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ADaMS 3: an enhanced access control system for CERN



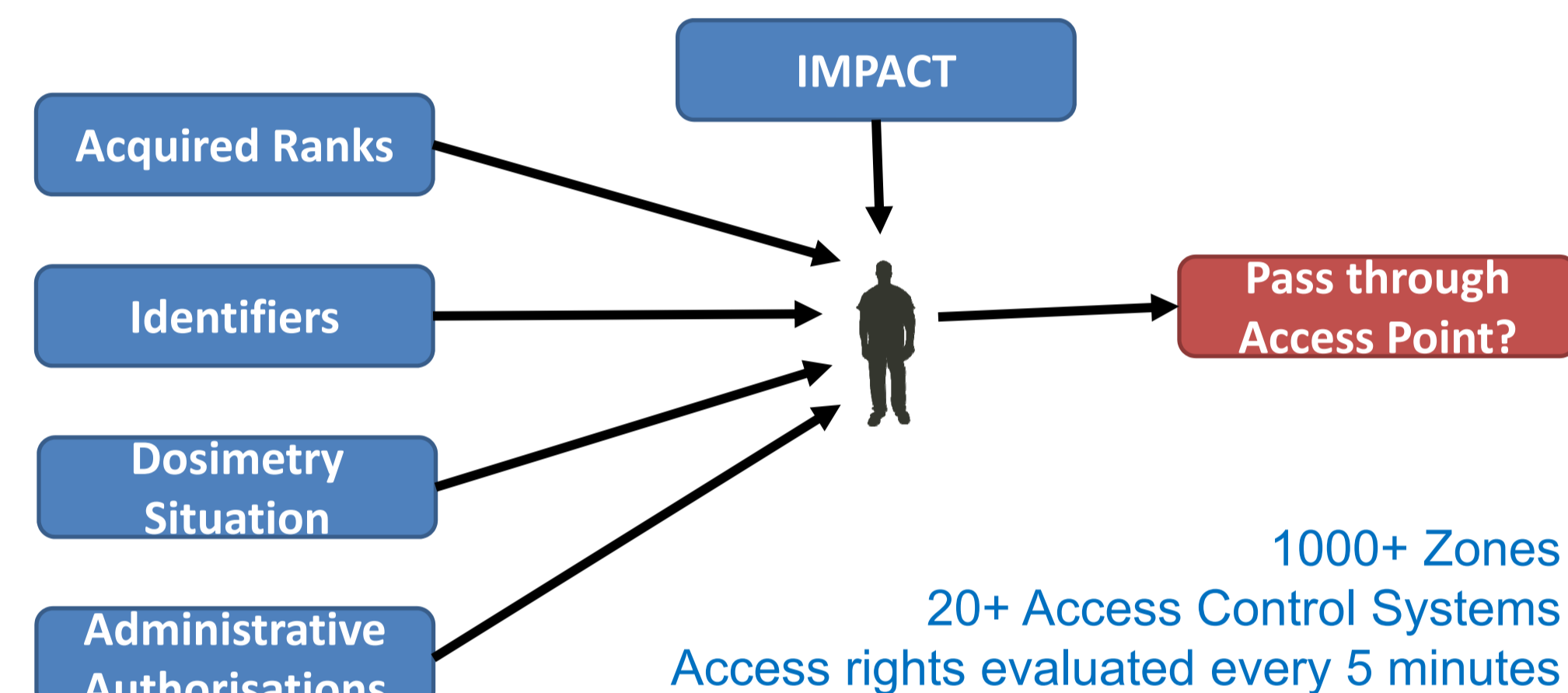
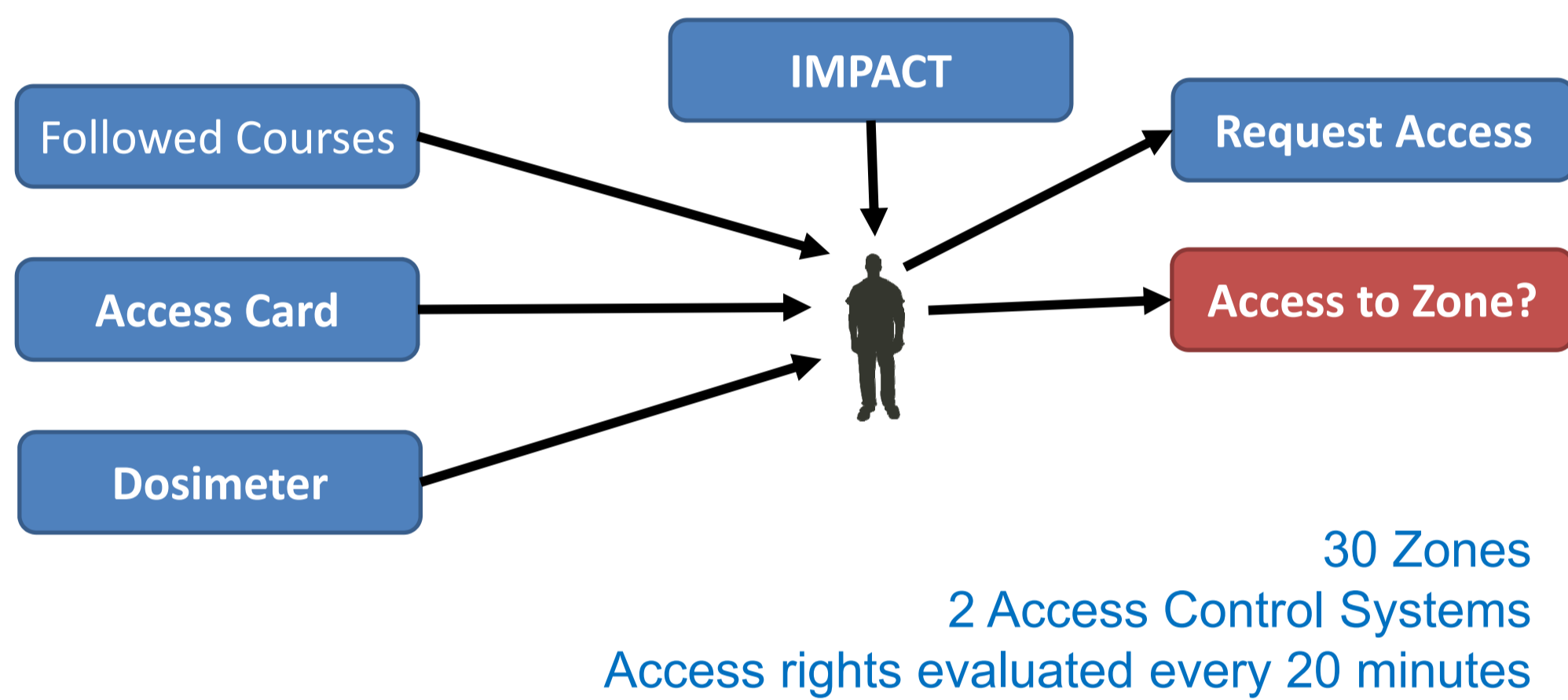
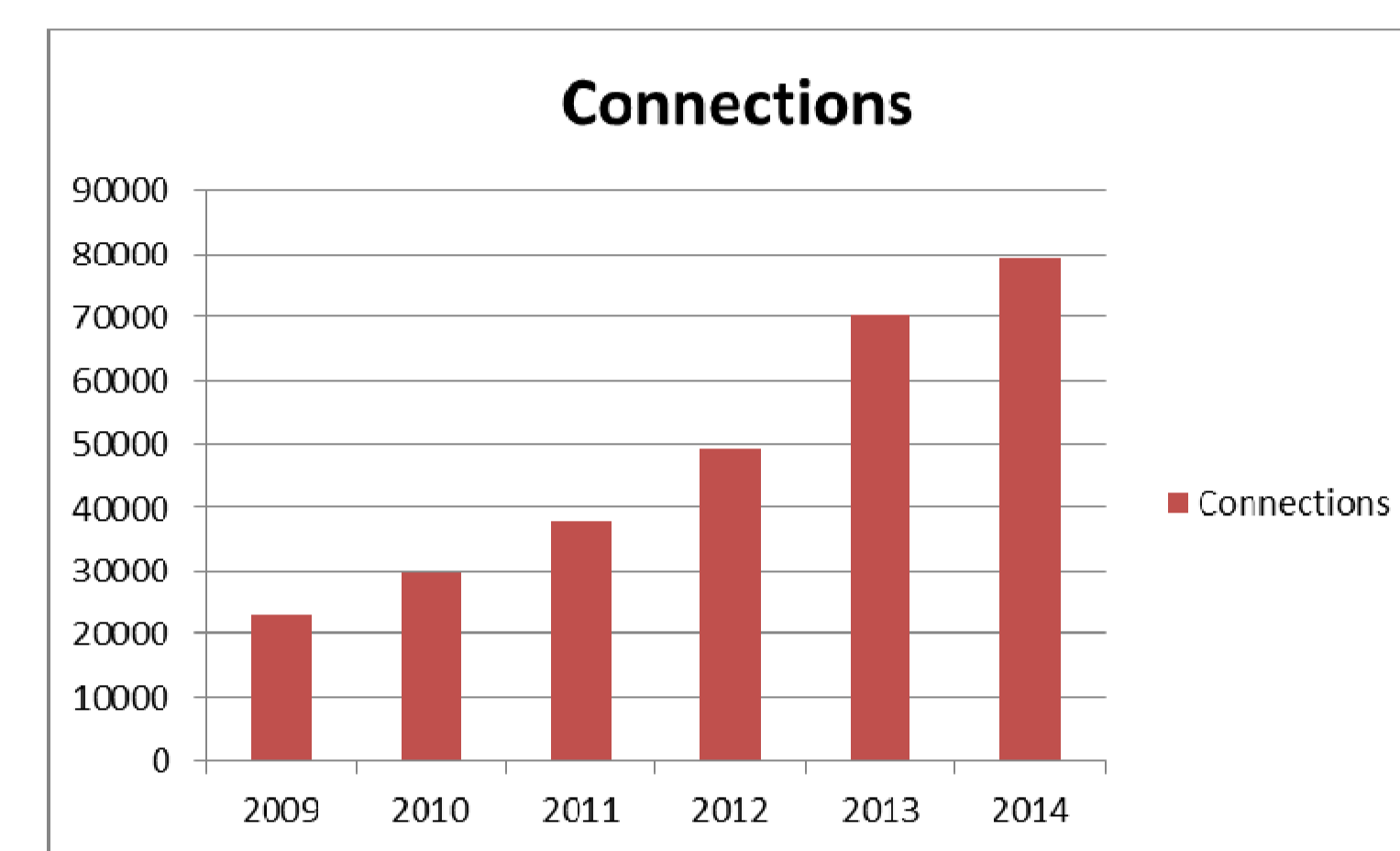
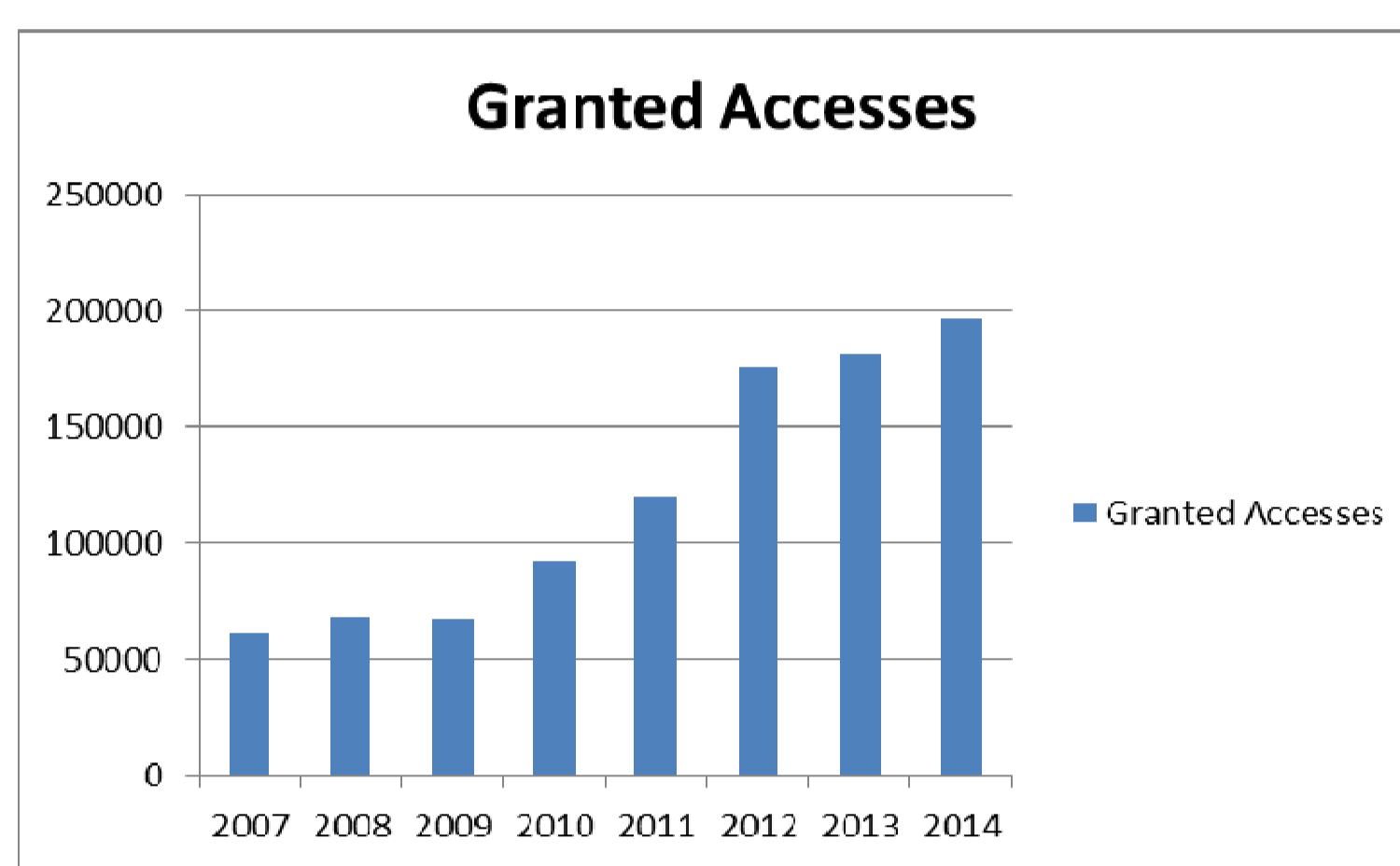
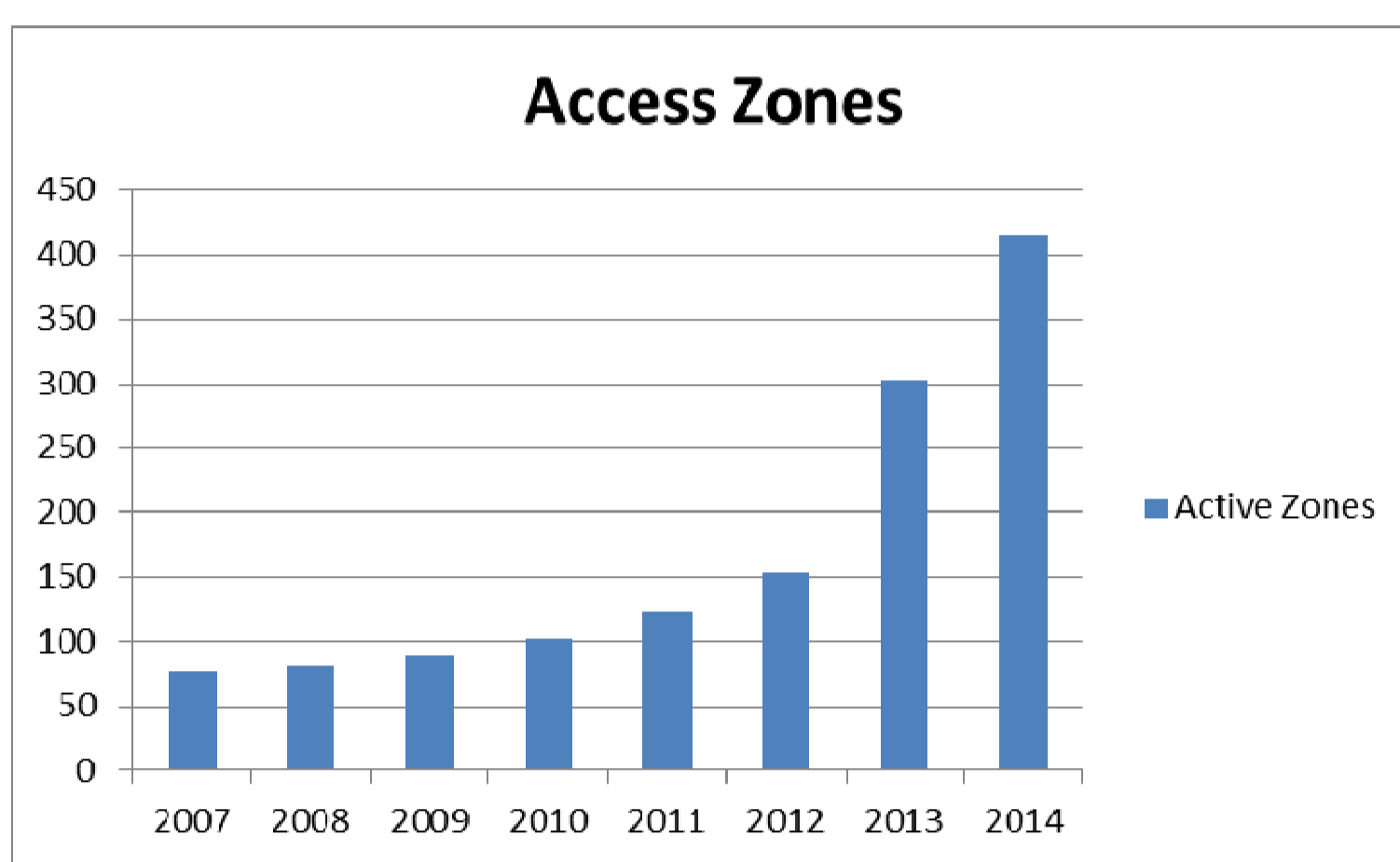
European Laboratory for Particle Physics
Geneva, Switzerland

Pedro Martel, Christophe Delamare, Gregory Godineau, Rui Nunes
CERN – GS Department – ASE Group

ADaMS is CERN's Access Distribution and Management System. It evaluates access authorisations to more than 400 zones and for more than 35000 persons. Although accesses are granted based on a combination of training courses, administrative authorisations and the radio-protection situation of an individual, the policies and technicalities are constantly evolving along with the laboratory's activities.

The new version will provide enhanced self-services to end users by focusing on access points (the physical barriers) instead of safety zones. ADaMS 3 will be able to cope better with changing and new requirements, as well as the multiplication of access points. It will also allow improved synchronisation with CERN's scheduling and planning tools (used heavily during technical shutdowns, for instance).

Evolution



2007 – ADaMS 2.0

2016 – ADaMS 3.0

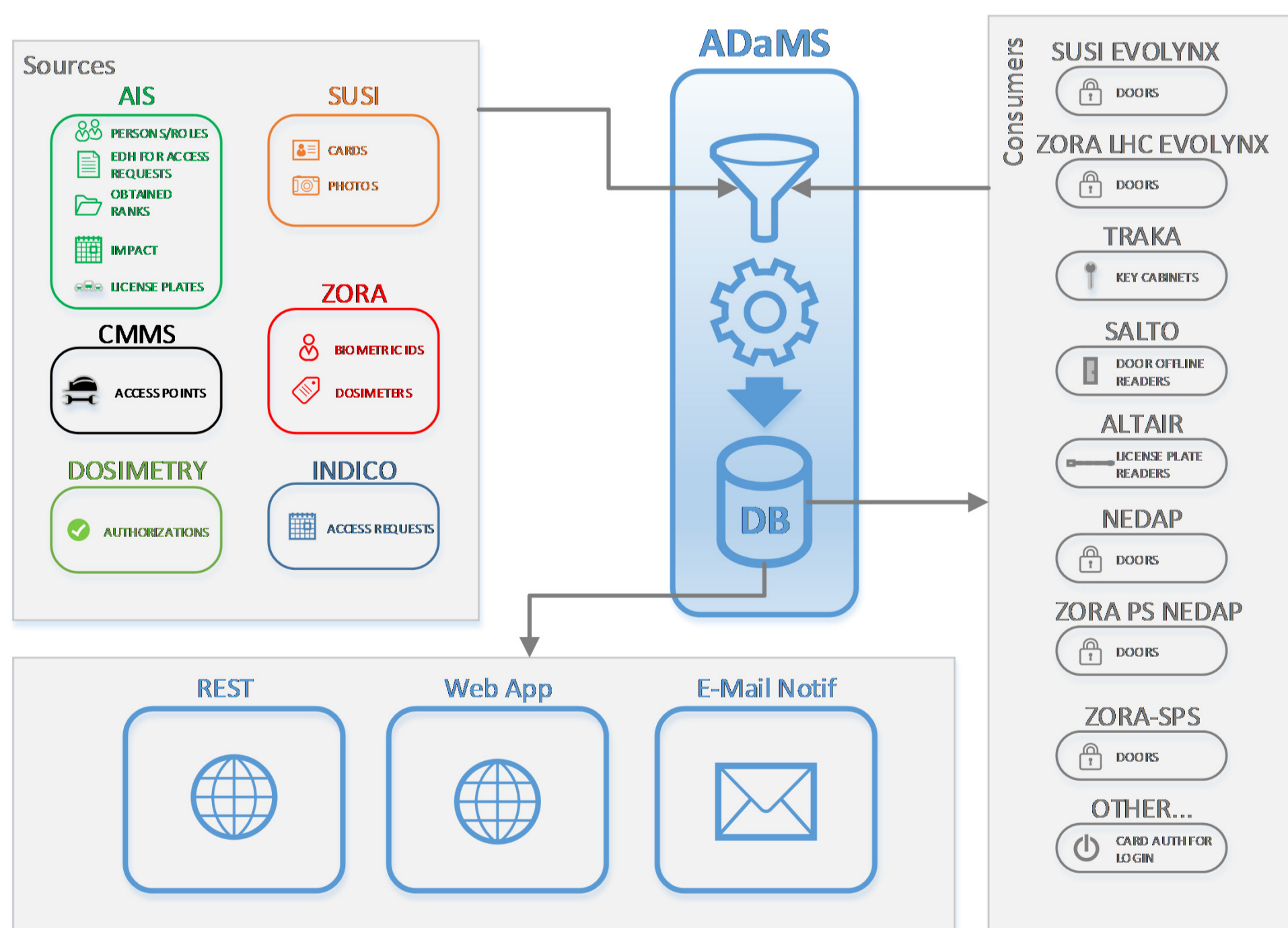
ADaMS 2 is limited to two identifiers: card and dosimeter; what's more, the dosimeter validity depends on the radio protection situation of the person; in ADaMS 3 the identifiers can be any, and the dosimetry situation is handled independently from the devices.

ADaMS 3 will use acquired ranks (or levels) for required training instead of courses; this will allow CERN's training catalogue to evolve without having an IMPACT on granted accesses.

ADaMS 3 will allow the simplification of the administrative authorisations for access via the use of egroups and roles. A signed document for access request will continue to be used for those cases not handled automatically.

ADaMS 3 will allow users to know if they are granted access to an "Access Point", instead of access to a "Zone". The Access Point concept is much closer to the physical world and the way users use the access systems (Physical barrier).

Integration with other systems



ADaMS sources most of its data from other systems; from Administrative Information Systems (HR, Document Handling, etc.) to asset tracking systems, radio protection, physical access systems, room reservation tools, etc.

From the two original access systems (SUSI and ZORA Evolynx), ADaMS has evolved to supply data to a multitude of systems, including key cabinets, personal and vehicle barriers, offline locks, etc. ADaMS 3 will be able to expand to new access systems as they are adopted.

ADaMS will continue supplying data to other systems via relational databases; it will also propose web services to those systems who require them.

Conclusions

ADaMS will help analyse and allow the modification of our access policies following the observations of the Long Shutdown 1 (LS1) access patterns and problems. It will also facilitate the access process and user experience for accelerator zones, providing new functionalities and interfaces.

ADaMS 3 will allow CERN to continue having a single, centralised system for access management and distribution, adaptable to new requirements and scalable to the new domains where access control is required, while being at the same time, an important link in the safety chain of CERN's accelerators.



<https://www.cern.ch/adams>

access.control.support@cern.ch



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