIC Broadcasting RP US On Media LIC Broadcasting RP Portugal Altec Labe, S A Averro Into & Communication P RA Portugal Altec Labe, S A Averro Into & Communication P RA Portugal Altec Labe, S A Averro Into & Communication P RA Portugal Altec Labe, S A Averro Into & Communication P RA Portugal Altec Labe, S A Averro Into & Communication P RA Portugal Altec Labe, S A Averro Into & Communication P RA Portugal Altec Labe, S A Averro Into & Communication P RA Portugal P RAD RI RAD RAD RI RAD RAD RI RA	Germany China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France China	Matrixo Saftware, Inc. Kontrion Saft Matingreelischaft Carlegh Data Networks Technology Co., Ltd. (高海技术用网合技术完分有限公司) Queted Wireless Solutions Co., Ltd. (上海移运通信技术股份有限公司) Softel Systems Ply Ltd. MITTEC Comparation MITTEC Comparation MITTEC Comparation A FEME S. A Polices Needersachsen (Police of Lower Saxony) Facebook Inc. WE Certification Cry Polities' Ejenester (Police Services Norway) Spart New Zolatal stimet (Telecom New Zealand) Vannan LLC Via Telecom Pas a Telecomunicacoes Ltda. (VB Telecom) Broadpeak Shanghau Langbo Communication Lechnology Ltd. (上海即吊箱信技术有混公司)	loT Infrastructure loT Security Security Security Infrastructure Multimedia Security Multimedia Security Operator Infrastructure Operator Unifrastructure Operator Multimedia Infrastructure Operator Multimedia Infrastructure Infrast	C1, RP, S6 R1 R1, R2 S3 S3 S5 S5 RP, S4 S3 RP R6 S3 RP, R4 R4 R4 R5 S2 R1
U.K. Spectrum Insight Ltd Consultancy R4 Portugal Aller Labs 3 A Averor into A Comm Lech (ICT) S5 U.S. The Center for Internet Security, Inc. (CIS) Security S3 Automotive R1 U.S. For M Motor Company Automotive R1 U.S. For M Motor Company Automotive R1 U.S. Port M Motor Company Automotive R1 U.S. Security S3 Automotive R1 U.S. Security Carbon Secu	Germany China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France China Germany	Matrixo Saftware, Inc. Kontrion Saft Matingreelischaft Carlegh Data Networks Technology Co., Ltd. (斯海埃港排列哈拉夫那份有限公司) Queted Wireless Solutions Co., Ltd. (土海移运通的技术服份有限公司) Solution Systems Py Ltd. MITRE Comparation Sheruhen Visparactor Technology (莱州班产科技股份有限公司) ATEME S.A. Polizes Nedersackbers (Police of Lower Saxony) Facebook Inc. WE Certification Dy Folites's Ejenester (Police Services Norway) Spart New Zolutial Leimed (Telecom New Zealand) Vannan LLC VI Telecom Pas ir Telecommunicacoes Ltdu. (VB Telecom) Broadpook Shanghai Langbo Communication Lechnology Ltd. (上海即吊塘信技术有混公司) Bundeskiminalami (BKA: Federal Chrimnal Police Office) Probus Gmith	IoT Infrastructure IoT Security Security Ions Ions Ions Ions Ions Ions Ions Ions	C1, RP, S6 R1 R1, R2 S3 S3 S5 RP, S4 S3 RP, R5 S3 RP, R4 R4 R4 R4 R5 S2 R1 R5 S3 R1 R5 S2 R1 R5 S3
Note Labs S.A. Avero U.S. The Center for Internet Security, Inc. (CIS) Socially Social	Germany China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France China Germany U.S.	Matrixo Saftware, Inc. Kontron Saft Matingresistichaft Garbayh Daia Networks Technology Co., Ltd. (高海電視例格技术股份有限公司) Oueded Wireless Soktions Co., Ltd. (上海移运通信技术股份有限公司) Sinthal Systems Py Ltd. MITRE Corporation Sheruhen Wapardeo Technology (深刻比行科技股份有限公司) ATEME S. A Police Neder Searchen (Folice of Lower Saxony) Facebook Inc. WE Certification Oy Polities' Jennester (Police Services Norway) Spark New Zealand Lamed (Telecom New Zealand) Vaman LLC Via Telecom Pai e Telecomunicacoes Ltda. (VB Telecom) Broadpeak Sharqhau Langbo Communication Technology Ltd. (上海的吊车储行技术有限公司) Bundeskriminalmalm (EAK Federal Climinal Police Office) Protus GmBH Molice Selections Solutions	IoT Infrastruture IoT Security Security Security Infrastructure Multimedia Security Infrastructure Multimedia Security Operator Multimedia IoT Security Operator Multimedia IoT Certification Security Coperator Multimedia IoT Certification Certification IoT Healthcare IoT	C1, RP, S6 R1 R1, R2 S3 S5 S5 RP, S4 S3 RP R5 S3 RP R5 S3 RP, R4 R6 R5 S2 R1 R1 R3 R1 R5 R2
U.S. Ford Motor Company (China Campany (Quant) (Quan	Germany China China China Australia U.S. China Germany U.S. France Germany U.S. Brazil France Germany Germany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Matrixo Safhwire, Inc. Kindrico Safh Matingresistichaft Garbayh Daia Networks Technology Co., Ltd. (高海電視例格技术股份有限公司) Oueded Wireless Soktions Co., Ltd. (上海移运通信技术股份有限公司) Sinthal Systems Py Ltd. MITRE Corporation Sheruben Wagnadeo Technology (深刻比丘科技股份有限公司) ATEME S. A Police Neder Searchern (Police of Lower Saxony) Facebook Inc. WE Certification Oy Polities' Jennester (Police Services Norway) Span New Zealand Lamed (Telecom New Zealand) Vaman LLC WE Technology Ltd. (以图 Telecom) Broadpeak Sharqhar Lampdo Communication Technology Ltd. (上海的品单位各类系列及公司) Broadpeak Sharqhar Lampdo Communication Technology Ltd. (上海的品单位含法产品产品) Broadpeak Sharqhar Lampdo Communication Technology Ltd. (上海的品单位各类系列及公司) Broadpeak Sharqhar Lampdo Communication Technology Ltd. (上海的品单位各类系列及公司) Bundestriminational (EAK) Federal Climinal Police Office) Protus GmbH Molice Electronic Solutions One Media, LLC	loT Infrastructure In	C1, RP, S6 R1 R1, R2 S3 S3 S5 SP, RP, S4 S3 RP, R4 R6 R7 R8
Japan Murial Munifacturing Co. List (株式会社村開製作所) Satisfies For Rt Lixembourg Co. Machine Components Rt Lixembourg Co. Machine Lixembourg Co. Machine Components Rt Machine Co. Machine Communication Rt Lixembourg Co. Machine Rt Lixembourg Co. Machine Communication Rt Lixembourg Co. Machine Rt Lixembourg Co.	Germany China China Australia U.S. China France Germany U.S. New Zealand U.S. Brazil France Germany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Matrice Software, Inc. Kontrion SST Adergoesischaft Carbigh Data Networks Technology Co., Ltd. (高海技术用内容技术用户分辨及中) Outseld Wireless Software Co., Ltd. (上海移运通信技术取份有限公司) Softel Systems Ply Ltd. MITRE Corporation Sheruhen Visposadco Technology (采用设行科技股份有限公司) ATEME SA Police Nedersearchen (Police of Lower Saxony) Facebook Inc. WE Certification Oy Polities' Ignester (Police Services Norway) Spark New Zeitaland Limited (Telecom New Zealand) Variant LLC Variant LLC Variant LLC Strategia Langbo Communication Technology Ltd. (上海即吊塘信技术有混公司) Bundesknimalamit (BKA: Federal Criminal Police Office) Probus Gmith Moles Electronic Solution One Media, LLC Spectrum Insight Ltd Altrice Lats S.A. Avero	IoT Infrashuture IoT Security Security Infrashuture Infrashuture Multimedia Security Multimedia Security Operator Infrashuture Operator Multimedia IoT Security Constanting IoT Security Constanting IoT Constanting Constanting IoT Constanting IoT Constanting IoT Constanting IoT	C1, RP, S6 R1
Luxemburg OX Technology Satellite IoT R1 Talwan Oxfer-Security Technology Institute (CSTI、高月工業重要者・高空料料研究的 Security S3 France Agence nationale de la sécurité des systèmes d'information (ANSSI, Nat Cybersecurity Agency) Security S3 UK The Critical Communication a Securitie S5 France Agence nationale de la sécurité des systèmes d'information (ANSSI, Nat Cybersecurity Agency) Security S3 Germany Verband Deutscher Machinen - und Anlagenbau (UMA, Mechanical Eng. Industry Assoc) Shandard Development SP Finand Intendogian situtiuriséeus VIT (DV (TIT Cerbinal Research Centre of Iraland)	Germany China China Australia U.S. China France Germany U.S. New Zealand U.S. Brazil France China Germany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Matrixo Software, Inc. Kontron SST Adiragoeselschaft Gohigh Data Networks Technology Co., Ltd (高海支持网络技术联份有限公司) Gueed Wineless Solidions Co., Ltd. (上海移运網信技术联份有限公司) Solid Systems Py Ltd MITRE Corporation Sheruhen Vispanston Technology (深劃総行科技股份有限公司) ATEME S.A Polize Nedersachsen (Folice of Lower Saxony) Facebook Inc. WF. Certification Oy Polizets Tjenester (Police Services Norway) Spian New Zeuland Limited (Telecom New Zeuland) Vanna LLC VB Telcom Pia e Telecomunicacoes Ltdu. (VB Telecom) Briodopeak Shanghai Langdo Communication Technology Ltd. 上海開品指行技术有限公司) Bundeskiminaling (R&K-Federal Ciminal Police Office) Profus GmbH Molex Electronic Solidions One Media, LLC Spectrum Insight Ltd Altoc Latis S.A. Avero The Center for Internet Security, Inc. (CIS) Food Molor Company	IoT Infrashuture IoT Security Security Security Infrashuture Multimedia Security Multimedia Security Operator Infrashuture Operator Multimedia IoT Security Certification Security Certification Formation IoT Security Certification IoT Security Certification Healthcare IoT Broadcasting IoT Security Security Security Security Security Security Security	C1, RP, S6 R1 R1 R1, R2 R3, R3 R5, R3 R5, R5 RP, S4 R5 RP, R6 R6 R6 R7 R6 R7 R7 R8
Takwan Cyber-Security Technology Institute (STL 海田東中・高文年社研門所) Security S3 France Agencie nationate de is adeutife des systemes dinformation (ANSSI, Nall Cybersecurity Agency) Security S3 U.K. The Critical Communications Association (TCCA) China Communications Association (TCCA) China Recommendations association (TCCA) RRD (Technology in Mainray desbus VTTD (VTT Technoical Research Centre of Friends) RRD RRD RRD RRD RRD RRD RRD RRD RRD RR	Germany China China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France Germany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Matrixo Saftware, Inc. Kontron Saft Adiragoesischaft Carbigh Dala Networks Technology Co., Ltd. (高海建港開州路長大龍台有限公司) Carbigh Dala Networks Technology Co., Ltd. (高海建港開州路長大龍台有限公司) Softed Systems Py Ltd. MITRE Comprosion Sheruchen Wagnation Technology (深圳设计科技委台有限公司) ATEMES A Pottore Nedersauchsen (Police of Lower Saxony) Facebook Inc. WE Certification Dy Politiest Spreneter (Police Services Norway) Spark New Zealand Limited (Telecom New Zealand) Varnan LLC WE Telecom Pas Telecomunicacous Ltdu (WB Telecom) Broadpeak Sharughai Langdo Communication Technology Ltd. 上海野用部借行技术有限公司) Bundeskimmatiant (BKA, Federal Ciminal Police Office) Protus Grafti Molex Electronic Solutions One Media, LLC Spectrum Insight Ltd Althoc Lats, S.A. Aveto The Center for Internet Security, Inc. (CIS) Ford Motor Company	IoT Infrastructure IoT Security Security Infrastructure Multimedia Security Unimastructure Multimedia Security Operator Infrastructure Multimedia IoT Security Coperator Multimedia IoT Security Coperator Multimedia IoT Security Constitution Constitution Floating Consultancy Infrastructure Consultancy Infrastructure Consultancy Infrastructure Consultancy Infrastructure Consultancy Infrastructure IoT Read Comm Inet (ICT) Security Automotive R&D	C1,RP,S6 R1,R2 R1,R2 S3 S3 S3 S8 S8 S8 S8 S8 S8 RP,S4 S8 RP R5 S8 RP R6 R4 R4 R4 R8 R7 R1 R8
U.K. The Critical Communications Association (TCCA) Chemical Communication (TCCA) Chemical Communication Association (TCCA) Chemical Communication (TCCA) Chemical Chemical Englindistry Assoc) Standard Development SP Finland Technologian tultimuskeskus VTT Oy (VTT Technical Research Centre of Finland) RAD RT Technologian tultimuskeskus VTT Oy (VTT Technical Research Centre of Finland) RAD RT China Chemical Chemic	Germany China China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil Germany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Matrixo Saftware, Inc. Kontron Saft Adiragnesischaft Carbigh Dala Networks Technology Co., Ltd. (高海建港排列合款 大部份 打開公司) Cachel Wreless Solutions Co., Ltd. (上海移运通信技术股份有限公司) Solved Systems Py Ltd. MITRE Comprosion Sheruchen Wapsackor Technology (深圳设计科技股份有限公司) ATEMES A Pottors Nedersachsen (Police of Lower Saxony) Facebook Inc. WF Confidencion Dy Polities' Expresser (Police Services Norway) Spark New Zealand Limited (Telecom New Zealand) Vannan LLC WF Telecom Pas Telecomunicacous Ltdu (WB Telecom) Broadpeak Sharuphat Jangbo Communication Technology Ltd. 上海野用带着行技术有限公司) Bundeskimmatiant (BKK, Federal Criminal Police Office) Protus Graff-I Molex Electronic Solutions One Media, LLC Spectrum Insight Ltd Altoc Late, S.A. Aveto The Centric for Internet Security, Inc. (CIS) Ford Motor Company Gunangding Comman and Networks Institute (GDCN), 广东省新一代通信与网络创新研究院) Murata Manufacturing Co., Ltd. (株式会社村田教育所) Out Technology Out Te	IoT Infrastructure IoT Security Security Security Infrastructure Multimedia Security Multimedia Security Cperator Infrastructure Cperator Multimedia IoT Security Committed Comm	C1,PP,SG R1,R2 R1,R2 SS3 SS5 RP,S4 SS5 RP,S4 R5 R6 R6 R6 R7 R7 R8 R8 R8 R9 R8 R9 R8 R9 R8 R9 R8 R9 R8 R9 R8 R9 R8 R9 R8 R9 R8 R9 R8 R9 R8 R9 R8 R9 R8 R8 R8 R8 R8 R8 R8 R8 R8 R8 R8 R8 R8
Finland Teknologian tulkimuskeskus VTT Oy VTT Technical Research Center of Finland) New Earnal Discussions in 2021 (portion by of emails) China Zhejmang Lah (伊江氏州之江東前堂、邢江各人民政府、邢江大学 阿里巴巴印出) U.S. Everbridge, Inc. Transson (定知]伊育社党社会分社保区之前) U.S. Johns Hopkins University Applied Physical Laboratory U.S. Department of Deniesers Anatonal Security Applied Physical Laboratory U.S. Department of Deniesers National Security Applied Physical Laboratory U.S. Department of Deniesers National Security Applied Physical Laboratory U.S. Department of Deniesers National Security Applied Physical Laboratory U.S. Security Salacian Rt Desiration Rt	Germany China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France Germany U.S. Brazil U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adingnessischaft Garbigh Daia Networks Technology Co., Ltd. (高海ҵ港州格長大銀份有限公司) Oueded Wireless Sokdions Co., Ltd. (上海移远通信技术股份有限公司) Sokrid Systems Py Ltd. MITRE Corporation ATEME S. A Police Nederachsen (Folice of Lower Saxony) Facebook Inc. WE Certification Oy Polities! Sprender (Police Senices Norway) Spark New Zouland Lemidel (Felecom New Zealand) Varnan LLC VB 1 elecom Pie a Telecomunicacoes Ltda. (VB Telecom) Broadpeak Shanghai Langbo Communication Technology Ltd. (上海即吊塘信技术有限公司) Bundeskimmaliant (EKK, Federal Criminal Police Office) Probus Gmit Molex Electrons Solidions One Media. LLC Spectrum Insight Ltd. Altice Lais. S. A. Avero The Center for Internet Security, Inc. (CIS) Ford Motor Company Charachand Communication Col. (LT, 完全) Ford Motor Company Charachand (CKK, Edderal Criminal Police Office) Probus Company Charachand Communication (EKK, Edderal Criminal Police Office) Probus Company Charachand Col. (LT, CK, Edderal Criminal Police Office) Probus Company Charachand Col. (LT, CK, Edderal Criminal Police Office) Probus Company Charachand Col. (LT, CK, Edderal Criminal Police Office) Probus Company Charachand Col. (LT, CK, Edderal Criminal Police Office) Probus Company Charachand Col. (LT, CK, Edderal Criminal Police Office) Probus Company Charachand Col. (LT, CK, Edderal Criminal Police Office) Probus Company Charachand Col. (LT, CK, Edderal Criminal Police Office) Probus Collegation Col. (LT, CK, Edderal Criminal Police Office) Probus Collegation Col. (LT, CK, Edderal Criminal Police Office) Probus Collegation Col. (LT, CK, Edderal Criminal Police Office) Probus Collegation Col. (LT, CK, Edderal Criminal Police Office) Probus Collegation Col. (LT, CK, Edderal Criminal Police Office) Probus Collegation Col. (LT, CK, Edderal Criminal Police Office) Probus Collegation Col	IoT Infrastructure IoT Security Security Security Security Infrastructure Multimedia Security Multimedia Security Multimedia Security Multimedia Certification Security Operator Infrastructure Operator Multimedia IoT Security Certification Security Certification IoT Security Infrastructure IoT Brandicasting Certification Healthcare IoT Brandicasting Certification Read Infrastructure IoT Security IoT	CI, IP, S6 RI, R2 RI, R2 S3 S3 S8 RP, S4 S3 RP, S4 R6 R6 R6 R7 R6 R7 R7 R8 R7 R8
New Email Discussants in 2021 (conted by # of emails) China Apparagl at his PTA 大学院 利子子 (中田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田	Germany China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France China Germany U.S. Brazil U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adiagnoselschaft Garbagh Delan keteroka Technology Co., Ltd. (高海電視例格表表股份有限公司) Oueded Wireless Sokidions Co., Ltd. (上海移运通俗技术股份有限公司) Sixthal Systems Py Ltd. MITRE Corporation Sheruhen Vagradeo Technology (深刻比片科技股份有限公司) ATEME S. A Police Nedersachsen (Folice of Lower Saxony) Facebook Inc. WE Certification Oy Polities! Sprenster (Police Services Norway) Sprak New Zealand Lemied (Telecom New Zealand) Varnan LLC VB Telecom Psi e Telecomunicacoes Ltda. (VB Telecom) Broadpeak Sharghat Langbo Communication Technology Ltd. (上海即吊塘信技术有限公司) Bundeskimmaliant (BKA: Federal Climinal Police Office) Profus GmBH Moles Electrons Solutions One Media. LLC Spectrum Insight Ltd Altice Lats. S. A. Avero The Center for Internet Security, Inc. (CIS) Food Moles Company Cuangdong Comm. and Networks Institute (GDCN). 广东省第一代通信与网络创新研究院) Murata Manutachung Co., Ltd. (株式会社科田教育院) Ou Technology Coungdong Comm. and Networks Institute (GDCN). 广东省第一代通信与网络创新研究院) Murata Manutachung Co., Ltd. (株式会社科田教育院) Ou Technology Velver Security Technology Institute (CSTI, 高祖工業復進會,資安科技研究所) Agence nationale de la securité des systèmes direformation (ANSSI, Natl Cybersecurity Agency) The Cotical Communications Association (TCCA)	IoT Infrastructure IoT Security Security Security Infrastructure Multimedia Security Operator Infrastructure Operator Multimedia IoT Security Centification Security Centification Security Centification Security Centification Security Centification IoT Security Infrastructure Operator Multimedia IoT Security Centification Healthcare IoT Brondosating Consultancy Info & Comm Tech (ICT) Security Info & Security	C1, PP, S6 R1 R1, R2 S3 S3 S3 S8 RP, S4 S3 RP, R6 R6 R7 R6 R7 R8 R7 R8
RAD R1 US. Everbridge, Inc. Perfect (Prince of the Control of th	Germany China China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil Germany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SAT Adirgoeselschaft Carbigh Data Networks Technology Co., Ltd. (高海建港排列格技术股份有限公司) Cuedel Wirelese Softions Co., Ltd. (上海移运通信技术股份有限公司) Softed Systems Py Ltd. MITRE Comparation Sheruhen Wagnaction Technology (深圳设产科技股份有限公司) ATEME S.A. Polize Nedorsardshen (Police of Lower Saxony) Facebook Inc. WE Certification Dy Polities Tjenester (Police Services Norway) Spark New Zealand Limited (Telecom New Zealand) Vannan LLC VS Telecom Pair Elecomunicacoes Ltda (VB Telecom) Broadpook Shanghia Langbo Communication Technology Ltd. 上海即吊塘信技术有限公司) Bundeskimmalismit (BKA: Federal Ciminial Police Office) Protus Gmith Mokas Electronic Solutions One Media. LLC Spectrum Insight Ltd Altice Labs S.A. Nevero The Center for Internet Security, Inc. (CIS) Foot Mort Company Camangdian Comman and Networks Institute (GDCN), 广东省第一代通信与网络经新研究院) Murata Manufactung Co. Ltd. (珠式是社并用股份院) Cyter Socurity Technology Institute (SDCN), 产品工业企业企业分的Cytersocurity Agency) The Cortact Communications Association (ICCA) Verband Deutsche Massociation (IC	IoT Infrashuture IoT Security Security Security Infrashuture Infrashuture Infrashuture Infrashuture General General General General General Infrashuture General General IoT Security Security Infrashuture IoT Security General IoT Security Infrashuture IoT Security Communication Security Critical Communication Security Critical Communication Security Critical Communication	C1, RP, S6 R1, R2 R1, R2 R3, S3 S3 RP, S4 R5 RP, R4 R5 R5 R7 R7 R7 R8
China Transson (문제(수 대한민국) User Equipment R1 U.S. Johns Hophins University Applied Physics Laboratory Security S3 U.S. Department of Delense National Security S3 Socurity S3 China Bascells ([발殖구부]위원(東本河南之河) Base Station R1 Japan DENSO Comprotined (民主会社デンサー Automative Compronents R2 South Korea Kyongg University (경기대학교) Misson Critical S1, S6 Australia NBN Co Limited Infrastructure R4 U.S. Anterior Inc. Critical Communication RP U.S. Public Inc. Orifical Communication RP U.S. Satellite RP, R4 Demmark Galethouse SatCom A/S Satellite RP, R4 U.S. Satellite RP U.S. Satellite RP U.S. Person Labs (Applied Communication Sciences) RAD C1 Switzerland Represent A Consulting S1 Survival RAD C1 Switzerland Perey Research & Consulting S1 U.S. Person Labs (Applied Communication Sciences) S4 U.S. Person Labs (Applied Communication Sciences) S5 U.S. Person Labs (Applied Communication	Germany China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil U.S. Brazil U.S. Brazil U.S. Brazil U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Matrixo Saftware, Inc. Kontrion Saft Adiagnoselschaft Carbigh Data Networks Technology Co., List (高海球港間內音技术形分有限公司) Cueted Wireless Solitions Co., List (上海移运通代技术股份有限公司) Solital Systems Py List MITRE Corporation Sheruhen Waspackor Technology (第利银行科技股份有限公司) ATEME S.A Polizes Nedersearchsen (Police of Lower Saxony) Facebook Inc. WE Certification Oy Polites Tyenester (Police Services Norway) Spart New Zealand Limited (Telecom New Zealand) Variana LLC VI Telecom Pas i Telecommenacoes Lista (VB Telecom) Broadpoak Shanghai Langdo Communication Lechnology List (上海即吊相信技术有限公司) Broadpoak Shanghai Langdo Communication Lechnology List (上海即吊相信技术有限公司) Bundeskriminaliant (BKA: Federal Criminal Police Office) Probus Gmill Molex Electronic Solitions One Media LLC Spectrum Insight LLd Altrice Lats S.A. Avero The Center for Internet Security, Inc. (CIS) Federal Micro Company Cuangdong Comm. and Networks Institute (GDCN), 广东省第一代通信与网络经额研究院) Mariata Manufacturing Co., Lidt (非式完社计目报货行) Oct Technology Cuangdong Comm. and Networks Institute (GDCN), 广东省第一代通信与网络经额研究院) Mariata Manufacturing Co., Lidt (非式完社计目报货行) Oct Technology Cuangdong Comm. and Networks Institute (GDCN), 广东省第一个美国企业分别Assoc.) Verband Deutscher Massociene (TCCA)	IoT Infrashicutre IoT Security Security Security Security Infrashicutre Infrashicutre Infrashicutre General General General General General IoT Security Multimedia Certification Security Operator Infrashicutre Operator Infrashicutre General IoT Security Certification Healthicutre IoT Security Consultancy Info & Committed Info Security RaD Automotive RaD Security Security Citical Communication Satedide IoT Security Security Security Security Citical Communication Standard Development RaD	C1, RP, S6 RI, R2 R1, R2 R1, R2 R3, R3 R5 R8 R9, S4 R5 R9 R7 R6 R6 R6 R7 R8
US Department of Defense - National Security Agency (NSA) Security S 3 China Baiceles (比於何才邦外絡技术有限公司) Base Station R1 Japan DENSO Corporation ([科式会社デン十) Automotive Components R2 South Korea Kyongg University (경기대학교) Mission Critical R1, S6 Australia MNS Co Limited Infrastructure R4 US. Anteron Inc. Orficea Communication RP US. Public Inc In T Denmark GaleHouse SatCorn A/S Canada Kypier Communications Inc. US. Satellite RP, R2 Canada Kypier Communications Celences) R8 US. Public Inc Satellite RP, R2 Canada Kypier Communication Sciences) R8 OC Switzerland Perey Research & Consulting US. Photolal Communication S4 US. Perey Research & Consulting S4 US. Perey Research & Consulting S4 US. Perey Research & Consulting S5 S4 S4 S4 S4 S4 S5 S4 S6	Germany China Australia U.S. China France Germany U.S. Finiand Norway New Zealand U.S. Brazil France China Germany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Matrixo Saft Matingresisticismal (Safty) Data Networks Technology Co., Ltd. (高海東港港州省教教 不完合 外原公司) Ouedel Wireless Soktions Co., Ltd. (高海東港港州省教教 不完合 外原公司) Sokidal Systems Py Ltd. MITRE Comprontion Sheruben Wagnation Technology (深湖地行科技教的有限公司) ATEMES A Police Nedersachsen (Police of Lower Saxony) Facebook Inc. WE Certification Oy Politeis Tjenester (Police Services Norway) Spark New Zealland Lemied (Telecom New Zealand) Vannan LLC WE Technology (深湖地行科技教的有限公司) Broadpeak Sharigha Langbo Communication I Echnology Ltd. (上海部用着行技术有限公司) Broadpeak Sharigha Langbo Communication Technology Ltd. (上海部用着行技术有限公司) Broadpeak Sharigha Langbo Communication Technology Ltd. (上海部用着行技术有限公司) Broadpeak Moleculation Solidions One Media. LLC Spectrum Insight Ltd Altice Lais S.A. Avetor The Center for Internet Security, Inc. (OIS) Food Moltor Company Cuanapiano, Comm. and Networks Institute (GDON), 广东省新一代通信与网络创新研究院) Murata Munifacturing Co., Ltd. (探式会社并由教育院) O/ Technology Cyber-Security Technology Institute (CSTI, 南港工業资业会,高安科技研究所) Verband Deutscher Maschinier- und Anlaigenbau (DMA Mechanical Eng. Industry Assoc.) Technology Technology Technology Institute (CSTI, 南港工業资业会,高安科技研究所) New Email Discussants in 2021 (sorted by a Genalia)	IoT Infrastructure IoT Security Security Security Infrastructure Multimedia Security Uniteratructure Multimedia Security Operator Infrastructure	C1.PP, S6 R1 R1 R2 S3 S3 S3 S5 RP, S4 S5 RP, S4 R6 R6 R7 R6 R7 R7 R8
China Bascells (上午信子邦将株技术教授之前) Base Station R1 Japan DENSO Corporation (木大会ナナンノー) Automative Components R2 South Korea Kyongo Linversity (オリオーター) Mission Critical S1, S6 Australia NBV Co Limited Infrastructure U.S. Anterix Inc. Critical RP R4 U.S. Public Inc. Infrastructure U.S. Public Inc. Infrastructure U.S. Public Inc. Infrastructure U.S. Satellite RP R2 Canada Kyoper Communications, Inc. Satellite RP R2 Canada Kyoper Communications Sciences) R8D C1 Switzerland Party Research & Consulting U.S. Perfort Lable Kyoper Communication Sciences) R8D C1 Switzerland Party Research & Consulting U.S. Profesiol Communication Sciences S1 S4 U.S. Profesio Consulting S5 U.S. Profesio Consulting S6 U.S. Profesio Consulting S7 U.S. P	Germany China Australia U.S. China France Germany U.S. Finiand Norway Now Zealand U.S. Brazil France China U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Matrixo Saffware, Inc. Kontron Saff Adirapselsichaft Garbyh, Dala Networks Technology Co., Ltd. (高海東港港州格養大學的有限公司) Ouedell Wireless Soktions Co., Ltd. (上海移逐灣情技术學的有限公司) Sokidal Systems Py Ltd. MITRE Composition MITRE Composition Sheruchen Wagnation Technology (深湖设行科技學的有限公司) ATEMES A Potice Nedersearthsen (Police of Lower Saxony) Facebook Inc. WE Certification Dy Polities' Tjenester (Police Services Norway) Spark New Zualand Limited (Telecom New Zealand) Varian LLC WE Telecom Pier Telecommunicacoes Ltda. (VB Telecom) Broadpeal Sharupha Langbo Communication Technology Ltd. 上海即用途信技术有限公司) Bundeskimmatiant (BKA: Federal Ominial Police Office) Protos GmbH Meior Electronic Solutions One Media, LLC Spectrum Insight Ltd Altice Lats. S.A. Avero The Center for Internet Security, Inc. (CIS) Ford Motor Company Columption, Command Networks Institute (GDCNI, 广东省第一代通信与网络创新研究院) Marata Minufactioning Co., Ltd. (宋式会社月田教育府) OO Technology Cyter Security Technology Institute (ST). (2011—紫湖海市会)。安安科技研究院) The Critical Communications Association (TCCA) Verband Deutscher Maschiners—und Analogenbau (CDMA, Mechanical Eng. Industry Assoc.) Technology Institutes Wash (Technology Institute) New Tenni Discussants in 2021 (corted by 3 of emails) The Center of Infland) New Tenni Discussants in 2021 (corted by 3 of emails) Tevertology. The Canson (CRUIH) E Hopping Line (Text Assoc).	IoT Infrastructure IoT Security Security Security Security Infrastructure Multimedia Security Multimedia Security Operator Infrastructure Infrastructure Infrastructure Infrastructure Operator Multimedia IoT Security Certification Security Centification IoT Broadcasting Committed IoT Broadcasting Comsultancy Info & Committed Infrastructure Info & Committed Infrastructure Info & Sommitted Infrastructure Infrastruct	C1, PP, S6 R1 R1 R1 R2 S3 S3 S3 S3 RP, S4 RP, S4 RP R6 R7 R8 R8 R8 R9 R8 R8 R9 R8
South Korea Kypongu Linversity (경기대학교) Mission Critical \$1, \$5 Australia Inhibit Co Limited Inhibit Control R4 U.S. Antienx Inc. Critical Communication RP U.S. Publish Inc. Init RP R4 Demmark Cateflicius Satesilite RP R2 Canada Keyler Communications. Inc. Satesilite RP R2 U.S. Persona Labs Kapigled Communication Sciences) R8D C1 Switzerland Persy Research & Consultany S4 U.S. Photolal Communes, Inc. Anterona, Smart Repeater R4	Germany China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France China Germany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adequageslicitud Carlagh Data Networks Technology Co., Lid. (高海埃港用网络技术股份有限公司) Outcell Wireless Software Co., Lid. (上海移运通信技术股份有限公司) Outcell Wireless Software Co., Lid. (上海移运通信技术股份有限公司) Softel Systems Py Lid. MITTEC Companion Sheruhen Vispanation Technology (深圳设行科技股份有限公司) ATEME S.A. Polices Nedersachsen (Police of Lower Saxony) Polices Flacetoschesen (Police of Lower Saxony) Polices Figurester (Police Services Norway) Spant New Zolland Limited (Telecom New Zealand) Vannan LLC Vannan LLC Vannan LLC Valled Communication Lecture (VB Telecom) Broadpook Shanghou Langbo Communication Lecturology (Ld. 上海即用通信技术有混公司) Bundeskimmalamit (BKA-Federal Cirimnal Police Office) Probus Gmith Moless Electronic Solutions One Media, LLC Spectrum Insight LLd Althroe Labs, SA. Avero The Center for Internet Security, Inc. (CIS) Food Moles Company Guangdong Comm. and Networks Institute (GDCNL)「完备新一代通信与网络创新研究院) Martial Municationing Co. Lid. (株式会社計田製作所) OU Technology Cyber-Security Technology Institute (CST), 高級工業預測會一高安科技研究所) Agence nationale de la securité des systèmes d'information (ANSS), Natl Cybersecurity Agency) The Orlead Communications Association (TCCA) Verhand Discuster Massiliene und Carlago (St. Martin Agency) The Orlead Communications Association (TCCA) Verhand Discuster Massiliene und Carlago (St. Martin Agency) The Orlead Communications Association (TCCA) Verhand Discuster Massiliene und Affangerbau (VDMA, Mechanical Eng. Industry Assoc.) Verhand Discuster Massiliene und Affangerbau (VDMA, Mechanical Eng. Industry Assoc.) Verhand Communications Association (TCCA) Alternet Agency (St. Martin Agency (St. Martin Agency) Arbert Agency (St. Martin Agency) Arber	IoT Infrastructure IoT Security Security Security Security Infrastructure Multimedia Socurity Multimedia Socurity Operator Infrastructure Operator Multimedia IoT Security Centrication Security Centrication IoT Security Consultancy IoT Security Consultancy IoT Security Centrication IoT Security Centrication IoT Security Centrication IoT Security Security Security Security Security Security Security Central Communication Standard Development IoT	C1, RP, S6 R1 R1 R1, R2 S3 S3 S3 S5 S7 RP, S4 R5 RP, R6 R6 R7 R8 R8 R8 R8 R9 R8
Australia NBM Co Limited Infrastructure R4 U.S. Anterix Inc. Critical Communication RP U.S. Publix Inc. In 1 RP R2 Denmark Gatellituse SalCom A/S Satellitie RP R2 Canada Kyepler Communications, Inc. Satellitie RP R2 U.S. Peraton Labs (Applied Communication Sciences) R&D C1 Switzerland Perrey Research & Consultancy S-1 U.S. Photoid Communication Anterina, Smart Repeater R4	Germany China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France China Germany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adergoesischaft Carbigh Data Networks Technology Co., List (高海東洋用网合技术部分) Carbigh Data Networks Technology Co., List (高海東洋用网合技术部分) Carbigh Systems Pty List MITRE Corporation Sheruhen Visparactor Technology (第州班行科技股份有限公司) ATEME S.A Police Nedersachsen (Police of Lower Saxony) Police Style Systems Description With Commission Oy Police Style Systems Oy Police Style Style Systems Oy Police	IoT Infrastructure IoT Security Security Security Security Infrastructure Multimedia Security Operator Infrastructure Operator Multimedia IoT Security Operator Infrastructure Operator Infrastructure Operator IoT Security Centification Security Centification IoT Security Centification IoT Security Centification IoT Security Security Security Consultancy Infrastructure IoT Broadcasturg Consultancy Infrastructure IoT Broadcasturg Consultancy Infrastructure IoT Broadcasturg Consultancy Infrastructure	C1, PP, S6 R1 R1 R1, R2 R3 R3 R5 R7 R5 R7 R5 R7 R6 R7 R6 R7 R7 R6 R7 R7 R8
U.S. Publis Inc. In T RP. R4 Denmark CateHouse SatCom A/S Satellite RP. R2 Canada Keyper Communications, Inc. Satellite RP U.S. Peration Labs (Applied Communication Sciences) R&D C1 Switzerland Perry Research & Consulting SI U.S. Photoal Communication Anerena, Smart Repeater R4	Germany China Australia U.S. China France Germany U.S. Finiand Norway Now Zealand U.S. Brazil France China U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Affargoesischaft Carbyh Dala Networks Technology Co., Ltd. (高海東港港州格會大學的有限公司) Carbyh Dala Networks Technology Co., Ltd. (高海東港港州格會大學的有限公司) Softed Systems Py Ltd. MITRE Compration Facebook Inc. WE Confidence Of Lower Saxony) Facebook Inc. WE Confidence Of Dystems Softed Systems	IoT Infrastructure IoT Security Security Security Infrastructure Multimedia Security Multimedia Security Operator Multimedia IoT Security Operator Multimedia IoT Security Certification Security Certification Security Certification Security Certification Security Certification Security Automotive RaD High Frequency Comm Salettie IoT Security Security Automotive RaD Critical Development RAD	C1, PP, S6 R1 R1 R1 R1 R2 S3 S3 S3 S3 S5 RP, S4 RP R8
Denmark Satellitie RP, R2 Canada Kepter Communications Inc Satellitie RP R2 U.S. Peratora Labs (Righled Communication Sciences) RAD C1 Switzerland Pereny Research & Consultancy S4 U.S. Photoid Communications Anerena, Smart Repeater R4	Germany China China China Australia U.S. China France Germany U.S. Brazil U.S. Brazil U.S. Brazil U.S. Brazil U.S. Brazil U.S. U.S. China Cermany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SAT Adiagnoselschaft Carbigh Data Networks Technology Co., Ltd. (高海東港港州格會大學的有限公司) Carbigh Data Networks Technology Co., Ltd. (高海東港港州格會大學的有限公司) Softed Systems Ply Ltd. MITRE Comprontion Facebook Inc. WE Confidence Of Lower Saxony) Facebook Inc. WE Confidence Of John Services Norway) Spark New Zealand Limited (Telecom New Zealand) Vannan LLC WE Telecom Pas I Telecommunicacoes Ltda. (VB Telecom) Broadpeak Sharupha Langbo Communication Lectmology Ltd. 上提到用品值存技术有限公司) Bundeskimmalamit (BKA: Federal Criminal Police Office) Protus Gronti- Moléas Electronic Solidions One Media, LLC Spectrum Insight Ltd. Alloce Lads. S.A. Avero The Centre for Internet Security, Inc. (CIS) Ford Morto Company Canagiding Comman and Networks Institute (GDCN), 广东省新一代通信与网络伯斯伊克姆) Murata Manufacturing Co., Ltd. (伊克克兰共工服务作例) Of Technology Cytler Security Technology Institute (SDCN), 「高江工業業業會」高安学科技研究的 Adenome Intoline de la securité des systèmes dinformation (ANSS), Nati Cybersecurity Agency) The Ortical Communications Association (TCCA) Alloce Load Co	IoT Infrastructure IoT Security Security Security Security Infrastructure Multimedia Security Multimedia Certification Security Operator Multimedia IoT Security Centrification Security Centrification Security Centrification Security Centrification Security Centrification IoT Broadcasting Consultancy Info & Comm Healthcare IoT Broadcasting Consultancy Info & Comm Healthcare IoT Security Automotive R&D High Frequency Comm Stabilitie IoT Security Security Critical Communication Security Critical Communication User Equipment R&D	C1, RP, S6 R1, R2 R1, R2 R1, R2 R3, S3 R8, S4 R8, S4 R8, S4 R8, S4 R8, S4 R8, S6 R8, S6 R8, S6 R8, S6 R8, S6 R8, S7 R8, R8, R8 R8, R8, R8, R8 R8, R8, R8, R8 R8, R8, R8, R8, R8 R8, R8, R8, R8, R8, R8 R8,
U.S. Perston Labs (Applied Communication Sciences) R&D C1 Switzerland Perry Research & Consultrary SI U.S. Photoal Communication Sciences Anerena, Smart Repeater R4	Germany China Australia U.S. China France Germany U.S. Finland Norway Now Zealand U.S. Brazil France China U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adeposelsociant Garbayh Daia Networks Technology Co., Ltd (高海東港港州省長大港份有限公司) Ouedel Wireless Soktions Co., Ltd (上海移远海信技术股份有限公司) Sokind Systems Py Ltd MITRE Corporation MITRE Corporation Sheruhen Naysacker Technology (深湖北行科技股份有限公司) ATEMES A Police Nedersachsen (Police of Lower Saxony) Facebook Inc. WE Certification Oy Polities' Jenester (Police Services Norway) Span New Zualand Lemied (Telecom New Zealand) Vannan LLC VB Telecom Pa is Telecomunicacoes Ltda (VB Telecom) Broadpeak Sharaghai Langbo Communicacoes Ltda (VB Telecom) Broadpeak Marta Mannonicama (RCA Federal Commini Police Office) Profus Similar Molec Telectronic Solidions One Media LLC Spectrum Insight Ltd Altice Lais, S.A. Aveno The Center for Internet Security, Inc. (CIS) Food Morto Company Chers Security Technology Institute (CST), 高烈工業資産資金 資安科技研究的 Agence nationale de la securité des systèmes direformation (ANSS), Mait Oybersecurity Agency) The Chitac Communicacions Association (CCA) Verband Deutscher Maschiner- und Anlagenbau (VDMA, Mechanical Eng. Industry Assoc.) Technology Urban Deutscher Maschiner- und Anlagenbau (VDMA, Mechanical Eng. Industry Assoc.) Technology Urban Deutscher Maschiner- und Anlagenbau (VDMA, Mechanical Eng. Industry Assoc.) Technology Urban Sociative Maschiner- und Anlagenbau (VDMA, Mechanical Eng. Industry Assoc.) Technology Urban Deutscher Maschiner- und Anlagenbau (VDMA, Mechanical Eng. Industry Assoc.) Technology Urban Communicacions Associatory Department of Deutscher Maschiner- und Anlagenbau (VDMA, Mechanical Eng. Indu	IoT Infrastructure IoT Security Security Security Infrastructure Multimedia Security Unfrastructure Multimedia Security Operator Infrastructure Gerator Multimedia IoT Security Centification Security Centification Security Centification IoT Brandosating Centification Security Centification IoT Security Centification Healthcare IoT Brandosating Centification IoT Security Info & Committee Infrastructure Info Security	C1, PP, S6 R1 R1, R2 S3 S3 S3 S5 RP, S4 S5 RP, S4 R5 R7 R6 R6 R7 R7 R8 R7 R8
Switzerland Perey Research & Consulting Consultancy S4 U.S. Pivotal Commware, Inc. Antenna, Smart Repeater R4	Germany China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France China Germany U.S. Brazil U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adeposed Social Garbyh, Dala Networks Technology Co., Ltd. (高海東港港州省各大港份分別公司) Ouedel Wireless Soktions Co., Ltd. (高海東港港州省各大港份分別公司) Sokidal Systems Py Ltd. MITRE Comprosition ATEMIES A Police Neder Search (Police of Lower Saxony) Facebook Inc. WE Certification Oy Politeis Tjenester (Police Services Norway) Spark New Zoalland Limited (Telecom New Zoaland) Vannan LLC VB Telecom Pie I Telecommunicacoes Ltda. (VB Telecom) Broadpeak Sharghal Langbo Communicacoes Ltda. (VB Telecom) Broadpeak Morta Mannon Langbo Communicacoes Ltda. (VB Telecom) Broadpeak Sharghal Langbo Communicacoes Ltda. (VB Telecom) Broadpeak Sharghal Langbo Communicacoes Ltda. (VB Telecom) Broadpeak Morta Mannon Langbo Communicacoes Ltda. (VB Telecom) Dendestionmanicam (BCA, Federal Comminia Police Office) The Center for Internet Security, Inc. (CIS) Foot Mortor Company Cultura Mannon Langbo Communicacoes Association Denet For Internet Security, Inc. (CIS) Foot Mortor Company Cultura Mannon Langbo Communicacoes Association Denet Security Technology Institute (CSTI, 南京工業預測會一般安全科技研究的) The Collacia Communicacions Association (TCCA) Verband Deutscher Maschiner- und Anlägenbau (VDMA Mechanical Eng. Industry Assoc.) Technology University English Communicacions Association (TCCA) Verband Deutscher Maschiner- und Anlägenbau (VDMA Mechanical Eng. Industry Assoc.) Technology University English Communicacions Association (TCCA) Verband Deutscher Maschiner- und Anlägenbau (VDMA Mechanical Eng. Industry Assoc.) Technology University Association (TCCA) Verband De	IoT Infrastructure IoT Security Security Security Infrastructure Multimedia Security Operator Infrastructure IoT Security Securit	C1.PP, S6 R1 R1 R1 R2 S3 S3 S3 S8 SP, S4 S5 SP, S6 RP, S6 RP R6 R6 R7 R8 R7 R8
U.S. Pivotal Commware, Inc. Antenna, Smart Repeater R4 Switzerland 5G Media Action Group (5G-MAG) Multimedia RP	Germany China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France China Germany U.S. U.S. Brazil U.S. Brazil France China U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adeposed Social Carbyth Data Networks Technology Co., Ltd. (高海技术用内容技术用户分词及为) Carbyth Data Networks Technology Co., Ltd. (高海技术用内容技术用户分词及公司) Carbotal Wineses Software Co., Ltd. (上海移运通信技术股份有限公司) Softed Systems Py Ltd. MITRE Comparation MITRE Comparat	IoT Infrastructure IoT Security Security Security Security Infrastructure Multimedia Security Multimedia Certification Security Operator Multimedia IoT Security Centrification Security Centrification Security Centrification Security Centrification IoT Broadcasting Consultancy Info & Comm Healthcare IoT Broadcasting Consultancy Info & Comm Healthcare IoT Security Automotive R&D High Frequency Comm Stabilitie IoT Security Security Critical Communication IoT Security R&D	C1, PR, S6 R1 R1, R2 R1, R2 R3, R3 R5 R5 R7, S4 R5 R7 R6 R6 R7 R7 R8
	Germany China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France China Germany U.S. U.S. Brazil France U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adeposed Social Carby Data Networks Technology Co., Ltd. (高海東港港州所含於大學的科學公司) Cachell Wineses Software So., Ltd. (上海移运通信技术股份有限公司) Softed Systems Py Ltd. MITRE Corporation Sheruhan Magnacior Technology (深圳设行科技股份有限公司) ATEME S.A. Polize Nedersandshen (Police of Lower Saxony) Facebook Inc. WE Certification Dy Polities' Ejenester (Police Services Norway) Spath New Zoaland Limited (Telecom New Zoaland) Vannan LLC WE Telecom Pair Telecommunication Ltd. WE Telecom Pair Telecommunication Ltd. WE Telecom Pair Telecommunication Ltd. Broadpool and apob Communication Lecthology Ltd. 上海即吊箱信技术有混公司) Bundeskrimnalami (BKA: Federal Criminal Police Office) Probus Gmith Molice Leitz S.A. Avero The Cartier for Internet Security, Inc. (CIS) Food Mont Company Company Communication Ltd. Mannotation and Networks Institute (GDCN), 广东省第一代通信与网络仓钢形党院) Murata Manufacturing Co. Ltd. (珠式会社村田教育院) Out Technology Cyter-Security Technology Institute (GDCN), 广东省第一代通信与网络仓钢形党院) Murata Manufacturing Co. Ltd. (珠式会社村田教育院) Out Technology Cyter-Security Technology Institute (SDCN), 原则工务资金合公内(CDCN) Probason (定形) Prob	IoT Infrashuture IoT Security Security Security Infrashuture Multimedia Socurity Multimedia Socurity Operator Infrashuture Operator Multimedia IoT Security Certification Security Certification Security Certification IoT Security Certification Healthcare IoT Broadcasting IoT Security Certification Healthcare IoT Broadcasting IoT Security Consultancy Infrashuture RAD Consultancy Consultancy Infrashuture Infrashuture IoT Security Secu	C1.PR, S6 R1 R1 R1, R2 R3, R3 R3 R5 R5 R5 R5 R7 R5 R7 R6 R6 R6 R6 R7 R6 R7 R7 R8
U.S. Department of Homeland Security - Cybersecurity and Infrastructure Security Agency (CISA) Security S3	Germany China China China China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Brazil France China Germany U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adeposelsociant Garbyth Data Networks Technology Co., Ltd (高海東港港州省社大阪行列企) Coucidel Wireless Sokidions Co., Ltd (法海移运河技术及行列股公司) Sokidal Systems Py Ltd MITRE Comprontion Sheruchen Wagnation Technology (深湖北行科技股份有限公司) ATEMES A Police Nedersachsen (Police of Lower Saxony) Facebook Inc. WE Certification Oy Polites's Jenseter (Police Services Norway) Spark New Zoaland Limited (Telecom New Zoaland) Vannan LLC WE Teleconal and Inself (Telecom New Zoaland) Vannan LLC WE Teleconal Telecom New Zoaland) Vannan LLC WE Teleconal Telecom New Zoaland) Vannan LLC WE Teleconal Telecom New Zoaland Vannan LLC WE Teleconal Telecom New Zoaland Vannan LLC WE Teleconal Sociation One Media LLC Spectrum Inself Langbo Communication Technology Ltd (土海即用地位技术有限公司) Bundeskimmadiant (BKA Federal Cimminal Police Office) Protosi GmbH Middes Electrons Solidions One Media LLC Spectrum Inself Ltd Altice Lash S A Aveiro The Center for Internet Security, Inc. (CIS) Food Motor Company Caunagiang Comman and Networks Institute (GDCNI, 广东省新一代通信与网络创新研究院) Murata Minufacturing Co., Ltd (宋式会社打田教育所) OOJ Technology Oyler's Security Technology Institute (STI, 译用工作教育由企业研究) Proto Gitter Communications Association (TCCA) Verband Deutscher Maschiners- und Antigenbau (DMA, Mechanical Eng. Industry Assoc.) Technology Option Technology Institute (STI, 译用工作教育和企业的人民会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会	IoT Infrastructure IoT Security Security Security Infrastructure Multimedia Security Multimedia Security Operator Infrastructure Infrastructure Operator Infrastructure Inf	C1.PP, S6 R1 R1 R1 R2 S3 S3 S3 S3 S8 RP, S4 S3 RP, S4 R5 RP R5 R5 RP R6 R6 R1
China Beijing Commisal Technology Development Co. Ltd (北京九天微星科技有限公司) Satellite R2 Russia JSRPC Kryptonite (Научно-производственная компания Криптонит) Security S3	Germany China China Australia U.S. China France Germany U.S. Finland Norway New Zealand U.S. Frazel Germany U.S. Brazil France U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adeposelsociant Garbyth Data Networks Technology Co., Ltd (高海東港港州省首大市股份有限公司) Concidel Wireless Soktions Co., Ltd (上海移远海情技术股份有限公司) Solidal Systems Ply Ltd. MITRE Compronison Sheruchen Wagnaction Technology (深湖设行科技股份有限公司) ATEMES A Potice Nedersearchisen (Police of Lower Saxony) Facebook Inc. WE Certification Dy Polities' Igneeter (Police Services Norway) Spark New Zoland Limited (Telecom New Zouland) Varian LLC WE Telecom Pas Telecommunicacions Ltda (VB Telecom) Broadpook Sharughai Jangbo Communication Technology Ltd (上海別用场信技术有限公司) Burdeskimmatiant (BKA Federal Cominal Police Office) Protats CmbH Molec Electronis Solutions One Media LLC Spectrum Insight Ltd Altice Lasts. S.A. Aveno The Center for Internet Security, Inc. (CIS) Ford Molro Company Cutangding Comman and Networks Institute (GDCNI, 广东省新一代通信与网络创新研究院) Murata Mamiliactioning Co. Ltd. (株式会社月田教育的 OO Technology Cyters Security Technology Institute (SSI. 原因工业资源度) · 海安非技研究的 Murata Mamiliactioning Co. Ltd. (株式会社月田教育的 OO Technology Cyters Security Technology Institute (SSI. 原用工资系统产品,Molec Decompany Cyters Security Technology Institute (SSI. 原用工资系统产品的ASSI, Natl Cybersecurity Agency) The Colaci Communications Association (TCCA) New Temiol Discussessits In 2021 (Gritted by 8 of lemnils) Teverhologian tustomiss-Session VICA New Temiol Discussessits In 2021 (Gritted by 8 of lemnils) Teverhologian University Agency (INSA) Baccels (Light 日本月的系统来看到一个1000 (INSA) Baccels (Light 日本月的系统来看到一个1000 (INSA) Baccels (Light 日本月的原始线来看到公司) Debris Department Of Defense. National Security Agency (INSA) Baccels (Light 日本月的原始线来看到一个1000 (INSA) Baccels (Light 日本月的原始分析的ASSI) Department Of Defense National Security Agency (INSA) Baccels (Light 日本月的原始分析的ASSI) Department Of Defense National Security Agency (INSA) Baccels (Light 日本月的原始分析的ASSI) Department Of Defense National Security Agency (INSA) Baccels (Light 日本月的原始分析的ASSI) Department Of Defense Office Office Internets Preval Lates Office Communications in the Person Lates Office Communications in the Perso	IoT Infrastructure IoT Security Security Security Security Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Infrastructure Centractor Security Operator Infrastructure Operator Infrastructure Operator Infrastructure Operator Infrastructure Operator Infrastructure Operator Infrastructure IoT Brondozsting Consultancy Infrastructure IoT Brondozsting Consultancy Infrastructure Ortical Communication Standard Development R&D R&D R&D R&D Standard Operuminication Standard Development Infrastructure Infrastruc	C1.PP, S6 R1 R1 R1 R2 S3 S3 S3 S3 S8 RP, S4 S3 RP, R4 R6 R6 R7 R8
Russia JSRPC kryptonite (Hayvino-производственная компания криптонит) Security S3 Sweden Hexagon Aktebolag Automotive R2	Germany China Australia U.S. China France U.S. Finland Norway New Zealand U.S. Brazil France China Germany U.S. Brazil France U.S. Brazil France U.S. U.S. U.S. U.S. U.S. U.S. U.S. U.S	Mannox Software, Inc. Kontron SST Adeposed Social Carby Data Networks Technology Co., Ltd. (高海東港港州特育技术现分有限公司) Carby Data Networks Technology Co., Ltd. (高海東港港州特育技术现分有限公司) Carbotal Wineses Software So., Ltd. (上海移运通信技术现份有限公司) Softed Systems Py Ltd. MITRE Corporation Sheruhan Waspackor Technology (深圳東行科技股份有限公司) ATEME S.A. Polizes Nedersandshen (Police of Lower Saxony) Facebook Inc. WE Certification Dy Polities' Ejenester (Police Services Norway) Spark New Zealand Limited (Telecom New Zealand) Vannan LLC WE Telecom Pas i Telecommenacooes Ltda (VB Telecom) Broadpook Shanghia Langbo Communication Lechnology Ltd. 上海即吊箱信技术有混公司) Bundeskrimnalami (BKA: Federal Criminal Police Office) Probus Gmith Molex Electronic Solutions One Media LLC Spectrum Insight Ltd. Altice Labs. SA. Avero The Carter for Internet Security, Inc. (CIS) Federal Molex Company Company Company Comm. and Networks Institute (GDCN), 广东省第一代通信与网络伯斯伊究院) Murata Manufacturang Co. Ltd. (探光党社科田教育所) Out Technology Congress Comm. Association (TCCA) Cyter-Security Technology Institute (SDCN), 广东省第一代通信与网络伯斯伊究院) The Orlical Communications Association (TCCA) Werhand Deutscher Massociation (TCCA) Chemical Communications Association (TCCA) Chemical Communications (EME) Charts Sociation (EME)	IoT Infrastructure IoT Security Security Security Security Infrastructure Multimedia Socurity Operator Infrastructure Operator Multimedia IoT Security Operator Infrastructure Operator Infrastructure Operator Infrastructure Operator IoT Security Centrication IoT Security Centrication IoT Security Centrication IoT Security Security Security Security Consultancy Infrastructure Infrastructure IoT Security	CI.RP, S6 RI, R2 RI, R2 RI, R2 RI, R2 RI, R2 RI, R3 RP, S4 RP R5 RP R6 RP R7 R8 R8 RP R8