Offering Global Collaboration Services beyond CERN and HEP communities

Joao Fernandes, Pedro Ferreira CHEP 2015 沖縄本島

Outline

Current Status of Services Motivation to Expand The Proposal/Model What's Done What's Next

Vidyo

Globally deployed Infrastructure

3 years old service

consolidated on the day-to-day activity of the Community

Intensive usage

Large-sized user base, multiple use cases

8k meetings per month

daily working meetings, remote teaching, outreach events

50M minutes of activity per year



CERN Vidyo Infrastructure

2 portals (redundant)
26 routers
10 gateways
12 phone accesses

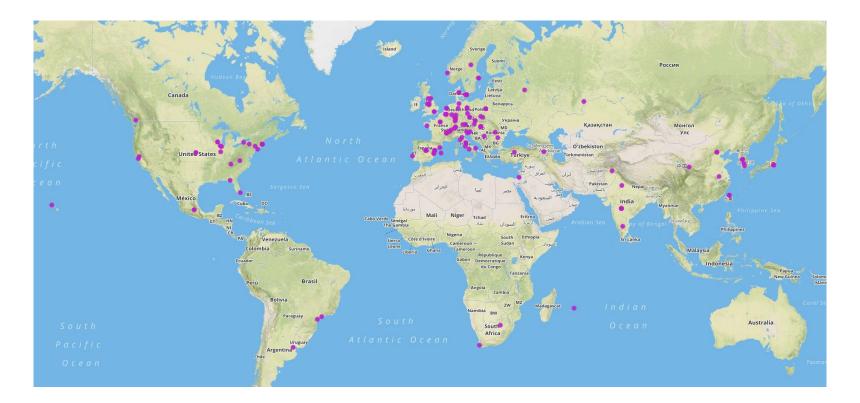
Indico

Mature Software Project > 10 years old **Open Source Developed at CERN** Medium-sized "community of instances"

More than 150 active servers Most of them in HEP (but growing)

ျားကျက်			🕑 Europe/Zurich + 🚊 T. Baron +
Home Create event + Room booking Server admin Services +	My profile Help +		
Main categories			Ø+ ₱+ L+
Welcome to Indico. The Indico tool allows you to manage complex conference In order to start browsing, please select one of the categories below.	es, workshops and meetings.		🕫 News more.
CERN-Related Clubs, Associations and Forums	2,365 events		Cleaner design, new collaborative tools interfa Posted on 3/3/2015 Old events in Test Category being deleted
Committees	3,325 events	-0-	Posted on 21/8/2014
Conferences, Workshops and Events	4,530 events		Upcoming events JUAS - 2015 esping bit Friday 1830 ESIRAP 2016 - Module 2 - Detector technologi esping bit Sharkey 1830 2015 CERN - LATIN-AMERICAN SCHOOL 0 esping bit Sharkey 1830
Departments	28,569 events	-0-	
Experiments	268,220 events		
Global Indico	66 events	-	
Outreach	274 events		Science, Innovation & Transfer Technology orgoing till Saturday 13:00
Projects	20,000 events	-0.	2nd Academy-Industry Matching Event on Neu orgoing III Friday 18:00 New Higgs physics results from the ATLAS ex
Schools, Seminars and Courses	6,515 events	-+	New Higgs physics results from the ATLAS ex starts today 11:00
TEST Category	757 events	->	

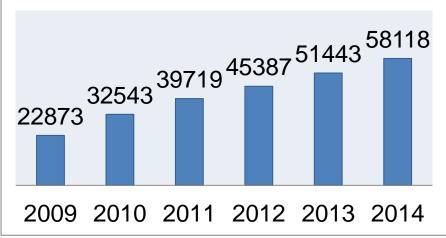
Indico Instances



Indico

At CERN > 330K events > 1.5M individual files ~ 25K unique visitors/week

Created Indico events (+13%)



Indico

At CERN

Event creation restricted Relation to CERN required "Exception" requests Events in separate category

Canadra Physical Conduction Conduct of Physical Conduction Conduction Conduction <th>S Europe/Zurich P. Ferreira -</th> <th></th> <th></th> <th>aduca</th> <th></th>	S Europe/Zurich P. Ferreira -			aduca	
Bit Cobal Indica Special category defaued to son CERN activities Canadian Association of Dypaicstist Canadian Association of Dypaicstist Condad Physical Society REE PRN Instanto of Astroficica de Canatias Alle Lociese Water Instation Lake Lociese Water Instation Lowerstoor of High Energy Physics - Consta Liverstoor of Lociese Constatia Liverstoor of Constatia Live	tere 🗸 🗸 🖉			noioj	
Subclain Indices Special caragety dedicated to use CEBN activities Canadian Association of Physicolis 2 events CARA - Conductation of Open Access Repositories 1 events CARA - Conductation of Open Access Repositories 1 events CLUT 2 events REF 2 events Instance of Fraice Taronica - Madid 1 events Lancaux University (Stedent) 1 events State Caranias 1 events Lancaux University (Stedent) 1 events State Caranias of Notice Physics 1 events State Carania for Notice Physics 2 events Universidies of Carania 1 event					
Candom Association of Physicists 2 events * CANA - Combination of Open Access Reposatories 1 event * CANA - Combination of Open Access Reposatories 1 event * CANA - Combination of Open Access Reposatories 1 event * CANA - Combination of Open Access Reposatories 1 event * CANA - Combination of Open Access Reposatories 1 event * ELE 2 events * Imputal Cattiges London 1 event * Instato de Atsofisites de Catanias 1 event * Satato Ser Frisca Teorica - Madrid 1 event * Satato de Frisca Teorica - Madrid 1 event * Satato de Frisca Streama Maria - Chile 1 event * Satato de Técnica Friedrous Sama Maria - Chile 3 events * Verversider Of Colabati 1 event * Verversider Of Colabat 1 event * Verversider Of Colabati 1 event * <				ome » Global Indico	Home
Canadian Association of Physicids 2 events 4 COAR - Condensation of Copen Access Repositories 1 event 4 ELE 2 events 4 INFAI Ode Astrofisica de Cananias 1 event 4 Instato de Astrofisica de Cananias 4 events 4 Instato de Astrofisica de Cananias 1 event 4 Instato de Astrofisica de Cananias 4 events 4 Instato de Astrofisica de Cananias 1 event 4 Salis tostitut of Nuclear Physics 2 events 4 Salis Constitut of Nuclear Physics 2 events 4 Salis School of High Eventy Physics - Croata 1 event 4 Salis School of High Eventy Physics - Croata 1 event 4 Universidor J Colonta 1 event 4 4 Universidor Colonta 1 event 4 4 4 4 Salis School of High Eventy Physics - Croata 1 event 4 </td <td>gory 👁 - 🕂 - 📿 - 📕</td> <td>1 Pa</td> <td></td> <td>Global Indico</td> <td></td>	gory 👁 - 🕂 - 📿 - 📕	1 Pa		Global Indico	
COAR - Contribution of Open Access RepositoriesI eventICrustian Physical SociaryI eventIIIELF2 eventsIIIREE2 eventsIIIIInstato de Acterifica de CaunalasI eventIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	e Z	6		Special category dedicated to non-CERN activities	
Creatian Hysical SocietyI eventIELF2 eventsIELE2 eventsIProtrial College London1 eventsIInstato de Astrofisica de Cananias1 eventsIInstato de Astrofisica de Cananias1 eventsILake Louise Water Instato1 eventsILake Louise Water Instato1 eventsISalto de Astrofisica Teorica - Madrid1 eventsILake Louise Water Instato1 eventsIKalto de Nacier Physics1 eventsISalto Solto friegh Fierrey Physics - Croata1 eventsISalti School of Hygh Fierrey Physics - Croata1 eventsIUnversider J Colombia1 eventsIIUnversider Colombia1 eventsII <td></td> <td>÷ .</td> <td>2 events 🔹 🔿</td> <td>Canadian Association of Physicists</td> <td></td>		÷ .	2 events 🔹 🔿	Canadian Association of Physicists	
EU-10E eventsAEEE2 eventsAInputal College London1 eventsAPN0 eventsAInstato de Atolificat de Canatias4 eventsAInstato de Atolificat de Canatias4 eventsALale Louise Water Instato1 eventsAInstato de Atolificat de Canatias1 eventsALale Louise Water Instato1 eventsAFacto de Atolificat de Canatias1 eventsALale Louise Water Instato1 eventsALate Louise Water Instato2 eventsASale School of High Energy Physics - Consta1 eventsAUnversider Offentas Teatras - Chile3 eventsAUnversider of Canatia1 eventsAUnve		→	1 event 🔿	COAR - Confederation of Open Access Repositories	
EEE2 versite2 versiteInpendal Colleges London1 versite1 versiteInf N1 versite1 versite1 versiteInstato de risica Teorica - Madrid1 versite1 versiteInstato de risica Teorica - Madrid1 versite1 versiteLale Louise Winter testate1 versite1 versiteLinnarus, Univensity (Swedite)1 versite1 versiteStato de risica Teorica - Madrid1 versite1 versiteLinnarus, Univensity (Swedite)1 versite1 versiteStato de risica Foldero Saran Maria - Chile1 versite1 versiteUnivensited Fólicaro Saran Maria - Chile1 versite1 versiteUnivensited Collambia1 versite1 versiteUnivensited Collambia1 versite1 versiteUnivensited Colambia1 versite1 versiteUnive		→	1 event 🔿	Croatian Physical Society	
Inpendal College LondonI eventIRYNI eventIInstato de Astrofisica de CanaisaI eventIInstato de Fisica Teorica - MadridI eventILancau Winter trastatoI eventILancau Winter trastatoI eventIKatho de Astrofisica fectorisaI eventILancau Winter trastatoI eventIKatho de Fisica Teorica - NadridI eventIStata testatue of Naciese PhysicsI eventIStata testatue of Naciese Physics - CotaliaI eventIUnresoldar Téorica Federico Santa Maria - ChilleI eventIUnresoldar Of ColumbiaI eventIIUnresoldar Of JohanaI eventIIUnresoldar Of AdhensI event		→	8 events 👄	EU-T0	
BYN1 event4Instanto de Aderblaca de Cananias4 events4Bastato de Frisica Teorica - Madrid1 event4Lake Louise Winter Instante1 event4Lake Louise Winter Instante1 event4Lake Louise Winter Instante1 event4Mastato de Frisica Teorica - Madrid1 event4Salar Instante of Neuclear Physics2 events4Salar Instante of Neuclear Physics - Croatia1 event4Universidie J Colonita1 event4Universidie of Colonita1 event4Universidie of Colonita1 event4Universidie of Colonita1 event4Universidie of Aders2 events4Universidie of Colonita1 event4Universidie of Colonita2 events4Universidie of C		÷ .	2 events 🛛 🍽	IEEE	
Instanto de Attorificia de Canantas4 events4Instanto de Fisica Teorica - Madrid1 events4Lake Louise Water Instanto1 events4Matter Mondear Physics2 events4Sala Instanto of Nuclear Physics - Conata1 events4Université School of High Energy Physics - Conata1 events4Université of Colombia1 events4Université of Colombia1 events4Université of Colombia1 events4Université of Adems2 events4		÷ .	1 event ->	Imperial College London	
Instanto de Faisca, Teorica - Madrid 1 event		→	1 event 🔿	INFN	
Lake Loase Writer Instatute1 event4Linnaeus University (Sweden)cmpt)-8NECT Warkshops1 event-8Saha kristutus of Nuclear Physics2 events-8Saka Kristutu of Nichear Physicscmatha-1Satis School of High Energy Physics - Croastia1 event-8Universities of Colombia1 event-8Universities of Colombia2 events-8Universities of Colombia2 events-8		÷	4 events →	Instituto de Astrofísica de Canarias	
Linnacus University (Sweden) angly angly NEXT Workshops 1 oversit angly Staha testahar of Nuclear Physics 2 oversit angly Staka testahar of Nuclear Physics angly angly Staka testahar of Nuclear Physics angly angly Staka testahar of Nuclear Physics angly angly Universidad Ticarica Federico Santa Maria - Chile angly angly Universidae of Colombia 1 oversit angly Universidae of Colombia 1 oversit angly Universidae of Adhens 2 oversity angly		->	1 event 🛛 🏓	Instituto de Física Teorica - Madrid	
NEXT Workshops 1 event Stahe Institute of Nuclear Physics 2 events Scucka Nomale Superiore - May - events Split School of High Energy Physics - Croatia 1 event Universided Técrica Federico Santa Maria - Chille 2 events Universided of Colombia 1 event Universided of Colombia 1 event Universided of Adhens 2 events		->	1 event 🔿	Lake Louise Winter Institute	
Starba institute of Nuclear Physics 2 events 4 Scula Nomale Superiore - Early events 4 Split School of High Every Physics - Croatia 1 event 4 Universiding Colombia 2 events 4 Universiding of Colombia 2 events 4 Universiding of Colombia 1 event 4 Universiding of Adhems 2 events 4		->	empty ->	Linnaeus University (Sweden)	
Scala Normale Superiore - taly empty = Split School of High Energy Physics - Croata 1 event = Unversities of Calombia 2 events = Unversities of Calombia 1 event = Unversities of Calombia 2 events = Unversities of Calombia 2 events =		->	1 event 🔿	NEXT Workshops	
Split School of High Energy Physics - Croatia 1 event • Universided Técnica Federico Santa Maria - Chile 2 events • Universides of Colombia 1 event • Universides of Dahna 1 event • Universide of Athens 2 events •		→	2 events 🛛 🔿	Saha Institute of Nuclear Physics	
Universidad Tócnica Federico Santa María - Chile 3 events 4 Universides of Colombia 1 events 4 Universides of Dohna 1 events 4 Universide of Adhens 2 events 4		→	empty 🔿	Scuola Normale Superiore - Italy	
Universities of Colombia 1 overst -> Universities of Dubma 1 overst -> Universities of Advers 2 oversts ->		→	1 event 🔿	Split School of High Energy Physics - Croatia	
Universities of Dubna 1 overst		→	3 events 🔿	Universidad Técnica Federico Santa Maria - Chile	
University of Athens 2 events 👐		→	1 event 🔿	Universities of Colombia	
		→	1 event 🔿	Universities of Dubna	
University of California 1. event 🔶		→	2 events 🛛 🌩	University of Athens	
		→	1 event 🔿	University of California	
University of Cambridge 28 events 🔶		→	28 events 👄	University of Cambridge	
University of Geneva 2 events		→	2 events 🔷	University of Geneva	
University of Glasgow 1 event 🔶		→	1 event 🔿	University of Glasgow	
University of Krakow 1 event		→	1 event 🔿	University of Krakow	
University of Oxford 6 events 😻 🔶		→	6 events 😻 🔶	University of Oxford	
University of Zagreb - Croatia empty 🔿		÷	empty ->	University of Zagreb - Croatia	

Motivation to Expand

Successful Experience in HEP

service integration, scalability, criticality

Approach from several institutes and organizations Beyond HEP, mostly

"How can I use your Vidyo/Indico for my Community in a secured, dedicated and customized way? I'm willing to pay." ©

Right now... Issues

Users

Need a CERN account to create meetings in Vidyo

Guests can be invited but can't be meeting owners

Need switching between servers depending on where the event is organized Meetings

Same topic, different servers... duplication

No "one place" where to find things or access meetings Institutes/NRENs/International Collaborations

Need to maintain an Indico server... again, other *duplications*...

Need to maintain their own non-scalable expensive legacy videoconference infrastructure

Resources that could otherwise be spent elsewhere

"CERN" Advantages

(Vidyo & Indico) @ CERN Always up to date De facto "Global Infrastructure" (Vidyo) De facto "Central Instance" (Indico) Both Services seamlessly integrated Central Support (Premium ©) Everyone wants to use it! ©

How can Global Science and Research profit from these advantages eliminating the issues?

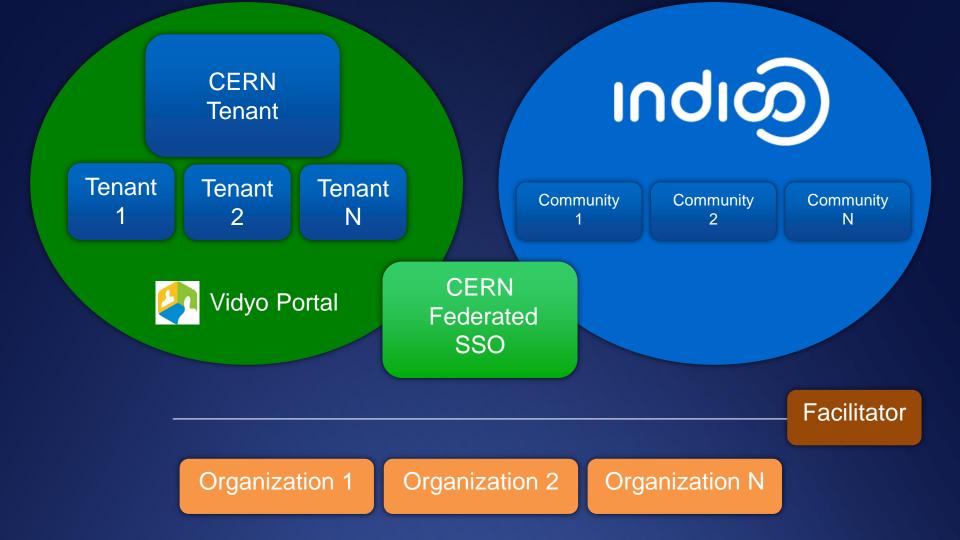
The Proposal

A world wide Global Service offering Hosted/Maintained by CERN A single (distributed) infrastructure Shared by different communities within and beyond HEP Properly isolated and customized Federated User Identity and Access Control In agreement with each community policy

Model under discussion

Partnership with GEANT Association CERN provides infrastructure and know-how GEANT acts as a facilitator closer to "end clients" e.g. NRENs, International Collaborations mechanisms for charging costs and user support already in place on other fields

2 portals (redundant) 26 routers 10 gateways 12 phone accesses



What's Done - Vidyo

Technical Model defined But also the Legal one is proposed compliant with CERN's Mission ... and the Business Model cost recovery

that doesn't disrupt potential commercial competition

What's Next - Vidyo

2015 – First communities move in

 1^{st} pilot for an European NREN starting on the 1^{st} of June

Others may follow

2016 – Global service Consolidation Improve AAA models Develop cross service business models Integrate with Global Indico (when relevant)

What's Next - Indico

2015 – work on communities feature Financed by CERN's KT Fund Taking advantage of DB developments Integrated search within communities **2016** – Global service **Develop Business Model** First communities move in **Cross-server migration tool**

