The lackofcommunicationandofdynamicadaptationtoworkingsettingsoftenhinderstable performancesofsubsystemsofpresentmultibiometricarchitectures.Thecalibrationphaseoftenuses a specifictrainingset,sothat(sub)systemsaretunedwithrespecttowelldeterminedconditions.In this workweinvestigatethemodularconstructionofsystemsaccordingtoCABALA(Collaborative ArchitecturesbasedonBiometricAdaptableLayersandActivities)approach.Differentlevelsof flexibilityandcollaborationaresupported.Thecomputationofsystemreliability(SRR),foreachsingle responseofeachsinglesubsystem,allowstoaddresstemporarydecreaseofaccuracyduetoadverse conditions(light,dirtysensors,etc.),bypossiblyrefusingapoorlyreliableresponseorbyaskingfora new recognitionoperation.Subsystemscancollaborateatatwofoldlevel,bothinreturningajointly determinedanswer,andinco-evolvingtotunetochangingconditions.Atthefirstlevel,single- biometricsubsystemsimplementthe N-CrossTestingProtocol: theyworkinparallel,butexchange informationtoreachthefinalresponse.Atanhigherlevelofinterdependency,parametersofeach subsystemcanbedynamicallyoptimizedaccordingtothebehavioroftheircompanions.Tothisaim,an additional SupervisorModule analyzesthesingleresultsand,inourpresentimplementation,modifies the degreeofreliabilityrequiredfromeachsubsystemtoacceptitsfutureresponses.Thepaper explores differentcombinationsofthesenovelstrategies.Wedemonstratethatascomponent collaborationincreases,thesamehappenstoboththeoverallsystemaccuracyandtotheabilityto identifyunstablesubsystems.